MAY 2002 NUMBER 693 - Part II

Solar-Geophysical Data comprehensive reports

Data for November 2001 and Miscellaneous
Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

COMING ATTRACTIONS:

ACE Solar Wind, Interplanetary Magnetic Field and Particles -- Monthly Plots

NOAA Solar UV Daily Data (MgII Core-to-Wing Index)

NEW DATA:

Solar Coronal Mass Ejections (CMEs) from SOHO/LASCO

NGDC On-Line Addresses:

World-Wide Web	http://www.ngdc.noaa.gov
Gopher	gopher.ngdc.noaa.gov
Anonymous FTP:	ftp.ngdc.noaa.gov

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Data for November 2001 and Late Data

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SOLAR-GEOPHYSICAL DATA

Number 693

(Issued in Two Parts)

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DATA FOR **NOVEMBER 2001**

Hα SOLAR FLARES

NOVEMBER 2001

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0001	LEAR	01	0129	0129	0134	N09	W11	9682	10	31.2	5	SF		3	E		17		
0002	LEAR	01	0235	0236	0239	S19	E78	9687	11	7.1	4	SF		3	E		23		
0003	LEAR	01	0648	0648	0653	N07	W62	9678	10	27.7	5	SF		3	E		41		
0004		01	0743	07441	0757	N06	E25	9684	11	3.2	14	1N					215	4.2	EF
	LEAR	01	0743	0744	0757	N06	E24	9684	11	3.1	14	SF		3	E		60		F
	URUM	01	0745E	0745	0745D	N05	E26	9684	11	3.3	14D	1N			P		370	4.2	E
		01	1008		1020	No Flare Patrol													
0005	SVTO	01	1134	1135	1159	N15	W19	9682	10	31.0	25	SF		3	E		39		H
0006	RAMY	01	1139	1145U	1223D	N14	W22	9682	10	30.9	44D	SF		3	E		43		F
0007	SVTO	01	1244	1247	1302	S20	E77	9687	11	7.4	18	SF		3	E		14		
0008	RAMY	01	1255E	1301U	1307	S20	E78	9687	11	7.5	12D	SF		1	E		29		
0009	SVTO	01	1242	1244	1256	N09	W17	9682	10	31.2	14	SF		3	E		20		F
0010	RAMY	01	1254E	1300U	1304	N13	W16	9682	10	31.3	10D	SF		1	E		34		F
0011	SVTO	01	1357	1359U	1406	S19	E77	9687	11	7.4	9	SF		3	E		18		Y
0012	RAMY	01	1418	1418	1424	S18	E79	9687	11	7.6	6	SF		3	E		14		F
0013	HOLL	01	1433	1442	1459	S20	E73	9687	11	7.2	26	SF		3	E		21		F
0014		01	1518	1518	1523	N14	W13	9682	10	31.6	5	SF					48		
	HOLL	01	1518	1518	1522	N14	W13	9682	10	31.6	4	SF		3	E		41		
	RAMY	01	1518E	1520U	1524	N14	W13	9682	10	31.6	6D	SF		3	E		55		
0015	HOLL	01	1533	1537	1539	S20	E73	9687	11	7.2	6	SF		3	E		11		
		01	1642		1655	No Flare Patrol													
0016	RAMY	01	1711	1711	1727	N06	E18	9684	11	3.1	16	SF		3	E		99		F
0017	RAMY	01	1739	1740	1744	N05	E60	9685	11	6.2	5	SF		3	E		14		
0018	RAMY	01	1740	1742	1744	N12	W19	9682	10	31.3	4	SF		3	E		40		
0019	RAMY	01	1803	1804	1815	N05	W69	9678	10	27.7	12	SF		3	E		51		
0020	RAMY	01	1924	1927	1955	N11	W20	9682	10	31.3	31	SF		3	E		49		F
		01	1931		1952	No Flare Patrol													
0021	HOLL	01	1954	1955	2005	N12	W19	9682	10	31.4	11	SF		3	E		35		F
0022	HOLL	01	1954	1955	2018	S18	E69	9687	11	7.1	24	SF		3	E		18		F
0023	HOLL	01	2155	2312U	2324D	N12	W23	9682	10	31.2	89D	1F		3	E		159		F
0024	LEAR	01	2309E	0057	0159	N12	W20	9682	10	31.4	170D	1F		2	E		153		F
0025	MITK	02	0000	0002	0015	N12	W20		10	31.5	15	SN			C	0002	13	0.1	B
0026	LEAR	02	0413	0413	0446	N12	W22	9682	10	31.5	33	SF		3	E		16		F
0027	LEAR	02	0513	0513	0517	S20	E62	9687	11	6.9	4	SF		3	E		15		
0028	LEAR	02	0803	0809	0821	S20	E71	9687	11	7.8	18	SF		2	E		32		F
0029	LEAR	02	0813	0819	0825	N09	W28	9682	10	31.2	12	SF		2	E		23		F

NOVEMBER 2001

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
0030		02	14361	14371	1444	S20	E67	9687	11	7.7	8	SF					24		FH
	RAMY	02	1436	1438	1444	S21	E70	9687	11	8.0	8	SF		3	E		29		FH
	HOLL	02	1437	1437	1443	S18	E64	9687	11	7.5	6	SF		3	E		18		F
0031	RAMY	02	1514	1514	1520	N12	W33	9682	10	31.1	6	SF		3	E		17		
0032	RAMY	02	1605	1606	1611	N02	E02	9684	11	2.8	6	SF		3	E		13		F
0033	HOLL	02	1612	1615	1641	S18	E63	9687	11	7.5	29	SF		3	E		40		F
0034		02	1703	17031	1710	N04	E03	9684	11	2.9	7	SF					14		
	HOLL	02	1703	1703	1710	N04	E03	9684	11	2.9	7	SF		3	E		15		
	RAMY	02	1703	1704	1711	N03	E03	9684	11	2.9	8	SF		3	E		14		
0035	HOLL	02	2128	2130	2135	S18	E62	9687	11	7.6	7	SF		3	E		16		
0036	LEAR	03	0232	0232	0238	N04	W10	9684	11	2.3	6	SF		3	E		49		F
0037	LEAR	03	0249	0250	0258	N03	W03	9684	11	2.9	9	SF		3	E		34		F
0038	LEAR	03	0434	0435	0439	N05	W07	9684	11	2.7	5	SF		3	E		11		
0039	LEAR	03	0740	0741	0752	N13	W42	9682	10	31.1	12	SF		3	E		70		F
0040	LEAR	03	0833	0834	0838	N13	W44	9682	10	31.0	5	SF		3	E		43		F
0041		03	09342	09351	0938	N12	W44	9682	10	31.1	4	SF					18		F
	LEAR	03	0934	0935	0938	N13	W44	9682	10	31.1	4	SF		2	E		13		F
	SVTO	03	0936	0936	0950D	N12	W43	9682	10	31.2	14D	SF		3	E		23		F
		03	1003		1014	No Flare Patrol													
0042	SVTO	03	1022E	1023U	1038D	S21	E54	9687	11	7.6	16D	SF		2	E		52		
0043	SVTO	03	1407	1408	1410	N12	W47	9682	10	31.0	3	SF		3	E		19		
0044	SVTO	03	1411E	1412U	1419D	N12	W47	9682	10	31.0	8D	SF		2	E		34		
0045	HOLL	03	1525	1526	1534	N03	W09	9684	11	3.0	9	SF		3	E		22		
0046	HOLL	03	1537	1538	1540	N02	W10	9684	11	2.9	3	SF		3	E		25		
0047	HOLL	03	1819	1821	1825	N10	W49	9682	10	31.1	6	SF		3	E		17		
0048	HOLL	03	1826	1826	1829	N10	W49	9682	10	31.1	3	SF		3	E		11		
0049	HOLL	03	1848	1851	1856	N04	W20	9684	11	2.3	8	SF		3	E		25		F
0050	HOLL	03	2108	2110	2121	N03	W16	9684	11	2.7	13	SF		3	E		40		F
0051	LEAR	04	0101	0101	0109	N13	W52	9682	10	31.1	8	SF		2	E		16		
0052	LEAR	04	0144	0144	0150	N06	W19	9684	11	2.6	6	SF		2	E		20		F
0053	LEAR	04	0307	0307	0312	N05	W20	9684	11	2.6	5	SF		2	E		16		
0054	URUM	04	0429E	0429	0429D	S16	W36		11	1.4	5D	1N			P		241	3.3	E
0055		04	0641	06432	0700	N14	W57	9682	10	31.0	19	1N					121	2.6	C
	LEAR	04	0641	0643	0700	N14	W57	9682	10	31.0	19	1N		3	E		128		
	SVTO	04	0641	0643U	0702D	N13	W55	9682	10	31.1	21D	1N		3	E		107		
	URUM	04	0645E	0645	0645D	N15	W59	9682	10	30.9	21D	1B			P		129	2.6	C
0056	URUM	04	0819E	0819	0819D	N06	W23	9684	11	2.6	21D	1N			P		193	2.2	E
0057	SVTO	04	1050	1052	1101	S21	E42	9687	11	7.7	11	SF		3	E		14		
0058	SVTO	04	1125	1130	1139	N02	W25	9684	11	2.6	14	SF		3	E		13		

Hα SOLAR FLARES

NOVEMBER 2001

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
0059	SVTO	04	1217	1219	1226	N07	W20	9684	11	3.0	9	SF		3	E		17		F
0060		04	13461	13501	1408	S20	E38	9687	11	7.5	22	SF					60		F
	SVTO	04	1346	1350	1414	S20	E37	9687	11	7.4	28	SF		3	E		69		F
	RAMY	04	1347	1351	1401	S19	E40	9687	11	7.6	14	SF		3	E		51		
0061	HOLL	04	1524	1525	1530	N07	W16	9684	11	3.4	6	SF		3	E		15		F
0062	RAMY	04	1538	1540	1601	S19	E37	9687	11	7.5	23	SF		3	E		32		F
0063		04	16032	1614	2340D	N07	W19	9684	11	3.2	457D	3B					643		FUZ
	HOLL	04	1603	1622U	2340D	N06	W18	9684	11	3.3	457D	3B		3	E				ZF
	RAMY	04	1605	1614	1804D	N08	W20	9684	11	3.2	119D	3B		3	E		643		UF
0064	HOLL	04	1700	1701	1721	S20	E40	9687	11	7.8	21	SF		3	E		90		
0065	HOLL	04	1856	1856	1906	S20	E39	9687	11	7.8	10	SF		3	E		51		
		04	1928		1933	No Flare Patrol													
0066	HOLL	04	1943	1944	1957	S20	E38	9687	11	7.7	14	SF		3	E		54		
		04	2015		2027	No Flare Patrol													
		04	2124		2230	No Flare Patrol													
0067	LEAR	05	0042	0042	0046	N09	W64	9682	10	31.2	4	SF		3	E		21		
0068	LEAR	05	0249	0249	0318	S20	E34	9687	11	7.7	29	SF		3	E		86		F
0069	SVTO	05	0717	0718	0721	S27	E12	9689	11	6.2	4	SF		3	E		22		
0070		05	09081	09113	0944	N03	W37	9684	11	2.6	36	1N					171	2.9	EFU
	LEAR	05	0908	0911	0947	N03	W36	9684	11	2.7	39	1N		3	E		152		U
	SVTO	05	0909	0914	0944	N02	W37	9684	11	2.6	35	1N		3	E		135		F
	URUM	05	0912E	0912U	0941	N03	W38	9684	11	2.5	29D	1B			P		225	2.9	E
0071	SVTO	05	1101	1101	1105	N12	W71	9682	10	31.1	4	SF		3	E		25		F
0072	SVTO	05	1429	1433	1439	N08	W38	9684	11	2.7	10	SF		3	E		16		
		05	1450		1501	No Flare Patrol													
0073		05	1623	1626	1655	S19	E25	9687	11	7.6	32	SF					52		F
	RAMY	05	1623	1626	1655	S19	E26	9687	11	7.7	32	SF		3	E		55		F
	HOLL	05	1627E	1628U	1716D	S19	E24	9687	11	7.5	49D	SF		3	E		48		
0074	HOLL	05	1627E	1627U	1638	S18	E77	9690	11	11.5	11D	SF		3	E		29		
0075	RAMY	05	1803	1803	1824D	S19	E68	9690	11	10.9	21D	SF		3	E		28		F
		05	1828		1837	No Flare Patrol													
0076	RAMY	05	1852	1857	1906	S26	E06	9689	11	6.2	14	SF		3	E		34		
		05	2046		2219	No Flare Patrol													
0077	LEAR	05	2326	2328	2345	S21	E21	9687	11	7.6	19	SF		3	E		27		F
0078	LEAR	06	0258	0259	0313	S19	E10	9687	11	6.9	15	1B		3	E		167		EF
0079	LEAR	06	0301	0301	0304	S19	E65	9690	11	11.1	3	SF		3	E		46		
0080	LEAR	06	0643	0656	0702	S18	E08	9687	11	6.9	19	SF		2	E		19		
0081	LEAR	06	0707	0707	0716	S19	E08	9687	11	6.9	9	SF		1	E		33		
0082	LEAR	06	0651	0651	0656	S19	E62	9690	11	11.0	5	SF		2	E		43		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
0083		06	07422	07471	0800	S19	E07	9687	11	6.8	18	SF					62		F
	LEAR	06	0742	0748	0802	S19	E07	9687	11	6.8	20	SF		2	E		75		F
	SVTO	06	0744	0747	0759	S19	E07	9687	11	6.8	15	SF		3	E		48		F
0084	SVTO	06	0831	0831	0834	S19	E62	9690	11	11.1	3	SF		3	E		65		F
0085	LEAR	06	0831	0831	0837	S19	E65	9690	11	11.3	6	1F		2	E		123		F
		06	0953		1030	No Flare Patrol													
		06	1150		1217	No Flare Patrol													
		06	1234		1255	No Flare Patrol													
0086	RAMY	06	1354	1358	1410	S17	E05	9687	11	6.9	16	SF		3	E		47		
0087	RAMY	06	1453	1455	1459	S17	E56	9690	11	10.9	6	SF		3	E		39		
0088	RAMY	06	1519	1533	1541	S18	E64	9690	11	11.5	22	SF		3	E		27		
		06	1622		1656	No Flare Patrol													
		06	1702		1803	No Flare Patrol													
		06	1818		1840	No Flare Patrol													
		06	1902		1943	No Flare Patrol													
		06	2002		2010	No Flare Patrol													
		06	2051		2234	No Flare Patrol													
0089	LEAR	07	0112	0114	0118	N10	W55	9684	11	2.9	6	SF		3	E		15		F
0090	LEAR	07	0142	0143	0150	S18	E54	9690	11	11.2	8	SF		3	E		14		
0091		07	0246	02518	0309	S18	E54	9690	11	11.2	23	1N					104	2.3	EF
	LEAR	07	0246	0259	0309	S19	E53	9690	11	11.1	23	SF		3	E		94		F
	URUM	07	0251E	0251	0251D	S18	E56	9690	11	11.4	23D	1N			P		113	2.3	E
0092		07	0429	04334	0444	S20	E52	9690	11	11.2	15	1N					206	4.5	EF
	LEAR	07	0429	0433	0442	S19	E50	9690	11	11.0	13	1N		3	E		187		F
	URUM	07	0437E	0437	0447	S22	E54	9690	11	11.3	10D	1N			P		225	4.5	E
0093	LEAR	07	0444	0446	0455	S19	E52	9690	11	11.2	11	SF		3	E		78		F
0094	LEAR	07	0455	0455	0459	S19	E55	9690	11	11.4	4	SF		3	E		53		F
0095	LEAR	07	0438	0438	0441	N09	W57	9684	11	2.9	3	SF		3	E		35		
0096	LEAR	07	0612	0613	0617	S19	E52	9690	11	11.2	5	SF		3	E		15		
0097	LEAR	07	0631	0632	0639	N13	W86	9682	10	31.8	8	SF		3	E		69		
0098	LEAR	07	0640	0643	0651	N14	W86	9682	10	31.8	11	SF		3	E		57		
0099	LEAR	07	0640	0641	0647	S19	W04	9687	11	7.0	7	SF		3	E		27		F
0100	LEAR	07	0650	0652	0701	S19	W06	9687	11	6.8	11	SF		3	E		21		F
0101	LEAR	07	0725	0732	0741	N05	W21	9685	11	5.7	16	SF		3	E		15		F
0102	LEAR	07	0931	0935	0946	S18	E58	9690	11	11.8	15	SF		3	E		32		F
		07	1006		1017	No Flare Patrol													
		07	1128		1200	No Flare Patrol													
0103	SVTO	07	1201E	1203	1212D	S19	E47	9690	11	11.1	11D	SF		2	E		75		
		07	1228		1342	No Flare Patrol													
0104	HOLL	07	1504	1504	1512	S18	E48	9690	11	11.3	8	SF		3	E		11		F
0105	HOLL	07	1529	1530	1547	N07	W03	9692	11	7.4	18	SF		3	E		27		FH
0106	HOLL	07	1530	1530	1539	S17	E52	9690	11	11.6	9	SF		3	E		12		F

