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

NUMBER 549

(Issued in Two Parts)

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C O N T E N T S

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PART II (COMPREHENSIVE REPORTS)

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C O N T E N T S

Comprehensive Reports DATA FOR **NOVEMBER 1989** Number 549 Part II

Hα SOLAR FLARES

NOVEMBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		01	0018		0109	No Flare Patrol													
0001	LEAR	01	0130	0131	0135	N24	E43	5769	11	4.4	5	SF		3	E		16		
0002	PURP	01	0715	0732	0802	S11	W54	5768	10	28.3	47	SF			P	0732	33	0.6	D
0003	LEAR	01	0736	0736	0751	S21	W48	5765	10	28.7	15	SF		3	E		12		
0004		01	09501	09513	1012	N23	E41	5769	11	4.6	22	SF					17		EF
	ISTA	01	0950		1011	N23	E42	5769	11	4.6	21	SF			V				EF
	KANZ	01	0950	0954	1025	N22	E41	5769	11	4.6	35	SF			V				E
	LEAR	01	0951	0951	1000	N23	E40	5769	11	4.5	9	SF		3	E		17		F
0005	ISTA	01	1142		1207	N13	E24	5778A	11	3.3	25	SF			V				E
0006	ISTA	01	1144		1156	N25	E90		11	8.5	12	SB			V				AD
0007	RAMY	01	1211	1211	1240	N16	E22	5777B	11	3.2	29	SF		3	E		13		
0008	RAMY	01	1511	1514	1524	S17	E51	5772	11	5.5	13	SN	C 8.4	2	E		52		FH
0009	HOLL	01	1613E	1617U	1639	N17	E81	5776	11	7.8	26D	SF	C 7.1	3	E		93		
0010	PALE	01	1656E	1658	1702	N25	E35	5769	11	4.4	6D	SF		3	E		15		
0011		01	1854	1901	1914	N16	E77	5776	11	7.6	20	SF					39		
	RAMY	01	1846E	1901U	1912D	N16	E77	5776	11	7.6	26D	SF		3	E		49		
	HOLL	01	1854	1901	1914	N16	E77	5776	11	7.6	20	SF		3	E		29		
0012		01	19179	19251	1941	N26	E36	5769	11	4.6	24	SF					42		F
	HOLL	01	1917	1925	1941	N25	E36	5769	11	4.6	24	SF		3	E		46		F
	RAMY	01	1926	1926	1953D	N26	E36	5769	11	4.6	27D	SF		3	E		39		F
0013		01	19261	1927	1932	N17	E80	5776	11	7.9	6	SF					18		
	RAMY	01	1926	1927	1931	N18	E83	5776	11	8.1	5	SF		3	E		14		
	HOLL	01	1927	1927	1933	N16	E77	5776	11	7.6	6	SF		3	E		21		
0014	RAMY	01	2019	2025	2038	N19	E82	5776	11	8.1	19	SF		3	E		19		
0015	RAMY	01	2025	2033	2038	S17	E48	5772	11	5.5	13	SF		3	E		20		
0016		01	2123*	2124*	2146	N19	E82	5776	11	8.1	23	SF	C 2.1				34		F
	HOLL	01	2123	2124	2147	N17	E82	5776	11	8.1	24	SF	C 2.1	3	E		31		F
	PALE	01	2136	2139	2145	N21	E81	5776	11	8.1	9	SF		3	E		38		F
0017	MITK	02	0629	0643	0703D	N17	E75	5776	11	8.0	34D	2F			C	0643	220		
0018		02	0748*	0750*	0818	N26	E22	5769	11	4.0	30	SN					72	0.8	EK
	ISTA	02	0748		0824	N25	E25	5769	11	4.3	36	1N			V				EK
	KAND	02	0750	0750	0756	N27	E22	5769	11	4.0	6	SF			P	0750	62	0.7	E
	KANZ	02	0809	0813	0820	N27	E21	5769	11	4.0	11	SF			C				
	KAND	02	0810	0813	0830	N27	E22	5769	11	4.0	20	SN			P	0813	83	1.0	E
0019	ISTA	02	0909		0945	S12	W25	5775	10	31.5	36	SF			V				E
0020	ISTA	02	0939		0946	N25	E25	5769	11	4.3	7	SF			V				E
0021	ISTA	02	0939		0945	N16	E77	5776	11	8.2	6	SF			V				E
0022		02	1017	10213	1034	N17	E80	5776	11	8.5	17	SN					42		D
	KANZ	02	1017	1021	1032	N17	E79	5776	11	8.4	15	SF			V				
	KAND	02	1017	1024	1035	N17	E80	5776	11	8.5	18	SN			P	1024	42		D
0023	KANZ	02	1054	1057	1115	N19	E73	5776	11	8.0	21	SF			V				
0024	KANZ	02	1108	1112	1122	N25	E29	5769	11	4.7	14	SF			V				
0025	KANZ	02	1145	1149	1200	N18	E74	5776	11	8.1	15	SF			V				

Hα SOLAR FLARES

NOVEMBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0026		02	12165	12466	1322	N19	E74	5776	11	8.1	66	2B	M 3.3				235		EHK
	RAMY	02	1216	1246	1333D	N19	E74	5776	11	8.1	77D	1B			E		144		K
	RAMY	02	1216	1252	1333D	N19	E74	5776	11	8.1	77D	2B	M 3.3	2	E		311		H
	KANZ	02	1219	1251	1325	N19	E73	5776	11	8.1	66	2B			V				
	KAND	02	1221	1250	1318	N19	E74	5776	11	8.2	57	1B			P	1250	249		E
0027	KANZ	02	1241	1244	1259	N26	E20	5769	11	4.1	18	SF			V				
0028		02	1325	1325	1338D	N26	E24	5769	11	4.4	13D	SF					12		EF
	RAMY	02	1322E	1322U	1338D	N25	E23	5769	11	4.3	16D	SF		2	E		12		F
	KANZ	02	1325	1325	1337D	N26	E26	5769	11	4.6	12D	SF			V				E
0029		02	1650*	1651*	1714	N19	E72	5776	11	8.2	24	SF					54		FK
	PALE	02	1649E	1651	1700	N18	E74	5776	11	8.3	11D	SF		2	E		21		
	RAMY	02	1650	1654	1719	N20	E71	5776	11	8.1	29	SF			E		83		K
	RAMY	02	1650	1707	1719	N20	E71	5776	11	8.1	29	SF		3	E		44		
	HOLL	02	1651	1653	1657	N19	E72	5776	11	8.2	6	SF		3	E		17		
	HOLL	02	1701	1706	1719	N18	E72	5776	11	8.2	18	1F		3	E		110		F
	PALE	02	1702	1705	1709D	N18	E73	5776	11	8.3	7D	SF		3	E		81		F
	RAMY	02	1723	1723	1729	N19	E70	5776	11	8.1	6	SF		3	E		21		
0030		02	18381	1840	1848	N26	E22	5769	11	4.5	10	SF					22		F
	HOLL	02	1838	1840	1846	N24	E22	5769	11	4.5	8	SF		3	E		22		F
	PALE	02	1839	1840	1850	N27	E21	5769	11	4.4	11	SF		3	E		22		F
0031		02	1842	18422	1858	N19	E70	5776	11	8.1	16	SF					16		
	RAMY	02	1842	1842	1858	N19	E70	5776	11	8.1	16	SF		3	E		14		
	HOLL	02	1842	1844	1858	N19	E70	5776	11	8.1	16	SF		3	E		19		
0032	HOLL	02	1918	1919	1934	N21	E92	5783	11	9.8	16	SF		3	E		17		F
0033		02	1916*	1920*	1932	N19	E69	5776	11	8.1	16	SF					17		
	RAMY	02	1916	1920	1929	N18	E69	5776	11	8.0	13	SF		3	E		16		
	RAMY	02	1930	1930	1934	N20	E69	5776	11	8.1	4	SF		3	E		18		
0034	RAMY	02	2040	2040	2054	N23	E23	5769	11	4.6	14	SF		3	E		14		
0035	HOLL	02	2117	2125	2129	S24	W69	5765	10	28.6	12	SF		3	E		22		
0036	HOLL	02	2157	2218	2249	N18	E67	5776	11	8.0	52	SF		3	E		72		
0037	HOLL	02	2223	2223	2233	N25	E27	5769	11	5.0	10	SF		3	E		23		F
0038	HOLL	02	2305	2305	2323	N22	E20	5769	11	4.5	18	SF		3	E		31		F
0039		03	03476	03533	0410	N16	E68	5776	11	8.3	23	1N					95		E
	MITK	03	0347	0353	0416	N16	E68	5776	11	8.3	29	1N			C	0353	110		E
	URUM	03	0353	0356	0404	N17	E67	5776	11	8.2	11	SF			C		80		E
0040		03	04123	04172	0440	N26	E24	5779	11	5.0	28	SN					80	1.0	E
	MITK	03	0412	0417	0604D	N26	E24	5779	11	5.0	112D	SN			C	0417			E
	URUM	03	0415	0419	0440	N25	E25	5779	11	5.1	25	SF			C		80	1.0	E
		03	0605		0609	No Flare Patrol													
0041		03	0643E	0646*	0712	N19	E62	5776	11	8.0	29D	1N					158	3.4	E
	ATHN	03	0643E	0646	0700	N18	E61	5776	11	7.9	17D	2B		3	V	0646	318	6.8	
	YUNN	03	0646E	0648	0652D	N19	E61	5776	11	7.9	6D	SB			P		48	1.0	
	BUCA	03	0710E	0712	0723	N21	E64	5776	11	8.2	13D	1F			P	0712	107	2.5	E
0042		03	0720*	0721*	0738	N24	E12	5769	11	4.2	18	SF					129	1.4	DE
	BUCA	03	0720	0721	0729	N22	E11	5769	11	4.1	9	1N			C	0721	215	2.4	E
	KANZ	03	0721	0721	0728	N22	E14	5769	11	4.4	7	SF			C				
	KANZ	03	0732	0732	0743	N26	E09	5769	11	4.0	11	SF			C				
	BUCA	03	0734	0735	0745	N24	E15	5769	11	4.5	11	SF			C	0735	43	0.5	D
	ISTA	03	0735E		0747	N25	E12	5769	11	4.2	12D	SN			V				E
0043	SVTO	03	1031	1033	1045	N21	E60	5776	11	8.0	14	SF	C 6.2	3	E		16		

Hα SOLAR FLARES

NOVEMBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0044	ATHN	03	1034E	1036	1040	N18	E26	5774	11	5.4	6D	SN		3	V	1036	79	0.9	
0045	KAND	03	1037	1042	1050	N27	E08	5769	11	4.1	13	SN			P	1042	42	0.5	D
0046	RAMY	03	1246	1246	1254	N23	E10	5769	11	4.3	8	SF		3	E		15		F
0047		03	1326	1328	1332	N22	E09	5769	11	4.2	6	SN	C 2.8				40		F
	RAMY	03	1326	1328	1332	N22	E10	5769	11	4.3	6	SN	C 2.8	3	E		35		F
	SVTO	03	1326	1328	1333	N22	E08	5769	11	4.2	7	SN	C 2.8	3	E		44		
0048	HOLL	03	1412E	1413U	1416	S25	W76	5768	10	28.8	4D	SF		2	E		24		
0049	HOLL	03	1444	1452	1512	S14	W44	5775	10	31.3	28	SF		3	E		61		F
0050	HOLL	03	1446	1447	1452	N17	E57	5776	11	7.9	6	SF		3	E		24		
0051	HOLL	03	1506	1506	1512	N13	E27	5773	11	5.7	6	SF		3	E		16		
0052	RAMY	03	1518	1526	1531	N12	E70	5781	11	8.9	13	SF		3	E		17		
0053		03	1550	15501	1558	N16	E60	5776	11	8.2	8	SF	C 2.0				24		
	RAMY	03	1550	1550	1602	N17	E61	5776	11	8.3	12	SF		3	E		36		
	HOLL	03	1550	1551	1555	N16	E60	5776	11	8.2	5	SF	C 2.0	4	E		13		
0054	HOLL	03	1552	1552	1556	S05	E41	5780	11	6.7	4	SF		4	E		10		
0055	RAMY	03	1602	1603	1612	N22	E09	5769	11	4.3	10	SF	C 2.9	3	E		30		
0056	HOLL	03	1653	1653	1705	N20	E85	5783	11	10.2	12	SF		3	E		22		
0057		03	1953	19562	2036	N18	E59	5776	11	8.3	43	1B	M 3.0				187		F
	PALE	03	1953	1956	2033	N18	E59	5776	11	8.3	40	1B	M 3.0	3	E		168		
	HOLL	03	1953	1956	2040	N17	E58	5776	11	8.2	47	1B	M 3.0	3	E		192		F
	RAMY	03	1953	1958	2035	N19	E59	5776	11	8.3	42	1B		3	E		200		
0058	HOLL	03	2043	2045	2052	N10	E62	5781	11	8.5	9	SF		3	E		22		
0059		03	20462	20491	2106	N24	E09	5769	11	4.6	20	SF					36		F
	HOLL	03	2046	2050	2104	N22	E08	5769	11	4.5	18	SF		3	E		52		F
	PALE	03	2048	2049	2109	N25	E10	5769	11	4.6	21	SF		3	E		19		
0060	HOLL	03	2124	2126	2136	N14	E22	5773	11	5.5	12	SF		3	E		15		
0061	HOLL	03	2218	2219	2228	N13	E22	5773	11	5.6	10	SF		3	E		29		
0062	HOLL	03	2244	2300	2316	N18	E52	5776	11	7.9	32	SF		3	E		22		F
0063	HOLL	03	2305	2307	2341	S17	E21	5772	11	5.5	36	SF		3	E		39		F
0064	LEAR	04	0012	0012	0017	N27	E01	5769	11	4.1	5	SF	C 2.1	3	E		16		F
0065		04	03036	03105	0336	N26	E12	5779	11	5.0	33	SN					18		EF
	MITK	04	0303	0315	0346	N26	E12	5779	11	5.0	43	SN			C	0315			E
	LEAR	04	0309	0310	0327	N26	E11	5779	11	5.0	18	SF		3	E		18		F
0066	LEAR	04	0607	0609	0614	N27	W02	5769	11	4.1	7	SF		3	E		17		
0067	ISTA	04	0846E		0852	N18	W02	5770	11	4.2	6D	SB			V				E
0068	SVTO	04	1042	1043	1047	N26	W06	5769	11	4.0	5	SF	C 2.1	3	E		24		
0069	SVTO	04	1104	1109	1134	N25	E04	5769	11	4.8	30	SF		3	E		33		
0070		04	1132*	11368	1141	S14	W56	5775	10	31.2	9	SF					39		
	SVTO	04	1132	1136U	1303D	S13	W54	5775	10	31.4	91D	SF		3	E		73		
	RAMY	04	1136	1136	1141	S14	W57	5775	10	31.2	5	SF		3	E		13		
	RAMY	04	1142	1144	1309D	S14	W58	5775	10	31.1	87D	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	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0071		04	11345	1142	1157	N24	E00	5769	11	4.5	23	SF					30		
	SVTO	04	1134	1141U	1209D	N22	W02	5769	11	4.3	35D	SF		3	E		35		
	RAMY	04	1139	1142	1157	N25	E02	5769	11	4.6	18	SF		3	E		25		
0072		04	1303	13112	1342	N20	W18	5770	11	3.2	39	SF					33		F
	SVTO	04	1303	1311	1325	N20	W18	5770	11	3.2	22	SF		3	E		24		
	RAMY	04	1308E	1313	1400	N19	W19	5770	11	3.1	52D	SF		3	E		42		F
0073		04	1313*	1322*	1441	N23	W04	5769	11	4.2	88	SF					31		FK
	RAMY	04	1313	1322	1503	N22	W03	5769	11	4.3	110	SF		3	E		43		
	RAMY	04	1313	1333	1503	N22	W03	5769	11	4.3	110	SF			E		32		K
	SVTO	04	1319	1322	1326	N27	W07	5769	11	4.0	7	SF		3	E		17		
	HOLL	04	1342E	1346U	1429	N21	W04	5769	11	4.3	47D	SN		2	E		23		F
	HOLL	04	1430	1432	1503	N22	W04	5769	11	4.3	33	SF			E		35		K
	HOLL	04	1430	1447	1503	N22	W04	5769	11	4.3	33	SF		3	E		35		F
0074	RAMY	04	1345	1347	1348	N22	E75	5783	11	10.3	3	SF		3	E		14		
0075	RAMY	04	1358	1402	1412	N22	E78	5784	11	10.6	14	SF		3	E		21		
0076		04	15022	15041	1514	N18	W19	5770	11	3.2	12	SF	C 2.0				40		F
	HOLL	04	1502	1505	1518	N19	W18	5770	11	3.2	16	SF	C 2.0	3	E		66		F
	RAMY	04	1504	1504	1510	N18	W20	5770	11	3.1	6	SF	C 2.0	3	E		15		
0077		04	17201	17241	1813	N28	W02	5769	11	4.6	53	SF	C 4.8				80		FH
	RAMY	04	1720	1724	1826	N29	W03	5769	11	4.5	66	SF	C 4.8	3	E		77		FH
	HOLL	04	1721	1725	1800	N28	W02	5769	11	4.6	39	SF	C 4.8	4	E		82		FH
0078	HOLL	04	1828	1832	1844	N22	W05	5769	11	4.4	16	SF		3	E		18		
0079		04	2106*	2108*	2147	N23	W08	5769	11	4.3	41	1N	C 9.7				114		EFHK
	HOLL	04	2106	2108	2112	N26	W11	5769	11	4.0	6	SF		3	E		19		H
	HOLL	04	2118	2120	2204	N21	W06	5769	11	4.4	46	1B	C 9.7	3	E		134		FE
	HOLL	04	2118	2127	2204	N21	W06	5769	11	4.4	46	1B			E		188		K
0080		04	22532	2259	2317	S20	W04	5772	11	4.6	24	1N	C 5.4				96		EU
	HOLL	04	2253	2259	2344D	S20	W04	5772	11	4.6	51D	1N	C 5.4	1	E		140		UE
	LEAR	04	2255	2259	2317	S20	W05	5772	11	4.6	22	SF	C 5.4	3	E		52		U
0081	HOLL	04	2319	2319	2324	N17	W24	5770	11	3.1	5	SF		3	E		11		
0082	LEAR	05	0548	0551	0553	N25	W92	5763	10	29.2	5	SF	C 3.8	3	E		44		
0083	LEAR	05	0608	0608	0614	N17	E62	5783	11	10.0	6	SF		3	E		13		
0084		05	0648	06513	0700	N18	W28	5770	11	3.1	12	SN	C 4.9				15		D
	LEAR	05	0648	0651	0703	N19	W28	5770	11	3.1	15	SF	C 4.9	3	E		15		
	PEKG	05	0650E	0654	0658	N18	W27	5770	11	3.2	8D	SB			V				D
0085	LEAR	05	0707	0710	0712	N25	W92	5763	10	29.3	5	SF		3	E		30		
0086		05	0719	0723*	0806	N23	W11	5769	11	4.4	47	1F	M 1.0				105		EF
	LEAR	05	0719	0723	0809	N23	W13	5769	11	4.3	50	1F	M 1.0	3	E		117		F
	SVTO	05	0720E	0725U	0828	N21	W13	5769	11	4.3	68D	SF		3	E		93		F
	PEKG	05	0732E	0734	0740	N24	W07	5769	11	4.8	8D	1F			V				E
0087	LEAR	05	0829	0830	0841	N15	E62	5783	11	10.0	12	SF		3	E		16		
0088		05	09429	09532	1004	N18	E38	5776	11	8.3	22	SF					24		
	SVTO	05	0942	0953	1010	N18	E38	5776	11	8.3	28	SF		3	E		34		
	LEAR	05	0951	0955	0957	N17	E38	5776	11	8.3	6	SF		3	E		14		
0089	SVTO	05	1103	1104	1111	N12	E44	5781	11	8.8	8	SF		3	E		25		F
0090	SVTO	05	1232	1239	13060	N22	E32	5776	11	8.0	34D	SF	C 6.3	3	E		35		
		05	1321		1331	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
0091		05	1332E	1334U	1353	N16	W33	5770	11	3.1	21D	1N	C 5.8				112		F
	SVTO	05	1332E	1334U	1353	N16	W34	5770	11	3.0	21D	1F	C 5.8	3	E		146		
	RAMY	05	1336E	1336U	1428D	N17	W32	5770	11	3.1	52D	SN		2	E		78		F
0092	HOLL	05	1508	1509	1516	S06	E16	5780	11	6.8	8	SF		2	E		38		
0093	RAMY	05	1620	1620	1626D	N28	W17	5769	11	4.3	6D	SF		3	E		21		F
0094	RAMY	05	1633	1633	1639	N18	E62	5783	11	10.4	6	SF	C 2.2	3	E		12		
0095	HOLL	05	1817	1820	1844	N16	E33	5776	11	8.3	27	1F	C 2.0	3	E		104		F
0096	HOLL	05	1819	1825	1848	N13	E38	5781	11	8.6	29	SF		3	E		36		
0097	HOLL	05	1911	1912	1917	N17	W33	5770	11	3.3	6	SF		3	E		17		
0098		05	1922	1931*	2034	N17	E32	5776	11	8.2	72	SN	C 2.7				60		K
	HOLL	05	1922	1931	2034	N17	E32	5776	11	8.2	72	SB			E		72		K
	HOLL	05	1922	2005	2034	N17	E32	5776	11	8.2	72	SF		3	E		67		
	RAMY	05	1927E	1928U	1959D	N17	E33	5776	11	8.3	32D	SF	C 2.7	3	E		45		
	RAMY	05	2001E	2006U	2040D	N16	E31	5776	11	8.2	39D	SF	C 2.5	3	E		56		
0099	HOLL	05	2213	2214	2229	N17	E26	5776	11	7.9	16	SN	C 3.9	3	E		55		EF
0100	HOLL	05	2227	2230	2238	N11	E37	5781	11	8.7	11	SF		3	E		15		F
0101		05	23181	2319	2334	N17	E29	5776	11	8.2	16	SF					14		F
	HOLL	05	2318	2319	2336	N16	E29	5776	11	8.2	18	SF		3	E		15		F
	PALE	05	2319	2319	2332	N18	E29	5776	11	8.2	13	SF		3	E		14		
0102		05	2334	2334	2346	N25	W16	5769	11	4.7	12	SF					42		F
	HOLL	05	2334	2334	2345	N25	W15	5769	11	4.8	11	SF		3	E		54		F
	PALE	05	2334	2334	2346	N25	W16	5769	11	4.7	12	SF		3	E		31		
0103	PALE	06	0210	0211	0227	N25	W19	5769	11	4.6	17	SF		3	E		19		
0104	LEAR	06	0343	0344	0354	N13	E31	5781	11	8.5	11	SF		3	E		16		F
0105	LEAR	06	0519	0520	0526	N14	E33	5781	11	8.7	7	SF		3	E		10		
0106		06	08201	0823	0834	N19	E52	5783	11	10.3	14	SN					72	1.7	E
	KAND	06	0820	0823	0831	N19	E53	5783	11	10.4	11	SN			P	0823	104	1.7	E
	LEAR	06	0821	0823	0836	N19	E51	5783	11	10.2	15	SF		3	E		41		
0107	LEAR	06	0837	0841	0904	N19	E51	5783	11	10.2	27	SF		3	E		22		
0108	LEAR	06	0912	0912	0933	N18	E50	5783	11	10.2	21	SF		3	E		16		
0109		06	09163	09203	0936	N17	E24	5776	11	8.2	20	SN	C 8.1				63	1.0	E
	URUM	06	0916	0923	0935	N16	E25	5776	11	8.3	19	SN			C		64	0.7	E
	KAND	06	0918	0921	0938	N17	E24	5776	11	8.2	20	SN			P	0921	104	1.2	E
	LEAR	06	0919	0920	0934	N17	E24	5776	11	8.2	15	SF	C 8.1	3	E		21		
0110	KAND	06	1113	1115	1122	N16	E23	5776	11	8.2	9	SN			P	1115	145	1.6	E
0111		06	1210	12111	1247	N17	E25	5776	11	8.4	37	1N	M 3.7				237	3.8	EZ
	RAMY	06	1210	1211	1330	N17	E24	5776	11	8.3	80	1N	M 3.7	3	E		212		E
	RAMY	06	1210	1212	1222	N16	E29	5776	11	8.7	12	SN		3	E		73		
	KAND	06	1210	1212	1230	N17	E25	5776	11	8.4	20	2B			P	1212	520	6.0	EZ
	ATHN	06	1210E	1215U	1226D	N19	E21	5776	11	8.1	16D	SN		3	V	1215	143	1.6	
0112	RAMY	06	1226	1239	1330	N13	E29	5781	11	8.7	64	SF	C 8.0	3	E		38		
		06	1251		1304	No Flare Patrol													
		06	1319		1329	No Flare Patrol													
		06	1341		1342	No Flare Patrol													
0113		06	1343E	1346	1425	N20	E20	5776	11	8.1	42D	2N	M 9.2				309		
	HOLL	06	1343E	1345U	1433	N20	E19	5776	11	8.0	50D	1B	M 9.2	1	E		170		
	RAMY	06	1346E	1346	1417	N20	E20	5776	11	8.1	31D	2F	M 9.2	3	E		448		

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0114		06	14248	14322	1448	N26	W23	5769	11	4.8	24	SF					36		H
	HOLL	06	1424	1432	1450	N25	W22	5769	11	4.9	26	SF		2	E		51		
	RAMY	06	1432	1434	1446	N26	W24	5769	11	4.7	14	SF		3	E		21		H
0115	HOLL	06	1433	1441	1447	N12	E27	5781	11	8.6	14	SF		2	E		12		
0116	HOLL	06	1553	1558	1630	N22	W29	5769	11	4.4	37	SF		3	E		28		
0117	HOLL	06	1615	1616	1634	N11	E21	5781	11	8.2	19	SF		3	E		16		
0118		06	1639*	1752	1805	N19	E18	5776	11	8.1	86	SF					36		
	HOLL	06	1639	1752	1811	N19	E18	5776	11	8.1	92	SF		3	E		56		
	RAMY	06	1749	1752	1759	N19	E19	5776	11	8.2	10	SF		3	E		17		
0119	HOLL	06	1754	1755	1815	N23	W30	5769	11	4.4	21	SF		3	E		18		
0120	HOLL	06	1756	1757	1802	N18	W45	5770	11	3.3	6	SF		3	E		10		
0121	HOLL	06	1805	1809	1817	N12	E27	5781	11	8.8	12	SF		3	E		17		
0122		06	18317	1844*	1933	N18	E16	5776	11	8.0	62	1N	M 1.6				171		EFKU
	HOLL	06	1831	1844	1935	N18	E16	5776	11	8.0	64	1N	M 1.6	3	E		228		UE
	HOLL	06	1831	1911	1935	N18	E16	5776	11	8.0	64	SB			E		102		K
	PALE	06	1838	1844	1930	N16	E16	5776	11	8.0	52	1N	M 1.6	3	E		150		UE
	RAMY	06	1844E	1844U	1853D	N18	E16	5776	11	8.0	9D	1N		3	E		204		FE
0123	HOLL	06	1919	1919	1941	N16	E45	5783	11	10.2	22	SF		3	E		74		F
0124		06	2041E	2046	2135D	N20	E14	5776	11	7.9	54D	2N	M 2.5				320		F
	PALE	06	2041E	2046	2121D	N18	E14	5776	11	7.9	40D	1F	M 2.5	3	E		176		F
	HOLL	06	2047E	2058U	2135D	N21	E13	5776	11	7.9	48D	2B		3	E		464		F
0125	HOLL	06	2118E	2122U	2136D	N16	E41	5783	11	10.0	18D	SF		2	E		75		F
		06	2145		2159	No Flare Patrol													
0126	LEAR	06	2257	2259	2321	N19	E42	5783	11	10.2	24	SF	C 3.6	3	E		20		F
0127	LEAR	07	0104	0105	0112	N18	W53	5770	11	3.0	8	SF		4	E		46		
0128		07	0116*	0120*	0216	N20	E14	5776	11	8.1	60	SF					48		FK
	LEAR	07	0116	0120	0127	N20	E14	5776	11	8.1	11	SF		4	E		16		
	LEAR	07	0129	0131	0236	N19	E14	5776	11	8.1	67	SF			E		51		K
	LEAR	07	0129	0218	0236	N19	E14	5776	11	8.1	67	SF		4	E		87		
	PALE	07	0209	0217	0227	N21	E12	5776	11	8.0	18	SF		2	E		39		F
0129	LEAR	07	0232	0235	0245	N12	E34	5782	11	9.7	13	SF		4	E		18		F
0130		07	0232	02362	0316	N17	E36	5783	11	9.8	44	2B	M 2.4				354	6.3	EF
	PALE	07	0232	0238	0316	N18	E36	5783	11	9.8	44	1N	M 2.4	2	E		226		F
	URUM	07	0235E	0236	0241D	N16	E36	5783	11	9.8	6D	2B			C		482	6.3	E
0131		07	0255*	0302*	0355	N19	E12	5776	11	8.0	60	2N	M 6.9				461	9.6	FHK
	LEAR	07	0255	0302	0415	N20	E13	5776	11	8.1	80	2B			E		525		K
	LEAR	07	0255	0320	0415	N20	E13	5776	11	8.1	80	2B	M 6.9	4	E		528		FH
	PALE	07	0256	0302	0310	N19	E11	5776	11	8.0	14	SF		2	E		80		F
	PALE	07	0318	0320	0336D	N18	E10	5776	11	7.9	18D	2N		2	E		288		F
	URUM	07	0320E	0323	0400	N19	E11	5776	11	8.0	40D	2B			C		884	9.6	F
0132	KANZ	07	1206	1210	1225	N16	E09	5776	11	8.2	19	SF			C				E
0133		07	12311	12342	1246	N26	W33	5779	11	4.9	15	SF					17		F
	RAMY	07	1231	1234	1248	N27	W33	5779	11	4.9	17	SF		2	E		17		F
	KANZ	07	1232	1236	1244	N25	W33	5779	11	5.0	12	SF			C				
0134		07	12402	12471	1331	N12	E17	5781	11	8.8	51	SF					33		F
	KANZ	07	1240	1247	1303D	N12	E18	5781	11	8.9	23D	SF			C				
	RAMY	07	1242	1248	1331	N13	E16	5781	11	8.7	49	SF		3	E		33		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	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0135	KANZ	07	1244	1244	1247	N20	W76	5777	11	1.7	3	SF			C				
0136		07	12483	12501	1302	N20	W48	5770	11	3.9	14	SN					53		
	RAMY	07	1248	1250	1302	N20	W48	5770	11	3.9	14	SN		3	E		53		
	KANZ	07	1251	1251	1303D	N20	W49	5770	11	3.8	12D	SF			C				
0137	RAMY	07	1253	1254	1302	N11	E66	5786	11	12.5	9	SF		3	E		14		F
0138		07	1323	1323	1340	N18	E29	5783	11	9.8	17	SF					39		
	SVTO	07	1321E	1322U	1327D	N18	E28	5783	11	9.7	6D	SF		1	E		39		
	KANZ	07	1323	1323	1340	N17	E30	5783	11	9.8	17	SF			C				
0139	SVTO	07	1421	1424	1440	N20	E20	5783	11	9.1	19	SF		3	E		27		
0140	SVTO	07	1422	1428	1443	N18	W57	5770	11	3.2	21	SF		3	E		11		
0141	RAMY	07	1523	1538	1558	N14	W81	5777	11	1.5	35	SF		3	E		32		
0142		07	1605	16061	1618	N20	E04	5776	11	8.0	13	SF					36		F
	HOLL	07	1605E	1606	1621	N20	E04	5776	11	8.0	16D	SF		2	E		45		
	RAMY	07	1605	1607	1614	N20	E05	5776	11	8.0	9	SF		3	E		26		F
0143		07	1632*	16554	1732	N16	E28	5783	11	9.8	60	1N	M 1.0				156		EF
	HOLL	07	1632	1655	1741	N16	E29	5783	11	9.9	69	1N	M 1.0	3	E		241		FE
	RAMY	07	1643	1659	1723	N17	E28	5783	11	9.8	40	SN	M 1.0	3	E		72		F
0144	RAMY	07	1837	1846U	1906	N18	E77	5786	11	13.6	29	SF	C 9.1	2	E		21		
0145		07	1930*	1932*	2137	N15	E72	5786	11	13.3	127	1N	M 2.8				151		FHK
	HOLL	07	1930	1932	2204	N13	E71	5786	11	13.2	154	SB	M 2.8		E		99		K
	HOLL	07	1930	2051	2204	N13	E71	5786	11	13.2	154	2B		3	E		301		FH
	PALE	07	1931E	1932	2016	N17	E74	5786	11	13.4	45D	SF	M 2.8	3	E		53		F
	PALE	07	2034	2047U	2204	N16	E73	5786	11	13.4	90	1N	M 8.2	3	E		150		FH
0146	HOLL	07	2007	2011	2031	N20	E03	5776	11	8.1	24	SF	C 8.3	3	E		20		
0147		07	21071	21171	2136	N18	E29	5783	11	10.1	29	SF					49		F
	PALE	07	2107	2118	2132	N19	E29	5783	11	10.1	25	SF		3	E		20		
	HOLL	07	2108	2117	2139	N17	E29	5783	11	10.1	31	SF		3	E		78		F
0148	HOLL	07	2246	2300	2310	N12	E11	5781	11	8.8	24	SF		3	E		46		F
0149	HOLL	07	2300	2301	2316	N23	W51	5769	11	4.0	16	SF		3	E		30		
0150	HOLL	07	2307	2323	2341	N17	E27	5783	11	10.0	34	SF		3	E		29		F
0151	HOLL	07	2316	2318	2339	N18	W02	5776	11	7.8	23	SF		3	E		71		F
0152	HOLL	07	2330	2330	2337	N20	W48	5769	11	4.3	7	SF		3	E		13		
		07	2358		2400	No Flare Patrol													
		08	0000		0017	No Flare Patrol													
0153		08	0105*	0112*	0131	N17	E27	5783	11	10.1	26	SN					38		E
	PEKG	08	0105	0112	0125	N17	E26	5783	11	10.0	20	1B			V				E
	LEAR	08	0105	0112	0128	N17	E27	5783	11	10.1	23	SF		4	E		52		
	LEAR	08	0129	0134	0139	N18	E27	5783	11	10.1	10	SF		3	E		24		
0154		08	0135	01403	0200	N20	E00	5776	11	8.1	25	SN	C 4.4				108	1.9	E
	LEAR	08	0135	0140	0157	N21	E01	5776	11	8.1	22	SF	C 4.4	3	E		40		
	PEKG	08	0138E	0143	0202	N19	E01	5776	11	8.1	24D	1N			V				E
	YUNN	08	0148E	0148U	0156D	N21	W02	5776	11	7.9	8D	SN			P	0148	177	1.9	
0155		08	0220*	02257	0242	N20	W00	5776	11	8.1	22	1F					13		E
	PEKG	08	0220	0225	0240	N19	E01	5776	11	8.2	20	1F			V				E
	PALE	08	0232	0232	0243	N20	W02	5776	11	7.9	11	SF		3	E		13		
0156	PALE	08	0237	0237	0245	N18	E76	5786	11	13.9	8	SF		3	E		13		

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0157	LEAR	08	0326	0328	0423	N18	E25	5783	11	10.0	57	SF	C 4.7	3	E		68		
0158		08	05163	05229	0554	N14	E20	5782	11	9.7	38	1N					160	3.5	E
	PEKG	08	0516	0522	0600	N15	E20	5782	11	9.7	44	1B			C	0520	315	3.5	E
	LEAR	08	0516	0525	0601	N14	E20	5782	11	9.7	45	1F		3	E		149		
	LEAR	08	0519	0531	0542	N12	E21	5782	11	9.8	23	SF		3	E		16		
0159	PEKG	08	0540	0544	0600	N14	E49	5783B	11	11.9	20	SB			C	0544	50	0.8	D
0160	PEKG	08	0600	0608	0645	N20	W01	5776	11	8.2	45	2B			C	0610	589	6.3	E
0161		08	0640	0723*	0911	N21	W52	5769	11	4.3	151	2F					309		HK
	LEAR	08	0640	0723	0911	N21	W53	5769	11	4.2	151	2F			E		317		K
	LEAR	08	0640	0749	0911	N21	W53	5769	11	4.2	151	2F		3	E		236		H
	SVTO	08	0725E	0745U	0755D	N22	W50	5769	11	4.5	30D	2F		1	E		374		
0162	LEAR	08	0645	0650	0715	N17	E22	5783	11	9.9	30	SF		3	E		57		
0163	LEAR	08	0820	0824	0839	N16	E22	5783	11	10.0	19	SF		3	E		25		
0164		08	09151	0916	0920	N18	E28	5783	11	10.5	5	SF					21		
	LEAR	08	0915	0916	0920	N18	E27	5783	11	10.4	5	SF		3	E		21		
	KANZ	08	0916	0916	0920	N19	E28	5783	11	10.5	4	SF			C				
0165	LEAR	08	0929	0934	0944	N16	E23	5783	11	10.1	15	SF		3	E		23		
		08	1050		1052	No Flare Patrol													
0166	KANZ	08	1119	1122	1130	N20	E26	5783B	11	10.5	11	SF			C				
0167	KANZ	08	1157	1201	1213	N19	W85	5777	11	2.0	16	SN			C				
0168	KANZ	08	1246	1250	1308D	N14	E17	5782	11	9.8	22D	SF			V				E
0169		08	1417*	1419*	1524	N18	E19	5783	11	10.0	67	SF	C 4.6				71		F
	SVTO	08	1417	1419	1432D	N18	E19	5783	11	10.0	15D	SF		2	E		60		
	RAMY	08	1419E	1444U	1522	N18	E18	5783	11	10.0	63D	SF	C 4.6	3	E		48		F
	HOLL	08	1439	1446	1526	N17	E20	5783	11	10.1	47	1F		3	E		104		F
0170	HOLL	08	1450	1455	1505	N13	E61	5786	11	13.2	15	SF		3	E		10		F
0171		08	15201	15211	1532	N10	E53	5786	11	12.6	12	SF					20		FH
	HOLL	08	1520	1521	1531	N10	E52	5786	11	12.5	11	SF		3	E		22		F
	RAMY	08	1521	1522	1532	N10	E54	5786	11	12.7	11	SF		3	E		18		H
0172	HOLL	08	1541	1545	1550	N17	E19	5783	11	10.1	9	SF		3	E		23		F
0173		08	1555	15581	1612	N10	E52	5786	11	12.6	17	SF					36		F
	HOLL	08	1555	1558	1611	N10	E52	5786	11	12.6	16	SF		3	E		37		F
	RAMY	08	1555	1559	1612	N10	E53	5786	11	12.6	17	SF		3	E		34		
0174		08	15562	15585	1622	N24	W54	5769	11	4.5	26	SF					21		F
	RAMY	08	1556	1603	1625	N24	W53	5769	11	4.6	29	SF		3	E		22		F
	HOLL	08	1558	1558	1618	N23	W54	5769	11	4.5	20	SF		3	E		20		F
0175	HOLL	08	1635	1638	1652	N14	E60	5786	11	13.2	17	SF		3	E		19		
0176		08	1726	1727*	1813	N14	E62	5786	11	13.4	47	SN	C 9.1				56		FHK
	RAMY	08	1726	1727	1819	N12	E64	5786	11	13.5	53	SF			E		59		K
	RAMY	08	1726	1735	1819	N12	E64	5786	11	13.5	53	SN	C 9.1	3	E		59		
	PALE	08	1726E	1737	1812	N18	E62	5786	11	13.4	46D	SF	C 9.1	3	E		61		FH
	HOLL	08	1726	1739	1803	N15	E60	5786	11	13.3	37	SN	C 9.1	3	E		45		F
0177		08	1818	1826*	1938	N16	E08	5783	11	9.4	80	1N	M 2.0				118		EFK
	PALE	08	1818	1826	1938	N16	E08	5783	11	9.4	80	1N			E		113		K
	PALE	08	1818	1848	1938	N16	E08	5783	11	9.4	80	1N	M 2.0	3	E		124		FE

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0178		08	1818	1826*	1941	N14	E12	5782	11	9.7	83	1N					149		EFK
	RAMY	08	1818	1826	1939D	N13	E14	5782	11	9.8	81D	1N		3	E		140		FE
	HOLL	08	1818	1826	1941	N15	E10	5782	11	9.5	83	1N			E		167		K
	RAMY	08	1818	1838	1939D	N13	E14	5782	11	9.8	81D	1N			E		109		K
	HOLL	08	1818	1851	1941	N15	E10	5782	11	9.5	83	1N		3	E		179		FE
0179		08	18254	1832*	1957	N14	E02	5781	11	8.9	92	1F					116		FHK
	HOLL	08	1825	1832	2006	N15	E02	5781	11	8.9	101	1N			E		192		K
	HOLL	08	1825	1850	2006	N15	E02	5781	11	8.9	101	1F		3	E		188		F
	RAMY	08	1826E	1826U	1942D	N11	W01	5781	11	8.7	76D	SF		2	E		46		F
	PALE	08	1829	1833	1939	N15	E03	5781	11	9.0	70	SF		3	E		36		FH
0180		08	18561	1902*	2034	N20	W55	5769	11	4.6	98	2B	M 9.8				283		FKU
	PALE	08	1856	1902	2036	N20	W57	5769	11	4.4	100	2B	M 9.8	3	E		271		UF
	PALE	08	1856	2021	2036	N20	W57	5769	11	4.4	100	SF			E		64		K
	HOLL	08	1857	1903	2031	N19	W54	5769	11	4.7	94	2B	M 9.8		E		449		K
	HOLL	08	1857	1909	2031	N19	W54	5769	11	4.7	94	2B		3	E		365		F
	RAMY	08	1903E	1903U	2005D	N23	W55	5769	11	4.5	62D	2B		3	E		265		U
0181	PALE	08	1900	1905	1935	N16	W71	5770	11	3.4	35	SF		3	E		17		
0182	RAMY	08	1904	1911U	1923	N25	E41	5784A	11	12.0	19	SF		2	E		30		
0183	PALE	08	1922	1923	1938	N17	E62	5786	11	13.5	16	SF		3	E		11		
0184		08	2021	20232	2036	N14	E56	5786	11	13.1	15	SF					20		F
	PALE	08	2021	2023	2034	N14	E54	5786	11	12.9	13	SF		3	E		18		
	HOLL	08	2021	2025	2038	N15	E59	5786	11	13.3	17	SF		3	E		22		F
0185	HOLL	08	2021	2025	2029	N17	E18	5783	11	10.2	8	SF		3	E		25		F
0186	HOLL	08	2052	2054	2109	N13	E58	5786	11	13.2	17	SF		3	E		16		
0187		08	20504	2107*	2208	N18	E17	5783	11	10.2	78	SF					76		EFK
	HOLL	08	2050	2108	2218	N17	E18	5783	11	10.2	88	1N		3	E		123		FE
	HOLL	08	2050	2141	2218	N17	E18	5783	11	10.2	88	SF			E		56		K
	PALE	08	2054	2107	2148	N19	E16	5783	11	10.1	54	SF		3	E		50		F
0188		08	2305*	23253	2358	N18	E13	5783	11	9.9	53	SN					95		EF
	LEAR	08	2305	2325	2406	N17	E13	5783	11	9.9	61	1N		3	E		155		
	HOLL	08	2309	2325	2356D	N17	E12	5783	11	9.9	47D	SN		3	E		84		FE
	PALE	08	2317	2328	2351	N20	E15	5783	11	10.1	34	SF		3	E		47		F
0189	PALE	08	2330	2330	2356	N15	E54	5786	11	13.1	26	SF		3	E		10		
0190		08	2354*	24085	2520	N15	W10	5776	11	8.2	86	1F					93		F
	PALE	08	2354	2408	2525	N15	W10	5776	11	8.2	91	SF		3	E		78		F
	LEAR	09	0008	0013	0116	N15	W10	5776	11	8.2	68	1F		3	E		108		
0191	PALE	08	2354	2419	2433	N11	W11	5781	11	8.2	39	SF		3	E		12		
0192		09	0021*	00509	0121	N16	E57	5786	11	13.3	60	SF					62		F
	PALE	09	0021	0050	0155D	N19	E57	5786	11	13.4	94D	SF		3	E		75		F
	LEAR	09	0036	0059	0121	N12	E57	5786	11	13.3	45	SF		3	E		49		
		09	0134		0135	No Flare Patrol													
0193		09	0136	0136	0200	N18	E14	5783	11	10.1	24	SF					28	0.3	D
	LEAR	09	0136	0136	0146	N17	E13	5783	11	10.0	10	SF		3	E		31		
	PURP	09	0139E	0139U	0213	N19	E15	5783	11	10.2	34D	SF			P	0139	26	0.3	D
0194		09	0245*	0255*	0344	N18	E12	5783	11	10.0	59	SF	C 7.3				127	2.8	EFK
	PURP	09	0245	0255	0312D	N19	E12	5783	11	10.0	27D	SF			P	0255	106	1.2	
	LEAR	09	0314	0321	0344	N17	E12	5783	11	10.0	30	SF			E		35		K
	LEAR	09	0314	0334	0344	N17	E12	5783	11	10.0	30	SF		3	E		35		
	URUM	09	0316	0325	0345	N18	E12	5783	11	10.0	29	1N			C		402	4.4	E
	PALE	09	0336E	0338	0341D	N17	E14	5783	11	10.2	5D	SF	C 7.3	2	E		56		F

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0195		09	0345	03461	0358	N12	W08	5781	11	8.5	13	SF						54	0.8	E
	LEAR	09	0345	0346	0358	N12	W07	5781	11	8.6	13	SF			3	E		28		
	URUM	09	0345	0347	0357	N12	W08	5781	11	8.5	12	SF				C		80	0.8	E
0196		09	04151	04202	0457	N20	W16	5776	11	7.9	42	1N						184	3.2	FU
	URUM	09	0415	0420	0456	N20	W16	5776	11	7.9	41	1N				C		289	3.2	U
	LEAR	09	0416	0422	0458	N20	W16	5776	11	7.9	42	SF			3	E		79		F
0197		09	0521	0522	0528	N12	E54	5786	11	13.3	7	SN	C	5.3				46	0.8	D
	URUM	09	0521	0522	0528	N13	E54	5786	11	13.3	7	SN				C		48	0.8	D
	LEAR	09	0521	0522	0529	N12	E55	5786	11	13.4	8	SF	C	5.3	3	E		45		
0198	LEAR	09	0605	0639	0708	N17	E12	5783	11	10.2	63	SF			3	E		40		F
0199		09	0613	0615	0619	N10	E46	5786	11	12.7	6	SN						49	1.3	E
	LEAR	09	0613	0615	0619	N10	E44	5786	11	12.6	6	SF			3	E		19		
	PURP	09	0614E	0614U	0615D	N11	E49	5786	11	12.9	1D	SN				P	0614	79	1.3	E
0200	LEAR	09	0616	0618	0621	N18	W83	5770	11	2.9	5	SF			3	E		23		
0201		09	0625*	0726*	0937	N19	E09	5783	11	9.9	192	1N	C	9.7				136	2.2	EFKTU
	SVTO	09	0625	0726	1007	N19	E08	5783	11	9.9	222	1F	C	9.7		E		98		KT
	SVTO	09	0625	0901	1007	N19	E08	5783	11	9.9	222	1N			3	E		152		UF
	PURP	09	0721	0726	0736D	N19	E08	5783	11	9.9	15D	1B				P	0726	199	2.1	
	LEAR	09	0722	0727	0827	N18	E08	5783	11	9.9	65	SF	C	9.7	3	E		79		F
	LEAR	09	0848	0857	0947	N17	E08	5783	11	10.0	59	SF	M	1.8	3	E		82		FE
	ATHN	09	0859E	0902	0908D	N21	E13	5783	11	10.4	9D	1B			3	V	0902	206	2.3	
0202		09	0820	0822*	0905	N13	E52	5786	11	13.3	45	SN	M	1.1				86	2.1	EFK
	LEAR	09	0820	0822	0914	N13	E53	5786	11	13.3	54	SF	M	1.1	3	E		79		FE
	SVTO	09	0820	0822	0923	N15	E53	5786	11	13.3	63	SN	M	1.1	3	E		90		F
	ATHN	09	0820E	0823	0828	N12	E51	5786	11	13.2	8D	1B			3	V	0823	127	2.1	
	LEAR	09	0820	0900	0914	N13	E53	5786	11	13.3	54	SB				E		50		K
0203		09	09351	09364	1000	N14	E52	5786	11	13.3	25	1N						128		EF
	LEAR	09	0935	0936	0953	N12	E51	5786	11	13.2	18	1F			3	E		111		FE
	SVTO	09	0936	0940	1007	N15	E52	5786	11	13.3	31	1N			3	E		146		F
0204	SVTO	09	1023	1032	1036	N17	E60	5786	11	14.0	13	SN			3	E		31		
0205		09	12142	1217*	1307	N18	E06	5783	11	10.0	53	SN	C	7.3				67		FK
	RAMY	09	1214	1217	1310	N18	E07	5783	11	10.0	56	SN				E		73		K
	RAMY	09	1214	1239	1310	N18	E07	5783	11	10.0	56	SN	C	7.3	3	E		74		F
	SVTO	09	1216	1238	1301	N18	E05	5783	11	9.9	45	SF	C	7.3	3	E		53		F
0206	RAMY	09	1230	1233	1314	N17	W90	5770	11	2.7	44	2F	M	1.4	3	E		351		E
0207		09	1334	1335	1342	N14	E49	5786	11	13.3	8	SN						40		F
	RAMY	09	1334	1335	1339	N13	E50	5786	11	13.3	5	SF			3	E		30		F
	SVTO	09	1334	1335	1344	N15	E48	5786	11	13.2	10	SN			3	E		50		
0208		09	1354*	1404*	1510	N18	E05	5783	11	9.9	76	1N	C	9.9				120		FKU
	RAMY	09	1354	1404	1428	N18	E05	5783	11	9.9	34	SF	C	9.9	3	E		39		F
	RAMY	09	1446	1454	1530	N19	E05	5783	11	10.0	44	1B	M	4.9	3	E		192		F
	RAMY	09	1446	1505	1530	N18	E07	5783	11	10.1	44	SN				E		133		K
	SVTO	09	1457E	1457	1513D	N18	E04	5783	11	9.9	16D	1N			3	E		105		F
	HOLL	09	1457E	1457	1514	N19	E05	5783	11	10.0	17D	1N			2	E		133		UF
0209	HOLL	09	1539	1540	1547	N13	W15	5781	11	8.5	8	SF			2	E		61		
0210		09	1554	1555*	1625	N18	E07	5783	11	10.2	31	SN	C	7.9				32		FK
	RAMY	09	1554	1555	1625	N18	E07	5783	11	10.2	31	SN	C	7.9	3	E		36		F
	RAMY	09	1554	1613	1625	N18	E07	5783	11	10.2	31	SN				E		27		K
0211	HOLL	09	1643	1648	1653	N13	W15	5781	11	8.6	10	SF			3	E		65		
0212		09	1701*	1702*	1720	N18	E03	5783	11	9.9	19	SF						24		F
	RAMY	09	1701	1702	1714	N18	E03	5783	11	9.9	13	SF			3	E		33		F
	RAMY	09	1714	1723	1726	N18	E03	5783	11	9.9	12	SF			3	E		16		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	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0213	RAMY	09	1712	1716	1718	N10	E41	5786	11	12.8	6	SF	C 7.6	3	E		21		H
0214	PALE	09	1751	1754	1814	N18	E06	5783	11	10.2	23	SF		3	E		22		F
0215		09	18388	1857*	2019	N14	E46	5786	11	13.2	101	1N	M 1.4				195		EFK
	HOLL	09	1838	1857	2017	N13	E46	5786	11	13.2	99	1N			E		184		K
	HOLL	09	1838	1907	2017	N13	E46	5786	11	13.2	99	1N	M 1.4	3	E		220		FE
	PALE	09	1846	1858	2024	N15	E46	5786	11	13.3	98	1F		3	E		181		F
0216		09	1919*	1925*	2106	N17	E02	5783	11	9.9	107	1N	M 4.8				101		EFK
	HOLL	09	1919	1925	2135	N17	E00	5783	11	9.8	136	1B			E		204		K
	HOLL	09	1919	2052	2135	N17	E00	5783	11	9.8	136	1N	M 4.8	3	E		111		FE
	HOLL	09	1919	2101	2135	N17	E00	5783	11	9.8	136	1N			E		131		K
	PALE	09	1922	1932	1935	N18	E05	5783	11	10.2	13	SF		3	E		20		
	PALE	09	2050	2052	2110	N18	E04	5783	11	10.2	20	SF	M 1.3	3	E		39		
0217		09	1921*	1931*	2202	N18	W24	5776	11	8.0	161	1N	M 1.4				193		EFK
	PALE	09	1921	1931	2215D	N17	W23	5776	11	8.0	174D	2N		3	E		334		E
	PALE	09	1921	2140	2215D	N17	W23	5776	11	8.0	174D	1N			E		125		K
	HOLL	09	2136	2141	2202	N21	W26	5776	11	7.9	26	1N	M 1.4	3	E		120		FE
0218		09	1923	19322	2125	N12	W18	5781	11	8.4	122	1N					249		F
	HOLL	09	1923	1932	2155	N12	W21	5781	11	8.2	152	2B		3	E		411		F
	PALE	09	1923	1934	2055	N12	W15	5781	11	8.7	92	SF		3	E		87		
		09	2124		2125	No Flare Patrol													
0219	HOLL	09	2141	2143	2154	N18	E00	5783	11	9.9	13	SN		3	E		60		EF
0220		09	22404	2246	2304	N18	W00	5783	11	9.9	24	SN					63		EF
	HOLL	09	2240	2246	2318	N17	E00	5783	11	9.9	38	SN		3	E		80		FE
	LEAR	09	2241	2246	2257	N18	E00	5783	11	9.9	16	SF		3	E		53		
	PALE	09	2244	2246	2256	N18	W01	5783	11	9.9	12	SN		3	E		56		F
0221		09	23282	23311	2405	N18	W01	5783	11	9.9	37	SN					77		EFH
	HOLL	09	2328	2331	2356D	N17	W01	5783	11	9.9	28D	SN		3	E		87		FE
	LEAR	09	2329	2332	2414	N18	E00	5783	11	10.0	45	SF		3	E		75		
	PALE	09	2330	2331	2356	N18	W01	5783	11	9.9	26	SN		3	E		68		FH
0222	LEAR	10	0050	0100	0116	N17	W01	5783	11	9.9	26	SF		3	E		44		
0223		10	01388	0150	0230	N18	W03	5783	11	9.8	52	1N	M 3.9				137	1.7	EF
	LEAR	10	0138	0150	0253	N18	W01	5783	11	10.0	75	1N	M 3.9	3	E		128		
	PURP	10	0139	0150	0208	N19	W05	5783	11	9.7	29	SB			C	0150	159	1.7	
	PALE	10	0146	0150	0303D	N18	W03	5783	11	9.8	77D	1N		3	E		125		FE
0224	LEAR	10	0216	0217	0222	N10	E41	5786	11	13.2	6	SF		3	E		26		F
0225	LEAR	10	0339	0341	0400	N18	W03	5783	11	9.9	21	1F	M 1.4	3	E		112		
		10	0449		0459	No Flare Patrol													
0226	LEAR	10	0541	0542	0553	N18	W04	5783	11	9.9	12	SF		3	E		17		
0227		10	0634	0635	0654	N18	W04	5783	11	10.0	20	1N	C 6.7				178	2.8	E
	PURP	10	0618E	0618U	0650	N19	W05	5783	11	9.9	32D	1B			P	0618	265	2.8	
	MITK	10	0623E		0627D	N18	W07	5783	11	9.7	4D	1F			P	0624	250	2.7	E
	LEAR	10	0634	0635	0657	N18	W01	5783	11	10.2	23	SF	C 6.7	3	E		19		
0228		10	0744	0746	0757	N18	W06	5783	11	9.9	13	SF	C 5.1				104	1.3	
	PURP	10	0741E	0745U	0751D	N18	W07	5783	11	9.8	10D	SF			P	0745	119	1.3	
	LEAR	10	0744	0746	0757	N18	W04	5783	11	10.0	13	SF	C 5.1	3	E		88		
0229		10	0811	08121	0822	N18	W05	5783	11	10.0	11	SF	C 6.4				48		
	LEAR	10	0811	0813	0818	N17	W05	5783	11	10.0	7	SF	C 6.4	3	E		29		
	SVTO	10	0812E	0812	0826	N18	W05	5783	11	10.0	14D	SF		3	E		66		
0230	LEAR	10	0830	0841	0847	S19	E66	5788	11	15.4	17	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	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0231		10	0856	08582	0908	N11	E29	5786	11	12.5	12	SF					32		
	SVTO	10	0856	0858	0912	N12	E29	5786	11	12.5	16	SF		3	E		40		
	LEAR	10	0856	0900	0904	N10	E29	5786	11	12.5	8	SF		3	E		24		
0232		10	1128	1128	1210	N18	W07	5783	11	9.9	42	SN	M 1.2				54		F
	RAMY	10	1122E	1128	1201	N18	W07	5783	11	9.9	39D	SN	M 1.2	3	E		72		F
	SVTO	10	1128	1138U	1152D	N18	W09	5783	11	9.8	24D	SN		3	E		60		
	SVTO	10	1209E	1213U	1219	N18	W06	5783	11	10.0	10D	SN		3	E		30		
0233		10	1255	12508	1328	N18	W06	5783	11	10.1	33	1N	M 1.1				104		F
	SVTO	10	1225E	1259U	1353	N18	W07	5783	11	10.0	88D	1N		3	E		100		F
	SVTO	10	1250E	1250	1300	N18	W07	5783	11	10.0	10D	1N		3	E		100		
	RAMY	10	1255	1258	1401	N19	W04	5783	11	10.2	66	1N	M 1.1	3	E		116		F
	SVTO	10	1259E	1259U	1300	N18	W07	5783	11	10.0	1D	1N		3	E		100		
0234		10	14162	1418*	1442	S18	E64	5788	11	15.5	26	SF					34		FK
	HOLL	10	1416	1420	1430	S17	E61	5788	11	15.2	14	SF		2	E		59		
	RAMY	10	1418	1418	1448	S19	E70	5788	11	15.9	30	SF		3	E		30		F
	SVTO	10	1418	1420	1446	S17	E62	5788	11	15.3	28	SF			E		27		K
	SVTO	10	1418	1430	1446	S17	E62	5788	11	15.3	28	SF		3	E		20		
0235		10	1515	15181	1530	N14	E35	5786	11	13.3	15	SF					24		F
	RAMY	10	1515	1518	1530	N14	E35	5786	11	13.3	15	SF		3	E		20		F
	HOLL	10	1515	1519	1531	N13	E35	5786	11	13.3	16	SF		3	E		28		F
0236		10	1558*	1558*	1625	N18	W10	5783	11	9.9	27	SF	C 8.2				36		FK
	HOLL	10	1558	1558	1608	N17	W10	5783	11	9.9	10	SF	C 8.2	3	E		18		
	RAMY	10	1558	1559	1622	N18	W11	5783	11	9.8	24	SF			E		49		K
	RAMY	10	1558	1617	1622	N18	W11	5783	11	9.8	24	SF		3	E		49		F
	HOLL	10	1609	1614	1628	N17	W10	5783	11	9.9	19	SN		3	E		45		F
	RAMY	10	1626	1628	1644	N18	W10	5783	11	9.9	18	SF		3	E		21		F
0237	RAMY	10	1617	1617	1621	N12	W30	5781	11	8.4	4	SF	C 7.8	3	E		14		F
0238		10	16442	1650	1751	N24	W80	5769	11	4.5	67	2B	M 5.6				480		E
	RAMY	10	1644	1650	1807	N25	W81	5769	11	4.4	83	2B	M 5.6	3	E		428		
	HOLL	10	1646	1650	1735	N24	W78	5769	11	4.7	49	2N		3	E		532		E
0239		10	16451	16461	1708	S22	E68	5788	11	15.9	23	SF					24		H
	RAMY	10	1645	1647	1714	S22	E69	5788	11	16.0	29	SF		3	E		26		H
	HOLL	10	1646	1646	1703	S23	E67	5788	11	15.9	17	SF		3	E		23		
0240		10	1749	1750	1755	N10	E24	5786	11	12.5	6	SF					42		
	HOLL	10	1749	1750	1753	N10	E24	5786	11	12.5	4	SF		3	E		43		
	RAMY	10	1749	1750	1757	N10	E24	5786	11	12.5	8	SF		3	E		42		
0241		10	1947E	1947U	2029	S21	E64	5788	11	15.7	42D	1F	M 2.9				213		F
	PALE	10	1947E	1947U	2012D	S23	E66	5788	11	15.9	25D	2F	M 2.9	3	E		367		F
	RAMY	10	2011E	2014U	2029	S19	E63	5788	11	15.6	18D	SF		3	E		59		
0242		10	20261	2029	2039	N18	W14	5783	11	9.8	13	SF					16		
	HOLL	10	2026	2029	2041	N18	W14	5783	11	9.8	15	SF		3	E		21		
	RAMY	10	2027	2029	2037	N18	W13	5783	11	9.9	10	SF		3	E		12		
0243	RAMY	10	2030	2033	2051D	S19	E60	5788	11	15.4	21D	SF		3	E		54		
0244		10	20483	20531	2100	N18	W12	5783	11	9.9	12	SF					60		F
	HOLL	10	2048	2054	2101	N18	W11	5783	11	10.0	13	SF		3	E		98		
	RAMY	10	2051	2053	2059	N18	W13	5783	11	9.9	8	SF		3	E		23		F
0245	HOLL	10	2127	2129	2138	N17	W14	5783	11	9.8	11	SF		3	E		14		
0246	HOLL	10	2135	2231	2256	N14	E31	5786	11	13.2	81	SF	C 4.2	3	E		41		
0247		10	2253*	2306	2311	N23	W82	5769	11	4.6	18	SF					33		
	HOLL	10	2253	2306	2312	N23	W82	5769	11	4.6	19	SF		3	E		58		
	PALE	10	2258	2306	2310	N22	W82	5769	11	4.6	12	SF		3	E		17		
	LEAR	10	2303	2306	2310	N25	W82	5769	11	4.6	7	SF		3	E		25		