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0107	HOLL	07	1629	1630	1636	S18	E44	9690	11	11.0	7	SF		3	E		12		
0108	HOLL	07	1651	1653	1702	S18	E43	9690	11	11.0	11	SF		3	E		25		
0109	HOLL	07	1811	1811	1817	S18	E52	9690	11	11.7	6	SF		3	E		13		
0110	HOLL	07	1933	1934	2121	S17	E44	9690	11	11.1	108	1N		3	E		159		F
0111	HOLL	07	2006	2006	2012	N27	E27	9688	11	9.9	6	SF		3	E		13		FH
0112	HOLL	07	2123	2125	2129	N06	W24	9685	11	6.1	6	SF		3	E		10		F
0113	HOLL	07	2143	2145	2150	S18	E46	9690	11	11.4	7	SF		3	E		16		F
0114	HOLL	07	2153	2155	2159	S17	E40	9690	11	10.9	6	SF		3	E		34		
0115	HOLL	07	2202	2204	2214	S18	E48	9690	11	11.6	12	SF		3	E		32		F
0116	HOLL	07	2233	2235	2306	S18	E41	9690	11	11.1	33	SF		3	E		78		F
0117	LEAR	07	2245	2246	2251	S19	E38	9690	11	10.8	6	SF		3	E		16		F
0118	HOLL	07	2246	2246	2257	N07	W10	9692	11	7.2	11	SF		3	E		14		
0119	LEAR	07	2329	2330	2333	S18	E37	9690	11	10.8	4	SF		3	E		16		
0120	LEAR	08	0007	0007	0012	S20	W06	9687	11	7.5	5	SF		3	E		13		F
0121	LEAR	08	0015	0016	0020	S19	E37	9690	11	10.8	5	SF		3	E		30		F
0122	LEAR	08	0023	0023	0033	S19	E40	9690	11	11.1	10	SF		3	E		35		F
0123	LEAR	08	0133	0133	0136	S19	E38	9690	11	11.0	3	SF		3	E		22		
0124	LEAR	08	0201	0201	0204	N07	W11	9692	11	7.3	3	SF		3	E		13		
0125	LEAR	08	0207	0208	0213	S20	W08	9687	11	7.5	6	SF		3	E		31		F
0126	LEAR	08	0236	0239	0240	N06	W31	9685	11	5.8	4	SF		3	E		13		
0127	LEAR	08	0311	0319	0325	N07	W12	9692	11	7.2	14	SF		3	E		11		
0128	LEAR	08	0318	0320	0324	S18	E39	9690	11	11.1	6	SF		3	E		23		
0129	LEAR	08	0351	0402	0503	S17	E38	9690	11	11.0	72	SF		3	E		81		F
0130	LEAR	08	0526	0527	0533	S20	W10	9687	11	7.5	7	SF		3	E		49		F
0131	URUM	08	0529E	0529	0529D	S19	W03	9687	11	8.0	7D	1N			P		354	4.0	E
0132	LEAR	08	0600	0602	0623	N06	W33	9685	11	5.8	23	SF		3	E		62		F
0133	LEAR	08	0625	0627	0635	N06	W32	9685	11	5.9	10	SF		3	E		32		F
0134	LEAR	08	0704E	0704U	0727	S19	W19	9687	11	6.8	23D	1N		3	E		239		FH
0135	LEAR	08	0750	0751	0754	S18	E33	9690	11	10.8	4	SF		3	E		39		
0136	SVTO	08	1000	1000	1004	S18	E41	9690	11	11.5	4	SF		3	E		12		
0137	SVTO	08	1006	1010U	1018	S16	E32	9690	11	10.8	12	SF		3	E		36		F
0138	SVTO	08	1018	1018	1025	S20	W19	9687	11	7.0	7	SF		3	E		47		
		08	1026		1212	No Flare Patrol													
0139	SVTO	08	1213E	1225U	1319	S17	E36	9690	11	11.2	66D	SF		3	E		93		F
		08	1401		1402	No Flare Patrol													

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0140	HOLL	08	1501	1534	1625	S17	E36	9690	11	11.4	84	2F		3	E		305		FH
0141	HOLL	08	1542	1546	1558	N09	W16	9692	11	7.4	16	SF		3	E		22		
		08	1633		1651	No Flare Patrol													
0142	HOLL	08	1902	1903	1914	S19	W25	9687	11	6.9	12	SN		3	E		69		H
0143	HOLL	08	1906	1908	1910	N07	W78	9684	11	2.9	4	SF		3	E		23		
0144	HOLL	08	1934	1937	1944	N08	W22	9692	11	7.2	10	SF		3	E		24		F
0145	HOLL	08	2026	2034	2042	S18	E37	9690	11	11.7	16	SF		3	E		25		F
0146	HOLL	08	2113	2151	2300D	S17	E31	9690	11	11.2	107D	SF		3	E		48		
0147	LEAR	09	0121	0122	0142	N07	W26	9692	11	7.1	21	SF		3	E		17		F
0148	LEAR	09	0115	0127	0209	S19	E27	9690	11	11.1	54	1F		3	E		150		F
0149	URUM	09	0207E	0207	0207D	S16	E30	9690	11	11.4	54D	1N			P		273	3.5	E
0150	URUM	09	0321E	0321	0321D	S15	E29	9690	11	11.3	54D	1N			P		193	2.4	E
0151	LEAR	09	0348	0348	0401	S19	E24	9690	11	11.0	13	SF		3	E		25		F
0152		09	05218	05392	0600	S19	E26	9690	11	11.2	39	2N					356	6.4	EF
	LEAR	09	0521	0539	0604	S18	E25	9690	11	11.1	43	1F		3	E		199		F
	URUM	09	0529	0541	0555	S20	E26	9690	11	11.2	26	2B			C		514	6.4	E
0153	URUM	09	0610	0614	0618	S19	E37	9690	11	12.1	8	1N			C		225	3.2	E
0154		09	0626	06282	0632	S16	E24	9690	11	11.1	6	SN					55	1.1	DF
	LEAR	09	0626	0628	0632	S17	E24	9690	11	11.1	6	SF		3	E		40		F
	SVTO	09	0628E	0630U	0632D	S15	E25	9690	11	11.2	4D	SF		2	E		28		
	URUM	09	0630E	0630	0630D	S15	E24	9690	11	11.1	4D	SB			P		96	1.1	D
0155	LEAR	09	0744	0745	0749	S16	E23	9690	11	11.1	5	SF		3	E		21		F
0156	SVTO	09	0804	0812	0820	S18	E25	9690	11	11.2	16	SF		3	E		40		
0157	SVTO	09	0813	0816	0824	N07	W25	9692	11	7.5	11	SF		3	E		23		
0158		09	08339	0857	1013	S18	E26	9690	11	11.3	100	1N					317	6.1	EFH
	SVTO	09	0833	0855U	1038	S18	E26	9690	11	11.3	125	1N		3	E		247		H
	LEAR	09	0842	0857	1001	S18	E23	9690	11	11.1	79	1F		3	E		221		FH
	URUM	09	0855E	0855U	1000	S19	E28	9690	11	11.5	65D	2N			P		482	6.1	E
0159	SVTO	09	1039	1049U	1055	S19	E23	9690	11	11.2	16	SF		3	E		25		
0160	SVTO	09	1242	1243	1247	S19	E17	9690	11	10.8	5	SF		3	E		10		F
		09	1320		1326	No Flare Patrol													
		09	1345		1412	No Flare Patrol													
		09	1433		1444	No Flare Patrol													
		09	1458		1841	No Flare Patrol													
0161	HOLL	09	1845	1846	1856	S21	W42	9687	11	6.6	11	SF		3	E		21		
0162	HOLL	09	1845	1902	1943	S27	W47	9689	11	6.1	58	2F		3	E		389		FU
		09	1957		2227	No Flare Patrol													
		10	0031		0044	No Flare Patrol													
0163		10	0046	0050	0106	S17	E20	9690	11	11.5	20	1F					109	2.2	F
	LEAR	10	0046	0048U	0107	S17	E22	9690	11	11.7	21	SF		2	E		30		F
	VORO	10	0047E	0050	0106	S17	E19	9690	11	11.5	19D	1F		3	C	0050	188	2.2	
		10	0250		0258	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	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0164		10	06315	0643	0715	S20	E10	9690	11	11.0	44	1N					285	5.8	EF
	URUM	10	0631	0643	0714	S20	E13	9690	11	11.3	43	2N			C		498	5.8	E
	LEAR	10	0636	0643	0716	S20	E08	9690	11	10.9	40	SF		3	E		72		F
0165	LEAR	10	0908	0910	0929	S27	W56	9689	11	6.0	21	SF		3	E		31		F
0166	URUM	10	0912	0914	0929	S25	W49	9689	11	6.6	17	1N			P		129	2.3	E
0167	URUM	10	0925E	0925	0929	N06	W41	9692	11	7.3	4D	1N			P		225	3.1	E
0168	LEAR	10	0918	0919	0932	S18	E14	9690	11	11.4	14	SF		3	E		22		F
0169	URUM	10	0925	0929	0929D	S15	E17	9690	11	11.7	4D	1N			P		193	2.2	E
		10	0957		1222	No Flare Patrol													
		10	1228		1310	No Flare Patrol													
0170	SVTO	10	1319E	1319U	1332D	S19	E07	9690	11	11.1	13D	SF		2	E		20		F
		10	1322		1331	No Flare Patrol													
		10	1342		1355	No Flare Patrol													
		10	1401		1515	No Flare Patrol													
		10	1519		1559	No Flare Patrol													
		10	1737		2011	No Flare Patrol													
0171	HOLL	10	2011E	2013U	2044D	S18	E05	9690	11	11.2	33D	1F		3	E		127		
		10	2046		2232	No Flare Patrol													
0172	LEAR	10	2358		0005	S17	E09	9690	11	11.7	7	SF		3	E		11		
0173	LEAR	11	0032	0033	0041	N15	W65	9686	11	6.1	9	SF		3	E		27		
0174	LEAR	11	0559	0600	0605	S19	W02	9690	11	11.1	6	SF		3	E		11		
0175	LEAR	11	0607	0615	0658	S18	W02	9690	11	11.1	51	SF		3	E		25		F
0176	LEAR	11	0655	0700	0710	N07	W63	9692	11	6.6	15	SF		3	E		31		F
0177	LEAR	11	0815	0816	0826	N05	W58	9692	11	7.0	11	SF		3	E		39		
0178	SVTO	11	1025	1026	1030	N06	W59	9692	11	7.0	5	SF		3	E		26		
0179	SVTO	11	1057	1058U	1116D	S17	E05	9690	11	11.8	19D	SF		2	E		68		F
		11	1118		1125	No Flare Patrol													
		11	1135		1152	No Flare Patrol													
		11	1202		1229	No Flare Patrol													
0180	RAMY	11	1237	1312	1344	S18	W03	9690	11	11.3	67	SF		3	E		30		F
0181	RAMY	11	1407	1408	1412	S20	W45	9687	11	8.1	5	SF		3	E		24		
0182		11	15231	15404	1607	S19	W02	9690	11	11.5	44	1F					60		F
	HOLL	11	1523	1544	1606	S20	W02	9690	11	11.5	43	1F		3	E		104		F
	RAMY	11	1524	1540	1608	S18	W03	9690	11	11.4	44	1F		3	E		15		F
0183		11	1722	1722	1726	S18	W06	9690	11	11.3	4	SF					18		F
	RAMY	11	1722	1722	1725	S19	W08	9690	11	11.1	3	SF		3	E		16		F
	HOLL	11	1722	1722	1726	S16	W05	9690	11	11.3	4	SF		3	E		20		F
0184		11	17421	17542	1812	S18	W07	9690	11	11.2	30	SF					52		F
	HOLL	11	1742	1756	1816	S18	W08	9690	11	11.1	34	SF		3	E		67		F
	RAMY	11	1743	1754	1807	S18	W06	9690	11	11.3	24	SF		3	E		36		F
0185		11	18571	1902	1918	S19	W08	9690	11	11.2	21	SF					21		F
	HOLL	11	1857	1902	1930	S19	W08	9690	11	11.2	33	SF		3	E		27		F
	RAMY	11	1858	1902	1907	S19	W09	9690	11	11.1	9	SF		3	E		15		F

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0186	RAMY	11	1911	1914	1929	S18	W07	9690	11	11.3	18	SF		3	E		18		F
0187		12	01102	01141	0116	N09	W62	9692	11	7.4	6	SN					51	1.8	F
	VORO	12	0110	0114	0114	N10	W62	9692	11	7.4	4	SN		3	C	0114	81	1.8	
	LEAR	12	0112	0115	0119	N08	W62	9692	11	7.4	7	SF		3	E		21		F
0188	LEAR	12	0206	0207	0212	S17	W04	9690	11	11.8	6	SF		3	E		19		F
0189	LEAR	12	0250	0304	0324	N07	W73	9692	11	6.6	34	SF		3	E		57		F
0190	LEAR	12	0253	0254	0303	N13	E72	9697	11	17.5	10	SF		3	E		18		
0191	LEAR	12	0347	0355	0400	N13	E71	9697	11	17.5	13	SF		3	E		18		
0192	URUM	12	0635	0639	0643	S18	W06	9690	11	11.8	8	SN			C		96	1.1	D
0193	URUM	12	0635E	0635	0635D	S17	W20	9690	11	10.7	8D	1N			P		209	2.4	E
0194	LEAR	12	0736	0736	0740	S17	W07	9690	11	11.8	4	SF		3	E		17		F
0195		12	0755	0756	0816	N07	W72	9692	11	6.9	21	1B					142		EF
	LEAR	12	0755	0756	0816	N07	W74	9692	11	6.8	21	1B		3	E		155		FE
	URUM	12	0756E	0756	0756D	N07	W71	9692	11	7.0	21D	1B			P		129		E
		12	1006		1346	No Flare Patrol													
0196	RAMY	12	1355	1400	1410	S16	W16	9690	11	11.4	15	SF		3	E		25		
0197	HOLL	12	2042	2042	2045	S16	W16	9690	11	11.6	3	SF		3	E		16		F
0198	HOLL	12	2154	2155	2157	S16	W16	9690	11	11.7	3	SF		3	E		15		F
		12	2207		2320	No Flare Patrol													
0199	VORO	12	2321	2323	2343	N22	E43	9703	11	16.3	22	SN		3	C	2323	108	1.6	
0200	LEAR	13	0259	0300	0303	S18	W65	9687	11	8.2	4	SF		3	E		20		F
0201	LEAR	13	0403	0404	0406	S16	W23	9690	11	11.4	3	SF		2	E		16		F
0202	URUM	13	0434E	0434	0434D	S19	W21	9690	11	11.6	3D	1N			P		241	2.9	E
0203	URUM	13	0607E	0607	0607D	S02	E38	9696	11	16.1	3D	1N			P		161	2.1	E
0204		13	0625	06261	0638	S16	W25	9690	11	11.4	13	SB					64	0.8	CEF
	LEAR	13	0625	0626	0638	S17	W24	9690	11	11.4	13	SN		3	E		63		FE
	URUM	13	0627E	0627	0627D	S16	W26	9690	11	11.3	13D	SB			P		64	0.8	C
0205	LEAR	13	0713	0714	0722	S17	W22	9690	11	11.6	9	SF		2	E		14		F
		13	0912		0920	No Flare Patrol													
0206		13	0922	0924	0936	S18	W26	9690	11	11.4	14	SF					45		F
	LEAR	13	0922	0924	0936	S17	W26	9690	11	11.4	14	SF		1	E		65		F
	SVTO	13	0923E	0925U	1005D	S20	W25	9690	11	11.5	42D	SF		3	E		25		
		13	0939		0955	No Flare Patrol													
0207	RAMY	13	1146	1148	1159	S17	W24	9690	11	11.7	13	SF		3	E		53		F
		13	1244		1300	No Flare Patrol													
0208		13	18402	18412	1847	S20	W34	9690	11	11.2	7	SF					40		FH
	RAMY	13	1840	1841	1930D	S20	W36	9690	11	11.0	50D	SF		3	E		50		FH
	HOLL	13	1842	1843	1847	S19	W33	9690	11	11.3	5	SF		3	E		30		
0209	HOLL	13	1849	1849	1852	S19	W33	9690	11	11.3	3	SF		3	E		34		F
0210	HOLL	13	1859	1912	1940	S19	W35	9690	11	11.1	41	SF		3	E		32		F

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
		13	1943		1957	No Flare Patrol													
		13	2007		2048	No Flare Patrol													
0211	HOLL	13	2106	2106	2109	S20	W33	9690	11	11.3	3	SF		3	E		25		
		13	2112		2144	No Flare Patrol													
		13	2202		2222	No Flare Patrol													
		13	2229		2247	No Flare Patrol													
0212		14	00531	0058	0112	N12	E46	9697	11	17.5	19	1N					220	4.3	F
	VORO	14	0053	0058	0114	N12	E45	9697	11	17.4	21	1N		3	C	0058	296	4.3	
	LEAR	14	0054	0058U	0110	N13	E46	9697	11	17.5	16	1F		3	E		144		F
		14	0131		0320	No Flare Patrol													
0213	LEAR	14	0654	0657	0702	N14	E43	9697	11	17.5	8	SF		2	E		15		F
0214	LEAR	14	0659	0700	0704	S16	W35	9690	11	11.6	5	SF		2	E		15		F
0215	LEAR	14	0721	0721	0729	S18	W40	9690	11	11.3	8	SF		2	E		16		F
0216	LEAR	14	0922	0922	0930	S18	W39	9690	11	11.4	8	SF		1	E		59		F
		14	0935		1116	No Flare Patrol													
0217	RAMY	14	1352	1356	1408	S17	W37	9690	11	11.8	16	SF		3	E		52		
0218	HOLL	14	1516	1516	1524	N07	E39	9697	11	17.5	8	SF		3	E		15		F
		14	1539		1601	No Flare Patrol													
		14	1611		1616	No Flare Patrol													
		14	1624		1645	No Flare Patrol													
0219	HOLL	14	1649	1651	1656	S18	W42	9690	11	11.5	7	SF		3	E		34		F
0220		14	16591	17013	1730	S19	W48	9690	11	11.0	31	SF					57		F
	HOLL	14	1659	1701	1730	S19	W48	9690	11	11.0	31	SF		3	E		68		F
	RAMY	14	1700	1704	1751D	S19	W49	9690	11	11.0	51D	SF		3	E		46		
0221	HOLL	14	1811	1815	1829	S21	E70	9704	11	20.1	18	SF		3	E		21		
0222	HOLL	14	2055	2056	2100	S14	E65	9704	11	19.8	5	SF		3	E		31		
0223	HOLL	14	2201	2207	2244	S19	W49	9690	11	11.2	43	1F		3	E		201		FH
0224	HOLL	14	2245	2245	2250	S22	W55	9690	11	10.7	5	SF		3	E		16		
0225	LEAR	14	2357	0005	0016	N22	E15	9703	11	16.1	19	SF		3	E		56		
0226		15	01141	01174	0136	S16	W46	9690	11	11.6	22	SN					62	1.4	
	VORO	15	0114	0121	0129D	S15	W46	9690	11	11.6	15D	SN		3	C	0121	90	1.4	
	LEAR	15	0115	0117	0136	S16	W46	9690	11	11.6	21	SF		3	E		35		
0227		15	06241	06266	0634	N22	E12	9703	11	16.2	10	1N					109	2.1	EF
	URUM	15	0624	0632	0632D	N21	E12	9703	11	16.2	8D	1N			P		193	2.1	E
	LEAR	15	0625	0626	0634	N22	E11	9703	11	16.1	9	SF		3	E		25		F
0228	SVTO	15	0718E	0718	0727D	S19	W53	9690	11	11.2	9D	SF		2	E		18		F
0229	LEAR	15	0739	0740	0745	S18	W54	9690	11	11.2	6	SF		3	E		12		
		15	1024		1026	No Flare Patrol													
0230	SVTO	15	1124	1124	1130	S15	E65	9704	11	20.4	6	SF		3	E		14		
		15	1354		1443	No Flare Patrol													
0231	RAMY	15	1720	1722	1743	S17	W53	9690	11	11.7	23	SF		3	E		14		F
		15	1939		1949	No Flare Patrol													

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		15	1956		2134	No Flare Patrol													
		15	2141		2238	No Flare Patrol													
		15	2253		2319	No Flare Patrol													
		15	2334		2400	No Flare Patrol													
0232	VORO	15	2353	2405	2429	N23	E14		11	17.1	36	1B		3	C	0005	251	2.8	
		16	0000		0006	No Flare Patrol													
		16	0101		0210	No Flare Patrol													
0233	URUM	16	0541E	0541	0541D	S24	E21	9698	11	17.8	36D	SN			P		96	1.2	E
0234	URUM	16	0619	0631U	0643	S06	W01	9696	11	16.2	24	SN			P		193	2.0	E
		16	1014		1105	No Flare Patrol													
0235	HOLL	16	2142	2143	2209	N16	E09	9697	11	17.6	27	1F		3	E		110		F
		16	2202		2206	No Flare Patrol													
		16	2313		2400	No Flare Patrol													
		17	0000		0044	No Flare Patrol													
0236	LEAR	17	0448	0505	0938	S13	E42	9704	11	20.4	290	1N		2	E		194		FZ
0237	URUM	17	0529E	0529U	0637	S14	E39	9704	11	20.2	68D	2N			P		514	7.1	E
0238	SVTO	17	0638E	0723U	1155	S13	E37	9704	11	20.1	317D	1F		3	E		217		F
0239	URUM	17	0730	0748	0748D	S14	E39	9704	11	20.2	18D	2N			P		530	7.3	E
0240	SVTO	17	1227	1236	1244	S14	E33	9704	11	20.0	17	SF		3	E		10		F
0241	RAMY	17	1535	1535	1554	N15	W01	9697	11	17.6	19	SF		3	E		14		F
0242	HOLL	17	1632	1639	1655	S15	E34	9704	11	20.3	23	SF		3	E		11		F
0243	HOLL	17	1807	1809	1813	S14	E32	9704	11	20.2	6	SF		3	E		18		F
0244	HOLL	17	2254	2255	2305	N14	W02	9697	11	17.8	11	SF		3	E		19		F
0245	LEAR	17	2327	2328	2345	S16	E28	9704	11	20.1	18	SF		2	E		12		F
0246	LEAR	18	0045	0046	0050	S16	E29	9704	11	20.2	5	SF		3	E		16		F
0247	LEAR	18	0219	0219	0226	S16	E27	9704	11	20.1	7	SF		2	E		19		F
0248	URUM	18	0544E	0544	0544D	N12	W07	9697	11	17.7	7D	1N			P		225	2.4	E
0249	URUM	18	0544E	0544	0544D	S13	E27	9704	11	20.3	7D	1N			P		370	4.4	E
0250	LEAR	18	0604	0607	0616	N13	W07	9697	11	17.7	12	SF		2	E		16		F
0251	URUM	18	0610	0615	0619D	N12	W07	9697	11	17.7	9D	SN			P		161	1.7	E
0252	LEAR	18	0703	0705	0712	S18	E25	9704	11	20.2	9	SF		2	E		20		F
0253	LEAR	18	0837	0839	0857	N11	W09	9697	11	17.7	20	SF		1	E		17		F
0254		18	0917	0918	0928	S20	E24	9704	11	20.2	11	SN					80		F
	LEAR	18	0917	0918	0927	S19	E23	9704	11	20.1	10	SF		2	E		84		F
	SVTO	18	0917	0918	0929	S22	E25	9704	11	20.3	12	SN		3	E		75		F
		18	1906		1907	No Flare Patrol													
		18	2214		2229	No Flare Patrol													
0255	LEAR	19	0234	0234	0238	S14	E15	9704	11	20.2	4	SF		3	E		17		
0256	LEAR	19	0650	0701	0742	S18	E11	9704	11	20.1	52	SF		3	E		51		F

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0257	URUM	19	0712E	0712	0712D	S14	E11	9704	11	20.1	52D	1N			P		209	2.3	E
		19	1022		1426	No Flare Patrol													
		19	1643		1647	No Flare Patrol													
0258	RAMY	19	1854	1854	1900	N14	W29	9697	11	17.6	6	SF		3	E		13		F
0259	RAMY	19	1938	1938	1944	S17	E03	9704	11	20.0	6	SF		3	E		15		F
0260	RAMY	19	1957	1957	2001	S21	E04	9704	11	20.1	4	SF		3	E		16		
0261	RAMY	19	2002	2010	2030	S19	E04	9704	11	20.1	28	SF		3	E		73		FH
		19	2114		2221	No Flare Patrol													
0262	LEAR	19	2323	2325	2339	S16	E01	9704	11	20.0	16	SF		3	E		14		F
0263	LEAR	20	0147	0204	0241	S16	E01	9704	11	20.1	54	SF		3	E		77		F
0264	URUM	20	0214E	0214	0230	S14	E01	9704	11	20.2	16D	SN			P		129	1.4	E
		20	1006		1033	No Flare Patrol													
		20	1045		1122	No Flare Patrol													
0265	RAMY	20	1125E	1125U	1239D	S17	W03	9704	11	20.2	74D	SF		3	E		63		F
		20	1137		1234	No Flare Patrol													
		20	1247		1355	No Flare Patrol													
0266	HOLL	20	1440E	1440U	1510	S20	W04	9704	11	20.3	30D	SF		2	E		85		
0267	HOLL	20	2227	2228	2241	S15	W09	9704	11	20.2	14	SF		3	E		31		F
0268	LEAR	21	0126	0127	0129	S18	W12	9704	11	20.1	3	SF		3	E		24		F
0269	LEAR	21	0414	0418	0502	S14	W12	9704	11	20.3	48	SF		2	E		23		FH
		21	0733		0742	No Flare Patrol													
		21	0806		0814	No Flare Patrol													
0270	SVTO	21	0833E	0837U	0842	S18	W15	9704	11	20.2	9D	SF		3	E		14		F
0271	SVTO	21	0949	0951	0954	S21	W15	9704	11	20.2	5	SF		3	E		21		
0272	SVTO	21	1007	1007	1013	S18	W17	9704	11	20.1	6	SF		3	E		32		
0273		21	1106*	1111U	1130	S20	W18	9704	11	20.1	24	SF					30		F
	SVTO	21	1106	1111U	1130	S20	W17	9704	11	20.2	24	SF		3	E		38		F
	RAMY	21	1117	1118U	1139D	S20	W19	9704	11	20.0	22D	SF		3	E		21		F
0274	SVTO	21	1239	1347	1510D	S15	W18	9704	11	20.2	151D	SF		3	E		88		
0275	RAMY	21	1504	1505	1516	S20	W18	9704	11	20.2	12	SF		3	E		45		
0276	RAMY	21	1308	1308	1311	S20	W17	9704	11	20.2	3	SF		3	E		38		
0277	RAMY	21	1314	1316	1320	S13	W18	9704	11	20.2	6	SF		3	E		19		
0278		21	1436*	15207	1606	S14	W20	9704	11	20.1	90	SF					34		F
	HOLL	21	1436	1520	1602	S13	W20	9704	11	20.1	86	SF		3	E		36		F
	RAMY	21	1517	1527	1611	S15	W20	9704	11	20.1	54	SF		3	E		33		F
0279	RAMY	21	1751	1752	1755	S20	W21	9704	11	20.1	4	SF		3	E		10		F
0280		21	18081	18162	1836	S20	W20	9704	11	20.2	28	SF					44		F
	RAMY	21	1808	1818	1838	S20	W21	9704	11	20.1	30	SF		3	E		54		F
	HOLL	21	1809	1816	1833	S21	W19	9704	11	20.3	24	SF		3	E		34		
0281	SVTO	22	0805	0806	0816	S19	W29	9704	11	20.1	11	SF		3	E		16		F

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0282	RAMY	22	1124	1129	1134	S15	W33	9704	11	20.0	10	SF		3	E		15		F
0283	RAMY	22	1128	1129	1133	N13	W63	9697	11	17.7	5	SF		3	E		10		
0284	RAMY	22	1154	1201	1211	S21	W30	9704	11	20.2	17	SF		3	E		18		F
0285		22	11581	1159	1206	S11	W02	9710	11	22.3	8	SF					20		F
	SVTO	22	1158	1159	1206	S11	W02	9710	11	22.3	8	SF		3	E		19		F
	RAMY	22	1159	1159	1207	S11	W01	9710	11	22.4	8	SF		3	E		21		F
0286	RAMY	22	1453	1454	1507	S12	W02	9710	11	22.5	14	SF		3	E		36		F
0287	RAMY	22	1655	1708	1803	S18	W33	9704	11	20.2	68	1F		3	E		119		F
0288	HOLL	22	1705	1714	1744	S19	W34	9704	11	20.1	39	SF		3	E		98		F
0289	RAMY	22	1829	1835	1837	S16	W32	9704	11	20.3	8	SF		3	E		34		
0290	RAMY	22	1845	1845	1854	S14	W37	9704	11	20.0	9	SF		3	E		13		F
0291		22	2022	20262	2126D	S24	W68	9698	11	17.6	64D	2B					344		FHZ
	RAMY	22	2022	2026	2126D	S25	W67	9698	11	17.6	64D	2B		3	E		344		FH
	HOLL	22	2022	2028	2116D	S23	W68	9698	11	17.6	54D	2N		3	E		345		ZF
		22	2124		2208	No Flare Patrol													
0292	LEAR	22	2209E	2308	0401	S15	W34	9704	11	20.3	352D	2N		3	E		573		EF
0293		22	2341	23452	2431	S13	W38	9704	11	20.1	50	3B					12411	7.0	BHK
	MITK	22	2341	2345	2431	S16	W36	9704	11	20.2	50	2N			C	2345	89	11.9	BHK
	VORO	22	2345E	2347	0300D	S10	W39	9704	11	20.0	195D	4B		3	C	2347	24733	2.1	
0294	URUM	23	0245E	0245U	0245D	S13	W38	9704	11	20.2	195D	1N			P		289	3.9	E
0295	URUM	23	0645E	0645	0645D	S15	W41	9704	11	20.2	195D	1N			P		161	2.3	E
0296		23	08001	08034	0822	S16	W44	9704	11	20.0	22	SF					38		F
	LEAR	23	0800	0803	0820	S16	W45	9704	11	19.9	20	SF		3	E		43		F
	SVTO	23	0801	0807	0823	S15	W43	9704	11	20.1	22	SF		3	E		34		F
0297		23	0830	0833	0841	S20	W38	9704	11	20.4	11	SF					58		F
	LEAR	23	0830	0833	0841	S20	W38	9704	11	20.4	11	SF		3	E		53		F
	SVTO	23	0830E	0835U	0845D	S19	W37	9704	11	20.5	15D	SF		3	E		63		
		23	1055		1100	No Flare Patrol													
		23	1118		1152	No Flare Patrol													
		23	1653		1808	No Flare Patrol													
		23	1822		1831	No Flare Patrol													
		23	2110		2145	No Flare Patrol													
0298	LEAR	24	0016	0017	0022	S17	W52	9704	11	20.0	6	SF		3	E		13		
0299	LEAR	24	0150	0150	0153	S17	W53	9704	11	20.0	3	SF		3	E		17		
0300		24	04495	0456	0506	S18	W54	9704	11	20.1	17	1B					198	4.4	FH
	LEAR	24	0449	0456	0509	S17	W55	9704	11	20.0	20	1N		3	E		157		F
	MITK	24	0454	0456	0503	S18	W53	9704	11	20.2	9	1B			C	0456	239	4.4	H
0301	LEAR	24	0550	0551	0602	S19	W50	9704	11	20.4	12	SF		3	E		55		F
0302	LEAR	24	0726	0728	0747	S18	W56	9704	11	20.0	21	1N		3	E		219		F
0303	URUM	24	0730E	0730	0730D	N22	W54		11	20.2	21D	1N			P		161	2.8	E
		24	1016		1051	No Flare Patrol													
0304	RAMY	24	1252	1257	1331	S18	W59	9704	11	20.0	39	SF		3	E		92		
0305	RAMY	24	1345	1421	1436	S18	W59	9704	11	20.1	51	SF		3	E		35		

Hα SOLAR FLARES

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		24	1358		1416	No Flare Patrol													
0306		24	14494	1458	1524	S17	W58	9704	11	20.2	35	1F					102		F
	RAMY	24	1449	1458	1530	S17	W60	9704	11	20.0	41	1F		3	E		111		
	HOLL	24	1453	1458	1518	S17	W57	9704	11	20.3	25	SF		3	E		94		F
0307	RAMY	24	1539	1540	1543	S18	W60	9704	11	20.1	4	SF		3	E		17		
0308		24	16022	1623	1640	S18	W60	9704	11	20.1	38	SF					30		F
	RAMY	24	1602	1623	1642	S19	W60	9704	11	20.1	40	SF		3	E		33		F
	HOLL	24	1604	1623	1637	S17	W60	9704	11	20.1	33	SF		3	E		27		
0309	RAMY	24	1644	1644	1817	S17	W66	9704	11	19.7	93	SF		3	E		10		F
0310	HOLL	24	1650	1652	1701	S18	W59	9704	11	20.2	11	SF		3	E		17		
0311	HOLL	24	1709	1714	1726	S17	W60	9704	11	20.1	17	SF		3	E		46		F
0312	HOLL	24	1742	1750	1814	S18	W60	9704	11	20.2	32	SF		3	E		60		
0313	HOLL	24	1815	1815	1824	S16	W65	9704	11	19.8	9	SF		3	E		17		
0314	RAMY	24	1817	1832	1843	S17	W63	9704	11	20.0	26	SF		3	E		12		F
0315	HOLL	24	1839	1840	1843	N07	E71	9715	11	30.1	4	SF		3	E		17		F
0316		24	19171	19201	1933	S18	W61	9704	11	20.1	16	SF					14		F
	HOLL	24	1917	1921	1932	S18	W61	9704	11	20.1	15	SF		3	E		16		
	RAMY	24	1918	1920	1934	S18	W61	9704	11	20.1	16	SF		3	E		13		F
0317		24	20031	2004	2008	S10	W32	9710	11	22.4	5	SF					16		
	RAMY	24	2003	2004	2008	S10	W32	9710	11	22.4	5	SF		3	E		19		
	HOLL	24	2004	2004	2007	S09	W32	9710	11	22.4	3	SF		3	E		14		
0318	RAMY	24	2048	2050	2100	S20	W61	9704	11	20.2	12	SF		3	E		17		
0319		24	2107	2107	2111	S17	W64	9704	11	20.0	4	SF					22		
	HOLL	24	2107	2107	2111	S17	W64	9704	11	20.0	4	SF		3	E		23		
	RAMY	24	2107	2107	2111	S17	W63	9704	11	20.1	4	SF		3	E		22		
0320	HOLL	24	2115	2117	2123	S18	W58	9704	11	20.5	8	SF		3	E		63		
0321	HOLL	24	2125	2129	2132	S19	W57	9704	11	20.5	7	SF		3	E		27		
0322	HOLL	24	2144	2145	2151	N03	E70	9715	11	30.1	7	SF		3	E		22		
0323	LEAR	25	0103	0114	0124	S19	W60	9704	11	20.5	21	SF		3	E		70		FH
0324		25	0342	03403	0347	S16	W71	9704	11	19.8	5	1N					92		EH
	URUM	25	0340E	0340	0340D	S16	W72	9704	11	19.7	5D	1N			P		161		E
	LEAR	25	0342	0343	0347	S17	W70	9704	11	19.8	5	SF		3	E		22		H
0325	LEAR	25	0401	0403	0409	S18	W69	9704	11	19.9	8	SF		2	E		48		
0326	LEAR	25	0624	0630	0636	S12	E03	9714	11	25.5	12	SF		1	E		11		
0327	LEAR	25	0842	0843	0846	S18	W71	9704	11	19.9	4	SF		1	E		18		
0328	URUM	25	0927E	0927	0927D	S19	W65	9704	11	20.4	4D	1N			P		161		C
		25	0942		1032	No Flare Patrol													
		25	1037		1309	No Flare Patrol													
0329	RAMY	25	1446	1446	1507	N06	E65	9715	11	30.5	21	SF		3	E		13		H
0330	HOLL	25	1451	1510	1513	N06	E64	9715	11	30.4	22	SF		3	E		19		F
0331	RAMY	25	1525	1526	1548	N04	E64	9715	11	30.4	23	SF		3	E		11		