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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
0248	PALE	10	2306	2308	2315	N18	W14	5783	11	9.9	9	SF		3	E		13		F
0249	PALE	10	2330E	2330U	2339	N20	W08	5783	11	10.4	9D	SF		3	E		80		
0250	LEAR	11	0010	0012	0015	N17	W16	5783	11	9.8	5	SF		3	E		15		
0251		11	03082	0314	0317	N12	E35	5786	11	13.8	9	SF					34		H
	MITK	11	0308		0314D	N13	E35	5786	11	13.8	6D	SF			C	0313			H
	LEAR	11	0310	0314	0317	N12	E35	5786	11	13.8	7	SF		3	E		34		
0252		11	0500*	0502*	0555	N17	W24	5783	11	9.4	55	2N M	5.1				742	11.3	FIUW
	LEAR	11	0500	0505	0527	N16	W25	5783	11	9.3	27	2N M	5.1	3	E		283		UF
	MITK	11	0501	0502	0625	N18	W24	5783	11	9.4	84	2B			C	0502	1060	12.4	FIW
	URUM	11	0503E	0506	0536	N16	W25	5783	11	9.3	33D	2B			C		884	10.2	F
	MITK	11	0526	0532	0611	N18	W20	5783	11	9.7	45	SF			C	0532			
0253	LEAR	11	0636E	0636U	0642D	N25	W86	5769	11	4.6	6D	SF C	6.1	2	E		40		
0254		11	0710	07121	0724	N19	W14	5783	11	10.2	14	SF C	7.2				35		EF
	KANZ	11	0710E	0712	0725	N19	W13	5783	11	10.3	15D	SF			C				E
	LEAR	11	0710	0713	0722	N19	W14	5783	11	10.2	12	SF C	7.2	3	E		35		F
0255		11	08561	09002	0924	N15	E36	5786	11	14.1	28	1F					177	2.3	E
	KANZ	11	0856	0900	0930	N15	E37	5786	11	14.2	34	1F			V				
	URUM	11	0857	0902	0919	N15	E36	5786	11	14.1	22	1F			C		177	2.3	E
0256	KANZ	11	0944	0950	1031	N15	E25	5786	11	13.3	47	SF			V				
0257	KANZ	11	1054	1054	1058	N11	W41	5781	11	8.4	4	SF			V				
0258	KANZ	11	1102	1102	1105	N18	W22	5783	11	9.8	3	SF			V				
0259		11	1207	1207	1216	N18	W22	5783	11	9.8	9	SF					16		
	RAMY	11	1207	1207	1214	N18	W23	5783	11	9.7	7	SF		3	E		16		
	KANZ	11	1207	1207	1219	N18	W22	5783	11	9.8	12	SF			V				
0260		11	12281	12303	1302	N18	W22	5783	11	9.8	34	SF C	4.1				47		
	RAMY	11	1228	1230	1256	N18	W21	5783	11	9.9	28	SF C	4.1	3	E		47		
	KANZ	11	1229	1233	1308	N18	W22	5783	11	9.8	39	SF			V				
0261	RAMY	11	1236	1239	1246	S17	E52	5788	11	15.5	10	SF		3	E		19		
0262		11	12401	12413	1249	N24	W84	5769	11	5.0	9	SF					14		
	RAMY	11	1240	1244	1246	N24	W84	5769	11	5.0	6	SF		3	E		14		
	KANZ	11	1241	1241	1252	N24	W85	5769	11	5.0	11	SF			V				
0263	KANZ	11	1308	1312	1337	N22	W46	5776	11	8.0	29	SF			V				
0264	KANZ	11	1351	1355	1403	N16	E36	5786	11	14.3	12	SF			V				
0265	RAMY	11	1354	1358	1427	N10	W39	5781	11	8.6	33	SF		3	E		19		
0266		11	14211	14211	1434	N21	E02	5784	11	11.7	13	SF					26		EF
	RAMY	11	1421	1421	1436	N21	E02	5784	11	11.7	15	SF		3	E		26		F
	KANZ	11	1422	1422	1431	N21	E02	5784	11	11.7	9	SF			V				E
0267		11	1734*	1734*	1838	N12	W43	5781	11	8.5	64	SN M	1.6				59		EF
	HOLL	11	1734	1734	1737	N12	W41	5781	11	8.6	3	SF		3	E		19		
	RAMY	11	1745	1832	1910	N12	W44	5781	11	8.4	85	SN		3	E		81		FE
	HOLL	11	1829	1832	1906	N11	W44	5781	11	8.4	37	SB M	1.6	3	E		78		FE
0268		11	17392	1742	1805	S22	E60	5788	11	16.3	26	SF					16		
	HOLL	11	1739	1742	1803	S21	E58	5788	11	16.2	24	SF		3	E		18		
	RAMY	11	1741	1742	1807	S22	E61	5788	11	16.4	26	SF		3	E		15		
0269		11	18005	1813	1832	N14	E18	5786	11	13.1	32	SF					36		
	RAMY	11	1800	1808U	1830	N13	E18	5786	11	13.1	30	SF		3	E		40		
	HOLL	11	1805	1813	1834	N15	E17	5786	11	13.0	29	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	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0270		11	18063	18102	1824	N20	W02	5784	11	11.6	18	SF					18		
	HOLL	11	1806	1810	1827	N21	W01	5784	11	11.7	21	SF		3	E		19		
	RAMY	11	1809	1812	1822	N20	W02	5784	11	11.6	13	SF		3	E		16		
0271	HOLL	11	1830	1831	1844	S19	E58	5788	11	16.2	14	SF		3	E		14		
0272	HOLL	11	1915	1915	1927	N18	W25	5783	11	9.9	12	SF		3	E		22		
0273	HOLL	11	2017	2019	2032	N14	E18	5786	11	13.2	15	SF		3	E		17		F
0274	HOLL	11	2029	2033	2049	N10	W45	5781	11	8.5	20	SF		3	E		17		F
0275	HOLL	11	2122	2122	2143	N13	E23	5786	11	13.6	21	SF		3	E		13		F
0276		11	21472	2151	2208	N19	W54	5776	11	7.8	21	SF					19		F
	HOLL	11	2147	2151	2211	N21	W53	5776	11	7.8	24	SF		3	E		16		F
	PALE	11	2149	2151	2204	N17	W54	5776	11	7.8	15	SF		3	E		22		
0277	HOLL	11	2230	2231	2234	N13	E15	5786	11	13.1	4	SF		3	E		26		F
0278	HOLL	11	2302	2311	2326	N21	W04	5784	11	11.6	24	SF		3	E		16		
0279		12	0143	01488	0217	N14	W54	5776	11	8.0	34	SF					82	2.4	EFK
	MITK	12	0142E		0232	N13	W55	5776	11	7.9	50D	1F			C	0145	130	2.4	E
	LEAR	12	0143	0148	0209	N14	W54	5776	11	8.0	26	SF		3	E		61		F
	LEAR	12	0143	0156	0209	N14	W54	5776	11	8.0	26	SF			E		55		K
0280	LEAR	12	0214	0222	0237	N15	W40	5781	11	9.1	23	SF		3	E		19		
0281	PEKG	12	0600	0602	0653	N17	W39	5783	11	9.3	53	3B			P	0602	1766	23.4	EI
0282	SVTO	12	0621E	0621U	0707	N18	W39	5783	11	9.3	46D	SN	X 1.5	2	E		90		FH
0283		12	07551	0756	0813	S30	E62		11	17.2	18	SF	C 4.1				41		
	SVTO	12	0755	0756	0811	S29	E61		11	17.1	16	SF	C 4.1	3	E		41		
	KANZ	12	0756	0756	0815	S32	E62		11	17.2	19	SF			C				
0284		12	08041	08102	0821	N12	E13	5786	11	13.3	17	SN	C 5.0				70	0.9	D
	SVTO	12	0804	0811	0826	N12	E12	5786	11	13.2	22	SN	C 5.0	3	E		55		
	PEKG	12	0805	0810	0817	N12	E15	5786	11	13.5	12	SB			P	0810	84	0.9	D
	KANZ	12	0805	0812	0821	N12	E13	5786	11	13.3	16	SN			V				
0285		12	0850	08552	0912	S17	E52	5788	11	16.3	22	SN					74		
	SVTO	12	0840E	0855	0914	S16	E51	5788	11	16.2	34D	SN		3	E		74		
	KANZ	12	0850	0857	0911	S18	E52	5788	11	16.3	21	SN			V				
0286		12	08595	0911	0959	N14	E12	5786	11	13.3	60	2N	M 2.2				162		F
	SVTO	12	0859	0911U	1015D	N15	E14	5786	11	13.4	76D	2B	M 2.2	3	E		280		F
	KANZ	12	0900	0911	0959	N14	E12	5786	11	13.3	59	2N			V				
	LEAR	12	0904	0909U	0909D	N12	E10	5786	11	13.1	5D	SF		1	E		44		
0287	KANZ	12	0911	0911	0911	N11	W47	5781	11	8.8	5	SF			V				
0288		12	1010*	10253	1050	N14	E17	5786	11	13.7	40	SF					46		
	KANZ	12	1010	1028	1057	N12	E20	5786	11	13.9	47	SF			V				
	SVTO	12	1024	1025	1043	N16	E14	5786	11	13.5	19	SF		3	E		46		
0289		12	1115	11151	1138	N18	W32	5783	11	10.0	23	1N					188		F
	SVTO	12	1112E	1116	1151D	N18	W32	5783	11	10.0	39D	1N		2	E		188		F
	KANZ	12	1115	1115	1138	N18	W32	5783	11	10.0	23	SN			V				
0290	KANZ	12	1127	1130	1151	S18	E48	5788	11	16.1	24	1F			V				E
0291	KANZ	12	1134	1141	1148	N15	W56	5776	11	8.2	14	SF			V				
0292	RAMY	12	1143E	1149	1154	N12	E19	5786	11	13.9	11D	SF		3	E		31		
0293	RAMY	12	1143E	1150	1219D	N17	W63	5776	11	7.7	36D	SF		3	E		34		

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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
0294	RAMY	12	1143E	1145	1208D	S18	E53	5788	11	16.5	25D	SF		3	E		58		
0295	KANZ	12	1230	1237	1258	N19	W33	5783	11	10.0	28	SF			V				
0296		12	13024	13027	1338	N12	E16	5786	11	13.7	36	SN							
	KANZ	12	1302	1302	1324	N13	E13	5786	11	13.5	22	SF			V				
	KANZ	12	1306	1309	1351	N11	E19	5786	11	14.0	45	SN			V				
0297	KANZ	12	1302	1302	1309	N20	W41	5783	11	9.4	7	SF			V				
0298	HOLL	12	1426E	1504	1541	N18	W32	5783	11	10.2	75D	SF		3	E		70		
0299	HOLL	12	1551	1554	1621	N18	W33	5783	11	10.1	30	SF		3	E		27		
0300		12	17374	17401	1800	N18	W36	5783	11	10.0	23	SF	C 3.6				36		F
	RAMY	12	1737	1740	1753	N18	W35	5783	11	10.1	16	SF	C 3.6	3	E		38		F
	HOLL	12	1741	1741	1807	N18	W37	5783	11	9.9	26	SF	C 3.6	3	E		35		
0301		12	1912	1917	1953	N18	W38	5783	11	9.9	41	SF	C 3.4				41		EF
	RAMY	12	1912	1915U	2001D	N19	W38	5783	11	9.9	49D	SF	C 3.4	3	E		36		
	HOLL	12	1912	1917	1953	N18	W37	5783	11	10.0	41	SF		3	E		46		FE
0302		12	2018	20181	2024	N20	W46	5783	11	9.3	6	SF					46		FH
	RAMY	12	2018	2018	2026	N20	W46	5783	11	9.3	8	SF		3	E		40		H
	HOLL	12	2018	2019	2022	N20	W45	5783	11	9.4	4	SF		3	E		53		F
0303	HOLL	12	2058	2059	2127	N12	W55	5781	11	8.7	29	SF		3	E		13		FH
		12	2110		2116	No Flare Patrol													
0304	HOLL	12	2118	2121	2134	N18	W37	5783	11	10.1	16	SF		3	E		25		F
0305	HOLL	12	2207	2207	2212	N10	W59	5781	11	8.5	5	SF		3	E		11		
		13	0033		0055	No Flare Patrol													
0306	LEAR	13	0300	0301	0312	N19	W40	5783	11	10.1	12	SF		3	E		19		
0307	LEAR	13	0338	0342	0406	N10	W59	5781	11	8.7	28	SF		3	E		54		
0308	LEAR	13	0350	0351	0357	N14	W66	5776	11	8.2	7	SF		3	E		72		
0309	PEKG	13	0637	0640	0647	N11	E00	5786	11	13.3	10	SN			C	0640	168	1.8	D
		13	0716		0744	No Flare Patrol													
		13	0817		0821	No Flare Patrol													
0310		13	08441	08461	0852	N17	W37	5783	11	10.5	8	SF	C 2.3				19		
	KANZ	13	0844	0847	0852	N17	W37	5783	11	10.5	8	SF			V				
	LEAR	13	0845	0846	0851	N17	W37	5783	11	10.5	6	SF	C 2.3	3	E		19		
0311	KANZ	13	1027	1027	1032	S17	E39	5790B	11	16.4	5	SF			V				
0312	KANZ	13	1051	1054	1058	S24	E20		11	15.0	7	SF			V				
0313	KANZ	13	1140	1140	1144	N16	W50	5783	11	9.7	4	SF			V				
0314		13	1154	1154	1221	N10	W59	5781	11	9.1	27	SF					70		F
	KANZ	13	1154	1154	1221	N11	W58	5781	11	9.1	27	SF			V				
	RAMY	13	1219E	1222U	1240D	N08	W60	5781	11	9.0	21D	SF		2	E		70		F
0315		13	1221	12211	1226	N13	W01	5786	11	13.4	5	SF					16		
	RAMY	13	1220E	1222	1230D	N14	W01	5786	11	13.4	10D	SF		2	E		19		
	KANZ	13	1221	1221	1225	N13	W00	5786	11	13.5	4	SF			V				
	SVTO	13	1221	1221	1228	N13	W01	5786	11	13.4	7	SF		3	E		13		
0316		13	1240	1250	1306	N12	W57	5781	11	9.2	26	SF							
	KANZ	13	1240	1250	1302	N14	W54	5781	11	9.4	22	SF			V				
	KANZ	13	1240	1250	1309	N11	W60	5781	11	9.0	29	SF			V				

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0317	KANZ	13	1250	1250	1254	N07	W75	5781	11	7.9	4	SF			V				
0318	RAMY	13	1259E	1300	1307	N17	W50	5783	11	9.7	8D	SF		2	E		15		F
0319	KANZ	13	1424	1424	1431D	N11	W69	5781	11	8.4	7D	SF			V				
0320	KANZ	13	1427	1431U	1431D	N17	W51	5783	11	9.7	4D	SF			V				
		13	1432		1444	No Flare Patrol													
		13	1454		1459	No Flare Patrol													
0321	HOLL	13	1546	1546	1555D	N18	W43	5783	11	10.4	9D	SF		3	E		37		F
0322		13	1653*	1659*	1712	N18	W46	5783	11	10.2	19	SF					16		F
	RAMY	13	1653	1659	1715	N18	W45	5783	11	10.3	22	SF		3	E		18		F
	HOLL	13	1709	1709	1710	N18	W46	5783	11	10.2	1	SF		3	E		14		F
0323	HOLL	13	1843	1843	1847	S23	E41	5788	11	16.9	4	SF		3	E		12		F
0324	HOLL	13	1913	1914	1920	N11	W07	5786	11	13.3	7	SF		3	E		13		F
0325		13	1919	1920	1924	N08	W76	5781	11	8.1	5	SF					40		
	RAMY	13	1918E	1919U	1924	N08	W79	5781	11	7.9	6D	SF		2	E		34		
	HOLL	13	1919	1920	1924	N08	W73	5781	11	8.3	5	SF		3	E		46		
0326		13	19279	1936	1942	N12	W08	5786	11	13.2	15	SF					14		F
	RAMY	13	1927	1937U	1942	N12	W07	5786	11	13.3	15	SF		2	E		10		F
	HOLL	13	1936	1936	1943	N11	W08	5786	11	13.2	7	SF		3	E		19		
0327	RAMY	13	2005E	2012U	2052D	N18	W48	5783	11	10.2	47D	SF	M 1.1	1	E		39		F
0328		13	2029	2038	2137	N15	W02	5786	11	13.7	68	SF					38		F
	HOLL	13	2029	2038	2137	N16	W03	5786	11	13.6	68	SF		3	E		39		
	RAMY	13	2034E	2034U	2151D	N14	W01	5786	11	13.8	77D	SF		1	E		36		F
0329	HOLL	13	2202	2207	2219	N19	W45	5783	11	10.5	17	SN	C 4.7	3	E		63		
		13	2340		2400	No Flare Patrol													
		14	0000		0037	No Flare Patrol													
		14	0050		0119	No Flare Patrol													
0330		14	0149	0206*	0226	N21	W30	5784	11	11.8	37	SF	C 5.2				169	4.3	EFK
	LEAR	14	0149	0204U	0228	N21	W30	5784	11	11.8	39	SF		2	E		72		F
	LEAR	14	0149	0216	0228	N21	W30	5784	11	11.8	39	SF	C 5.2		E		98		K
	URUM	14	0205E	0206	0223	N21	W31	5784	11	11.7	18D	1N			C		338	4.3	E
0331	URUM	14	0328	0329	0343	S22	E25	5788	11	16.1	15	SF			C		48	0.6	E
0332		14	0640	0646	0702	N13	W05	5786	11	13.9	22	SN					59	1.0	EF
	URUM	14	0640	0646	0700	N13	W05	5786	11	13.9	20	SN			C		96	1.0	E
	SVTO	14	0645E	0650U	0704	N13	W05	5786	11	13.9	19D	SF		3	E		22		F
0333	HTPR	14	0736E		0900	N10	W16	5786	11	13.1	84D	SN			C	0805	150	1.5	EIK
0334	HTPR	14	0752	0753	0759	S17	E04		11	14.6	7	SF			C	0753	80	0.8	E
0335	HTPR	14	0756	0756	0801	N18	W50	5783	11	10.5	5	SF			C	0756	50	0.8	
0336	HTPR	14	0924	0928	0942	N10	W16	5786	11	13.2	18	SF			C	0928	60	0.6	E
0337	HTPR	14	0948	0948	0955	S20	E24	5788	11	16.2	7	SF			C	0948	40	0.4	E
0338	HTPR	14	1106	1109	1114	N17	W60	5783	11	9.9	8	SF			C	1109	60	1.2	EI
0339		14	11262	11262	1134	N12	W13	5786	11	13.5	8	SN					32	0.5	E
	HTPR	14	1126	1126	1135	N12	W13	5786	11	13.5	9	SB			C	1126	50	0.5	E
	RAMY	14	1127	1127	1132	N13	W12	5786	11	13.6	5	SF		2	E		13		
	KANZ	14	1128	1128	1136	N12	W15	5786	11	13.3	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
0340	HTPR	14	1215	1226	1234	S25	E38	5788	11	17.4	19	SN			C	1226	20	0.2	E
0341		14	14218	1421*	1440	N18	W60	5783	11	10.0	19	SF					13		
	KANZ	14	1421	1421	1434D	N18	W62	5783	11	9.9	13D	SF			V				
	RAMY	14	1424	1428U	1520D	N18	W60	5783	11	10.0	56D	SF		2	E		13		
	HOLL	14	1429	1437	1440	N18	W59	5783	11	10.1	11	SF		2	E		13		
0342		14	1414*	1421*	1458	N12	W18	5786	11	13.2	44	SN	C 3.5				83	1.6	EFI
	HTPR	14	1414	1435	1450	N11	W15	5786	11	13.5	36	SB			C	1435	180	1.8	EI
	RAMY	14	1417	1436	1514D	N11	W19	5786	11	13.2	57D	SF	C 3.5	2	E		40		F
	KANZ	14	1418	1421	1434D	N10	W16	5786	11	13.4	16D	SF			V				
	HOLL	14	1424	1435	1445	N11	W18	5786	11	13.2	21	SF		2	E		32		F
	HTPR	14	1450	1453	1512	N15	W20	5786	11	13.1	22	SN			C	1453	150	1.5	E
	HOLL	14	1454	1502	1504	N15	W19	5786	11	13.2	10	SF		3	E		12		
0343		14	14557	15052	1518	N18	W60	5783	11	10.0	23	SN					49	1.6	E
	HTPR	14	1455	1505	1517	N19	W62	5783	11	9.9	22	SN			C	1505	80	1.6	E
	HOLL	14	1502	1507	1519	N18	W59	5783	11	10.1	17	SF		3	E		18		
0344		14	1548	1550	1606	N12	W17	5786	11	13.4	18	SF					18		
	HOLL	14	1548	1550	1606	N12	W19	5786	11	13.2	18	SF		3	E		20		
	RAMY	14	1550E	1553U	1605D	N13	W15	5786	11	13.5	15D	SF		2	E		16		
0345	HOLL	14	1728	1737	1802	N12	W20	5786	11	13.2	34	SF		3	E		18		
0346		14	2035	2035	2052	N18	W62	5783	11	10.1	17	SF					26		F
	HOLL	14	2035	2035	2049	N19	W57	5783	11	10.5	14	SF		3	E		30		F
	RAMY	14	2035	2035	2054	N18	W66	5783	11	9.8	19	SF		3	E		23		
0347	HOLL	14	2108	2111	2115	N14	W21	5786	11	13.3	7	SF		3	E		27		
0348	HOLL	14	2129	2133	2145	N08	W28	5786	11	12.8	16	SF		3	E		28		
0349		14	2138*	2142*	2312	N18	W63	5783	11	10.1	94	SN	M 1.2				67		K
	HOLL	14	2138	2142	2318D	N18	W61	5783	11	10.2	100D	SN	M 1.2	3	E		81		
	HOLL	14	2138	2210	2318D	N18	W61	5783	11	10.2	100D	SN			E		92		K
	LEAR	14	2237	2300	2312	N18	W68	5783	11	9.8	35	SF		3	E		28		
0350	LEAR	14	2311	2317	2322	N10	W20	5786	11	13.5	11	SF		3	E		12		F
0351	LEAR	14	2318	2320	2327	S27	E33	5788	11	17.5	9	SF		3	E		26		
0352	LEAR	15	0113	0115	0125	N19	W67	5783	11	9.9	12	SF	C 5.4	3	E		31		F
0353		15	0357	0359	0406	S28	E30	5793	11	17.5	9	SN	C 5.1				80	1.8	E
	LEAR	15	0357	0359	0406	S27	E29	5793	11	17.4	9	SF	C 5.1	3	E		30		
	URUM	15	0357E	0359	0406	S28	E30	5793	11	17.5	9D	SN			C		129	1.8	E
0354		15	0445	0520*	0625	N19	W66	5783	11	10.2	100	SF	M 1.7				48		FK
	LEAR	15	0445	0520	0625	N19	W66	5783	11	10.2	100	SF			E		59		K
	LEAR	15	0445	0537	0625	N19	W66	5783	11	10.2	100	SF	M 1.7	3	E		36		F
0355		15	0626*	0706*	0740	N17	W70	5783	11	9.9	74	SF					52		EIK
	LEAR	15	0626	0729	0738	N19	W70	5783	11	9.9	72	SF		3	E		56		
	SVTO	15	0644	0706	0743	N17	W68	5783	11	10.1	59	SF			E		47		K
	SVTO	15	0644	0729	0743	N17	W68	5783	11	10.1	59	SF		3	E		26		
	HTPR	15	0705E		0735	N15	W76	5783	11	9.5	30D	SF			C	0729	80		EI
0356	LEAR	15	0728	0729	0736	N12	W81	5781	11	9.2	8	SF		3	E		25		
0357		15	06382	0656*	0815	N11	W28	5786	11	13.2	97	2B	X 3.2				559	6.4	EFKU
	SVTO	15	0638	0705	0920	N11	W26	5786	11	13.3	162	3B	X 3.2	3	E		648		
	LEAR	15	0640	0656	0821	N12	W28	5786	11	13.2	101	2B		3	E		506		UF
	LEAR	15	0640	0702	0821	N12	W28	5786	11	13.2	101	2F			E		530		K
	PURP	15	0655E	0655U	0738	N12	W27	5786	11	13.2	43D	2B			C	0655	755	8.7	
	HTPR	15	0705E		0807	N12	W32	5786	11	12.9	62D	2B			C	0707	700	7.8	EU
	URUM	15	0712E	0712U	0745	N11	W27	5786	11	13.3	33D	2B			C		563	6.6	F
	BUCA	15	0730E	0732	0900D	N11	W28	5786	11	13.2	90D	1N			P	0732	215	2.5	E

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0358	SVTO	15	0706	0708	0710	S23	E14	5788	11	16.4	4	SF		3	E		16		
0359	HTPR	15	0709	0715	0721	N23	W49	5784	11	11.5	12	SF			C	0715	60	1.0	E
0360	LEAR	15	0823	0830	0913	N10	W27	5786	11	13.3	50	SF		3	E		45		
0361		15	08511	08512	0900	N16	W74	5783	11	9.7	9	SF					18		E
	SVTO	15	0851	0851	0859	N16	W71	5783	11	10.0	8	SF		3	E		15		
	HTPR	15	0852	0853	0900	N17	W76	5783	11	9.6	8	SF			C	0853	20		E
0362		15	09205	0924*	0953	N11	W28	5786	11	13.3	33	SN					87	1.4	E
	HTPR	15	0920		0929D	N11	W29	5786	11	13.2	9D	SN			C	0925	100	1.0	E
	LEAR	15	0923	0924	0933	N11	W27	5786	11	13.3	10	SF		3	E		37		
	SVTO	15	0923	0925	0945	N11	W27	5786	11	13.3	22	SN		3	E		41		
	KANZ	15	0925	0925	0958	N12	W27	5786	11	13.3	33	SN			V				
	HTPR	15	0932E	0943	1015	N11	W30	5786	11	13.1	43D	1N			C	0943	170	1.9	E
0363		15	10371	10382	1044	N18	W66	5783	11	10.4	7	SF					19		
	HTPR	15	1035E	1040	1055D	N19	W66	5783	11	10.4	20D	SF			C				
	SVTO	15	1037	1038	1045	N17	W65	5783	11	10.5	8	SF		3	E		19		
	KANZ	15	1038	1038	1042	N19	W66	5783	11	10.4	4	SF			V				
0364		15	11021	11052	1112	N18	W78	5783	11	9.5	10	1N							E
	HTPR	15	1102	1105	1115	N18	W80	5783	11	9.4	13	1B			C				E
	KANZ	15	1103	1107	1110	N17	W77	5783	11	9.6	7	SF			V				
0365		15	11432	11444	1223	N10	W28	5786	11	13.4	40	SN					85	1.7	E
	HTPR	15	1143	1148	1230	N11	W29	5786	11	13.3	47	SN			C	1148	150	1.7	E
	SVTO	15	1144	1144	1224	N10	W28	5786	11	13.4	40	SF		3	E		20		
	KANZ	15	1145	1145	1216	N10	W27	5786	11	13.5	31	SN			V				
0366		15	12111	1212*	1231	N17	W72	5783	11	10.0	20	SF					14		
	HTPR	15	1211	1223	1245	N18	W76	5783	11	9.7	34	SF			C				
	KANZ	15	1212	1212	1230	N18	W71	5783	11	10.1	18	SF			V				
	SVTO	15	1212	1213	1217	N16	W69	5783	11	10.3	5	SF		3	E		14		
0367		15	12241	12252	1248	S23	E26	5793	11	17.5	24	SB					50	0.7	E
	ISTA	15	1224	1225	1236	S26	E28	5793	11	17.7	12	SB			V				E
	HTPR	15	1225	1227	1300	S20	E23	5793	11	17.3	35	SB			C	1227	50	0.7	E
0368		15	12268	1226*	1244	S21	E08	5788	11	16.1	18	SF					14		F
	KANZ	15	1226	1226	1237	S20	E10	5788	11	16.3	11	SF			V				
	RAMY	15	1234	1240	1252	S22	E07	5788	11	16.1	18	SF		3	E		14		F
0369		15	12472	1249	1256	N12	W28	5786	11	13.4	9	SF					17		F
	RAMY	15	1247	1249	1256	N12	W29	5786	11	13.3	9	SF		3	E		17		F
	KANZ	15	1249	1249	1257	N11	W28	5786	11	13.4	8	SF			V				
0370	HTPR	15	1335	1340	1355	S20	E23	5788	11	17.3	20	SN			C	1340	50	0.6	
0371	KANZ	15	1351	1351	1359	N16	W23	5786	11	13.8	8	SF			V				
0372	HTPR	15	1402	1405	1410	S17	E10	5790B	11	16.3	8	SN			C	1405	50	0.6	
0373	HTPR	15	1410	1416	1430D	S22	E18	5788	11	17.0	20D	SN			C	1416	80	1.0	
0374		15	1455	1455	1514	N18	W71	5783	11	10.2	19	SF					24		
	RAMY	15	1445E	1449U	1533D	N18	W73	5783	11	10.0	48D	SF		2	E		16		
	HOLL	15	1455	1455	1514	N17	W69	5783	11	10.4	19	SF		2	E		32		
0375	HOLL	15	1526	1529	1534	N11	W31	5786	11	13.3	8	SF		3	E		11		
0376	HOLL	15	1601	1609	1616	S23	E10	5788	11	16.4	15	SF		3	E		22		
0377		15	1604*	1625*	1704	N18	W70	5783	11	10.3	60	SF					64		F
	HOLL	15	1604	1625	1704	N19	W67	5783	11	10.5	60	SF		3	E		78		F
	RAMY	15	1654	1654	1703	N17	W74	5783	11	10.1	9	SF		3	E		49		
0378	HOLL	15	1720	1731	1739	N18	W69	5783	11	10.5	19	SF		3	E		51		

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0379	RAMY	15	1751	1753	1803	N21	W54	5784	11	11.6	12	SF		3	E		20		F
0380		15	17479	1749*	1814	N18	W77	5783	11	9.9	27	SF					28		
	RAMY	15	1747	1749	1820	N17	W78	5783	11	9.8	33	SF		3	E		20		
	HOLL	15	1756	1802	1808	N19	W76	5783	11	9.9	12	SF		3	E		36		
0381	HOLL	15	1853	1855	1858	N12	W31	5786	11	13.4	5	SF		3	E		27		
0382	HOLL	15	1918	1935	2117	N16	W27	5786	11	13.7	119	2B	X 1.8	3	E		441		UZ
0383		15	1919	1919	1940	S28	E22	5793	11	17.5	21	SF					64		F
	HOLL	15	1919	1919U	1931	S29	E22	5793	11	17.5	12	SF		3	E		68		
	RAMY	15	1919	1919	1950	S27	E23	5793	11	17.6	31	SF		3	E		60		F
0384	RAMY	15	1920	1936	2114	N10	W34	5786	11	13.2	114	2B		3	E		353		FU
0385		15	2105	2105	2112	S26	E22	5793	11	17.6	7	SF					29		F
	HOLL	15	2105	2105	2109	S26	E22	5793	11	17.6	4	SF		3	E		14		
	RAMY	15	2107E	2107U	2115	S26	E21	5793	11	17.5	8D	SF		2	E		44		F
0386	HOLL	15	2215	2216	2225	N18	W75	5783	11	10.2	10	SF		3	E		36		
0387	HOLL	15	2222	2224	2229	N12	W33	5786	11	13.4	7	SF		3	E		30		
0388		15	2256	22587	2310	N12	W36	5786	11	13.2	14	SF					23		F
	LEAR	15	2256	2258	2302	N13	W35	5786	11	13.3	6	SF		3	E		23		F
	HOLL	15	2256	2305	2318	N12	W36	5786	11	13.2	22	SF		3	E		23		
0389	LEAR	15	2331	2333	2339	S26	E20	5793	11	17.5	8	SF		3	E		12		F
0390	LEAR	15	2359	2406	2438	N13	W34	5786	11	13.4	39	SF		3	E		25		F
0391	LEAR	16	0007E	0007	0012	N19	W75	5783	11	10.3	5D	SF	C 4.7	3	E		35		
0392	LEAR	16	0049	0103	0114	N13	W36	5786	11	13.3	25	SF		3	E		40		F
0393	LEAR	16	0119	0120	0127	N11	W31	5786	11	13.7	8	SF	C 4.0	3	E		17		F
0394	URUM	16	0259E	0259U	0306	N18	W80	5783	11	10.0	7D	SF			C		32		D
0395	URUM	16	0416E	0416U	0420	S27	E17	5793	11	17.5	4D	1N			C		241	3.0	E
0396	URUM	16	0419	0421	0443	N17	W80	5783	11	10.1	24	1N			C		80		A
0397		16	0442	0525	0558	N14	W40	5786	11	13.2	76	1N					170	4.2	F
	URUM	16	0442	0525	0555	N13	W40	5786	11	13.2	73	1N			C		305	4.2	F
	LEAR	16	0525E		0600	N14	W40	5786	11	13.2	35D	SF		3	E		36		
0398		16	08154	08264	0845	N12	W40	5786	11	13.3	30	SF					112	1.4	E
	BUCA	16	0815	0830	0845	N10	W41	5786	11	13.3	30	SF			C	0830	75	1.0	E
	HTPR	16	0819	0826	0900D	N13	W40	5786	11	13.3	41D	SF			C	0835	150	1.8	E
0399	HTPR	16	0902		0911	S24	E33		11	18.9	9	SF			C	0905	30	0.4	DG
0400	HTPR	16	0920	0937	1000	S24	E33		11	18.9	40	SN			C	0937	95	1.3	L
0401	HTPR	16	0920	0948	1000	S23	E20	5793	11	17.9	40	SN			C	0948	30	0.4	DL
0402		16	10102	10123	1032	N12	W40	5786	11	13.4	22	SF					122	2.9	
	SVTO	16	1010	1014	1033	N11	W41	5786	11	13.3	23	SF		3	E		35		
	HTPR	16	1010	1015	1030	N13	W40	5786	11	13.4	20	1N			C	1015	210	2.9	
	KANZ	16	1012	1012	1033	N11	W39	5786	11	13.5	21	SF			V				
0403		16	10373	10394	1053	N15	W45	5786	11	13.0	16	SN					56	0.9	
	SVTO	16	1037	1039	1053	N14	W45	5786	11	13.0	16	SF		3	E		43		
	HTPR	16	1038	1040	1055	N16	W45	5786	11	13.0	17	SB			C	1040	70	0.9	
	KANZ	16	1040	1043	1051	N14	W45	5786	11	13.0	11	SF			V				

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0404		16	10566	10594	1120	S27	E15	5793	11	17.6	24	1N	C 5.6				179	3.9	F
	RAMY	16	1056	1059	1116	S27	E14	5793	11	17.5	20	SF		2	E		31		F
	SVTO	16	1100	1101	1125	S27	E14	5793	11	17.5	25	SN	C 5.6	3	E		45		
	HTPR	16	1100	1103	1125	S27	E15	5793	11	17.6	25	2B			C	1103	450	5.4	
	KANZ	16	1102	1102	1124	S28	E14	5793	11	17.5	22	SN			V				
	ATHN	16	1103E	1103U	1110	S26	E16	5793	11	17.7	7D	1N		2	V	1103	191	2.4	
0405	SVTO	16	1150	1158	1216	S08	E65	5795	11	21.4	26	SF		3	E		14		
0406		16	11533	11558	1211	S22	W00	5788	11	16.5	18	SF					36	0.7	D
	HTPR	16	1153	1157	1200	S21	E00	5788	11	16.5	7	SF			C	1157	60	0.7	D
	SVTO	16	1154	1155	1215	S21	W01	5788	11	16.4	21	SF		3	E		13		
	KANZ	16	1156	1203	1217	S23	W00	5788	11	16.5	21	SF			V				
0407		16	13089	1309*	1447	N11	W44	5786	11	13.2	99	2B	X 1.1				338	11.5	EFK
	RAMY	16	1308	1309	1457	N12	W46	5786	11	13.1	109	2B			E		332		K
	RAMY	16	1308	1323	1457	N12	W46	5786	11	13.1	109	2B	X 1.1	3	E		276		FE
	HTPR	16	1315	1325	1353D	N12	W44	5786	11	13.2	38D	2B			C	1325	850	11.5	
	KANZ	16	1316	1323	1429D	N11	W42	5786	11	13.4	73D	2N			V				
	SVTO	16	1317	1320U	1404D	N10	W44	5786	11	13.2	47D	1N		1	E		175		F
	HOLL	16	1357E	1358U	1427	N10	W42	5786	11	13.4	30D	SN		2	E		56		F
0408	RAMY	16	1633	1638	1653	N15	W49	5786	11	13.0	20	SF		3	E		13		
0409	RAMY	16	1659	1715	1722	N12	W48	5786	11	13.1	23	SF		3	E		21		
0410	RAMY	16	1712	1712	1716	N18	W89	5783	11	9.9	4	SF		3	E		13		
0411	HOLL	16	1734	1735	1742	S20	W13	5788	11	15.7	8	SF		3	E		23		H
0412		16	1758*	1808*	1820	N15	W49	5786	11	13.0	22	SF					23		
	HOLL	16	1758	1808	1816	N15	W48	5786	11	13.1	18	SF		3	E		33		
	RAMY	16	1803	1808	1817	N15	W49	5786	11	13.0	14	SF		3	E		17		
	HOLL	16	1820	1820	1826	N14	W49	5786	11	13.1	6	SF		3	E		20		
0413	RAMY	16	1902	1915	1925	S09	E62	5795	11	21.4	23	SF		3	E		26		
0414		16	1939	19395	2002	N29	E64	5791	11	21.8	23	1F					92		F
	RAMY	16	1939	1939	1956	N29	E63	5791	11	21.7	17	SF		3	E		14		F
	HOLL	16	1939E	1944	2007	N29	E64	5791	11	21.8	28D	1F		3	E		170		
0415	HOLL	16	1949	1953	1955	N19	W73	5784	11	11.2	6	SF		3	E		30		
0416	RAMY	16	2012	2012	2020	S09	E62	5795	11	21.5	8	SF		3	E		21		F
0417	HOLL	16	2056	2056	2103	N12	W48	5786	11	13.2	7	SF	C 2.5	3	E		14		
0418		16	2234*	2238*	2309	S30	E08	5793	11	17.6	35	1F	M 1.1				125		FK
	LEAR	16	2234	2238	2313	S31	E08	5793	11	17.6	39	1F	M 1.1	3	E		222		F
	LEAR	16	2234	2253	2313	S31	E08	5793	11	17.6	39	SF			E		79		K
	HOLL	16	2248E	2248U	2312	S30	E08	5793	11	17.6	24D	1F		3	E		161		
	PALE	16	2253	2253	2259	S28	E06	5793	11	17.4	6	SF		3	E		38		F
0419	LEAR	17	0359	0400	0404	N12	W53	5786	11	13.2	5	SF		3	E		15		
0420		17	04253	04284	0449	S26	W15	5788	11	16.0	24	SN	C 3.7				123	1.9	DE
	PEKG	17	0425	0430	0500	S27	W15	5788	11	16.0	35	1B			P	0430	231	2.8	E
	LEAR	17	0426	0428	0446	S24	W15	5788	11	16.0	20	SF	C 3.7	3	E		58		
	URUM	17	0428	0432	0440	S26	W14	5788	11	16.1	12	SF			C		80	1.0	D
0421	LEAR	17	0442	0442	0445	N21	W73	5784	11	11.6	3	SF		3	E		11		
0422	SVTO	17	0650	0717	0721	S28	E01	5793	11	17.4	31	SF		3	E		23		
0423		17	0705	0711	0715	N13	W56	5786	11	13.1	10	SF					53	0.9	D
	YUNN	17	0704E	0709U	0715	N13	W57	5786	11	13.0	11D	SN			P	0709	64	1.2	
	LEAR	17	0705	0711	0719	N13	W55	5786	11	13.1	14	SF		3	E		62		
	URUM	17	0710E	0710U	0712	N12	W56	5786	11	13.1	2D	SF			C		32	0.6	D

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0424		17	07552	0755*	0824	S28	E02	5793	11	17.5	29	1B	M 1.6				260	3.5	FHK
	YUNN	17	0753E	0755	0822	S28	E02	5793	11	17.5	29D	1B			P		321	3.8	
	LEAR	17	0755	0756	0833	S28	E04	5793	11	17.6	38	1N		3	E		233		FH
	ATHN	17	0755	0800	0803	S27	W03	5793	11	17.1	8	1N		3	V	0800	191	2.3	
	SVTO	17	0755	0800	0839	S29	E00	5793	11	17.3	44	2B	M 1.6	3	E		387		FH
	LEAR	17	0755	0826	0833	S28	E04	5793	11	17.6	38	SN			E		22		K
	PURP	17	0757	0800	0810D	S26	E04	5793	11	17.6	13D	1B			C	0800	265	3.1	
	URUM	17	0758E	0758U	0815	S28	E03	5793	11	17.6	17D	1B			C		402	4.8	F
0425	LEAR	17	0915	0916	0922	N13	W56	5786	11	13.2	7	SF	C 5.7	3	E		50		
0426	SVTO	17	1013	1016	1025	S30	E04	5793	11	17.7	12	SF		3	E		17		
0427	RAMY	17	1116	1140	1203	N13	E69	5796	11	22.7	47	SF		2	E		26		
0428		17	11231	1125	1132	N11	W56	5786	11	13.3	9	SF					17		F
	RAMY	17	1123	1125	1131	N12	W56	5786	11	13.2	8	SF		2	E		16		F
	SVTO	17	1124	1125	1132	N10	W57	5786	11	13.2	8	SF		3	E		18		
0429	RAMY	17	1217	1220	1236	S25	W21	5788	11	15.9	19	SF		3	E		11		H
0430		17	12376	12387	1252	S28	W00	5793	11	17.5	15	SF	M 1.5				25		F
	SVTO	17	1237	1245	1258	S28	E00	5793	11	17.5	21	SF	M 1.5	3	E		36		
	RAMY	17	1238	1238	1242	S28	W01	5793	11	17.4	4	SF		3	E		12		
	RAMY	17	1243	1245	1257	S27	E00	5793	11	17.5	14	SF		3	E		27		F
0431	SVTO	17	1323	1323	1330	N10	W60	5786	11	13.0	7	SN		3	E		55		
		17	1340		1344	No Flare Patrol													
0432	RAMY	17	1540	1540	1544	N10	E66	5796	11	22.6	4	SF		3	E		22		
0433		17	15551	15564	1612	S08	E52	5795	11	21.6	17	SF					23		
	HOLL	17	1555	1600	1613	S08	E50	5795	11	21.4	18	SF		3	E		24		
	RAMY	17	1556	1556	1612	S09	E53	5795	11	21.6	16	SF		3	E		22		
0434		17	2223	2224	2227	N16	W64	5786	11	13.1	4	SF					15		
	PALE	17	2223	2224	2227	N15	W64	5786	11	13.1	4	SF		3	E		15		
	LEAR	17	2223	2224	2227	N16	W65	5786	11	13.0	4	SF		3	E		15		
0435	LEAR	18	0148	0148	0154	N12	W66	5786	11	13.1	6	SF	C 5.1	3	E		30		
0436		18	02362	02394	0257	S28	W08	5793	11	17.5	21	SN	C 9.0				58		EF
	LEAR	18	0236	0239	0300	S27	W07	5793	11	17.6	24	SF	C 9.0	3	E		62		F
	MITK	18	0236	0243	0258	S28	W07	5793	11	17.6	22	SB			C	0243			E
	PALE	18	0238	0239	0254	S29	W09	5793	11	17.4	16	SF		3	E		55		F
		18	1026		1117	No Flare Patrol													
0437		18	1211	1227*	1335	S28	W15	5793	11	17.3	84	1F					139		FK
	RAMY	18	1211	1227	1335	S28	W15	5793	11	17.3	84	1F			E		143		K
	RAMY	18	1211	1303	1335	S28	W15	5793	11	17.3	84	1F		3	E		135		F
0438		18	1900	1622*	2015	S30	W14	5793	11	17.7	75	2N	M 7.3				260		FKTUY
	HOLL	18	1602E	1622	2040	S31	W14	5793	11	17.6	278D	3B			E		413		KT
	HOLL	18	1602E	1639	2040	S31	W14	5793	11	17.6	278D	3B	M 7.3	3	E				UY
	PALE	18	1703E	1709U	1912	S29	W13	5793	11	17.7	129D	2F		2	E		304		UY
	RAMY	18	1900	1922	2027	S31	W17	5793	11	17.4	87	SF		3	E		64		F
0439		18	2008*	2008*	2056	N20	E54	5799	11	23.0	48	SF					20		
	RAMY	18	2008	2008	2058D	N20	E53	5799	11	22.9	50D	SF		3	E		11		
	HOLL	18	2047	2049	2056	N21	E55	5799	11	23.1	9	SF		3	E		29		
0440		18	23382	23413	2357	S24	W21	5793	11	17.4	19	SF					20		EF
	MITK	18	2338	2341	2405	S24	W20	5793	11	17.4	27	SF			C	2341			E
	PALE	18	2339	2342	2357	S25	W21	5793	11	17.3	18	SF		3	E		27		F
	LEAR	18	2340	2344	2349	S24	W21	5793	11	17.4	9	SF		3	E		14		
0441	LEAR	19	0027	0027	0037	S28	W24	5793	11	17.1	10	SF		3	E		12		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	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0442	LEAR	19	0252	0253	0256	N15	W68	5786	11	14.0	4	SF		3	E		19		
0443	LEAR	19	0537	0538	0555	N19	E48	5799	11	22.9	18	SF		3	E		11		
0444	LEAR	19	0617	0617	0633	S09	E31	5795	11	21.6	16	SF		3	E		12		F
0445		19	06183	06223	0640	S25	W25	5793	11	17.3	22	1B	X 1.1				308	4.1	EF
	MITK	19	0618	0622	0642	S23	W24	5793	11	17.4	24	2B			C	0622	530	6.7	
	LEAR	19	0619	0622	0642	S24	W25	5793	11	17.3	23	2B	X 1.1	3	E		258		F
	URUM	19	0621	0625	0638	S25	W25	5793	11	17.3	17	1N			C		402	5.2	E
	PEKG	19	0625E	0625U	0640	S26	W28	5793	11	17.1	15D	1B			V				E
	PURP	19	0633E	0635U	0638	S26	W24	5793	11	17.4	5D	SN			P	0635	40	0.5	
0446		19	06491	0650*	0721	S25	W25	5793	11	17.3	32	1N					27		F
	ISTA	19	0649	0650	0702	S24	W26	5793	11	17.3	13	1N			V				F
	LEAR	19	0650	0723	0740	S26	W24	5793	11	17.4	50	SF		3	E		27		
0447	LEAR	19	0720	0721	0723	N13	W83	5786	11	13.0	3	SF		3	E		21		
0448		19	08552	08564	0910	S26	W32	5793	11	16.9	15	SN					82	2.0	DEF
	ISTA	19	0855	0858	0907	S29	W33	5793	11	16.8	12	1B			V				D
	BUCA	19	0855	0900	0918	S26	W30	5793	11	17.0	23	SN			C	0900	150	2.0	E
	LEAR	19	0856	0856	0907	S25	W32	5793	11	16.9	11	SF		3	E		14		F
	KANZ	19	0857	0857	0909	S24	W33	5793	11	16.8	12	SF			V				
0449	BUCA	19	0909	0916	0948	N18	E47	5799	11	23.0	39	SF			C	0916	32	0.4	D
0450		19	0913*	0917*	0943	N22	E38	5799	11	22.3	30	SN							FG
	KANZ	19	0913	0917	0920	N23	E39	5799	11	22.4	7	SF			V				
	ISTA	19	0916	0922	0945	N21	E39	5799	11	22.4	29	SB			V				GF
	KANZ	19	0927	0943	1003	N22	E37	5799	11	22.2	36	SF			V				
0451	BUCA	19	0928	0942	0958	S25	W30	5793	11	17.1	30	SN			C	0942	86	1.2	E
0452	KANZ	19	1043	1046	1051D	N19	E48	5799	11	23.1	8D	SF			V				
		19	1103		1108	No Flare Patrol													
0453	RAMY	19	1123	1132	1154	S24	W27	5793	11	17.4	31	SB	M 1.2	3	E		58		
0454	RAMY	19	1232	1238	1306	S24	W27	5793	11	17.4	34	SF	C 5.7	3	E		45		F
0455	RAMY	19	1346	1348	1402	N10	E42	5796	11	22.7	16	SF		3	E		11		
0456	RAMY	19	1516	1518	1526	S25	W29	5793	11	17.4	10	SF		3	E		12		F
		19	1548		1549	No Flare Patrol													
0457		19	1606	1610	1659	S26	W29	5793	11	17.4	53	SN	M 1.2				69		EFU
	RAMY	19	1606	1610	1659	S25	W29	5793	11	17.4	53	SN	M 1.2	2	E		98		FE
	HOLL	19	1614E	1618U	1636D	S26	W29	5793	11	17.4	22D	SN		2	E		40		UF
		19	2040		2151	No Flare Patrol													
0458		20	00332	0037*	0101	S27	W33	5793	11	17.4	28	SN	M 2.1				53	0.6	EF
	MITK	20	0033	0037	0101	S27	W33	5793	11	17.4	28	SB			C	0037			E
	LEAR	20	0035	0038	0101	S25	W34	5793	11	17.4	26	SN	M 2.1	4	E		66		FE
	PURP	20	0047E	0048	0100	S29	W33	5793	11	17.4	13D	SF			P	0048	40	0.6	
0459	LEAR	20	0151	0153	0201	N20	E38	5799	11	23.0	10	SF		3	E		12		
0460	YUNN	20	0221E	0221U	0222D	S08	E84	5803	11	26.4	1D	SB			P	0221	32		
0461		20	03501	04133	0433	S25	W38	5793	11	17.2	43	SN	M 1.3				120	2.2	EF
	MITK	20	0350	0413	0438	S25	W37	5793	11	17.3	48	SN			C	0413			E
	LEAR	20	0350	0413	0438	S25	W38	5793	11	17.2	48	SF	M 1.3	3	E		93		F
	PEKG	20	0351	0416	0422	S24	W39	5793	11	17.1	31	1B			P	0416	147	2.2	E
0462	LEAR	20	0558	0601	0634	S28	W39	5793	11	17.2	36	SF	C 3.1	3	E		17		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0463		20	0838*	0843*	0903	S28	W40	5793	11	17.2	25	SF					63	1.4	DF
	BUCA	20	0838	0900	0906	S29	W41	5793	11	17.1	28	1N			C	0900	129	2.2	D
	KANZ	20	0839	0843	0846	S28	W39	5793	11	17.3	7	SF			C				
	KAND	20	0855	0900	0906	S29	W40	5793	11	17.2	11	SN			P	0900	42	0.6	D
	KANZ	20	0857	0901	0909	S28	W39	5793	11	17.3	12	SF			V				
	LEAR	20	0858	0900	0908	S28	W40	5793	11	17.2	10	SF		3	E		19		F
0464		20	0917*	09383	0948	S27	W39	5793	11	17.3	31	SF					38	0.9	EF
	KANZ	20	0917	0938	0945	S26	W38	5793	11	17.4	28	SF			V				
	KAND	20	0928	0941	0950	S30	W38	5793	11	17.4	22	SF			P	0941	62	0.9	E
	LEAR	20	0937	0940	0948	S26	W40	5793	11	17.3	11	SF		3	E		13		F
0465	KANZ	20	1058	1058	1110	S24	W41	5793	11	17.3	12	SF			V				
0466		20	1417	1425	1457	S28	W42	5793	11	17.3	40	1N M	3.9				106		F
	KANZ	20	1414E	1422U	1422D	S28	W41	5793	11	17.4	8D	SN			V				
	RAMY	20	1417	1425	1457	S28	W43	5793	11	17.2	40	1N M	3.9	3	E		106		F
0467	KANZ	20	1418	1418	1422D	N21	E34	5799	11	23.2	4D	SF			V				
0468	RAMY	20	1545	1546	1559	N10	E27	5796	11	22.7	14	SF		3	E		17		F
0469	RAMY	20	1553	1555	1605	N22	E33	5799	11	23.2	12	SF		3	E		15		F
0470	HOLL	20	2125	2128	2201D	S27	W43	5793	11	17.5	36D	2B X	1.0	3	E		270		F
		20	2154		2159	No Flare Patrol													
0471	HOLL	20	2255	2300	2311	S23	W46	5793	11	17.4	16	SF		3	E		15		
0472		21	0453*	0457*	0510	S23	W50	5793	11	17.3	17	SF C	2.2				12		F
	LEAR	21	0453	0457	0504	S23	W50	5793	11	17.3	11	SF C	2.2	3	E		10		F
	LEAR	21	0508	0509	0517	S23	W50	5793	11	17.4	9	SF		4	E		15		
0473	LEAR	21	0527	0529	0535	N23	E66	5800	11	26.3	8	SF C	2.8	4	E		28		F
0474		21	07273	07365	0759	S25	W52	5793	11	17.3	32	1N C	6.5				141	3.5	EF
	YUNN	21	0725E	0738U	0753D	S24	W53	5793	11	17.2	28D	2N			P	0738	289	5.6	
	LEAR	21	0727	0736	0805	S23	W52	5793	11	17.3	38	SN C	6.5	4	E		92		F
	PURP	21	0730	0740	0759D	S27	W52	5793	11	17.3	29D	1B			C	0740	119	2.3	F
	URUM	21	0735E	0741	0753	S24	W51	5793	11	17.4	18D	SF			C		96	1.8	E
	SVTO	21	0737E	0738U	0801D	S26	W50	5793	11	17.4	24D	SF		1	E		34		F
	BUCA	21	0740E		0743D	S24	W54	5793	11	17.1	3D	1N			P	0743	215	4.2	E
0475		21	09054	0912	0931	S29	W52	5793	11	17.3	26	1N M	1.5				167	4.3	BEF
	ATHN	21	0905	0912	0922	S32	W55	5793	11	17.0	17	1N		2	V	0912	143	3.4	
	LEAR	21	0908	0912	0936	S27	W51	5793	11	17.4	28	1F M	1.5	3	E		188		F
	SVTO	21	0909	0914U	0942D	S29	W51	5793	11	17.4	33D	1N		1	E		141		F
	KAND	21	0910E	0912	0927	S29	W51	5793	11	17.4	17D	SB			P	0912	104		E
	URUM	21	0913E	0913U	0930	S29	W53	5793	11	17.2	17D	2N			C		257	5.2	E
	KANZ	21	0928E		0942	S28	W51	5793	11	17.4	14D	SN			V				B
0476	KANZ	21	1045	1049	1112	N18	E19	5799	11	22.9	27	SF			V				
0477	KANZ	21	1103	1112	1132	N21	E22	5799	11	23.1	29	SF			V				
0478	KANZ	21	1253	1257	1301	S26	W50	5793	11	17.6	8	SF			V				
0479		21	13322	1336*	1429	S26	W52	5793	11	17.5	57	2B X	4.0		.		242		FK
	RAMY	21	1332	1336	1431	S26	W53	5793	11	17.4	59	1B			E		184		K
	RAMY	21	1332	1346	1431	S26	W53	5793	11	17.4	59	2B X	4.0	3	E		286		
	SVTO	21	1333E	1345	1424	S26	W54	5793	11	17.4	51D	2B X	4.0	1	E		255		F
	KANZ	21	1334	1349	1420D	S25	W50	5793	11	17.7	46D	2N			V				
0480	RAMY	21	1516	1518	1543	N23	E61	5800	11	26.3	27	SF C	3.4	3	E		35		
0481	RAMY	21	1556	1557	1609	S24	W56	5793	11	17.3	13	SF		3	E		25		
0482	RAMY	21	1637	1714	1722	S24	W56	5793	11	17.4	45	SF C	2.8	3	E		17		F

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0483		21	1840	1840	1850	S26	W54	5793	11	17.6	10	SF	C 2.6				18		
	HOLL	21	1840	1840	1850	S26	W54	5793	11	17.6	10	SF	C 2.6	3	E		17		
	RAMY	21	1840	1840	1850	S26	W54	5793	11	17.6	10	SF	C 2.6	3	E		18		
		21	2014		2016	No Flare Patrol													
0484	HOLL	21	2134	2138	2147	N21	E16	5799	11	23.1	13	SF		3	E		38		F
0485	HOLL	21	2152	2156	2202	N22	E17	5799	11	23.2	10	SF		3	E		12		
0486		22	0247	0305	0306	S25	W63	5793	11	17.2	19	SF					64		DF
	LEAR	22	0247	0305	0310	S23	W63	5793	11	17.3	23	SF		3	E		75		F
	PURP	22	0251E	0258U	0301	S27	W63	5793	11	17.2	10D	SF			P	0258	53		D
0487		22	03031	0308*	0339	N21	E12	5799	11	23.0	36	SN	C 5.5				85	1.8	F
	LEAR	22	0303	0308	0323	N21	E14	5799	11	23.2	20	SN	C 5.5	3	E		59		F
	MITK	22	0304	0310	0355	N22	E13	5799	11	23.1	51	SB			C	0310			
	YUNN	22	0305E	0305U	0323D	N22	E13	5799	11	23.1	18D	SN			P	0305	161	1.8	
	PALE	22	0312E	0320	0333D	N20	E09	5799	11	22.8	21D	SF		3	E		35		F
0488	PURP	22	0603	0615	0656	S09	E70	5805	11	27.5	53	SN			C	0615	53		
0489	YUNN	22	0629E	0633	0640	S14	E68	5805	11	27.4	11D	1N			P		161		
0490	YUNN	22	0808E	0810U	0816	N23	E12	5799	11	23.3	8D	SF			P	0810	48	0.5	
0491		22	08343	08377	0906	S24	W65	5793	11	17.3	32	1N	M 2.0				172	6.7	DFH
	LEAR	22	0834	0837	0912	S23	W67	5793	11	17.2	38	1B	M 2.0	3	E		238		H
	SVTO	22	0835	0844	0901D	S25	W66	5793	11	17.2	26D	1N		2	E		178		FH
	URUM	22	0837	0839	0900	S23	W65	5793	11	17.3	23	SF			C		48		D
	ATHN	22	0844E	0844U	0853D	S27	W62	5793	11	17.5	9D	2B		2	V	0844	223	6.7	
0492	LEAR	22	0920	0920	0929	S28	W64	5793	11	17.4	9	SF	C 8.9	3	E		51		
		22	1027		1047	No Flare Patrol													
		22	1251		1319	No Flare Patrol													
0493	RAMY	22	1320E	1335U	1349	S23	W67	5793	11	17.4	29D	SN	M 3.8	2	E		85		EF
0494	RAMY	22	1322	1327U	1335D	N26	E50	5800	11	26.4	13D	SF		3	E		47		F
		22	1341		1346	No Flare Patrol													
0495	RAMY	22	1440E	1440U	1445	N26	E51	5800	11	26.6	5D	SF		2	E		15		
		22	1553		1608	No Flare Patrol													
0496	HOLL	22	1614	1622	1630	S15	E62	5805	11	27.4	16	SF		3	E		36		
0497	HOLL	22	1636	1638	1723	N27	E51	5800	11	26.7	47	SF		3	E		40		
0498		22	1844	1845	1900	N21	E04	5799	11	23.1	16	SF					20		F
	HOLL	22	1844	1845	1900	N21	E04	5799	11	23.1	16	SF		3	E		24		F
	RAMY	22	1845E	1846U	1854D	N21	E03	5799	11	23.0	9D	SF		2	E		16		
0499	PALE	22	1849	1849	1853	N27	E48	5800	11	26.5	4	SF		3	E		19		
0500	HOLL	22	1937	1940	1955	N19	E00	5799	11	22.8	18	SF		3	E		23		
0501	HOLL	22	2048	2101	2125	S07	E40	5803	11	25.9	37	SF		3	E		28		
0502	HOLL	22	2123	2130	2149	N19	E00	5799	11	22.9	26	SF		3	E		85		F
0503	HOLL	22	2232	2243	2312D	N26	E45	5800	11	26.4	40D	SF	C 3.2	3	E		83		E
0504	PALE	23	0058	0059	0106	N29	E46	5800	11	26.6	8	SF		3	E		17		F
0505	PALE	23	0131	0132	0136	N21	W01	5799	11	23.0	5	SF	C 3.8	3	E		34		

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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
0506		23	05109	05166	0544	N19	W06	5799	11	22.7	34	SN					103	1.4	EF
	LEAR	23	0510	0517U	0530D	N20	W04	5799	11	22.9	20D	SF		3	E		49		F
	PEKG	23	0511	0516	0548	N19	W07	5799	11	22.7	37	SB			P	0516	168	1.8	E
	PURP	23	0519	0522	0540	N19	W06	5799	11	22.8	21	SN			C	0522	93	1.0	
0507	PEKG	23	0613E	0613	0638	N13	W08	5796	11	22.6	25D	SB			P	0617	42	0.4	D
0508	PEKG	23	0617E	0617	0644	N23	E44	5800	11	26.6	27D	SB			P	0617	63	0.9	E
0509	PEKG	23	0638E	0638	0638D	N20	W03	5799	11	23.0	27D	1B			P	0638	273	3.0	E
0510	HTPR	23	0839	0842	0855	N22	W04	5799	11	23.0	16	SF			C	0842	80	0.8	D
0511		23	0958	1005	1015	N26	E40	5800	11	26.5	17	SF					100	2.0	
	SVTO	23	0953E	1019U	1037D	N27	E40	5800	11	26.5	44D	SF		2	E		49		
	HTPR	23	0958	1005	1015	N24	E40	5800	11	26.5	17	SF			C	1005	150	2.0	
0512	HTPR	23	1006	1008	1030	N13	W11	5796	11	22.6	24	SF			C	1008	60	0.6	D
0513		23	10071	10083	1025	N20	W08	5799	11	22.8	18	SF	C 3.6				92	1.6	
	SVTO	23	1007	1008	1036D	N20	W09	5799	11	22.7	29D	SF	C 3.6	2	E		34		
	KANZ	23	1008	1008	1025	N20	W07	5799	11	22.9	17	SF			V				
	HTPR	23	1008	1011	1042D	N20	W07	5799	11	22.9	34D	SN			C	1011	150	1.6	
0514	KANZ	23	1240	1244	1248	N18	W08	5799	11	22.9	8	SF			V				
0515		23	1256	1304	1308	S22	W82	5793	11	17.2	12	1N							A
	KANZ	23	1256	1304	1308	S22	W78	5793	11	17.5	12	SF			V				
	HTPR	23	1303E		1304D	S23	W85	5793	11	17.0	1D	1N			C				A
0516		23	1300	1304	1334	N20	W10	5799	11	22.8	34	SN					110	1.2	D
	KANZ	23	1300	1304	1324	N19	W12	5799	11	22.6	24	SF			V				
	HTPR	23	1303E		1343	N20	W09	5799	11	22.8	40D	SN			C	1304	110	1.2	D
		23	1357		1400	No Flare Patrol													
		23	1412		1418	No Flare Patrol													
0517	HOLL	23	1646	1742	1754	N19	W13	5799	11	22.7	68	SF		3	E		50		F
0518	HOLL	23	1706	1715	1735	N27	E35	5800	11	26.4	29	SF	C 2.7	3	E		84		F
0519	HOLL	23	1836	1839	1847	N22	E35	5800	11	26.5	11	SF		3	E		16		
0520	HOLL	23	1923	1925	1938	N22	E35	5800	11	26.5	15	SF		3	E		25		
0521	HOLL	23	2004	2004	2010	S27	W07		11	23.3	6	SF		3	E		16		H
0522	PALE	23	2136	2138	2204	N19	W17	5799	11	22.6	28	SF		3	E		14		
0523		23	22073	22101	2250	S12	E46	5805	11	27.4	43	SF					49		
	HOLL	23	2207	2211	2325D	S14	E45	5805	11	27.3	78D	SF		3	E		68		
	PALE	23	2210	2210	2250	S11	E46	5805	11	27.4	40	SF		3	E		30		
0524		23	22221	2223	2238	N20	W14	5799	11	22.9	16	SF	C 2.3				29		F
	PALE	23	2222	2223	2245	N21	W13	5799	11	22.9	23	SF	C 2.3	3	E		30		F
	HOLL	23	2223	2223	2231	N20	W14	5799	11	22.9	8	SF		3	E		28		
0525	PALE	24	0040	0043	0049	N24	E31	5800	11	26.4	9	SF		3	E		17		F
0526	PALE	24	0140	0144	0203	N22	W17	5799	11	22.8	23	SF	C 3.9	3	E		17		
0527	PURP	24	0154E	0159	0215	S12	E40	5805	11	27.1	21D	1N			C	0159	199	2.8	
0528		24	01545	0156*	0219	N23	E31	5800	11	26.5	25	SF	C 4.4				48		FK
	LEAR	24	0154	0156	0216	N22	E31	5800	11	26.5	22	SF	C 4.4	4	E		45		F
	LEAR	24	0154	0212	0216	N22	E31	5800	11	26.5	22	SF			E		22		K
	PALE	24	0159	0212	0225	N24	E30	5800	11	26.4	26	SF		3	E		78		F
0529	LEAR	24	0557	0559	0602	N24	E27	5800	11	26.3	5	SF		4	E		25		