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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
0332	RAMY	25	1531	1531	1536	S18	W75	9704	11	19.9	5	SF		3	E		11		
0333	RAMY	25	1546	1548	1556	S18	W74	9704	11	20.0	10	SF		3	E		58		FH
0334	RAMY	25	1651	1701	1704	S18	W72	9704	11	20.2	13	SF		3	E		52		FH
0335	RAMY	25	1711	1712	1717	S17	W73	9704	11	20.2	6	SF		3	E		19		
0336	RAMY	25	1745	1810	1836	S18	W77	9704	11	19.9	51	SF		3	E		23		FH
		25	1812		1850	No Flare Patrol													
0337	RAMY	25	1835	1835	1843	N03	E62	9715	11	30.4	8	SF		3	E		27		F
0338	RAMY	25	1856	1900	1904	S17	W70	9704	11	20.5	8	SF		3	E		58		
		25	2024		2046	No Flare Patrol													
		25	2111		2220	No Flare Patrol													
0339	LEAR	26	0105	0106	0109	N03	E53	9715	11	30.0	4	SF		3	E		20		
0340	LEAR	26	0817	0820	0822	S04	E68	9716	12	1.4	5	SF		3	E		20		
0341	SVTO	26	1225	1225	1228	N08	E49	9715	11	30.2	3	SF		3	E		11		
		26	1231		1328	No Flare Patrol													
0342	SVTO	26	1352	1353	1358	N06	E43	9715	11	29.8	6	SF		3	E		22		
		26	1501		1610	No Flare Patrol													
		26	1616		1628	No Flare Patrol													
		26	1659		1710	No Flare Patrol													
		26	1758		1929	No Flare Patrol													
0343	HOLL	26	2126	2130	2134	S20	W90	9704	11	20.0	8	SF		3	E		93		
		27	0131		0647	No Flare Patrol													
0344	SVTO	27	1026	1027	1032	S05	E84	9718	12	3.7	6	SF		3	E		30		
0345	SVTO	27	1034	1035	1042	S06	E84	9718	12	3.7	8	SF		3	E		22		
0346	SVTO	27	1050E	1051U	1100D	S06	E85	9718	12	3.8	10D	SF		2	E		31		
0347	SVTO	27	1340	1340U	1352D	S06	E89	9718	12	4.2	12D	SF		3	E		35		
		27	1441		1509	No Flare Patrol													
0348	RAMY	27	1549	1549	1619	N05	E35	9715	11	30.3	30	SF		3	E		63		F
0349	HOLL	27	1837	1838	1855D	S07	E82	9718	12	3.9	18D	SF		3	E		20		
		27	1848		1944	No Flare Patrol													
0350	HOLL	27	2006	2006	2023	S07	E83	9718	12	4.0	17	SF		3	E		12		
0351	HOLL	27	2024	2024	2027	S08	E82	9718	12	4.0	3	SF		3	E		19		
0352	RAMY	27	2039	2046	2050	S05	E73	9718	12	3.3	11	SF		3	E		24		
0353	HOLL	27	2044	2120	2232	S07	E81	9718	12	3.9	108	1F		3	E		219		
0354	HOLL	27	2116	2120	2138	N03	E26	9715	11	29.8	22	1F		3	E		171		
0355	HOLL	27	2244	2245	2250	N04	E32	9715	11	30.3	6	SF		3	E		12		
		27	2307		2400	No Flare Patrol													
		28	0000		0006	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	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0356	LEAR	28	0113	0114	0119	S07	E81	9718	12	4.1	6	SF		3	E		18		
0357	LEAR	28	0124	0126	0132	N04	E23	9715	11	29.8	8	SF		3	E		35		F
0358	LEAR	28	0200	0200	0203	S06	E83	9718	12	4.3	3	SF		3	E		19		
0359	LEAR	28	0216	0218	0220	S07	E81	9718	12	4.2	4	SF		3	E		42		F
0360	LEAR	28	0310	0311	0316	S06	E78	9718	12	4.0	6	SF		2	E		31		
0361	LEAR	28	0410	0429	0437	S06	E77	9718	12	3.9	27	SF		3	E		26		F
		28	0440		0815	No Flare Patrol													
		28	1018		1049	No Flare Patrol													
		28	1052		1106	No Flare Patrol													
		28	1146		1347	No Flare Patrol													
		28	1359		1400	No Flare Patrol													
0362	RAMY	28	1632	1636	1652	N04	E16	9715	11	29.9	20	1B		3	E		183		FH
0363	HOLL	28	1638	1647	1711	N04	E16	9715	11	29.9	33	1N		3	E		159		HZ
0364	HOLL	28	1729	1729	1735	S06	E70	9718	12	4.0	6	SF		3	E		15		
0365	HOLL	28	1802	1803	1807	S20	E71	9720	12	4.2	5	SF		3	E		33		
0366	HOLL	28	1858	1902	1920	S07	E72	9718	12	4.2	22	SF		3	E		35		F
0367	HOLL	28	1912	1912	1920	N05	E14	9715	11	29.8	8	SF		3	E		14		H
0368		28	19451	1946	1950	N04	E15	9715	11	29.9	5	SF					18		H
	HOLL	28	1945	1946	1951	N04	E15	9715	11	29.9	6	SF		3	E		19		H
	RAMY	28	1946	1946	1950	N04	E15	9715	11	29.9	4	SF		3	E		16		
0369	HOLL	28	2004	2007	2010	S07	E70	9718	12	4.1	6	SF		3	E		19		
0370		28	20149	2023	2034	S07	E70	9718	12	4.1	20	SF					44		
	HOLL	28	2014	2023	2030	S07	E70	9718	12	4.1	16	SF		3	E		71		
	RAMY	28	2023	2023	2038	S07	E70	9718	12	4.1	15	SF		3	E		18		
0371	HOLL	28	2106	2109	2117	S06	E70	9718	12	4.1	11	SF		3	E		19		
0372	HOLL	28	2146	2151	2154	N04	E17	9715	11	30.2	8	SF		3	E		13		
0373	HOLL	28	2229	2230	2245	N07	E17	9715	11	30.2	16	1F		3	E		108		F
0374	HOLL	28	2311	2319	2319D	N05	E18	9715	11	30.3	8D	1F		3	E		123		
		28	2344		2354	No Flare Patrol													
0375	VORO	29	0016	0028	0044	N03	E17	9715	11	30.3	28	SF		3	C	0028	108	1.2	
0376	VORO	29	0116	0124	0129	N04	E17	9715	11	30.3	13	1F		3	C	0124	269	2.9	
0377	VORO	29	0116	0118	0126	S12	E63	9718	12	3.8	10	1F		3	C	0118	125	3.0	
0378	LEAR	29	0145	0148	0158	N04	E12	9715	11	30.0	13	SF		2	E		32		EF
0379	LEAR	29	0149	0149	0153	S20	E67	9720	12	4.2	4	SF		2	E		15		FH
		29	0250		0258	No Flare Patrol													
0380	LEAR	29	0307	0308	0312	N10	W26	9712	11	27.2	5	SF		1	E		15		F
0381	LEAR	29	0320	0320	0327	N10	W28	9712	11	27.0	7	SF		1	E		15		F
0382	LEAR	29	0319	0322	0324	S18	E76	9720	12	4.9	5	SF		1	E		45		
0383	LEAR	29	0517	0522	0531	N05	E09	9715	11	29.9	14	SF		2	E		48		F

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0384	LEAR	29	0800	0800	0803	S18	E72	9720	12	4.8	3	SF		1	E		15		
		29	1000		1011	No Flare Patrol													
0385	SVTO	29	1015	1024U	1058D	N04	E10	9715	11	30.2	43D	1N		3	E		131		FH
		29	1039		1054	No Flare Patrol													
		29	1109		1411	No Flare Patrol													
0386	SVTO	29	1403E	1404U	1412D	N05	E03	9715	11	29.8	9D	SF		2	E		55		
0387	HOLL	29	1518	1520	1522	N04	E05	9715	11	30.0	4	SF		3	E		18		F
		29	1559		1604	No Flare Patrol													
0388	HOLL	29	1613	1620	1621	N04	E06	9715	11	30.1	8	SF		3	E		10		
0389	HOLL	29	1626	1626	1635	N04	E06	9715	11	30.1	9	SF		3	E		14		
0390		29	17042	17043	1712	N04	E04	9715	11	30.0	8	SF					24		
	HOLL	29	1704	1704	1713	N05	E05	9715	11	30.1	9	SF		3	E		35		
	RAMY	29	1706	1707	1710	N04	E04	9715	11	30.0	4	SF		3	E		14		
		29	1734		1736	No Flare Patrol													
0391		29	18025	18081	1834	N06	E08	9715	11	30.3	32	1F					120		FH
	HOLL	29	1802	1808	1829	N06	E08	9715	11	30.3	27	1F		3	E		166		FH
	RAMY	29	1807	1809	1840	N05	E07	9715	11	30.3	33	SF		3	E		75		FH
0392	HOLL	29	1833	1838	1840	N04	E08	9715	11	30.4	7	SF		3	E		11		
		29	1855		1907	No Flare Patrol													
0393	RAMY	29	1949	1949	2001	S06	E58	9718	12	4.2	12	SF		3	E		15		
		29	2025		2030	No Flare Patrol													
0394	RAMY	29	2047	2047	2054	N06	E02	9715	11	30.0	7	SF		3	E		15		F
		29	2114		2115	No Flare Patrol													
		29	2127		2135	No Flare Patrol													
0395		30	01011	0105	0120	S07	E58	9718	12	4.4	19	1N					169	2.6	F
	VORO	30	0101	0105	0120	S08	E58	9718	12	4.4	19	1N		3	C	0105	143	2.6	
	LEAR	30	0102	0105	0120	S06	E57	9718	12	4.3	18	1N		2	E		195		F
0396	LEAR	30	0133	0133	0147	S07	E54	9718	12	4.1	14	SF		2	E		31		F
0397	LEAR	30	0407	0408	0433	S04	E51	9718	12	4.0	26	SF		2	E		17		F
0398	LEAR	30	0434	0434	0437	S07	E52	9718	12	4.1	3	SF		2	E		52		F
0399	LEAR	30	0542	0545	0551	N11	W44	9712	11	26.9	9	SF		2	E		24		F
0400	LEAR	30	0916	0924	0936	S05	E52	9718	12	4.3	20	SF		1	E		39		F
0401	SVTO	30	1046	1047	1053	N05	W03	9715	11	30.2	7	SF		3	E		13		
0402	SVTO	30	1135	1136	1140	N05	W03	9715	11	30.2	5	SF		3	E		18		
		30	1212		1258	No Flare Patrol													
		30	1305		1502	No Flare Patrol													
		30	1508		1653	No Flare Patrol													
		30	1721		1807	No Flare Patrol													
		30	1823		1840	No Flare Patrol													
0403	HOLL	30	1845	1847	1850	N03	W04	9715	11	30.5	5	SF		3	E		23		FH
0404	HOLL	30	1906	1908	1910	N01	W08	9715	11	30.2	4	SF		3	E		61		

Hα SOLAR FLARES

NOVEMBER 2001

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
0405	HOLL	30	1921	1924	1927	N02	W06	9715	11	30.3	6	SF		3	E		10		
		30	1938		2221	No Flare Patrol													

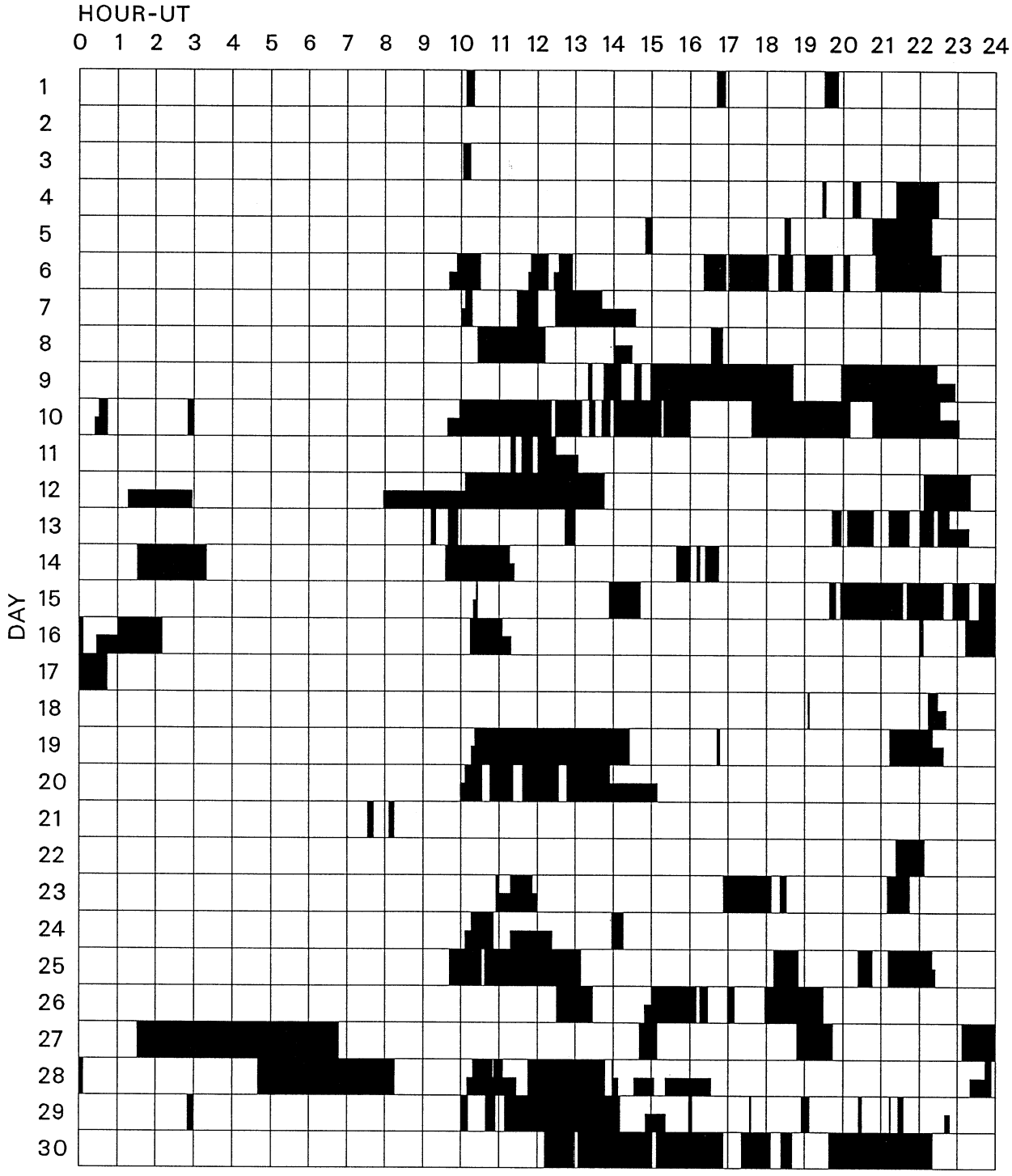
"Remarks"

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.