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0530		24	08126	08136	0832	N21	W30	5799	11	22.0	20	SF	C 2.0				114	1.8	EF
	YUNN	24	0812	0813	0840	N21	W30	5799	11	22.0	28	1N			P		241	3.0	
	LEAR	24	0815	0816	0826	N22	W29	5799	11	22.1	11	SF	C 2.0	3	E		23		F
	KANZ	24	0816	0819	0830	N20	W29	5799	11	22.1	14	SF			C				
	URUM	24	0817E	0818	0830	N22	W29	5799	11	22.1	13D	SF			C		64	0.8	E
	BUCA	24	0818	0819	0835	N20	W31	5799	11	22.0	17	SN			C	0819	129	1.6	E
0531	KANZ	24	1058	1058	1105	N28	E25	5800	11	26.4	7	SF			V				
0532		24	11561	12012	1219	S12	E12	5803	11	25.4	23	SF					37		F
	RAMY	24	1156	1203	1218	S12	E12	5803	11	25.4	22	SF		3	E		37		F
	KANZ	24	1157	1201	1220	S13	E13	5803	11	25.5	23	SF			V				
0533		24	12443	1247	1303	N29	E25	5800	11	26.5	19	SF					43		F
	RAMY	24	1244	1247	1301	N29	E25	5800	11	26.5	17	SF		3	E		43		F
	KANZ	24	1247	1247	1305	N29	E25	5800	11	26.5	18	SF			V				
0534		24	12513	12541	1306	N08	W26	5796	11	22.6	15	SF					13		FH
	KANZ	24	1251	1255	1309	N08	W25	5796	11	22.7	18	SF			V				
	RAMY	24	1254	1254	1304	N09	W26	5796	11	22.6	10	SF		3	E		13		FH
0535	RAMY	24	1453	1454	1506	S11	E14	5803	11	25.7	13	SF		3	E		13		
0536	RAMY	24	1521	1522	1532	N08	W27	5796	11	22.6	11	SF		3	E		14		
0537	RAMY	24	1616	1617	1623	N08	W29	5796	11	22.5	7	SF		3	E		11		
0538	RAMY	24	1629	1630	1638	N08	W29	5796	11	22.5	9	SF		3	E		13		
0539	RAMY	24	2010	2014	2022	N22	E73	5812B	11	30.4	12	SF		3	E		11		
0540	PALE	24	2242	2243	2257	N24	E73	5812B	11	30.6	15	SF	C 5.6	3	E		26		
0541		25	0225	02251	0231	N19	W28	5799	11	23.0	6	SN	C 2.2				36		
	LEAR	25	0225	0225	0231	N20	W27	5799	11	23.0	6	SF	C 2.2	3	E		41		
	PALE	25	0225	0226	0231	N18	W28	5799	11	23.0	6	SN		3	E		30		
0542	URUM	25	0411E	0411U	0415	N18	W29	5799	11	23.0	4D	SF			C		64	0.8	E
0543	LEAR	25	0507	0510	0525	N19	E72	5812B	11	30.7	18	SF	C 3.6	3	E		27		F
0544	LEAR	25	0510	0511	0516	N20	W30	5799	11	22.9	6	SF		3	E		32		F
0545	HTPR	25	0747E		0815	N25	E15	5800	11	26.5	28D	1F			C	0755	420	4.8	H
0546		25	08272	08311	0857	S15	W28	5802	11	23.2	30	SN					40	0.5	E
	HTPR	25	0827	0831	0900	S13	W30	5802	11	23.1	33	SN			C	0831	40	0.5	E
	KANZ	25	0829	0832	0854	S17	W26	5802	11	23.4	25	SF			C				
0547	HTPR	25	0925		0950	S05	E03	5808	11	25.6	25	SF			C	0932	110	1.1	E
0548	HTPR	25	1108	1110	1120	N20	E60	5806	11	30.0	12	SN			C	1110	100	2.0	
0549	HTPR	25	1115	1148	1345	N23	E14	5800	11	26.5	150	1N			C	1148	450	4.9	EH
0550	RAMY	25	1205	1219	1228	S05	E01	5808	11	25.6	23	SF		3	E		17		
0551	RAMY	25	1258	1258	1329	N24	E14	5800	11	26.6	31	SF		3	E		18		F
0552	HOLL	25	1814	1815	1823	S06	W03	5808	11	25.5	9	SF		3	E		21		F
0553		25	18475	18521	1915	N22	E55	5806	11	30.0	28	SF					21		F
	HOLL	25	1847	1853	1929	N20	E54	5806	11	29.9	42	SF		3	E		31		F
	PALE	25	1852	1852	1901	N24	E56	5806	11	30.1	9	SF		3	E		11		
0554		25	19141	1918	1941	S14	E00	5803	11	25.8	27	SF					40		F
	HOLL	25	1914	1918	1953	S14	W01	5803	11	25.7	39	SF		3	E		62		F
	PALE	25	1915	1918	1929	S13	E01	5803	11	25.9	14	SF		3	E		19		F

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0555		25	19351	1938	2014	S14	W34	5802	11	23.2	39	1F						101		F
	HOLL	25	1935	1938	2025	S14	W34	5802	11	23.2	50	1F			3	E		146		F
	PALE	25	1936	1938	2003	S15	W35	5802	11	23.2	27	SF			3	E		56		F
		25	2134		2155	No Flare Patrol														
0556		25	2255E	2332*	2632	N29	E07	5800	11	26.5	217D	2N	X	1.0				686	10.3	FHIJKUY
	PALE	25	2255E	2324U	2635	N30	E05	5800	11	26.3	220D	2N	X	1.0	3	E		337		UY
	MITK	25	2316E	2332	2701	N29	E08	5800	11	26.6	225D	3B				C	2332	1770	20.7	FHIJKU
	HOLL	25	2326E	2326U	2338D	N30	E05	5800	11	26.4	12D	2N			2	E		429		UF
	PURP	26	0045E	0046U	0152	N27	E08	5800	11	26.6	67D	1B				P	0046	411	4.7	
	YUNN	26	0121E	0123	0238	N29	E07	5800	11	26.6	77D	2N				P		482	5.6	
0557	PALE	25	2257E	2313U	2345	N43	E11	5804	11	26.9	48D	SF			3	E		23		F
0558		26	02202	02222	0235	N20	E47	5806	11	29.7	15	SN						40	1.0	F
	PURP	26	0220	0224	0240	N20	E49	5806	11	29.8	20	SN				C	0224	66	1.0	
	PALE	26	0222	0222	0230	N21	E45	5806	11	29.5	8	SF			3	E		14		F
0559	MITK	26	0432	0442	0457	N29	E03	5800	11	26.4	25	SN				C	0442			E
0560	MITK	26	0507	0512	0557	S05	W10	5808	11	25.5	50	1F				C	0512	220	2.3	EH
0561		26	0636*	0639*	0724	N26	E04	5800	11	26.6	48	1N						187	4.0	F
	YUNN	26	0636	0706	0742	N28	E03	5800	11	26.5	66	1N				C		321	3.7	
	LEAR	26	0638	0639	0656	N26	E04	5800	11	26.6	18	SF			3	E		29		F
	LEAR	26	0657	0707	0733	N26	E04	5800	11	26.6	36	SF			3	E		94		F
	PURP	26	0710E	0712U	0712D	N26	E03	5800	11	26.5	2D	1N				P	0712	304	4.4	
0562		26	0845	08462	0906	N18	E56	5812	11	30.6	21	1N	C	5.3				117		EF
	LEAR	26	0845	0846	0906	N18	E55	5812	11	30.5	21	1F	C	5.3	3	E		117		F
	KANZ	26	0845	0848	0907	N19	E57	5812	11	30.7	22	SN				C				E
0563	KANZ	26	1000	1004	1019	S22	E85	5809	12	2.9	19	SF				C				
0564	RAMY	26	1142	1201	1221	N23	W01	5800	11	26.4	39	SF			3	E		19		F
0565	RAMY	26	1223	1230	1234	N24	E01	5800	11	26.6	11	SF			3	E		12		F
0566	RAMY	26	1412	1415	1421	S18	E85	5809	12	3.1	9	SF			3	E		38		
0567	HOLL	26	1445	1453	1500	S05	W15	5808	11	25.5	15	SF			2	E		14		F
0568	RAMY	26	1533	1534	1551	N41	E04	5804	11	27.0	18	SN	C	3.4	3	E		92		
0569		26	16522	16543	1704	N21	E42	5806	11	29.9	12	SF						16		F
	HOLL	26	1652	1657	1704	N21	E42	5806	11	29.9	12	SF			3	E		22		F
	RAMY	26	1654	1654	1704	N21	E42	5806	11	29.9	10	SF			3	E		11		
0570		26	17498	1815*	2122	N25	W03	5800	11	26.5	213	2B	M	4.0				348		EFKTU
	RAMY	26	1749	1815	2122	N26	W02	5800	11	26.6	213	1N				E		168		KT
	RAMY	26	1749	1907	2122	N26	W02	5800	11	26.6	213	2B			3	E		390		FT
	HOLL	26	1756	1816	2240D	N25	W03	5800	11	26.5	284D	1N				E		215		KT
	HOLL	26	1756	1927	2240D	N25	W03	5800	11	26.5	284D	2B				E		497		KT
	HOLL	26	1756	1931	2240D	N25	W03	5800	11	26.5	284D	2B	M	4.0	3	E		538		UF
	PALE	26	1757	1859	2206D	N23	W07	5800	11	26.2	249D	2N			3	E		283		FET
0571	HOLL	26	1950	1952	1956	S04	W18	5808	11	25.5	6	SF			3	E		19		
0572		26	2001	20021	2012	N40	E00	5804	11	26.8	11	SF						28		
	RAMY	26	2001	2002	2011	N40	E02	5804	11	27.0	10	SF			3	E		31		
	PALE	26	2001	2003	2013	N41	W01	5804	11	26.7	12	SF			3	E		24		
0573	HOLL	26	2009	2009	2015	N22	W54	5799	11	22.7	6	SF			3	E		16		
0574		26	2150	2152	2240D	S16	E73	5809	12	2.4	50D	SF						52		
	HOLL	26	2148E	2201U	2240D	S18	E74	5809	12	2.5	52D	SF			2	E		80		
	PALE	26	2150	2152	2206D	S15	E72	5809	12	2.4	16D	SF			3	E		25		

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0575	LEAR	26	2230	2234	2239	N40	E01	5804	11	27.0	9	SF		3	E		20		F
		27	0105		0113	No Flare Patrol													
0576	YUNN	27	0130E	0130U	0132D	N26	E67	5810	12	2.3	2D	SN			P	0130	48		
0577	LEAR	27	0643	0645	0652	N43	W06	5804	11	26.8	9	SF		3	E		35		F
0578		27	08591	08593	0906	N28	W15	5800	11	26.2	7	SF					115	2.6	EF
	KANZ	27	0859	0859	0907D	N28	W15	5800	11	26.2	8D	SF			C				
	LEAR	27	0900	0901	0903	N28	W14	5800	11	26.3	3	SF		3	E		15		F
	BUCA	27	0900	0902	0909	N28	W16	5800	11	26.1	9	1N			C	0902	215	2.6	E
0579		27	10281	10292	1034	N18	W60	5799	11	22.9	6	SF					24		
	SVTO	27	1028	1031	1036	N17	W62	5799	11	22.7	8	SF		3	E		24		
	KANZ	27	1029	1029	1033	N19	W58	5799	11	23.0	4	SF			V				
0580		27	1117*	11311	1138	S13	W00	5805	11	27.5	21	SF					54		
	SVTO	27	1117	1132	1138	S12	W01	5805	11	27.4	21	SF		3	E		54		
	KANZ	27	1131	1131	1138	S14	W00	5805	11	27.5	7	SF			V				
0581		27	12001	12022	1211	S18	E70	5809	12	2.8	11	SF					10		
	KANZ	27	1200	1204	1205D	S18	E72	5809	12	3.0	5D	SF			C				
	RAMY	27	1201	1202	1211	S18	E69	5809	12	2.7	10	SF		3	E		10		
0582		27	13063	13081	1320	S19	E65	5809	12	2.5	14	SF	C 2.6				106		F
	RAMY	27	1306	1308	1323	S20	E67	5809	12	2.7	17	1F	C 2.6	3	E		130		F
	SVTO	27	1307E	1307U	1326D	S18	E60	5809	12	2.1	19D	SF		1	E		82		
	KANZ	27	1309	1309	1317	S20	E67	5809	12	2.7	8	SF			V				
0583		27	1317	1317	1322	N26	W16	5800	11	26.3	5	SF					11		
	RAMY	27	1317	1317	1321	N27	W16	5800	11	26.3	4	SF		3	E		11		
	KANZ	27	1317	1317	1324	N26	W15	5800	11	26.4	7	SF			V				
0584	RAMY	27	1357	1400	1410	S03	W30	5808	11	25.3	13	SF		3	E		21		F
0585	HOLL	27	1544E	1552U	1610	N20	W64	5799	11	22.8	26D	SF		2	E		37		
0586		27	1600	1618	1647	N26	W14	5800	11	26.6	47	SF					52		F
	RAMY	27	1600	1618	1647	N25	W13	5800	11	26.6	47	SF		3	E		52		F
	HOLL	27	1603E	1621U	1644D	N26	W14	5800	11	26.6	41D	SF		2	E		51		F
0587		27	17021	1706*	1821	N21	W63	5799	11	22.9	79	1N	M 1.1				135		FK
	RAMY	27	1702	1706	1817	N22	W64	5799	11	22.8	75	1N	M 1.1	2	E		170		F
	RAMY	27	1702	1737	1817	N22	W64	5799	11	22.8	75	1F			E		89		K
	HOLL	27	1703	1709	1835	N20	W62	5799	11	23.0	92	1N		3	E		141		F
	PALE	27	1703E	1710	1800	N20	W64	5799	11	22.8	57D	1B		3	E		153		F
	HOLL	27	1703	1737	1835	N20	W62	5799	11	23.0	92	1F			E		121		K
0588		27	17094	17132	1724	S13	W04	5805	11	27.4	15	SF					59		FH
	HOLL	27	1709	1713	1725	S14	W04	5805	11	27.4	16	SF		3	E		72		F
	PALE	27	1711E	1713	1724D	S12	W04	5805	11	27.4	13D	SF		3	E		48		FH
	RAMY	27	1713	1715	1724	S14	W04	5805	11	27.4	11	SF		3	E		58		F
0589	RAMY	27	1732	1732	1736	S15	E55	5809	12	1.9	4	SF		3	E		15		F
0590		27	2019	2020	2028	S04	W30	5808	11	25.6	9	SF	C 2.3				44		F
	PALE	27	2019	2020	2027	S05	W30	5808	11	25.6	8	SF	C 2.3	3	E		29		F
	HOLL	27	2019	2020	2030	S04	W31	5808	11	25.5	11	SF		3	E		58		
0591	HOLL	27	2028	2034	2042	S16	E53	5809	12	1.9	14	SF		3	E		27		
0592		27	20341	2037	2042	N20	W58	5799	11	23.4	8	SF	C 3.0				20		
	HOLL	27	2034	2037	2043	N21	W58	5799	11	23.4	9	SF	C 3.0	3	E		26		
	PALE	27	2035	2037	2040	N19	W59	5799	11	23.3	5	SF	C 3.0	3	E		14		
0593	HOLL	27	2113	2113	2118	S21	E61	5809	12	2.6	5	SF		3	E		13		
0594	HOLL	27	2211	2215	2231	N44	W10	5804	11	27.1	20	1F	C 2.7	3	E		112		F

Hα SOLAR FLARES

NOVEMBER 1989

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
0595	HOLL	27	2234	2234	2246	N20	E27	5806	11	30.0	12	SF			3	E		46		F
0596	HOLL	27	2234	2253	2306	S12	W65	5802	11	23.0	32	SF			3	E		16		
0597	HOLL	27	2237	2239	2302	N27	E56	5810	12	2.3	25	SF			3	E		39		
0598	HOLL	27	2301	2303	2311	S18	E59	5809	12	2.4	10	SF			3	E		26		
0599	LEAR	28	0105	0108	0127	S16	E54	5809	12	2.1	22	SF	C	3.6	3	E		59		F
0600	LEAR	28	0227	0227	0234	N22	W63	5799	11	23.3	7	SF			3	E		11		
0601	LEAR	28	0418	0421	0424	S18	E53	5809	12	2.2	6	SF			3	E		10		F
0602		28	07361	0737	0742	S14	W36	5803	11	25.6	6	SF						18		
	SVTO	28	0736	0737	0744	S14	W37	5803	11	25.5	8	SF			3	E		18		
	KANZ	28	0737	0737	0740	S13	W36	5803	11	25.6	3	SF				C				
0603	BUCA	28	0753	0802	0815	S18	W55	5802	11	24.1	22	SF				C	0802	43	0.8	D
0604	SVTO	28	0755	0802	0838	S16	E54	5809	12	2.4	43	SF			3	E		19		F
0605		28	08351	0836	0846	S07	W38	5808	11	25.5	11	SF						43	0.6	D
	BUCA	28	0835	0836	0845	S07	W38	5808	11	25.5	10	SF				C	0836	43	0.6	D
	KANZ	28	0836	0836	0847	S07	W37	5808	11	25.6	11	SF				C				
0606	HTPR	28	0855	0915	0945	S18	E57	5809	12	2.7	50	SF				C	0915	40	0.6	E
0607		28	10067	10203	1225	N26	W26	5800	11	26.4	139	1N	C	8.8				230	3.1	FU
	HTPR	28	1006	1020	1300	N26	W26	5800	11	26.4	174	1B				C	1020	260	3.1	
	SVTO	28	1007	1022	1148D	N26	W27	5800	11	26.3	101D	1N	C	8.8	3	E		199		UF
	KANZ	28	1013	1023	1150	N26	W25	5800	11	26.5	97	1F				V				
0608		28	11504	11552	1211	N16	E29	5812	11	30.7	21	1N						190	2.3	E
	HTPR	28	1150	1155	1215	N18	E30	5812	11	30.8	25	1N				C	1155	190	2.3	E
	KANZ	28	1154	1157	1207	N15	E28	5812	11	30.6	13	SF				V				
0609		28	13307	13391	1400	N16	E26	5812	11	30.5	30	SF						49	1.0	
	HTPR	28	1330	1340	1410	N18	E28	5812	11	30.7	40	SF				C	1340	80	1.0	
	KANZ	28	1335	1339	1343D	N15	E26	5812	11	30.5	8D	SF				V				
	SVTO	28	1337	1340	1349	N15	E25	5812	11	30.5	12	SF			3	E		18		
0610		28	13372	13397	1359	S18	E52	5809	12	2.5	22	SF						56	1.4	EF
	HTPR	28	1337	1344	1355	S18	E52	5809	12	2.5	18	SN				C	1344	90	1.4	E
	KANZ	28	1339	1339	1343D	S18	E56	5809	12	2.8	4D	SF				V				
	SVTO	28	1339	1346	1403	S17	E49	5809	12	2.3	24	SF			3	E		23		F
		28	1537		1646	No Flare Patrol														
		28	1656		1702	No Flare Patrol														
0611	PALE	28	1822	1822	1840	S16	E50	5809	12	2.5	18	SF	C	4.1	3	E		25		F
0612		28	1910	1912	1916	S16	E40	5809	12	1.8	6	SF						17		F
	PALE	28	1910	1912	1915	S14	E40	5809	12	1.8	5	SF			3	E		16		
	RAMY	28	1910	1912	1916	S17	E39	5809	12	1.8	6	SF			3	E		18		F
0613	MITK	29	0106	0107	0141	N17	E01	5806	11	29.1	35	SN				C	0107			EG
0614		29	01052	01061	0117	N24	W33	5800	11	26.5	12	SF	C	2.1				20		F
	PALE	29	0105	0106	0121	N23	W34	5800	11	26.4	16	SF	C	2.1	3	E		25		
	LEAR	29	0107	0107	0113	N26	W32	5800	11	26.6	6	SF			3	E		14		F
0615	PURP	29	0612	0614	0631	N16	E15	5812	11	30.4	19	SF				C	0614	119	1.3	
0616		29	09112	0913*	0948	S16	E39	5809	12	2.3	37	SF						55	1.1	EF
	HTPR	29	0911	0935	1010	S18	E40	5809	12	2.4	59	SF				C	0935	80	1.1	E
	KANZ	29	0912	0916	0926	S16	E37	5809	12	2.2	14	SF				C				
	SVTO	29	0913	0913	0951D	S15	E39	5809	12	2.3	38D	SF			2	E		30		F

Hα SOLAR FLARES

NOVEMBER 1989

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0617		29	1000*	10282	1104	N25	W36	5800	11	26.6	64	SF	C 2.8				135	3.1	
	HTPR	29	1000	1030	1108D	N25	W37	5800	11	26.5	68D	1N			C	1030	220	3.1	
	KANZ	29	1024	1028	1104	N25	W35	5800	11	26.7	40	SF			C				
	SVTO	29	1026	1029	1109D	N24	W37	5800	11	26.6	43D	SF	C 2.8	3	E		50		
0618		29	1145	1149	1158	N28	W42	5800	11	26.2	13	SF	C 2.0				15		
	SVTO	29	1144E	1144U	1159	N27	W43	5800	11	26.1	15D	SF	C 2.0	3	E		15		
	KANZ	29	1145	1149	1156	N28	W40	5800	11	26.4	11	SF			V				
0619		29	11458	1155*	1217	S05	W57	5808	11	25.2	32	SF					16		
	KANZ	29	1145	1208	1219	S04	W55	5808	11	25.4	34	SF			V				
	SVTO	29	1153	1155	1213	S06	W58	5808	11	25.1	20	SF		3	E		18		
	RAMY	29	1200E	1215U	1219	S05	W57	5808	11	25.2	19D	SF		2	E		14		
		29	1447		2159	No Flare Patrol													
0620	RAMY	29	1632	1640	1659	S06	W55	5808	11	25.6	27	SF		3	E		32		F
0621	RAMY	29	1712	1718	1742	S16	E31	5809	12	2.1	30	SF	C 3.0	3	E		32		
0622	RAMY	29	1739	1755	1811	S16	W49	5803	11	26.0	32	SF	C 2.9	3	E		31		
0623	RAMY	29	1756	1812	1849	S20	E36	5809	12	2.5	53	1F	C 9.1	3	E		183		
0624	MITK	30	0000E		0019	N18	E10	5812	11	30.8	19D	SF			C	0001			E
0625		30	0152*	0208*	0226	N24	W48	5800	11	26.4	34	SN	C 4.5				31		EF
	MITK	30	0152	0208	0228	N24	W48	5800	11	26.4	36	SN			C	0208			E
	LEAR	30	0217	0218	0225	N25	W49	5800	11	26.3	8	SF	C 4.5	3	E		31		F
0626		30	0239	02403	0253	S14	W40	5805	11	27.1	14	SF					54	1.1	EF
	URUM	30	0239E	0240	0255	S15	W40	5805	11	27.1	16D	SF			C		80	1.1	E
	LEAR	30	0239	0243	0251	S14	W39	5805	11	27.2	12	SF		3	E		27		F
0627	LEAR	30	0518	0520	0525	N26	W48	5800	11	26.5	7	SF		3	E		16		
0628	YUNN	30	0545E	0547	0552D	S15	E50	5811	12	4.0	7D	SB			P		48	0.8	
0629		30	08185	08236	0849	N16	E02	5812	11	30.5	31	SF					101	2.3	EF
	KANZ	30	0818	0828	0845	N15	E03	5812	11	30.6	27	SF			C				E
	SVTO	30	0820	0829	0858	N16	E02	5812	11	30.5	38	SF		4	E		60		F
	LEAR	30	0822	0823	0839	N18	E03	5812	11	30.6	17	SF		3	E		27		F
	BUCA	30	0823	0824	0855	N14	W02	5812	11	30.2	32	1N			C	0824	215	2.3	E
0630		30	0853	0857	0907	N28	W52	5800	11	26.3	14	SF					45		H
	KANZ	30	0853	0857	0905	N29	W51	5800	11	26.4	12	SF			C				
	SVTO	30	0853	0857	0909	N27	W52	5800	11	26.3	16	SF		4	E		45		H
0631		30	08572	09123	0924	N18	W64	5808A	11	25.5	27	SF					15		
	KANZ	30	0857	0912	0925	N19	W62	5808A	11	25.6	28	SF			V				
	SVTO	30	0859	0915	0923	N18	W65	5808A	11	25.4	24	SF		4	E		15		
0632		30	09513	09539	1018	N23	W54	5800	11	26.2	27	SF					30		EF
	SVTO	30	0951	0953	1018	N23	W52	5800	11	26.4	27	SF		4	E		30		F
	KANZ	30	0954	1002	1019	N23	W55	5800	11	26.2	25	SF			V				E
0633		30	11131	11181	1136	N20	W06	5806	11	30.0	23	SF					22		
	SVTO	30	1113	1119	1138	N21	W07	5806	11	29.9	25	SF		3	E		22		
	KANZ	30	1114	1118	1133	N20	W06	5806	11	30.0	19	SF			V				
0634		30	11201	11221	1128	S16	E48	5811	12	4.1	8	SF					16		
	SVTO	30	1120	1122	1127	S15	E48	5811	12	4.1	7	SF		3	E		15		
	RAMY	30	1121	1123	1130	S17	E47	5811	12	4.0	9	SF		2	E		17		
0635		30	11251	11262	1136	N26	W49	5800	11	26.7	11	SF					21		
	SVTO	30	1125	1128	1142	N25	W50	5800	11	26.6	17	SF		3	E		21		
	KANZ	30	1126	1126	1130	N26	W48	5800	11	26.7	4	SF			V				

Hα S O L A R F L A R E S

NOVEMBER 1989

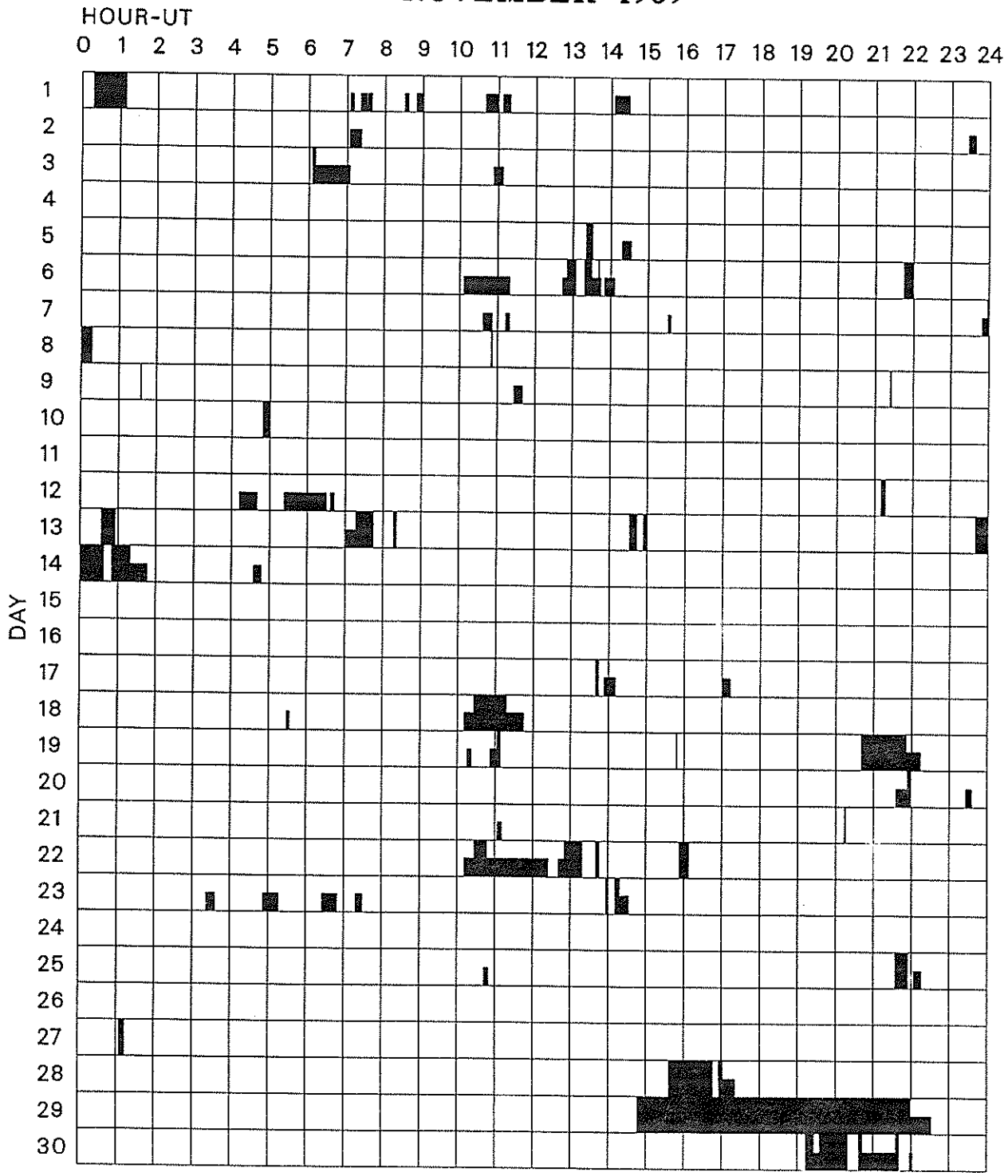
Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0636		30	1145*	12253	1616	N25	W52	5800	11	26.5	271	2N	X 2.6				432	15.8	FUY
	SVTO	30	1145	1225	1504D	N24	W52	5800	11	26.5	199D	3B	X 2.6	3	E				UY
	KANZ	30	1145	1228	1410D	N27	W51	5800	11	26.5	145D	3N			V				U
	ATHN	30	1204	1213U	1240D	N24	W54	5800	11	26.3	36D	3B		3	V	1213	780	15.8	
	HOLL	30	1402E	1402U	1616	N26	W52	5800	11	26.5	134D	SF		2	E		85		F
0637		30	14006	1406	1440	N12	E60	5817	12	5.1	40	SN					46		F
	SVTO	30	1400	1406	1442	N14	E58	5817	12	5.0	42	SN		3	E		51		F
	RAMY	30	1403	1406	1439	N11	E60	5817	12	5.1	36	SF		3	E		40		F
	KANZ	30	1406	1406	1410D	N12	E61	5817	12	5.2	4D	SN			V				
0638		30	15201	1522	1526	N08	E26	5816	12	2.6	6	SF					14		F
	HOLL	30	1520	1522	1524	N09	E26	5816	12	2.6	4	SF		2	E		15		
	RAMY	30	1521	1522	1529	N08	E26	5816	12	2.6	8	SF		3	E		12		F
0639		30	16351	1637*	1706	N12	E60	5817	12	5.2	31	SF					22		
	HOLL	30	1635	1637	1656	N13	E60	5817	12	5.2	21	SF		3	E		29		
	RAMY	30	1636	1658	1716	N11	E60	5817	12	5.2	40	SF		3	E		16		
		30	1913		1926	No Flare Patrol													
		30	1935		2020	No Flare Patrol													
		30	2037		2043	No Flare Patrol													
		30	2136		2141	No Flare Patrol													
0640	HOLL	30	2156E	2157U	2212D	N15	W15	5806	11	29.8	16D	SF		2	E		77		

"Remarks"

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

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

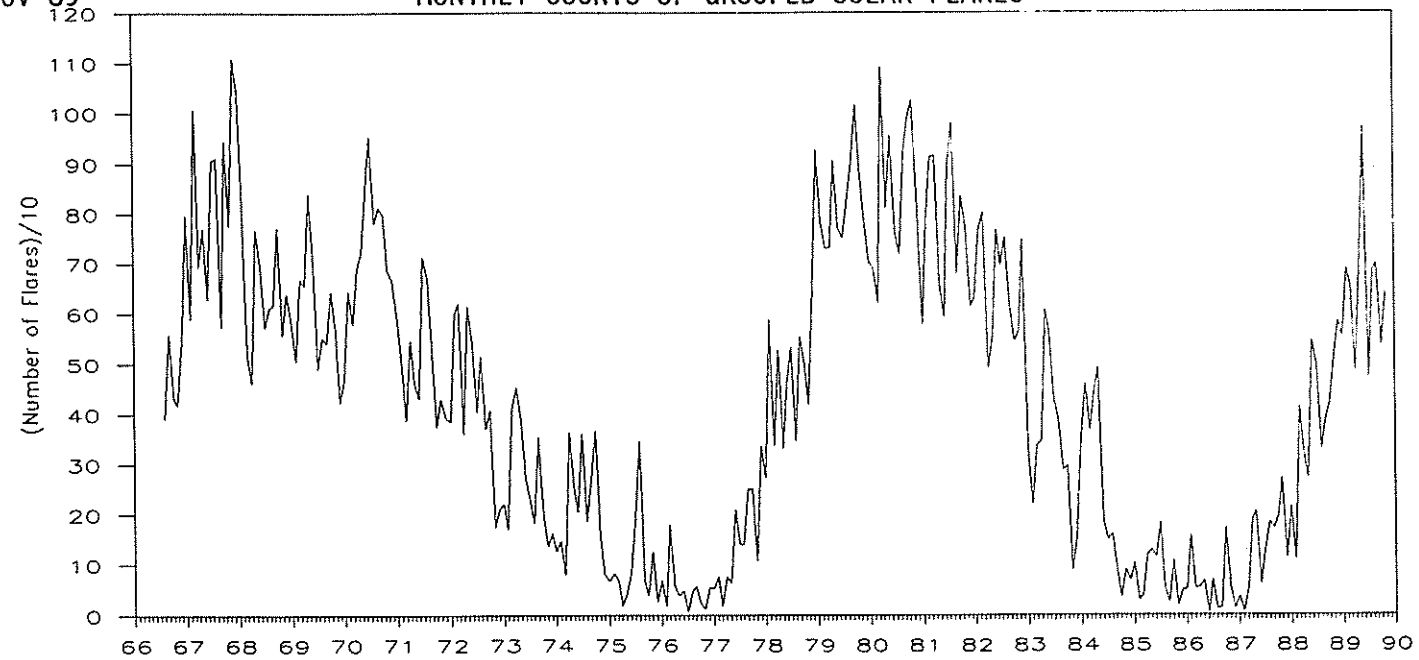
NOVEMBER 1989



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

Athens	Holloman	Kanzelhoehe	Palehua	Ramey
Bucharest	Istanbul	Learmonth	Peking	San Vito
Haute Provence	Kandilli	Mitaka	Purple Mt.	Urumqi
				Yunnan

MONTHLY COUNTS OF GROUPED SOLAR FLARES*



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1966								391	558	432	417	543	2341
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	544	499	331	390	421	508	584	4618
1989	689	539	658	485	686	971	473	684	699	535	640		7059

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

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

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	200	GORK	44	NS	0504.0E		416.0D		5.0		
	100	GORK	43	NS	0757.4		245.6D		5.0		
	260	ONDR	44	NS	0800.0E	0837.8	260.0D	125.0			
	245	SGMR	44	NS	1902.0E	1941.0	131.0D	170.0			QL=2 ST=2 TYP=1
	245	LEAR	8	S	0009.0E	0009.0	U	260.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0009.0E	0009.0	U	340.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0044.0E	0044.0	U	74.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	0308.9	0309.2	1.8	115.0			O
	4995	LEAR	8	S	0309.0E	0309.0	1.0D	68.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0309.0E	0309.0	1.0D	35.0			QL=2 ST=2 TYP=3
	8800	LEAR	8	S	0309.0E	0309.0	1.0D	46.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0309.0E	0309.0	1.0D	77.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0309.0E	0309.0	1.0D	370.0			QL=4 ST=2 TYP=3
	500	HIRA	46	C	0309.0	0310.3	3.0	48.0			O
	2840	PEKG	5	S	0309.0	0309.8	12.0	36.2			
	245	LEAR	8	S	0335.0E	0336.0	1.0D	50.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	0607.5	0608.1	1.1	10.0			
	9300	KISV	2	S/F	0607.5	0608.3	2.2	13.0			
	5900	KISV	2	S/F	0607.5	0608.3	4.5	13.0			
	5900	KISV	23	GRF	0607.5	0622.3	33.5	8.0			
	9300	KISV	23	GRF	0607.5	0621.6	39.8	9.0			
	234	POTS	4	S/F	0627.2	0627.2	2.0	700.0			
	9100	GORK	20	GRF	0636.0E	1000.0	290.8D	17.0			
	204	IZMI	7	C	0807.7	0808.0	0.5	16.0	8.0		
	100	GORK	41	F	0828.3	0839.0		33.0D			
	100	GORK	41	F	0828.3	0830.1	11.3	250.0			
	100	GORK	4	S/F	0909.5	0910.4	1.4	33.0D			
	245	SVTO	8	S	0915.0E	0916.0	1.0D	150.0			QL=4 ST=2 TYP=3
	536	ONDR	41	F	0954.0	0958.3	21.5	7.0			
	127	TORN	27	RF	1151.0	1216.6	47.0	250.0	4.0		
	100	GORK	4	S/F	1151.5	1158.3	7.6	124.0			
	536	ONDR	42	SER	1204.0	1208.7	16.0	109.0			
	430	KRAK	42	SER	1207.0	1218.5	12.0	140.0			
	810	KRAK	42	SER	1211.0	1218.5	7.5	224.0			
	808	ONDR	42	SER	1211.8	1218.9	8.5	66.0			
	410	SGMR	8	S	1213.0E	1213.0	2.0D	72.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1213.0E	1213.0	2.0D	61.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1213.0E	1213.0	2.0D	61.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1215.0E	1216.0	3.0D	190.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1218.0E	1219.0	2.0D	120.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1218.0E	1219.0	2.0D	85.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1218.0E	1219.0	1.0D	77.0			QL=4 ST=2 TYP=3
	113	POTS	4	S/F	1320.8	1321.7	1.8	300.0			
	234	POTS	4	S/F	1321.5	1321.6	1.6	100.0			
	40	POTS	4	S/F	1321.6	1321.6	0.9	4100.0			
	2800	OTTA	3	S	1511.0	1512.5	9.7	78.3	16.0		
	3200	BERN	3	S	1511.5	1512.3	2.5	6.3			
	8400	BERN	3	S	1511.5	1512.3	2.5	4.9			
	5200	BERN	3	S	1511.5	1512.3	2.5	8.4			
	2695	SVTO	4	S/F	1512.0E	1512.0	528.0D	60.0			QL=2 ST=1 TYP=3
	4995	SVTO	4	S/F	1512.0E	1512.0	528.0D	64.0			QL=2 ST=1 TYP=3
	245	SGMR	8	S	1749.0E	1749.0	1.0D	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1839.0E	1839.0	U	51.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	1847.0E	1848.0	2.0D	68.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1848.0E	1848.0	1.0D	130.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1848.0E	1848.0	U	73.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1848.0E	1848.0	2.0D	150.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1906.0E	1906.0	1.0D	74.0			QL=4 ST=2 TYP=3
	2800	OTTA	3	S	1923.3	1923.7	2.0	22.8	5.0		
	245	PALE	8	S	1941.0E	1941.0	U	110.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2011.0E	2011.0	U	120.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2135.0E	2135.0	U	150.0			QL=4 ST=2 TYP=3
	500	HIRA	46	C	2135.2	2135.8	1.8	52.0			O
	245	PALE	8	S	2151.0E	2151.0	U	93.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2223.0E	2223.0	1.0D	69.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2223.0E	2223.0	1.0D	140.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2241.0E	2242.0	1.0D	130.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2241.0E	2242.0	1.0D	230.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2335.0E	2335.0	U	140.0			QL=2 ST=3 TYP=3

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

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	245	PALE	8	S	2357.0E	2357.0	1.0D	72.0			QL=4 ST=2 TYP=3
02	200	GORK	44	NS	0457.0E		423.0D		5.0		
	204	IZMI	43	NS	0700.0		300.0	10.0			
	100	GORK	43	NS	0734.0		206.0D		5.0		
	260	ONDR	43	NS	0900.0		300.0				
	127	TORN	43	NS	0926.0	1016.8	220.0	400.0	2.0		V=1
	245	SGMR	44	NS	1235.0E	1256.0	172.0D	990.0			QL=2 ST=2 TYP=1
	245	PALE	44	NS	1653.0E	2313.0	403.0D	100.0			QL=4 ST=2 TYP=1
	245	SGMR	44	NS	2033.0E	2053.0	39.0D	85.0			QL=2 ST=2 TYP=1
	200	HIRA	44	NS	2100.0E	0435.0	630.0D	29.0	13.0		MR
	245	LEAR	43	NS	2232.0	2233.0	3.0D	76.0			QL=2 ST=2 TYP=1
	2840	PEKG	20	GRF	0328.0	0334.2	26.0	9.5			
	2840	PEKG	20	GRF	0403.0	0411.7	27.0	8.8			
	200	HIRA	46	C	0416.2	0416.6	1.3	138.0			O
	100	HIRA	46	C	0416.3	0417.0	1.4	104.0			
	9100	GORK	22	GRF	0551.5	1054.6	368.5D	16.0			
	5900	KISV	23	GRF	0723.1	0732.4	53.7	8.0			
	100	GORK	4	S/F	0724.0	0726.5	3.0	129.0			
	5900	KISV	2	S/F	0724.3	0726.3	3.8	16.0			
	113	POTS	4	S/F	0724.4	0726.8	3.2	45.0			
	3000	POTS	3	S	0725.0	0726.0	3.5	16.0			
	200	GORK	4	S/F	0725.0	0726.5	2.0	350.0			
	2850	CRIM	1	S	0725.2	0726.5	3.0	20.0	7.0		
	234	POTS	4	S/F	0725.3	0726.8	4.7	200.0			
	204	IZMI	41	F	0725.4	0726.3	2.6	430.0			
	9300	KISV	23	GRF	0725.4	0733.5	50.9	8.0			
	650	GORK	4	S/F	0725.4	0726.6	2.2	12.0			
	1470	POTS	4	S/F	0725.5	0726.5	2.5	24.0			
	2950	GORK	4	S/F	0725.5	0726.6	2.9	14.0			
	3013	IZMI	7	C	0725.6	0726.8	3.2	12.0	7.0		
	9300	KISV	2	S/F	0725.6	0725.9	3.5	9.0			
	950	GORK	4	S/F	0725.7	0726.5	1.4	10.0			
	245	SVTO	8	S	0726.0E	0726.0	1.0D	160.0			QL=4 ST=3 TYP=3
	234	POTS	4	S/F	0745.4	0746.2	1.3	150.0			
	245	LEAR	8	S	0746.0E	0746.0	U	88.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0746.0E	0746.0	U	120.0			QL=4 ST=3 TYP=3
	204	IZMI	41	F	0808.9	0809.3	1.1	420.0			
	245	LEAR	8	S	0809.0E	0809.0	1.0D	380.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0809.0E	0809.0	1.0D	490.0			QL=4 ST=3 TYP=3
	200	GORK	3	S	0809.0	0809.3	1.0	166.0			
	5900	KISV	2	S/F	0809.1	0810.2	2.8	17.0			
	650	GORK	1	S	0809.1	0809.4	1.8	2.0			
	2950	GORK	1	S	0809.1	0809.6	1.1	5.0			
	9300	KISV	2	S/F	0809.1	0809.6	1.4	9.0			
	234	POTS	4	S/F	0809.2	0809.4	0.9	650.0			
	3013	IZMI	5	S	0809.2	0809.8	1.0	6.0	3.0		
	2840	PEKG	45	C	0823.0	0826.3	14.0	22.9			
	3013	IZMI	1	S	0854.3	0855.5	5.5	3.0	2.0		
	200	GORK	41	F	1015.7	1016.4	5.3	1670.0			
	200	GORK	41	F	1015.7	1019.7		1100.0			
	113	POTS	42	SER	1015.8	1016.2	4.2	630.0			
	234	POTS	42	SER	1015.8	1019.7	4.4	1400.0			
	100	GORK	3	S	1015.9	1016.3	1.1	32.0D			
	410	SVTO	8	S	1016.0E	1016.0	U	150.0			QL=4 ST=3 TYP=3
	245	SVTO	8	S	1016.0E	1016.0	U	310.0			QL=4 ST=3 TYP=5
	810	KRAK	8	S	1016.0	1016.3	0.5	28.0			
	430	KRAK	8	S	1016.0	1016.4	1.0	190.0D			
	536	ONDR	42	SER	1016.0	1016.6	164.0	126.0			
	950	GORK	2	S/F	1016.1	1016.4	0.6	8.0			
	650	GORK	4	S/F	1016.2	1016.4	0.9	85.0			
	808	ONDR	41	F	1016.4	1028.9	13.0	7.0			
	5900	KISV	2	S/F	1018.4	1019.7	6.9	8.0			
	650	GORK	2	S/F	1027.6	1028.8	1.2	6.0			
	950	GORK	2	S/F	1028.3	1028.5	0.6	8.0			
	9300	KISV	2	S/F	1052.6	1054.8	5.4	9.0			
	1470	POTS	3	S	1053.5	1055.0	6.5	7.0			
	5900	KISV	2	S/F	1053.7	1054.7	5.0	11.0			
	2850	CRIM	1	S	1054.0	1055.0	5.0	8.0	2.0		

SOLAR RADIO EMISSION
Outstanding Occurrences

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
02	3000	POTS	3	S	1054.0	1055.0	9.0	9.0			
	2950	GORK	1	S	1054.2	1054.9	4.5	9.0			
	9500	POTS	29	PBI	1246.0	1249.1	29.0	74.0			
	234	POTS	42	SER	1246.0	1249.3	24.0	2900.0			
	3000	POTS	4	S/F	1247.0	1249.2	13.0	84.0			
	1470	POTS	4	S/F	1247.0	1249.4	13.0	85.0			
	40	POTS	42	SER	1247.1	1248.7	11.0	22000.0			
	2850	CRIM	29	PBI	1247.2	1250.0	14.0	19.0	6.0		
	2850	CRIM	3	S	1247.2	1249.5	2.8	95.0	30.0		
	113	POTS	42	SER	1247.4	1249.4	17.3	150.0			
	808	ONDR	5	S	1247.8	1249.4	7.0	125.0			
	8800	SGMR	4	S/F	1248.0E	1249.0	3.0D	86.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1248.0E	1249.0	6.0D	140.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1248.0E	1249.0	2.0D	91.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1248.0E	1249.0	1.0D	6200.0			QL=2 ST=2 TYP=6
	2695	SVTO	8	S	1248.0E	1249.0	U	95.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1248.0E	1249.0	3.0D	120.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1248.0E	1249.0	1.0D	62.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1249.0E	1249.0	1.0D	140.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1249.0E	1249.0	U	79.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1249.0E	1249.0	U	51.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1249.0E	1249.0	U	160.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1249.0E	1249.0	U	190.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	1249.0E	1249.0	1.0D	3500.0			QL=4 ST=2 TYP=6
	33	UPIC	32	ABS	1249.0	1258.5	33.0				
	245	SVTO	8	S	1255.0E	1256.0	1.0D	460.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	1256.0E	1256.0	1439.0D	76.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1725.0E	1726.0	5.0D	180.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	1726.0E	1726.0	U	150.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1847.0E	1848.0	2.0D	68.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1848.0E	1848.0	1.0D	130.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2001.0E	2001.0	U	120.0			QL=2 ST=3 TYP=3
	410	PALE	8	S	2005.0E	2006.0	1.0D	120.0			QL=2 ST=3 TYP=3
	410	PALE	8	S	2009.0E	2009.0	U	100.0			QL=2 ST=3 TYP=3
	410	SGMR	8	S	2057.0E	2057.0	1.0D	120.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	2102.0E	2102.0	1.0D	120.0			QL=2 ST=3 TYP=3
	410	PALE	8	S	2115.0E	2115.0	U	230.0			QL=2 ST=3 TYP=3
	245	LEAR	8	S	2223.0E	2223.0	U	62.0			QL=2 ST=2 TYP=3
	200	HIRA	46	C	2303.7	2304.1	1.5	180.0			WR
	200	HIRA	46	C	2334.7	2335.0	1.1	610.0			O
	100	HIRA	46	C	2335.0		2.0	1000.0D			
	245	LEAR	8	S	2335.0E	2335.0	U	140.0			QL=2 ST=3 TYP=3
	245	PALE	8	S	2335.0E	2335.0	1.0D	200.0			QL=4 ST=2 TYP=3
03	100	HIRA	44	NS	0430.0E		180.0D		25.0		
	100	GORK	44	NS	0514.0E		340.0D		5.0		
	200	GORK	44	NS	0515.0E		405.0D		5.0		
	204	IZMI	43	NS	0700.0		300.0	20.0			
	127	TORN	44	NS	0700.0E		480.0D		2.0		V=1
	100	HIRA	46	C	0348.6	0349.2	4.0	1000.0D			
	500	HIRA	46	C	0351.3	0351.7	1.4	38.0			O
	100	HIRA	46	C	0418.7	0419.0	4.0	1000.0			
	650	GORK	22	GRF	0525.4	0533.5	21.1	4.0			
	2840	PEKG	5	S	0530.0	0533.3	6.0	14.4			
	2950	GORK	1	S	0531.4	0533.3	2.7	11.0			
	9100	GORK	23	GRF	0531.6	0649.7	388.4D	32.0			
	9100	GORK	2	S/F	0531.9	0533.2	2.0	18.0			
	8800	LEAR	8	S	0532.0E	0533.0	1.0D	29.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0532.0E	0533.0	1.0D	16.0			QL=2 ST=2 TYP=3
	4995	LEAR	8	S	0532.0E	0533.0	1.0D	29.0			QL=2 ST=2 TYP=3
	2850	CRIM	1	S	0532.0	0533.4	3.0	14.8	5.0		
	950	GORK	2	S/F	0532.1	0533.3	1.5	3.0			
	200	GORK	4	S/F	0532.4	0533.3	4.5	1380.0			
	245	LEAR	49	GB	0533.0E	0533.0	U	4600.0			QL=2 ST=2 TYP=6
	9300	KISV	2	S/F	0606.6	0608.1	2.5	6.0			
	5900	KISV	22	GRF	0606.9	0607.7	14.1	7.0			
	15000	KISV	23	GRF	0612.4	0616.0	55.1	44.0			
	245	LEAR	8	S	0630.0E	0630.0	1.0D	110.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0630.0E	0631.0	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
Outstanding Occurrences

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
03	2840	PEKG	45	C	0640.0	0642.3	26.0	25.8			
	2850	CRIM	29	PBI	0640.5	0646.0	20.0	11.8	4.0		
	2850	CRIM	3	S	0640.5	0642.6	5.5	22.2	7.0		
	5900	KISV	23	GRF	0640.7	0652.6	37.1	17.0			
	500	HIRA	46	C	0640.7	0644.8	13.5	88.0			O
	9300	KISV	46	C	0640.8	0644.0		25.0			
	5900	KISV	45	C	0640.8	0643.0	9.2	33.0			
	9300	KISV	46	C	0640.8	0646.0	10.2	46.0			
	2950	GORK	21	GRF	0640.8	0830.0	299.3	12.0			
	5900	KISV	45	C	0640.8	0644.1		30.0			
	9300	KISV	23	GRF	0640.8	0651.2	27.8	24.0			
	9300	KISV	46	C	0640.8	0643.3		30.0			
	650	GORK	46	C	0640.8	0642.5	5.6	14.0			
	950	GORK	46	C	0640.8	0642.6	5.5	9.0			
	650	GORK	46	C	0640.8	0645.9		19.0			
	950	GORK	46	C	0640.8	0645.9		14.0			
	410	LEAR	4	S/F	0641.0E	0644.0	4.0D	190.0			QL=2 ST=2 TYP=3
	410	SVTO	4	S/F	0641.0E	0644.0	4.0D	160.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	0641.7	0642.2	13.2	1400.0	140.0		O
	4995	LEAR	4	S/F	0642.0E	0642.0	3.0D	23.0			QL=2 ST=2 TYP=3
	245	LEAR	49	GB	0642.0E	0642.0	3.0D	4900.0			QL=2 ST=2 TYP=6
	1415	LEAR	8	S	0642.0E	0642.0	U	18.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0642.0E	0645.0	4.0D	39.0			QL=2 ST=2 TYP=5
	4995	SVTO	4	S/F	0642.0E	0643.0	4.0D	37.0			QL=2 ST=2 TYP=3
	245	SVTO	49	GB	0642.0E	0642.0	3.0D	4900.0			QL=4 ST=2 TYP=6
	2695	SVTO	8	S	0642.0E	0642.0	U	26.0			QL=4 ST=2 TYP=3
	100	GORK	41	F	0642.0	0642.4	4.6	1150.0			
	2950	GORK	1	S	0642.0	0642.5	4.0	13.0			
	100	GORK	41	F	0642.0	0645.7		57.0			
	200	GORK	4	S/F	0642.0	0642.9	1.4	1900.0			
	9100	GORK	4	S/F	0642.1	0645.7	6.2	37.0			
	234	POTS	4	S/F	0642.2	0642.3	1.1	17000.0			
	113	POTS	4	S/F	0642.2	0642.4	2.4	2100.0			
	8800	SVTO	8	S	0643.0E	0643.0	U	29.0			QL=2 ST=2 TYP=3
	15400	LEAR	8	S	0645.0E	0645.0	1.0D	20.0			QL=2 ST=2 TYP=3
	15400	SVTO	4	S/F	0645.0E	0645.0	8.0D	54.0			QL=2 ST=2 TYP=3
	650	GORK	29	PBI	0646.4	0646.4	17.9	2.0			
	5900	KISV	2	S/F	0718.0	0719.3	6.0	22.0			
	9300	KISV	2	S/F	0718.1	0719.3	9.9	27.0			
	15000	KISV	2	S/F	0718.4	0719.3	4.8	12.0			
	9500	POTS	3	S	0718.5	0719.1	1.5	15.0			
	9100	GORK	2	S/F	0718.8	0719.1	0.7	17.0			
	3013	IZMI	1	S	0718.8	0719.2	1.2	6.0	3.0		
	950	GORK	3	S	0718.9	0720.1	1.4	17.0			
	9100	GORK	2	S/F	0728.8	0730.8	3.7	16.0			
	2850	CRIM	1	S	0728.9	0729.2	1.0	5.0	2.0		
	2840	PEKG	5	S	0729.0	0730.7	8.0	13.6			
	3000	POTS	3	S	0729.0	0730.7	7.0	14.0			
	1470	POTS	3	S	0729.0	0730.8	4.0	6.0			
	3013	IZMI	41	F	0729.2	0731.0	5.6	11.0			
	9300	KISV	22	GRF	0729.3	0731.1	11.9	25.0			
	9300	KISV	22	GRF	0729.3	0734.7		10.0			
	5900	KISV	45	C	0729.8	0731.1	8.2	31.0			
	5900	KISV	45	C	0729.8	0734.6		14.0			
	2695	LEAR	8	S	0730.0E	0731.0	1.0D	24.0			QL=2 ST=3 TYP=3
	245	LEAR	8	S	0730.0E	0730.0	U	300.0			QL=2 ST=3 TYP=3
	245	SVTO	8	S	0730.0E	0730.0	U	290.0			QL=4 ST=2 TYP=3
	2950	GORK	1	S	0730.0	0730.8	5.2	11.0			
	2850	CRIM	1	S	0730.0	0730.9	6.0	11.8	4.0		
	9500	POTS	3	S	0730.0	0730.9	3.0	22.0			
	950	GORK	1	S	0730.2	0730.8	1.8	1.0			
	650	GORK	1	S	0730.3	0730.6	1.7	1.0			
	260	ONDR	41	F	0900.0E		300.0D				
	536	ONDR	27	RF	0954.0	0956.4	22.0	10.0			
	5900	KISV	23	GRF	1030.1	1038.6	20.6	15.0			
	5900	KISV	2	S/F	1030.1	1030.7	3.3	13.0			
	9300	KISV	23	GRF	1030.2	1040.9	30.3	11.0			
	9300	KISV	2	S/F	1030.4	1030.7	2.8	8.0			
	15000	KISV	23	GRF	1033.4	1041.2	20.1	13.0			

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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
03	234	POTS	4	S/F	1033.6	1034.9	2.6	700.0			
	3013	IZMI	22	GRF	1033.8	1034.6	7.0	35.0	20.0		
	5900	KISV	45	C	1033.9	1035.2		84.0			
	5900	KISV	45	C	1033.9	1034.8	3.0	90.0			
	2850	CRIM	7	C	1034.0	1035.0	3.0	3.0	1.0		
	8800	SVTO	8	S	1034.0E	1035.0	1.0D	57.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1034.0E	1035.0	1.0D	65.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1034.0E	1035.0	1.0D	29.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1034.0E	1035.0	1.0D	490.0			QL=4 ST=2 TYP=3
	9300	KISV	45	C	1034.0	1035.2	3.6	71.0			
	9500	POTS	4	S/F	1034.0	1035.2	4.0	50.0			
	2850	CRIM	7	C	1034.0	1035.5					
	536	ONDR	45	C	1034.0	1034.6	3.0	25.0			
	3000	POTS	4	S/F	1034.0	1034.7	3.0	29.0			
	9300	KISV	45	C	1034.0	1034.8		70.0			
	650	GORK	4	S/F	1034.2	1034.8	4.8U	27.0			
	808	ONDR	3	S	1034.5	1035.2	3.3	7.0			
	15000	KISV	45	C	1034.6	1035.2	2.3	19.0			
	15000	KISV	45	C	1034.6	1034.9		18.0			
	430	KRAK	2	S/F	1037.5	1038.2	1.5	34.0	6.0		
	430	KRAK	8	S	1039.0	1039.1	0.5	38.0			
	2950	GORK	45	C	1134.0	1135.2		22.0			
	2950	GORK	45	C	1134.0	1134.8	2.6	34.0			
	245	SVTO	49	GB	1330.0E	1331.0	2.0D	2300.0			QL=4 ST=2 TYP=6
	410	SVTO	8	S	1331.0E	1331.0	1.0D	200.0			QL=4 ST=2 TYP=3
	610	SVTO	49	GB	1332.0E	1332.0	U	1300.0			QL=4 ST=2 TYP=6
	8800	PALE	49	GB	1954.0E	1955.0	2.0D	570.0			QL=4 ST=2 TYP=6
	15400	PALE	4	S/F	1954.0E	1955.0	4.0D	450.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1954.0E	1955.0	2.0D	94.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	1954.0E	1955.0	3.0D	300.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1954.0E	1955.0	2.0D	360.0			QL=2 ST=3 TYP=3
	2695	SGMR	8	S	1954.0E	1955.0	2.0D	110.0			QL=2 ST=3 TYP=3
	4995	SGMR	8	S	1954.0E	1955.0	2.0D	460.0			QL=2 ST=3 TYP=3
	15400	SGMR	8	S	1954.0E	1955.0	2.0D	460.0			QL=4 ST=3 TYP=3
	2800	OTTA	3	S	1954.3	1955.8	11.0	102.5	20.0		
	1415	PALE	8	S	1955.0E	1956.0	2.0D	97.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	1955.0E	1956.0	1.0D	4400.0			QL=4 ST=2 TYP=6
	410	PALE	4	S/F	1955.0E	1956.0	3.0D	39.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1955.0E	1956.0	2.0D	81.0			QL=4 ST=3 TYP=3
	610	SGMR	8	S	1956.0E	1956.0	U	31.0			QL=4 ST=3 TYP=3
	245	LEAR	8	S	2211.0E	2211.0	U	200.0			QL=2 ST=2 TYP=3
	500	HIRA	46	C	2324.0	2417.2	85.5	144.0	31.0		WL
	245	LEAR	49	GB	2350.0E	2350.0	U	720.0			QL=2 ST=2 TYP=6
	245	PALE	49	GB	2350.0E	2350.0	U	760.0			QL=4 ST=2 TYP=6
04	200	GORK	44	NS	0505.0E		326.0D		5.0		
	245	LEAR	49	GB	0010.0E	0011.0	1.0D	1400.0			QL=2 ST=2 TYP=6
	245	PALE	49	GB	0010.0E	0011.0	1.0D	1600.0			QL=4 ST=3 TYP=6
	4995	LEAR	8	S	0011.0E	0011.0	U	52.0			QL=2 ST=2 TYP=3
	15400	LEAR	8	S	0011.0E	0011.0	U	40.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0011.0E	0011.0	U	71.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0011.0E	0011.0	U	54.0			QL=2 ST=2 TYP=3
	8800	PALE	8	S	0011.0E	0011.0	U	95.0			QL=4 ST=3 TYP=3
	500	HIRA	41	F	0051.0	0135.5	96.5	33.0			WL
	245	LEAR	8	S	0248.0E	0248.0	2.0D	94.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0438.0E	0439.0	1.0D	170.0			QL=2 ST=2 TYP=3
	9100	GORK	20	GRF	0542.4	0606.6	42.4	9.0			
	200	HIRA	41	F	0555.4	0611.6	17.2	65.0			O
	2850	CRIM	7	C	0605.0	0608.4		5.0			
	2850	CRIM	7	C	0605.0	0606.8	4.0	10.0	3.0		
	5900	KISV	46	C	0605.5	0606.2	10.7	20.0			
	5900	KISV	46	C	0605.5	0608.4		10.0			
	5900	KISV	46	C	0605.5	0606.7		19.0			
	245	LEAR	8	S	0606.0E	0606.0	U	120.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0606.0E	0606.0	U	130.0			QL=2 ST=2 TYP=3
	9300	KISV	46	C	0606.0	0606.2	11.7	11.0			
	9300	KISV	46	C	0606.0	0608.5		9.0			
	2950	GORK	1	S	0606.0	0606.6	1.9	11.0			
	9300	KISV	46	C	0606.0	0606.9		11.0			

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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
04	650	GORK	1	S	0606.2	0606.3	1.5	2.0			
	950	GORK	1	S	0606.2	0606.9	1.2	2.0			
	245	LEAR	8	S	0610.0E	0610.0	U	65.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0610.0E	0611.0	2.0D	260.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0611.0E	0611.0	U	240.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0641.0E	0641.0	U	65.0			QL=2 ST=2 TYP=3
	9100	GORK	20	GRF	0658.8	0723.1	50.7	6.0			
	9100	GORK	20	GRF	0756.8	0958.5	155.2D	19.0			
	9300	KISV	45	C	0843.4	0844.7	4.9	18.0			
	9300	KISV	45	C	0843.4	0845.9		10.0			
	5900	KISV	45	C	0843.8	0844.7	7.5	21.0			
	5900	KISV	45	C	0843.8	0845.8		16.0			
	650	GORK	1	S	0844.3	0846.0	2.3	1.0			
	950	GORK	1	S	0844.3	0845.0	2.2	2.0			
	260	ONDR	41	F	0900.0E	1041.5	300.0D				
	200	GORK	41	F	0919.0	0919.5	36.6	25.0D			
	200	GORK	41	F	0919.0	0954.9		25.0D			
	204	IZMI	7	C	0919.1	0919.3	0.8	230.0	100.0		
	204	IZMI	42	SER	0950.5	0954.8	5.5	55.0			
	9300	KISV	22	GRF	0956.6	0958.9	11.8	8.0			
	5900	KISV	2	S/F	0957.4	0958.7	9.1	8.0			
	245	SVTO	8	S	1019.0E	1019.0	1.0D	110.0			QL=2 ST=2 TYP=3
	536	ONDR	2	S/F	1038.0	1041.6	4.0	9.0			
	5900	KISV	45	C	1038.2	1038.6	0.6	7.0			
	5900	KISV	45	C	1038.2	1038.7		6.0			
	430	KRAK	42	SER	1038.3	1043.0	5.0	24.0			
	234	POTS	4	S/F	1040.7	1041.5	1.5	200.0			
	9300	KISV	45	C	1040.8	1041.0		10.0			
	113	POTS	4	S/F	1040.8	1041.1	1.3	300.0			
	9300	KISV	45	C	1040.8	1041.4	1.6	14.0			
	5900	KISV	2	S/F	1040.8	1041.4	1.3	12.0			
	204	IZMI	41	F	1041.0	1041.5	0.8	100.0			
	2850	CRIM	1	S	1041.1	1041.2	0.5	10.8	2.0		
	245	SVTO	8	S	1212.0E	1212.0	U	120.0			QL=4 ST=2 TYP=3
	536	ONDR	8	S	1220.0	1220.3	0.5	35.0			
	430	KRAK	8	S	1230.0	1230.1	0.8	15.0			
	430	KRAK	42	SER	1318.5	1331.0	19.0	300.0D			
	410	SGMR	8	S	1319.0E	1319.0	U	190.0			QL=2 ST=3 TYP=3
	245	SGMR	49	GB	1319.0E	1319.0	1.0D	4400.0			QL=2 ST=3 TYP=6
	245	SVTO	49	GB	1319.0E	1319.0	1.0D	2700.0			QL=4 ST=2 TYP=6
	410	SVTO	4	S/F	1319.0E	1319.0	641.0D	170.0			QL=4 ST=1 TYP=3
	113	POTS	42	SER	1319.8	1332.3	13.0	230.0			
	234	POTS	42	SER	1319.8	1331.7	13.0	1600.0			
	245	SGMR	8	S	1323.0E	1323.0	U	300.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1323.0E	1323.0	U	320.0			QL=4 ST=2 TYP=3
	536	ONDR	42	SER	1329.8	1331.6	17.0	98.0			
	245	SVTO	49	GB	1330.0E	1331.0	2.0D	2300.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1331.0E	1331.0	1.0D	200.0			QL=2 ST=2 TYP=3
	245	SGMR	49	GB	1331.0E	1331.0	1.0D	3100.0			QL=2 ST=2 TYP=6
	410	SVTO	8	S	1331.0E	1331.0	1.0D	200.0			QL=4 ST=2 TYP=3
	610	SVTO	49	GB	1332.0E	1332.0	U	1300.0			QL=4 ST=2 TYP=6
	610	SVTO	4	S/F	1337.0E	1338.0	19.0D	170.0			QL=2 ST=2 TYP=3
	245	SGMR	49	GB	1624.0E	1625.0	1.0D	690.0			QL=4 ST=2 TYP=6
	410	SGMR	49	GB	1624.0E	1624.0	1.0D	750.0			QL=4 ST=2 TYP=6
	2800	OTTA	4	S/F	1717.2	1722.6	7.9	35.7	11.0		
	2800	OTTA	29	PBI	1725.1	1725.1	210.0	13.1	6.0		
	245	PALE	8	S	1741.0E	1741.0	U	130.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1741.0E	1741.0	1.0D	120.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1744.0E	1744.0	2.0D	410.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1744.0E	1744.0	2.0D	410.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1746.0E	1746.0	2.0D	360.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	2105.0E	2105.0	1.0D	2100.0			QL=4 ST=2 TYP=6
	410	PALE	49	GB	2105.0E	2105.0	1.0D	1200.0			QL=4 ST=2 TYP=6
	410	SGMR	49	GB	2105.0E	2105.0	1.0D	880.0			QL=2 ST=3 TYP=6
	245	SGMR	49	GB	2105.0E	2105.0	1.0D	2200.0			QL=2 ST=3 TYP=6
	4995	PALE	8	S	2118.0E	2119.0	2.0D	65.0			QL=2 ST=2 TYP=3
	2695	PENT	3	S	2118.0	2120.0	8.0	41.8	8.0		
	2695	PALE	8	S	2119.0E	2119.0	1.0D	38.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2119.0E	2119.0	1.0D	100.0			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
04	15400	PALE	8	S	2119.0E	2119.0	1.0D	36.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	2253.8	2253.8	0.5	755.0			O
	245	LEAR	8	S	2254.0E	2254.0	U	120.0			QL=2 ST=2 TYP=3
	100	HIRA	46	C	2258.7	2301.1	10.6	1000.0			
	410	LEAR	8	S	2340.0E	2340.0	U	140.0			QL=2 ST=2 TYP=3
	410	PALE	8	S	2340.0E	2340.0	U	230.0			QL=4 ST=2 TYP=3
05	200	HIRA	43	NS	0317.0	0403.0	250.0D	10.0	3.0		O
	100	GORK	44	NS	0514.0E		376.0D		5.0		
	200	GORK	44	NS	0514.0E		376.0D		5.0		
	204	IZMI	43	NS	0700.0		300.0	20.0			
	127	TORN	44	NS	0700.0E	0732.0	480.0D	460.0	8.0		V=1
	245	SGMR	44	NS	1244.0E	1248.0	181.0D	90.0			QL=2 ST=2 TYP=1
	200	HIRA	44	NS	2105.0E	2340.0	630.0D	16.0	9.0		WL
	245	PALE	44	NS	2236.0E	0129.0	229.0D	290.0			QL=4 ST=2 TYP=1
	500	HIRA	41	F	0020.0E	0043.0	65.0D	18.0			WL
	245	LEAR	8	S	0055.0E	0055.0	1.0D	140.0			QL=2 ST=2 TYP=3
	410	LEAR	8	S	0055.0E	0056.0	1.0D	110.0			QL=2 ST=3 TYP=3
	245	PALE	8	S	0055.0E	0055.0	1.0D	140.0			QL=4 ST=2 TYP=3
	500	HIRA	41	F	0505.0	0523.5	56.5	240.0			O
	9100	GORK	21	GRF	0537.8	0731.8	352.2D	34.0			
	650	GORK	2	S/F	0550.5	0552.6	7.4	4.0			
	950	GORK	4	S/F	0550.7	0552.5	3.1	13.0			
	650	GORK	21	GRF	0607.2	0812.0	313.1	6.0			
	100	GORK	4	S/F	0621.7	0622.5	2.3	120.0			
	15000	KISV	2	S/F	0622.8	0623.2	1.6	16.0			
	950	GORK	2	S/F	0654.6	0655.2	1.1	4.0			
	650	GORK	4	S/F	0654.7	0655.2	1.2	12.0			
	9300	KISV	25	R	0714.0	0723.4	13.5	54.0			
	3000	POTS	4	S/F	0714.0	0722.6	16.0	147.0			
	245	LEAR	8	S	0717.0E	0717.0	U	68.0			QL=2 ST=3 TYP=3
	245	SVTO	8	S	0717.0E	0717.0	U	75.0			QL=4 ST=2 TYP=3
	2850	CRIM	29	PBI	0717.0	0726.0	68.0	20.0	7.0		
	2850	CRIM	3	S	0717.0	0723.3	9.0	133.0	44.0		
	100	GORK	41	F	0717.3	0725.0		1200.0			
	100	GORK	41	F	0717.3	0723.2	9.4	600.0			
	650	GORK	22	GRF	0717.3	0723.7	15.3	7.0			
	3200	BERN	3	S	0718.0	0723.3	12.0	10.6			
	8400	BERN	3	S	0718.0	0723.3	12.0	4.9			
	5200	BERN	3	S	0718.0	0723.3	12.0	9.7			
	3013	IZMI	20	GRF	0718.0	0723.4	12.0	118.0	60.0		
	1470	POTS	4	S/F	0718.0	0723.5	15.0	35.0			
	950	GORK	22	GRF	0718.0	0723.8	19.4	16.0			
	2950	GORK	21	GRF	0718.3	0730.0	88.9	9.0			
	5900	KISV	25	R	0719.0E	0723.3	8.8D	97.0D			
	15000	KISV	25	R	0719.4	0723.6	8.0	22.0			
	2950	GORK	3	S	0719.8	0723.3	6.6	106.0			
	4995	LEAR	4	S/F	0720.0E	0723.0	6.0D	90.0			QL=2 ST=2 TYP=3
	2695	SVTO	4	S/F	0720.0E	0723.0	5.0D	120.0			QL=4 ST=2 TYP=3
	9500	POTS	3	S	0720.0U	0723.5	13.0U	32.0			
	4995	SVTO	4	S/F	0721.0E	0723.0	4.0D	95.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	0721.0E	0723.0	3.0D	38.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	0721.0	0723.3	6.0	32.0			
	8800	LEAR	8	S	0722.0E	0723.0	2.0D	34.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0722.0E	0723.0	1.0D	30.0			QL=4 ST=2 TYP=3
	9300	KISV	2	S/F	0730.9	0731.9	2.3	7.0			
	5900	KISV	2	S/F	0730.9	0731.9	2.4	4.0			
	245	LEAR	49	GB	0731.0E	0731.0	1.0D	770.0			QL=2 ST=2 TYP=6
	245	SVTO	49	GB	0731.0E	0732.0	1.0D	820.0			QL=4 ST=2 TYP=6
	204	IZMI	45	C	0731.5	0732.0	1.8	850.0			
	200	GORK	3	S	0731.5	0731.9	1.2	520.0			
	234	POTS	4	S/F	0731.6	0731.7	1.3	950.0			
	113	POTS	4	S/F	0731.6	0731.7	1.1	60.0			
	245	LEAR	8	S	0836.0E	0837.0	1.0D	250.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0836.0E	0837.0	1.0D	290.0			QL=4 ST=2 TYP=3
	234	POTS	41	F	0836.6	0837.1	3.5	120.0			
	260	ONDR	42	SER	0930.0	0940.8	66.0	196.0			
	200	GORK	41	F	0936.3	0940.7		690.0			
	200	GORK	41	F	0936.3	0936.9	8.3	30.0			

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

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
05	234	POTS	41	F	0936.6	0940.5	5.0	120.0			
	204	IZMI	42	SER	0936.6	0940.6	10.5	1500.0			
	5900	KISV	46	C	0939.3	0944.3		11.0			
	5900	KISV	46	C	0939.3	0945.7		9.0			
	5900	KISV	46	C	0939.3	0940.7	10.9	15.0			
	9300	KISV	2	S/F	0939.5	0940.8	7.4	24.0			
	245	LEAR	8	S	0940.0E	0940.0	U	120.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0940.0E	0940.0	1.0D	130.0			QL=2 ST=2 TYP=3
	113	POTS	4	S/F	0940.0	0940.6	1.6	350.0			
	9500	POTS	3	S	0940.0	0940.7	2.0	23.0			
	9100	GORK	2	S/F	0940.2	0940.7	1.8	24.0			
	8400	BERN	3	S	0940.3	0940.6	2.0	2.1			
	19600	BERN	3	S	0940.3	0940.6	2.0	1.8			
	5200	BERN	3	S	0940.3	0940.6	2.0	0.9			
	11800	BERN	3	S	0940.3	0940.6	2.0	2.8			
	15000	KISV	2	S/F	0940.3	0940.8	2.4	25.0			
	650	GORK	1	S	0940.4	0940.5	1.4	1.0			
	100	GORK	3	S	0940.4	0940.6	1.1	2900.0			
	536	ONDR	41	F	0943.5	0943.8	5.0	14.0			
	950	GORK	41	F	0943.7	0944.2	2.4	14.0			
	650	GORK	46	C	0943.7	0948.3		6.0			
	650	GORK	46	C	0943.7	0944.4	6.5	5.0			
	950	GORK	41	F	0943.7	0945.8		5.0			
	650	GORK	46	C	0943.7	0945.9		6.0			
	808	ONDR	41	F	0944.0	0944.3	12.5	8.0			
	260	ONDR	42	SER	1213.0		110.0				
	245	SGMR	8	S	1213.0E	1213.0	1.0D	250.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1213.0E	1213.0	1.0D	290.0			QL=4 ST=2 TYP=3
	3000	POTS	3	S	1213.0	1213.5	1.5	6.0			
	9500	POTS	1	S	1213.0	1213.6	1.5	6.0			
	234	POTS	4	S/F	1213.1	1213.2	1.1	800.0			
	113	POTS	4	S/F	1213.1	1213.5	2.0	2100.0			
	40	POTS	4	S/F	1213.1	1213.6	1.6	34000.0			
	536	ONDR	42	SER	1213.3	1213.5	32.0	90.0			
	234	POTS	29	PBI	1229.4	1236.2	55.2	1250.0			
	40	POTS	42	SER	1229.4	1234.6	16.6	35000.0			
	113	POTS	29	PBI	1229.4	1234.7	60.0U	3500.0			
	245	SGMR	49	GB	1233.0E	1236.0	5.0D	1500.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	1233.0E	1236.0	5.0D	1600.0			QL=4 ST=2 TYP=6
	245	SVTO	8	S	1244.0E	1244.0	1.0D	83.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1248.0E	1249.0	1.0D	130.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1434.0E	1434.0	U	76.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	1817.0E	1818.0	5.0D	1900.0			QL=4 ST=2 TYP=6
	245	SGMR	49	GB	1817.0E	1818.0	5.0D	1600.0			QL=4 ST=2 TYP=6
	2800	OTTA	3	S	1818.9	1819.0	1.5	44.2	9.0		
	410	PALE	8	S	1819.0E	1819.0	U	51.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1934.0E	1934.0	U	110.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1944.0E	1944.0	1.0D	87.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1944.0E	1944.0	U	77.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2001.0E	2001.0	U	84.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2002.0E	2002.0	1.0D	300.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2002.0E	2002.0	U	240.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2006.0E	2006.0	1.0D	170.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2006.0E	2006.0	1.0D	150.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2012.0E	2012.0	U	130.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2012.0E	2012.0	U	110.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2236.0E	2236.0	U	61.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	2259.0E	2259.0	U	53.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	2318.0E	2318.0	2.0D	110.0			QL=2 ST=3 TYP=3
	245	PALE	8	S	2318.0E	2319.0	1.0D	170.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2318.0E	2319.0	1.0D	36.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2340.0E	2340.0	U	230.0			QL=4 ST=2 TYP=3
06	100	GORK	44	NS	0454.0E		396.0D		5.0		
	200	GORK	44	NS	0500.0E		390.0D		5.0		
	204	IZMI	43	NS	0700.0		300.0	120.0			
	127	TORN	44	NS	0700.0E		480.0D		65.0		V=2
	260	ONDR	44	NS	0900.0E		300.0D				
	113	POTS	43	NS	1018.1	1310.0	287.0D	50.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
06	234	POTS	43	NS	1023.1	1110.0U	284.0D	50.0			
	245	SGMR	44	NS	1250.0E	2037.0	497.0D	590.0			QL=2 ST=2 TYP=1
	245	PALE	44	NS	1655.0E	2037.0	284.0D	550.0			QL=4 ST=3 TYP=1
	200	HIRA	44	NS	2105.0E	2243.0	300.0D	94.0	24.0		ML
	245	LEAR	44	NS	2237.0E	1005.0	703.0D	440.0			QL=2 ST=2 TYP=1
	245	LEAR	8	S	0111.0E	0112.0	1.0D	130.0			QL=2 ST=2 TYP=3
	500	HIRA	46	C	0122.3	0123.1	3.2	33.0			O
	245	LEAR	8	S	0127.0E	0128.0	2.0D	280.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0236.0E	0236.0	U	100.0			QL=2 ST=3 TYP=3
	245	PALE	8	S	0236.0E	0236.0	U	120.0			QL=4 ST=2 TYP=3
	500	HIRA	46	C	0316.6	0317.0	1.0	18.0			O
	410	LEAR	4	S/F	0418.0E	0419.0	6.0D	77.0			QL=2 ST=2 TYP=3
	200	HIRA	42	SER	0418.6	0418.9	4.0	1050.0			O
	245	LEAR	49	GB	0419.0E	0419.0	3.0D	2400.0			QL=2 ST=3 TYP=6
	500	HIRA	42	SER	0419.0	0419.2	3.0	93.0			WR
	245	LEAR	49	GB	0457.0E	0457.0	1.0D	3800.0			QL=2 ST=2 TYP=6
	500	HIRA	27	RF	0510.0	0523.0	27.5	16.0	5.0		O
	500	HIRA	42	SER	0511.0	0513.7	15.0	390.0			WR
	200	HIRA	42	SER	0512.9	0513.2	6.6	465.0			O
	245	LEAR	49	GB	0513.0E	0513.0	1.0D	1800.0			QL=2 ST=2 TYP=6
	410	LEAR	8	S	0513.0E	0513.0	1.0D	480.0			QL=2 ST=2 TYP=3
	650	GORK	4	S/F	0513.3	0513.7	3.6	21.0			
	950	GORK	4	S/F	0513.4	0514.2	3.6	12.0			
	245	LEAR	49	GB	0538.0E	0538.0	1.0D	2400.0			QL=2 ST=2 TYP=6
	100	GORK	4	S/F	0539.0	0539.3	2.5	1420.0			
	9100	GORK	21	GRF	0612.7	0925.0	317.3D	17.0			
	234	POTS	42	SER	0632.0	0644.4	16.8	6500.0			
	100	GORK	41	F	0636.5	0644.1		235.0			
	100	GORK	41	F	0636.5	0639.9	8.5	235.0			
	113	POTS	42	SER	0636.6	0644.2	8.4	250.0			
	245	LEAR	8	S	0637.0E	0637.0	U	430.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0637.0E	0637.0	U	440.0			QL=4 ST=2 TYP=3
	200	GORK	3	S	0637.2	0637.6	0.8	335.0			
	650	GORK	20	GRF	0637.3	0647.5	21.3	2.0			
	200	GORK	41	F	0638.2	0641.3		316.0			
	200	GORK	41	F	0638.2	0638.5	6.8	240.0			
	245	SVTO	49	GB	0640.0E	0644.0	7.0D	3100.0			QL=4 ST=2 TYP=6
	245	LEAR	49	GB	0644.0E	0644.0	3.0D	3400.0			QL=2 ST=2 TYP=6
	9100	GORK	2	S/F	0710.5	0711.5	2.0	23.0			
	9500	POTS	3	S	0710.5	0711.5	1.5	21.0			
	9300	KISV	3	S	0710.8	0711.5	1.5	34.0			
	15000	KISV	8	S	0711.2	0711.5	0.6	32.0			
	5900	KISV	2	S/F	0711.2	0711.5	2.1	10.0			
	2950	GORK	1	S	0728.0	0728.8	0.8	7.0			
	5900	KISV	2	S/F	0728.1	0728.8	1.5	11.0			
	650	GORK	1	S	0728.1	0728.9	2.4	2.0			
	950	GORK	2	S/F	0728.1	0728.9	1.4	4.0			
	950	GORK	20	GRF	0733.0	0735.1	9.5	3.0			
	234	POTS	4	S/F	0733.2	0734.7	2.4	250.0			
	650	GORK	2	S/F	0734.5	0735.0	0.6	5.0			
	650	GORK	29	PBI	0735.1	0735.1	11.5	2.0			
	950	GORK	20	GRF	0737.3	0745.0	15.1	6.0			
	9300	KISV	2	S/F	0820.2	0821.2	2.8	10.0			
	5900	KISV	2	S/F	0820.5	0821.5	2.8	7.0			
	810	KRAK	27	RF	0830.0	0833.5U	7.7	9.0	6.0		
	100	GORK	41	F	0834.0	0851.0		30.0D			
	100	GORK	41	F	0834.0	0834.7	17.7	30.0D			
	234	POTS	4	S/F	0847.8	0848.4	1.4	120.0			
	610	LEAR	8	S	0859.0E	0859.0	1.0D	420.0			QL=2 ST=2 TYP=3
	536	ONDR	49	GB	0859.4	0859.8	23.0	206.0			
	650	GORK	4	S/F	0859.6	0859.7	8.4	79.0			
	950	GORK	1	S	0900.0	0900.5	6.0	4.0			
	808	ONDR	49	GB	0902.5	0909.8	10.0	46.0			
	245	LEAR	8	S	0905.0E	0906.0	1.0D	48.0			QL=2 ST=2 TYP=3
	410	LEAR	4	S/F	0905.0E	0906.0	3.0D	160.0			QL=2 ST=2 TYP=3
	650	GORK	42	SER	0905.6	0913.1		64.0			
	650	GORK	42	SER	0905.6	0906.1	17.7	4.0			
	650	GORK	42	SER	0905.6	0921.2		437.0			
	650	GORK	42	SER	0905.6	0920.3		310.0			

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

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
06	650	GORK	42	SER	0905.6	0913.6		66.0			
	650	GORK	42	SER	0905.6	0918.7		300.0			
	430	KRAK	4	S/F	0905.7	0906.8	3.0	250.0D	9.0		
	950	GORK	21	GRF	0906.0	0915.7	22.6	8.0			
	430	KRAK	42	SER	0911.5	0914.0	4.0	125.0			
	9300	KISV	2	S/F	0911.8	0914.1	4.2	8.0			
	810	KRAK	2	S/F	0912.0	0913.5	3.0	48.0	11.0		
	2950	GORK	21	GRF	0912.2	0924.0	14.8	6.0			
	950	GORK	46	C	0912.5	0913.1	2.3	39.0			
	950	GORK	46	C	0912.5	0913.4		35.0			
	5900	KISV	23	GRF	0912.7	0913.4	10.8	9.0			
	245	LEAR	8	S	0915.0E	0915.0	U	280.0			QL=2 ST=2 TYP=3
	234	POTS	42	SER	0915.0	0918.0	35.0	1700.0			
	610	LEAR	4	S/F	0916.0E	0921.0	6.0D	220.0			QL=2 ST=2 TYP=3
	810	KRAK	45	C	0916.0	0917.5	6.5	121.0	43.0		
	100	GORK	41	F	0916.9	0921.2	20.3	475.0			
	100	GORK	41	F	0916.9	0928.6		1100.0			
	100	GORK	41	F	0916.9	0925.9		1540.0			
	8800	LEAR	8	S	0917.0E	0917.0	2.0D	66.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0917.0E	0917.0	3.0D	530.0			QL=2 ST=2 TYP=3
	4995	LEAR	4	S/F	0917.0E	0917.0	4.0D	59.0			QL=4 ST=2 TYP=3
	430	KRAK	7	C	0917.0	0918.2	4.5	48.0	9.0		
	1470	POTS	40	F	0917.0	0920.2	7.0	16.0			
	3000	POTS	40	F	0917.0	0920.6	8.0	22.0			
	3013	IZMI	22	GRF	0917.0	0920.8	6.6	25.0	15.0		
	5900	KISV	3	S	0917.1	0917.9	1.0	84.0			
	113	POTS	42	SER	0917.2	0927.4	22.8	700.0			
	2950	GORK	46	C	0917.3	0920.7		15.0			
	200	GORK	8	S	0917.3	0917.7	1.3	3170.0			
	3200	BERN	3	S	0917.3	0917.8	1.5	1.4			
	5200	BERN	3	S	0917.3	0917.8	1.5	5.3			
	11800	BERN	3	S	0917.3	0917.8	1.5	4.4			
	8400	BERN	3	S	0917.3	0917.8	1.5	8.2			
	2950	GORK	46	C	0917.3	0917.8	5.4	15.0			
	9100	GORK	4	S/F	0917.3	0917.8	3.0	92.0			
	950	GORK	46	C	0917.4	0919.3		25.0			
	950	GORK	46	C	0917.4	0918.6		28.0			
	950	GORK	46	C	0917.4	0917.8	4.4	26.0			
	204	IZMI	45	C	0917.4	0917.8	1.5	1500.0			
	9500	POTS	29	PBI	0917.5	0917.6	43.0	54.0			
	15000	KISV	4	S/F	0917.5	0917.8	2.8	25.0			
	9300	KISV	25	R	0917.8	0917.8	2.8	98.0			
	245	LEAR	49	GB	0934.0E	0939.0	11.0D	820.0			QL=2 ST=2 TYP=7
	245	LEAR	49	GB	0938.0E	0939.0	7.0D	820.0			QL=2 ST=3 TYP=7
	9500	POTS	40	F	1005.0	1007.6	15.0	8.0			
	9300	KISV	22	GRF	1005.1	1007.7	14.8	12.0			
	15000	KISV	2	S/F	1005.7	1007.5	3.6	9.0			
	5900	KISV	23	GRF	1005.8	1011.4	13.5	7.0			
	9100	GORK	2	S/F	1006.1	1007.6	2.5	10.0			
	5900	KISV	2	S/F	1007.2	1007.6	1.4	11.0			
	410	LEAR	8	S	1008.0E	1008.0	1.0D	120.0			QL=2 ST=2 TYP=3
	536	ONDR	42	SER	1008.3	1034.4	85.0	118.0			
	234	POTS	41	F	1009.6	1014.0	6.4	100.0			
	15000	KISV	2	S/F	1009.9	1011.5	2.0	7.0			
	245	LEAR	4	S/F	1010.0E	1011.0	5.0D	310.0			QL=2 ST=2 TYP=3
	100	GORK	41	F	1010.4	1011.3	5.1	1190.0			
	100	GORK	41	F	1010.4	1014.6		2600.0			
	113	POTS	41	F	1010.5	1014.1	6.0	700.0			
	950	GORK	46	C	1010.9	1011.2	3.9	12.0			
	950	GORK	46	C	1010.9	1012.8		8.0			
	650	GORK	22	GRF	1011.3	1014.3	8.2	5.0			
	204	IZMI	7	C	1014.0	1014.3	0.8	180.0			
	9300	KISV	42	SER	1034.0	1040.1		3.0			
	430	KRAK	8	S	1034.0	1034.5	0.7	250.0D			
	9300	KISV	42	SER	1034.0	1034.6	8.7	5.0			
	5900	KISV	2	S/F	1034.0	1034.6	3.5	6.0			
	100	GORK	41	F	1036.0	1040.1	8.3	3100.0			
	100	GORK	41	F	1036.0	1043.9		1660.0			
	5900	KISV	2	S/F	1038.6	1040.1	3.1	5.0			

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

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
06	200	GORK	4	S/F	1042.8	1043.8	1.9	1500.0			
	5900	KISV	2	S/F	1113.4	1115.2	5.6	6.0			
	9300	KISV	22	GRF	1113.7	1115.8	9.0	9.0			
	200	GORK	4	S/F	1118.0	1119.4	1.9	335.0			
	33	UPIC	32	ABS	1200.0	1214.5	26.0				
	808	ONDR	49	GB	1204.0		50.0				
	536	ONDR	49	GB	1204.4	1218.3	50.0	309.0			
	610	SGMR	8	S	1205.0E	1205.0	2.0D	170.0			QL=4 ST=2 TYP=3
	3000	POTS	45	C	1208.0	1210.2	22.0	690.0			
	9500	POTS	45	C	1208.0	1210.2	25.0	540.0			
	4995	SGMR	49	GB	1209.0E	1210.0	5.0D	760.0			QL=4 ST=2 TYP=6
	8800	SGMR	49	GB	1209.0E	1210.0	4.0D	760.0			QL=4 ST=2 TYP=6
	2695	SGMR	4	S/F	1209.0E	1210.0	4.0D	360.0			QL=4 ST=2 TYP=3
	15400	SGMR	49	GB	1209.0E	1210.0	3.0D	890.0			QL=4 ST=2 TYP=6
	1415	SGMR	4	S/F	1209.0E	1212.0	711.0D	250.0			QL=4 ST=1 TYP=3
	810	KRAK	47	GB	1209.5		8.5	290.0D	190.0D		
	234	POTS	29	PBI	1209.5	1211.6	85.0	83000.0			
	430	KRAK	47	GB	1209.5	1212.7U	7.0	250.0D	50.0D		
	1470	POTS	46	C	1209.5	1210.9	16.0	240.0			
	410	SGMR	49	GB	1210.0E	1213.0	5.0D	12000.0			QL=4 ST=2 TYP=6
	610	SGMR	49	GB	1211.0E	1214.0	5.0D	1800.0			QL=4 ST=2 TYP=6
	245	SGMR	49	GB	1211.0E	1214.0	6.0D	35000.0			QL=4 ST=2 TYP=7
	113	POTS	29	PBI	1211.3	1212.0U	84.0	4800.0D			
	127	TORN	49	GB	1214.5	1221.0U	11.0	1300.0D	350.0		
	810	KRAK	1	S	1221.0	1222.7	3.0	6.0	3.0		
	33	UPIC	4	S/F	1224.4	1224.6	0.8				
	9500	POTS	20	GRF	1235.0	1300.0	40.0	16.0			
	3000	POTS	20	GRF	1235.0	1250.0	50.0	17.0			
	1470	POTS	40	F	1235.0	1240.6	48.0	23.0			
	810	KRAK	7	C	1237.9	1238.9	4.5	192.0	36.0		
	610	SGMR	8	S	1238.0E	1239.0	2.0D	190.0			QL=4 ST=2 TYP=3
	430	KRAK	7	C	1238.0	1238.9	3.6	41.0	18.0		
	810	KRAK	41	F	1246.3	1247.5	5.3	20.0	5.0		
	2800	OTTA	4	S/F	1336.2	1339.9	70.0	324.0	65.0		
	3000	POTS	46	C	1336.5	1339.8	24.0	540.0			
	40	POTS	4	S/F	1337.2	1339.0	10.8	30000.0			
	430	KRAK	45	C	1337.2	1338.9	10.0	86.0	24.0		
	810	KRAK	45	C	1337.5	1341.6	9.8	110.0	29.0		
	113	POTS	29	PBI	1337.8	1343.2U	88.0D	4200.0D			
	234	POTS	29	PBI	1337.8	1351.7	90.0D	1400.0			
	245	SGMR	4	S/F	1338.0E	1342.0	7.0D	280.0			QL=2 ST=2 TYP=3
	410	SGMR	4	S/F	1338.0E	1339.0	8.0D	73.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1338.0E	1341.0	622.0D	120.0			QL=4 ST=1 TYP=3
	1470	POTS	45	C	1338.0	1342.1	22.0	135.0			
	9500	POTS	45	C	1338.0	1339.4	22.0	590.0			
	127	TORN	42	SER	1338.3	1343.4	18.5	2800.0	100.0U		
	33	UPIC	32	ABS	1342.5	1348.5	24.5				
	245	SGMR	49	GB	1349.0E	1352.0	12.0D	2700.0			QL=4 ST=2 TYP=6
	8800	SGMR	8	S	1839.0E	1844.0	5.0D	120.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1839.0E	1843.0	12.0D	110.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	1839.0E	1844.0	12.0D	150.0			QL=2 ST=2 TYP=3
	2800	OTTA	4	S/F	1839.4	1844.4	26.0	71.2	14.0		
	2695	PALE	4	S/F	1842.0E	1844.0	9.0D	74.0			QL=4 ST=2 TYP=3
	15400	PALE	4	S/F	1842.0E	1843.0	9.0D	50.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1842.0E	1844.0	5.0D	70.0			QL=4 ST=2 TYP=3
	2800	OTTA	4	S/F	2037.8	2045.3	9.9	132.5	40.0		
	2695	PALE	4	S/F	2042.0E	2045.0	6.0D	110.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	2042.0E	2045.0	6.0D	150.0			QL=2 ST=2 TYP=3
	1415	PALE	8	S	2044.0E	2045.0	2.0D	32.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2044.0E	2045.0	3.0D	97.0			QL=4 ST=2 TYP=3
	15400	PALE	4	S/F	2044.0E	2045.0	3.0D	50.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	2044.0E	2045.0	1.0D	510.0			QL=2 ST=3 TYP=6
	2695	SGMR	8	S	2044.0E	2045.0	2.0D	130.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2044.0E	2045.0	3.0D	130.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	2044.0E	2045.0	3.0D	220.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	2045.0E	2045.0	195.0D	280.0			QL=4 ST=1 TYP=3
	2800	OTTA	29	PBI	2047.7	2047.7	70.0	27.6	13.0		
07	100	GORK	44	NS	0442.0E		408.0D		5.0		

SOLAR RADIO EMISSION
Outstanding Occurrences

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
07	200	GORK	44	NS	0445.0E		405.0D		15.0		
	100	HIRA	43	NS	0500.0		150.0D		14.0		
	245	SVTO	43	NS	0547.0	0839.0	1093.0	520.0			QL=4 ST=1 TYP=1
	234	POTS	44	NS	0615.0E	0643.0U	516.0D	150.0U			
	113	POTS	44	NS	0622.0E	0652.0	336.0D	45.0			
	204	IZMI	43	NS	0700.0		300.0	300.0			
	127	TORN	44	NS	0700.0E		430.0D		30.0		V=2
	260	ONDR	44	NS	0800.0E		360.0D				
	245	SGMR	44	NS	1227.0E	1422.0	519.0D	180.0			QL=2 ST=2 TYP=1
	200	HIRA	44	NS	2108.0E	0100.0	620.0D	21.0	9.0		ML
	2840	PEKG	45	C	0136.0	0136.5	6.0	105.0			
	245	LEAR	49	GB	0137.0E	0139.0	4.0D	1800.0			QL=2 ST=2 TYP=6
	200	HIRA	46	C	0137.3	0138.9	3.8	2475.0	290.0		O
	100	HIRA	46	C	0137.8	0138.3	6.9	2200.0			WL
	2695	LEAR	8	S	0139.0E	0139.0	1.0D	83.0			QL=2 ST=2 TYP=3
	245	PALE	49	GB	0139.0E	0139.0	U	1600.0			QL=2 ST=2 TYP=6
	2840	PEKG	45	C	0225.0	0235.6	33.0	151.0			
	200	HIRA	46	C	0229.0	0229.7	12.5	127.0			WL
	500	HIRA	46	C	0229.3	0233.3	12.0	582.0	47.0		WL
	410	PALE	4	S/F	0230.0E	0233.0	5.0D	390.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0230.0E	0237.0	15.0D	150.0			QL=2 ST=2 TYP=3
	1415	LEAR	4	S/F	0230.0E	0232.0	14.0D	180.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0230.0E	0237.0	15.0D	160.0			QL=4 ST=2 TYP=3
	1415	PALE	4	S/F	0230.0E	0232.0	13.0D	180.0			QL=4 ST=2 TYP=3
	610	PALE	4	S/F	0231.0E	0232.0	4.0D	230.0			QL=4 ST=2 TYP=3
	100	HIRA	42	SER	0231.8	0240.3	13.9	920.0			
	4995	LEAR	4	S/F	0232.0E	0237.0	16.0D	100.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0233.0E	0234.0	2.0D	67.0			QL=2 ST=2 TYP=3
	15400	LEAR	4	S/F	0234.0E	0239.0	15.0D	52.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	0234.0E	0237.0	11.0D	88.0			QL=2 ST=2 TYP=3
	8800	LEAR	4	S/F	0235.0E	0238.0	9.0D	48.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0235.0E	0239.0	6.0D	56.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0238.0E	0240.0	2.0D	64.0			QL=2 ST=2 TYP=3
	410	LEAR	8	S	0240.0E	0240.0	U	28.0			QL=2 ST=2 TYP=3
	200	HIRA	42	SER	0300.0	0318.0	22.4	3400.0			O
	100	HIRA	42	SER	0302.0	0323.8	40.0	10300.0			O
	500	HIRA	46	C	0306.0	0308.3		82.0			WL
	500	HIRA	46	C	0306.0	0337.5		181.0			WL
	500	HIRA	46	C	0306.0	0319.5	43.5	592.0	25.0		ML
	2840	PEKG	47	GB	0309.0	0318.6	11.0	651.0			
	245	PALE	8	S	0310.0E	0310.0	1.0D	110.0			QL=2 ST=2 TYP=3
	245	PALE	49	GB	0313.0E	0318.0	10.0D	600.0			QL=2 ST=3 TYP=7
	245	LEAR	49	GB	0315.0E	0324.0	13.0D	4300.0			QL=2 ST=2 TYP=7
	610	PALE	4	S/F	0316.0E	0320.0	6.0D	230.0			QL=4 ST=2 TYP=3
	4995	LEAR	49	GB	0316.0E	0319.0	13.0D	880.0			QL=4 ST=2 TYP=6
	2695	LEAR	4	S/F	0316.0E	0320.0	13.0D	460.0			QL=2 ST=2 TYP=3
	1415	LEAR	49	GB	0317.0E	0319.0	5.0D	2900.0			QL=4 ST=2 TYP=6
	1415	PALE	49	GB	0317.0E	0319.0	5.0D	3600.0			QL=4 ST=2 TYP=6
	410	PALE	49	GB	0317.0E	0324.0	7.0D	750.0			QL=4 ST=2 TYP=6
	4995	PALE	49	GB	0317.0E	0319.0	4.0D	710.0			QL=2 ST=2 TYP=6
	2695	PALE	4	S/F	0317.0E	0320.0	4.0D	430.0			QL=4 ST=2 TYP=3
	410	LEAR	49	GB	0317.0E	0324.0	11.0D	720.0			QL=2 ST=2 TYP=7
	8800	LEAR	49	GB	0317.0E	0319.0	10.0D	1100.0			QL=4 ST=2 TYP=6
	17000	NOBE	45	C	0317.4	0319.5	20.0				17R
	35000	NOBE	3	S	0317.4	0319.8	16.0	425.0			3R
	15400	PALE	49	GB	0318.0E	0319.0	4.0D	650.0			QL=4 ST=2 TYP=6
	8800	PALE	49	GB	0318.0E	0319.0	6.0D	1100.0			QL=4 ST=2 TYP=6
	15400	LEAR	49	GB	0318.0E	0319.0	17.0D	690.0			QL=4 ST=2 TYP=6
	80000	NOBE	1	S	0318.9	0319.8	2.0	74.0			
	200	HIRA	48	C	0323.1	0324.1	5.3	8500.0	770.0		O
	200	HIRA	29	PBI	0328.4	0344.6	36.0	240.0	20.0		ML
	410	LEAR	4	S/F	0335.0E	0337.0	5.0D	120.0			QL=2 ST=2 TYP=3
	245	LEAR	4	S/F	0412.0E	0416.0	4.0D	55.0			QL=2 ST=2 TYP=3
	610	LEAR	4	S/F	0412.0E	0416.0	5.0D	88.0			QL=2 ST=2 TYP=3
	410	LEAR	8	S	0416.0E	0416.0	U	32.0			QL=2 ST=2 TYP=3
	200	HIRA	24	R	0420.0	0650.0	170.0D	90.0	35.0		SL
	9100	GORK	23	GRF	0518.2	0602.9	396.4	33.0			
	2840	PEKG	5	S	0548.0	0551.0	6.0	14.9			
	2950	GORK	22	GRF	0548.2	0553.0	341.8D	22.0			

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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
07	9300	KISV	23	GRF	0550.7	0602.7	62.1	26.0			
	9100	GORK	2	S/F	0552.0	0553.5	3.7	26.0			
	5900	KISV	23	GRF	0552.2	0601.7	60.2	37.0			
	15000	KISV	22	GRF	0552.7	0602.7	56.3	14.0			
	5900	KISV	4	S/F	0552.8	0553.7	1.5	37.0			
	9300	KISV	4	S/F	0552.9	0553.7	1.5	27.0			
	100	GORK	4	S/F	0556.5	0557.6	1.9	120.0			
	100	GORK	3	S	0653.2	0653.8	0.8	470.0			
	9300	KISV	2	S/F	0723.0	0724.1	3.8	4.0			
	200	GORK	4	S/F	0723.5	0724.8	2.0	330.0			
	245	LEAR	8	S	0839.0E	0839.0	1.0D	550.0			QL=2 ST=2 TYP=3
	610	LEAR	8	S	0841.0E	0841.0	U	110.0			QL=2 ST=2 TYP=3
	5900	KISV	1	S	0841.3	0841.7	0.7	10.0			
	650	GORK	4	S/F	0841.4	0841.6	1.3	10.0			
	950	GORK	2	S/F	0841.5	0841.8	2.9	1.0			
	200	GORK	41	F	0905.5	0911.2		1000.0			
	200	GORK	41	F	0905.5	0908.9		1170.0			
	200	GORK	41	F	0905.5	0907.9	6.5	670.0			
	100	GORK	41	F	0926.5	0933.0	40.1	830.0			
	100	GORK	41	F	0926.5	0952.5		1420.0			
	5900	KISV	2	S/F	0928.2	0929.3	4.8	9.0			
	9300	KISV	23	GRF	0928.5	0936.3	13.8	4.0			
	9300	KISV	2	S/F	0928.8	0929.3	2.2	13.0			
	15000	KISV	23	GRF	0928.9	0936.1	12.3	5.0			
	15000	KISV	2	S/F	0929.1	0929.3	0.9	11.0			
	536	ONDR	42	SER	0953.7	0954.0	20.0	29.0			
	5900	KISV	2	S/F	1008.2	1008.9	2.5	7.0			
	100	GORK	41	F	1033.8	1051.2		950.0			
	100	GORK	41	F	1033.8	1043.7	20.2	235.0			
	15000	KISV	2	S/F	1047.6	1048.8	3.8	7.0			
	9300	KISV	2	S/F	1048.0	1048.5	3.3	9.0			
	5900	KISV	2	S/F	1048.1	1048.4	2.9	4.0			
	9300	KISV	2	S/F	1107.8	1108.3	5.2	8.0			
	15000	KISV	2	S/F	1108.0	1108.2	2.7	8.0			
	234	POTS	4	S/F	1422.5	1422.8	0.9	1700.0			
	245	SGMR	49	GB	1501.0E	1501.0	2.0D	790.0			QL=2 ST=2 TYP=6
	245	SVTO	49	GB	1501.0E	1501.0	1.0D	760.0			QL=4 ST=2 TYP=6
	2800	OTTA	22	GRF	1626.0	1646.0	190.0	19.4	9.0		
	2695	SGMR	4	S/F	1652.0E	1656.0	7.0D	69.0			QL=4 ST=2 TYP=5
	2800	OTTA	4	S/F	1652.0	1657.4	10.0	51.6	10.0		
	245	SGMR	8	S	1655.0E	1655.0	1.0D	320.0			QL=2 ST=2 TYP=3
	4995	PALE	4	S/F	1656.0E	1656.0U	8.0D	50.0			QL=2 ST=3 TYP=3
	245	PALE	4	S/F	1656.0E	1656.0U	3.0D	460.0			QL=2 ST=3 TYP=3
	1415	PALE	8	S	1656.0E	1656.0U	2.0D	51.0			QL=4 ST=3 TYP=3
	2695	PALE	8	S	1656.0E	1656.0U	1.0D	71.0			QL=4 ST=3 TYP=3
	245	PALE	8	S	1925.0E	1925.0	U	71.0			QL=4 ST=2 TYP=3
	15400	PALE	4	S/F	1929.0E	1929.0	3.0D	71.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1929.0E	1929.0	5.0D	73.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1929.0E	1929.0	1.0D	76.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2000.0E	2000.0	1.0D	370.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	2000.0E	2000.0	2.0D	690.0			QL=2 ST=2 TYP=6
	2800	OTTA	4	S/F	2031.0	2035.8	21.0	146.6	29.0		
	1415	PALE	4	S/F	2032.0E	2035.0	6.0D	80.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	2032.0E	2035.0	7.0D	400.0			QL=2 ST=2 TYP=3
	2695	PALE	4	S/F	2032.0E	2035.0	7.0D	140.0			QL=4 ST=2 TYP=3
	8800	PALE	49	GB	2032.0E	2035.0	7.0D	680.0			QL=4 ST=2 TYP=6
	8800	SGMR	49	GB	2032.0E	2035.0	7.0D	800.0			QL=2 ST=2 TYP=6
	4995	SGMR	49	GB	2032.0E	2035.0	7.0D	540.0			QL=2 ST=2 TYP=6
	610	PALE	4	S/F	2033.0E	2034.0	3.0D	64.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	2033.0E	2034.0	1.0D	60.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	2033.0E	2035.0	5.0D	74.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	2034.0E	2038.0	5.0D	210.0			QL=4 ST=2 TYP=5
	245	SGMR	4	S/F	2034.0E	2037.0	7.0D	130.0			QL=4 ST=2 TYP=5
	410	PALE	8	S	2035.0E	2036.0	1.0D	47.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2037.0E	2037.0	U	69.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2048.0E	2048.0	1.0D	66.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	2252.0E	2258.0	8.0D	86.0			QL=2 ST=2 TYP=3
	245	PALE	4	S/F	2258.0E	2300.0	3.0D	110.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	2315.2	2315.2	7.3	3080.0	255.0		O

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
07	100	HIRA	46	C	2315.2	2316.5	4.0	2900.0			O
	410	LEAR	8	S	2316.0E	2316.0	1.0D	40.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	2316.0E	2316.0	U	240.0			QL=2 ST=2 TYP=3
	610	LEAR	8	S	2316.0E	2316.0	1.0D	150.0			QL=2 ST=2 TYP=3
	1415	LEAR	8	S	2316.0E	2316.0	1.0D	100.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	2316.0E	2316.0	U	25.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	2316.0E	2316.0	1.0D	120.0			QL=2 ST=2 TYP=3
	2695	PALE	8	S	2316.0E	2316.0	1.0D	110.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	2316.0E	2316.0	1.0D	110.0			QL=4 ST=2 TYP=3
	500	HIRA	46	C	2316.0	2316.5	3.0	92.0			WR
08	100	GORK	44	NS	0454.0E		396.0D		12.0		
	200	GORK	44	NS	0457.0E		393.0D		5.0		
	204	IZMI	43	NS	0700.0		300.0	30.0			
	260	ONDR	44	NS	0800.0E	1235.1	360.0D	157.0			
	127	TORN	44	NS	1000.0E		270.0D		25.0		V=1
	200	HIRA	44	NS	2110.0E	0045.0	620.0D	23.0	10.0		ML
	200	HIRA	41	F	0031.4	0035.3	6.1	255.0			SL
	100	HIRA	42	SER	0127.7	0128.8	11.9	3800.0			O
	2840	PEKG	5	S	0128.0	0138.0	15.0	7.0			
	245	LEAR	4	S/F	0136.0E	0138.0	3.0D	320.0			QL=2 ST=2 TYP=3
	245	PALE	4	S/F	0136.0E	0138.0	3.0D	330.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	0136.4	0137.6	2.8	1100.0	327.0		O
	245	LEAR	4	S/F	0243.0E	0245.0	4.0D	70.0			QL=2 ST=2 TYP=3
	245	PALE	4	S/F	0243.0E	0243.0	3.0D	63.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0249.0E	0249.0	1.0D	55.0			QL=2 ST=2 TYP=3
	2840	PEKG	1	S	0329.0	0329.5	2.0	6.4			
	100	HIRA	46	C	0355.4	0356.8	2.6	980.0			
	200	HIRA	46	C	0434.7	0436.3	4.0	85.0			ML
	410	LEAR	8	S	0435.0E	0435.0	U	130.0			QL=2 ST=2 TYP=3
	100	HIRA	46	C	0435.0	0436.3	6.7	1200.0			WL
	200	GORK	41	F	0509.2	0520.7	22.1	170.0			
	200	GORK	41	F	0509.2	0521.9		1670.0			
	9100	GORK	23	GRF	0513.9	0611.8	376.1D	63.0			
	2840	PEKG	5	S	0515.0	0518.5	8.0	45.0			
	650	GORK	23	GRF	0515.0E	0612.9	375.0D	10.0			
	200	HIRA	46	C	0515.2	0627.3		160.0			ML
	200	HIRA	46	C	0515.2	0601.5		740.0			WL
	200	HIRA	46	C	0515.2	0521.8	76.7	1300.0	37.0		O
	950	GORK	46	C	0516.6	0519.3	4.4	22.0			
	950	GORK	46	C	0516.6	0519.7		20.0			
	500	HIRA	7	C	0517.5	0518.4	31.0	192.0			WR
	500	HIRA	7	C	0517.5	0529.5		14.0			WR
	650	GORK	4	S/F	0517.5	0519.6	2.9	50.0			
	100	GORK	4	S/F	0518.8	0520.5	3.9	1400.0			
	100	HIRA	41	F	0519.8	0520.5	11.2	960.0			
	950	GORK	4	S/F	0523.1	0529.5	9.9	24.0			
	245	LEAR	4	S/F	0525.0E	0528.0	12.0D	86.0			QL=2 ST=2 TYP=3
	650	GORK	4	S/F	0528.4	0529.7	3.9	10.0			
	2695	LEAR	8	S	0529.0E	0529.0	U	27.0			QL=2 ST=2 TYP=3
	410	LEAR	8	S	0529.0E	0529.0	1.0D	28.0			QL=2 ST=2 TYP=3
	1415	LEAR	8	S	0529.0E	0529.0	U	23.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0539.0E	0541.0	2.0D	64.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0547.0E	0548.0	1.0D	120.0			QL=2 ST=2 TYP=3
	2950	GORK	21	GRF	0551.4	0754.0	270.2	32.0			
	100	GORK	41	F	0551.5	0552.0	13.4	800.0			
	100	GORK	41	F	0551.5	0601.5		8000.0			
	950	GORK	21	GRF	0554.0	0612.0	29.4	5.0			
	2840	PEKG	45	C	0558.0	0602.8	7.0	201.0			
	5900	KISV	30	PBI	0559.5	0618.0	48.0	30.0			
	5900	KISV	45	C	0559.5	0603.2	18.5	110.0			
	5900	KISV	45	C	0559.5	0601.5		86.0			
	200	GORK	4	S/F	0559.6	0601.3	5.1	1350.0			
	610	LEAR	49	GB	0600.0E	0601.0	1080.0D	540.0			QL=2 ST=1 TYP=6
	4995	LEAR	4	S/F	0600.0E	0603.0	1080.0D	110.0			QL=4 ST=1 TYP=3
	9300	KISV	46	C	0600.0	0610.3		47.0			
	9300	KISV	46	C	0600.0	0603.4	19.7	66.0			
	9300	KISV	46	C	0600.0	0601.6		40.0			
	100	HIRA	42	SER	0600.0E	0600.7	9.2D	2100.0			WL

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NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
08	9300	KISV	30	PBI	0600.0	0619.7	48.5	31.0			
	650	GORK	47	GB	0600.3	0603.2		590.0			
	650	GORK	47	GB	0600.3	0601.7	11.2	790.0			
	9100	GORK	46	C	0600.4	0603.1		34.0			
	950	GORK	47	GB	0600.4	0603.2		540.0			
	9100	GORK	46	C	0600.4	0601.3	4.4	29.0			
	950	GORK	47	GB	0600.4	0601.9	4.7	710.0			
	500	HIRA	42	SER	0600.5	0601.0	27.0	402.0			MR
	2950	GORK	46	C	0600.7	0601.4	5.3	91.0			
	2950	GORK	46	C	0600.7	0603.9		109.0			
	15000	KISV	45	C	0600.8	0603.4		29.0			
	15000	KISV	45	C	0600.8	0612.8	22.1	46.0			
	15000	KISV	30	PBI	0600.8	0622.9	34.1	19.0			
	410	SVTO	4	S/F	0601.0E	0601.0	1079.0D	120.0			QL=4 ST=1 TYP=3
	245	SVTO	49	GB	0601.0E	0601.0	1079.0D	530.0			QL=4 ST=1 TYP=6
	2840	PEKG	29	PBI	0605.0		55.0	38.0			
	410	SVTO	4	S/F	0610.0E	0610.0	1070.0D	62.0			QL=4 ST=1 TYP=3
	245	SVTO	8	S	0613.0E	0613.0	1.0D	110.0			QL=4 ST=3 TYP=3
	650	GORK	4	S/F	0613.5	0613.7	0.6	32.0			
	410	SVTO	8	S	0614.0E	0614.0	U	55.0			QL=4 ST=2 TYP=3
	15000	KISV	2	S/F	0614.5	0615.2	1.7	3.0			
	950	GORK	46	C	0619.1	0620.5		8.0			
	950	GORK	46	C	0619.1	0619.5	1.4	5.0			
	234	POTS	41	F	0619.5U	0626.6	10.0D	325.0			
	5900	KISV	45	C	0632.9	0634.7	6.3	17.0			
	5900	KISV	45	C	0632.9	0633.7		11.0			
	9300	KISV	45	C	0645.3	0646.4		21.0			
	9300	KISV	45	C	0645.3	0647.7	12.4	22.0			
	5900	KISV	45	C	0645.5	0646.5		20.0			
	5900	KISV	45	C	0645.5	0647.6	11.2	22.0			
	15000	KISV	45	C	0646.2	0648.0		7.0			
	15000	KISV	45	C	0646.2	0646.4	7.8	7.0			
	650	GORK	4	S/F	0646.3	0650.8	7.4	140.0			
	100	HIRA	46	C	0646.9	0647.8	3.7	3000.0			O
	100	GORK	41	F	0647.3	0654.6		340.0			
	100	GORK	41	F	0647.3	0649.6	8.5	8270.0			
	15000	KISV	22	GRF	0716.8	0751.0	128.5	19.0			
	245	LEAR	8	S	0717.0E	0717.0	1.0D	350.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0717.0E	0717.0	1.0D	380.0			QL=4 ST=3 TYP=3
	9300	KISV	22	GRF	0720.0	0755.4	122.7	22.0			
	5900	KISV	23	GRF	0721.6	0759.9	121.9	22.0			
	5900	KISV	2	S/F	0744.6	0747.5	5.3	12.0			
	610	LEAR	8	S	0747.0E	0747.0	U	54.0			QL=2 ST=2 TYP=3
	100	GORK	41	F	0816.3	0818.0	43.7	230.0			
	100	GORK	41	F	0816.3	0834.3		340.0			
	808	ONDR	41	F	0911.0	0914.4	4.0	41.0			
	245	SVTO	8	S	0913.0E	0914.0	2.0D	200.0			QL=4 ST=2 TYP=3
	950	GORK	8	S	0914.3	0914.6	0.5	70.0			
	100	GORK	41	F	0922.2	0953.7		230.0			
	100	GORK	41	F	0922.2	0938.8	32.8	250.0			
	9300	KISV	2	S/F	1002.2	1003.0	1.8	7.0			
	15000	KISV	46	C	1002.3	1003.0		9.0			
	15000	KISV	46	C	1002.3	1003.1	1.5	10.0			
	15000	KISV	46	C	1002.3	1002.9		7.0			
	9300	KISV	2	S/F	1120.0	1121.6	4.9	5.0			
	5900	KISV	2	S/F	1121.0	1121.5	3.7	6.0			
	245	SGMR	8	S	1448.0E	1449.0	1.0D	68.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1449.0E	1449.0	U	99.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1511.0E	1511.0	U	72.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1724.0E	1724.0	U	280.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1724.0E	1724.0	U	250.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1755.0E	1755.0	U	100.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1755.0E	1755.0	U	110.0			QL=4 ST=2 TYP=3
	2800	OTTA	28	PRE	1817.5	1826.1	38.0	33.1	13.0		
	410	SGMR	8	S	1832.0E	1833.0	1.0D	68.0			QL=2 ST=2 TYP=3
	2800	OTTA	47	GB	1855.0	1910.0	190.0	790.0	160.0		
	245	PALE	4	S/F	1856.0E	1905.0	20.0D	140.0			QL=4 ST=2 TYP=5
	4995	SGMR	49	GB	1856.0E	1903.0	23.0D	770.0			QL=2 ST=2 TYP=7
	2695	PALE	49	GB	1856.0E	1909.0	32.0D	600.0			QL=4 ST=2 TYP=7

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

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
08	1415	PALE	4	S/F	1857.0E	1909.0	17.0D	180.0			QL=4 ST=2 TYP=5
	245	SGMR	4	S/F	1857.0E	1903.0	19.0D	150.0			QL=4 ST=2 TYP=5
	2695	SGMR	49	GB	1857.0E	1909.0	21.0D	570.0			QL=4 ST=2 TYP=7
	4995	PALE	49	GB	1857.0E	1903.0	31.0D	720.0			QL=2 ST=2 TYP=7
	8800	PALE	49	GB	1858.0E	1908.0	29.0D	1200.0			QL=4 ST=2 TYP=7
	1415	SGMR	20	GRF	1859.0E	1909.0	14.0D	160.0			QL=4 ST=2 TYP=2
	8800	SGMR	4	S/F	1859.0E	1902.0	21.0D	480.0			QL=2 ST=3 TYP=5
	15400	PALE	20	GRF	1859.0E	1902.0	45.0D	300.0			QL=4 ST=2 TYP=2
	15400	SGMR	4	S/F	1900.0E	1902.0	17.0D	220.0			QL=2 ST=3 TYP=3
	610	PALE	4	S/F	1901.0E	1903.0	4.0D	210.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1901.0E	1904.0	15.0D	480.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1901.0E	1903.0	12.0D	350.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	1902.0E	1904.0	4.0D	370.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	2154.0E	2155.0	4.0D	52.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	2154.0E	2155.0	4.0D	47.0			QL=2 ST=2 TYP=3
	15400	LEAR	4	S/F	2154.0E	2155.0	4.0D	65.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	2155.0E	2155.0	1.0D	38.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	2155.0E	2156.0	2.0D	31.0			QL=4 ST=2 TYP=3
	15400	LEAR	20	GRF	2202.0E	2211.0	14.0D	86.0			QL=4 ST=2 TYP=2
	8800	LEAR	4	S/F	2203.0E	2206.0	8.0D	51.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	2226.0E	2227.0	1.0D	780.0			QL=2 ST=2 TYP=6
	245	PALE	49	GB	2226.0E	2227.0	1.0D	1100.0			QL=4 ST=2 TYP=6
	410	LEAR	49	GB	2244.0E	2245.0	2.0D	530.0			QL=2 ST=2 TYP=6
	610	LEAR	8	S	2245.0E	2245.0	U	110.0			QL=2 ST=2 TYP=3
	610	LEAR	8	S	2258.0E	2259.0	2.0D	52.0			QL=2 ST=2 TYP=3
	410	LEAR	49	GB	2259.0E	2259.0	1.0D	2400.0			QL=2 ST=2 TYP=6
	410	PALE	49	GB	2259.0E	2259.0	1.0D	550.0			QL=4 ST=3 TYP=6
	610	PALE	8	S	2259.0E	2259.0	U	70.0			QL=4 ST=3 TYP=3
	410	LEAR	8	S	2311.0E	2311.0	1.0D	190.0			QL=2 ST=2 TYP=3
09	204	IZMI	43	NS	0700.0		300.0	20.0			
	127	TORN	44	NS	0700.0E		360.0D		7.0		V=1
	260	ONDR	43	NS	0800.0		360.0				
	1415	SVTO	4	S/F	0019.0E	0822.0	1421.0D	61.0			QL=4 ST=1 TYP=3
	410	LEAR	49	GB	0112.0E	0113.0	1.0D	550.0			QL=2 ST=2 TYP=6
	410	PALE	8	S	0112.0E	0113.0	1.0D	420.0			QL=4 ST=2 TYP=3
	610	PALE	49	GB	0112.0E	0113.0	1.0D	2100.0			QL=4 ST=2 TYP=6
	2840	PEKG	5	S	0112.0	0113.5	5.0	44.3			
	500	HIRA	8	S	0112.8	0112.8	0.7	2300.0			O
	4995	LEAR	8	S	0113.0E	0113.0	U	24.0			QL=4 ST=2 TYP=3
	610	LEAR	49	GB	0113.0E	0113.0	U	1600.0			QL=2 ST=2 TYP=6
	2695	LEAR	8	S	0113.0E	0113.0	1.0D	54.0			QL=2 ST=2 TYP=3
	1415	LEAR	8	S	0113.0E	0113.0	1.0D	38.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0204.0E	0204.0	1.0D	160.0			QL=4 ST=2 TYP=3
	100	HIRA	42	SER	0230.4	0242.9	16.5	400.0			O
	245	LEAR	8	S	0241.0E	0243.0	2.0D	63.0			QL=2 ST=2 TYP=3
	200	HIRA	46	C	0241.6	0242.9	2.0	145.0			WL
	245	PALE	8	S	0242.0E	0243.0	2.0D	60.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	0416.2	0417.2	3.3	105.0			O
	410	LEAR	8	S	0417.0E	0419.0	2.0D	130.0			QL=2 ST=2 TYP=3
	610	LEAR	8	S	0417.0E	0419.0	2.0D	370.0			QL=2 ST=2 TYP=3
	245	LEAR	4	S/F	0419.0E	0421.0	3.0D	35.0			QL=2 ST=2 TYP=3
	9100	GORK	23	GRF	0506.7	0941.4	413.3D	56.0			
	9100	GORK	2	S/F	0521.3	0521.7	1.3	26.0			
	5900	KISV	23	GRF	0608.5	0616.8	17.5	6.0			
	9300	KISV	22	GRF	0611.5	0614.9	12.5	8.0			
	5900	KISV	45	C	0612.0	0613.1		10.0			
	5900	KISV	45	C	0612.0	0614.9	4.6	12.0			
	9300	KISV	22	GRF	0626.4	0632.0	12.6	8.0			
	5900	KISV	22	GRF	0627.7	0630.7	14.5	7.0			
	950	GORK	4	S/F	0646.7	0647.0	0.6	33.0			
	9300	KISV	2	S/F	0653.3	0654.1	4.2	7.0			
	950	GORK	2	S/F	0707.2	0707.4	0.6	17.0			
	9300	KISV	22	GRF	0708.0	0711.5	8.7	6.0			
	245	LEAR	4	S/F	0715.0E	0721.0	7.0D	57.0			QL=2 ST=2 TYP=3
	5900	KISV	23	GRF	0720.2	0721.9	22.6	7.0			
	9300	KISV	23	GRF	0720.6	0724.6	19.4	11.0			
	15000	KISV	23	GRF	0723.2	0725.4	13.0	8.0			
	9500	POTS	3	S	0725.5	0726.8	2.0	18.0			

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

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	204	IZMI	45	C	0725.7	0726.4	1.6	2000.0			
	5900	KISV	2	S/F	0725.8	0726.8	1.7	10.0			
	9300	KISV	4	S/F	0725.9	0726.8	1.9	24.0			
	15400	LEAR	8	S	0726.0E	0726.0	1.0D	62.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0726.0E	0726.0	1.0D	380.0			QL=2 ST=2 TYP=3
	1470	POTS	4	S/F	0726.0	0727.0	2.0	14.0			
	245	SVTO	8	S	0726.0E	0726.0	1.0D	490.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0726.0E	0726.0	1.0D	54.0			QL=4 ST=2 TYP=3
	9100	GORK	2	S/F	0726.0	0726.8	1.3	26.0			
	234	POTS	4	S/F	0726.1	0726.3	1.3	1900.0			
	950	GORK	3	S	0726.2	0727.0	1.3	27.0			
	113	POTS	4	S/F	0726.2	0726.5	1.4	385.0			
	15000	KISV	4	S/F	0726.3	0726.6	1.4	59.0			
	2850	CRIM	1	S	0726.3	0726.7	0.9	9.0	3.0		
	2950	GORK	1	S	0726.3	0726.7	1.0	7.0			
	950	GORK	30	PBI	0727.5	0727.5	7.0	7.0			
	950	GORK	2	S/F	0733.4	0733.5	0.4	16.0			
	430	KRAK	8	S	0801.5	0801.5	0.8	310.0D			
	9300	KISV	2	S/F	0811.1	0812.0	7.4	7.0			
	5900	KISV	2	S/F	0811.5	0812.0	4.1	5.0			
	2695	LEAR	4	S/F	0819.0E	0821.0	8.0D	170.0			QL=2 ST=2 TYP=3
	1415	LEAR	4	S/F	0819.0E	0822.0	7.0D	66.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	0819.0E	0821.0	3.0D	420.0			QL=4 ST=2 TYP=5
	4995	LEAR	4	S/F	0819.0E	0821.0	5.0D	190.0			QL=4 ST=2 TYP=5
	8800	LEAR	4	S/F	0819.0E	0821.0	4.0D	220.0			QL=4 ST=2 TYP=5
	8800	SVTO	4	S/F	0819.0E	0821.0	5.0D	180.0			QL=4 ST=2 TYP=5
	15400	SVTO	4	S/F	0819.0E	0821.0	3.0D	410.0			QL=4 ST=2 TYP=5
	1415	SVTO	4	S/F	0819.0E	0822.0	941.0D	61.0			QL=4 ST=1 TYP=3
	9100	GORK	46	C	0819.3	0819.6	5.7	235.0			
	5900	KISV	47	GB	0819.3	0821.7	15.3	376.0			
	9100	GORK	46	C	0819.3	0821.8		246.0			
	3013	IZMI	45	C	0819.4	0822.1	15.7	147.0			
	15000	KISV	47	GB	0819.4	0821.7	24.1	554.0			
	2950	GORK	45	C	0819.4	0821.8		150.0			
	950	GORK	46	C	0819.4	0819.8	2.6	93.0			
	950	GORK	46	C	0819.4	0821.8		210.0			
	2950	GORK	45	C	0819.4	0819.8	4.6	87.0			
	9300	KISV	47	GB	0819.4	0821.8	30.6	317.0			
	2850	CRIM	29	PBI	0819.5	0827.0	13.0	22.0	7.0		
	1470	POTS	4	S/F	0819.5	0820.0	26.0	39.0			
	1470	POTS	4	S/F	0819.5	0826.3		73.0			
	8400	BERN	46	C	0819.5	0821.6	3.5	19.6			
	5200	BERN	46	C	0819.5	0821.6	3.5	15.7			
	50000	BERN	46	C	0819.5	0821.6	3.5	30.1			
	35000	BERN	46	C	0819.5	0821.6	3.5	48.4			
	19600	BERN	46	C	0819.5	0821.6	3.5	53.7			
	11800	BERN	46	C	0819.5	0821.6	3.5	37.9			
	3200	BERN	46	C	0819.5	0821.6	3.5	14.4			
	3000	POTS	4	S/F	0819.5	0819.7	21.0	84.0			
	2850	CRIM	45	C	0819.5	0819.8	7.5	110.0	58.0		
	3000	POTS	4	S/F	0819.5	0821.8		132.0			
	2850	CRIM	45	C	0819.5	0821.9		176.0			
	610	LEAR	8	S	0820.0E	0821.0	2.0D	78.0			QL=2 ST=2 TYP=3
	9500	POTS	4	S/F	0820.0	0822.0		183.0			
	9500	POTS	4	S/F	0820.0	0820.0	20.0	170.0			
	950	GORK	30	PBI	0822.0	0822.0	9.0	23.0			
	2950	GORK	29	PBI	0824.0	0824.0	30.1	44.0			
	950	GORK	2	S/F	0830.6	0830.8	0.4	13.0			
	9300	KISV	25	R	0854.0	0857.2	14.5	18.0			
	5900	KISV	25	R	0854.3	0857.1	14.2	15.0			
	9100	GORK	2	S/F	0855.6	0855.8	2.3	14.0			
	15000	KISV	22	GRF	0855.9	0900.2	13.7	11.0			
	234	POTS	4	S/F	0901.0	0901.1	1.4	125.0			
	950	GORK	2	S/F	0913.5	0913.7	0.4	20.0			
	610	LEAR	8	S	0919.0E	0920.0	1.0D	71.0			QL=2 ST=2 TYP=3
	950	GORK	21	GRF	0919.5	0933.0	86.5	7.0			
	950	GORK	1	S	0920.0	0920.1	0.3	7.0			
	9300	KISV	4	S/F	0932.5	0936.5	5.0	134.0			
	8400	BERN	3	S	0934.0	0936.0	5.0	8.1			