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

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

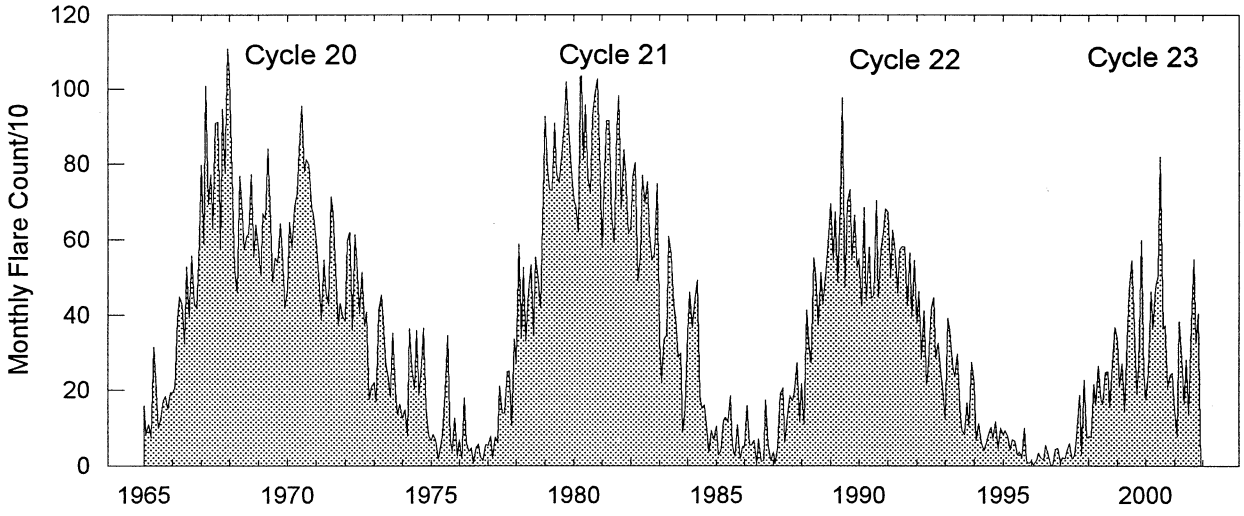
NOVEMBER 2001



Times of no flare patrol, shown here as shades areas, combine reports from the stations listed below. Portions of a panel completely shaded mark dates and times of no patrol of any kind (neither visual or cinematographic): portions of a panel with only the bottom half shaded mark times of only visual patrol.

Holloman Learmonth Ramey San Vito
Urumqi Voroshilov

Monthly Counts of Grouped Solar Flares
Jan 1965 - Nov 2001



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1965	158	85	110	74	315	231	99	127	173	184	150	193	1899
1966	194	205	390	449	429	323	528	391	558	432	417	543	4859
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	551	502	375	513	429	518	587	4816
1989	695	544	672	488	691	977	474	699	733	547	665	526	7711
1990	550	424	684	442	580	445	454	703	449	574	623	682	6610
1991	672	503	625	570	458	574	582	581	425	565	396	544	6495
1992	380	462	287	412	214	271	413	447	287	325	248	206	3952
1993	123	392	357	262	237	296	154	92	82	167	104	275	2541
1994	217	67	111	60	40	56	81	101	72	117	45	99	1066
1995	82	95	77	42	69	66	29	37	23	99	14	6	639
1996	14	3	15	34	21	16	54	31	3	0	44	45	280
1997	8	22	18	43	59	18	26	75	188	31	228	74	790
1998	78	76	216	161	264	177	164	248	249	155	268	367	2423
1999	330	212	271	145	330	466	544	368	192	264	598	243	3963
2000	175	248	462	362	473	505	818	364	372	208	241	246	4474
2001	147	77	383	284	164	282	137	376	549	325	405		3129

The term 'grouped' means observations of the same event by different sites were lumped together and counted as one.

SOLAR RADIO EMISSION
Outstanding Occurrences

NOVEMBER 2001

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	410	LEAR	43	NS	0129.0	0139.0	1351.0	55.0			QL=4 ST=1 TYP=1
	127	TORN	44	NS	0630.0E		510.0D		200.0		V=2
	204	IZMI	44	NS	0700.0E		300.0D		70.0		
	245	SGMR	43	NS	1138.0	1303.0U	412.0	180.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1316.0E		284.0D		8.0		
	245	SGMR	43	NS	1920.0	1937.0	82.0	520.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	2110.0	2111.0	170.0	110.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	2110.0	2207.0	170.0	150.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	2110.0	2210.0	170.0	200.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	2110.0	2218.0	170.0	290.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	2110.0	2226.0	170.0	500.0			QL=4 ST=1 TYP=1
	610	PALE	43	NS	2156.0	2213.0	32.0	110.0			QL=4 ST=2 TYP=1
	410	PALE	43	NS	2156.0	2218.0	53.0	78.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2157.0	0009.0	721.0	200.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2210.0	0135.0	708.0	480.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	0028.0	0028.0	1.0	250.0			QL=4 ST=2 TYP=3
	2804	VORO	2	S/F	0036.8	0037.4	1.2	4.7			
	500	HIRA	8	S	0037.0	0037.0	1.0	20.0			0
	410	LEAR	8	S	0233.0	0233.0	U	69.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0245.0	0247.0	2.0	240.0			QL=4 ST=2 TYP=3
	2804	VORO	8	S	0333.8	0334.1	0.8	4.7			
	9100	GORK	1	S	0621.5	0622.7	3.7	9.6			
	9100	GORK	1	S	0643.7	0643.8	0.3	12.0			
	2840	PEKG	5	S	0645.0	0647.6	9.0	22.8			
	2950	GORK	4	S/F	0646.3	0647.7	3.5	23.0			
	900	GORK	46	C	0646.4	0647.0		150.0			
	900	GORK	46	C	0646.4	0646.7	2.2	120.0			
	9100	GORK	4	S/F	0647.0	0650.8	6.0	52.0			
	600	GORK	46	C	0647.1	0647.4		150.0			
	600	GORK	46	C	0647.1	0647.5	1.6	40.0			
	3000	IZMI	20	GRF	0647.3	0647.8	0.8	24.0	12.0		
	15400	SVTO	8	S	0649.0	0650.0	2.0	62.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0650.0	0650.0	1.0	38.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0650.0	0650.0	1.0	57.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0650.0	0650.0	1.0	40.0			QL=4 ST=2 TYP=3
	9100	GORK	29	PBI	0653.0	0653.0	13.0	20.0			
	2840	PEKG	3	S	0740.0	0743.8	16.0	79.3			
	4995	LEAR	8	S	0742.0	0743.0	2.0	100.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0742.0	0743.0	2.0	75.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0742.0	0743.0	4.0	100.0			QL=4 ST=2 TYP=3
	9100	GORK	4	S/F	0742.5	0743.6	2.0	58.0			
	3000	IZMI	45	C	0742.7	0743.6	2.4	80.0	21.0		
	2950	GORK	4	S/F	0742.8	0743.7	2.2	70.0			
	2695	LEAR	8	S	0743.0	0743.0	1.0	66.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0743.0	0743.0	1.0	55.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0743.0	0743.0	1.0	61.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0752.3	0754.8	2.6	135.0			
	204	IZMI	45	C	0925.8	0925.8	0.2	273.0			
	204	IZMI	7	C	1125.5	1125.6	0.1	56.0			
	8800	SGMR	8	S	1243.0	1243.0	1.0	53.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1331.0	1333.0	2.0	190.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1423.0	1423.0	1.0	54.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1423.0	1423.0	1.0	55.0			QL=4 ST=2 TYP=3
	2695	SVTO	48	C	1423.0	1501.0	62.0	450.0			QL=2 ST=2 TYP=8
	4995	SVTO	48	C	1424.0	1501.0	61.0	520.0			QL=2 ST=2 TYP=8
	2695	SGMR	48	C	1426.0	1500.0	70.0	480.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	1426.0	1500.0	70.0	460.0			QL=4 ST=2 TYP=8
	15400	SGMR	48	C	1431.0	1500.0	65.0	210.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	1432.0	1500.0	64.0	350.0			QL=4 ST=2 TYP=8
	410	SGMR	8	S	1441.0	1442.0	2.0	180.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	1455.0	1501.0	545.0	190.0			QL=4 ST=1 TYP=3
	1415	SGMR	48	C	1456.0	1501.0	40.0	190.0			QL=4 ST=2 TYP=8
	1415	SVTO	20	GRF	1459.0	1501.0	26.0	190.0			QL=2 ST=2 TYP=2
	15400	SVTO	20	GRF	1500.0	1501.0	10.0	170.0			QL=2 ST=2 TYP=2
	8800	SVTO	20	GRF	1500.0	1501.0	25.0	440.0			QL=2 ST=2 TYP=2
	410	SGMR	49	GB	1517.0	1517.0	3.0	750.0			QL=4 ST=2 TYP=6
	610	SGMR	49	GB	1517.0	1517.0	5.0	800.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1534.0	1534.0	1.0	300.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1544.0	1544.0	1.0	200.0			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 2001

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	SGMR	8	S	1545.0	1545.0	U	390.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1549.0	1549.0	U	120.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1710.0	1710.0	U	34.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1710.0	1710.0	1.0	160.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1710.0	1710.0	U	66.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1710.0	1710.7	2.0	46.0	23.0		
	2800	PENT	29	PBI	1901.0	1926.0	36.0	36.0			
	245	SGMR	48	C	1909.0	1909.0	U	100.0			QL=4 ST=2 TYP=8
	410	SGMR	48	C	1921.0	1927.0	21.0	180.0			QL=4 ST=2 TYP=8
	610	SGMR	48	C	1922.0	1927.0	20.0	300.0			QL=4 ST=2 TYP=8
	410	PALE	48	C	1923.0	1923.0	5.0	410.0			QL=4 ST=2 TYP=8
	410	PALE	8	S	1923.0	1923.0	1.0	410.0			QL=4 ST=2 TYP=3
	610	PALE	48	C	1924.0	1927.0	6.0	270.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	1924.0	1926.0	18.0	88.0			QL=4 ST=2 TYP=8
	2695	SGMR	46	C	1925.0	1926.0	17.0	32.0			QL=4 ST=2 TYP=8
	4995	PALE	48	C	1926.0	1927.0	1.0	76.0			QL=4 ST=2 TYP=8
	8800	SGMR	46	C	1926.0	1927.0	16.0	47.0			QL=4 ST=2 TYP=8
	8800	SGMR	4	S/F	1950.0	1953.0	9.0	160.0			QL=4 ST=2 TYP=3
	9500	CUBA	3	S	1951.0	1953.0	4.9	91.0	45.0		
	15400	SGMR	8	S	1951.0	1953.0	2.0	110.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1952.0	1953.0	2.0	130.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	1952.0	1953.0	1.0	120.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1952.0	1953.0	7.0	60.0			QL=4 ST=2 TYP=3
	2800	PENT	40	F	2114.0	2213.0	77.0U	30.0			
	500	HIRA	7	C	2208.0	2213.0	13.0	400.0			ML
	410	LEAR	49	GB	2211.0	2213.0	5.0	550.0			QL=2 ST=2 TYP=6
	2695	LEAR	4	S/F	2211.0	2213.0	7.0	34.0			QL=2 ST=2 TYP=3
	610	LEAR	8	S	2212.0	2213.0	2.0	90.0			QL=2 ST=2 TYP=3
	1415	LEAR	8	S	2212.0	2213.0	1.0	24.0			QL=2 ST=2 TYP=3
	245	LEAR	49	GB	2224.0	2225.0	3.0	620.0			QL=4 ST=2 TYP=6
	410	LEAR	8	S	2224.0	2225.0	1.0	18.0			QL=4 ST=2 TYP=3
02	410	LEAR	43	NS	0129.0	0139.0	51.0	55.0			QL=4 ST=2 TYP=1
	410	PALE	43	NS	0133.0	0142.0	126.0	84.0			QL=4 ST=2 TYP=1
	127	TORN	44	NS	0630.0E		390.0D		90.0		V=1
	204	IZMI	44	NS	0700.0E		300.0D		95.0		
	245	SGMR	43	NS	1139.0	1310.0	185.0	170.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1653.0	1925.0	183.0	120.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	2110.0	0141.0	389.0	550.0			QL=4 ST=2 TYP=1
	410	LEAR	8	S	0105.0	0106.0	1.0	100.0			QL=4 ST=2 TYP=3
	9100	GORK	21	GRF	0751.0	0803.0	71.0	60.0			
	9100	GORK	4	S/F	0819.8	0821.0	9.8	115.0			
	9100	GORK	2	S/F	0857.0	0857.1	0.3	30.0			
	9100	GORK	20	GRF	1017.3	1020.1	15.7	15.0			
	245	PALE	8	S	2037.0	2037.0	1.0	540.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	2230.0	2234.0	53.0	44.0			
	2800	HIRA	3	S	2234.0	2234.0	5.0	50.0			0
	2695	LEAR	8	S	2234.0	2234.0	1.0	39.0			QL=2 ST=2 TYP=3
	4995	LEAR	8	S	2234.0	2234.0	U	38.0			QL=2 ST=2 TYP=3
	2804	VORO	20	GRF	2250.0	2405.0	75.0	12.2			
03	204	IZMI	44	NS	0700.0E		300.0D		45.0		
	127	TORN	44	NS	0800.0E		280.0D		5.0		V=1
	245	LEAR	8	S	0416.0	0416.0	1.0	130.0			QL=4 ST=2 TYP=3
	2804	VORO	8	S	0453.7	0454.1	0.5	46.7			
	9100	GORK	45	C	0735.0	0740.2		23.0			
	9100	GORK	45	C	0735.0	0739.7	9.0	11.0			
	2950	GORK	2	S/F	0739.1	0740.5	1.5	3.4			
	900	GORK	1	S	0740.0	0740.1	0.3	5.0			
	600	GORK	4	S/F	0740.7	0741.1	0.8	190.0			
	900	GORK	40	F	0757.0	0758.5	1.5	18.0			
	204	IZMI	41	F	0827.2	0827.4	0.2	37.0			
	245	LEAR	8	S	0914.0	0915.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0927.0	0927.0	U	56.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0927.3	0927.6	0.4	102.0			
	9100	GORK	2	S/F	0935.5	0935.5U	4.5D	13.0			
	204	IZMI	42	SER	0946.2	0946.4	0.3	127.0			
	245	SGMR	8	S	1151.0	1152.0	2.0	180.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1343.0	1344.0	1.0	88.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