SOLAR RADIO EMISSION
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NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	5200	BERN	3	S	0934.0	0936.0	5.0	9.6			
	11800	BERN	3	S	0934.0	0936.0	5.0	6.2			
	3200	BERN	3	S	0934.0	0936.0	5.0	3.3			
	5900	KISV	45	C	0934.2	0936.0	6.8	135.0			
	5900	KISV	45	C	0934.2	0936.6		101.0			
	2850	CRIM	3	S	0934.4	0935.5	3.5	36.6	12.0		
	2850	CRIM	29	PBI	0934.4	0937.9	4.0	4.4	1.0		
	3013	IZMI	5	S	0934.8	0936.4	5.0	147.0			
	8800	LEAR	8	S	0935.0E	0936.0	2.0D	78.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0935.0E	0936.0	2.0D	95.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0935.0E	0936.0	1.0D	39.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0935.0E	0936.0	1.0D	27.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0935.0E	0936.0	2.0D	110.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0935.0E	0936.0	2.0D	95.0			QL=4 ST=2 TYP=3
	3000	POTS	4	S/F	0935.0	0936.0	15.0	43.0			
	9500	POTS	4	S/F	0935.0	0936.3	15.0	96.0			
	2950	GORK	3	S	0935.1	0936.0	1.5	33.0			
	9100	GORK	46	C	0935.2	0936.0	4.1	90.0			
	9100	GORK	46	C	0935.2	0936.4		120.0			
	15000	KISV	2	S/F	0935.5	0936.5	3.2	46.0			
	15000	KISV	23	GRF	0935.5	0938.9	12.3	8.0			
	15400	LEAR	8	S	0936.0E	0936.0	U	32.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0936.0E	0936.0	U	50.0			QL=4 ST=2 TYP=3
	2950	GORK	29	PBI	0936.6	0936.6	11.8	14.0			
	245	LEAR	8	S	0937.0E	0938.0	2.0D	180.0			QL=2 ST=2 TYP=3
	234	POTS	41	F	0937.2	0941.5	5.0	800.0			
	245	SVTO	8	S	0938.0E	0938.0	U	180.0			QL=4 ST=2 TYP=3
	113	POTS	41	F	0938.0	0941.6	4.3	125.0			
	245	LEAR	8	S	0941.0E	0941.0	1.0D	440.0			QL=2 ST=2 TYP=3
	245	SVTO	49	GB	0941.0E	0941.0	1.0D	520.0			QL=2 ST=2 TYP=6
	204	IZMI	41	F	0941.2	0941.8	0.7	200.0			
	9300	KISV	29	PBI	0949.5E	0949.5	12.0D	33.0			
	245	LEAR	4	S/F	0956.0E	1002.0	7.0D	220.0			QL=2 ST=2 TYP=3
	9300	KISV	2	S/F	1001.2	1003.1	5.0	12.0			
	113	POTS	42	SER	1001.7	1028.4	29.8	21000.0			
	9500	POTS	3	S	1002.0	1003.0	2.0	11.0			
	1470	POTS	3	S	1002.0	1003.2	2.0	7.0			
	9100	GORK	2	S/F	1002.2	1002.6	1.6	8.0			
	234	POTS	42	SER	1002.2	1030.6	29.9	4000.0			
	15000	KISV	2	S/F	1002.4	1003.2	1.6	10.0			
	950	GORK	4	S/F	1002.5	1002.9	1.5	39.0			
	1470	POTS	3	S	1013.5	1014.5	2.0	8.0			
	245	LEAR	49	GB	1014.0E	1014.0	1.0D	1700.0			QL=2 ST=2 TYP=6
	245	SVTO	49	GB	1014.0E	1014.0	1.0D	1800.0			QL=4 ST=2 TYP=6
	3000	POTS	3	S	1014.0	1014.5	1.0	7.0			
	9500	POTS	3	S	1014.0	1014.5	20.0	16.0			
	2850	CRIM	1	S	1014.0	1014.6	1.0	7.3	2.0		
	9100	GORK	2	S/F	1014.2	1014.6	1.8	19.0			
	204	IZMI	45	C	1014.2	1014.8	0.8	1500.0			
	3013	IZMI	1	S	1014.3	1014.5	0.8	5.0	3.0		
	9300	KISV	2	S/F	1014.3	1014.7	2.0	22.0			
	5900	KISV	2	S/F	1014.3	1014.7	1.4	15.0			
	950	GORK	2	S/F	1014.4	1014.5	0.9	10.0			
	2950	GORK	1	S	1014.4	1014.6	0.6	6.0			
	15000	KISV	2	S/F	1014.4	1014.8	1.4	20.0			
	536	ONDR	46	C	1019.0	1020.6	30.0	55.0			
	430	KRAK	42	SER	1019.5	1020.7	9.0	98.0			
	245	SVTO	8	S	1023.0E	1023.0	U	130.0			QL=4 ST=2 TYP=3
	9300	KISV	3	S	1026.1	1028.3	3.9	158.0			
	9500	POTS	3	S	1027.0	1028.0	2.0U	86.0			
	245	SVTO	49	GB	1027.0E	1028.0	4.0D	1900.0			QL=4 ST=2 TYP=7
	3000	POTS	3	S	1027.0	1027.8	2.0	14.0			
	5900	KISV	4	S/F	1027.3	1028.0	2.0	57.0			
	204	IZMI	42	SER	1027.3	1028.3	8.8	8000.0			
	810	KRAK	41	F	1027.5	1031.0	6.0	31.0			
	2950	GORK	1	S	1027.5	1028.1	1.1	12.0			
	9100	GORK	4	S/F	1027.5	1028.1	1.5	136.0			
	808	ONDR	2	S/F	1027.5	1031.2	10.0	20.0			
	810	KRAK	41	F	1027.5	1028.3	6.0	29.0	10.0		

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NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	430	KRAK	41	F	1027.7	1032.0	7.5	24.0			
	3013	IZMI	1	S	1027.7	1028.1	0.8	8.0	4.0		
	950	GORK	46	C	1027.7	1028.2	5.3	20.0			
	950	GORK	46	C	1027.7	1031.2		32.0			
	430	KRAK	41	F	1027.7	1028.2	7.5	90.0	9.0		
	15000	KISV	3	S	1027.7	1028.4	1.3	42.0			
	1415	SVTO	8	S	1028.0E	1028.0	U	22.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1028.0E	1028.0	U	120.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1028.0E	1028.0	U	88.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1028.0E	1028.0	U	26.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1028.0E	1028.0	U	140.0			QL=4 ST=2 TYP=3
	5900	KISV	22	GRF	1044.2	1048.7	14.3	5.0			
	9300	KISV	22	GRF	1047.0	1048.1	11.3	5.0			
	808	ONDR	1	S	1048.7	1048.9	1.0	9.0			
	536	ONDR	42	SER	1105.5	1105.8	3.0	35.0			
	245	SGMR	4	S/F	1151.0E	1154.0	7.0D	290.0			QL=2 ST=2 TYP=3
	9500	POTS	21	GRF	1215.0	1229.0	45.0	24.0			
	11800	BERN	3	S	1227.0	1229.0	6.0	1.8			
	8400	BERN	3	S	1227.0	1229.0	6.0	2.6			
	5200	BERN	3	S	1227.0	1229.0	6.0	2.8			
	3200	BERN	3	S	1227.0	1229.0	6.0	1.4			
	3000	POTS	4	S/F	1227.0U	1229.0U	5.0U	18.0			
	2850	CRIM	7	C	1228.0	1229.0	3.5	20.0	7.0		
	2850	CRIM	7	C	1228.0	1230.8		20.0			
	536	ONDR	41	F	1230.0	1232.0	22.0	13.0			
	810	KRAK	1	S	1232.0	1232.5	0.5	5.0	2.0		
	245	SGMR	49	GB	1310.0E	1310.0	2.0D	710.0			QL=2 ST=3 TYP=6
	245	SVTO	49	GB	1310.0E	1310.0	2.0D	760.0			QL=4 ST=3 TYP=6
	113	POTS	41	F	1310.0	1310.2	2.8	120.0			
	234	POTS	41	F	1310.0	1310.2	2.8	650.0			
	234	POTS	42	SER	1347.7	1353.6	6.7	120.0			
	245	SGMR	8	S	1348.0E	1348.0	1.0D	51.0			QL=2 ST=2 TYP=3
	113	POTS	42	SER	1348.1	1348.8	6.4	500.0			
	245	SGMR	8	S	1353.0E	1353.0	U	150.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1353.0E	1353.0	U	160.0			QL=4 ST=2 TYP=3
	113	POTS	4	S/F	1420.0	1420.2	0.8	150.0			
	245	SGMR	8	S	1432.0E	1432.0	U	52.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1504.0E	1504.0	1.0D	58.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	1817.0E	1817.0	U	99.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1839.0E	1839.0	U	52.0			QL=4 ST=2 TYP=3
	2800	OTTA	4	S/F	1847.0	1853.6	22.7	59.4	12.0		
	1415	SGMR	4	S/F	1850.0E	1852.0	7.0D	48.0			QL=2 ST=2 TYP=3
	4995	SGMR	4	S/F	1851.0E	1853.0	4.0D	55.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	1851.0E	1853.0	6.0D	63.0			QL=2 ST=2 TYP=3
	610	SGMR	8	S	1851.0E	1852.0	2.0D	170.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1851.0E	1851.0	1.0D	52.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1852.0E	1852.0	U	44.0			QL=2 ST=2 TYP=3
	2800	OTTA	4	S/F	1919.0	1929.5	180.0	267.3	54.0		
	1415	PALE	20	GRF	1921.0E	1945.0	31.0D	120.0			QL=4 ST=2 TYP=2
	8800	SGMR	4	S/F	1921.0E	1931.0	55.0D	230.0			QL=2 ST=2 TYP=5
	2695	PALE	4	S/F	1921.0E	1929.0	63.0D	250.0			QL=4 ST=2 TYP=5
	1415	SGMR	20	GRF	1922.0E	1945.0	39.0D	110.0			QL=2 ST=2 TYP=2
	2695	SGMR	4	S/F	1922.0E	1929.0	54.0D	240.0			QL=2 ST=2 TYP=3
	4995	PALE	4	S/F	1923.0E	1929.0	38.0D	250.0			QL=2 ST=2 TYP=3
	610	PALE	20	GRF	1923.0E	1946.0	30.0D	82.0			QL=4 ST=2 TYP=2
	4995	SGMR	4	S/F	1923.0E	1929.0	53.0D	300.0			QL=2 ST=2 TYP=5
	245	PALE	49	GB	1923.0E	1959.0	75.0D	1400.0			QL=4 ST=2 TYP=7
	410	PALE	4	S/F	1924.0E	1931.0	27.0D	130.0			QL=4 ST=2 TYP=5
	8800	PALE	4	S/F	1924.0E	1931.0	33.0D	180.0			QL=4 ST=2 TYP=3
	15400	PALE	20	GRF	1924.0E	1934.0	69.0D	150.0			QL=4 ST=2 TYP=2
	610	SGMR	4	S/F	1925.0E	1928.0	4.0D	72.0			QL=2 ST=2 TYP=3
	410	SGMR	20	GRF	1925.0E	1931.0	51.0D	97.0			QL=2 ST=2 TYP=2
	15400	SGMR	20	GRF	1927.0E	1934.0	42.0D	140.0			QL=2 ST=2 TYP=2
	245	SGMR	49	GB	1927.0E	1959.0	49.0D	830.0			QL=2 ST=2 TYP=7
	2800	OTTA	4	S/F	1939.8	1945.1	19.0	150.0	30.0		
	245	SGMR	8	S	2016.0E	2016.0	1.0D	82.0			QL=2 ST=2 TYP=3
	200	HIRA	27	RF	2110.0E		135.0D		40.0		ML
	100	HIRA	42	SER	2134.7	2148.2	17.8	4000.0			O
	2695	PALE	4	S/F	2135.0E	2137.0	5.0D	89.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	2695	PENT	4	S/F	2135.0	2137.6	25.0	65.2	13.0		
	1415	PALE	8	S	2136.0E	2137.0	2.0D	68.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2137.0E	2137.0	U	30.0			QL=2 ST=2 TYP=3
	200	HIRA	42	SER	2142.8	2150.8	12.5	2360.0			O
	245	PALE	49	GB	2145.0E	2146.0	2.0D	1000.0			QL=4 ST=2 TYP=6
	2695	PALE	8	S	2146.0E	2146.0	U	24.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	2149.0E	2150.0	3.0D	1200.0			QL=4 ST=2 TYP=6
	200	HIRA	42	SER	2346.2	2347.5	5.2	290.0			O
	245	LEAR	8	S	2348.0E	2348.0	U	160.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	2351.0E	2351.0	U	370.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	2351.0E	2351.0	U	480.0			QL=4 ST=2 TYP=3
10	100	GORK	44	NS	0451.0E		348.0D		5.0		
	200	GORK	44	NS	0451.0E		429.0D		5.0		
	127	TORN	44	NS	0700.0E		80.0D		4.0		V=1
	204	IZMI	43	NS	0700.0		300.0	10.0			
	260	ONDR	43	NS	0900.0	1114.9	300.0	29.0			
	245	SVTO	43	NS	1054.0	1134.0	146.0D	90.0			QL=4 ST=2 TYP=1
	610	LEAR	8	S	0049.0E	0050.0	1.0D	84.0			QL=2 ST=2 TYP=3
	610	PALE	8	S	0049.0E	0050.0	1.0D	98.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0049.0	0050.6	7.0	68.4			
	4995	LEAR	8	S	0050.0E	0050.0	1.0D	41.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0050.0E	0050.0	1.0D	32.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0050.0E	0050.0	1.0D	67.0			QL=2 ST=2 TYP=3
	1415	LEAR	8	S	0050.0E	0051.0	1.0D	36.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0050.0E	0050.0	1.0D	68.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	0050.0E	0050.0	1.0D	57.0			QL=4 ST=2 TYP=3
	2840	PEKG	45	C	0215.0	0216.5	10.0	58.7			
	1415	LEAR	8	S	0216.0E	0217.0	2.0D	32.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0216.0E	0217.0	1.0D	37.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0216.0E	0217.0	2.0D	63.0			QL=2 ST=2 TYP=3
	610	LEAR	8	S	0216.0E	0216.0	1.0D	490.0			QL=2 ST=2 TYP=3
	2695	PALE	8	S	0216.0E	0217.0	2.0D	54.0			QL=4 ST=2 TYP=3
	610	PALE	49	GB	0216.0E	0216.0	1.0D	560.0			QL=4 ST=2 TYP=6
	8800	LEAR	8	S	0217.0E	0217.0	U	24.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0217.0E	0219.0	3.0D	410.0			QL=2 ST=2 TYP=3
	245	PALE	49	GB	0217.0E	0219.0	2.0D	500.0			QL=4 ST=2 TYP=6
	2840	PEKG	5	S	0236.0	0237.2	5.0	19.0			
	17000	NOBE	1	S	0237.5	0237.9	1.0	24.0			31L 80,35GHz:O
	245	LEAR	8	S	0353.0E	0354.0	1.0D	110.0			QL=2 ST=2 TYP=3
	9100	GORK	21	GRF	0523.9	0944.0	396.1D	41.0			
	650	GORK	4	S/F	0628.1	0628.9	1.5	20.0			
	5900	KISV	2	S/F	0632.8	0635.0	7.2	6.0			
	650	GORK	21	GRF	0633.8	0637.1	7.0	2.0			
	950	GORK	1	S	0636.7	0637.1	1.0	1.0			
	650	GORK	4	S/F	0638.4	0638.5	0.2	25.0			
	410	LEAR	8	S	0641.0E	0641.0	U	37.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0641.0E	0641.0	U	110.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0641.0E	0641.0	U	88.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0646.0E	0652.0	6.0D	76.0			QL=4 ST=2 TYP=3
	9300	KISV	2	S/F	0728.5	0731.7	7.5	7.0			
	5900	KISV	2	S/F	0731.0	0731.5	2.8	5.0			
	9300	KISV	1	S	0807.2	0807.3	0.3	7.0			
	5900	KISV	22	GRF	0808.0	0814.7	42.0	16.0			
	9300	KISV	22	GRF	0809.5	0814.6	40.5	17.0			
	15000	KISV	22	GRF	0810.0	0814.7	14.0	11.0			
	15000	KISV	2	S/F	0843.1	0843.3	0.7	9.0			
	410	LEAR	8	S	0855.0E	0856.0	1.0D	170.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0855.0E	0856.0	1.0D	160.0			QL=2 ST=2 TYP=3
	410	SVTO	4	S/F	0855.0E	0856.0	3.0D	200.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0855.0E	0856.0	1.0D	190.0			QL=4 ST=2 TYP=3
	430	KRAK	45	C	0855.5	0855.5	2.5	260.0D	25.0		
	204	IZMI	41	F	0855.8	0856.1	1.0	240.0			
	234	POTS	4	S/F	0855.8	0856.2	1.0	650.0			
	950	GORK	2	S/F	0855.9	0856.1	0.9	5.0			
	610	LEAR	8	S	0856.0E	0856.0	U	98.0			QL=2 ST=2 TYP=3
	113	POTS	4	S/F	0856.0	0856.2	0.7	85.0			
	9300	KISV	2	S/F	0939.7	0944.0	6.3	7.0			
	5900	KISV	2	S/F	0943.1	0944.1	2.7	8.0			

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

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	536	ONDR	42	SER	0947.0	0948.9	94.0	30.0			
	9300	KISV	2	S/F	0956.7	0957.7	3.8	6.0			
	610	LEAR	8	S	1001.0E	1001.0	U	100.0			QL=2 ST=2 TYP=3
	204	IZMI	7	C	1103.6	1103.9	0.8	96.0	40.0		
	9300	KISV	2	S/F	1120.1	1120.3	2.3	6.0			
	9300	KISV	23	GRF	1126.8	1132.2	17.3	8.0			
	5900	KISV	23	GRF	1127.1	1130.7	17.0	7.0			
	5900	KISV	4	S/F	1127.5	1128.0	1.8	19.0			
	9500	POTS	3	S	1127.5	1127.9	2.0	45.0			
	9100	GORK	4	S/F	1127.6	1128.0	1.5	55.0			
	9300	KISV	3	S	1127.6	1128.1	1.9	63.0			
	15000	KISV	3	S	1127.7	1128.1	1.3	67.0			
	15000	KISV	23	GRF	1127.7	1131.3	12.7	9.0			
	9500	POTS	3	S	1212.0	1212.5	1.5	12.0			
	245	SVTO	8	S	1214.0E	1214.0	U	210.0			QL=4 ST=2 TYP=3
	3000	POTS	3	S	1322.0	1323.2	3.0	15.0			
	2800	OTTA	3	S	1644.2	1650.5	120.0	205.2	41.0		
	4995	SGMR	49	GB	1645.0E	1650.0	6.0D	620.0			QL=4 ST=2 TYP=7
	8800	SGMR	4	S/F	1646.0E	1650.0	5.0D	400.0			QL=4 ST=2 TYP=5
	2695	SGMR	4	S/F	1648.0E	1650.0	3.0D	170.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1649.0E	1649.0	1.0D	78.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1649.0E	1650.0	2.0D	180.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1711.0E	1712.0	2.0D	93.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	1748.0E	1749.0	1.0D	230.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1748.0E	1749.0	1.0D	180.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1749.0E	1749.0	U	100.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1803.0E	1803.0	U	60.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1806.0E	1806.0	U	150.0			QL=2 ST=2 TYP=3
	2800	OTTA	3	S	1943.0	1944.3	4.0	28.4	6.0		
	245	PALE	8	S	1945.0E	1946.0	2.0D	92.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1946.0E	1947.0	2.0D	66.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	2304.0E	2304.0	U	360.0			QL=2 ST=2 TYP=3
	410	LEAR	8	S	2304.0E	2304.0	U	41.0			QL=2 ST=2 TYP=3
	410	PALE	8	S	2304.0E	2304.0	U	43.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2304.0E	2304.0	U	490.0			QL=4 ST=2 TYP=3
11	200	GORK	44	NS	0521.0E		374.0D		5.0		
	260	ONDR	43	NS	0900.0	1238.1	300.0	62.0			
	100	GORK	43	NS	0901.0		65.0		5.0		
	245	LEAR	8	S	0427.0E	0428.0	1.0D	99.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0456.0	0501.7	8.0	50.3			
	2695	LEAR	8	S	0459.0E	0501.0	2.0D	46.0			QL=4 ST=3 TYP=3
	35000	NOBE	20	GRF	0459.8	0509.3	25.0	81.0			0
	80000	NOBE	20	GRF	0459.8	0509.3	25.0	26.0			
	17000	NOBE	20	GRF	0459.8	0509.3	30.0				0
	4995	LEAR	20	GRF	0500.0E	0507.0	16.0D	39.0			QL=2 ST=3 TYP=2
	8800	LEAR	20	GRF	0500.0E	0508.0	19.0D	56.0			QL=4 ST=3 TYP=2
	15400	LEAR	20	GRF	0502.0E	0508.0	17.0D	74.0			QL=4 ST=3 TYP=2
	2840	PEKG	29	PBI	0504.0	0508.0	134.0D	22.1			
	9100	GORK	21	GRF	0614.2	0909.4	320.8D	24.0			
	15000	KISV	2	S/F	0637.9	0638.5	1.8	5.0			
	9300	KISV	2	S/F	0637.9	0638.6	4.7	11.0			
	2950	GORK	1	S	0711.0	0711.2	1.0	8.0			
	9300	KISV	2	S/F	0711.1	0711.3	1.2	5.0			
	15000	KISV	2	S/F	0711.1	0711.7	2.4	6.0			
	100	GORK	4	S/F	0754.6	0757.4	5.1	33.0			
	2695	LEAR	4	S/F	0803.0E	0806.0	5.0D	40.0			QL=2 ST=3 TYP=3
	2695	LEAR	8	S	0818.0E	0818.0	1.0D	90.0			QL=2 ST=3 TYP=3
	430	KRAK	42	SER	0828.2	0828.6	2.0	76.0			
	5900	KISV	2	S/F	0845.2	0845.6	2.6	5.0			
	9300	KISV	2	S/F	0845.7	0846.6	4.0	6.0			
	650	GORK	21	GRF	0853.7	0901.8	18.9	3.0			
	200	GORK	4	S/F	0854.8	0858.9	7.0	25.0D			
	2850	CRIM	3	S	0855.0	0858.0	7.0	106.0	35.0		
	2850	CRIM	29	PBI	0855.0	0902.0	28.0	11.0	3.0		
	100	GORK	4	S/F	0855.0	0857.3	6.0	370.0			
	1470	POTS	4	S/F	0855.0	0859.5	8.0	44.0			
	234	POTS	4	S/F	0855.0	0858.7	6.0	125.0			
	3000	POTS	4	S/F	0855.0	0857.8	10.0	96.0			

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
11	113	POTS	41	F	0855.6	0859.6	5.4	140.0			
	15000	KISV	23	GRF	0855.6	0908.7	31.4	12.0			
	950	GORK	21	GRF	0855.7	0901.4	52.3	5.0			
	2950	GORK	46	C	0855.8	0858.1	5.0	95.0			
	2950	GORK	46	C	0855.8	0900.3		19.0			
	2950	GORK	46	C	0855.8	0859.3		22.0			
	2950	GORK	21	GRF	0855.9	0903.3	25.4	8.0			
	5900	KISV	45	C	0856.0	0858.1	6.9	93.0			
	5900	KISV	45	C	0856.0	0900.3		30.0			
	5900	KISV	23	GRF	0856.0	0902.9	40.0	9.0			
	11800	BERN	46	C	0856.1	0858.0	5.0	3.0			
	5200	BERN	46	C	0856.1	0858.0	5.0	7.8			
	8400	BERN	46	C	0856.1	0858.0	5.0	4.6			
	3200	BERN	46	C	0856.1	0858.0	5.0	7.4			
	204	IZMI	42	SER	0856.3	0858.5	7.0	45.0			
	127	TORN	46	C	0856.3	0859.7	24.0	1400.0	20.0		
	9300	KISV	45	C	0856.5	0858.0	6.2	51.0			
	9300	KISV	23	GRF	0856.5	0906.0	31.5	13.0			
	9300	KISV	45	C	0856.5	0900.3		22.0			
	3013	IZMI	22	GRF	0856.6	0858.4	6.8	85.0	45.0		
	9100	GORK	46	C	0856.7	0858.0	4.4	44.0			
	9100	GORK	46	C	0856.7	0900.3		11.0			
	950	GORK	46	C	0856.8	0858.0	4.4	22.0			
	950	GORK	46	C	0856.8	0859.5		65.0			
	430	KRAK	7	C	0856.8	0859.5	3.5D	36.0	4.0		
	4995	LEAR	4	S/F	0857.0E	0858.0	3.0D	92.0			QL=2 ST=2 TYP=3
	1415	LEAR	8	S	0857.0E	0859.0	2.0D	40.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0857.0E	0859.0	2.0D	92.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0857.0E	0858.0	1.0D	38.0			QL=4 ST=2 TYP=3
	9500	POTS	4	S/F	0857.0	0858.4	5.0	33.0			
	810	KRAK	7	C	0857.1	0859.5	3.0D	44.0	14.0		
	650	GORK	45	C	0857.2	0858.1	4.6	12.0			
	650	GORK	45	C	0857.2	0859.5		40.0			
	15000	KISV	45	C	0857.5	0858.2	3.7	22.0			
	15000	KISV	45	C	0857.5	0900.3		13.0			
	650	GORK	2	S/F	0936.4	0938.0	4.1	1.0			
	410	SVTO	8	S	1134.0E	1134.0	U	56.0			QL=2 ST=2 TYP=3
	536	ONDR	41	F	1217.0	1256.2	50.0	11.0			
	8800	PALE	8	S	1831.0E	1831.0	1.0D	73.0			QL=4 ST=3 TYP=3
	4995	SGMR	8	S	1831.0E	1831.0	2.0D	58.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2002.0E	2002.0	U	84.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2045.0E	2045.0	1.0D	240.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2122.0E	2122.0	U	60.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2343.0E	2343.0	U	120.0			QL=4 ST=3 TYP=3
12	200	HIRA	43	NS	0000.0	0046.0	300.0D	8.0	5.0		O
	200	GORK	44	NS	0519.0E		374.0D		5.0		
	100	GORK	44	NS	0519.0E		374.0D		5.0		
	127	TORN	44	NS	0700.0E		180.0D		8.0		V=1
	204	IZMI	43	NS	0700.0		300.0	20.0			
	430	KRAK	44	NS	0757.2E	0808.7	350.0D	97.0			
	260	ONDR	44	NS	0900.0E	0908.9	300.0D	228.0			
	245	SGMR	44	NS	1353.0E	1400.0	336.0D	100.0			QL=4 ST=2 TYP=1
	245	PALE	8	S	0039.0E	0039.0	1.0D	64.0			QL=4 ST=2 TYP=3
	500	HIRA	41	F	0048.7	0048.8	1.8	196.0			WR
	9100	GORK	47	GB	0554.8	0600.6	13.6	1304.0			
	2840	PEKG	47	GB	0555.0	0600.5	19.0	561.4			
	5900	KISV	47	GB	0555.9	0600.3	9.8	1160.0			
	5900	KISV	29	PBI	0555.9	0605.7	64.1	133.0			
	500	HIRA	46	C	0556.8	0600.0	17.0	942.0	32.0		O
	15000	KISV	47	GB	0556.9	0600.8	6.9	942.0			
	15000	KISV	29	PBI	0556.9	0603.8	62.5	81.0			
	2850	CRIM	29	PBI	0557.0	0606.0	14.0	43.0			
	2850	CRIM	47	GB	0557.0	0600.0U	9.0	695.0D			
	2950	GORK	21	GRF	0557.0	0606.3	12.1	9.0			
	200	HIRA	48	C	0557.3	0601.8	11.2	54000.0	5360.0		O
	9300	KISV	29	PBI	0557.5	0605.7	60.6	180.0			
	9300	KISV	47	GB	0557.5	0600.8					
	200	GORK	47	GB	0557.9	0602.0		41500.0D			

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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	200	GORK	47	GB	0557.9	0601.1	11.1	41000.0D			
	950	GORK	46	C	0558.0	0600.0		300.0			
	2695	LEAR	49	GB	0558.0E	0559.0	9.0D	360.0			QL=4 ST=2 TYP=7
	1415	LEAR	49	GB	0558.0E	0559.0	6.0D	150.0			QL=4 ST=2 TYP=7
	4995	SVTO	49	GB	0558.0E	0600.0	6.0D	770.0			QL=2 ST=2 TYP=6
	2695	SVTO	4	S/F	0558.0E	0559.0	6.0D	470.0			QL=2 ST=2 TYP=3
	8800	LEAR	49	GB	0558.0E	0600.0	28.0D	1200.0			QL=4 ST=2 TYP=7
	4995	LEAR	49	GB	0558.0E	0600.0	31.0D	840.0			QL=2 ST=2 TYP=7
	15400	LEAR	49	GB	0558.0E	0600.0	31.0D	1700.0			QL=4 ST=2 TYP=7
	2950	GORK	46	C	0558.0	0601.2		78.0			
	950	GORK	46	C	0558.0	0558.5	7.3	30.0			
	2950	GORK	46	C	0558.0	0559.9	5.0	124.0			
	17000	NOBE	45	C	0558.1	0600.3	25.0				13L 80,35GHz:SK
	410	LEAR	49	GB	0559.0E	0600.0	3.0D	1100.0			QL=4 ST=2 TYP=7
	245	LEAR	49	GB	0559.0E	0601.0	7.0D	17000.0			QL=4 ST=2 TYP=7
	610	LEAR	49	GB	0559.0E	0559.0	8.0D	79.0			QL=4 ST=2 TYP=7
	410	SVTO	49	GB	0559.0E	0600.0	8.0D	2800.0			QL=2 ST=2 TYP=6
	1415	SVTO	4	S/F	0559.0E	0600.0	6.0D	94.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	0559.0E	0600.0	2.0D	260.0			QL=2 ST=2 TYP=3
	245	SVTO	49	GB	0559.0E	0601.0	6.0D	15000.0			QL=2 ST=2 TYP=6
	650	GORK	46	C	0559.3	0604.3		24.0			
	650	GORK	46	C	0559.3	0601.8		37.0			
	650	GORK	46	C	0559.3	0559.8	14.3	94.0			
	650	GORK	46	C	0559.3	0606.9		22.0			
	100	HIRA	48	C	0600.0E		10.6D	16000.0D			
	100	GORK	47	GB	0600.6	0601.1	11.4	4700.0			
	100	GORK	47	GB	0600.6	0601.5		14300.0			
	950	GORK	29	PBI	0605.3	0605.3	15.8	16.0			
	9100	GORK	30	PBI	0608.4	0608.4	324.6D	125.0			
	200	HIRA	29	PBI	0610.0	0612.3	51.0	120.0	23.0		WL
	650	GORK	29	PBI	0613.6	0616.8	69.4	7.0			
	2840	PEKG	29	PBI	0614.0		87.0	23.3			
	500	HIRA	29	PBI	0614.5	0626.5	65.0D	16.0	5.0		WL SUNSET
	245	LEAR	8	S	0715.0E	0715.0	1.0D	83.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0715.0E	0715.0	1.0D	110.0			QL=4 ST=2 TYP=3
	650	GORK	1	S	0741.7	0745.0	5.8	1.0			
	9300	KISV	23	GRF	0754.0	0800.1	27.5	8.0			
	15000	KISV	23	GRF	0754.0	0759.3	37.6	8.0			
	5900	KISV	23	GRF	0754.2	0800.4	23.8	5.0			
	9300	KISV	2	S/F	0754.8	0756.2	5.3	20.0			
	9100	GORK	2	S/F	0755.0	0756.0	3.2	16.0			
	9500	POTS	3	S	0755.0	0756.0	7.0	18.0			
	1470	POTS	3	S	0755.0	0756.0	4.0	18.0			
	15000	KISV	2	S/F	0755.0	0756.3	4.3	14.0			
	2850	CRIM	3	S	0755.0	0755.9	2.2	49.0	16.0		
	5900	KISV	2	S/F	0755.1	0756.1	5.0	24.0			
	3013	IZMI	7	C	0755.2	0755.8	3.8	40.0			
	410	SVTO	8	S	0756.0E	0756.0	U	51.0			QL=4 ST=2 TYP=3
	650	GORK	8	S	0756.1	0756.2	0.3	15.0			
	950	GORK	8	S	0756.1	0756.2	0.4	73.0			
	245	LEAR	4	S/F	0807.0E	0808.0	7.0D	78.0			QL=4 ST=2 TYP=3
	3013	IZMI	7	C	0807.0	0809.3	5.5	31.0	15.0		
	650	GORK	21	GRF	0807.0	0815.3	20.7	4.0			
	650	GORK	4	S/F	0807.1	0810.2	4.2	19.0			
	3000	POTS	3	S	0807.5	0809.4	5.0	24.0			
	1470	POTS	3	S	0807.5	0809.4	5.0	7.0			
	2850	CRIM	3	S	0807.5	0809.5	3.5	29.0	10.0		
	5900	KISV	4	S/F	0807.6	0809.7	7.2	58.0			
	410	LEAR	4	S/F	0808.0E	0809.0	3.0D	33.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0808.0E	0809.0	3.0D	42.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0808.0E	0808.0	U	90.0			QL=4 ST=2 TYP=3
	3200	BERN	3	S	0808.0	0809.3	7.0	1.6			
	5200	BERN	3	S	0808.0	0809.3	7.0	3.4			
	11800	BERN	3	S	0808.0	0809.3	7.0	1.2			
	8400	BERN	3	S	0808.0	0809.3	7.0	1.8			
	200	GORK	4	S/F	0808.0	0808.4	1.7	20.0D			
	2950	GORK	4	S/F	0808.0	0809.5	4.0	24.0			
	100	GORK	4	S/F	0808.0	0809.6	2.0	120.0			
	204	IZMI	42	SER	0808.1	0809.6	2.1	89.0			

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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
12	9500	POTS	3	S	0808.5	0809.4	4.0	22.0			
	9100	GORK	2	S/F	0808.7	0809.4	3.6	22.0			
	15000	KISV	2	S/F	0808.9	0809.7	4.9	20.0			
	9300	KISV	2	S/F	0809.0	0809.8	6.5	28.0			
	245	LEAR	8	S	0830.0E	0831.0	2.0D	60.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0836.0E	0836.0	U	73.0			QL=4 ST=2 TYP=3
	2950	GORK	3	S	0855.0	0856.1	2.9	40.0			
	245	LEAR	8	S	0857.0E	0858.0	2.0D	59.0			QL=4 ST=2 TYP=3
	3000	POTS	21	GRF	0901.0	0908.1	54.0	48.0			
	9500	POTS	20	GRF	0902.0	0915.0	53.0	28.0			
	9300	KISV	23	GRF	0903.1	0915.4	59.6	36.0			
	5900	KISV	23	GRF	0904.0	0914.8	51.9	30.0			
	2850	CRIM	45	C	0904.7	0908.0	15.8	48.0	16.0		
	2850	CRIM	45	C	0904.7	0909.2		48.0			
	15000	KISV	23	GRF	0904.7	0916.2	64.4	34.0			
	2850	CRIM	45	C	0904.7	0914.8		26.0			
	11800	BERN	46	C	0905.0	0909.0	20.0	2.4			
	8400	BERN	46	C	0905.0	0909.0	20.0	2.7			
	3200	BERN	46	C	0905.0	0909.0	20.0	3.3			
	5200	BERN	46	C	0905.0	0909.0	20.0	3.0			
	650	GORK	23	GRF	0905.4	0948.7	54.0	3.0			
	5900	KISV	45	C	0905.9	0909.3		32.0			
	5900	KISV	45	C	0905.9	0907.9	5.4	33.0			
	3013	IZMI	41	F	0906.0	0908.0	19.0	42.0	22.0		
	950	GORK	46	C	0906.3	0915.3		23.0			
	950	GORK	46	C	0906.3	0909.4	13.7	58.0			
	2950	GORK	46	C	0906.4	0908.2	4.6	40.0			
	2950	GORK	46	C	0906.4	0909.3		38.0			
	1415	LEAR	8	S	0907.0E	0908.0	2.0D	52.0			QL=4 ST=3 TYP=3
	4995	LEAR	4	S/F	0907.0E	0907.0	3.0D	31.0			QL=4 ST=3 TYP=3
	9300	KISV	45	C	0907.0	0909.4	5.0	16.0			
	9300	KISV	45	C	0907.0	0907.8		12.0			
	9100	GORK	45	C	0907.1	0909.3		12.0			
	9100	GORK	45	C	0907.1	0907.9	3.5	11.0			
	650	GORK	46	C	0907.5	0914.7		10.0			
	650	GORK	46	C	0907.5	0907.8	10.2	20.0			
	808	ONDR	47	GB	0908.0	0909.5	11.0	14.0			
	245	LEAR	8	S	0909.0E	0909.0	U	47.0			QL=4 ST=3 TYP=3
	410	LEAR	8	S	0909.0E	0909.0	U	230.0			QL=4 ST=3 TYP=3
	8800	LEAR	8	S	0909.0E	0909.0	U	17.0			QL=4 ST=3 TYP=3
	410	SVTO	8	S	0909.0E	0909.0	U	370.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0909.0	0909.4	0.5	89.0			
	2950	GORK	2	S/F	0911.8	0914.2	6.2	15.0			
	810	KRAK	1	S	0914.5	0915.2	1.2	11.0	5.0		
	650	GORK	41	F	1010.9	1011.3	6.0	8.0			
	650	GORK	41	F	1010.9	1014.5		24.0			
	5900	KISV	23	GRF	1106.2	1114.6	33.4	14.0			
	3000	POTS	3	S	1122.5	1125.0	4.0	10.0			
	2850	CRIM	1	S	1122.5	1124.8	6.0	12.0	2.0		
	5900	KISV	2	S/F	1123.7	1125.0	2.6	6.0			
13	200	HIRA	43	NS	0200.0	0543.0	230.0D	19.0	4.0		WL
	200	GORK	44	NS	0524.0E		225.0D		5.0		
	245	SVTO	44	NS	0617.0E	0617.0	1063.0D	57.0			QL=4 ST=1 TYP=1
	204	IZMI	43	NS	0700.0		300.0	10.0			
	260	ONDR	44	NS	0800.0E		350.0D				
	200	HIRA	44	NS	2110.0E	0517.0	620.0D	17.0	3.0		ML
	245	LEAR	8	S	0303.0E	0303.0	2.0D	110.0			QL=2 ST=3 TYP=3
	245	PALE	8	S	0303.0E	0304.0	1.0D	110.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0307.0E	0310.0	4.0D	76.0			QL=2 ST=3 TYP=3
	245	PALE	4	S/F	0308.0E	0311.0	4.0D	98.0			QL=4 ST=2 TYP=3
	9100	GORK	22	GRF	0715.4	0932.1	281.6	15.0			
	536	ONDR	49	GB	0800.0E	0807.6	92.0D	113.0			
	234	POTS	4	S/F	0833.5	0833.5	0.4	135.0			
	200	GORK	41	F	0841.5	0845.3		1900.0			
	200	GORK	41	F	0841.5	0843.9	4.9	1600.0			
	100	GORK	41	F	0842.5	0845.4		16300.0			
	204	IZMI	42	SER	0842.5	0845.5	11.7	2000.0			
	100	GORK	41	F	0842.5	0843.7	4.5	4600.0			

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	113	POTS	4	S/F	0842.6	0845.3U	5.0	2800.0D			
	127	TORN	47	GB	0842.6	0845.7	4.0	1700.0D	330.0		
	950	GORK	4	S/F	0843.8	0845.4	2.5	64.0			
	430	KRAK	42	SER	0844.0	0844.2U	1.3	250.0D			
	810	KRAK	8	S	0844.2	0844.5	0.5	74.0			
	410	LEAR	8	S	0845.0E	0845.0	U	200.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0845.0E	0845.0	1.0D	780.0			QL=4 ST=2 TYP=6
	410	SVTO	8	S	0845.0E	0845.0	1.0D	230.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	0845.0E	0845.0	1.0D	1000.0			QL=4 ST=2 TYP=6
	950	GORK	4	S/F	0845.0	0845.5	0.8	24.0			
	234	POTS	4	S/F	0845.2	0845.3	1.4	1250.0			
	5900	KISV	40	F	1046.8	1048.3	4.3	6.0			
	9300	KISV	2	S/F	1046.9	1048.3	2.8	7.0			
	5900	KISV	40	F	1106.1	1107.1	4.0	5.0			
	9300	KISV	2	S/F	1106.1	1107.1	4.4	9.0			
	204	IZMI	7	C	1118.3	1118.5	0.5	35.0	15.0		
	245	SVTO	8	S	1212.0E	1212.0	2.0D	190.0			QL=4 ST=2 TYP=3
	536	ONDR	41	F	1237.7	1246.5	15.0	32.0			
	808	ONDR	3	S	1246.0	1247.1	4.0	5.0			
	430	KRAK	8	S	1246.3	1246.7	0.6	25.0			
	810	KRAK	1	S	1246.3	1246.9	0.8	12.0	6.0		
	3200	BERN	3	S	1417.0	1420.6	8.0	12.7			
	8400	BERN	3	S	1417.0	1420.6	8.0	6.7			
	11800	BERN	3	S	1417.0	1420.6	8.0	5.2			
	5200	BERN	3	S	1417.0	1420.6	8.0	3.6			
	19600	BERN	3	S	1417.0	1420.6	8.0	2.0			
	245	SGMR	8	S	1505.0E	1505.0	1.0D	60.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1842.0E	1843.0	1.0D	73.0			QL=4 ST=2 TYP=3
	2800	OTTA	4	S/F	2004.0	2007.0	7.5	31.6	9.0		
	2695	PENT	29	PBI	2011.5	2011.5	110.0	12.1	6.0		
	410	PALE	8	S	2134.0E	2135.0	1.0D	160.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2135.0E	2135.0	U	68.0			QL=4 ST=2 TYP=3
	200	HIRA	41	F	2328.0	2350.0	205.0	60.0			SL
14	204	IZMI	43	NS	0810.0		40.0	30.0			
	100	GORK	44	NS	0812.0E		108.0D		5.0		
	200	GORK	44	NS	0812.0E		111.0D		5.0		
	245	SGMR	44	NS	1730.0E	1730.0	390.0D	62.0			QL=2 ST=1 TYP=1
	200	HIRA	44	NS	2110.0E		620.0D		25.0		
	500	HIRA	41	F	0015.0E	0030.0	163.0D	16.0			WL
	2840	PEKG	20	GRF	0147.0	0149.3	43.0	5.4			
	610	LEAR	8	S	0343.0E	0343.0	U	49.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0343.0E	0343.0	U	200.0			QL=4 ST=2 TYP=3
	500	HIRA	46	C	0417.3	0419.3	4.5	35.0			WL
	2840	PEKG	20	GRF	0437.0	0439.6	45.0D	8.1			
	5900	KISV	2	S/F	0556.9	0559.3	4.8	8.0			
	9300	KISV	2	S/F	0558.3	0559.6	3.6	4.0			
	9100	GORK	20	GRF	0644.2E	1036.5	315.8D	14.0			
	260	ONDR	41	F	0800.0E	0822.6	330.0D	103.0			
	430	KRAK	42	SER	0816.0	0834.6	32.0	51.0			
	245	LEAR	8	S	0834.0E	0836.0	2.0D	52.0			QL=4 ST=2 TYP=3
	5900	KISV	2	S/F	0849.3	0850.2	3.7	6.0			
	9300	KISV	2	S/F	0849.6	0850.5	1.6	4.0			
	204	IZMI	7	C	0938.5	0938.6	0.5	22.0	10.0		
	5900	KISV	2	S/F	0949.0	0949.3	2.4	3.0			
	5900	KISV	22	GRF	1019.1	1020.7	17.0	4.0			
	430	KRAK	8	S	1051.5	1051.7	0.6	21.0			
	204	IZMI	7	C	1106.1	1106.2	0.2	25.0	10.0		
	536	ONDR	42	SER	1122.5	1126.7	12.0	31.0			
	9300	KISV	2	S/F	1126.8	1127.1	3.4	16.0			
	5900	KISV	2	S/F	1126.8	1127.2	4.6	11.0			
	5900	KISV	2	S/F	1155.6	1156.5	3.5	6.0			
	15400	SGMR	8	S	1433.0E	1434.0	2.0D	72.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1433.0E	1434.0	2.0D	78.0			QL=4 ST=2 TYP=3
	3200	BERN	4	S/F	1433.0	1434.2	3.0	6.3			
	8400	BERN	4	S/F	1433.0	1434.2	3.0	2.6			
	5200	BERN	4	S/F	1433.0	1434.2	3.0	9.2			
	15400	SVTO	8	S	1434.0E	1434.0	U	52.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	1434.0E	1434.0	U	49.0			QL=2 ST=2 TYP=3

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NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
14	610	PALE	8	S	1903.0E	1903.0	1.0D	200.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1903.0E	1903.0	1.0D	300.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	2109.0E	2109.0	1.0D	150.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	2324.0E	2324.0	U	92.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	2324.0E	2324.0	1.0D	85.0			QL=4 ST=2 TYP=3
15	245	LEAR	44	NS	0254.0E	0254.0	3.0D	92.0			QL=4 ST=2 TYP=1
	200	GORK	44	NS	0533.0E		387.0D		5.0		
	100	GORK	44	NS	0534.0E		386.0D		5.0		
	245	SVTO	44	NS	0557.0E	0850.0	551.0D	540.0			QL=4 ST=2 TYP=1
	245	LEAR	44	NS	0613.0E	0837.0	252.0D	520.0			QL=4 ST=2 TYP=1
	127	TORN	44	NS	0650.0E		200.0D		80.0		V=1
	410	SVTO	43	NS	0757.0	0837.0	431.0	100.0			QL=4 ST=2 TYP=1
	260	ONDR	44	NS	0800.0E		330.0D				
	410	LEAR	44	NS	0805.0E	0837.0	62.0D	93.0			QL=4 ST=2 TYP=1
	610	LEAR	44	NS	0830.0E	0835.0	29.0D	74.0			QL=4 ST=2 TYP=1
	245	PALE	8	S	0254.0E	0254.0	1.0D	71.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0309.0E	0309.0	U	62.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0322.0E	0322.0	1.0D	83.0			QL=4 ST=2 TYP=3
	2840	PEKG	45	C	0353.0	0358.0	8.0	46.7			
	2840	PEKG	29	PBI	0401.0		40.0	14.2			
	2840	PEKG	5	S	0441.0	0442.7	17.0	19.1			
	2840	PEKG	28	PRE	0508.0	0544.0	61.0	63.7			
	500	HIRA	24	R	0538.8	0642.5	105.0D	18.0	7.0		WL SUNSET
	245	LEAR	8	S	0539.0E	0539.0	U	160.0			QL=4 ST=2 TYP=3
	9100	GORK	21	GRF	0549.7	0704.6	370.3	77.0			
	9300	KISV	2	S/F	0600.2	0601.4	2.7	15.0			
	5900	KISV	2	S/F	0600.8	0601.5	4.0	4.0			
	650	GORK	23	GRF	0607.4	0905.1	325.3	27.0			
	245	LEAR	8	S	0609.0E	0609.0	U	100.0			QL=4 ST=2 TYP=3
	5900	KISV	23	GRF	0620.7	0643.9	103.7	40.0			
	15000	KISV	23	GRF	0620.9	0651.9	108.6	119.0			
	9300	KISV	23	GRF	0623.4	0643.8	124.2	34.0			
	5900	KISV	2	S/F	0623.7	0624.3	2.9	7.0			
	2950	GORK	21	GRF	0624.3	0706.0	58.7	45.0			
	234	POTS	48	C	0631.5	0659.1U	329.0	500000.0D			
	950	GORK	23	GRF	0633.2	0639.0	293.8	17.0			
	113	POTS	48	C	0635.0U	U	333.0U	3200.0D			
	1470	POTS	45	C	0652.0U	0656.0	28.0U	800.0			
	3000	POTS	45	C	0652.0U	0655.5	23.0U	2860.0			
	9500	POTS	45	C	0652.0U	0656.8	13.0U	1520.0			
	4995	SVTO	49	GB	0653.0E	0655.0	13.0D	1800.0			QL=4 ST=2 TYP=7
	3013	IZMI	47	GB	0653.0	0655.5	15.0	1350.0			
	2840	PEKG	47	GB	0653.0	0655.7	14.0	885.1			
	15000	KISV	47	GB	0653.4	0657.0	11.0	4930.0			
	15000	KISV	29	PBI	0653.4	0704.6	55.0	207.0			
	2850	CRIM	45	C	0653.5	0655.0	11.8	1144.0			
	9300	KISV	47	GB	0653.5	0657.0	11.0	4452.0			
	2850	CRIM	45	C	0653.5	0658.1		631.0			
	2850	CRIM	29	PBI	0653.5	0705.3	15.0	22.0			
	5900	KISV	29	PBI	0653.5	0704.4	21.9	131.0			
	9300	KISV	29	PBI	0653.5	0704.5	44.8	152.0			
	5900	KISV	47	GB	0653.5	0655.6	10.9	2611.0			
	9100	GORK	47	GB	0653.5	0700.7		3050.0			
	9100	GORK	47	GB	0653.5	0659.9	11.1	3840.0			
	2695	LEAR	49	GB	0654.0E	0655.0	10.0D	2000.0			QL=4 ST=2 TYP=7
	4995	LEAR	49	GB	0654.0E	0655.0	10.0D	1700.0			QL=4 ST=2 TYP=6
	2695	SVTO	49	GB	0654.0E	0655.0	11.0D	1900.0			QL=4 ST=2 TYP=7
	8800	LEAR	49	GB	0654.0E	0657.0	23.0D	3300.0			QL=4 ST=2 TYP=6
	8800	SVTO	49	GB	0654.0E	0657.0	27.0D	2900.0			QL=4 ST=2 TYP=7
	1415	SVTO	49	GB	0654.0E	0655.0	24.0D	1200.0			QL=4 ST=2 TYP=7
	245	LEAR	49	GB	0654.0E	0658.0	50.0D				QL=4 ST=3 TYP=7
	1415	LEAR	49	GB	0654.0E	0655.0	1026.0D	1300.0			QL=4 ST=1 TYP=6
	15400	LEAR	49	GB	0654.0E	0656.0	1026.0D	5000.0			QL=4 ST=1 TYP=7
	15400	SVTO	49	GB	0654.0E	0656.0	1026.0D	3800.0			QL=4 ST=1 TYP=7
	2950	GORK	47	GB	0654.0	0658.2		660.0			
	2950	GORK	47	GB	0654.0	0656.4	9.0	785.0			
	2950	GORK	47	GB	0654.0	0701.8		275.0			
	950	GORK	47	GB	0654.3	0716.4		850.0			

SOLAR RADIO EMISSION
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NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
15	950	GORK	47	GB	0654.3	0713.6		895.0			
	950	GORK	47	GB	0654.3	0656.7	24.3	2150.0			
	650	GORK	47	GB	0654.8	0716.4		1400.0			
	650	GORK	47	GB	0654.8	0713.5		1090.0			
	650	GORK	47	GB	0654.8	0752.6		190.0			
	650	GORK	47	GB	0654.8	0656.7	130.3	360.0			
	1415	LEAR	49	GB	0655.0E	0655.0	10.0D	1300.0			QL=4 ST=2 TYP=6
	610	SVTO	49	GB	0655.0E	0656.0	20.0D	4500.0			QL=2 ST=2 TYP=7
	15400	LEAR	49	GB	0655.0E	0656.0	38.0D	5000.0			QL=4 ST=2 TYP=6
	610	LEAR	49	GB	0655.0E	0656.0	38.0D	3600.0			QL=4 ST=2 TYP=7
	410	LEAR	49	GB	0655.0E	0656.0	40.0D				QL=4 ST=2 TYP=6
	245	LEAR	49	GB	0655.0E	0656.0	49.0D	47000.0			QL=4 ST=2 TYP=7
	410	SVTO	49	GB	0655.0E	0656.0	60.0D				QL=4 ST=2 TYP=7
	245	SVTO	49	GB	0655.0E	0658.0	60.0D				QL=4 ST=2 TYP=7
	200	HIRA	48	C	0655.0	0655.2	28.0D	48000.0U	3260.0U	O	SUNSET
	500	HIRA	48	C	0655.0	0656.3	33.0D	9000.0U	1200.0U	O	SUNSET
	200	GORK	47	GB	0655.3	0656.1	34.7	41200.0			
	200	GORK	47	GB	0655.3	0656.5		35200.0			
	100	GORK	47	GB	0655.4	0656.5	11.1	148000.0			
	127	TORN	49	GB	0655.5		13.5	12500.0D	1100.0D		
	204	IZMI	46	C	0655.5	0656.0	10.0	50000.0			
	100	HIRA	48	C	0655.6		15.0D	16000.0D			SUNSET
	40	POTS	4	S/F	0656.2	0659.0	11.0U	5400.0			
	2840	PEKG	29	PBI	0707.0		32.0	75.8			
	204	IZMI	47	GB	0716.0	0717.1	53.0	7000.0			
	950	GORK	4	S/F	0747.4	0752.7	9.6	210.0			
	610	LEAR	4	S/F	0750.0E	0752.0	4.0D	130.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0751.0E	0751.0	U	84.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0751.0E	0753.0	4.0D	180.0			QL=4 ST=2 TYP=3
	1470	POTS	4	S/F	0751.0	0752.0	4.0	27.0			
	5900	KISV	2	S/F	0751.9	0753.6	6.2	5.0			
	430	KRAK	49	GB	0801.5E	0837.0	198.5D	135.0	50.0		
	204	IZMI	48	C	0802.0	0850.6	213.0	240.0			
	536	ONDR	49	GB	0900.0	0908.7	110.0	32.0			
	5900	KISV	45	C	0922.5	0926.5		10.0			
	5900	KISV	45	C	0922.5	0923.7	4.7	26.0			
	9500	POTS	3	S	0923.0	0924.5	2.0	34.0			
	15000	KISV	2	S/F	0923.0	0923.7	2.5	15.0			
	9300	KISV	45	C	0923.3	0926.4		8.0			
	9100	GORK	4	S/F	0923.3	0923.7	0.9	45.0			
	9300	KISV	45	C	0923.3	0923.7	4.6	56.0			
	808	ONDR	3	S	0926.0	0926.3	2.0	4.0			
	2850	CRIM	1	S	0926.0	0926.4	0.8	7.0	2.0		
	3000	POTS	3	S	0926.0	0926.7	2.0	10.0			
	2950	GORK	1	S	0926.2	0926.5	0.8	9.0			
	9300	KISV	20	GRF	1005.4	1008.2	9.0	8.0			
	5900	KISV	2	S/F	1005.5	1009.7	5.3	3.0			
	808	ONDR	1	S	1023.0	1023.3	2.5	4.0			
	9300	KISV	2	S/F	1036.1	1036.9	6.8	18.0			
	5900	KISV	4	S/F	1036.2	1037.0	6.6	16.0			
	9100	GORK	2	S/F	1036.2	1036.8	2.4	12.0			
	5900	KISV	22	GRF	1103.6	1108.0		4.0			
	5900	KISV	22	GRF	1103.6	1104.3	11.6	4.0			
	5900	KISV	2	S/F	1140.6	1144.6	8.7	6.0			
	2850	CRIM	1	S	1143.0	1144.0	2.5	4.4	2.0		
	245	SGMR	8	S	1226.0E	1226.0	U	99.0			QL=4 ST=2 TYP=3
	2800	OTTA	3	S	1916.5	1919.2	45.0	247.9	50.0		
	1415	PALE	8	S	1918.0E	1919.0	2.0D	74.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1918.0E	1919.0	1.0D	150.0			QL=2 ST=2 TYP=3
	2695	PALE	4	S/F	1918.0E	1919.0	3.0D	230.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1918.0E	1919.0	3.0D	230.0			QL=2 ST=2 TYP=3
	4995	SGMR	8	S	1918.0E	1919.0	2.0D	270.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	1919.0E	1919.0	U	74.0			QL=2 ST=2 TYP=3
	1415	SGMR	8	S	1919.0E	1919.0	2.0D	94.0			QL=4 ST=2 TYP=3
	15400	PALE	49	GB	1931.0E	1934.0	36.0D	3100.0			QL=2 ST=2 TYP=7
	2695	PALE	49	GB	1932.0E	1936.0	19.0D	740.0			QL=4 ST=2 TYP=7
	8800	PALE	49	GB	1932.0E	1935.0	18.0D	2800.0			QL=2 ST=2 TYP=7
	4995	PALE	49	GB	1932.0E	1936.0	18.0D	1800.0			QL=2 ST=2 TYP=7
	1415	PALE	49	GB	1932.0E	1936.0	19.0D	1400.0			QL=4 ST=2 TYP=7

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

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
15	2695	SGMR	49	GB	1932.0E	1936.0	19.0D	680.0			QL=2 ST=2 TYP=7
	410	PALE	49	GB	1932.0E	1934.0	26.0D	4400.0			QL=4 ST=2 TYP=7
	610	PALE	49	GB	1932.0E	1935.0	26.0D	4600.0			QL=4 ST=2 TYP=7
	8800	SGMR	49	GB	1932.0E	1936.0	20.0D	3400.0			QL=2 ST=2 TYP=7
	610	SGMR	49	GB	1932.0E	1936.0	26.0D	4300.0			QL=4 ST=2 TYP=7
	410	SGMR	49	GB	1932.0E	1935.0	26.0D	4000.0			QL=4 ST=2 TYP=7
	1415	SGMR	49	GB	1932.0E	1936.0	20.0D	1700.0			QL=4 ST=2 TYP=7
	15400	SGMR	49	GB	1932.0E	1935.0	22.0D	3300.0			QL=2 ST=2 TYP=7
	2800	OTTA	47	GB	1932.0	1936.4	30.0	950.0	190.0		
	245	PALE	49	GB	1933.0E	1937.0	36.0D	13000.0			QL=4 ST=2 TYP=7
	245	SGMR	49	GB	1934.0E	1938.0	33.0D	11000.0			QL=4 ST=2 TYP=7
	2800	OTTA	4	S/F	1954.2	1955.5	7.0	46.5	9.0		
	245	PALE	49	GB	2009.0E	2026.0	53.0D	4300.0			QL=4 ST=2 TYP=7
	410	PALE	49	GB	2009.0E	2027.0	60.0D	6200.0			QL=4 ST=2 TYP=7
	245	SGMR	49	GB	2010.0E	2027.0	45.0D	2900.0			QL=2 ST=2 TYP=7
	410	SGMR	49	GB	2013.0E	2027.0	43.0D	3600.0			QL=2 ST=2 TYP=7
	610	SGMR	49	GB	2016.0E	2027.0	39.0D	3300.0			QL=4 ST=2 TYP=7
	610	PALE	49	GB	2019.0E	2028.0	48.0D	3700.0			QL=4 ST=2 TYP=7
	2800	OTTA	4	S/F	2024.5	2044.1	100.0	63.8	13.0		
	1415	SGMR	20	GRF	2025.0E	2029.0	23.0D	200.0			QL=2 ST=2 TYP=2
	1415	PALE	20	GRF	2025.0E	2028.0	38.0D	200.0			QL=4 ST=2 TYP=2
	2695	PALE	4	S/F	2032.0E	2038.0	28.0D	130.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	2033.0E	2036.0	5.0D	47.0			QL=2 ST=2 TYP=3
16	200	HIRA	43	NS	0242.0	0400.0	139.0	5.0	3.0		O
	200	GORK	44	NS	0533.0E		192.0D		5.0		
	100	GORK	44	NS	0534.0E		191.0D		5.0		
	127	TORN	43	NS	1321.0		69.0		295.0		V=1 DISTURBED
	245	SGMR	44	NS	1657.0E	1657.0	17.0D	59.0			QL=2 ST=2 TYP=1
	245	LEAR	8	S	0309.0E	0309.0	2.0D	76.0			QL=4 ST=2 TYP=3
	2840	PEKG	45	C	0411.0	0414.5	6.0	101.3			
	500	HIRA	41	F	0412.8	0414.5	6.0	650.0			WR
	1415	LEAR	4	S/F	0413.0E	0414.0	3.0D	53.0			QL=4 ST=2 TYP=3
	610	LEAR	49	GB	0413.0E	0414.0	2.0D	660.0			QL=4 ST=2 TYP=6
	2695	LEAR	8	S	0413.0E	0414.0	2.0D	91.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0413.0E	0413.0	2.0D	45.0			QL=4 ST=2 TYP=3
	2840	PEKG	29	PBI	0417.0	0417.5	29.0	46.0			
	200	HIRA	27	RF	0520.5	0545.0	98.0	34.0	7.0		WR
	9100	GORK	20	GRF	0520.6	1101.4	396.4	17.0			
	2840	PEKG	20	GRF	0521.0	0523.5	37.0	6.0			
	5900	KISV	2	S/F	0605.0	0605.8	2.0	6.0			
	245	SVTO	49	GB	0636.0E	0636.0	1.0D	660.0			QL=4 ST=2 TYP=6
	5900	KISV	22	GRF	0724.2	0724.6	11.5	6.0			
	9300	KISV	2	S/F	0724.3	0724.7	1.3	6.0			
	204	IZMI	42	SER	0801.2	0803.0	2.3	48.0			
	5900	KISV	45	C	0830.5	0832.0		3.0			
	5900	KISV	45	C	0830.5	0831.1	2.8	3.0			
	260	ONDR	41	F	0900.0E		290.0D				
	5900	KISV	1	S	0908.7	0908.9	0.4	6.0			
	5900	KISV	22	GRF	1008.8	1014.5	20.0	11.0			
	536	ONDR	42	SER	1013.5	1058.7	70.0	85.0			
	810	KRAK	42	SER	1013.7	1014.0	2.0	92.0			
	808	ONDR	41	F	1014.5	1014.7	2.5	9.0			
	5900	KISV	2	S/F	1030.6	1031.7	8.8	7.0			
	9300	KISV	2	S/F	1030.7	1032.3	8.8	11.0			
	650	GORK	20	GRF	1057.8	1100.4	14.5	6.0			
	3013	IZMI	22	GRF	1057.8	1059.5	10.0	42.0	20.0		
	2850	CRIM	3	S	1058.5	1100.0	4.0	57.0	17.0		
	2850	CRIM	29	PBI	1058.5	1102.5	9.0	6.0	2.0		
	430	KRAK	42	SER	1058.8	1100.0	2.7	220.0D			
	430	KRAK	42	SER	1058.8	1059.4	2.7	220.0D			
	950	GORK	2	S/F	1058.9	1100.1	6.9	1.0			
	2950	GORK	20	GRF	1059.0		5.0				
	3000	POTS	3	S	1059.0	1100.0	4.0U	53.0			
	1470	POTS	3	S	1059.0	1100.0	6.0	32.0			
	1415	SVTO	8	S	1059.0E	1100.0	1.0D	26.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1059.0E	1100.0	1.0D	56.0			QL=4 ST=2 TYP=3
	810	KRAK	3	S	1059.2	1100.0	3.5	7.0	3.0		
	5900	KISV	23	GRF	1059.4	1100.4	12.6	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
16	808	ONDR	3	S	1059.4	1100.7	4.0	8.0			
	9300	KISV	22	GRF	1059.6	1102.5	11.4	12.0			
	15000	KISV	22	GRF	1100.0	1102.6	10.0	11.0			
	5900	KISV	20	GRF	1147.5	1154.3	10.0	6.0			
	808	ONDR	42	SER	1154.5	1159.4	40.0	18.0			
	810	KRAK	8	S	1159.0	1159.0	0.1	290.0D			
	808	ONDR	49	GB	1304.5	1334.5	35.5	83.0			
	536	ONDR	49	GB	1309.0	1333.5	31.0	132.0			
	3000	POTS	46	C	1315.0	1339.0	45.0	665.0			
	9500	POTS	46	C	1315.0	1320.0	45.0	510.0			
	4995	SVTO	49	GB	1315.0E	1320.0	41.0D	600.0			QL=4 ST=2 TYP=7
	1470	POTS	46	C	1315.0	1339.2	40.0	430.0			
	4995	SGMR	49	GB	1316.0E	1320.0	39.0D	600.0			QL=4 ST=2 TYP=7
	8800	SGMR	49	GB	1316.0E	1320.0	37.0D	610.0			QL=4 ST=2 TYP=7
	2695	SVTO	4	S/F	1316.0E	1339.0	34.0D	460.0			QL=4 ST=2 TYP=5
	2695	SGMR	4	S/F	1317.0E	1339.0	38.0D	420.0			QL=4 ST=2 TYP=5
	15400	SGMR	4	S/F	1317.0E	1320.0	38.0D	370.0			QL=2 ST=2 TYP=3
	11800	BERN	46	C	1317.0	1320.0	40.0	45.9			
	19600	BERN	46	C	1317.0	1320.0	40.0	20.5			
	35000	BERN	46	C	1317.0	1320.0	40.0	13.3			
	3200	BERN	46	C	1317.0	1320.0	40.0	35.0			
	8400	BERN	46	C	1317.0	1320.0	40.0	60.5			
	5200	BERN	46	C	1317.0	1320.0	40.0	59.2			
	810	KRAK	49	GB	1317.2	1334.6	34.7	250.0	110.0		
	1415	SVTO	4	S/F	1318.0E	1339.0	29.0D	410.0			QL=4 ST=2 TYP=5
	1415	SGMR	4	S/F	1318.0E	1339.0	37.0D	420.0			QL=4 ST=2 TYP=5
	610	SGMR	4	S/F	1318.0E	1333.0	34.0D	340.0			QL=4 ST=2 TYP=5
	15400	SVTO	20	GRF	1318.0E	1320.0	36.0D	370.0			QL=4 ST=2 TYP=2
	8800	SVTO	49	GB	1318.0E	1319.0	31.0D	500.0			QL=4 ST=2 TYP=6
	430	KRAK	49	GB	1318.5		30.0	240.0D	130.0		
	33	UPIC	32	ABS	1318.5	1325.0	31.5				
	245	SVTO	49	GB	1320.0E	1335.0	27.0D	9100.0			QL=4 ST=2 TYP=7
	410	SVTO	49	GB	1320.0E	1334.0	27.0D	660.0			QL=4 ST=2 TYP=7
	245	SGMR	49	GB	1320.0E	1334.0	35.0D	9100.0			QL=4 ST=2 TYP=7
	410	SGMR	49	GB	1320.0E	1333.0	30.0D	700.0			QL=4 ST=2 TYP=7
	234	POTS	4	S/F	1320.0	1335.8	38.0	12000.0			
	113	POTS	4	S/F	1321.1	1340.3	38.0	4500.0			
	127	TORN	49	GB	1325.2	1327.1	25.0	720.0	440.0		
	2800	OTTA	4	S/F	1330.0	1339.3	11.0	280.0	55.0		
	40	POTS	4	S/F	1332.0U	1339.4	15.0U	11000.0			
	245	SGMR	8	S	1420.0E	1420.0	U	84.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1420.0E	1420.0	U	85.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1425.0E	1435.0	15.0D	170.0			QL=4 ST=2 TYP=5
	245	SVTO	4	S/F	1425.0E	1428.0	17.0D	480.0			QL=4 ST=2 TYP=3
	410	SGMR	20	GRF	1428.0E	1434.0	14.0D	46.0			QL=4 ST=2 TYP=2
	410	SVTO	20	GRF	1428.0E	1434.0	10.0D	61.0			QL=4 ST=2 TYP=2
	245	SGMR	4	S/F	1430.0E	1433.0	12.0D	61.0			QL=4 ST=2 TYP=5
	245	SVTO	8	S	1444.0E	1444.0	1.0D	53.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1553.0E	1553.0	2.0D	68.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	2235.0E	2236.0	2.0D	79.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	2235.0E	2236.0	2.0D	87.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	2236.0E	2236.0	2.0D	45.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	2236.0E	2236.0	1.0D	34.0			QL=4 ST=2 TYP=3
17	200	GORK	44	NS	0539.0E		255.0D		5.0		
	200	HIRA	46	C	0218.7	0222.4	6.6	340.0			0
	245	LEAR	4	S/F	0219.0E	0222.0	4.0D	85.0			QL=4 ST=2 TYP=5
	245	PALE	4	S/F	0219.0E	0222.0	5.0D	99.0			QL=4 ST=2 TYP=5
	2840	PEKG	45	C	0421.0	0427.5	9.0	41.2			
	2840	PEKG	29	PBI	0430.0		16.0D	14.0			
	5900	KISV	2	S/F	0646.5	0647.4	2.0	4.0			
	9100	GORK	21	GRF	0654.6	0803.0	305.4D	27.0			
	9100	GORK	1	S	0726.8	0727.0	0.5	4.0			
	2850	CRIM	47	GB	0753.5	0756.9	17.5	700.0	200.0		
	4995	LEAR	49	GB	0754.0E	0756.0	9.0D	550.0			QL=4 ST=2 TYP=6
	410	LEAR	49	GB	0754.0E	0755.0	2.0D	650.0			QL=4 ST=2 TYP=6
	1415	LEAR	4	S/F	0754.0E	0756.0	6.0D	220.0			QL=4 ST=2 TYP=3
	2695	LEAR	49	GB	0754.0E	0756.0	9.0D	500.0			QL=4 ST=2 TYP=6
	410	SVTO	49	GB	0754.0E	0755.0	2.0D	800.0			QL=4 ST=2 TYP=6