NOVEMBER 2001

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
03	245	SGMR	8	S	1512.0	1513.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1533.0	1533.0	U	50.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1645.0	1645.0	U	75.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1700.0	1700.0	U	50.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1758.0	1758.0	U	54.0			QL=4 ST=2 TYP=3
	410	SGMR	48	C	1811.0	1811.0	U	91.0			QL=4 ST=2 TYP=8
	245	SGMR	8	S	1811.0	1811.0	U	140.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1812.0	1812.0	1.0	140.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1812.0	1813.0	1.0	140.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1827.0	1827.0	U	55.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1832.0	1849.0	60.0U	60.0			
	2695	SGMR	4	S/F	1846.0	1849.0	6.0	62.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2015.0	2015.0	U	81.0			QL=2 ST=2 TYP=3
04	127	TORN	44	NS	0630.0E		195.0D		10.0		V=1
	204	IZMI	44	NS	0700.0E		300.0D		10.0		
	245	SGMR	43	NS	1224.0	1225.0	1.0	65.0			QL=4 ST=2 TYP=1
	2804	VORO	21	GRF	0031.8	0035.0	20.0	5.2			
	2804	VORO	1	S	0032.2	0032.4	1.1	5.2			
	2804	VORO	23	GRF	0202.5	0248.4	160.0	14.9			
	245	LEAR	8	S	0239.0	0239.0	1.0	57.0			QL=4 ST=2 TYP=3
	2804	VORO	40	F	0342.0	0342.4	1.2	3.7			
	2804	VORO	40	F	0349.7	0350.6	1.2	13.0			
	245	LEAR	8	S	0422.0	0422.0	U	100.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0638.0	0641.3	10.0	61.3			
	15400	LEAR	8	S	0640.0	0641.0	1.0	150.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0640.0	0641.0	3.0	250.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0640.0	0641.0	3.0	190.0			QL=4 ST=2 TYP=3
	9100	GORK	4	S/F	0640.6	0641.3	4.3	180.0			
	2950	GORK	4	S/F	0640.7	0641.3	3.4	280.0			
	2800	HIRA	3	S	0641.0	0642.0	3.0	60.0			
	2695	LEAR	8	S	0641.0	0641.0	U	48.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0641.0	0641.0	U	130.0			QL=4 ST=2 TYP=3
	9100	GORK	29	PBI	0644.9	0644.9	27.2	11.0			
	9100	GORK	1	S	0815.9	0816.3	0.7	9.3			
	127	TORN	42	SER	0909.0	0919.8	12.4	160.0	15.0		
	204	IZMI	41	F	0909.9	0910.0	0.5	63.0			
	900	GORK	3	S	0951.0	0951.2	0.4	43.0			
	9100	GORK	1	S	1006.9	1007.4	1.3	13.0			
	900	GORK	46	C	1011.3	1011.4	1.0	38.0			
	900	GORK	46	C	1011.3	1011.5		45.0			
	245	SGMR	8	S	1148.0	1148.0	1.0	94.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1308.0	1308.0	U	74.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1356.0	1356.0	U	59.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1525.0	1525.0	U	50.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1547.0	1547.0	U	55.0			QL=4 ST=2 TYP=3
	2800	PENT	47	GB	1553.0	1629.0	99.0U	1762.0			
	1415	SGMR	48	C	1602.0	1607.0	85.0	1600.0			QL=4 ST=2 TYP=8
	2695	SGMR	48	C	1602.0	1624.0	478.0	1900.0			QL=4 ST=2 TYP=8
	610	SGMR	48	C	1604.0	1609.0	65.0	3600.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	1604.0	1617.0	476.0	2800.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	1604.0	1616.0	476.0	2800.0			QL=4 ST=2 TYP=8
	410	SGMR	48	C	1605.0	1617.0	69.0	3700.0			QL=4 ST=2 TYP=8
	15400	SGMR	48	C	1605.0	1617.0	80.0	1600.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	1606.0	1743.0	97.0	7500.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	1657.0	1658.0	2.0	170.0			QL=4 ST=2 TYP=8
	4995	PALE	48	C	1657.0	1658.0	24.0	240.0			QL=4 ST=2 TYP=8
	410	PALE	8	S	1917.0	1917.0	U	350.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	1917.0	1917.0	4.0	73.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1917.0	1917.0	U	56.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1917.0	1917.0	U	110.0			QL=4 ST=2 TYP=3
	500	HIRA	1	S	2250.0	2254.0	9.0	5.0			0
05	2804	VORO	22	GRF	0100.3	0220.0	170.0	13.7			
	500	HIRA	8	S	0149.0	0149.0	1.0	5.0			0
	2840	PEKG	5	S	0248.0	0249.5	8.0	46.6			
	2804	VORO	1	S	0248.8	0249.4	10.0	55.0			
	2800	HIRA	3	S	0249.0	0249.0	3.0	45.0			0
	2695	LEAR	8	S	0249.0	0249.0	U	29.0			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
05	4995	LEAR	8	S	0249.0	0249.0	1.0	70.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0249.0	0249.0	U	37.0			QL=4 ST=2 TYP=3
	4995	PALE	48	C	0249.0	0249.0	U	61.0			QL=4 ST=3 TYP=8
	410	LEAR	8	S	0605.0	0605.0	U	81.0			QL=4 ST=2 TYP=3
	2950	GORK	1	S	0727.8	0729.9	3.7	9.4			
	9100	GORK	4	S/F	0836.2	0836.4	0.4	110.0			
	9100	GORK	2	S/F	0849.1	0850.4	2.7	9.3			
	9100	GORK	21	GRF	0905.6	0932.3	50.4	26.0			
	8800	SVTO	4	S/F	0907.0	0909.0	8.0	60.0			QL=4 ST=2 TYP=3
	9100	GORK	2	S/F	0907.6	0909.7	3.8	22.0			
	3000	IZMI	22	GRF	0907.9	0912.8	8.9	18.0	8.0		
	1415	SVTO	8	S	0908.0	0909.0	1.0	30.0			QL=4 ST=2 TYP=3
	600	GORK	40	F	0909.0	0911.1		12.0			
	600	GORK	40	F	0909.0	0909.4	3.4	20.0			
	900	GORK	46	C	0909.0	0909.6	1.3	50.0			
	900	GORK	46	C	0909.0	0909.9		70.0			
	9100	GORK	1	S	0911.4	0912.8	2.4	9.3			
	204	IZMI	42	SER	0911.8	0915.9	4.9	20.0			
	4995	SVTO	8	S	0912.0	0912.0	U	35.0			QL=4 ST=2 TYP=3
	2950	GORK	46	C	0912.4	0915.0		22.0			
	2950	GORK	46	C	0912.4	0912.7	5.3	19.0			
	600	GORK	46	C	0920.6	0921.5	2.8	18.0			
	600	GORK	46	C	0920.6	0922.5		18.0			
	204	IZMI	41	F	0921.2	0923.7	11.3	21.0			
	410	LEAR	8	S	0922.0	0922.0	2.0	43.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0922.0	0924.0	4.0	60.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0935.0	0935.2	1.0	32.0			
	600	GORK	46	C	0951.9	0953.7	6.4	20.0			
	600	GORK	46	C	0951.9	0957.7		6.0			
	600	GORK	2	S/F	1003.1	1003.5	1.3	6.0			
	9100	GORK	1	S	1006.4	1007.1	1.2	9.3			
	600	GORK	1	S	1009.9	1010.8	2.7	6.0			
	600	GORK	1	S	1025.6	1026.8	4.5	8.8			
	204	IZMI	42	SER	1153.8	1153.9	1.1	105.0			
	33	UPIC	45	C	1154.0	1155.0	2.0				
	410	SGMR	8	S	1201.0	1201.0	U	160.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1426.0	1426.0	U	70.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1517.0	1518.0	1.0	62.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1517.0	1518.0	1.0	85.0			QL=4 ST=3 TYP=3
	2800	PENT	40	F	1615.0	1621.0	39.0	15.0			
	245	SGMR	8	S	1634.0	1634.0	U	500.0			QL=4 ST=2 TYP=3
	4995	PALE	49	GB	2122.0	2124.0	3.0	620.0			QL=4 ST=2 TYP=6
	2800	HIRA	3	S	2153.0	2153.0	2.0	35.0			0
	500	HIRA	8	S	2153.0	2154.0	1.0	40.0			0
	245	PALE	8	S	2153.0	2153.0	U	100.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2153.0	2153.0	1.0	270.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2153.0	2153.0	U	55.0			QL=4 ST=2 TYP=3
06	2804	VORO	1	S	0238.1	0238.4	1.4	6.8			
	2840	PEKG	45	C	0256.0	0259.0	12.0	216.5			
	2800	HIRA	3	S	0258.0	0259.0	6.0	160.0			0
	8800	LEAR	49	GB	0258.0	0258.0	7.0	500.0			QL=4 ST=2 TYP=6
	410	LEAR	8	S	0258.0	0258.0	1.0	420.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0258.0	0259.0	2.0	160.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0258.0	0258.0	1.0	350.0			QL=4 ST=2 TYP=3
	610	LEAR	4	S/F	0258.0	0300.0	3.0	190.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0258.0	0259.0	4.0	240.0			QL=4 ST=2 TYP=3
	15400	PALE	48	C	0258.0	0258.0	1.0	200.0			QL=4 ST=2 TYP=8
	410	PALE	8	S	0258.0	0258.0	2.0	820.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0258.0	0259.0	2.0	240.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0258.0	0259.0	2.0	170.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0258.0	0258.0	1.0	300.0			QL=4 ST=2 TYP=3
	500	HIRA	4	S/F	0258.0	0300.0	12.0	275.0			
	2804	VORO	4	S/F	0258.0	0259.1	17.0	202.0			
	610	PALE	48	C	0259.0	0300.0	1.0	250.0			QL=4 ST=2 TYP=8
	245	PALE	8	S	0302.0	0302.0	U	370.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0640.0	0642.5	5.0	14.1			
	9100	GORK	2	S/F	0641.7	0642.6	1.9	26.0			
	410	LEAR	49	GB	0642.0	0642.0	U	510.0			QL=4 ST=2 TYP=6

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
06	245	LEAR	8	S	0642.0	0642.0	U	210.0			QL=4 ST=2 TYP=3
	2950	GORK	3	S	0642.3	0642.6	0.8	35.0			
	900	GORK	41	F	0642.3	0642.7	3.1	24.0			
	900	GORK	41	F	0642.3	0644.9		12.0			
	600	GORK	4	S/F	0642.4	0642.5	0.5	60.0			
	2950	GORK	1	S	0656.2	0656.8	1.7	16.0			
	600	GORK	40	F	0656.4	0657.1	1.2	65.0			
	2840	PEKG	5	S	0705.8	0707.2	5.0	10.2			
	9100	GORK	1	S	0706.5	0707.1	1.3	11.0			
	600	GORK	2	S/F	0706.7	0707.0	1.3	8.8			
	2950	GORK	1	S	0706.7	0707.1	1.1	32.0			
	900	GORK	4	S/F	0706.7	0707.2	1.5	14.0			
	3000	IZMI	5	S	0706.8	0707.2	0.8	16.0	8.0		
	204	IZMI	42	SER	0706.8	0706.8	0.8	214.0			
	500	HIRA	8	S	0707.0	0707.0	1.0	280.0			
	245	LEAR	8	S	0707.0	0707.0	U	190.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0707.0	0707.0	U	26.0			QL=4 ST=2 TYP=3
	900	GORK	2	S/F	0715.5	0716.7	4.1	6.0			
	410	LEAR	8	S	0716.0	0717.0	1.0	82.0			QL=4 ST=2 TYP=3
	9100	GORK	40	F	0716.6	0717.2		87.0			
	9100	GORK	40	F	0716.6	0716.9	0.8	26.0			
	204	IZMI	7	C	0717.0	0717.1	0.1	13.0			
	2950	GORK	21	GRF	0723.0	0840.0	167.0	11.0			
	900	GORK	41	F	0737.8	0742.0	11.0	70.0			
	900	GORK	41	F	0737.8	0746.9		63.0			
	610	LEAR	4	S/F	0741.0	0742.0	3.0	130.0			QL=4 ST=2 TYP=3
	2840	PEKG	45	C	0741.0	0746.9	14.0	16.5			
	9100	GORK	41	F	0741.5	0744.1		15.0			
	9100	GORK	41	F	0741.5	0742.2	6.8	11.0			
	9100	GORK	41	F	0741.5	0746.4		19.0			
	600	GORK	41	F	0741.6	0742.1	6.1	230.0			
	2950	GORK	46	C	0741.6	0744.2	13.5	18.0			
	600	GORK	41	F	0741.6	0746.5		210.0			
	2950	GORK	46	C	0741.6	0746.8		25.0			
	600	GORK	41	F	0741.6	0743.8		180.0			
	410	LEAR	8	S	0742.0	0744.0	2.0	170.0			QL=4 ST=2 TYP=3
	3000	IZMI	42	SER	0742.1	0746.8	10.8	30.0			
	204	IZMI	42	SER	0742.2	0743.8	2.2	54.0			
	2695	LEAR	8	S	0743.0	0744.0	1.0	27.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0743.0	0744.0	1.0	24.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0746.0	0746.0	U	64.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0746.0	0746.0	1.0	45.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0746.0	0746.0	1.0	30.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0746.0	0746.0	1.0	39.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0752.1	0752.5	0.9	61.0			
	2950	GORK	3	S	0823.0	0823.2	1.0	10.0			
	3000	IZMI	5	S	0823.2	0823.3	0.3	16.0	8.0		
	4995	SVTO	4	S/F	0826.0	0830.0	6.0	97.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0827.0	0830.7	10.0	63.9			
	2695	LEAR	8	S	0830.0	0830.0	U	25.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0830.0	0830.0	1.0	68.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0830.0	0830.0	1.0	100.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0830.0	0830.0	U	67.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0830.0	0830.0	1.0	27.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0830.0	0830.0	1.0	140.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0830.0	0830.0	U	76.0			QL=4 ST=2 TYP=3
	9100	GORK	3	S	0830.3	0830.6	5.5	140.0			
	2950	GORK	3	S	0830.5	0830.8	2.1	18.0			
	3000	IZMI	7	C	0830.5	0830.8	0.7	27.0	14.0		
	9100	GORK	40	F	0842.4	0842.7	0.4	28.0			
	600	GORK	4	S/F	1020.4	1020.7	0.6	23.0			
	600	GORK	40	F	1027.0	1027.6	1.2	83.0			
	204	IZMI	7	C	1134.3	1134.3	0.1	8.0			
	245	SGMR	8	S	1239.0	1239.0	U	250.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1239.0	1239.0	U	88.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1353.0	1353.0	1.0	640.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1357.0	1357.0	1.0	480.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1357.0	1357.0	3.0	66.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1357.0	1357.0	3.0	70.0			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
06	2695	SGMR	4	S/F	1357.0	1357.0	3.0	91.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1357.0	1357.0	3.0	120.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1357.0	1357.0	3.0	270.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	1357.0	1357.0	3.0	180.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1357.0	1358.0	1.0	66.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1357.0	1357.0	1.0	70.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1357.0	1357.0	1.0	110.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1357.0	1357.0	1.0	240.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1357.0	1357.0	1.0	160.0			QL=4 ST=2 TYP=3
	2800	PENT	21	GRF	1609.0	1644.0	83.0U	7.0			
	245	PALE	48	C	1759.0	1759.0	1.0	140.0			QL=4 ST=2 TYP=8
	245	PALE	4	S/F	2009.0	2011.0	5.0	210.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	2009.0	2011.0	3.0	38.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2010.0	2011.0	1.0	130.0			QL=4 ST=2 TYP=3
	2800	PENT	40	F	2053.0	2104.0	24.0	28.0			
	245	PALE	48	C	2158.0	2158.0	2.0	210.0			QL=4 ST=2 TYP=8
	610	PALE	46	C	2158.0	2158.0	U	41.0			QL=4 ST=2 TYP=8
	410	PALE	8	S	2159.0	2159.0	U	170.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2230.0	2231.0	1.0	150.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2231.0	2231.0	U	77.0			QL=4 ST=2 TYP=3
	2804	VORO	40	F	2327.0	2327.6	1.5	12.2			
	2804	VORO	40	F	2342.2	2342.8	1.8	25.4			
07	235	CUBA	44	NS	1520.0E		385.0D		7.0		
	280	CUBA	44	NS	1520.0E		385.0D		18.0		
	9500	CUBA	47	GB		1934.2		302.0	151.0		
	2804	VORO	3	S	0020.0	0021.6	6.8	6.7			
	245	LEAR	8	S	0031.0	0031.0	U	86.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0104.0	0105.0	2.0	920.0			QL=4 ST=3 TYP=6
	410	LEAR	8	S	0104.0	0105.0	2.0	110.0			QL=4 ST=3 TYP=3
	245	PALE	49	GB	0104.0	0104.0	1.0	1100.0			QL=4 ST=2 TYP=6
	410	PALE	8	S	0104.0	0104.0	1.0	210.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	0108.0	0111.0	3.0	740.0			QL=4 ST=2 TYP=6
	245	LEAR	49	GB	0110.0	0111.0	2.0	630.0			QL=4 ST=3 TYP=6
	410	LEAR	8	S	0110.0	0111.0	1.0	42.0			QL=4 ST=3 TYP=3
	410	PALE	8	S	0110.0	0110.0	U	100.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	0141.0	0142.0	5.0	52.0			QL=4 ST=3 TYP=3
	2804	VORO	8	S	0351.0	0351.3	0.7	7.8			
	245	LEAR	49	GB	0414.0	0414.0	U	580.0			QL=4 ST=2 TYP=6
	2840	PEKG	45	C	0432.0	0434.7	5.0	54.3			
	245	LEAR	49	GB	0433.0	0435.0	4.0	550.0			QL=4 ST=2 TYP=6
	2804	VORO	40	F	0434.4	0434.7	1.6	65.6			
	2804	VORO	3	S	0437.5	0441.0	12.5	8.6			
	500	HIRA	7	C	0640.0	0640.0	1.0	50.0			0
	600	GORK	42	SER	0640.2	0641.1		28.0			
	600	GORK	42	SER	0640.2	0640.4	5.8	30.0			
	410	LEAR	8	S	0645.0	0645.0	U	130.0			QL=4 ST=2 TYP=3
	2950	GORK	4	S/F	0647.4	0651.2	16.1	22.0			
	500	HIRA	7	C	0648.0	0651.0	5.0	360.0			WR
	2840	PEKG	5	S	0649.0	0651.1	6.0	24.3			
	600	GORK	40	F	0649.0	0650.5	9.0	250.0U			
	900	GORK	46	C	0649.7	0652.3		1500.0			
	900	GORK	46	C	0649.7	0651.7	8.3	1290.0			
	9100	GORK	4	S/F	0649.9	0650.8	4.1	90.0			
	610	LEAR	8	S	0650.0	0650.0	1.0	450.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0650.0	0650.0	1.0	24.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0650.0	0650.0	1.0	47.0			QL=4 ST=2 TYP=3
	410	LEAR	4	S/F	0650.0	0650.0	3.0	330.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0650.0	0651.0	3.0	31.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0650.0	0650.0	3.0	110.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0650.0	0650.0	2.0	34.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0650.0	0650.0	2.0	96.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0650.0	0650.0	1.0	43.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	0712.0	0712.5	1.6	5.8			
	9100	GORK	2	S/F	0715.7	0716.3	2.7	14.0			
	9100	GORK	21	GRF	0727.0	0737.4	43.3	18.0			
	3000	IZMI	7	C	0832.8	0832.9	0.2	17.0	11.0		
	204	IZMI	42	SER	0846.1	0846.6	0.8	7.0			
	9100	GORK	4	S/F	0928.2	0932.5	5.6	40.0			

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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	2950	GORK	21	GRF	0929.3	0933.1	26.9	12.0			
	3000	IZMI	22	GRF	0929.4	0933.2	5.8	12.0	6.0		
	2950	GORK	1	S	0932.2	0932.4	0.6	6.6			
	8800	SVTO	4	S/F	1033.0	1035.0	3.0	81.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1033.0	1035.0	3.0	60.0			QL=4 ST=2 TYP=3
	3000	IZMI	7	C	1033.6	1035.6	2.7	28.0	11.0		
	4995	SVTO	8	S	1035.0	1035.0	U	34.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1315.0	1316.0	4.0	650.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1316.0	1316.0	U	53.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1316.0	1316.0	U	27.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1413.0	1413.0	U	50.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1413.0	1413.0	U	45.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1413.0	1413.0	U	110.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1413.0	1413.0	U	48.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1413.0	1413.0	U	65.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1413.0	1413.0	U	51.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1413.0	1413.0	U	110.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1413.0	1413.0	U	37.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1436.0	1436.0	U	140.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1647.0	1647.0	U	940.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1647.0	1647.0	U	110.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1856.0	1911.0	36.0U	16.0			
	610	SGMR	8	S	1911.0	1911.0	1.0	150.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1911.0	1911.0	1.0	38.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1911.3	1911.8	1.6	12.0	6.0		
	245	SGMR	8	S	1919.0	1919.0	U	57.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1931.0	1932.0	1.0	44.0			QL=4 ST=2 TYP=3
	9500	CUBA	21	GRF	1931.0	1954.0	145.0	109.0	54.0		
	15400	SGMR	48	C	1932.0	1933.0	19.0	720.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	1932.0	1933.0	55.0	660.0			QL=4 ST=2 TYP=8
	9500	CUBA	47	GB	1932.6	1933.2	6.1	347.0	173.0		
	8800	PALE	8	S	1933.0	1933.0	1.0	95.0			QL=4 ST=2 TYP=3
	15400	PALE	49	GB	1933.0	1933.0	10.0	660.0			QL=4 ST=2 TYP=6
	4995	SGMR	48	C	1933.0	1933.0	53.0	170.0			QL=4 ST=2 TYP=8
	4995	PALE	8	S	1936.0	1938.0	2.0	57.0			QL=4 ST=2 TYP=3
	2695	SGMR	48	C	1947.0	1953.0	30.0	65.0			QL=4 ST=2 TYP=8
	4995	PALE	48	C	1948.0	1955.0	24.0	88.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	1950.0	1953.0	21.0	62.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	1952.0	1955.0	4.0	59.0			QL=4 ST=2 TYP=8
	15400	PALE	48	C	1954.0	2010.0	37.0	71.0			QL=4 ST=2 TYP=8
	410	PALE	48	C	2006.0	2006.0	U	93.0			QL=4 ST=2 TYP=8
	245	SGMR	8	S	2006.0	2006.0	U	72.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2006.0	2006.0	U	51.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2208.0	2208.0	1.0	110.0			0
	500	HIRA	8	S	2242.0	2242.0	2.0	55.0			0
08	204	IZMI	44	NS	0700.0E		300.0D		30.0		
	127	TORN	44	NS	0950.0E		310.0D		20.0		V=1
	235	CUBA	44	NS	1300.0E		530.0D		12.0		
	280	CUBA	44	NS	1300.0E		530.0D		12.0		
	500	HIRA	8	S	0001.0	0002.0	1.0	25.0			0
	4995	LEAR	8	S	0001.0	0002.0	1.0	92.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0001.0	0002.0	1.0	110.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0001.0	0002.0	1.0	16.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0001.0	0002.0	1.0	95.0			QL=4 ST=2 TYP=3
	2804	VORO	21	GRF	0001.2	0009.6	60.0	6.0			
	2804	VORO	2	S/F	0001.4	0002.0	1.4	7.4			
	8800	PALE	8	S	0002.0	0002.0	U	120.0			QL=4 ST=2 TYP=3
	2804	VORO	3	S	0005.6	0007.2	2.4	6.7			
	2840	PEKG	5	S	0014.0	0016.9	5.0	14.4			
	2804	VORO	2	S/F	0016.2	0017.1	2.3	17.9			
	2840	PEKG	1	S	0020.0	0023.4	5.0	9.6			
	8800	LEAR	4	S/F	0022.0	0023.0	3.0	200.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0023.0	0023.0	1.0	80.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0023.0	0023.0	1.0	170.0			QL=4 ST=2 TYP=3
	2804	VORO	8	S	0023.1	0023.4	0.8	8.6			
	500	HIRA	8	S	0037.0	0037.0	1.0	300.0			0
	2840	PEKG	5	S	0205.0	0207.8	6.0	87.1			
	2804	VORO	2	S/F	0206.8	0207.6	1.3	66.1			

S O L A R R A D I O E M I S S I O N
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
08	2804	VORO	28	PRE	0350.0	0354.0	10.0	8.0			
	2840	PEKG	45	C	0358.0	0400.8	6.0	29.4			
	2804	VORO	46	C	0400.0	0401.2	5.0	28.1			
	2804	VORO	3	S	0415.0	0419.2	7.5	5.6			
	500	HIRA	8	S	0418.0	0418.0	2.0	25.0			0
	2840	PEKG	45	C	0523.0	0524.8	5.0	19.4			
	2840	PEKG	5	S	0532.0	0533.8	4.0	23.8			
	2840	PEKG	5	S	0553.0	0556.4	6.0	23.2			
	2840	PEKG	47	GB	0652.0	0703.0	38.0	506.0			
	600	GORK	47	GB	0658.0	0758.3	122.0	1000.0			
	2950	GORK	46	C	0658.9	0703.1		420.0			
	2950	GORK	46	C	0658.9	0705.4		180.0			
	2950	GORK	46	C	0658.9	0702.5U	17.6	95.0U			
	9100	GORK	46	C	0659.0	0702.4U	10.5	290.0U			
	9100	GORK	46	C	0659.0	0703.7		430.0			
	204	IZMI	42	SER	0659.7	0700.6	1.7	137.0			
	8800	LEAR	49	GB	0701.0	0702.0	6.0	1800.0			QL=4 ST=2 TYP=6
	4995	SVTO	49	GB	0701.0	0702.0	6.0	790.0			QL=4 ST=2 TYP=6
	3000	IZMI	45	C	0701.9	0702.9	6.6	507.0	120.0		
	4995	LEAR	49	GB	0702.0	0702.0	5.0	760.0			QL=4 ST=2 TYP=6
	15400	LEAR	49	GB	0702.0	0702.0	5.0	1800.0			QL=4 ST=2 TYP=6
	2695	LEAR	4	S/F	0702.0	0702.0	5.0	460.0			QL=4 ST=2 TYP=3
	8800	SVTO	49	GB	0702.0	0702.0	5.0	1600.0			QL=4 ST=2 TYP=6
	15400	SVTO	49	GB	0702.0	0702.0	5.0	1800.0			QL=4 ST=2 TYP=6
	2695	SVTO	4	S/F	0702.0	0702.0	6.0	420.0			QL=4 ST=2 TYP=3
	2800	HIRA	3	S	0702.0	0703.0	10.0	360.0			0
	500	HIRA	4	S/F	0702.0	0703.0	14.0	300.0			0
	200	HIRA	47	GB	0702.0	0705.0	17.0	4340.0			0
	1415	LEAR	4	S/F	0702.0	0702.0	10.0	440.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	0702.0	0702.0	15.0	460.0			QL=4 ST=2 TYP=3
	204	IZMI	46	C	0702.0	0702.6	2.1	57835.0			
	204	IZMI	46	C	0704.1	0705.1	4.6	66340.0U			
	9100	GORK	40	F	0749.1	0751.1	3.1	16.0			
	2950	GORK	7	C	0749.2	0749.4	1.6	8.9			
	2950	GORK	7	C	0749.2	0750.6		4.4			
	9100	GORK	2	S/F	0757.8	0759.2	4.5	10.0			
	2950	GORK	1	S	0809.3	0810.0	1.2	4.4			
	9100	GORK	1	S	0839.0	0840.5	6.3	10.0			
	204	IZMI	42	SER	0859.5	0859.6	0.2	114.0			
	204	IZMI	41	F	0936.2	0936.9	0.9	190.0			
	600	GORK	4	S/F	0938.3	0939.4	2.5	160.0			
	9100	GORK	2	S/F	0938.7	0939.2	0.9	10.0			
	204	IZMI	46	C	0938.7	0938.8	1.4	4466.0			
	2950	GORK	1	S	0938.8	0939.3	0.9	6.6			
	3000	IZMI	5	S	0939.1	0939.2	0.6	9.0	4.0		
	9100	GORK	25	R	1004.3	1036.0	31.7D	22.0			
	9100	GORK	46	C	1005.5	1006.0	7.9	14.0			
	9100	GORK	46	C	1005.5	1010.1		4.3			
	2950	GORK	4	S/F	1016.8	1018.2	2.9	35.0			
	204	IZMI	46	C	1016.8	1017.2	2.3	17360.0			
	600	GORK	46	C	1016.8	1017.6U	16.2	170.0U			
	600	GORK	46	C	1016.8	1018.7		550.0			
	9100	GORK	46	C	1016.9	1018.0	9.2	130.0			
	9100	GORK	46	C	1016.9	1021.6		18.0			
	4995	SVTO	48	C	1017.0	1018.0	1.0	100.0			QL=4 ST=2 TYP=8
	1415	SVTO	8	S	1017.0	1018.0	1.0	98.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1017.0	1018.0	1.0	28.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1017.0	1018.0	1.0	130.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1017.0	1018.0	1.0	53.0			QL=4 ST=2 TYP=3
	3000	IZMI	45	C	1017.0	1018.2	1.9	40.0	20.0		
	127	TORN	4	S/F	1017.0	1017.6	2.5	5300.0	2600.0		
	204	IZMI	41	F	1020.5	1020.8	0.4	1296.0			
	204	IZMI	41	F	1026.2	1027.3	2.5	50.0			
	3000	IZMI	1	S	1037.5	1037.6	0.3	16.0	9.0		
	8800	SVTO	4	S/F	1221.0	1224.0	12.0	190.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1224.0	1224.0	U	36.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1224.0	1224.0	9.0	110.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1224.0	1224.0	5.0	150.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1224.0	1224.0	3.0	110.0			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
08	15400	SVTO	4	S/F	1224.0	1224.0	9.0	70.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	1224.0	1224.0	10.0	71.0			QL=4 ST=2 TYP=3
	9500	CUBA	21	GRF	1344.0	1408.0	167.0	37.0	18.0		
	610	SGMR	8	S	1345.0	1345.0	1.0	58.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1348.0	1348.0	U	280.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1348.0	1348.0	2.0	33.0			QL=4 ST=2 TYP=3
	1415	PALE	46	C	1400.0	1902.0	308.0	40.0			QL=4 ST=1 TYP=8
	9500	CUBA	2	S/F	1401.0	1403.0	5.8	60.0	30.0		
	15400	SVTO	48	C	1402.0	1403.0	7.0	55.0			QL=4 ST=2 TYP=8
	8800	SVTO	48	C	1402.0	1404.0	10.0	110.0			QL=4 ST=2 TYP=8
	8800	SGMR	4	S/F	1404.0	1404.0	15.0	90.0			QL=4 ST=2 TYP=3
	4995	SVTO	46	C	1406.0	1408.0	6.0	43.0			QL=4 ST=2 TYP=8
	8800	SGMR	4	S/F	1441.0	1441.0	3.0	31.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1441.0	1441.5	4.0	13.0	6.0		
	410	SGMR	8	S	1442.0	1442.0	1.0	84.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1501.0	1503.5	6.0	23.0	11.0		
	8800	SGMR	48	C	1502.0	1533.0	31.0	180.0			QL=4 ST=3 TYP=8
	4995	SGMR	48	C	1512.0	1533.0	21.0	76.0			QL=4 ST=3 TYP=8
	2695	SGMR	46	C	1516.0	1524.0	17.0	39.0			QL=4 ST=3 TYP=8
	9500	CUBA	2	S/F	1518.0	1518.6	2.3	24.0	12.0		
	245	SGMR	49	GB	1522.0	1523.0	2.0	910.0			QL=4 ST=3 TYP=6
	410	SGMR	49	GB	1522.0	1524.0	2.0	2200.0			QL=4 ST=3 TYP=6
	610	SGMR	8	S	1524.0	1524.0	U	100.0			QL=4 ST=3 TYP=3
	9500	CUBA	2	S/F	1524.0	1524.2	2.0	7.0	3.0		
	9500	CUBA	4	S/F	1532.5	1533.3	1.8	92.0	46.0		
	15400	SGMR	8	S	1533.0	1533.0	U	30.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1543.0	1543.0	1.0	340.0			QL=4 ST=2 TYP=3
	2800	PENT	40	F	1559.0	1604.0	29.0	42.0			
	610	SGMR	46	C	1613.0	1613.0	U	40.0			QL=4 ST=2 TYP=8
	4995	SGMR	46	C	1613.0	1613.0	U	29.0			QL=4 ST=2 TYP=8
	9500	CUBA	2	S/F	1614.0	1615.3	2.0	37.0	18.0		
	410	SGMR	8	S	1619.0	1619.0	1.0	170.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1621.0	1624.3	4.0	16.0	8.0		
	2800	PENT	29	PBI	1701.0	1711.0	31.0U	264.0			
	8800	SGMR	46	C	1706.0	1706.0	U	44.0			QL=4 ST=2 TYP=8
	410	SGMR	49	GB	1706.0	1706.0	U	4000.0			QL=4 ST=2 TYP=6
	610	SGMR	8	S	1706.0	1706.0	1.0	690.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1706.0	1706.0	1.0	41.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1706.0	1706.0	U	44.0			QL=4 ST=2 TYP=3
	9500	CUBA	45	C	1706.3	1706.6	2.0	43.0	21.0		
	1415	SGMR	8	S	1707.0	1707.0	U	29.0			QL=4 ST=2 TYP=3
	1415	PALE	48	C	1711.0	1711.0	5.0	180.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	1711.0	1711.0	5.0	280.0			QL=4 ST=2 TYP=8
	4995	PALE	48	C	1711.0	1711.0	3.0	270.0			QL=4 ST=2 TYP=8
	4995	PALE	48	C	1711.0	1711.0	4.0	270.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	1711.0	1711.0	U	69.0			QL=4 ST=2 TYP=8
	410	PALE	8	S	1711.0	1711.0	U	170.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1711.0	1711.0	U	2500.0			QL=4 ST=2 TYP=3
	8800	SGMR	48	C	1711.0	1711.0	2.0	100.0			QL=4 ST=2 TYP=8
	410	SGMR	8	S	1711.0	1711.0	U	120.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1711.0	1711.0	2.0	3100.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1711.0	1711.0	8.0	260.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1711.0	1711.0	16.0	190.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1711.0	1711.0	11.0	280.0			QL=4 ST=2 TYP=3
	9500	CUBA	3	S	1711.6	1711.9	3.9	82.0	41.0		
	2695	PALE	48	C	1718.0	1719.0	3.0	51.0			QL=4 ST=2 TYP=8
	4995	PALE	48	C	1718.0	1720.0	5.0	59.0			QL=4 ST=2 TYP=8
	1415	PALE	46	C	1719.0	1720.0	1.0	46.0			QL=4 ST=2 TYP=8
	410	SGMR	8	S	1719.0	1719.0	U	140.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1723.1	1723.4	0.9	16.0	8.0		
	9500	CUBA	2	S/F	1729.2	1729.5	1.8	17.0	8.0		
	410	SGMR	8	S	1827.0	1828.0	1.0	130.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1828.9	1829.0	1.1	15.0	7.0		
	2800	PENT	41	F	1834.0	1902.0	42.0	44.0			
	410	SGMR	8	S	1839.0	1840.0	1.0	350.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1839.6	1841.0	2.4	31.0	15.0		
	8800	SGMR	8	S	1840.0	1841.0	1.0	31.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1840.0	1841.0	1.0	25.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1858.0	1858.0	U	740.0			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
08	245	SGMR	8	S	1858.0	1858.0	1.0	490.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1858.0	1858.0	U	37.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1901.7	1903.0	2.1	92.0	46.0		
	4995	PALE	48	C	1902.0	1902.0	1.0	100.0			QL=4 ST=2 TYP=8
	245	PALE	49	GB	1902.0	1902.0	4.0	15000.0			QL=4 ST=2 TYP=6
	245	SGMR	8	S	1902.0	1903.0	1.0	13000.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1902.0	1902.0	1.0	290.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1902.0	1902.0	1.0	71.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1902.0	1903.0	1.0	36.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1902.0	1902.0	1.0	34.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1902.0	1902.0	1.0	110.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1902.0	1903.0	1.0	160.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1902.0	1903.0	1.0	92.0			QL=4 ST=2 TYP=3
	15400	SGMR	46	C	1905.0	1905.0	U	49.0			QL=4 ST=2 TYP=8
	9500	CUBA	2	S/F	1905.0	1905.6	1.0	39.0	19.0		
	245	SGMR	8	S	1906.0	1906.0	U	330.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1908.0	1908.0	U	550.0			QL=4 ST=2 TYP=3
	8800	SGMR	46	C	1908.0	1908.0	U	28.0			QL=4 ST=2 TYP=8
	610	SGMR	8	S	1908.0	1908.0	1.0	300.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1908.0	1908.0	1.0	32.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1909.0	1909.0	1.0	90.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1910.0	1910.0	U	40.0			QL=4 ST=2 TYP=3
	4995	SGMR	46	C	1929.0	1929.0	2.0	43.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	1929.0	1929.0	2.0	80.0			QL=4 ST=2 TYP=8
	15400	SGMR	48	C	1929.0	1929.0	2.0	110.0			QL=4 ST=2 TYP=8
	9500	CUBA	40	F	1929.0	1929.5	9.0	86.0	43.0		
	610	SGMR	8	S	1931.0	1931.0	U	100.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2024.0	2024.0	U	92.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	2028.4	2028.8	1.6	14.0	7.0		
	9500	CUBA	1	S	2050.0	2050.5	1.6	18.0	9.0		
	200	HIRA	47	GB	2159.0	2159.0	1.0	1380.0			0
	8800	PALE	48	C	2312.0	2312.0	U	70.0			QL=4 ST=2 TYP=8
	15400	PALE	48	C	2312.0	2312.0	U	52.0			QL=4 ST=2 TYP=8
	2804	VORO	23	GRF	2325.5	2340.0	75.0	11.9			
	410	PALE	48	C	2330.0	2330.0	2.0	110.0			QL=4 ST=2 TYP=8
	245	PALE	8	S	2330.0	2331.0	2.0	1300.0			QL=4 ST=2 TYP=3
	500	HIRA	7	C	2331.0	2331.0	2.0	90.0			0
	200	HIRA	7	C	2331.0	2332.0	5.0	220.0			0
	2804	VORO	41	F	2331.2	2333.2	2.0	10.1			
	2804	VORO	41	F	2331.2	2338.2	7.0	6.7			
	2804	VORO	41	F	2331.2	2334.8	3.6	7.4			
	4995	LEAR	4	S/F	2338.0	2338.0	4.0	60.0			QL=4 ST=2 TYP=3
	4995	PALE	48	C	2338.0	2338.0	1.0	65.0			QL=4 ST=2 TYP=8
	8800	PALE	46	C	2338.0	2338.0	U	41.0			QL=4 ST=2 TYP=8
	245	PALE	8	S	2338.0	2338.0	U	100.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	2349.0	2352.6	7.0	17.7			
	2800	HIRA	1	S	2350.0	2353.0	6.0	25.0			0
	4995	PALE	46	C	2351.0	2352.0	1.0	48.0			QL=4 ST=2 TYP=8
	2804	VORO	2	S/F	2351.2	2352.4	5.0	17.1			
	500	HIRA	8	S	2352.0	2352.0	2.0	130.0			0
	245	PALE	8	S	2352.0	2352.0	U	76.0			QL=4 ST=2 TYP=3
09	204	IZMI	44	NS	0600.0E		120.0D		55.0		
	127	TORN	44	NS	0640.0E		220.0D		27.0		V=1
	245	SVTO	43	NS	0752.0	0813.0	55.0	110.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1256.0	1324.0	298.0	160.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1307.0	1339.0	128.0	130.0			QL=4 ST=2 TYP=1
	1415	SVTO	43	NS	1307.0	1339.0	128.0	130.0			QL=4 ST=3 TYP=1
	235	CUBA	44	NS	1330.0E		500.0D		11.0		
	280	CUBA	44	NS	1330.0E		500.0D		26.0		
	245	PALE	43	NS	1657.0	1741.0U	57.0	110.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1952.0	1959.0	26.0	120.0			QL=4 ST=2 TYP=1
	2840	PEKG	5	S	0023.0	0025.8	6.0	15.4			
	500	HIRA	47	GB	0024.0	0024.0	2.0	690.0			0
	2804	VORO	46	C	0024.0	0024.3	2.6	13.0			
	200	HIRA	8	S	0110.0	0110.0	1.0	70.0			0
	4995	LEAR	48	C	0117.0	0126.0	34.0	77.0			QL=4 ST=2 TYP=8
	2840	PEKG	45	C	0118.0	0127.7	17.0	26.0			
	200	HIRA	42	SER	0119.0	0127.0	8.0	65.0			0