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

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
17	4995	SVTO	49	GB	0754.0E	0756.0	8.0D	550.0			QL=4 ST=2 TYP=6
	2950	GORK	46	C	0754.0	0756.0	16.9	420.0			
	610	SVTO	49	GB	0754.0E	0756.0	10.0D	2500.0			QL=4 ST=2 TYP=6
	2695	SVTO	49	GB	0754.0E	0756.0	966.0D	510.0			QL=4 ST=1 TYP=6
	2950	GORK	46	C	0754.0	0756.5		500.0			
	3000	POTS	45	C	0754.0	0756.5	14.0	680.0			
	3013	IZMI	47	GB	0754.0	0756.6	14.3	386.0	150.0		
	2950	GORK	46	C	0754.0	0756.8		424.0			
	5900	KISV	29	PBI	0754.2	0800.0	24.0	76.0			
	5900	KISV	47	GB	0754.2	0756.3		642.0			
	5900	KISV	47	GB	0754.2	0756.7	5.8	690.0			
	9300	KISV	29	PBI	0754.4	0800.0	24.0	53.0			
	950	GORK	4	S/F	0754.4	0756.6	14.6	122.0			
	9300	KISV	47	GB	0754.4	0756.7	5.6	272.0			
	5200	BERN	47	GB	0754.5	0756.5	4.0	44.0			
	8400	BERN	47	GB	0754.5	0756.5	4.0	44.0			
	3200	BERN	47	GB	0754.5	0756.5	4.0	379.6			
	11800	BERN	47	GB	0754.5	0756.5	4.0	40.6			
	9500	POTS	4	S/F	0754.5	0756.8	10.5	162.0			
	1470	POTS	4	S/F	0754.6	0757.2	10.0	226.0			
	650	GORK	4	S/F	0754.6	0756.3U	7.8	110.0D			
	9100	GORK	46	C	0754.7	0756.5	8.3	200.0			
	9100	GORK	46	C	0754.7	0757.7		82.0			
	15000	KISV	45	C	0754.9	0758.0		79.0			
	15000	KISV	29	PBI	0754.9	0800.0	24.0	41.0			
	15000	KISV	45	C	0754.9	0756.5	5.1	111.0			
	15400	LEAR	4	S/F	0755.0E	0756.0	8.0D	94.0			QL=4 ST=2 TYP=3
	610	LEAR	4	S/F	0755.0E	0756.0	4.0D	380.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0755.0E	0756.0	7.0D	190.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	0755.0E	0756.0	5.0D	87.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0755.0E	0756.0	7.0D	160.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	0755.0E	0757.0	4.0D	200.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0759.0E	0759.0	U	170.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0759.0E	0759.0	U	170.0			QL=4 ST=2 TYP=3
	200	GORK	4	S/F	0759.0	0759.5	2.2	27.0D			
	650	GORK	29	PBI	0802.4	0802.4	35.2	6.0			
	2850	CRIM	25	R	0835.0	0849.0		7.0			
	245	SVTO	8	S	0849.0E	0849.0	U	160.0			QL=4 ST=2 TYP=3
	5900	KISV	45	C	0916.5	0917.2	1.7	5.0			
	5900	KISV	45	C	0916.5	0916.7		3.0			
	536	ONDR	27	RF	0932.0	0951.7	60.0	12.0			
	2850	CRIM	20	GRF	0951.0	1008.5	26.0	9.0	3.0		
	260	ONDR	42	SER	1011.0	1015.6	7.0	8.0			
	9300	KISV	45	C	1025.7	1027.4	2.1	20.0			
	9300	KISV	45	C	1025.7	1026.6		14.0			
	1470	POTS	4	S/F	1132.5	1133.0	1.5	66.0			
	536	ONDR	42	SER	1237.6	1243.7	8.0	27.0			
	8800	SGMR	8	S	1321.0E	1322.0	2.0D	68.0			QL=4 ST=2 TYP=3
	9500	POTS	4	S/F	1321.5	1322.0	3.5	34.0			
	245	PALE	8	S	1902.0E	1903.0	1.0D	73.0			QL=4 ST=2 TYP=3
18	2840	PEKG	5	S	0147.0	0147.7	15.0	9.9			
	2840	PEKG	3	S	0225.0	0236.3	17.0	38.9			
	2695	LEAR	4	S/F	0235.0E	0236.0	4.0D	38.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0235.0E	0236.0	1.0D	37.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0235.0E	0235.0	2.0D	200.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0235.0E	0236.0	2.0D	38.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0235.0E	0235.0	1.0D	250.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0236.0E	0236.0	U	32.0			QL=2 ST=2 TYP=3
	2840	PEKG	29	PBI	0242.0		25.0	13.2			
	245	SVTO	8	S	0630.0E	0630.0	U	51.0			QL=4 ST=2 TYP=3
	5900	KISV	1	S	0643.6	0643.9	0.9	3.0			
	5900	KISV	2	S/F	0710.9	0711.5	5.1	3.0			
	610	LEAR	4	S/F	0804.0E	0806.0	6.0D	60.0			QL=4 ST=2 TYP=3
	260	ONDR	41	F	0940.0	0958.8	190.0	12.0			
	5900	KISV	2	S/F	1034.0	1034.7	2.0	3.0			
	430	KRAK	42	SER	1258.7	1259.3	1.8	144.0			
	2695	SVTO	8	S	1259.0E	1300.0	1.0D	31.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1300.0E	1300.0	U	21.0			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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NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
18	2800	OTTA	28	PRE	1420.0	1626.5	135.0	260.0	51.0		
	1415	SGMR	4	S/F	1555.0E	1558.0	4.0D	52.0			QL=2 ST=2 TYP=5
	1415	SGMR	8	S	1601.0E	1603.0	2.0D	67.0			QL=2 ST=2 TYP=3
	4995	SGMR	8	S	1603.0E	1605.0	2.0D	26.0			QL=2 ST=2 TYP=3
	245	SGMR	49	GB	1605.0E	1605.0	U	600.0			QL=2 ST=2 TYP=6
	4995	SGMR	20	GRF	1618.0E	1645.0	95.0D	390.0			QL=4 ST=2 TYP=2
	245	SGMR	8	S	1619.0E	1619.0	U	57.0			QL=4 ST=2 TYP=3
	410	SGMR	20	GRF	1619.0E	1646.0	36.0D	240.0			QL=4 ST=2 TYP=2
	610	SGMR	20	GRF	1619.0E	1640.0	42.0D	260.0			QL=4 ST=2 TYP=2
	2695	SGMR	4	S/F	1619.0E	1640.0	94.0D	450.0			QL=4 ST=2 TYP=5
	1415	SGMR	4	S/F	1620.0E	1646.0	42.0D	470.0			QL=4 ST=2 TYP=5
	8800	SGMR	20	GRF	1621.0E	1646.0	92.0D	250.0			QL=4 ST=2 TYP=2
	15400	SGMR	20	GRF	1624.0E	1645.0	89.0D	150.0			QL=4 ST=2 TYP=2
	2800	OTTA	4	S/F	1635.0	1640.4	325.0	340.0	69.0		
	1415	PALE	49	GB	1703.0E	1758.0	67.0D	830.0			QL=4 ST=3 TYP=7
	8800	PALE	4	S/F	1703.0E	1705.0U	55.0D	92.0			QL=4 ST=2 TYP=5
	4995	PALE	4	S/F	1703.0E	1704.0U	55.0D	95.0			QL=4 ST=2 TYP=5
	15400	PALE	4	S/F	1703.0E	1705.0U	55.0D	150.0			QL=4 ST=2 TYP=5
	2695	PALE	4	S/F	1703.0E	1704.0U	68.0D	110.0			QL=4 ST=2 TYP=5
	410	SGMR	8	S	1754.0E	1755.0	2.0D	54.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1755.0E	1756.0	1.0D	58.0			QL=4 ST=2 TYP=3
	610	SGMR	20	GRF	1758.0E	1804.0	9.0D	98.0			QL=4 ST=2 TYP=2
	2800	OTTA	4	S/F	1759.0	1803.0	12.0	33.3	7.0		
	2695	SGMR	4	S/F	1800.0E	1803.0	7.0D	61.0			QL=4 ST=2 TYP=3
	1415	SGMR	49	GB	1801.0E	1804.0	8.0D	740.0			QL=4 ST=2 TYP=6
	410	SGMR	4	S/F	1803.0E	1806.0	4.0D	72.0			QL=4 ST=2 TYP=3
19	200	HIRA	43	NS	0200.0	0436.0	320.0D	7.0	3.0		O
	200	GORK	44	NS	0541.0E		353.0D		5.0		
	204	IZMI	43	NS	0700.0		300.0	10.0			
	260	ONDR	44	NS	0830.0E	0836.2	280.0D	55.0			
	245	PALE	44	NS	1703.0E	1731.0	200.0D	86.0			QL=4 ST=2 TYP=1
	500	HIRA	44	NS	2120.0E	0516.0	600.0D	13.0	5.0		O
	200	HIRA	41	F	0245.5	0252.0	7.9	160.0			O
	100	HIRA	46	C	0251.0	0251.6	1.8	1000.0D			
	2840	PEKG	3	S	0520.0	0526.4	15.0	31.2			
	100	HIRA	46	C	0524.4	0525.0	2.6	1000.0			
	950	GORK	4	S/F	0524.6	0526.5	3.8	41.0			
	9100	GORK	4	S/F	0524.7	0525.8	4.1	37.0			
	8800	LEAR	8	S	0525.0E	0526.0	1.0D	57.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0525.0E	0526.0	2.0D	49.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0526.0E	0526.0	U	25.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0526.0E	0526.0	U	28.0			QL=4 ST=2 TYP=3
	950	GORK	23	GRF	0551.0	0716.9	342.0	15.0			
	9100	GORK	21	GRF	0552.3	0932.2	340.7D	30.0			
	650	GORK	21	GRF	0601.3E	1110.3	332.7D	9.0			
	100	GORK	41	F	0606.0	0625.0		910.0			
	100	GORK	41	F	0606.0	0621.6	28.8	8310.0			
	4995	SVTO	8	S	0610.0E	0611.0	2.0D	40.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0610.0E	0611.0	4.0D	79.0			QL=4 ST=2 TYP=3
	2850	CRIM	25	R	0611.0	0619.5		6.5			
	5900	KISV	47	GB	0613.7	0625.2		136.0			
	5900	KISV	47	GB	0613.7	0621.8	33.0	1180.0			
	2840	PEKG	45	C	0614.0	0621.5	26.0	432.6			
	1415	SVTO	8	S	0615.0E	0616.0	2.0D	26.0			QL=4 ST=2 TYP=3
	15000	KISV	47	GB	0616.3	0621.6		791.0			
	15000	KISV	47	GB	0616.3	0625.6	30.4	3953.0			
	15400	SVTO	49	GB	0617.0E	0621.0	1063.0D	1200.0			QL=2 ST=1 TYP=6
	9300	KISV	47	GB	0617.3	0625.2	30.1	534.0			
	9300	KISV	47	GB	0617.3	0621.8		383.0			
	9100	GORK	47	GB	0619.3	0625.0		2000.0			
	9100	GORK	47	GB	0619.3	0621.6	11.7	147.0			
	2850	CRIM	45	C	0619.5	0625.0		185.0			
	2950	GORK	46	C	0619.5	0625.0		163.0			
	2850	CRIM	45	C	0619.5	0621.4	10.0	268.0	89.0		
	2950	GORK	46	C	0619.5	0621.5	9.5	400.0			
	2695	LEAR	4	S/F	0620.0E	0621.0	8.0D	370.0			QL=4 ST=2 TYP=3
	8800	SVTO	49	GB	0620.0E	0625.0	8.0D	1400.0			QL=2 ST=2 TYP=7
	4995	LEAR	49	GB	0620.0E	0625.0	10.0D	720.0			QL=2 ST=2 TYP=7

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

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
19	15400	LEAR	49	GB	0620.0E	0621.0	13.0D	2200.0			QL=4 ST=2 TYP=6
	8800	LEAR	49	GB	0620.0E	0625.0	12.0D	1800.0			QL=4 ST=2 TYP=7
	1415	LEAR	4	S/F	0620.0E	0622.0	1060.0D	180.0			QL=4 ST=1 TYP=3
	200	HIRA	46	C	0620.1	0621.5	14.5	1245.0	56.0		O
	100	HIRA	46	C	0620.1	0620.9	14.3	13000.0			O
	650	GORK	4	S/F	0620.2	0622.1	6.8	100.0			
	950	GORK	46	C	0620.2	0625.1		122.0			
	950	GORK	46	C	0620.2	0622.2	8.7	620.0			
	17000	NOBE	45	C	0620.2	0621.6	16.0				7L 80,35GHz:NO
	200	GORK	41	F	0620.5	0621.4	5.6	890.0			
	200	GORK	41	F	0620.5	0625.5		270.0			
	500	HIRA	46	C	0620.8	0621.1	17.8	1035.0	45.0		O
	245	LEAR	49	GB	0621.0E	0621.0	7.0D	970.0			QL=4 ST=2 TYP=6
	410	LEAR	4	S/F	0621.0E	0624.0	6.0D	360.0			QL=4 ST=2 TYP=5
	610	LEAR	4	S/F	0621.0E	0621.0	6.0D	110.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	0621.0E	0621.0	4.0D	880.0			QL=4 ST=2 TYP=6
	410	SVTO	4	S/F	0621.0E	0624.0	4.0D	170.0			QL=4 ST=2 TYP=5
	950	GORK	4	S/F	0653.7	0654.3	1.1	43.0			
	650	GORK	2	S/F	0653.8	0653.9	0.9	10.0			
	100	GORK	4	S/F	0719.2	0720.3	2.1	1220.0			
	650	GORK	2	S/F	0719.8	0720.3	1.0	11.0			
	950	GORK	2	S/F	0719.9	0720.3	1.0	8.0			
	650	GORK	2	S/F	0818.5	0818.8	4.4	12.0			
	410	LEAR	4	S/F	0841.0E	0843.0	4.0D	110.0			QL=4 ST=2 TYP=3
	2850	CRIM	45	C	0853.0	0856.2		9.4			
	2850	CRIM	45	C	0853.0	0855.3	5.2	12.0	4.0		
	2950	GORK	1	S	0854.5	0855.2	2.8	9.0			
	2950	GORK	1	S	0927.0	0928.6	5.5	12.0			
	5900	KISV	2	S/F	0946.8	0948.2	3.9	12.0			
	650	GORK	3	S	1022.9	1023.1	0.4	10.0			
	410	SVTO	8	S	1047.0E	1047.0	U	70.0			QL=2 ST=2 TYP=3
	950	GORK	2	S/F	1047.2	1051.2	7.2	42.0			
	650	GORK	2	S/F	1047.5	1049.4	6.8	9.0			
	9100	GORK	2	S/F	1048.4	1049.3	2.7	7.0			
	5900	KISV	2	S/F	1048.5	1051.1	7.2	10.0			
	245	SVTO	8	S	1054.0E	1054.0	U	70.0			QL=4 ST=2 TYP=3
	5900	KISV	23	GRF	1121.5	1133.3	22.0	7.0			
	100	GORK	41	F	1124.0	1124.7	8.4	120.0			
	100	GORK	41	F	1124.0	1128.8		370.0			
	5900	KISV	4	S/F	1126.8	1128.8	6.5	87.0			
	410	SVTO	8	S	1127.0E	1128.0	1.0D	110.0			QL=4 ST=2 TYP=3
	2850	CRIM	1	S	1127.1	1128.9	4.0	12.0	4.0		
	430	KRAK	4	S/F	1127.3	1128.0	4.0	230.0D	5.0		
	650	GORK	46	C	1127.5	1129.3		56.0			
	9500	POTS	29	PBI	1127.5	1128.6	23.0U	41.0			
	650	GORK	46	C	1127.5	1127.9	5.1	39.0			
	9100	GORK	4	S/F	1127.6	1128.6	2.3	39.0			
	9300	KISV	4	S/F	1127.6	1128.8	3.1	61.0			
	950	GORK	4	S/F	1127.7	1128.1	4.5	50.0			
	15000	KISV	22	GRF	1127.7	1128.7	12.1	13.0			
	9300	KISV	23	GRF	1127.7	1132.8	24.6	15.0			
	810	KRAK	4	S/F	1127.9	1128.0	4.3	77.0	5.0		
	1470	POTS	4	S/F	1128.0	1129.0	5.0	11.0			
	245	SVTO	8	S	1128.0E	1128.0	U	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1205.0E	1205.0	1.0D	130.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1230.0E	1230.0	U	250.0			QL=4 ST=2 TYP=3
	113	POTS	4	S/F	1238.4	1239.9	3.7	850.0			
	234	POTS	4	S/F	1238.6	1239.1	1.0	100.0			
	245	SGMR	8	S	1239.0E	1239.0	U	120.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1239.0E	1239.0	U	90.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1253.0E	1253.0	1.0D	53.0			QL=2 ST=2 TYP=3
	1415	SGMR	8	S	1256.0E	1257.0	1.0D	60.0			QL=2 ST=2 TYP=3
	9500	POTS	3	S	1259.0	1300.0	8.0	16.0			
	810	KRAK	2	S/F	1312.6	1313.5	1.2	93.0	6.0		
	245	SGMR	8	S	1345.0E	1345.0	2.0D	51.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1347.0E	1348.0	1.0D	51.0			QL=2 ST=2 TYP=3
	234	POTS	4	S/F	1347.7	1348.0	0.9	300.0			
	245	SVTO	8	S	1433.0E	1433.0	1.0D	64.0			QL=4 ST=2 TYP=3
	2800	OTTA	4	S/F	1501.0	1518.0	45.0	18.5	3.0		

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

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
19	1415	SGMR	8	S	1505.0E	1505.0	U	81.0			QL=2 ST=2 TYP=3
	1415	SGMR	4	S/F	1510.0E	1511.0	3.0D	310.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1511.0E	1513.0	2.0D	63.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1511.0E	1511.0	1.0D	87.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1516.0E	1517.0	5.0D	53.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1518.0E	1520.0	3.0D	78.0			QL=4 ST=2 TYP=3
	2800	OTTA	4	S/F	1607.0	1610.5	13.0	27.5	6.0		
	245	SGMR	4	S/F	1608.0E	1608.0	3.0D	830.0			QL=2 ST=3 TYP=3
	410	SGMR	8	S	1608.0E	1608.0	U	480.0			QL=4 ST=3 TYP=3
	1415	SGMR	8	S	1609.0E	1609.0	1.0D	73.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1609.0E	1609.0	U	62.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1609.0E	1609.0	2.0D	120.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1609.0E	1609.0	1.0D	180.0			QL=4 ST=2 TYP=3
	2800	OTTA	22	GRF	1648.0	1752.0	220.0	15.6	7.0		
	610	LEAR	4	S/F	2244.0E	2247.0	6.0D	140.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	2244.0E	2248.0	6.0D	68.0			QL=4 ST=2 TYP=3
	500	HIRA	46	C	2247.0	2247.5	4.7	129.0			MR
	245	LEAR	8	S	2347.0E	2347.0	U	56.0			QL=4 ST=3 TYP=3
20	245	LEAR	44	NS	0507.0E	0527.0	154.0D	100.0			QL=4 ST=2 TYP=1
	200	GORK	44	NS	0535.0E		385.0D		5.0		
	245	SVTO	44	NS	0603.0E	1318.0	541.0D	380.0			QL=4 ST=2 TYP=1
	204	IZMI	43	NS	0700.0		300.0	10.0			
	260	ONDR	44	NS	0900.0E		270.0D				
	100	GORK	43	NS	1129.2		32.8D		5.0		
	234	POTS	43	NS	1204.5	1359.0U	139.0U	55.0			
	200	HIRA	44	NS	2120.0E	0450.0	600.0D	21.0	5.0		MR
	500	HIRA	42	SER	0029.9	0035.0	10.0	538.0			O
	17000	NOBE	7	C	0032.8	0036.7	20.0				23L 80,35GHz:NO
	1415	LEAR	4	S/F	0034.0E	0035.0	8.0D	210.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0034.0E	0036.0	8.0D	130.0			QL=4 ST=2 TYP=3
	410	LEAR	49	GB	0034.0E	0035.0	5.0D	1200.0			QL=4 ST=2 TYP=6
	15400	LEAR	49	GB	0034.0E	0036.0	8.0D	540.0			QL=4 ST=2 TYP=6
	245	LEAR	49	GB	0035.0E	0036.0	2.0D	1700.0			QL=4 ST=2 TYP=6
	8800	LEAR	4	S/F	0035.0E	0036.0	7.0D	350.0			QL=4 ST=2 TYP=3
	610	LEAR	4	S/F	0035.0E	0036.0	7.0D	150.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0035.0E	0036.0	1405.0D	250.0			QL=2 ST=1 TYP=3
	500	HIRA	46	C	0053.5	0057.5	5.0	138.0			SR
	410	LEAR	4	S/F	0055.0E	0057.0	3.0D	74.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0055.0E	0056.0	3.0D	27.0			QL=4 ST=2 TYP=3
	610	LEAR	4	S/F	0055.0E	0057.0	3.0D	86.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0204.0E	0205.0	1316.0D	83.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0246.0	0249.5	8.0	7.8			
	500	HIRA	21	GRF	0400.0	0440.0	105.0	15.0	6.0		O
	8800	LEAR	4	S/F	0404.0E	0405.0	12.0D	51.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	0405.0E	0405.0	28.0D	77.0			QL=4 ST=2 TYP=3
	17000	NOBE	1	S	0405.1	0405.9	2.0				33L 80,35GHz:NO
	2840	PEKG	5	S	0406.0	0411.3	19.0	7.8			
	610	LEAR	4	S/F	0413.0E	0413.0	22.0D	84.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0507.0	0508.3	3.0	8.5			
	4995	LEAR	8	S	0530.0E	0531.0	1.0D	66.0			QL=2 ST=2 TYP=3
	15400	LEAR	8	S	0530.0E	0531.0	1.0D	48.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0530.0E	0531.0	1.0D	86.0			QL=4 ST=2 TYP=3
	9100	GORK	4	S/F	0530.3	0531.0	5.0	100.0			
	2850	CRIM	1	S	0530.6	0531.1	2.0	19.0	5.0		
	17000	NOBE	1	S	0530.8	0531.0	0.8				11L 80,35GHz:NO
	2950	GORK	1	S	0530.8	0531.1	0.8	13.0			
	2840	PEKG	3	S	0531.0	0536.0	19.0	21.9			
	17000	NOBE	1	S	0542.1	0543.8	3.0				17L 80,35GHz:NO
	2840	PEKG	20	GRF	0550.0	0637.9	62.0	11.3			
	9100	GORK	21	GRF	0552.6	0916.9	368.4D	28.0			
	5900	KISV	2	S/F	0607.1	0608.9	4.0	12.0			
	2850	CRIM	2	S/F	0637.0	0638.0	3.6	12.5	4.0		
	950	GORK	2	S/F	0637.3	0637.3	2.8	8.0			
	650	GORK	2	S/F	0637.4	0637.7	2.8	4.0			
	2850	CRIM	25	R	0658.0	0810.0		9.6			
	950	GORK	2	S/F	0707.4	0810.0	69.1	9.0			
	5900	KISV	2	S/F	0720.0	0720.8	2.1	3.0			
	204	IZMI	41	F	0732.5	0733.0	0.8	200.0			

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

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
20	15000	KISV	22	GRF	0800.6	0807.0	24.0	12.0			
	5900	KISV	23	GRF	0800.7	0827.5	54.8	7.0			
	2850	CRIM	1	S	0811.7	0812.0	1.3	8.2	2.0		
	2950	GORK	1	S	0811.7	0812.0	0.8	5.0			
	2850	CRIM	1	S	0817.1	0817.4	0.6	11.0	2.0		
	2950	GORK	1	S	0817.3	0817.5	0.5	9.0			
	5900	KISV	1	S	0817.3	0817.5	0.7	9.0			
	810	KRAK	46	C	0828.5	0836.0U	22.5	250.0D	80.0D		
	810	KRAK	46	C	0828.5	0841.0U	22.5	250.0D			
	950	GORK	2	S/F	0909.9	0910.3	1.2	12.0			
	650	GORK	22	GRF	0910.0	0910.9	7.6	3.0			
	9100	GORK	1	S	0912.5	0914.0	1.9	9.0			
	5900	KISV	2	S/F	0915.9	0917.0	1.5	4.0			
	2850	CRIM	41	F	0916.6	0917.1	0.6	42.0	10.0		
	9100	GORK	1	S	0919.5	0919.9	1.5	16.0			
	5900	KISV	2	S/F	0919.8	0920.0	1.3	5.0			
	2950	GORK	1	S	0925.7	0926.9	3.4	5.0			
	950	GORK	2	S/F	0926.0	0926.5	1.0	23.0			
	113	POTS	42	SER	0938.2	0941.2	3.5	1900.0			
	234	POTS	4	S/F	0941.3	0941.3	0.9	100.0			
	245	LEAR	8	S	0952.0E	0952.0	U	140.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	1007.8	1008.2	1.3	12.0			
	5900	KISV	4	S/F	1056.3	1057.0	1.4	28.0			
	5900	KISV	29	PBI	1056.3	1057.7	9.7	11.0			
	19600	BERN	3	S	1056.5	1057.0	2.0	2.4			
	11800	BERN	3	S	1056.5	1057.0	2.0	4.6			
	5200	BERN	3	S	1056.5	1057.0	2.0	1.4			
	8400	BERN	3	S	1056.5	1057.0	2.0	5.2			
	9100	GORK	4	S/F	1056.6	1057.0	2.6	53.0			
	245	SVTO	49	GB	1057.0E	1057.0	U	1200.0			QL=4 ST=2 TYP=6
	5900	KISV	2	S/F	1128.4	1129.1	3.3	14.0			
	245	SVTO	49	GB	1312.0E	1312.0	1.0D	530.0			QL=4 ST=2 TYP=6
	410	SVTO	49	GB	1337.0E	1337.0	U	4000.0			QL=4 ST=2 TYP=6
	2695	SVTO	4	S/F	1419.0E	1432.0	16.0D	120.0			QL=4 ST=2 TYP=5
	2800	OTTA	4	S/F	1419.0	1432.0	21.3	128.6	26.0		
	4995	SVTO	20	GRF	1420.0E	1425.0	7.0D	58.0			QL=4 ST=2 TYP=2
	8400	BERN	46	C	1420.0	1432.0	20.0	44.7			
	19600	BERN	46	C	1420.0	1432.0	20.0	24.0			
	5200	BERN	46	C	1420.0	1432.0	20.0	27.5			
	3200	BERN	46	C	1420.0	1432.0	20.0	8.6			
	11800	BERN	46	C	1420.0	1432.0	20.0	38.7			
	410	SVTO	8	S	1421.0E	1422.0	1.0D	54.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1431.0E	1431.0	4.0D	300.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	1440.0E	1441.0	2.0D	13000.0			QL=4 ST=2 TYP=6
	2800	OTTA	3	S	2016.1	2019.2	7.8	29.8	9.0		
	2695	PENT	4	S/F	2124.5	2128.5	22.5	700.0	140.0		
	8800	PALE	49	GB	2126.0E	2127.0	14.0D	880.0			QL=4 ST=2 TYP=6
	4995	PALE	49	GB	2126.0E	2128.0	13.0D	660.0			QL=2 ST=2 TYP=6
	15400	PALE	49	GB	2126.0E	2127.0	26.0D	960.0			QL=4 ST=2 TYP=6
	410	PALE	8	S	2127.0E	2127.0	1.0D	63.0			QL=4 ST=2 TYP=3
	1415	PALE	4	S/F	2127.0E	2127.0	4.0D	250.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	2127.0E	2127.0	U	33.0			QL=4 ST=2 TYP=3
	2695	PALE	49	GB	2127.0E	2128.0	11.0D	620.0			QL=4 ST=2 TYP=6
	245	PALE	8	S	2129.0E	2129.0	U	150.0			QL=4 ST=3 TYP=3
21	245	LEAR	44	NS	0038.0E	0308.0	591.0D	150.0			QL=4 ST=2 TYP=1
	200	GORK	44	NS	0527.0E		393.0D		5.0		
	245	SVTO	44	NS	0610.0E	1336.0	533.0D	170.0			QL=4 ST=2 TYP=1
	204	IZMI	43	NS	0700.0		300.0	30.0			
	100	GORK	43	NS	0823.5		216.5D		5.0		
	260	ONDR	44	NS	0900.0E	1149.3	270.0D	80.0			
	127	TORN	43	NS	1150.0		150.0		7.0		V=1
	245	PALE	44	NS	1812.0E	1833.0	97.0D	120.0			QL=4 ST=2 TYP=1
	200	HIRA	44	NS	2120.0E		600.0D		34.0		
	245	LEAR	44	NS	2241.0E	0919.0	708.0D	830.0			QL=4 ST=2 TYP=1
	245	PALE	8	S	0042.0E	0042.0	U	65.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0111.0E	0111.0	1.0D	90.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0130.0E	0134.0	5.0D	190.0			QL=4 ST=3 TYP=3
	245	LEAR	8	S	0134.0E	0134.0	1.0D	190.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
21	2840	PEKG	1	S	0153.0	0155.0	6.0	7.3			
	245	PALE	8	S	0156.0E	0156.0	U	57.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	0200.0E	0207.0	9.0D	82.0			QL=4 ST=2 TYP=5
	245	PALE	4	S/F	0211.0E	0214.0	3.0D	180.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0253.0	0253.9	6.0	13.1			
	2840	PEKG	20	GRF	0300.0	0306.0	30.0	10.9			
	245	LEAR	8	S	0507.0E	0507.0	1.0D	380.0			QL=4 ST=2 TYP=3
	9100	GORK	21	GRF	0617.0	0915.6	343.0	33.0			
	245	LEAR	8	S	0638.0E	0638.0	U	390.0			QL=4 ST=2 TYP=3
	5900	KISV	2	S/F	0705.9	0706.5	2.3	5.0			
	650	GORK	23	GRF	0723.2	0738.3	37.8	5.0			
	2840	PEKG	5	S	0725.0	0726.6	6.0	13.8			
	5900	KISV	4	S/F	0725.5	0726.8	3.7	29.0			
	200	GORK	4	S/F	0725.6	0727.0	2.0	23.0D			
	3013	IZMI	1	S	0726.0	0727.0	2.5	6.0	3.0		
	2950	GORK	1	S	0726.2	0727.0	2.5	14.0			
	204	IZMI	41	F	0726.2	0726.5	1.0	66.0			
	950	GORK	1	S	0726.3	0727.1	2.7	2.0			
	9100	GORK	1	S	0726.3	0726.7	2.0	10.0			
	2850	CRIM	1	S	0726.7	0726.8	0.8	5.5	2.0		
	2850	CRIM	45	C	0732.0	0738.2		22.0			
	2840	PEKG	45	C	0732.0	0738.2	10.0	36.3			
	2850	CRIM	45	C	0732.0	0734.9	10.5	17.8	7.0		
	5900	KISV	45	C	0732.1	0738.1		52.0			
	5900	KISV	45	C	0732.1	0735.3	8.6	95.0			
	5900	KISV	29	PBI	0732.1	0740.7	13.0	10.0			
	2695	LEAR	4	S/F	0733.0E	0734.0	6.0D	31.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0733.0E	0735.0	6.0D	72.0			QL=2 ST=2 TYP=3
	3013	IZMI	41	F	0733.5	0738.2	6.5	15.0			
	9100	GORK	46	C	0733.8	0738.1		28.0			
	2950	GORK	46	C	0733.8	0738.2		16.0			
	2950	GORK	46	C	0733.8	0735.3	4.4	16.0			
	9100	GORK	46	C	0733.8	0735.3	6.0	63.0			
	8800	LEAR	4	S/F	0734.0E	0735.0	4.0D	64.0			QL=4 ST=2 TYP=3
	3000	POTS	3	S	0734.0	0735.0	2.0	13.0			
	4995	SVTO	4	S/F	0734.0E	0735.0	6.0D	80.0			QL=4 ST=2 TYP=3
	11800	BERN	46	C	0734.0	0735.3	7.0	12.7			
	3200	BERN	46	C	0734.0	0735.3	7.0	13.4			
	5200	BERN	46	C	0734.0	0735.3	7.0	12.0			
	8400	BERN	46	C	0734.0	0735.3	7.0	16.7			
	950	GORK	2	S/F	0734.0	0735.4	5.3	11.0			
	9500	POTS	3	S	0734.0	0735.5	3.0	43.0U			
	15000	KISV	2	S/F	0734.3	0735.4	6.7	23.0			
	1470	POTS	3	S	0734.5	0735.5	3.0	12.0			
	650	GORK	1	S	0734.8	0735.4	1.5	3.0			
	5900	KISV	46	C	0906.1	0908.3		49.0			
	5900	KISV	46	C	0906.1	0912.3		82.0			
	5900	KISV	46	C	0906.1	0911.5	9.6	88.0			
	5900	KISV	29	PBI	0906.1	0915.7	15.6	12.0			
	2950	GORK	21	GRF	0906.8	0915.0	48.4	7.0			
	8800	LEAR	4	S/F	0907.0E	0912.0	8.0D	70.0			QL=4 ST=2 TYP=5
	4995	LEAR	8	S	0907.0E	0908.0	1.0D	25.0			QL=2 ST=2 TYP=3
	15400	LEAR	4	S/F	0907.0E	0908.0	6.0D	90.0			QL=4 ST=2 TYP=3
	9500	POTS	29	PBI	0907.0	0912.1	38.0	73.0			
	2850	CRIM	1	S	0907.5	0908.2	3.4	12.0	4.0		
	19600	BERN	46	C	0907.5	0911.3	7.0	18.1			
	3200	BERN	46	C	0907.5	0911.3	7.0	25.3			
	11800	BERN	46	C	0907.5	0911.3	7.0	22.5			
	8400	BERN	46	C	0907.5	0911.3	7.0	14.3			
	5200	BERN	46	C	0907.5	0911.3	7.0	7.7			
	3000	POTS	4	S/F	0907.5	0911.3	9.5	40.0			
	1470	POTS	4	S/F	0907.5	0911.7	7.5	23.0			
	15000	KISV	29	PBI	0907.6	0914.0	21.3	18.0			
	9100	GORK	46	C	0907.6	0908.2	7.4	71.0			
	15000	KISV	46	C	0907.6	0908.2	6.4	81.0			
	9100	GORK	46	C	0907.6	0912.3		73.0			
	15000	KISV	46	C	0907.6	0912.3		66.0			
	15000	KISV	46	C	0907.6	0911.3		57.0			
	100	GORK	4	S/F	0907.6	0908.5	5.0	34.0			

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

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
21	950	GORK	2	S/F	0907.6	0911.6	8.4	16.0			
	650	GORK	4	S/F	0907.7	0911.2	6.5	106.0			
	127	TORN	46	C	0907.7	0912.4	6.0	240.0	10.0		
	200	GORK	4	S/F	0907.9	0912.5	5.5	560.0			
	204	IZMI	41	F	0907.9	0912.5	6.3	1000.0			
	410	LEAR	8	S	0908.0E	0908.0	U	130.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0908.0E	0908.0	1.0D	79.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0908.0E	0908.0	1.0D	47.0			QL=4 ST=2 TYP=3
	2850	CRIM	29	PBI	0910.0	0914.0	7.0	5.6	2.0		
	2695	LEAR	4	S/F	0910.0E	0911.0	3.0D	37.0			QL=4 ST=2 TYP=3
	2850	CRIM	3	S	0910.0	0911.3	4.0	40.0	13.0		
	2950	GORK	3	S	0910.0	0911.4	4.3	31.0			
	3013	IZMI	5	S	0910.5	0911.5	4.5	28.0	15.0		
	610	LEAR	8	S	0911.0E	0911.0	U	92.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0911.0E	0911.0	U	17.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0911.0E	0912.0	2.0D	51.0			QL=4 ST=3 TYP=3
	4995	SVTO	8	S	0911.0E	0911.0	2.0D	57.0			QL=4 ST=3 TYP=3
	2695	SVTO	8	S	0911.0E	0911.0	1.0D	32.0			QL=4 ST=3 TYP=3
	15400	SVTO	4	S/F	0911.0E	0912.0	3.0D	64.0			QL=4 ST=3 TYP=3
	245	LEAR	49	GB	0912.0E	0912.0	U	530.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	0912.0E	0913.0	1.0D	600.0			QL=4 ST=3 TYP=6
	204	IZMI	7	C	1046.8	1047.2	0.7	130.0	60.0		
	245	SVTO	8	S	1321.0E	1321.0	U	340.0			QL=4 ST=2 TYP=3
	2800	OTTA	4	S/F	1331.7	1336.0	8.3	32.4	13.0		
	113	POTS	45	C	1331.7	1343.1	29.8	2800.0			
	127	TORN	42	SER	1332.0	1348.0U	26.0	6400.0	40.0		
	1470	POTS	4	S/F	1332.0	1335.1	6.0	28.0			
	234	POTS	45	C	1332.0	1343.1	29.0U	8500.0			
	40	POTS	45	C	1332.0	1343.1	33.0	4500.0			
	9500	POTS	3	S	1332.0	1336.3	8.0	41.0			
	3000	POTS	4	S/F	1332.0	1335.5	8.0	33.0			
	245	SVTO	8	S	1333.0E	1333.0	U	110.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1333.0E	1336.0	4.0D	38.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1333.0E	1336.0	5.0D	72.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1335.0E	1336.0	1.0D	74.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1335.0E	1336.0	2.0D	34.0			QL=4 ST=2 TYP=3
	9500	POTS	46	C	1342.5	1346.0	17.5	215.0			
	3000	POTS	45	C	1342.5	1344.0	17.5	145.0			
	35000	BERN	47	GB	1342.5	1344.8	6.0	83.8			
	19600	BERN	47	GB	1342.5	1344.8	6.0	158.9			
	50000	BERN	47	GB	1342.5	1344.8	6.0	31.7			
	11800	BERN	47	GB	1342.5	1344.8	6.0	98.2			
	8400	BERN	47	GB	1342.5	1344.8	6.0	43.3			
	5200	BERN	47	GB	1342.5	1344.8	6.0	11.5			
	3200	BERN	47	GB	1342.5	1344.8	6.0	78.0			
	1470	POTS	45	C	1342.5	1345.8	12.5	210.0			
	2800	OTTA	4	S/F	1342.6	1343.1	7.1	167.4	50.0		
	245	SVTO	49	GB	1343.0E	1344.0	5.0D	2200.0			QL=4 ST=2 TYP=6
	410	SVTO	49	GB	1343.0E	1346.0	4.0D	690.0			QL=4 ST=2 TYP=6
	1415	SVTO	4	S/F	1343.0E	1346.0	5.0D	190.0			QL=4 ST=2 TYP=5
	15400	SVTO	49	GB	1343.0E	1345.0	6.0D	580.0			QL=4 ST=2 TYP=6
	2695	SVTO	4	S/F	1343.0E	1344.0	5.0D	170.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1343.0E	1347.0	6.0D	130.0			QL=4 ST=2 TYP=5
	8800	SVTO	4	S/F	1343.0E	1346.0	5.0D	170.0			QL=4 ST=2 TYP=3
	33	UPIC	32	ABS	1344.0	1346.5	12.0				
	2800	OTTA	4	S/F	1653.1	1653.3	2.3	157.9	31.0		
	245	PALE	8	S	1823.0E	1824.0	1.0D	88.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1824.0E	1824.0	U	72.0			QL=4 ST=2 TYP=3
	410	PALE	49	GB	1831.0E	1839.0	14.0D	3500.0			QL=4 ST=2 TYP=6
	2800	OTTA	4	S/F	1838.0	1840.0	4.0	108.8	21.0		
	2695	PALE	8	S	1839.0E	1840.0	1.0D	93.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1839.0E	1839.0	1.0D	160.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1949.0E	1951.0	2.0D	29.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1949.0E	1949.0	1.0D	90.0			QL=4 ST=2 TYP=3
	2800	OTTA	4	S/F	1949.5	1950.0	1.3	25.3	5.0		
	2800	OTTA	4	S/F	2005.5	2006.2	1.8	32.2	6.0		
	1415	LEAR	49	GB	2203.0E	2204.0	1.0D	960.0			QL=4 ST=2 TYP=6
	1415	PALE	49	GB	2203.0E	2204.0	2.0D	1300.0			QL=4 ST=2 TYP=6
	2695	PENT	4	S/F	2203.5	2204.0	2.8	36.3	7.0		

SOLAR RADIO EMISSION
Outstanding Occurrences

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
21	245	LEAR	8	S	2212.0E	2212.0	U	65.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2212.0E	2212.0	U	99.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2303.0E	2303.0	1.0D	250.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2320.0E	2320.0	1.0D	110.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	2347.0E	2348.0	1.0D	83.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	2347.0E	2348.0	1.0D	51.0			QL=4 ST=2 TYP=3
22	245	PALE	44	NS	0134.0E	0140.0	117.0D	140.0			QL=4 ST=2 TYP=1
	500	HIRA	43	NS	0310.0	0500.0	250.0D	10.0	5.0		SR
	200	GORK	44	NS	0530.0E		381.0D		7.0		
	245	SVTO	44	NS	0606.0E	0643.0	537.0D	490.0			QL=4 ST=2 TYP=1
	234	POTS	44	NS	0641.0E	0709.0U	466.0D	300.0			
	204	IZMI	43	NS	0700.0		300.0	100.0			
	260	ONDR	44	NS	0900.0E		240.0D				
	245	PALE	44	NS	1731.0E	2300.0	600.0D	370.0			QL=4 ST=2 TYP=1
	200	HIRA	44	NS	2120.0E	0143.0	600.0D	170.0	29.0		SR
	245	LEAR	44	NS	2149.0E	2306.0	761.0D	530.0			QL=4 ST=1 TYP=1
	245	PALE	4	S/F	0025.0E	0026.0	5.0D	120.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0026.0E	0026.0	1.0D	160.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0041.0E	0041.0	1.0D	69.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0117.0E	0117.0	U	92.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0133.0E	0134.0	1.0D	110.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0409.0	0413.7	14.0	13.7			
	2840	PEKG	5	S	0430.0	0431.7	8.0	53.2			
	2695	LEAR	8	S	0431.0E	0431.0	1.0D	61.0			QL=4 ST=2 TYP=3
	650	GORK	23	GRF	0550.0E	0702.3	364.0D	13.0			
	9100	GORK	21	GRF	0555.8	0843.6	358.2	25.0			
	200	GORK	41	F	0621.6	0630.0		555.0			
	200	GORK	41	F	0621.6	0624.1	37.7	740.0			
	200	GORK	41	F	0621.6	0658.6		370.0			
	5900	KISV	2	S/F	0646.5	0648.3	6.0	4.0			
	15000	KISV	2	S/F	0647.8	0648.3	1.8	7.0			
	5900	KISV	2	S/F	0724.0	0724.5	3.0	5.0			
	2950	GORK	3	S	0752.8	0752.9	0.4	21.0			
	3000	POTS	40	F	0820.5	0821.4	3.5	26.0			
	2950	GORK	3	S	0820.8	0821.4	2.9	31.0			
	1470	POTS	3	S	0823.0	0823.3	1.0	14.0			
	33	UPIC	32	ABS	0829.0	0842.0	45.0				
	100	GORK	46	C	0834.2	0836.6	6.5	2900.0			
	100	GORK	46	C	0834.2	0838.9		250.0			
	127	TORN	7	C	0834.3	0839.0	7.0	1200.0	70.0		
	113	POTS	4	S/F	0834.5	0836.6	7.8	750.0			
	40	POTS	4	S/F	0834.6	0836.0U	5.5	25000.0D			
	2695	LEAR	4	S/F	0835.0E	0836.0	3.0D	320.0			QL=4 ST=2 TYP=3
	33	UPIC	45	C	0835.0	0837.5	4.0				
	5900	KISV	29	PBI	0835.1	0840.1	6.6	34.0			
	5900	KISV	47	GB	0835.1	0836.6	5.0	782.0			
	950	GORK	2	S/F	0835.2	0836.5	8.8	24.0			
	1470	POTS	3	S	0835.2	0836.6	4.8	48.0			
	2950	GORK	3	S	0835.3	0837.9	7.2	165.0			
	3013	IZMI	20	GRF	0835.5	0836.5	8.0	218.0	100.0		
	3000	POTS	3	S	0835.5	0836.6	9.5	595.0			
	9100	GORK	47	GB	0835.6	0836.6	8.0	840.0			
	15000	KISV	4	S/F	0835.9	0836.6	5.5	232.0			
	650	GORK	2	S/F	0836.0	0837.0	5.0	7.0			
	15400	LEAR	4	S/F	0836.0E	0836.0	4.0D	230.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0836.0E	0836.0	1.0D	38.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0836.0E	0836.0	4.0D	490.0			QL=4 ST=2 TYP=3
	4995	LEAR	49	GB	0836.0E	0836.0	4.0D	600.0			QL=2 ST=2 TYP=6
	15400	SVTO	4	S/F	0836.0E	0837.0	6.0D	250.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0836.0E	0837.0	4.0D	430.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0836.0E	0837.0	3.0D	300.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0836.0E	0837.0	1.0D	40.0			QL=4 ST=2 TYP=3
	9500	POTS	3	S	0836.0	0836.1	9.0	314.0			
	2850	CRIM	3	S	0845.0	0846.6	7.2	260.0			
	5900	KISV	2	S/F	0850.8	0851.7	2.7	5.0			
	410	SVTO	8	S	0907.0E	0907.0	U	56.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0918.0E	0920.0	3.0D	72.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0918.0E	0919.0	3.0D	78.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	410	LEAR	8	S	0918.0E	0919.0	2.0D	76.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0918.0E	0919.0	1.0D	84.0			QL=4 ST=2 TYP=3
	950	GORK	4	S/F	0918.0	0919.4	9.0	98.0			
	650	GORK	4	S/F	0918.7	0919.4	2.2	46.0			
	5900	KISV	46	C	0918.9	0919.3		8.0			
	5900	KISV	46	C	0918.9	0920.6		8.0			
	5900	KISV	46	C	0918.9	0919.7	4.4	17.0			
	1470	POTS	40	F	0919.0	0920.0	3.5	89.0			
	1415	SVTO	8	S	0919.0E	0920.0	2.0D	78.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0919.0E	0921.0	2.0D	70.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0919.0E	0919.0	2.0D	170.0			QL=4 ST=2 TYP=3
	3013	IZMI	7	C	0919.0	0919.5	5.5	12.0			
	9500	POTS	40	F	0919.0	0920.5	5.0	12.0			
	2950	GORK	45	C	0919.0	0920.6		45.0			
	3000	POTS	40	F	0919.0	0920.7	5.0	42.0			
	2950	GORK	45	C	0919.0	0919.8	3.0	24.0			
	15000	KISV	46	C	0919.1	0919.3		13.0			
	15000	KISV	46	C	0919.1	0920.5		10.0			
	9100	GORK	2	S/F	0919.1	0919.7	2.0	12.0			
	15000	KISV	46	C	0919.1	0919.7	2.7	14.0			
	245	SVTO	49	GB	0920.0E	0920.0	U	820.0			QL=4 ST=2 TYP=6
	234	POTS	4	S/F	1013.1	1013.6	1.9	900.0			
	5900	KISV	23	GRF	1032.9	1048.2	22.2	12.0			
	5900	KISV	4	S/F	1033.5	1034.2	3.1	20.0			
	2850	CRIM	1	S	1107.2	1107.8	2.0	26.0	8.0		
	3000	POTS	3	S	1117.0	1118.0	3.0	20.0			
	1470	POTS	3	S	1117.0	1118.0	3.0	11.0			
	5900	KISV	45	C	1117.2	1117.7		12.0			
	5900	KISV	45	C	1117.2	1117.8	3.0	13.0			
	2950	GORK	1	S	1117.4	1118.0	2.3	17.0			
	3013	IZMI	7	C	1117.5	1117.9	3.0	15.0			
	1470	POTS	40	F	1250.0	1252.0	7.0	18.0			
	9500	POTS	40	F	1250.0	1251.5	7.5	55.0			
	3000	POTS	40	F	1250.0	1251.6	5.0	27.0			
	15400	SVTO	8	S	1252.0E	1252.0	U	59.0			QL=4 ST=2 TYP=3
	2850	CRIM	46	C	1300.0	1300.4	4.5	8.0	7.0		
	2850	CRIM	46	C	1300.0	1301.5		19.0			
	2850	CRIM	46	C	1300.0	1303.5		14.0			
	2850	CRIM	46	C	1300.0	1301.8		25.0			
	410	SVTO	49	GB	1323.0E	1323.0	U	4100.0			QL=4 ST=2 TYP=6
	3000	POTS	45	C	1329.0	1333.2		425.0			
	3000	POTS	45	C	1329.0	1332.5	11.0	425.0			
	2800	OTTA	3	S	1329.4	1332.7	9.0	202.9	40.0		
	1470	POTS	4	S/F	1330.0	1332.5	8.0	49.0			
	2695	SVTO	4	S/F	1331.0E	1333.0	5.0D	200.0			QL=4 ST=3 TYP=3
	9500	POTS	4	S/F	1331.0	1333.1	9.0	257.0			
	40	POTS	4	S/F	1331.6	1332.2	3.9	20000.0			
	113	POTS	4	S/F	1331.7	1332.2	8.3	150.0			
	15400	SVTO	4	S/F	1332.0E	1334.0	4.0D	170.0			QL=4 ST=3 TYP=3
	4995	SVTO	4	S/F	1332.0E	1333.0	4.0D	350.0			QL=4 ST=3 TYP=3
	1415	SVTO	8	S	1332.0E	1332.0	2.0D	43.0			QL=4 ST=3 TYP=3
	8800	SVTO	4	S/F	1332.0E	1333.0	4.0D	240.0			QL=4 ST=3 TYP=3
	127	TORN	4	S/F	1332.0	1335.6	4.3	220.0	30.0		
	234	POTS	4	S/F	1333.0	1333.1	1.0	650.0			
	410	SVTO	8	S	1428.0E	1428.0	U	140.0			QL=4 ST=2 TYP=3
	808	ONDR	41	F	1919.0	1919.4	1.5	29.0			
	245	PALE	49	GB	2306.0E	2306.0	U	600.0			QL=2 ST=2 TYP=6
23	200	GORK	44	NS	0538.0E		367.0D		5.0		
	245	SVTO	44	NS	0624.0E	0758.0	518.0D	370.0			QL=4 ST=2 TYP=1
	234	POTS	44	NS	0649.0E	0703.0U	161.0D	165.0U			
	260	ONDR	44	NS	0900.0E		270.0D				
	245	PALE	44	NS	1728.0E	0106.0	603.0D	480.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2149.0	0149.0	762.0	490.0			QL=4 ST=2 TYP=1
	2840	PEKG	45	C	0128.0	0130.4	12.0	13.2			
	5900	KISV	22	GRF	0609.7	0617.5	20.9	6.0			
	15000	KISV	45	C	0610.2	0611.0	3.1	6.0			
	15000	KISV	45	C	0610.2	0611.5		5.0			
	245	SVTO	8	S	0615.0E	0615.0	U	400.0			QL=2 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
23	2850	CRIM	20	GRF	0629.5	0631.2	12.0	6.3	2.0		
	2950	GORK	1	S	0635.6	0636.0	2.4	9.0			
	2850	CRIM	26	FAL	0641.5	0740.0		9.0			
	5900	KISV	2	S/F	0648.4	0651.5	6.2	10.0			
	15000	KISV	2	S/F	0707.8	0708.5	4.3	9.0			
	5900	KISV	2	S/F	0707.9	0708.5	4.1	9.0			
	650	GORK	22	GRF	0708.4	0718.2	22.2	4.0			
	200	GORK	46	C	0728.9	0733.0		1110.0			
	200	GORK	46	C	0728.9	0729.9	4.6	185.0			
	5900	KISV	45	C	0754.8	0755.3		7.0			
	5900	KISV	45	C	0754.8	0755.5	1.0	9.0			
	2850	CRIM	1	S	0812.7	0814.0	3.0	3.0	1.0		
	9100	GORK	21	GRF	0827.0	0856.3	169.2	13.0			
	200	GORK	4	S/F	0830.8	0832.0	1.9	185.0			
	5900	KISV	23	GRF	1001.6	1020.6	67.3	18.0			
	15000	KISV	22	GRF	1013.8	1020.5	44.9	16.0			
	2950	GORK	20	GRF	1014.6	1021.0	13.7	11.0			
	9100	GORK	2	S/F	1054.6	1055.0	2.4	31.0			
	430	KRAK	42	SER	1155.0	1209.2	30.5	71.0			
	410	SVTO	8	S	1210.0E	1210.0	1.0D	140.0			QL=4 ST=2 TYP=3
	2850	CRIM	3	S	1259.0	1300.0	3.0	22.0	7.0		
	3000	POTS	3	S	1259.0	1300.3	4.0	24.0			
	9500	POTS	3	S	1300.0	1301.3	4.0	17.0			
	500	HIRA	20	GRF	2332.5	2436.5	150.0	21.0	17.0		WR
24	200	GORK	44	NS	0539.0E		366.0D		5.0		
	204	IZMI	43	NS	0700.0		300.0	25.0			
	100	GORK	43	NS	0854.0		90.0		5.0		
	260	ONDR	44	NS	0900.0E	1207.3	270.0D				
	245	PALE	8	S	0057.0E	0100.0	3.0D	250.0			QL=2 ST=2 TYP=5
	410	PALE	8	S	0058.0E	0059.0	1.0D	66.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0627.0E	0627.0	1.0D	240.0			QL=4 ST=2 TYP=3
	650	GORK	22	GRF	0718.7	0814.7	254.9	11.0			
	204	IZMI	41	F	0802.5	0802.9	1.0	100.0			
	5900	KISV	23	GRF	0826.4	0827.9	9.2	5.0			
	5900	KISV	2	S/F	0828.5	0829.0	2.7	17.0			
	204	IZMI	42	SER	0836.0	0840.2	12.5	300.0			
	200	GORK	41	F	0836.6	0845.0		26.0D			
	200	GORK	41	F	0836.6	0838.6	12.2	26.0D			
	410	SVTO	8	S	0847.0E	0847.0	1.0D	150.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0848.0E	0848.0	U	100.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0902.2	0902.7	1.0	380.0			
	204	IZMI	42	SER	0916.0	0917.0	4.0	110.0			
	245	SVTO	8	S	0916.0E	0917.0	1.0D	170.0			QL=4 ST=2 TYP=3
	234	POTS	4	S/F	0916.4	0916.6	1.0	150.0			
	113	POTS	4	S/F	0916.5	0916.6	0.8	60.0			
	40	POTS	8	S	0916.6	0916.7	0.3	1600.0			
	430	KRAK	42	SER	0920.0	1008.0	214.5	56.0			
	430	KRAK	42	SER	0920.0	1213.3		39.0			
	204	IZMI	42	SER	1013.0	1013.3	6.5	155.0			
	5900	KISV	4	S/F	1054.4	1055.1	8.8	43.0			
	15000	KISV	2	S/F	1054.4	1055.1	2.1	7.0			
	9500	POTS	3	S	1054.5	1055.0	5.5	28.0			
	3000	POTS	3	S	1054.5	1055.4	5.5	7.0			
	3013	IZMI	4	S/F	1054.5	1055.5	4.5	8.0	4.0		
	950	GORK	2	S/F	1054.7	1055.2	1.9	14.0			
	2850	CRIM	1	S	1104.5	1105.2	2.1	5.0	2.0		
	204	IZMI	8	S	1116.7	1116.8	0.2	250.0			
	810	KRAK	27	RF	1133.0	1137.0	13.0	19.0	12.0		
	234	POTS	4	S/F	1200.1	1202.9	5.4	550.0			
	40	POTS	4	S/F	1201.0	1202.2	4.6	7500.0			
	113	POTS	4	S/F	1201.6	1201.7	4.9	150.0			
	245	SVTO	49	GB	1203.0E	1203.0	U	800.0			QL=2 ST=2 TYP=6
	9500	POTS	4	S/F	1241.5	1244.5	13.5	49.0			
	810	KRAK	2	S/F	1243.0	1244.0	2.5	86.0	2.0		
	3000	POTS	3	S	1244.0	1244.5	2.0	13.0			
	1470	POTS	40	F	1244.0	1244.5	1.3	9.0			
	808	ONDR	3	S	1244.2	1244.7	4.0	6.0			
	2850	CRIM	2	S/F	1254.0	1254.5	1.5	1.4			

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

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
24	2800	OTTA	22	GRF	1310.0	1400.0	220.0	16.1	8.0		
	410	PALE	8	S	2040.0E	2040.0	1.0D	90.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2040.0E	2040.0	U	75.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	2227.0E	2228.0	93.0D	200.0			QL=4 ST=1 TYP=3
	500	HIRA	27	RF	2335.0	2414.0	105.0	23.0	7.0		WL
	245	LEAR	49	GB	2349.0E	2349.0	U	710.0			QL=4 ST=3 TYP=6
	410	LEAR	8	S	2349.0E	2349.0	U	44.0			QL=4 ST=3 TYP=3
	245	PALE	49	GB	2349.0E	2349.0	U	810.0			QL=4 ST=2 TYP=6
25	245	LEAR	43	NS	0201.0	0202.0	110.0				QL=4 ST=2 TYP=1
	100	GORK	44	NS	0545.0E		342.0D		5.0		
	200	GORK	44	NS	0545.0E		342.0D		5.0		
	204	IZMI	43	NS	0805.0		235.0	20.0			
	260	ONDR	44	NS	0900.0E	0921.8	270.0D				
	200	HIRA	44	NS	2120.0E		595.0D		22.0		
	245	PALE	49	GB	0201.0E	0201.0	1.0D	570.0			QL=2 ST=2 TYP=6
	200	HIRA	46	C	0223.2	0224.4	3.3	750.0			O
	610	LEAR	8	S	0224.0E	0226.0	2.0D	24.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0224.0E	0225.0	1.0D	32.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0224.0E	0224.0	1.0D	14.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0224.0E	0225.0	2.0D	110.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0224.0E	0226.0	2.0D	890.0			QL=4 ST=3 TYP=6
	245	PALE	49	GB	0224.0E	0224.0	1.0D	880.0			QL=4 ST=2 TYP=6
	410	PALE	4	S/F	0224.0E	0225.0	1296.0D	140.0			QL=4 ST=1 TYP=3
	500	HIRA	7	C	0224.2	0225.0	21.5	24.0			WR
	500	HIRA	7	C	0224.2	0233.5		9.0			O
	100	HIRA	8	S	0224.3	0224.9	0.9	1000.0			
	8800	LEAR	8	S	0226.0E	0226.0	U	11.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0447.0	0450.2	10.0	13.5			
	245	LEAR	49	GB	0448.0E	0449.0	2.0D	2100.0			QL=4 ST=2 TYP=6
	200	HIRA	46	C	0448.2	0448.9	1.5	140.0			O
	500	HIRA	46	C	0448.3	0449.5	4.0	36.0			O
	410	LEAR	8	S	0449.0E	0449.0	1.0D	180.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0500.0	0510.2	22.0	31.9			
	100	HIRA	46	C	0509.8		3.3	1000.0D			
	245	LEAR	49	GB	0510.0E	0510.0	1.0D	730.0			QL=4 ST=2 TYP=6
	500	HIRA	45	C	0510.0	0510.5	3.0	9.0			O
	200	HIRA	46	C	0510.0	0510.6	2.0	2500.0			O
	245	LEAR	49	GB	0514.0E	0514.0	U	1000.0			QL=4 ST=2 TYP=6
	2850	CRIM	7	C	0637.4	0638.0		11.0			
	2850	CRIM	7	C	0637.4	0637.9	1.0	9.8	2.0		
	2950	GORK	1	S	0637.5	0637.8	2.3	7.0			
	2850	CRIM	1	S	0645.0	0646.9	2.8	6.0	2.0		
	5900	KISV	2	S/F	0736.9	0742.6		4.0			
	5900	KISV	2	S/F	0736.9	0737.7	6.6	4.0			
	950	GORK	46	C	0808.5	0809.3		3.0			
	950	GORK	46	C	0808.5	0808.6	1.4	3.0			
	950	GORK	2	S/F	0815.3	0818.1	3.5	10.0			
	650	GORK	22	GRF	0817.9	0834.7	22.9	2.0			
	9100	GORK	20	GRF	0831.5	0905.3	63.1	5.0			
	650	GORK	22	GRF	0919.7	0931.9	22.7	3.0			
	245	LEAR	49	GB	0921.0E	0921.0	1.0D	1600.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	0921.0E	0922.0	1.0D	1400.0			QL=4 ST=2 TYP=6
	100	GORK	3	S	0921.5	0921.9U	0.8	34.0D			
	113	POTS	4	S/F	0921.6	0922.1	0.9	240.0			
	40	POTS	4	S/F	0921.6	0922.1	0.8	5100.0			
	234	POTS	4	S/F	0921.6	0922.4	1.0	125.0			
	200	GORK	4	S/F	0924.4	0925.6	3.1	25.0D			
	200	GORK	41	F	1017.8	1102.4		22.0D			
	200	GORK	41	F	1047.8	1053.7	19.6	22.0D			
	100	GORK	41	F	1049.7	1103.1		34.0D			
	100	GORK	41	F	1049.7	1053.6	18.5	34.0D			
	5900	KISV	22	GRF	1108.0	1110.0	9.0	4.0			
	5900	KISV	22	GRF	1130.5	1133.7	12.4	6.0			
	245	SVTO	8	S	1134.0E	1134.0	1.0D	62.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	1134.5	1134.6	0.5	85.0	40.0		
	204	IZMI	41	F	1157.3	1157.5	0.5	600.0			
	1415	PALE	4	S/F	1742.0E	1743.0	3.0D	70.0			QL=4 ST=2 TYP=3
	2800	OTTA	3	S	1742.9	1744.1	7.5	67.1	13.0		

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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	2695	PALE	8	S	1743.0E	1743.0	1.0D	65.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1743.0E	1743.0	1.0D	51.0			QL=2 ST=2 TYP=3
	500	HIRA	48	C	2241.5		105.0D				
	200	HIRA	48	C	2250.2	2315.0	135.0	305.0	97.0		WR
	100	HIRA	48	C	2251.5	2500.0		310.0			
	100	HIRA	48	C	2251.5	2411.2		640.0			
	100	HIRA	48	C	2251.5	2326.4	270.0	820.0	290.0		
	1415	PALE	49	GB	2252.0E	2415.0	134.0D	2800.0			QL=4 ST=2 TYP=7
	410	PALE	49	GB	2252.0E	2424.0	168.0D	3100.0			QL=4 ST=2 TYP=7
	610	PALE	49	GB	2252.0E	2418.0	177.0D	49000.0			QL=4 ST=2 TYP=7
	610	LEAR	49	GB	2253.0E	2418.0	194.0D	48000.0			QL=4 ST=3 TYP=7
	2695	PALE	49	GB	2254.0E	2420.0	155.0D	610.0			QL=4 ST=2 TYP=7
	245	PALE	4	S/F	2255.0E	2418.0	111.0D	340.0			QL=4 ST=2 TYP=5
	4995	PALE	4	S/F	2255.0E	2420.0	164.0D	420.0			QL=2 ST=2 TYP=5
	8800	PALE	4	S/F	2256.0E	2326.0	64.0D	240.0			QL=4 ST=1 TYP=5
	4995	LEAR	4	S/F	2256.0E	2420.0	196.0D	370.0			QL=4 ST=3 TYP=3
	8800	LEAR	4	S/F	2256.0E	2420.0	196.0D	220.0			QL=4 ST=3 TYP=3
	245	LEAR	20	GRF	2256.0E	2418.0	203.0D	300.0			QL=4 ST=3 TYP=2
	1415	LEAR	4	S/F	2257.0E	2415.0	133.0D	2300.0			QL=4 ST=3 TYP=5
	2695	LEAR	49	GB	2257.0E	2420.0	195.0D	600.0			QL=4 ST=3 TYP=6
	410	LEAR	49	GB	2258.0E	2424.0	197.0D	3700.0			QL=4 ST=3 TYP=7
	15400	LEAR	20	GRF	2300.0E	2416.0	192.0D	170.0			QL=4 ST=3 TYP=2
	15400	PALE	20	GRF	2315.0E	2420.0	94.0D	110.0			QL=4 ST=2 TYP=2
26	245	LEAR	44	NS	0219.0E	0705.0	493.0D	130.0			QL=4 ST=2 TYP=1
	100	HIRA	44	NS	0318.0E		230.0D		30.0		
	200	GORK	44	NS	0547.0E		348.0D		5.0		
	100	GORK	44	NS	0557.0E		336.0D		5.0		
	204	IZMI	43	NS	0700.0		300.0	30.0			
	245	SVTO	43	NS	0727.0	0822.0	453.0	130.0			QL=4 ST=2 TYP=1
	260	ONDR	44	NS	0900.0E	0955.0	270.0D	150.0			
	200	HIRA	44	NS	2124.0E		595.0D		17.0		
	245	LEAR	44	NS	2356.0E	0017.0	323.0D	320.0			QL=4 ST=2 TYP=1
	2840	PEKG	5	S	0630.0	0638.7	25.0	16.5			
	9100	GORK	20	GRF	0634.2	0708.9	282.9	16.0			
	5900	KISV	22	GRF	0634.8	0635.6		7.0			
	5900	KISV	22	GRF	0634.8	0639.6	10.8	8.0			
	2850	CRIM	1	S	0637.0	0639.2	7.0	13.0	4.0		
	2950	GORK	1	S	0638.2	0639.0	5.0	8.0			
	245	SVTO	8	S	0648.0E	0648.0	1.0D	110.0			QL=4 ST=2 TYP=3
	200	GORK	41	F	0655.8	0704.7		32.0D			
	200	GORK	41	F	0655.8	0657.9	13.2	33.0D			
	5900	KISV	23	GRF	0700.2	0708.6	25.2	15.0			
	5900	KISV	2	S/F	0700.3	0701.7	3.1	18.0			
	3000	POTS	40	F	0842.0U	0843.6	6.0U	25.0			
	950	GORK	2	S/F	0843.0	0845.4	3.5	10.0			
	2850	CRIM	46	C	0843.1	0847.0		22.0			
	2950	GORK	45	C	0843.1	0846.0		16.0			
	2850	CRIM	46	C	0843.1	0843.6	4.5	22.0	7.0		
	3013	IZMI	41	F	0843.1	0843.6	4.1	43.0			
	2950	GORK	45	C	0843.1	0843.7	3.8	25.0			
	810	KRAK	42	SER	0844.0E	0844.2	2.5D	118.0			
	5900	KISV	2	S/F	0844.4	0846.2	5.5	11.0			
	650	GORK	4	S/F	0845.4	0845.7	2.8	14.0			
	1470	POTS	3	S	0845.5	0846.3	2.0U	11.0			
	950	GORK	1	S	0850.1	0850.2	0.6	5.0			
	2850	CRIM	1	S	0926.3	0926.4	0.5	5.0	1.0		
	2850	CRIM	1	S	0926.3	0926.4	0.5	5.0	1.0		
	2850	CRIM	42	SER	1005.3	1006.8	4.5	7.0	2.0		
	2850	CRIM	42	SER	1005.3	1006.8	4.5	7.0	2.0		
	5900	KISV	2	S/F	1019.7	1020.7	2.5	4.0			
	808	ONDR	1	S	1140.5	1141.0	2.0	4.0			
	5900	KISV	45	C	1141.4	1143.7	3.1	6.0			
	5900	KISV	45	C	1141.4	1142.7		5.0			
	3000	POTS	3	S	1142.0U	1143.5U	2.0U	11.0			
	3013	IZMI	1	S	1143.3	1143.8	1.0	10.0	5.0		
	2800	OTTA	28	PRE	1745.0	1850.6	68.0	80.7	24.0		
	2695	PALE	4	S/F	1847.0E	1907.0	149.0D	430.0			QL=4 ST=2 TYP=5
	410	PALE	49	GB	1852.0E	1907.0	147.0D	3600.0			QL=4 ST=2 TYP=7

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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
26	2800	OTTA	4	S/F	1852.7	1908.0	60.0	400.0	120.0		
	4995	PALE	20	GRF	1853.0E	1907.0	50.0D	180.0			QL=2 ST=2 TYP=2
	1415	PALE	49	GB	1853.0E	2044.0	147.0D	1200.0			QL=4 ST=2 TYP=7
	610	PALE	49	GB	1853.0E	1907.0	148.0D	1300.0			QL=4 ST=2 TYP=7
	245	PALE	49	GB	1853.0E	1956.0	152.0D	830.0			QL=4 ST=2 TYP=7
	15400	PALE	4	S/F	1905.0E	1907.0	5.0D	71.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1906.0E	1906.0	3.0D	79.0			QL=4 ST=2 TYP=3
	2800	OTTA	29	PBI	1953.0	2024.0	180.0	63.0	20.0		
	100	HIRA	27	RF	2124.0E		66.0D		60.0		
	200	HIRA	27	RF	2124.0E		89.0D		25.0		
	2695	PALE	8	S	2149.0E	2149.0	1.0D	85.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2347.0E	2347.0	U	130.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2356.0E	2357.0	1.0D	170.0			QL=4 ST=2 TYP=3
27	245	PALE	44	NS	0005.0E	0017.0	123.0D	180.0			QL=4 ST=2 TYP=1
	200	GORK	44	NS	0606.0E		279.0D		5.0		
	245	SVTO	43	NS	0612.0	0614.0	5.0D	100.0			QL=4 ST=2 TYP=1
	200	HIRA	44	NS	2125.0E	0312.0	590.0D	26.0	13.0		MR
	245	PALE	8	S	0004.0E	0005.0	1.0D	190.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0502.0E	0502.0	1.0D	64.0			QL=4 ST=2 TYP=3
	5900	KISV	20	GRF	0641.2	0644.9	8.6	5.0			
	5900	KISV	2	S/F	0710.0	0710.7	1.4	4.0			
	2850	CRIM	20	GRF	0735.0	0743.0	20.0	7.5	2.0		
	245	LEAR	8	S	0800.0E	0802.0	2.0D	60.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0802.0E	0802.0	1.0D	170.0			QL=4 ST=2 TYP=3
	430	KRAK	42	SER	0803.0E	1039.3	357.0D	38.0			
	430	KRAK	42	SER	0803.0E	1356.6	357.0D	38.0			
	810	KRAK	46	C	0818.2	0821.8	6.0	300.0D	85.0		
	5900	KISV	22	GRF	0857.5	0901.1	11.5	8.0			
	260	ONDR	41	F	0900.0E		270.0D				
	200	GORK	3	S	0946.8	0947.5	1.7	21.0D			
	204	IZMI	7	C	0947.2	0947.4	0.8	75.0	25.0		
	2850	CRIM	26	FAL	1035.0	1210.0		6.0			
	5900	KISV	22	GRF	1119.7	1128.9	13.7	6.0			
	245	SVTO	8	S	1435.0E	1435.0	1.0D	92.0			QL=4 ST=2 TYP=3
	2800	OTTA	22	GRF	1545.0	1750.0	240.0	14.9	7.0		
	2800	OTTA	4	S/F	1702.6	1704.6	5.2	25.1	5.0		
	410	PALE	8	S	1749.0E	1749.0	2.0D	350.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2033.0E	2035.0	2.0D	410.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	2033.0E	2035.0	3.0D	190.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	2216.0E	2216.0	1.0D	150.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2216.0E	2216.0	U	57.0			QL=4 ST=2 TYP=3
	100	HIRA	41	F	2335.0	2352.0	37.0	1000.0			
	245	LEAR	8	S	2347.0E	2348.0	1.0D	55.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	2350.2	2356.2	16.5	227.0			O
	245	LEAR	4	S/F	2351.0E	2357.0	10.0D	120.0			QL=4 ST=2 TYP=5
	245	PALE	8	S	2356.0E	2357.0	1.0D	110.0			QL=4 ST=2 TYP=3
28	204	IZMI	43	NS	0700.0		300.0	15.0			
	260	ONDR	44	NS	0900.0E	1008.7	260.0D	313.0			
	245	PALE	44	NS	1710.0E	1912.0	410.0D	110.0			QL=4 ST=1 TYP=1
	100	HIRA	44	NS	2126.0E		590.0D		71.0		
	200	HIRA	44	NS	2126.0E	0525.0	590.0D	150.0	78.0		SR
	245	LEAR	44	NS	2214.0E	2216.0	740.0D	63.0			QL=4 ST=2 TYP=1
	200	HIRA	42	SER	0348.8	0349.8	4.6	225.0			WR
	500	HIRA	41	F	0349.0	0351.8	4.5	59.0			WR
	5900	KISV	2	S/F	0602.7	0603.2	1.8	3.0			
	234	POTS	4	S/F	0707.5	0708.9	2.6	450.0			
	245	LEAR	4	S/F	0708.0E	0709.0	3.0D	95.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0708.0E	0709.0	2.0D	100.0			QL=4 ST=2 TYP=3
	430	KRAK	42	SER	0803.5E	1003.6	350.0D	80.0			
	5900	KISV	22	GRF	0805.4	0808.5	10.0	6.0			
	410	SVTO	8	S	0806.0E	0806.0	U	190.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0806.0E	0806.0	1.0D	97.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0806.0	0806.8	2.5	138.0			
	234	POTS	4	S/F	0811.9E	0816.0	7.2D	650.0			
	9500	POTS	25	R	1006.0	1015.5	34.0U	32.0			
	9100	GORK	23	GRF	1006.0	1020.6	81.1	23.0			
	9300	KISV	45	C	1006.4	1007.6		10.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
28	9300	KISV	45	C	1006.4	1008.9	4.6	13.0			
	5900	KISV	45	C	1006.5	1007.6		5.0			
	5900	KISV	45	C	1006.5	1008.8	3.6	11.0			
	410	LEAR	8	S	1008.0E	1008.0	1.0D	73.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	1008.0E	1008.0	1.0D	530.0			QL=4 ST=2 TYP=6
	410	SVTO	8	S	1008.0E	1009.0	1.0D	180.0			QL=4 ST=3 TYP=3
	245	SVTO	8	S	1008.0E	1009.0	1.0D	450.0			QL=4 ST=3 TYP=3
	204	IZMI	42	SER	1009.0	1009.5	0.8	500.0			
	3013	IZMI	22	GRF	1010.0	1015.6	22.9	59.0	39.0		
	2850	CRIM	29	PBI	1011.0	1025.0	39.0	25.0	8.0		
	2850	CRIM	45	C	1011.0	1020.5		37.7			
	2850	CRIM	45	C	1011.0	1015.7	14.0	63.0	20.0		
	5900	KISV	45	C	1011.1	1015.4	37.8	81.0			
	5900	KISV	45	C	1011.1	1020.6		31.0			
	4995	LEAR	4	S/F	1012.0E	1015.0	471.0D	100.0			QL=2 ST=2 TYP=3
	3000	POTS	25	R	1012.0	1015.7	27.0	61.0			
	2950	GORK	45	C	1012.3	1020.7		28.0			
	2950	GORK	45	C	1012.3	1015.7	17.7	51.0			
	9300	KISV	23	GRF	1012.8	1020.9	29.6	20.0			
	9100	GORK	2	S/F	1013.5	1015.2	4.4	31.0			
	9300	KISV	4	S/F	1013.6	1015.4	5.1	33.0			
	15000	KISV	23	GRF	1013.6	1021.6	33.0	13.0			
	2695	LEAR	4	S/F	1014.0E	1015.0	3.0D	45.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	1014.0E	1015.0	2.0D	44.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1014.0E	1015.0	2.0D	74.0			QL=2 ST=3 TYP=3
	15000	KISV	2	S/F	1014.4	1015.4	2.7	10.0			
	234	POTS	4	S/F	1018.1	1018.9	2.0	440.0			
	113	POTS	4	S/F	1018.5	1018.9	1.6	100.0			
	40	POTS	4	S/F	1018.7	1018.9	0.8	3400.0			
	500	HIRA	41	F	2239.5	2242.0	3.5	73.0			WR
	245	LEAR	8	S	2350.0E	2350.0	U	54.0			QL=4 ST=2 TYP=3
	500	HIRA	24	R	2351.0E	2943.0	450.0D	29.0	16.0		MR
29	200	GORK	44	NS	0553.0E		340.0D		34.0		
	100	GORK	44	NS	0600.0E		333.0D		20.0		
	245	SVTO	44	NS	0614.0E	1226.0	525.0D	300.0			QL=4 ST=2 TYP=1
	234	POTS	44	NS	0658.0E	1426.0	453.0D	275.0			
	113	POTS	44	NS	0658.0E	0839.0	454.0D	350.0			
	127	TORN	44	NS	0700.0E						DISTURBED
	204	IZMI	43	NS	0700.0		300.0	70.0			
	430	KRAK	44	NS	0810.0E	1349.7	350.0D	80.0	23.0		
	260	ONDR	44	NS	0900.0E	0935.3	260.0D	156.0			
	410	SVTO	44	NS	1218.0E	1420.0	161.0D	84.0			QL=4 ST=2 TYP=1
	245	PALE	44	NS	1710.0E	0253.0	621.0D	140.0			QL=4 ST=2 TYP=1
	100	HIRA	44	NS	2126.0E	0507.0	590.0D	730.0	425.0		SR
	500	HIRA	44	NS	2126.0E	2224.0	590.0D	44.0	15.0		MR
	200	HIRA	44	NS	2126.0E	0536.0	590.0D	500.0	247.0		SR
	245	LEAR	43	NS	2148.0	0334.0	767.0	960.0			QL=2 ST=2 TYP=1
	100	HIRA	46	C	0100.0E	0102.4	29.7D	610.0	230.0		
	245	LEAR	49	GB	0422.0E	0423.0	2.0D	1000.0			QL=4 ST=2 TYP=6
	2850	CRIM	1	S	0548.0	0548.5	1.0	5.0	1.0		
	5900	KISV	22	GRF	0615.3	0621.1	15.3	8.0			
	650	GORK	23	GRF	0900.8	0934.8	152.2D	11.0			
	9100	GORK	20	GRF	0938.2	0958.7	68.5	4.0			
	5900	KISV	2	S/F	0940.6	0941.3	1.2	3.0			
	5900	KISV	2	S/F	0947.0	0949.9	9.5	7.0			
	5900	KISV	2	S/F	1004.7	1005.4	2.3	3.0			
	2850	CRIM	1	S	1023.4	1025.0	2.5	5.0	2.0		
	2950	GORK	1	S	1024.6	1025.0	1.4	3.0			
	5900	KISV	45	C	1035.0	1036.5		4.0			
	5900	KISV	45	C	1035.0	1035.9	3.3	6.0			
	9300	KISV	2	S/F	1035.0	1035.9	5.0	7.0			
	950	GORK	2	S/F	1035.1	1036.5	3.0	2.0			
	2950	GORK	1	S	1035.3	1035.9	1.5	3.0			
	808	ONDR	3	S	1102.0	1102.5	2.0	7.0			
	650	GORK	2	S/F	1102.2	1102.6	0.8	7.0			
	5900	KISV	22	GRF	1134.3	1147.3	15.1	6.0			
	204	IZMI	41	F	1150.2	1150.5	1.0	8000.0			
	245	LEAR	8	S	2148.0E	2149.0	2.0D	190.0			QL=2 ST=2 TYP=3

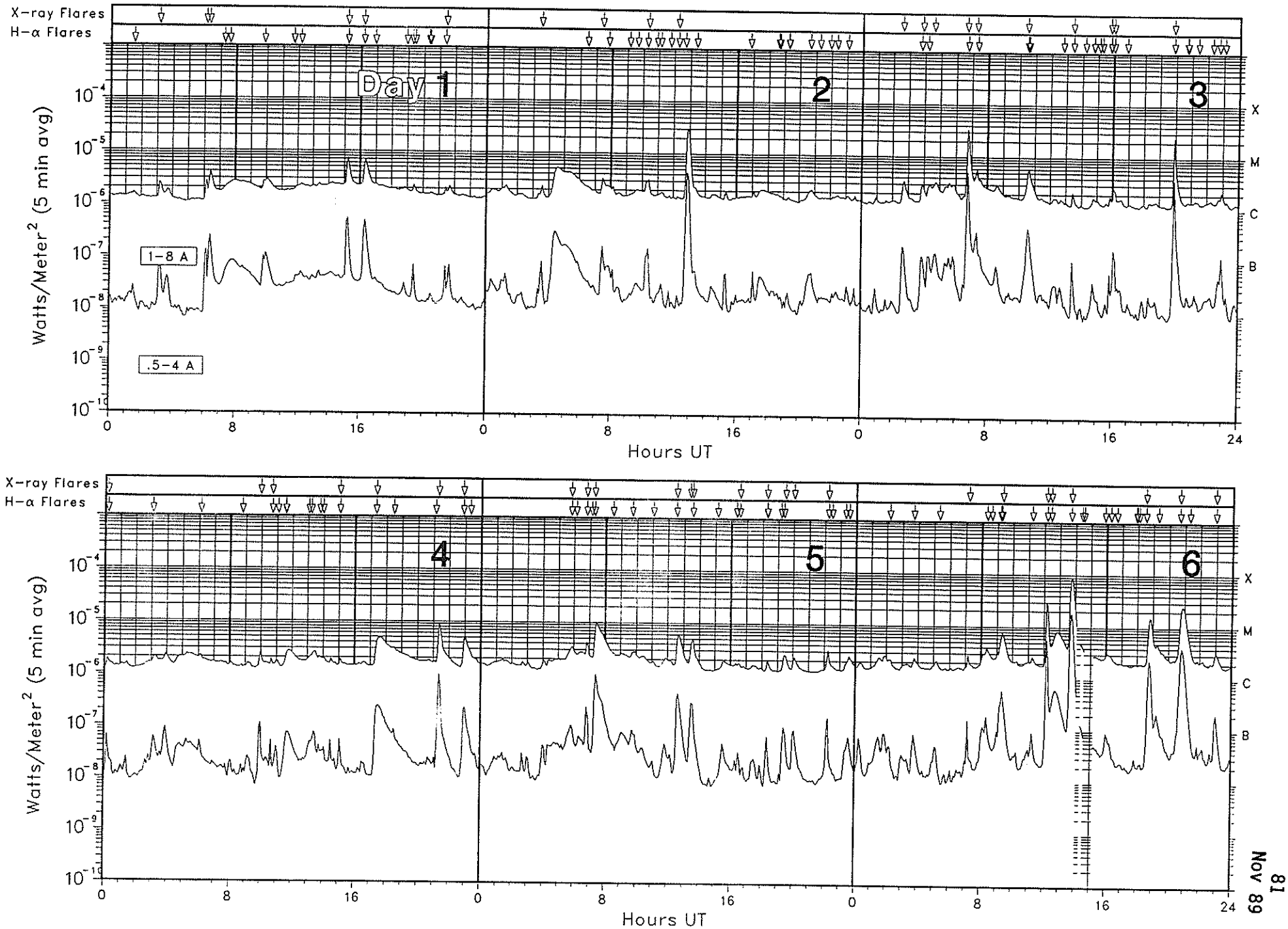
S O L A R R A D I O E M I S S I O N
Outstanding Occurrences

NOVEMBER 1989

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
29	245	PALE	49	GB	2148.0E	2149.0	2.0D	510.0			QL=2 ST=2 TYP=6
30	245	SVTO	44	NS	0615.0E	1104.0	524.0D	890.0			QL=2 ST=2 TYP=1
	200	GORK	44	NS	0625.0E		308.0D		48.0		
	100	GORK	44	NS	0625.0E		310.0D		280.0		
	234	POTS	44	NS	0655.0E	0736.0	425.0D	600.0			
	113	POTS	44	NS	0656.0E	1401.0	425.0D	1100.0			
	127	TORN	44	NS	0700.0E						DISTURBED
	204	IZMI	43	NS	0700.0		300.0	100.0			
	260	ONDR	44	NS	0900.0E		240.0D				
	245	PALE	44	NS	1711.0E	1745.0	620.0D	600.0			QL=4 ST=3 TYP=1
	100	HIRA	44	NS	2126.0E	2200.0	590.0D	640.0	375.0		
	200	HIRA	44	NS	2126.0E	2200.0	590.0D	350.0	144.0		SR
	245	PALE	49	GB	0046.0E	0046.0	1.0D	1100.0			QL=2 ST=2 TYP=6
	245	PALE	49	GB	0116.0E	0117.0	1.0D	740.0			QL=2 ST=2 TYP=6
	245	LEAR	49	GB	0130.0E	0132.0	2.0D	660.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	0132.0E	0132.0	U	910.0			QL=2 ST=2 TYP=6
	245	LEAR	49	GB	0332.0E	0332.0	U	2600.0			QL=2 ST=3 TYP=6
	650	GORK	23	GRF	0713.5	0740.1	128.7	13.0			
	2850	CRIM	25	R	0717.0	0737.2		8.0			
	950	GORK	22	GRF	0719.2	0745.8	95.8	16.0			
	5900	KISV	2	S/F	0733.7	0738.1	8.3	6.0			
	430	KRAK	7	C	0817.8	0821.5	5.0	18.0	6.0		
	9100	GORK	21	GRF	0820.1	0846.5	185.9	11.0			
	9300	KISV	23	GRF	0844.0	0846.4	16.0	6.0			
	950	GORK	1	S	0855.0	0857.3	3.2	5.0			
	9300	KISV	2	S/F	0856.0	0857.2	1.8	23.0			
	5900	KISV	2	S/F	0856.7	0857.2	1.6	19.0			
	650	GORK	2	S/F	0856.8	0857.3	1.8	8.0			
	1470	POTS	3	S	0857.0	0857.4	2.0	10.0			
	2850	CRIM	1	S	0857.0	0857.5	0.6	7.4	2.0		
	9100	GORK	2	S/F	0857.0	0857.5	1.5	21.0			
	9500	POTS	2	S/F	0857.0	0857.5	1.0	9.0			
	204	IZMI	41	F	0910.5	0911.0	3.0	1800.0			
	2850	CRIM	25	R	0940.0	1010.0		13.6			
	245	SVTO	49	GB	0951.0E	0951.0	U	1000.0			QL=2 ST=2 TYP=6
	100	GORK	41	F	0954.5	1038.2		9340.0			
	100	GORK	41	F	0954.5	1013.4	55.0	8960.0			
	2950	GORK	1	S	0957.0	0957.3	1.0	6.0			
	204	IZMI	8	S	1029.5	1030.0	1.0	4500.0			
	5900	KISV	23	GRF	1111.1	1117.6	20.1	7.0			
	5900	KISV	2	S/F	1112.7	1113.0	2.6	6.0			
	2850	CRIM	28	PRE	1121.2	1153.6	32.4	9.0	3.0		
	3000	POTS	46	C	1150.0	U	145.0D	2500.0D			
	3013	IZMI	25	R	1152.5		18.5	495.0			
	5900	KISV	47	GB	1153.4	1212.3	40.0	4885.0			
	2850	CRIM	29	PBI	1153.6	1240.0	50.0	110.0			
	2850	CRIM	47	GB	1153.6	1213.7	46.4	3528.0	1400.0		
	2850	CRIM	47	GB	1153.6	1223.8		4399.0			
	2695	SVTO	49	GB	1155.0E	1224.0	89.0D	2800.0			QL=4 ST=2 TYP=7
	1470	POTS	46	C	1155.0	1225.0	140.0D	1240.0			
	9500	POTS	46	C	1155.0	1212.2	140.0D	3910.0			
	15000	KISV	29	PBI	1155.4	1227.2	42.0	604.0			
	15000	KISV	47	GB	1155.4	1212.4	30.8	455.7			
	808	ONDR	49	GB	1156.4	1205.3	100.0	191.0			
	810	KRAK	49	GB	1156.7		49.3	150.0D	120.0D		
	1415	SVTO	49	GB	1158.0E	1225.0	46.0D	800.0			QL=4 ST=2 TYP=7
	15400	SVTO	49	GB	1159.0E	1212.0	85.0D	3700.0			QL=4 ST=2 TYP=7
	8800	SVTO	49	GB	1159.0E	1212.0	85.0D	4400.0			QL=4 ST=2 TYP=7
	430	KRAK	49	GB	1200.0	1209.0	46.0	190.0D	100.0D		
	410	SVTO	4	S/F	1201.0E	1209.0	37.0D	420.0			QL=4 ST=2 TYP=5
	33	UPIC	32	ABS	1202.0	1212.0	57.0				
	245	SVTO	49	GB	1209.0E	1209.0	U	760.0			QL=4 ST=2 TYP=6
	430	KRAK	29	PBI	1246.0	1253.3	23.0	29.0	11.0		
	810	KRAK	29	PBI	1246.0	1301.5	28.0	16.0	9.0		
	2800	OTTA	26	FAL	1305.0	1305.0	200.0	44.4	22.0		
	245	PALE	49	GB	2038.0E	2039.0	2.0D	520.0			QL=2 ST=2 TYP=6
	245	PALE	4	S/F	2155.0E	2156.0	3.0D	480.0			QL=2 ST=2 TYP=5

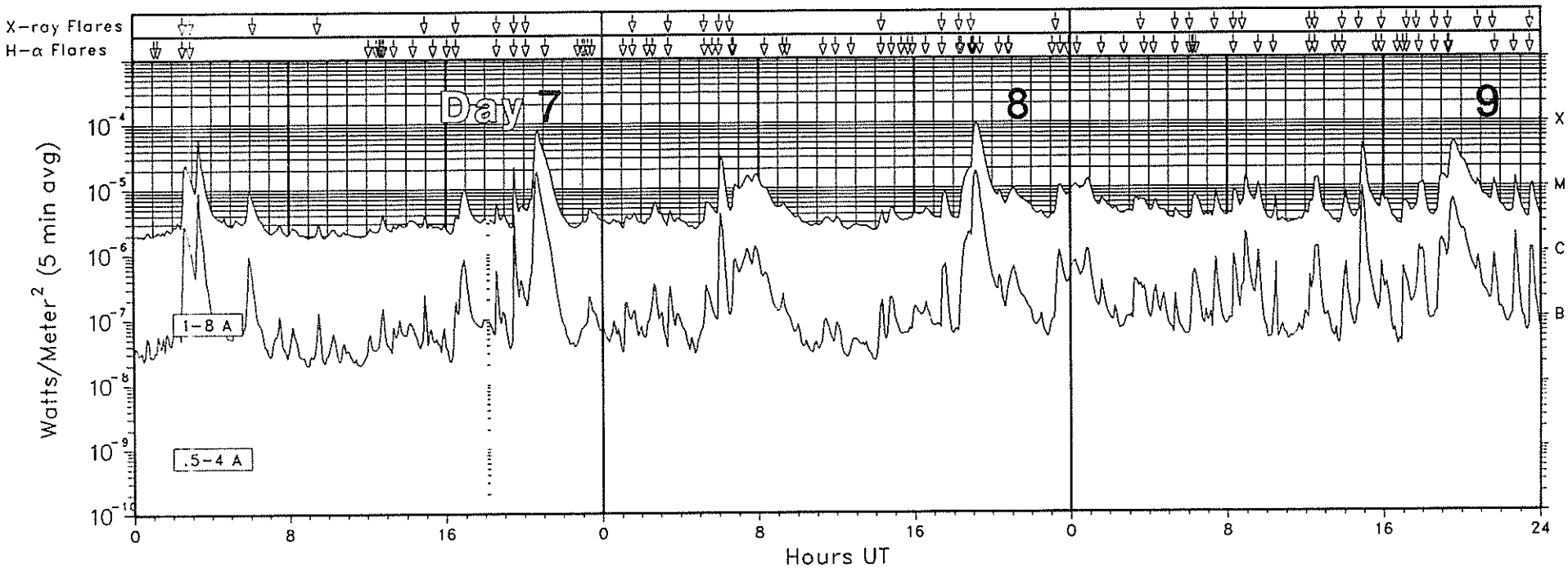
GOES-7 X-RAY DETECTOR

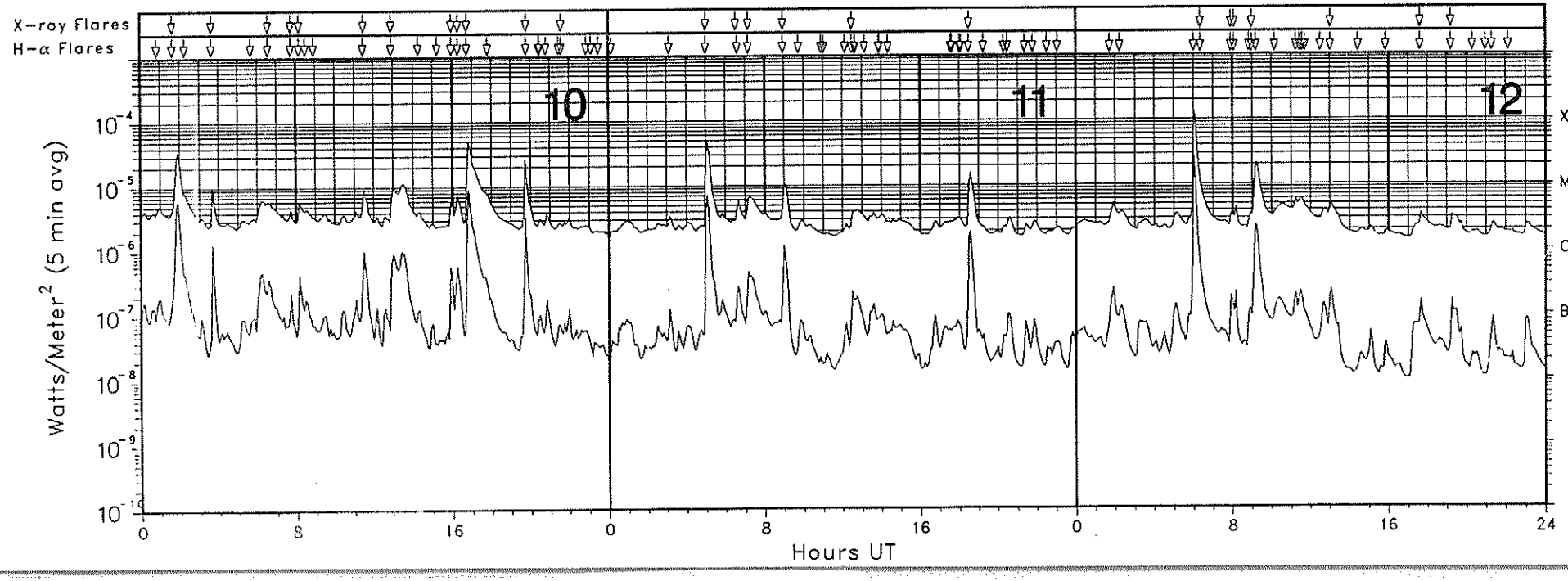
November 1989



GOES-7 X-RAY DETECTOR

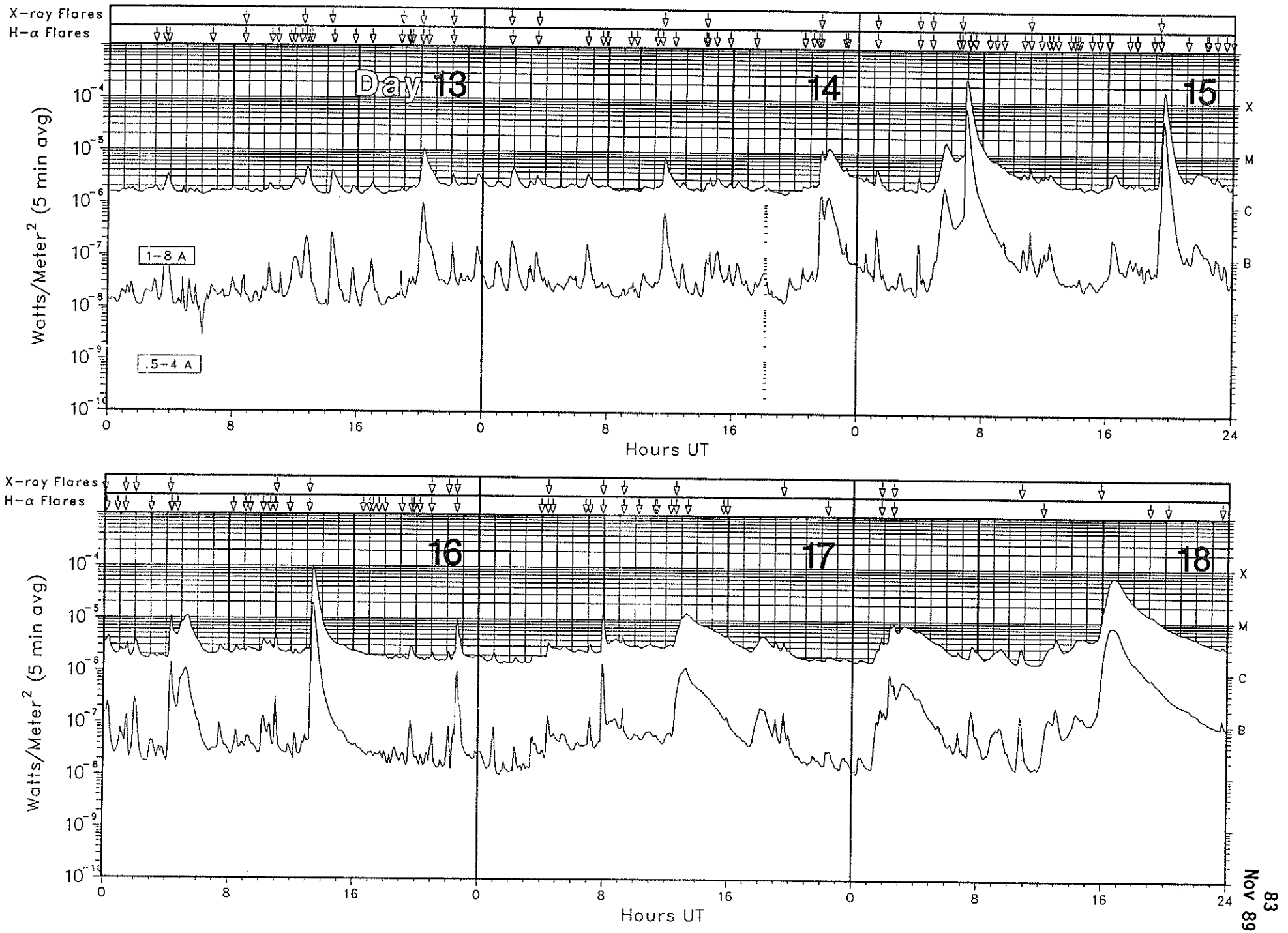
November 1989





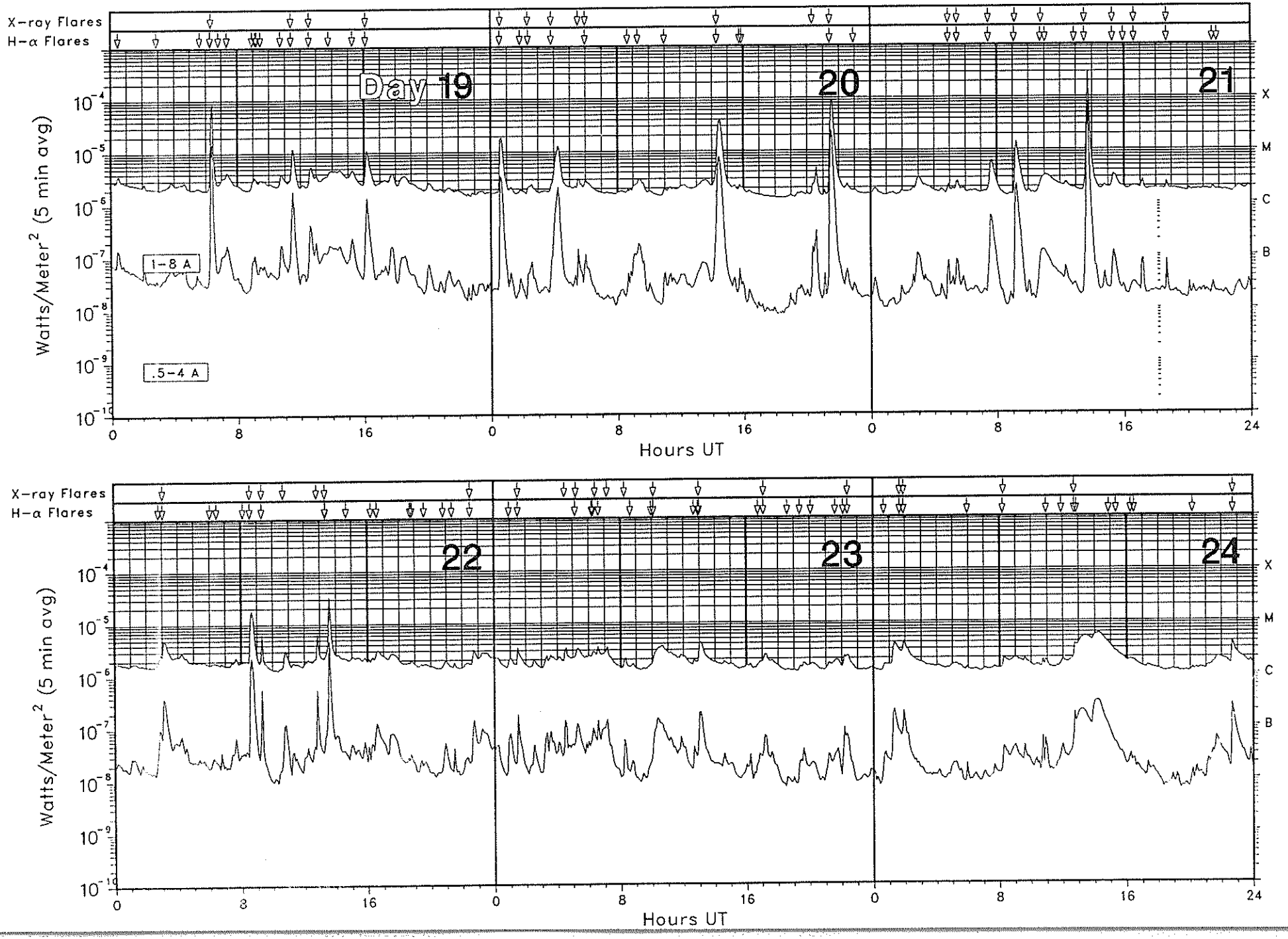
GOES-7 X-RAY DETECTOR

November 1989



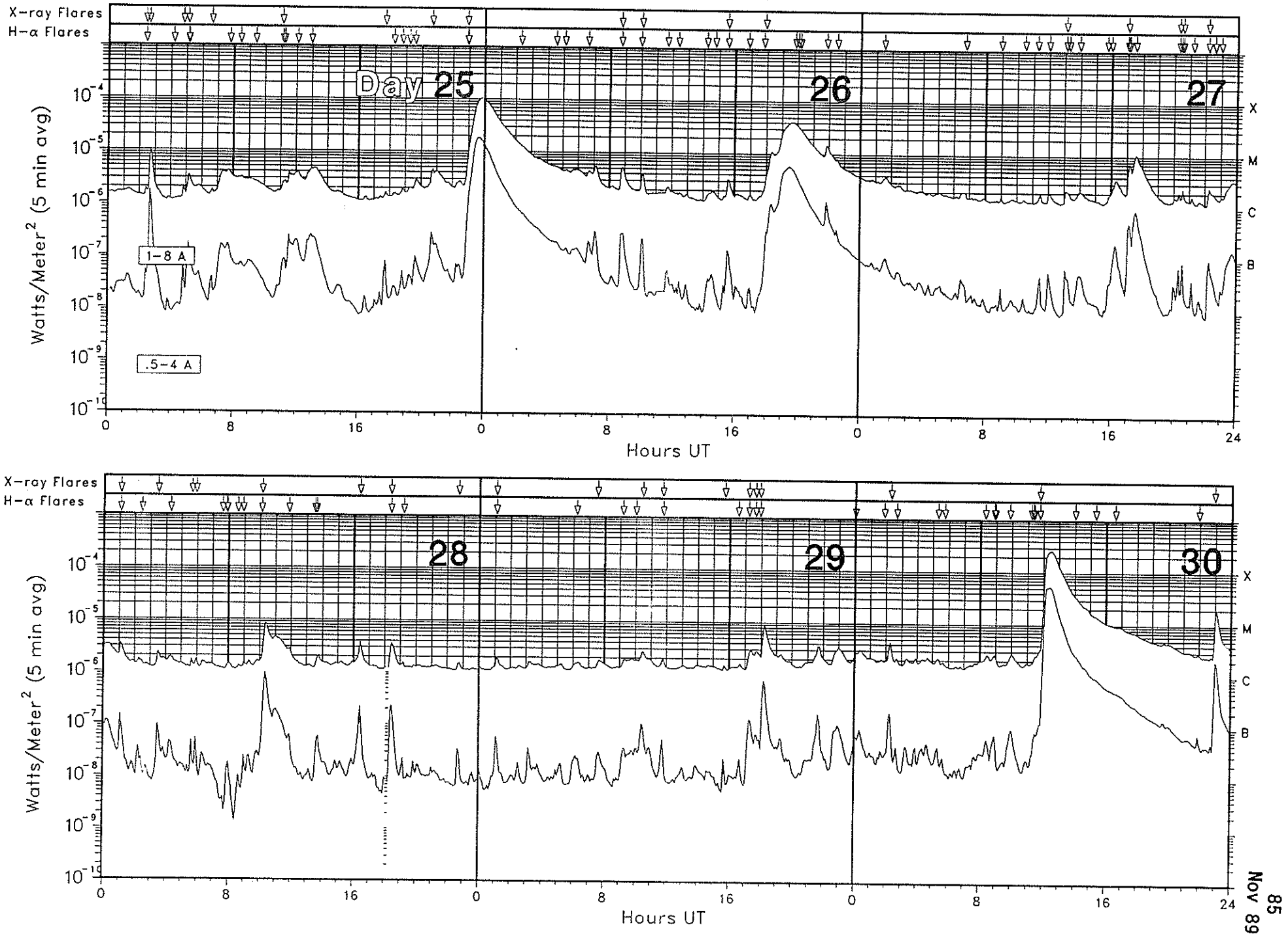
GOES-7 X-RAY DETECTOR

November 1989



GOES-7 X-RAY DETECTOR

November 1989



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

November 1989

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/ USAF Region
01	0308	0314	0322				C2.6	
01	0606	0611	0614				C3.3	
01	0620	0628	0636				C3.9	
01	1511E	1514	1524D	S17	E51	SN	C8.4	5772
01	1613	1617U	1639D	N17	E81	SF	C7.1	5776
01	2125E	2125	2128D	N21	E81	SF	C2.1	5776
02	0330E	0334	0342D	N25	E28	SF	C2.5	5769
02	0727E	0730	0736D	N18	E78	SF	C3.5	5776
02	1022	1025	1028				C3.6	
02	1216E	1252	1333	N19	E74	2B	M3.3	5776
03	0237	0246	0254				C3.6	
03	0352		0359	N13	E65	SF	C3.3	5776
03	0435		0445D	N13	E65	SF	C3.4	5776
03	0640	0648	0705				M3.7	
03	0717	0721	0724				C7.5	
03	1031E	1033	1045D	N21	E60	SF	C6.2	5776
03	1326E	1328	1333D	N22	E08	SN	C2.8	5769
03	1550E	1551	1555D	N16	E60	SF	C2.0	5776
03	1603E	1603	1611D	N21	E09	SF	C2.9	5769
03	1953E	1956	2033D	N18	E59	1B	M3.0	5776
04	0012E	0012	0017D	N27	E01	SF	C2.1	5769
04	0957	1001	1005				C3.2	
04	1042E	1043	1047D	N26	W06	SF	C2.1	5769
04	1502E	1505	1518D	N19	W18	SF	C2.0	5770
04	1721E	1725	1800D	N28	W02	SF	C4.8	5769
04	2118E	2120	2204D	N21	W06	1B	C9.7	5769
04	2253E	2259	2344	S20	W04	1N	C5.4	5771
05	0548E	0550	0605D	N25	W90	1N	C3.8	
05	0648E	0651	0703D	N19	W28	SF	C4.9	5770
05	0719E	0723	0809D	N23	W13	1F	M1.0	5769
05	1232E	1239	1306	N22	E32	SF	C6.3	5776
05	1323	1327	1330				C2.8	
05	1332	1334U	1353D	N16	W34	1F	C5.8	5770
05	1633E	1633	1639D	N18	E62	SF	C2.2	5783
05	1817E	1820	1844D	N16	E33	1F	C2.0	5776
05	1927	1928U	1959	N17	E33	SF	C2.7	5776
05	2001	2006U	2040	N16	E31	SF	C2.5	5776
05	2213E	2214	2229D	N17	E26	SN	C3.9	5776
06	0711E	0712	0718D	N17	E26	SF	C3.7	5776
06	0919E	0920	0934D	N17	E24	SF	C8.1	5776
06	1210E	1211	1330D	N17	E24	1N	M3.7	5776
06	1226E	1239	1330D	N13	E29	SF	C8.0	5781
06	1343	1345U	1433D	N20	E19	1B	M9.2	5776
06	1831E	1844	1935D	N18	E16	1N	M1.6	5776
06	2041	2046	2121	N18	E14	1F	M2.5	5776
06	2257E	2259	2321D	N19	E42	SF	C3.6	5783
07	0232E	0238	0316D	N18	E36	1N	M2.4	5783
07	0255E	0320	0415D	N20	E13	2B	M6.9	5776
07	0610		0628	N18	E40	1F	M1.0	5783
07	0929	0934	0939				C3.1	
07	1456	1500	1502				C5.8	
07	1632E	1655	1741D	N16	E29	1N	M1.0	5783
07	1837E	1846U	1906D	N18	E77	SF	C9.1	5786
07	1931	1932	2016D	N17	E74	SF	M2.8	5786
07	1930E	2051	2204D	N13	E71	2B	M8.2	5786
07	2007E	2011	2031D	N20	E03	SF	C8.3	5776
08	0135E	0140	0157D	N21	E01	SF	C4.4	5776
08	0326E	0328	0423D	N18	E25	SF	C4.7	5783
08	0515E	0532	0610D	N18	E25	1N	C6.4	5783
08	0601E	0603	0700D	N20	W04	2N	M3.3	5776
08	0634E	0658	0806	N25	W47	1F	M1.6	
08	1419	1444U	1522D	N18	E18	SF	C4.6	5783
08	1726E	1735	1819D	N12	E64	SN	C9.1	5786
08	1818E	1848	1938D	N16	E08	1N	M2.0	5783
08	1856E	1902	2036D	N20	W57	2B	M9.8	5769
08	2316	0057	0203				M1.3	5786
09	0336	0338	0341	N17	E14	SF	C7.3	5783
09	0521E	0522	0529D	N12	E55	SF	C5.3	5786
09	0605E	0639	0708D	N17	E12	SF	C7.9	5783
09	0722E	0727	0827D	N18	E08	SF	C9.7	5783
09	0820E	0822	0914D	N13	E53	SF	M1.1	5786
09	0848E	0857	0947D	N17	E08	SF	M1.8	5783
09	1214E	1239	1310D	N18	E07	SN	C7.3	5783
09	1230E	1233	1314D	N17	W90	2F	M1.4	5770
09	1354E	1404	1428D	N18	E05	SF	C9.9	5783
09	1446E	1454	1530D	N19	E05	1B	M4.9	5783
09	1554E	1555	1625D	N18	E07	SN	C7.9	5783
09	1712E	1716	1718D	N10	E41	SF	C7.6	5786
09	1742	1745	1747				C5.7	
09	1838E	1907	2017D	N13	E46	1N	M1.4	5786
09	1919E	2052	2135D	N17	W00	1N	M4.8	5783
09	2050E	2052	2110D	N18	E04	SF	M1.3	5783
09	2136E	2141	2202D	N21	W26	1N	M1.4	5776
09	2328	2337	2353				M1.1	
10	0138E	0150	0253D	N18	W01	1N	M3.9	5783
10	0339E	0341	0400D	N18	W03	1F	M1.4	5783
10	0634E	0635	0657D	N18	W01	SF	C6.7	5783
10	0744E	0746	0757D	N18	W04	SF	C5.1	5783
10	0811E	0813	0818D	N17	W05	SF	C6.4	5783
10	1129	1129	1135D	N18	W08	SN	M1.2	5783
10	1255E	1258	1401D	N19	W04	1N	M1.1	5783
10	1558E	1558	1608D	N17	W10	SF	C8.2	5783
10	1617E	1617	1621D	N12	W30	SF	C7.8	5781
10	1644E	1650	1807D	N25	W81	2B	M5.6	5769
10	1947	1947U	2012	S23	E66	2F	M2.9	5788
10	2135E	2231	2256D	N14	E31	SF	C4.2	5786
11	0500E	0505	0527D	N16	W25	2N	M5.1	5783
11	0632E	0634	0639D	N30	W90	SF	C6.1	5769
11	0710E	0713	0722D	N19	W14	SF	C7.2	5783
11	0856	0905	0916				M1.2	
11	1228E	1230	1256D	N18	W21	SF	C4.1	5783
11	1829E	1832	1906D	N11	W44	SB	M1.6	5781
12	0621E	0621U	0707D	N13	W39	SN	X1.5	5783
12	0755E	0756	0811D	S29	E61	SF	C4.1	5788
12	0804E	0811	0826D	N12	E12	SN	C5.0	5786
12	0859E	0911U	1015	N15	E14	2B	M2.2	5786
12	1301	1305	1311				C5.9	
12	1737E	1740	1753D	N18	W35	SF	C3.6	5783
12	1912E	1915U	2001	N19	W38	SF	C3.4	5783
13	0845E	0846	0851D	N17	W37	SF	C2.3	5783
13	1230	1245	1300				C5.0	
13	1417	1426	1440				C4.2	
13	1849	1852	1854				C2.3	
13	2005	2012U	2052	N18	W48	SF	M1.1	5783
13	2202E	2207	2219D	N19	W45	SN	C4.7	5783
14	0145		0230D	N23	W29	SF	C5.2	
14	0332E	0337	0356D	S23	E29	SF	C3.6	5788

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

November 1989

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region
14	1133	1144	1154				C8.0	
14	1417E	1436	1514	N11	W19	SF	C3.5	5786
14	2138E	2142	2318	N18	W61	SN	M1.2	5783
15	0113E	0115	0125D	N19	W67	SF	C5.4	5783
15	0357E	0359	0406D	S27	E29	SF	C5.1	5788
15	0445E	0537	0625D	N19	W66	SF	M1.7	5783
15	0638E	0705	0920D	N11	W26	3B	X3.2	5786
15	1102	1106	1111				C6.5	
15	1918E	1935	2117D	N16	W27	2B	X1.8	5786
16	0000E	0007	0012D	N19	W75	SF	C4.7	5783
16	0119E	0120	0127D	N11	W31	SF	C4.0	5786
16	0200	0204	0210				C4.0	
16	0412	0423	0439				M1.2	
16	1100E	1101	1125D	S27	E14	SN	C5.6	5788
16	1308E	1323	1457D	N12	W46	2B	X1.1	5786
16	2056E	2056	2103D	N12	W48	SF	C2.5	5786
16	2203	2207	2213				C2.6	
16	2234E	2238	2313D	S31	E08	1F	M1.1	5793
17	0426E	0428	0446D	S24	W15	SF	C3.7	5788
17	0755E	0800	0839D	S29	W00	2B	M1.6	5793
17	0915E	0916	0922D	N13	W56	SF	C5.7	5786
17	1237E	1245	1258D	S28	W00	SF	M1.5	5793
17	1932	1936	1939				C4.7	
18	0148E	0148	0154D	N12	W66	SF	C5.1	5786
18	0236E	0239	0300D	S27	W07	SF	C9.0	5793
18	1046	1050	1054				C3.6	
18	1551E	1639	1900D	S30	W16	3B	M7.3	5793
19	0619E	0622	0642D	S24	W25	2B	X1.1	5793
19	1123E	1132	1154D	S24	W27	SB	M1.2	5793
19	1232E	1238	1306D	S24	W27	SF	C5.7	5793
19	1606E	1610	1659D	S25	W29	SN	M1.2	5793
20	0035E	0038	0101D	S25	W34	SN	M2.1	5793
20	0220	0236	0242				C2.5	
20	0350E	0413	0438D	S25	W38	SF	M1.3	5793
20	0530	0534	0539				C3.6	
20	0558E	0601	0634D	S28	W39	SF	C3.1	5793
20	1417E	1425	1457D	S28	W43	1N	M3.9	5793
20	2019	2036	2040				C5.6	
20	2125E	2128	2201	S27	W43	2B	X1.0	5793
21	0453E	0457	0504D	S23	W50	SF	C2.2	5793
21	0527E	0529	0535D	N23	E66	SF	C2.8	5800
21	0727E	0736	0805D	S23	W52	SN	C6.5	5793
21	0908E	0912	0936D	S27	W51	1F	M1.5	5793
21	1048E	1049	1054	N17	E18	SF	C3.3	5796
21	1332E	1346	1431D	S26	W53	2B	X4.0	5793
21	1516E	1518	1543D	N23	E61	SF	C3.4	5800
21	1637E	1714	1722D	S24	W56	SF	C2.8	5793
21	1840E	1840	1850D	S26	W54	SF	C2.6	5793
22	0303E	0308	0333	N21	E14	SN	C5.5	5799
22	0834E	0837	0912D	S23	W67	1B	M2.0	5793
22	0920E	0920	0929D	S28	W64	SF	C8.9	5793
22	1042	1053	1101				C3.2	
22	1249	1253	1256				C8.8	
22	1320	1335U	1349D	S23	W67	SN	M3.8	5793
22	2232E	2243	2312	N26	E45	SF	C3.2	5800
23	0131E	0132	0136D	N21	W01	SF	C3.8	5799
23	0429	0436	0440				C3.8	
23	0513	0520	0527				C3.4	
23	0625E		0645D	N29	E56	SN	C3.7	
23	0710E	0717	0737D	N26	E46	1N	C4.0	
23	0816	0820	0823				C2.5	
23	1007E	1008	1036	N20	W09	SF	C3.6	5799
23	1259	1304	1316				C4.7	
23	1706E	1715	1735D	N27	E35	SF	C2.7	5800
23	2222E	2223	2245D	N21	W13	SF	C2.3	5799
24	0140E	0144	0203D	N22	W17	SF	C3.9	5799
24	0154E	0156	0216D	N22	E31	SF	C4.4	5800
24	0815E	0816	0826D	N22	W29	SF	C2.0	5799
24	1243	1416	1452				C5.6	
24	2242E	2243	2257D	N24	E73	SF	C5.6	5806
25	0225E	0225	0231D	N20	W27	SF	C2.2	5799
25	0238	0246	0254				M1.1	
25	0448	0453	0459				C2.1	
25	0507E	0510	0525D	N19	E72	SF	C3.6	5806
25	0637	0641	0644				C2.0	
25	1107	1137	1226				C4.2	
25	1742	1746	1751				C1.8	
25	2041	2045	2049				C5.4	
25	2255	2324U	0235D	N30	E05	2N	X1.0	5800
26	0845E	0846	0906D	N18	E55	1F	C5.3	5806
26	1004	1011	1015				C4.6	
26	1533E	1534	1551D	N41	E04	SN	C3.4	5804
26	1756E	1931	2240	N25	W03	2B	M4.0	5800
27	1306E	1308	1323D	S20	E67	1F	C2.6	5809
27	1703	1710	1800D	N20	W64	1B	M1.1	5799
27	2019E	2020	2027D	S05	W30	SF	C2.3	5808
27	2035E	2037	2040D	N19	W59	SF	C3.0	5799
27	2211E	2215	2231D	N44	W10	1F	C2.7	5804
28	0105E	0108	0127D	S16	E54	SF	C3.6	5809
28	0329	0333	0339				C2.5	
28	0539	0542	0546				C1.8	
28	0555	0558	0600				C2.4	
28	1007E	1022	1148	N26	W27	1N	C8.8	5800
28	1623	1627	1631				C4.1	
28	1822E	1822	1840D	S16	E50	SF	C4.1	5809
28	2241	2245	2250				C1.7	
29	0105E	0106	0121D	N23	W34	SF	C2.1	5800
29	0733	0742	0803				C1.8	
29	1026E	1029	1109	N24	W37	SF	C2.8	5800
29	1144	1144U	1159D	N27	W43	SF	C2.0	5800
29	1541	1544	1547				C1.7	
29	1712E	1718	1742D	S16	E31	SF	C3.0	5809
29	1739E	1755	1811D	S16	W49	SF	C2.9	5803
29	1756E	1812	1849D	S20	E36	1F	C9.1	5809
30	0217E	0218	0225D	N25	W49	SF	C4.5	5800
30	1145E	1225	1504	N24	W52	3B	X2.6	5800
30	2256	2306	2335				M2.0	

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

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

MASS EJECTIONS FROM THE SUN

NOVEMBER 1989

Site	Mo	Day	Observed UT Start	Max	End	Location RA°	R/Ro	Freq or Wavelength	Kind of Event
LEAR	Nov	03	0652.0		0706.0			Meter	II
PALE	Nov	03	2003.0		2007.0			Meter	II
SGMR	Nov	03	2003.0		2011.0			Meter	II
LEAR	Nov	04	2259.0		2324.0			Meter	II
SVTO	Nov	06	0925.0		0932.0			Meter	II
LEAR	Nov	06	0925.0		0932.0			Meter	II
SGMR	Nov	06	1212.0		1213.0			Meter	II
WEIS	Nov	06	1212.9		1230.5			Meter	II Herringbone
SVTO	Nov	06	1216.0		1218.0			Meter	II
SGMR	Nov	06	1218.0		1230.0			Meter	II
SVTO	Nov	06	1221.0		1231.0			Meter	II
WEIS	Nov	06	1346.9		1347			380-160 MHz	II
SVTO	Nov	06	1352.0		1359.0			Meter	II
WEIS	Nov	06	1352.5		1402.9			80- 35 MHz	II Herringbone
LEAR	Nov	07	0239.0		0245.0			Meter	II
SGMR	Nov	07	2039.0		2047.0			Meter	II
PALE	Nov	07	2039.0		2048.0			Meter	II
SGMR	Nov	08	1824.0		1831.0			Meter	II
PALE	Nov	09	1938.0		1947.0			Meter	II
LEAR	Nov	11	0815.0		0818.0			Meter	II
LEAR	Nov	11	0915.0		0919.0			Meter	II
SVTO	Nov	11	0948.8		0949.0			Meter	II
LEAR	Nov	12	0601.0		0624.0			Meter	II
SVTO	Nov	12	0602.0		0611.0			Meter	II
SVTO	Nov	15	0657.0		0658.0			Meter	II
SVTO	Nov	15	0658.0		0725.0			Meter	IV
LEAR	Nov	15	0658.0		0940.0			Meter	IV
PALE	Nov	15	1938.0		2002.0			Meter	IV
SGMR	Nov	15	1938.0		2400.0			Meter	IV
WEIS	Nov	16	1320.1		1323.2			380-140 MHz	II Herringbone
WEIS	Nov	16	1324.1		1325.6			140- 50 MHz	II Herringbone
SGMR	Nov	16	1326.0		1327.0			Meter	II
SVTO	Nov	16	1326.0		1327.0			Meter	II
SVTO	Nov	16	1327.0		1353.0			Meter	IV
WEIS	Nov	16	1331		1348			1000- 30 MHz	IV
SGMR	Nov	16	1332.0		1444.0			Meter	IV
LEAR	Nov	19	0619.0		0654.0			Meter	IV
SVTO	Nov	19	0630.0		0634.0			Meter	IV
LEAR	Nov	20	0040.0		0041.0			Meter	II
SVTO	Nov	21	1343.0		1346.0			Meter	II
WEIS	Nov	21	1347.3		1402.2			140- 30 MHz	II Herringbone
SVTO	Nov	21	1349.0		1400.0			Meter	II
PALE	Nov	25	2317.0		2539.0			Meter	IV
LEAR	Nov	25	2330.0		1032.0			Meter	IV
PALE	Nov	26	1901.0		2030.0			Meter	IV
LEAR	Nov	27	2348.0		2425.0			Meter	II

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
01	ASR	0245E	1020D	N28	W90	10	25.2			9	9	E	LEAR	5767	
01	BSL	0349E	0426D	N15	W90	10	25.4			9	9	E	LEAR		
01	ASR	0432E	1020D	S17	W90	10	25.4			9	9	E	LEAR	5754	
01	ADF	0810	0900	S05	E42	11	4.5	1				P	BUCH		
01	AFS	1200E	2127D	N16	E21	11	3.1		03	9	9	E	RAMY	5770	
01	ASR	1200E	2127D	N17	E79	11	7.5			9	9	E	RAMY	5776	
01	ADF	1200E	2127D	N23	E38	11	4.4	1	04	9	9	E	RAMY	5769	
01	ADF	1200E	2127D	N29	E43	11	4.9	1	06	9	9	E	RAMY	5769	
01	ADF	1200E	2127D	S17	E53	11	5.5	1	06	9	9	E	RAMY	5772	
01	ASR	1200E	2127D	S20	W85	10	26.1			9	9	E	RAMY	5754	
01	ASR	1202E	0021D	N10	E90	11	8.3			9	9	E	LEAR	5776	
01	ASR	1248E	2127D	N20	W90	10	25.7			9	9	E	RAMY	5767	
01	DSD	1518	1814D	S16	E51	11	5.5		06	9	9	E	RAMY	5772	Flare Associated
01	ASR	1623E	2334D	N17	E88	11	8.4			9	9	E	HOLL		Flare Associated
01	DSD	1635E	2334D	N25	E33	11	4.2		02	9	9	E	HOLL	5769	
01	ASR	1655E	0252D	S20	W87	10	26.1			9	9	E	PALE	5754	
01	DSD	1700E	0252D	N26	E30	11	4.0		03	9	9	E	PALE	5769	
01	AFS	1725E	0252D	S14	E53	11	5.7		02	8	8	E	PALE	5772	
01	ASR	1750E	2334D	S90	W21	10	30.9			9	9	E	HOLL	5754	
01	ASR	1808E	2127D	N30	W90	10	25.8			9	9	E	RAMY	5762	
01	AFS	1836E	2127D	N20	W40	10	29.8		03	9	9	E	RAMY	5763	
01	ASR	1855E	0252D	N17	E89	11	8.5			9	9	E	PALE	5776	
01	AFS	2201E	2334D	N18	E21	11	3.5		02	9	9	E	HOLL	5770	
01	AFS	2202E	2334D	N15	E17	11	3.2		03	9	9	E	HOLL	5770	
01	AFS	2211E	2334D	N25	E08	11	2.5		01	9	9	E	HOLL	5764	
01	AFS	2215E	2334D	N29	E38	11	4.9		03	9	9	E	HOLL	5769	
01	AFS	2220E	2334D	S14	W18	10	31.6		02	9	9	E	HOLL	5775	
01	AFS	2229E	2334D	S17	E52	11	5.9		03	9	9	E	HOLL	5772	
01	ASR	2334E	0021D	S20	W90	10	26.2			9	9	E	LEAR	5754	
01	SDF	2355E	1600D	S21	W45	10	29.6	1	06	0	0	E	HOLL	5765	
02	BSD	0725E	0735D	N18	E80	11	8.4					P	BUCH		
02	EPL	0732E	0750D	N14	E90	11	9.1					V	ATHN		
02	AFS	0920E	1134D	N16	E09	11	3.1		03	8	9	E	SVTO	5770	
02	ASR	0920E	1134D	N19	E76	11	8.2			9	9	E	SVTO	5776	
02	ADF	1027E	1134D	S11	W30	10	31.2	1	06	9	9	E	SVTO	5775	
02	DSD	1218	2110D	N19	E75	11	8.2		06	9	9	E	RAMY	5576	Flare Associated
02	BSL	1256	1428D	N22	E75	11	8.3			9	9	E	RAMY	5776	Flare Associated
02	AFS	1317E	2110D	N15	E06	11	3.0		03	9	9	E	RAMY	5770	
02	DSD	1340E	1838D	N22	E17	11	3.9		03	9	9	E	RAMY	5769	
02	AFS	1340E	2110D	N23	E23	11	4.3		02	9	9	E	RAMY	5769	
02	ADF	1340E	2110D	N28	E30	11	4.9	1	04	9	9	E	RAMY	5769	
02	AFS	1417E	0001D	N16	E08	11	3.2		03	9	9	E	HOLL	5770	
02	ASR	1443E	0001D	N21	E90	11	9.5			9	9	E	HOLL		
02	AFS	1458E	0001D	N22	E13	11	3.6		02	9	9	E	HOLL	5769	
02	AFS	1501E	0001D	S14	W27	10	31.6		02	9	9	E	HOLL	5775	
02	AFS	1506E	0001D	N16	E39	11	5.6		02	9	9	E	HOLL	5773	
02	DSD	1511E	0001D	N18	E70	11	8.0		08	9	9	E	HOLL	5776	
02	AFS	1533E	2110D	S14	E02	11	2.8		02	8	6	E	RAMY		
02	AFS	1700E	2247D	N17	E13	11	3.7		02	9	9	E	PALE	5770	
02	BSL	1706	1850D	N18	E78	11	8.6			9	9	E	PALE	5776	
02	BSL	1735E	1828D	N19	E71	11	8.1			9	9	E	RAMY	5776	
02	SPY	1736E	1826D	N16	E90	11	9.5			9	9	E	HOLL	5776	
02	ADF	1818E	2110D	S13	W44	10	30.5	1	06	9	9	E	RAMY	5761	
02	SSB	1829		172	W41	11	8.6			0	0	E	RAMY		
02	SSB	2222		137	W08	11	5.7			0	0	E	HOLL		179 W50
03	APR	0615E	1240D	N37	E90	11	10.5					V	ATHN		
03	DSD	0855E	1005D	N22	E12	11	4.3		04	9	9	E	SVTO	5769	
03	AFS	0910E	1528D	S04	E43	11	6.6		02	9	9	E	SVTO		
03	AFS	1113E	2040D	N16	E57	11	7.8		03	9	9	E	RAMY	5776	
03	DSD	1114E	2030D	N18	E61	11	8.1		03	9	9	E	RAMY	5776	
03	AFS	1119E	2040D	N23	E10	11	4.2		02	9	9	E	RAMY	5769	
03	AFS	1133E	2040D	N15	W06	11	3.0		04	9	9	E	RAMY	5770	
03	AFS	1349E	0000D	N21	E10	11	4.3		03	9	9	E	HOLL	5769	
03	AFS	1354E	0000D	N18	W04	11	3.3		03	9	9	E	HOLL	5770	
03	AFS	1359E	0000D	N14	E53	11	7.6		02	9	9	E	HOLL	5776	
03	ASR	1359E	0000D	N21	E90	11	10.5			9	9	E	HOLL		
03	AFS	1431E	0000D	S05	E41	11	6.7		03	9	9	E	HOLL		
03	BSD	1431E	1506D	S25	W76	10	28.8		04	9	9	E	HOLL	5765	

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
03	DSD	1542E	0000D	S14	W44	10	31.3		03	9	9	E	HOLL	5775	
03	AFS	1544E	0000D	S15	W12	11	2.7		03	9	9	E	HOLL	5778	
03	DSD	1544E	1855D	S11	W21	11	2.1		03	9	9	E	HOLL		
03	SSB	1547		145	W26	11	7.1			0	0	E	HOLL		170 W51
03	APR	1547E	0000D	N16	W90	10	27.9	1		9	9	E	HOLL		
03	BSD	1720E	1858D	S24	W78	10	28.8		04	9	9	E	HOLL	5765	
03	APR	1752E	1856D	S19	W90	10	28.0	1		9	9	E	HOLL	5758	
03	APR	1812E	0113D	N17	W90	10	28.0	1		9	9	E	PALE	5763	
03	DSD	1812E	0113D	N18	E61	11	8.4		04	9	9	E	PALE	5776	
03	ASR	1812E	0113D	N18	E90	11	10.6			9	9	E	PALE		
03	AFS	1812E	0113D	N19	E06	11	4.2		03	9	9	E	PALE	5770	
03	DSD	1812E	0113D	N21	E57	11	8.1		10	9	9	E	PALE	5776	
03	ADF	1812E	0113D	N22	E12	11	4.7		06	9	9	E	PALE	5769	
03	AFS	1812E	0113D	N23	E07	11	4.3		04	9	9	E	PALE	5769	
03	AFS	1812E	0113D	S03	E40	11	6.7		03	9	9	E	PALE		
03	ADF	1812E	0113D	S17	E10	11	4.5		07	6	9	E	PALE	5771	
03	AFS	1853E	0000D	S14	W47	10	31.2		02	9	9	E	HOLL	5775	
03	AFS	1934E	0113D	S15	W13	11	2.8		02	9	9	E	PALE	5778	
03	AFS	2330E	1020D	N18	W13	11	3.0		02	8	8	E	LEAR	5770	
04	DSD	1108E	2034D	N14	E45	11	7.9		03	9	9	E	RAMY	5776	
04	ASR	1108E	2034D	S27	W90	10	28.5			9	9	E	RAMY	5765	
04	AFS	1115E	2034D	N18	W15	11	3.3		03	9	9	E	RAMY	5770	
04	AFS	1118E	1345D	N23	W01	11	4.4		02	9	9	E	SVTO	5769	
04	AFS	1119E	2034D	S05	E31	11	6.8		02	9	9	E	RAMY	5780	
04	AFS	1121E	2034D	N11	E57	11	8.8		02	9	9	E	RAMY	5781	
04	ASR	1123E	1615D	N21	E90	11	11.4			9	9	E	RAMY	5783	
04	ADF	1126E	2034D	N24	E38	11	7.4	1	07	9	9	E	RAMY	5776	
04	AFS	1130E	1402D	N25	E00	11	4.5		03	8	7	E	RAMY	5769	
04	APR	1137E	1326D	N35	W90	10	28.4	3		9	9	E	RAMY	5762	
04	SSB	1344		175	W68	11	11.3			0	0	E	RAMY		
04	DSD	1356E	1454D	N24	W08	11	4.0		06	9	9	E	HOLL	5769	
04	AFS	1356E	2350D	N24	W08	11	4.0		03	9	9	E	HOLL	5769	
04	ASR	1424E	2350D	S27	W90	10	28.7			9	9	E	HOLL	5765	
04	DSD	1447E	2350D	N17	W21	11	3.0		02	9	9	E	HOLL	5770	
04	ADF	1506E	1843D	S15	W61	10	31.0	1	05	9	9	E	HOLL	5775	
04	AFS	1514E	1842D	S05	E28	11	6.7		02	9	9	E	HOLL	5780	
04	AFS	1520E	2350D	N20	E71	11	10.1		03	9	9	E	HOLL	5783	
04	SSB	1530		173	W67	11	11.2			0	0	E	HOLL		
04	APR	1558E	1840D	N20	E90	11	11.5	1		9	9	E	HOLL		
04	ASR	1558E	2350D	N24	E90	11	11.6			9	9	E	HOLL		
04	ADF	1735E	1835D	N31	E15	11	5.9	2	10	9	9	E	HOLL		
04	DSD	1745E	2028D	S25	E10	11	5.5		06	9	9	E	RAMY	5769	Flare Associated
04	DSD	2110	2140D	N26	W11	11	4.0		04	9	9	E	HOLL	5769	Flare Associated
04	ASR	2311E	1020D	N22	E90	11	11.9			9	9	E	LEAR		
04	AFS	2315E	1020D	N17	W43	11	1.7		02	9	9	E	LEAR	5777	
04	AFS	2335E	1020D	S12	W30	11	2.7		03	9	6	E	LEAR	5778	
05	ASR	0537E	1020D	N26	W90	10	29.3			9	9	E	LEAR	5763	
05	AFS	0852E	1507D	S15	W35	11	2.7		02	9	9	E	SVTO	5778	
05	ASR	0901E	1507D	N23	W88	10	29.7			9	9	E	SVTO	5763	
05	AFS	0901E	1507D	S04	E18	11	6.7		02	9	9	E	SVTO	5780	
05	ASR	1100E	1949D	S21	W90	10	29.6			9	9	E	RAMY	5765	
05	ASR	1101E	1949D	N25	W87	10	29.8			9	9	E	RAMY	5763	
05	AFS	1103E	1949D	N15	W49	11	1.7		02	9	9	E	RAMY	5777	
05	ADF	1105E	1949D	N18	W25	11	3.5	1	05	9	9	E	RAMY	5770	
05	AFS	1107E	1949D	N22	W14	11	4.4		03	9	9	E	RAMY	5769	
05	ADF	1110E	1949D	N22	E38	11	8.4	1	18	9	9	E	RAMY	5776	
05	ASR	1111E	1949D	N24	E90	11	12.4			9	9	E	RAMY	5784	
05	AFS	1112E	1949D	N21	E63	11	10.3		03	9	9	E	RAMY	5783	
05	AFS	1113E	1949D	N13	E39	11	8.4		03	9	9	E	RAMY	5781	
05	ADF	1114E	1949D	S21	E59	11	10.0	1	18	9	9	E	RAMY		
05	DSD	1231E	1410D	N25	W21	11	3.9		03	9	9	E	SVTO	5769	
05	DSD	1245E	1410D	N21	E33	11	8.1		05	9	9	E	SVTO	5776	
05	AFS	1325E	1949D	N13	W39	11	2.6		02	9	9	E	RAMY	5778	
05	AFS	1325E	1949D	S04	E17	11	6.8		03	9	9	E	RAMY	5780	
05	ASR	1446E	2359D	N24	W90	10	29.8			9	9	E	HOLL	5763	
05	AFS	1448E	2359D	S06	E15	11	6.7		02	8	8	E	HOLL	5780	
05	ADF	1452E	2105D	N19	W12	11	4.7		06	9	9	E	HOLL	5769	
05	DSD	1507E	2359D	N16	E36	11	8.4		03	9	8	E	HOLL	5776	

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
05	DSD	1521E	1730D	N19	W32	11	3.2		01	9	9	E	HOLL	5770	
05	SSB	1528		460	W07	11	1.2			0	0	E	HOLL		
05	AFS	2056E	2359D	S14	W40	11	2.8		03	9	9	E	HOLL	5778	
05	AFS	2235E	1015D	S04	E10	11	6.7		02	9	9	E	LEAR	5780	
05	AFS	2248E	1015D	N13	E37	11	8.7		04	9	9	E	LEAR	5781	
05	ADF	2352E	0305D	N18	W20	11	4.5		04	9	7	E	PALE	5771	
05	ADF	2352E	0305D	N22	W23	11	4.2		04	9	9	E	PALE	5769	
06	AFS	0124E	0305D	N14	E35	11	8.7		05	9	9	E	PALE	5781	
06	DSD	0124E	0305D	N14	W60	11	1.5		02	9	9	E	PALE	5777	
06	DSD	0124E	0305D	N17	E30	11	8.3		03	9	9	E	PALE	5776	
06	DSD	0124E	0305D	N24	W09	11	5.4		01	9	9	E	PALE	5779	
06	AFS	0124E	0305D	S05	E09	11	6.7		02	9	9	E	PALE	5780	
06	ADF	0138E	0305D	N19	E51	11	9.9		05	9	9	E	PALE	5783	
06	DSD	0138E	0305D	N20	E54	11	10.2		04	9	9	E	PALE	5783	
06	ADF	0138E	0305D	S19	E53	11	10.1		09	9	9	E	PALE		
06	ADF	0245E	1015D	N17	E27	11	8.2	1	05	9	9	E	LEAR	5776	
06	AFS	1130E	1853D	N12	E30	11	8.7		03	9	9	E	RAMY	5781	
06	DSD	1131E	1312D	N20	E23	11	8.2		07	9	9	E	RAMY	5776	
06	ADF	1132E	1853D	N20	E23	11	8.2	1	04	9	9	E	RAMY	5776	
06	AFS	1141E	1853D	S04	E04	11	6.8		02	7	7	E	RAMY	5780	
06	AFS	1147E	1853D	S20	E49	11	10.2		02	9	9	E	RAMY	5783	
06	DSD	1433E	1510D	N26	W23	11	4.8		05	9	9	E	RAMY	5769	Flare Associated
06	AFS	1435E	2300D	N13	E29	11	8.8		04	9	9	E	HOLL	5781	
06	ASR	1515E	1853D	N11	E90	11	13.4			9	9	E	RAMY		
06	AFS	1748E	1853D	N25	E68	11	12.0		02	9	9	E	RAMY		
06	AFS	1752E	0336D	N14	E26	11	8.7		02	9	9	E	PALE	5781	
06	ASR	1755E	0336D	N14	E90	11	13.5			9	9	E	PALE	5786	
06	SSB	1856		108	W29	11	7.4			0	0	E	RAMY		
06	ASR	1950E	2300D	N13	E90	11	13.6			9	9	E	HOLL		
07	DSD	0325E	0420D	N17	E09	11	7.8		15	9	9	E	LEAR	5776	Flare Associated
07	AFS	0543E	1017D	N20	E10	11	8.0		02	9	9	E	LEAR	5776	
07	SDF	0900E	0840D	N38	W21	11	5.7		13	0	0	E	SVTO		
07	ADF	1056E	1318D	N14	E14	11	8.5	1	08	9	9	E	SVTO	5781	
07	ASR	1110E	1451D	N15	E90	11	14.3			9	9	E	SVTO		
07	AFS	1140E	1451D	N18	E32	11	9.9		02	9	9	E	SVTO	5783	
07	SDF	1144	1318D	N14	E15	11	8.6		08	0	0	E	SVTO	5781	
07	SSB	1151		108	W38	11	8.1			0	0	E	RAMY		
07	AFS	1223E	1923D	N18	E32	11	9.9		03	7	6	E	RAMY	5783	
07	ASR	1252E	1923D	N13	E90	11	14.3			9	9	E	RAMY	5786	
07	AFS	1334E	1451D	N24	E51	11	11.5		03	9	9	E	SVTO		
07	SDF	1353E	1425	N21	E25	11	9.5	2	99	9	9	E	SVTO		
07	EPL	1357E	1432D	N37	E90	11	14.8			9	9	E	HOLL		
07	SDF	1424E	1531D	N23	E21	11	9.2	1	55	9	9	E	HOLL		
07	SSB	1704		441	W15	11	4.6			0	0	E	HOLL		111 W45
07	DSD	1955E	2211D	N19	E01	11	7.9		03	9	9	E	PALE	5776	
07	AFS	1958E	0324D	N20	E29	11	10.0		02	9	9	E	PALE	5783	
07	ASR	2024E	2137D	N14	E90	11	14.6			9	9	E	HOLL	5786	
07	BSD	2024E	2137D	N15	E76	11	13.6		14	9	9	E	HOLL	5786	
07	DSD	2044E	2137D	N11	E68	11	13.0		28	9	9	E	HOLL	5786	Flare Associated
07	DSD	2053E	2150D	N14	E70	11	13.2		20	9	9	E	PALE	5786	Flare Associated
07	AFS	2131E	2357D	N11	E12	11	8.8		04	9	9	E	HOLL	5781	
07	AFS	2155E	0324D	N13	E10	11	8.7		03	9	9	E	PALE	5781	
07	ADF	2211E	0324D	N20	W03	11	7.7		05	9	9	E	PALE	5776	
07	ASR	2215E	0324D	N12	W85	11	1.5			9	9	E	PALE	5777	
07	ADF	2330E	1016D	N20	E01	11	8.0	2	09	9	9	E	LEAR	5776	
08	SDF	0100E	0254D	N20	W01	11	8.0	3	05	0	0	E	LEAR	5776	
08	ASR	0255E	0902D	N13	E78	11	14.0			9	9	E	LEAR	5786	
08	DSD	0706E	1016D	N26	W49	11	4.5		04	9	9	E	LEAR	5769	
08	ASR	1155	1432D	N15	W86	11	2.0			9	9	E	SVTO	5777	Flare Associated
08	LPS	1205E	1224D	N20	W90	11	1.6					V	ATHN		
08	DSD	1245E	1357D	N18	W06	11	8.1		05	9	9	E	SVTO	5776	
08	AFS	1245E	1432D	N17	E18	11	9.9		03	9	9	E	SVTO	5783	
08	SSB	1308		446	W31	11	4.9			0	0	E	SVTO		
08	ADF	1328E	1432D	N15	W05	11	8.2	1	06	9	9	E	SVTO	5776	
08	ADF	1358E	2005D	N13	E00	11	8.6	1	04	9	9	E	RAMY	5781	
08	AFS	1358E	2005D	N13	E00	11	8.6		03	9	9	E	RAMY	5781	
08	ASR	1358E	2005D	N14	W90	11	1.8			9	9	E	RAMY	5777	

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
08	AFS	1358E	2005D	N21	E17	11	9.9		03	9	9	E	RAMY	5783	
08	ADF	1358E	2005D	N21	W11	11	7.7	1	05	9	9	E	RAMY	5776	
08	ADF	1358E	2005D	N23	E28	11	10.7	1	07	9	9	E	RAMY	5783	
08	DSD	1527	2005D	N10	E54	11	12.7		03	9	9	E	RAMY	5786	Flare Associated
08	DSD	1539E	2356D	N11	E54	11	12.7		04	9	9	E	HOLL	5786	
08	ADF	1557E	2356D	N17	W04	11	8.4	1	05	9	9	E	HOLL	5776	
08	SSB	1557		109	W56	11	9.4			0	0	E	RAMY		439 W26
08	AFS	1726E	0341D	N12	W01	11	8.6		03	9	9	E	PALE	5783	
08	DSD	1726E	0341D	N12	W04	11	8.4		02	9	9	E	PALE	5783	
08	AFS	1816E	0341D	N25	E31	11	11.2		02	9	9	E	PALE	5784	
08	SSB	2315		441	W32	11	5.7			0	0	E	HOLL		454 W45 109 W60
09	ADF	0155E	0341D	N19	W07	11	8.5		10	9	9	E	PALE	5776	
09	ASR	0207E	0341D	N15	W85	11	2.6			9	9	E	PALE	5770	
09	SSB	0213		114	W66	11	10.3			0	0	E	PALE		
09	ASR	0214E	0341D	S17	E89	11	15.8			9	9	E	PALE		
09	ADF	0805E	1513D	N15	E53	11	13.3	1	07	9	9	E	SVTO	5786	
09	ASR	0852E	1513D	N18	W85	11	2.9			9	9	E	SVTO	5770	
09	AFS	0915E	1513D	S05	W35	11	6.8		04	8	9	E	SVTO	5780	
09	AFS	0920E	1513D	N11	W11	11	8.6		03	9	9	E	SVTO	5781	
09	SSB	1145		406	W04	11	9.0			0	0	E	RAMY		440 W38 109 W67
09	BSL	1234	1328	N17	W90	11	2.7			9	9	E	RAMY	5770	Flare Associated
09	BSL	1240E	1323D	N17	W90	11	2.7			9	9	E	SVTO	5770	
09	ASR	1520E	1745D	S22	E89	11	16.5			9	9	E	RAMY		
09	ADF	1710E	1745D	N13	E47	11	13.3	1	05	9	9	E	RAMY	5786	
09	DSD	1758E	0205D	N13	W18	11	8.4		01	9	9	E	PALE	5781	
09	DSD	1758E	0339D	N11	W17	11	8.5		02	9	9	E	PALE	5781	
09	ADF	1758E	0339D	N13	E46	11	13.2		04	9	9	E	PALE	5786	
09	ASR	1758E	0339D	N18	W90	11	2.9			9	9	E	PALE	5770	
09	DSD	1758E	0339D	N19	E02	11	9.9		03	9	9	E	PALE	5783	Flare Associated
09	ADF	1758E	0339D	N19	W32	11	7.3		11	9	9	E	PALE	5776	
09	ADF	1758E	0339D	S19	E02	11	9.9		03	9	9	E	PALE		
09	ASR	1808E	2356D	N19	W90	11	2.9			9	9	E	HOLL		
09	ADF	1830E	2356D	N11	E45	11	13.1	1	03	9	9	E	HOLL	5786	
09	DSD	1830E	2356D	N11	W20	11	8.3		02	9	9	E	HOLL	5781	
09	DSD	1911E	2127D	N10	E45	11	13.2		04	9	8	E	HOLL	5786	Flare Associated
09	BSD	2243E	0226D	S23	E76	11	15.8		05	9	9	E	LEAR	5788	
09	AFS	2243E	0339D	N18	W01	11	9.9		03	9	9	E	PALE	5783	
09	DSD	2251E	1015D	N14	E17	11	11.2		03	9	9	E	LEAR	5783	
09	AFS	2251E	1015D	N16	E09	11	10.6		02	9	9	E	LEAR	5783	
09	ASR	2306E	1015D	N18	W90	11	3.1			9	9	E	LEAR	5770	
09	ASR	2341E	0339D	S22	E89	11	16.8			9	9	E	PALE		
09	DSD	2345E	0000	N16	E03	11	10.2		04	9	9	E	PALE	5783	Flare Associated
10	DSD	0125E	0145D	N16	E02	11	10.2		05	9	9	E	PALE	5783	
10	ASR	0525E	1015D	N23	W83	11	3.8			9	9	E	LEAR	5769	
10	ASR	0705E	1517D	N20	W90	11	3.4			9	9	E	SVTO	5770	
10	AFS	0721E	1414D	S18	W61	11	5.7		02	9	9	E	SVTO	5772	
10	ASR	1033E	1517D	S28	E90	11	17.5			9	9	E	SVTO		
10	SSB	1140		410	W21	11	9.7			0	0	E	RAMY		439 W50 106 W77
10	ASR	1158	1215	N90	W18	11	8.8			9	9	E	RAMY	5770	
10	ASR	1411E	2356D	N22	W90	11	3.7			9	9	E	HOLL	5769	
10	DSD	1424E	1809D	S21	E69	11	15.9		03	9	9	E	HOLL	5788	
10	AFS	1427E	2356D	S21	E69	11	15.9		03	9	9	E	HOLL	5788	
10	DSD	1427E	1517D	S21	E69	11	15.9		04	9	9	E	SVTO	5788	
10	AFS	1430E	2120D	N11	W27	11	8.6		03	8	8	E	RAMY	5781	
10	AFS	1436E	1816D	N17	W10	11	9.8		02	9	9	E	HOLL	5783	
10	ADF	1440E	1813D	N12	E41	11	13.7	1	05	9	9	E	HOLL	5786	
10	ASR	1446E	2356D	S26	E90	11	17.6			9	9	E	HOLL		
10	SSB	1450		413	W25	11	9.6			0	0	E	HOLL		419 W31 437 W49
10	ASR	1509E	2120D	S27	E90	11	17.6			9	9	E	RAMY		
10	ADF	1607E	2120D	N17	E36	11	13.4	1	07	9	9	E	RAMY	5786	
10	ASR	1609E	2120D	N20	W90	11	3.8			9	9	E	RAMY	5769	
10	ADF	1618E	2032D	N17	E19	11	12.1	1	09	9	9	E	RAMY	5784	
10	AFS	1627E	2120D	N15	W66	11	5.7		03	9	9	E	RAMY	5773	
10	BSD	1649E	1654	N25	W76	11	4.8		06	9	9	E	HOLL	5769	Flare Associated
10	ASR	1649E	1718D	N18	W90	11	3.8			9	9	E	HOLL	5770	Flare Associated
10	BSL	1653	1711	N25	W81	11	4.4			9	9	E	RAMY	5769	Flare Associated
10	BSL	1654E	1718D	N25	W76	11	4.8			9	9	E	HOLL	5769	Flare Associated
10	DSD	1758E	0205D	N13	W18	11	9.4		01	9	9	E	PALE	5781	

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
10	AFS	1809E	2356D	S21	E71	11	16.2		03	9	9	E	HOLL	5788	
10	ASR	2215E	1102D	N26	W90	11	3.9			9	9	E	LEAR	5769	
10	ADF	2338E	0234D	N15	W44	11	7.6		06	9	9	E	PALE	5776	
10	AFS	2338E	0234D	N18	W17	11	9.7		03	9	9	E	PALE	5783	
10	ASR	2338E	0234D	N21	W90	11	4.1			9	9	E	PALE	5769	
10	ADF	2343E	0234D	N13	E27	11	13.0		06	9	9	E	PALE	5786	
11	ASR	1055E	2006D	N24	W90	11	4.5			9	9	E	RAMY	5769	
11	AFS	1105E	2006D	N11	W37	11	8.7		03	9	9	E	RAMY	5781	
11	AFS	1106E	2006D	N17	W19	11	10.0		04	9	9	E	RAMY	5783	
11	ADF	1107E	2006D	N17	E27	11	13.5	1	09	9	9	E	RAMY	5786	
11	ADF	1127E	2006D	S24	E28	11	13.6	1	17	9	9	E	RAMY		
11	ADF	1131E	2006D	N14	W37	11	8.7	1	10	9	9	E	RAMY	5781	
11	SSB	1313		409	W34	11	10.8			0	0	E	RAMY		413 W38 435 W60
11	ADF	1420E	2129D	S21	E60	11	16.2	1	07	9	9	E	HOLL	5788	
11	ADF	1420E	2355D	N13	W45	11	8.2	1	04	9	9	E	HOLL	5781	
11	AFS	1420E	2355D	N17	W23	11	9.8		04	9	9	E	HOLL	5783	
11	SDF	1517E	0709D	N16	E23	11	13.4		08	0	0	E	SVTO		
11	SSB	1729		411	W39	11	10.8			0	0	E	HOLL		
11	SDF	1826E	1808D	S40	E27	11	14.0	3	04	0	0	E	HOLL		
11	ASR	2243E	0232D	N28	W90	11	4.9			9	9	E	LEAR	5769	
12	DSD	0631E	1042D	N30	W09	11	11.6		12	9	9	E	SVTO	5783	Flare Associated
12	AFS	1112E	1402D	S22	E48	11	16.1		03	9	9	E	SVTO	5788	
12	APR	1112E	1402D	S35	E80	11	18.9	1		9	9	E	SVTO		
12	ASR	1113E	1402D	S22	W90	11	5.5			9	9	E	SVTO	5772	
12	APR	1114E	1402D	S15	W89	11	5.7	2		9	9	E	SVTO	5772	
12	AFS	1142E	2015D	S22	E50	11	16.3		04	9	9	E	RAMY	5788	
12	AFS	1142E	2015D	S25	E48	11	16.2		04	9	9	E	RAMY	5788	
12	DSD	1144E	2015D	S29	E61	11	17.3		03	9	9	E	RAMY	5788	
12	ADF	1150E	2042D	N16	E07	11	13.0	1	04	8	6	E	RAMY	5786	
12	AFS	1350E	1402D	N11	E08	11	13.2		02	8	7	E	SVTO	5786	
12	ADF	1429E	2318D	N14	W35	11	9.9	1	04	9	9	E	HOLL	5783	
12	AFS	1429E	2318D	N17	W35	11	9.9		03	6	6	E	HOLL	5783	
12	SSB	1433		422	W61	11	10.7			0	0	E	RAMY		451 W90
12	SDF	1531E	1300D	N37	E35	11	15.5		15	0	0	E	RAMY		
12	ADF	1655E	2318D	S28	E57	11	17.1	1	10	9	9	E	HOLL	5788	
12	SSB	1750		364	W05	11	7.9			0	0	E	HOLL		413 W54
12	AFS	2355E	0852D	S22	E42	11	16.2		04	9	9	E	LEAR	5788	
13	ADF	0015E	0852D	N21	W38	11	10.1	1	04	9	9	E	LEAR	5783	
13	AFS	1219E	2151D	N35	E29	11	15.8		02	9	9	E	RAMY		
13	ASR	1234E	2151D	N15	W90	11	6.7			9	9	E	RAMY	5776	
13	ADF	1236E	2151D	N15	W41	11	10.4	1	04	9	9	E	RAMY	5783	
13	AFS	1239E	2151D	N10	W04	11	13.2		02	8	6	E	RAMY	5786	
13	ADF	1239E	2151D	N18	E01	11	13.6	1	05	9	9	E	RAMY	5786	
13	AFS	1330E	2151D	N10	W69	11	8.4		02	9	9	E	RAMY	5781	
13	ADF	1337E	2151D	S32	E62	11	18.5	1	20	9	9	E	RAMY	5788	
13	SDF	1402E	1135D	N30	E39	11	16.6		20	0	0	E	SVTO		
13	ASR	1508E	2339D	N16	W90	11	6.8			9	9	E	HOLL	5776	
13	DSD	1513E	1957D	N09	W69	11	8.4		04	9	9	E	HOLL	5781	
13	AFS	1520E	2204D	N17	W46	11	10.1		04	9	9	E	HOLL	5783	
13	ADF	1538E	2339D	N17	W02	11	13.5		06	9	9	E	HOLL	5786	
13	ADF	1547E	2339D	S28	E52	11	17.7		07	9	9	E	HOLL	5788	
14	AFS	0250E	1026D	S22	E28	11	16.3		02	9	9	E	LEAR	5788	
14	AFS	0712E	1514D	S22	E25	11	16.2		03	7	7	E	SVTO	5788	
14	ASR	1145E	2109D	N83	W08	11	13.7			9	9	E	RAMY	5781	
14	AFS	1145E	2109D	S22	E21	11	16.1		03	9	9	E	RAMY	5788	
14	ADF	1145E	2109D	S34	E48	11	18.3	1	23	9	9	E	RAMY	5788	
14	DSD	1200E	1954D	N11	W19	11	13.1		03	9	9	E	RAMY	5786	
14	ASR	1311E	1955D	N29	E90	11	21.6			9	9	E	RAMY		
14	ASR	1430E	2000D	N28	E90	11	21.6			6	5	E	HOLL		
14	AFS	1436E	2331D	N24	E18	11	16.0		02	6	7	E	HOLL		
14	ASR	1830E	2331D	N09	W90	11	8.0			6	8	E	HOLL	5781	
14	APR	1843E	1926D	N31	E90	11	21.9			9	9	E	HOLL		
14	AFS	2250E	1030D	N12	W23	11	13.2		02	9	9	E	LEAR	5786	
14	ADF	2251E	1030D	S28	E26	11	17.0	1	15	9	9	E	LEAR	5788	
15	AFS	0234E	1030D	N23	E12	11	16.0		03	9	9	E	LEAR	5790	

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
15	EPL	0730E	0900	N10	W77	11	9.5	2				P	BUCH		
15	APR	0735E	0829D	N11	W90	11	8.5			9	9	E	LEAR	5781	
15	ASR	0735E	1235D	N09	W90	11	8.6			9	9	E	SVTO	5781	
15	ADF	0745E	1235D	S26	E23	11	17.1	1	19	9	9	E	SVTO	5788	
15	APR	0830E	1240D	S31	E90	11	22.4					V	ATHN		
15	LPS	1025E	1211D	N18	W90	11	8.6			9	9	E	SVTO	5776	
15	AFS	1145E	1700D	N11	W29	11	13.3		03	9	9	E	RAMY	5786	
15	ADF	1145E	1700D	N16	W22	11	13.8	1	04	9	9	E	RAMY	5786	
15	ASR	1145E	1700D	N18	W90	11	8.6			9	9	E	RAMY	5776	
15	ASR	1145E	1710D	N09	W85	11	9.1			9	9	E	RAMY	5781	
15	AFS	1145E	1910D	N19	W69	11	10.2		02	9	9	E	RAMY	5783	
15	ADF	1145E	2136D	S32	E35	11	18.3	1	16	9	9	E	RAMY	5788	
15	ADF	1515E	2352D	N19	W67	11	10.5	1	13	9	9	E	HOLL	5783	
15	ADF	1534E	1955D	N32	W39	11	12.6	1	09	9	9	E	RAMY	5784	
15	AFS	1557E	2352D	N10	E38	11	18.5	1	02	8	9	E	HOLL		
15	APR	1600E	2352D	S53	E90	11	23.4	1		8	9	E	HOLL		
15	DSD	1936	2016D	N12	W36	11	13.1		07	9	9	E	RAMY	5786	Flare Associated
15	ADF	1955E	2000D	N14	W25	11	13.9	1	03	9	9	E	HOLL	5786	
15	AFS	2234E	1015D	N09	E35	11	18.6		02	9	9	E	LEAR	5792	
16	ASR	0110E	0112D	N20	W90	11	9.2			9	9	E	LEAR	5783	
16	SDF	0636E	1029	S22	E20	11	17.8		99	9	9	E	SVTO		
16	EPL	0645E	0945D	S40	E50	11	20.3			9	9	E	LEAR		
16	DSD	0700E	0800D	S40	E70	11	22.0					V	ATHN		
16	APR	0700E	0800D	S45	E90	11	23.8					V	ATHN		
16	ASR	0743E	1132D	N17	W85	11	9.9			9	9	E	SVTO	5783	
16	ADF	0744E	1132D	S26	E09	11	17.0	1	19	9	9	E	SVTO	5788	
16	ASR	1123E	2057D	N18	W88	11	9.8			9	9	E	RAMY	5783	
16	DSD	1137E	1217D	S20	W11	11	15.6		03	9	9	E	RAMY	5788	
16	ADF	1137E	2057D	S33	E23	11	18.3	1	16	9	9	E	RAMY	5793	
16	SSB	1216		312	W03	11	15.6			0	0	E	RAMY		
16	DSD	1311	1407	N12	W47	11	13.0		04	9	9	E	RAMY	5786	Flare Associated
16	AFS	1510E	1903D	S21	W06	11	16.2		03	7	8	E	HOLL	5788	
16	ADF	1510E	2325D	S33	E21	11	18.3	1	11	9	9	E	HOLL		
16	SSB	1520		369	W61	11	10.5			0	0	E	HOLL		
16	ASR	2247E	1030D	N20	W90	11	10.1			9	9	E	LEAR	5783	
17	ADF	0629E	0714D	S26	E03	11	17.5	1	07	9	9	E	SVTO	5793	
17	DSD	0800	0837	S28	E02	11	17.5		10	9	9	E	SVTO	5793	Flare Associated
17	DSD	0805E	0835	S30	E01	11	17.4		11	9	9	E	LEAR	5793	Flare Associated
17	DSD	1117E	1658D	N11	W56	11	13.2		03	9	9	E	RAMY	5786	
17	ADF	1118E	1858D	S32	E10	11	18.3	1	17	9	9	E	RAMY	5793	
17	DSD	1120E	1225D	S09	E55	11	21.6		03	9	9	E	RAMY	5795	
17	SSB	1138		310	W13	11	16.7			0	0	E	RAMY		345 W49
17	DSD	1218E	1656D	S21	W21	11	15.9		02	9	9	E	RAMY	5788	Flare Associated
17	ASR	1530E	2226D	N17	W90	11	10.8			9	9	E	HOLL	5783	
17	APR	1533E	2226D	N28	W90	11	10.6	1		9	9	E	HOLL		
17	AFS	1546E	2226D	N12	E66	11	22.6		03	9	9	E	HOLL		
17	ADF	1600E	2226D	S29	W02	11	17.5	1	04	9	9	E	HOLL	5793	
17	AFS	1758E	0321D	N14	E70	11	23.0		03	9	9	E	PALE		
17	ADF	1800E	0321D	S29	W02	11	17.6	1	11	9	9	E	PALE	5793	
17	AFS	2100E	0321D	S01	W18	11	16.5		02	8	8	E	PALE		
17	AFS	2311E	1025D	N10	E63	11	22.7		04	9	9	E	LEAR	5796	
17	ASR	2312E	0321D	N20	W90	11	11.1			9	9	E	PALE	5784	
18	ASR	0109E	0321D	N08	W68	11	12.9			9	9	E	PALE	5786	
18	ASR	0118E	1025D	N26	W90	11	11.1			9	9	E	LEAR	5784	
18	ADF	0500E	1025D	S12	W31	11	15.9	1	11	9	9	E	LEAR	5793	
18	AFS	0520E	1025D	S27	W11	11	17.4		02	9	8	E	LEAR	5793	
18	AFS	0620E	1030D	N10	E73	11	23.7		04	9	9	E	LEAR		
18	AFS	0831E	0905D	N08	E42	11	21.5		03	9	9	E	SVTO	5795	
18	ADF	0925E	1030D	S27	W06	11	17.9	2	17	9	9	E	LEAR	5793	
18	SDF	0956E	2339D	S23	W13	11	17.4		10	0	0	E	LEAR	5793	
18	ADF	1145E	1551	S35	W05	11	18.1	1	12	9	9	E	RAMY	5793	
18	AFS	1145E	2113D	S21	W34	11	15.9		02	8	6	E	RAMY	5788	
18	AFS	1145E	2113D	S26	W14	11	17.4		03	9	9	E	RAMY	5793	
18	ADF	1630E	2350D	S29	W21	11	17.0	2	09	9	9	E	HOLL	5793	Flare Associated
18	DSD	1735E	2052D	N11	E51	11	22.6		02	8	8	E	HOLL	5796	
18	ADF	1737E	2057D	S23	E61	11	23.4	1	06	9	9	E	HOLL		
18	SSB	1750		280	W01	11	24.7			0	0	E	RAMY		310 W30 313 W32

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 1989

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
18	SSB	1751		339	W58	11	15.3			0	0	E	RAMY		349 W69
18	AFS	1758E	0132D	N23	E56	11	23.1		02	9	9	E	PALE	5799	
18	ADF	1758E	0132D	N33	E28	11	21.0	1	11	9	9	E	PALE	5791	
18	AFS	1758E	0132D	S09	E38	11	21.6		01	9	9	E	PALE	5795	
18	AFS	1758E	0132D	S21	W38	11	15.8		01	9	9	E	PALE	5788	
18	LPS	1906E	2326	S30	W13	11	17.8			9	9	E	PALE	5793	Flare Associated
18	ASR	2102E	0132D	N28	E90	11	25.9			9	9	E	PALE		
18	SSB	2223		280	W03	11	24.9			0	0	E	HOLL		
18	AFS	2227E	1028D	S10	E34	11	21.5		02	7	7	E	LEAR	5795	
18	ADF	2233E	1028D	S28	W18	11	17.5	1	08	9	9	E	LEAR	5793	
19	AFS	0110E	1028D	N23	E52	11	23.0		03	9	7	E	LEAR	5799	
19	AFS	0440E	1028D	N12	E46	11	22.7		02	9	9	E	LEAR	5796	
19	AFS	1109E	2021D	N21	E46	11	23.0		02	9	9	E	RAMY	5799	
19	AFS	1109E	2021D	S09	E27	11	21.5		02	9	9	E	RAMY	5795	
19	AFS	1110E	2021D	N12	E42	11	22.6		03	9	9	E	RAMY	5796	
19	ASR	1114E	1528D	N20	W90	11	12.6			9	9	E	RAMY	5784	
19	AFS	1117E	2021D	S22	W42	11	16.2		02	9	9	E	RAMY	5788	
19	ADF	1118E	2021D	S27	W21	11	17.8	1	07	9	9	E	RAMY	5793	
19	SSB	1200		281	W11	11	25.6			0	0	E	RAMY		312 W41
19	ADF	1514E	2039D	S29	W30	11	17.3	1	07	9	9	E	HOLL	5793	
19	ASR	1630E	2039D	N26	E90	11	26.7			9	9	E	HOLL	5800	
19	AFS	1634E	2039D	S10	E26	11	21.6		03	9	9	E	HOLL	5795	
19	ASR	1735E	2023D	N11	W90	11	13.0			9	9	E	PALE	5786	
19	AFS	1735E	2023D	N20	E43	11	23.0		02	9	9	E	PALE	5799	
19	DSD	1835E	2023D	N11	E35	11	22.4		03	9	9	E	PALE	5796	
19	ADF	1835E	2023D	S28	W24	11	17.9		09	9	9	E	PALE	5793	
19	ASR	2245E	1028D	N17	W90	11	13.1			9	9	E	LEAR	5786	
19	AFS	2247E	1028D	N19	E39	11	22.9		02	9	9	E	LEAR	5799	
19	AFS	2251E	1028D	S10	E20	11	21.4		02	9	6	E	LEAR	5795	
19	ADF	2255E	1028D	S27	W38	11	17.0	1	11	9	9	E	LEAR	5793	
20	DSD	0142E	0215	N20	E35	11	22.7		03	9	9	E	LEAR	5799	
20	ADF	1120E	1924D	S26	W32	11	18.0	1	07	9	9	E	RAMY	5793	
20	AFS	1122E	1422D	S10	E15	11	21.6		02	7	6	E	RAMY	5795	
20	DSD	1124E	1313D	N10	E34	11	23.0		02	9	9	E	RAMY	5796	
20	SSB	1156		283	W26	11	26.9			0	0	E	RAMY		315 W58
20	ADF	1215E	1515D	S27	W34	11	17.9	1	07	9	9	E	SVTO	5793	
20	AFS	1725E	1945D	N10	E27	11	22.7		02	9	9	E	PALE	5796	
20	AFS	1725E	1945D	S10	E11	11	21.5		03	9	9	E	PALE	5795	
20	DSD	1725E	1945D	S27	W43	11	17.4		03	9	9	E	PALE	5793	
20	ASR	1915E	2349D	S12	E90	11	27.6			9	9	E	HOLL		
20	AFS	2114E	2349D	S10	E09	11	21.6		03	9	9	E	HOLL	5795	
20	ADF	2238E	1037D	S29	W45	11	17.4	1	06	9	9	E	LEAR	5793	
20	ASR	2355E	0800D	N42	E90	11	28.4			9	9	E	LEAR		
21	ADF	1007E	1445D	N17	E19	11	22.9	1	06	9	9	E	SVTO	5799	
21	ADF	1007E	1445D	S25	W57	11	17.0	1	08	9	9	E	SVTO	5793	
21	DSD	1125E	1528D	N19	E18	11	22.8		02	9	9	E	RAMY	5799	
21	AFS	1125E	1528D	S12	E55	11	25.6		02	9	9	E	RAMY		
21	DSD	1125E	1745D	N24	E62	11	26.3		04	9	9	E	RAMY	5800	
21	DSD	1125E	1800D	N48	E75	11	27.8		06	9	9	E	RAMY		
21	ADF	1125E	2013D	S32	W44	11	18.0	1	16	9	9	E	RAMY	5793	
21	SSB	1246		285	W41	11	28.5			0	0	E	RAMY		
21	APR	1754E	0239D	S31	E90	11	28.8			9	7	E	PALE		
21	APR	1754E	1756D	S69	W90	11	13.6			9	9	E	PALE		
21	SSB	1910		284	W44	11	28.7			0	0	E	HOLL		
21	AFS	1920E	2332D	N43	E70	11	27.6		03	9	9	E	HOLL	5804	
21	ADF	1923E	2332D	N21	E16	11	23.0	1	05	9	9	E	HOLL	5799	
21	AFS	2034E	0333D	N11	E12	11	22.7		03	9	9	E	PALE	5796	
21	DSD	2034E	0333D	N22	E14	11	22.9		05	9	9	E	PALE	5799	
21	ADF	2034E	0333D	N29	E60	11	26.6		05	9	9	E	PALE	5800	
21	DSD	2034E	0333D	S10	E74	11	27.4		03	9	8	E	PALE	5805	
21	ADF	2034E	0333D	S26	W54	11	17.7		07	9	9	E	PALE	5793	
21	ADF	2240E	1010D	S30	W56	11	17.5	1	08	9	9	E	LEAR	5793	
22	EPL	0239E	0333D	S31	E90	11	29.2	3		9	9	E	PALE		
22	EPL	0243E	0410	S32	E90	11	29.2	3		9	9	E	LEAR		
22	ASR	0730E	1010D	S21	W90	11	15.4			8	8	E	LEAR		
22	AFS	0744E	1145D	N09	E06	11	22.8		03	9	9	E	SVTO	5791	

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
22	ASR	0744E	1145D	S24	W89	11	15.4			9	9	E	SVTO	5788	
22	ADF	0744E	1145D	S27	W63	11	17.4	1	06	9	9	E	SVTO	5793	
22	DSD	0845E	0910D	S21	W66	11	17.3		20	9	4	E	LEAR	5793	Flare Associated
22	DSD	0845	1145D	S24	W66	11	17.3		15	9	9	E	SVTO	5793	Flare Associated
22	EPL	1050E	1150D	N37	E90	11	29.7					V	ATHN		
22	EPL	1123E	1145D	N33	E90	11	29.6			9	9	E	SVTO		
22	BSD	1320E	1347D	S23	W67	11	17.4		12	9	9	E	RAMY	5793	Flare Associated
22	BSL	1347E	1440D	S23	W67	11	17.4			9	9	E	RAMY	5793	Flare Associated
22	ADF	1417E	2028D	N26	E62	11	27.4	1	08	9	9	E	RAMY	5800	
22	ADF	1417E	2028D	S30	W68	11	17.2	1	17	9	9	E	RAMY	5793	
22	ADF	1525E	2348D	S31	W67	11	17.3	1	13	9	9	E	HOLL	5793	
22	AFS	1625E	2122D	S15	E62	11	27.4		03	9	9	E	HOLL	5805	
22	SSB	1632		285	W57	11	30.1			0	0	E	HOLL		
22	ADF	1748E	0318D	N12	E00	11	22.7		05	9	7	E	PALE	5796	
22	ADF	1748E	0318D	N20	E00	11	22.7		04	9	7	E	PALE	5799	
22	ADF	1748E	0318D	N28	W18	11	21.3		13	9	7	E	PALE	5791	
22	DSD	1748E	0318D	N42	E53	11	27.1		05	9	9	E	PALE	5804	
22	ADF	1748E	0318D	S13	E08	11	23.3		04	9	8	E	PALE	5802	
22	DSD	1748E	0318D	S26	W66	11	17.6		03	9	9	E	PALE	5793	
22	APR	1748E	0318D	S68	W90	11	14.6			9	9	E	PALE		
23	ASR	0330E	0735D	S27	W90	11	16.1			9	9	E	LEAR	5793	
23	AFS	0330E	0830D	N06	W02	11	23.0		02	9	9	E	LEAR	5799	
23	SSB	1342		287	W71	12	1.5			0	0	E	RAMY		220 W13
23	DSD	1347E	1941D	N09	W14	11	22.5		04	8	8	E	RAMY	5796	
23	ADF	1440E	2325D	N31	E35	11	26.4	1	12	9	9	E	HOLL	5800	
23	DSD	1440E	1552D	N22	W06	11	23.2		03	9	9	E	RAMY	5799	
23	AFS	1443E	1820D	N28	E52	11	27.7		02	8	7	E	HOLL		
23	AFS	1445E	1941D	S14	W05	11	23.2		02	9	9	E	RAMY	5802	
23	AFS	1450E	1820D	S12	E24	11	25.4		01	9	8	E	HOLL	5803	
23	SSB	1505		239	W23	11	26.6			0	0	E	HOLL		286 W70
23	AFS	1713E	0341D	N21	W13	11	22.7		02	9	9	E	PALE	5799	
23	AFS	1715E	0341D	S14	W05	11	23.3		02	9	9	E	PALE	5802	
24	ASR	0130E	0800D	N17	E88	11	30.7			9	9	E	LEAR	5806	
24	ASR	0155E	0935D	S23	W90	11	17.1			9	9	E	LEAR	5793	
24	AFS	0430E	0935D	N20	W15	11	23.0		02	9	9	E	LEAR	5799	
24	SDF	0907E	2312D	S27	W03	11	24.1		12	0	0	E	LEAR		
24	SSB	1212		236	W32	11	27.3			0	0	E	RAMY		294 W90
24	DSD	1253	2038D	N08	W27	11	22.5		06	9	9	E	RAMY	5796	Flare Associated
24	ADF	1355E	2038D	N27	E27	11	26.7	2	06	9	9	E	RAMY	5800	
24	DSD	1717E	0302D	N07	W29	11	22.5		03	9	9	E	PALE	5796	
24	ADF	1721E	0302D	N24	E22	11	26.4		04	9	9	E	PALE	5800	
24	ADF	1724E	0302D	S14	W19	11	23.3		05	9	9	E	PALE	5802	
24	AFS	1935E	0302D	S04	E10	11	25.6		02	9	9	E	PALE		
24	AFS	2015E	0302D	S12	W23	11	23.1		02	9	9	E	PALE	5802	
25	AFS	0045E	1029D	S05	E07	11	25.5		02	9	9	E	LEAR		
25	ADF	0105E	1029D	N21	E18	11	26.4	1	17	9	9	E	LEAR	5800	
25	AFS	0250E	1029D	N20	W31	11	22.7		03	9	8	E	LEAR	5799	
25	ASR	0307E	1029D	N23	E90	12	2.1			9	9	E	LEAR		
25	AFS	1107E	1517D	S05	E01	11	25.5		03	9	9	E	RAMY		
25	AFS	1110E	1517D	N19	W34	11	22.9		02	9	9	E	RAMY	5799	
25	ADF	1111E	1517D	N40	E15	11	26.7	1	17	9	9	E	RAMY	5800	
25	SSB	1217		281	W90	12	3.1			0	0	E	RAMY		
25	AFS	1440E	2338D	S06	E01	11	25.7		03	9	9	E	HOLL		
25	AFS	1455E	2338D	S15	E22	11	27.3		02	9	9	E	HOLL	5805	
25	ADF	1521E	2247D	N35	E11	11	26.5	1	09	9	9	E	HOLL		
25	ASR	1710E	0341D	S20	E87	12	2.4			9	9	E	PALE		
25	DSD	1710E	2052D	N26	E15	11	26.9		16	9	9	E	PALE	5800	
25	AFS	1720E	0341D	N26	E15	11	26.9		03	9	9	E	PALE	5800	Flare Associated
25	ADF	2055E	0341D	N25	E07	11	26.4	1	14	9	9	E	PALE	5800	Flare Associated
25	ASR	2225E	1033D	S17	E90	12	2.8			9	9	E	LEAR		
25	AFS	2230E	1033D	S04	W06	11	25.5		04	9	9	E	LEAR	5808	
25	ADF	2255E	1033D	N34	E06	11	26.4	3	17	9	9	E	LEAR	5800	
25	DSD	2330E	0025D	N37	E13	11	27.0		18	9	9	E	LEAR	5800	Flare Associated
25	DSD	2343E	0124D	N36	E12	11	26.9		05	9	9	E	PALE	5800	Flare Associated
26	LPS	0114E	0341D	N32	E08	11	26.7			9	9	E	PALE	5800	Flare Associated
26	DSD	0330E	0800D	N34	E09	11	26.9		05	9	9	E	LEAR	5800	Flare Associated

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
26	DSD	0805E	1033D	N41	E09	11	27.1		03	9	9	E	LEAR	5804	
26	AFS	0809E	1033D	S13	E12	11	27.2		04	9	9	E	LEAR	5805	
26	ASR	1110E	2122D	S17	E85	12	2.9			9	9	E	RAMY	5809	
26	AFS	1111E	2122D	S06	W12	11	25.6		04	9	9	E	RAMY	5808	
26	AFS	1112E	2122D	S14	E12	11	27.4		02	9	9	E	RAMY	5805	
26	ADF	1114E	2122D	N34	E02	11	26.6	3	13	9	9	E	RAMY	5800	
26	DSD	1126E	2026D	N20	E48	11	30.1		02	9	9	E	RAMY	5806	
26	AFS	1149E	2026D	N10	W49	11	22.8		02	9	9	E	RAMY	5796	
26	AFS	1455E	2212D	S04	W17	11	25.3		04	9	9	E	HOLL	5808	
26	AFS	1519E	2212D	S14	E10	11	27.4		03	9	9	E	HOLL	5805	
26	AFS	1707E	0345D	S13	E05	11	27.1		02	8	8	E	PALE	5805	
26	AFS	1707E	2006D	N25	W07	11	26.2		03	9	9	E	PALE	5800	
26	SSB	1735		232	W57	11	29.5			0	0	E	PALE		
26	AFS	1750E	0345D	S05	W17	11	25.5		03	9	9	E	PALE	5808	
26	ADF	2020E	2122D	S16	E71	12	2.2	1	05	9	9	E	RAMY	5809	
26	ADF	2112E	0235D	N29	W07	11	26.3	1	09	9	9	E	PALE	5800	
26	AFS	2247E	1034D	S04	W19	11	25.5		03	9	9	E	LEAR	5808	
26	DSD	2248E	0250D	N04	E02	11	27.1		05	9	9	E	LEAR	5804	
26	AFS	2249E	1034D	S13	E04	11	27.2		03	9	9	E	LEAR	5805	
26	ADF	2250E	1034D	N37	E00	11	26.9	1	15	9	9	E	LEAR	5800	
26	DSD	2307E	0257D	S05	W23	11	25.2		03	9	9	E	PALE	5808	
27	SDF	0033E	2209D	S30	E18	11	28.4		22	0	0	E	LEAR		
27	SDF	0033E	2235D	S38	W36	11	24.1		16	0	0	E	LEAR		
27	DSD	1150E	1156D	N00	W14	11	26.4		04	9	9	E	SVTO	5805	
27	SSB	1154		230	W65	11	30.2			0	0	E	RAMY		
27	ADF	1158E	2135D	N34	W12	11	26.5	1	04	9	9	E	RAMY	5800	
27	AFS	1207E	1800D	S14	W04	11	27.2		01	9	9	E	RAMY	5805	
27	DSD	1711E	0147D	S12	W05	11	27.3		02	9	9	E	PALE	5805	Flare Associated
27	AFS	1728E	0147D	S06	W29	11	25.5		03	9	9	E	PALE	5808	
27	ADF	1748E	2321D	N31	W17	11	26.4	2	09	9	9	E	HOLL	5800	
27	SSB	1813		198	W37	12	5.6			0	0	E	HOLL		235 W74
27	SDF	1854E	1854D	S39	W47	11	24.0		18	0	0	E	PALE		
27	AFS	2303E	1030D	S03	W32	11	25.6		02	9	9	E	LEAR	5808	
27	DSD	2309E	2321D	N22	W60	11	23.3		02	9	9	E	HOLL	5799	
28	ADF	0746E	1459D	S04	W46	11	24.9	1	09	9	9	E	SVTO	5808	
28	AFS	0937E	1459D	S16	E52	12	2.3		02	7	8	E	SVTO	5809	
28	DSD	1028E	1230D	N26	W30	11	26.1		03	9	9	E	SVTO	5800	Flare Associated
28	DSD	1215E	1459D	S15	W75	11	22.8		06	7	9	E	SVTO	5802	
28	ADF	1229E	1459D	N28	W28	11	26.3	1	05	9	9	E	SVTO	5800	
28	AFS	1432E	1459D	N16	E25	11	30.5		03	8	8	E	SVTO	5812	
28	DSD	1442E	1847D	N25	W33	11	26.0		04	9	9	E	RAMY	5800	
28	ADF	1442E	2134D	N35	W30	11	26.2	1	13	9	9	E	RAMY	5800	
28	AFS	1442E	2134D	S19	E47	12	2.2		02	9	9	E	RAMY	5809	
28	ADF	1744E	0336D	N21	E33	12	1.3		07	9	9	E	PALE	5812	
28	DSD	1744E	0336D	N44	W18	11	27.2		03	9	9	E	PALE	5804	
28	ASR	1744E	0336D	S13	W90	11	21.9			9	9	E	PALE	5802	
28	ADF	1744E	2248D	N11	W75	11	23.1		07	9	9	E	PALE	5796	
28	AFS	1835E	1835D	S05	W44	11	25.5		03	9	9	E	HOLL	5808	
28	SSB	1847		232	W82	12	1.8			0	0	E	RAMY		
28	ASR	2244E	0336D	N12	W90	11	22.2			9	7	E	PALE	5796	
29	AFS	0142E	0336D	S10	E09	11	29.7		03	9	8	E	PALE		
29	ASR	0402E	1030D	S12	W90	11	22.4			9	9	E	LEAR	5802	
29	AFS	0411E	1030D	N23	E35	12	1.9		02	9	9	E	LEAR		
29	ADF	0510E	1030D	N15	E16	11	30.4	2	03	6	5	E	LEAR	5812	
29	ASR	0635E	1030D	N20	W90	11	22.4			9	9	E	LEAR	5799	
29	AFS	0708E	1446D	S17	E40	12	2.3		02	9	9	E	SVTO	5809	
29	ASR	0725E	1446D	N17	W90	11	22.5			9	9	E	SVTO	5799	
29	ADF	0858E	1446D	N28	W37	11	26.5	1	06	9	9	E	SVTO	5800	
29	SSB	1254		203	W65	11	29.8			0	0	E	RAMY		
29	AFS	2330E	1035D	N15	E07	11	30.5		02	3	4	E	LEAR	5812	
30	APR	0714E	1504D	S13	W86	11	23.8	1		9	9	E	SVTO		
30	ASR	0714E	1504D	S19	W89	11	23.5			9	9	E	SVTO		
30	ASR	0731E	1504D	N18	E88	12	7.0			9	9	E	SVTO		
30	AFS	0740E	1504D	S18	E27	12	2.4		02	9	9	E	SVTO	5809	
30	AFS	0815E	1035D	N10	E28	12	2.4		02	9	9	E	LEAR	5816	
30	AFS	0843E	1504D	N11	E28	12	2.5		03	9	9	E	SVTO	5816	

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 1989

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
30	AFS	0843E	1504D	N15	E02	11	30.5		02	9	9	E	SVTO	5812	
30	DSD	0859E	0953D	N27	W51	11	26.4		17	9	9	E	SVTO	5800	Flare Associated
30	SSB	1216		200	W75	11	30.5			0	0	E	RAMY		
30	AFS	1218E	2036D	N09	E27	12	2.5		03	9	9	E	RAMY	5816	
30	DSD	1220	1312	N25	W51	11	26.6		12	9	9	E	RAMY	5800	Flare Associated
30	LPS	1250E	1504D	N24	W52	11	26.5			9	9	E	SVTO	5800	Flare Associated
30	DSD	1326E	1405D	N29	W51	11	26.6		14	9	9	E	SVTO	5800	Flare Associated
30	AFS	1511E	2240D	N09	E24	12	2.4		03	9	9	E	HOLL	5816	
30	LPS	1514E	2154D	N28	W54	11	26.4			6	9	E	HOLL	5800	Flare Associated
30	ADF	1540E	2240D	N12	E61	12	5.2	1	03	9	9	E	HOLL	5817	
30	ADF	1541E	2036D	N12	E61	12	5.2	1	03	9	9	E	RAMY	5817	
30	APR	1545E	2236D	S11	W90	11	23.9	1		6	6	E	HOLL	5802	
30	APR	2300E	0700D	S16	W90	11	24.1	3		9	9	E	LEAR		
30	ASR	2340E	1035D	N15	E90	12	7.8			9	9	E	LEAR		

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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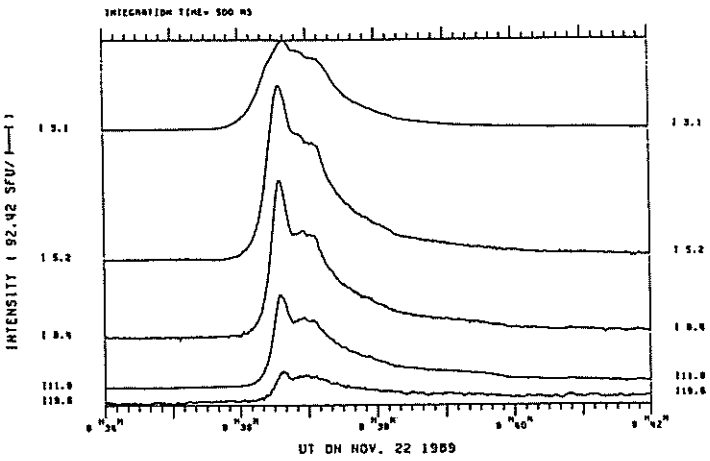

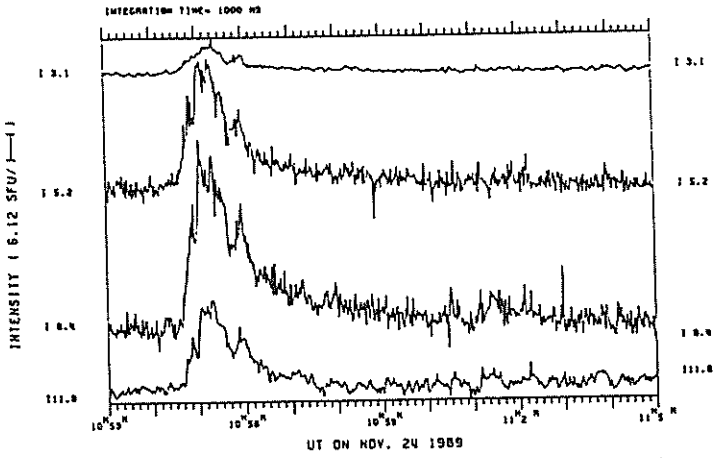

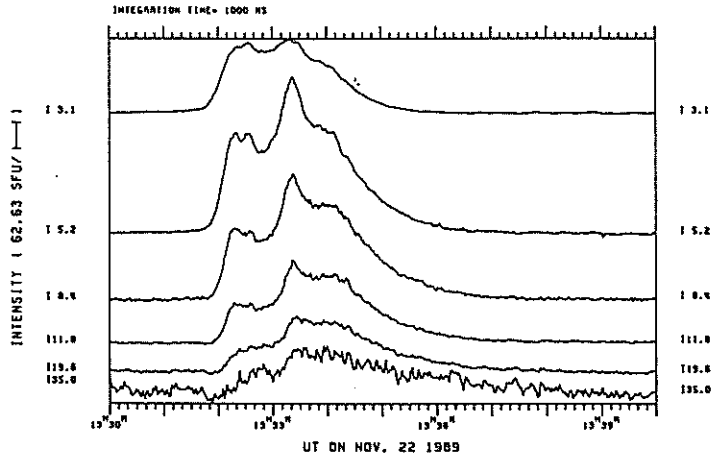

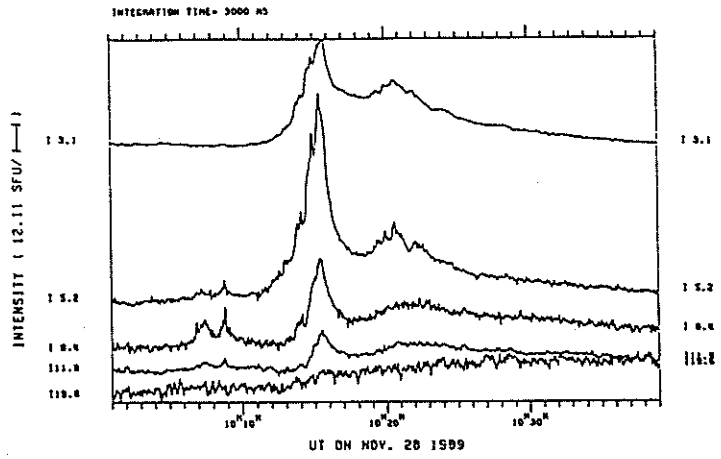

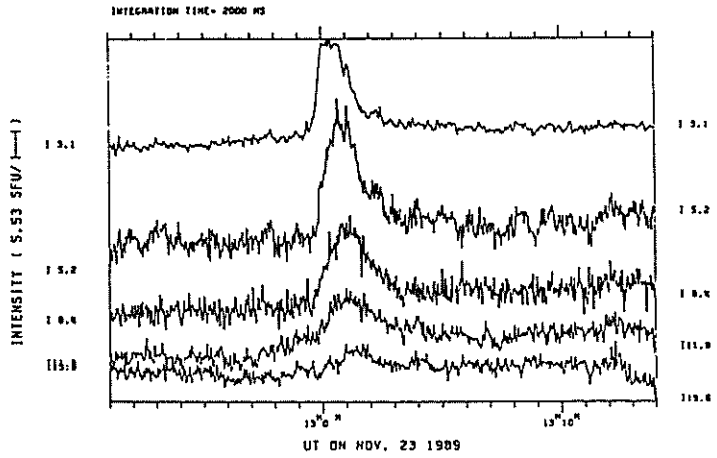

WORLD DATA CENTER A
FOR
SOLAR-TERRESTRIAL PHYSICS

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

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