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09	245	PALE	48	C	0121.0	0121.0	U	56.0			QL=4 ST=2 TYP=8
	4995	PALE	48	C	0121.0	0127.0	15.0	81.0			QL=4 ST=2 TYP=8
	8800	LEAR	20	GRF	0121.0	0126.0	29.0	68.0			QL=4 ST=2 TYP=2
	500	HIRA	4	S/F	0123.0	0126.0	6.0	95.0			0
	1415	LEAR	8	S	0123.0	0123.0	1.0	55.0			QL=4 ST=2 TYP=3
	1415	PALE	46	C	0123.0	0123.0	U	46.0			QL=4 ST=2 TYP=8
	610	PALE	8	S	0125.0	0125.0	1.0	190.0			QL=4 ST=2 TYP=3
	8800	PALE	48	C	0126.0	0127.0	2.0	60.0			QL=4 ST=2 TYP=8
	2804	VORO	21	GRF	0130.0	0140.0	60.0	11.9			
	2804	VORO	3	S	0135.0	0137.8	5.0	9.3			
	15400	LEAR	8	S	0136.0	0137.0	1.0	23.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0212.0	0212.0	1.0	235.0			0
	200	HIRA	42	SER	0237.0	0241.0	5.0	40.0			WR
	500	HIRA	42	SER	0238.0	0247.0	9.0	430.0			0
	2840	PEKG	5	S	0244.0	0246.4	5.0	11.3			
	2804	VORO	2	S/F	0256.3	0257.0	3.3	10.0			
	500	HIRA	8	S	0326.0	0326.0	1.0	10.0			0
	200	HIRA	8	S	0327.0	0327.0	1.0	40.0			0
	500	HIRA	8	S	0436.0	0436.0	1.0	65.0			0
	200	HIRA	8	S	0539.0	0539.0	1.0	80.0			WR
	2840	PEKG	1	S	0624.0	0625.4	9.0	7.2			
	9100	GORK	2	S/F	0624.9	0625.4	1.8	11.0			
	2950	GORK	2	S/F	0625.0	0625.4	1.1	6.8			
	600	GORK	8	S	0627.2	0627.3	0.2	180.0			
	2950	GORK	7	C	0628.3	0629.3		4.5			
	600	GORK	8	S	0628.3	0628.4	0.3	110.0			
	2950	GORK	7	C	0628.3	0628.8	1.6	5.6			
	500	HIRA	42	SER	0705.0	0706.0	3.0	80.0			0
	600	GORK	41	F	0705.2	0707.2		140.0			
	600	GORK	41	F	0705.2	0705.4	7.8	120.0			
	600	GORK	41	F	0705.2	0705.6		64.0			
	204	IZMI	42	SER	0733.9	0734.1	0.8	63.0			
	204	IZMI	42	SER	0738.4	0739.9	2.1	84.0			
	245	SVTO	4	S/F	0744.0	0746.0	4.0	170.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0745.0	0745.0	U	160.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0745.4	0745.6	0.4	94.0			
	204	IZMI	42	SER	0812.9	0813.9	2.0	430.0			
	33	UPIC	45	C	0813.0	0813.5	1.5				
	127	TORN	46	C	0813.0U	0814.6	2.2D	800.0	100.0		
	9100	GORK	21	GRF	0824.7	0950.2	138.0D	85.0			
	2950	GORK	21	GRF	0830.0	0949.0	195.0D	56.0			
	9100	GORK	1	S	0842.4	0842.9	1.0	26.0			
	2950	GORK	1	S	0844.4	0846.8	4.4	78.0			
	3000	IZMI	22	GRF	0844.5	0855.9	16.0	37.0	13.0		
	4995	SVTO	48	C	0845.0	0855.0	27.0	110.0			QL=4 ST=2 TYP=8
	9100	GORK	46	C	0849.5	0854.0	10.5	93.0			
	9100	GORK	46	C	0849.5	0855.9		65.0			
	8800	SVTO	4	S/F	0850.0	0853.0	18.0	120.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	0851.0	0854.0	16.0	59.0			QL=4 ST=2 TYP=3
	4995	LEAR	48	C	0852.0	0855.0	13.0	72.0			QL=4 ST=2 TYP=8
	2950	GORK	4	S/F	0852.8	0854.0	6.2	20.0			
	15400	LEAR	8	S	0853.0	0854.0	1.0	27.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0853.0	0853.0	5.0	79.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0854.0	0854.0	U	23.0			QL=4 ST=2 TYP=3
	9100	GORK	29	PBI	0900.0	0900.0	16.2	37.0			
	2695	SVTO	4	S/F	0901.0	0901.0	6.0	22.0			QL=4 ST=2 TYP=3
	2695	LEAR	20	GRF	0919.0	0950.0	36.0	54.0			QL=4 ST=2 TYP=2
	3000	IZMI	22	GRF	0922.2	0945.7	35.8	33.0	15.0		
	4995	LEAR	20	GRF	0923.0	0950.0	32.0	55.0			QL=4 ST=2 TYP=2
	9100	GORK	40	F	0945.0	0950.2	10.8	24.0			
	8800	SVTO	4	S/F	0947.0	0950.0	5.0	43.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0948.0	0948.0	U	28.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0948.0	0950.0	4.0	50.0			QL=4 ST=2 TYP=3
	600	GORK	4	S/F	0949.5	0949.8	0.6	90.0			
	2950	GORK	4	S/F	0949.6	0950.6	2.0	33.0			
	3000	IZMI	7	C	0949.8	0950.6	1.3	34.0	16.0		
	2695	SVTO	8	S	0950.0	0950.0	U	26.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1010.4	1011.2	1.3	30.0			
	9100	GORK	46	C	1014.2	1016.0	4.1	26.0			

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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
09	9100	GORK	46	C	1014.2	1017.4U		210.0U			
	204	IZMI	7	C	1015.4	1015.5	0.2	19.0			
	204	IZMI	41	F	1101.8	1102.3	0.9	38.0			
	245	SGMR	8	S	1226.0	1226.0	U	62.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	1615.0	1700.0	71.0	8.0			
	245	SGMR	8	S	1722.0	1722.0	U	260.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1722.0	1722.0	U	58.0			QL=4 ST=2 TYP=3
	1415	PALE	46	C	1825.0	1825.0	2.0	49.0			QL=4 ST=2 TYP=8
	610	SGMR	4	S/F	1825.0	1826.0	14.0	44.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1825.0	1825.0	14.0	56.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1825.0	1828.0	14.0	88.0			QL=4 ST=2 TYP=3
	610	PALE	46	C	1826.0	1826.0	U	48.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	1828.0	1828.0	2.0	55.0			QL=4 ST=2 TYP=8
	4995	SGMR	4	S/F	1828.0	1830.0	11.0	39.0			QL=4 ST=2 TYP=3
	2800	PENT	40	F	1847.0	1902.0	40.0	37.0			
	245	SGMR	8	S	1903.0	1903.0	U	60.0			QL=4 ST=2 TYP=3
	235	CUBA	48	C	1924.8	1959.3	48.8	62.0	31.0		
	280	CUBA	48	C	1927.4	1959.9	46.5	99.0	50.0		
	2800	PENT	41	F	2029.0	2039.0	18.0	6.0			
	200	HIRA	8	S	2144.0	2144.0	1.0	25.0			WR
	245	PALE	8	S	2144.0	2144.0	U	74.0			QL=4 ST=2 TYP=3
10	127	TORN	44	NS	0640.0E		260.0D		15.0		V=0,DISTURBED
	235	CUBA	44	NS	1305.0E		525.0D		9.0		
	280	CUBA	44	NS	1305.0E		525.0D		16.0		
	2804	VORO	40	F	0305.0	0305.4	1.1	13.8			
	2804	VORO	8	S	0413.8	0414.2	0.6	7.5			
	2950	GORK	21	GRF	0624.0	0639.0	67.7	23.0			
	2950	GORK	7	C	0644.6	0645.1	2.8	11.0			
	2950	GORK	7	C	0644.6	0646.8		9.7			
	204	IZMI	7	C	0730.6	0730.6	0.1	18.0			
	204	IZMI	7	C	0731.8	0731.9	0.1	18.0			
	600	GORK	2	S/F	0750.1	0750.2	0.2	26.0			
	9100	GORK	21	GRF	0833.0	0924.9	117.0	24.0			
	9100	GORK	40	F	0833.6	0834.6	7.7	14.0			
	9100	GORK	8	S	0847.8	0848.0	0.5	68.0			
	9100	GORK	1	S	1001.0	1001.5	1.2	6.7			
	245	SVTO	8	S	1058.0	1058.0	U	73.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1326.0	1326.0	U	58.0			QL=4 ST=2 TYP=3
	2800	PENT	21	GRF	1836.0	1845.0	48.0	10.0			
	9500	CUBA	21	GRF	1948.0	1959.0	59.0	38.0	19.0		
	4995	SGMR	48	C	1949.0	1954.0	17.0	110.0			QL=2 ST=2 TYP=8
	8800	SGMR	48	C	1950.0	1954.0	16.0	73.0			QL=2 ST=2 TYP=8
	4995	PALE	4	S/F	1953.0	1954.0	5.0	100.0			QL=4 ST=2 TYP=3
	8800	PALE	48	C	1954.0	1954.0	5.0	83.0			QL=4 ST=2 TYP=8
	245	PALE	8	S	1954.0	1954.0	U	350.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	2049.0	2051.2	3.6	32.0	16.0		
	9500	CUBA	2	S/F	2053.5	2054.8	4.0	38.0	19.0		
11	127	TORN	44	NS	0650.0E		400.0D		12.0		V=1,DISTURBED
	204	IZMI	43	NS	1108.0		52.0D		25.0		
	245	SVTO	43	NS	1155.0	1214.0	92.0	90.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1310.0E		520.0D		8.0		
	280	CUBA	44	NS	1310.0E		520.0D		16.0		
	2804	VORO	40	F	0028.8	0033.1	7.0	8.8			
	200	HIRA	8	S	0604.0	0604.0	1.0	65.0			0
	4995	LEAR	20	GRF	0604.0	0633.0	64.0	21.0			QL=4 ST=2 TYP=2
	8800	LEAR	20	GRF	0606.0	0634.0	62.0	29.0			QL=4 ST=2 TYP=2
	2950	GORK	20	GRF	0609.0U	0615.6	171.0D	17.0			
	204	IZMI	7	C	0910.1	0910.1	0.1	26.0			
	9100	GORK	4	S/F	0954.6	0954.7	0.3	120.0			
	9100	GORK	4	S/F	1025.3	1025.5	0.7	88.0			
	4995	SVTO	8	S	1055.0	1055.0	U	29.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1055.0	1055.0	U	89.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1055.0	1055.0	U	81.0			QL=4 ST=3 TYP=3
	204	IZMI	42	SER	1130.5	1131.4	1.6	85.0			
	245	SVTO	4	S/F	1147.0	1153.0	6.0	69.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1153.0	1153.0	U	59.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1436.0	1436.0	U	57.0			QL=4 ST=2 TYP=3

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11	245	SGMR	8	S	1530.0	1530.0	U	90.0			QL=4 ST=2 TYP=3
	2800	PENT	24	R	1836.0	1922.0	56.0U	15.0			
	245	PALE	8	S	2051.0	2051.0	1.0	100.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	2301.0	2301.0	1.0	35.0			0
	200	HIRA	8	S	2335.0	2335.0	1.0	50.0			0
	200	HIRA	8	S	2349.0	2350.0	1.0	25.0			0
12	127	TORN	44	NS	0900.0E		300.0D		18.0		V=1
	235	CUBA	44	NS	1300.0E		530.0D		8.0		
	280	CUBA	44	NS	1300.0E		530.0D		18.0		
	245	SGMR	43	NS	1353.0	1602.0	129.0	410.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1658.0	1700.0	17.0	99.0			QL=4 ST=2 TYP=1
	200	HIRA	7	C	0110.0	0113.0	7.0	30.0			0
	500	HIRA	8	S	0113.0	0114.0	1.0	25.0			0
	200	HIRA	8	S	0144.0	0144.0	1.0	55.0			0
	200	HIRA	8	S	0440.0	0440.0	3.0	270.0			0
	9100	GORK	40	F	0609.0	0610.5	5.6	20.0			
	2950	GORK	2	S/F	0612.2	0613.7	2.4	10.0			
	900	GORK	40	F	0618.7	0624.7	10.1	18.0			
	9100	GORK	21	GRF	0636.0	1039.0U	303.0D	24.0			
	9100	GORK	41	F	0733.9	0734.2	4.1	17.0			
	9100	GORK	41	F	0733.9	0736.2		37.0			
	8800	SVTO	8	S	0734.0	0736.0	2.0	69.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0736.0	0736.0	U	58.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0736.0	0736.0	U	28.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0736.0	0736.0	U	60.0			QL=4 ST=2 TYP=3
	9100	GORK	4	S/F	0753.8	0755.7	10.8	240.0			
	8800	LEAR	8	S	0754.0	0755.0	2.0	250.0			QL=4 ST=2 TYP=3
	2950	GORK	4	S/F	0754.9	0755.3	3.8	28.0			
	4995	LEAR	8	S	0755.0	0755.0	1.0	110.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0755.0	0755.0	1.0	260.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0755.0	0755.0	1.0	120.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0755.0	0755.0	2.0	230.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	0755.0	0755.0	3.0	280.0			QL=4 ST=2 TYP=3
	3000	IZMI	7	C	0755.2	0755.3	0.2	41.0	18.0		
	3000	IZMI	40	F	0755.6	0756.3	1.5	15.0	7.0		
	600	GORK	2	S/F	0757.8	0757.9	0.4	12.0			
	3000	IZMI	1	S	0800.8	0800.8	0.1	18.0	8.0		
	204	IZMI	41	F	0814.8	0814.9	0.3	30.0			
	900	GORK	41	F	0932.0	0932.2	5.2	20.0			
	900	GORK	41	F	0932.0	0933.3		5.4			
	245	SGMR	8	S	1353.0	1353.0	U	80.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1354.0	1354.0	U	29.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1507.0	1508.0	2.0	45.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1509.0	1510.0	2.0	91.0			QL=4 ST=2 TYP=3
	2804	VORO	4	S/F	2344.6	2346.8	8.0	8.7			
13	127	TORN	44	NS	0650.0E		400.0D		20.0		V=1
	235	CUBA	44	NS	1300.0E		530.0D		10.0		
	280	CUBA	44	NS	1300.0E		530.0D		24.0		
	2840	PEKG	45	C	0623.0	0625.2	22.0	194.1			
	2800	HIRA	4	S/F	0624.0	0625.0	8.0	195.0			WR
	8800	LEAR	8	S	0624.0	0624.0	1.0	94.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0624.0	0624.0	2.0	46.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0624.0	0625.0	4.0	180.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0624.0	0625.0	3.0	120.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0625.0	0626.0	2.0	42.0			QL=4 ST=2 TYP=3
	2950	GORK	46	C	0625.2U	0626.1		87.0			
	2950	GORK	46	C	0625.2U	0625.4	7.2D	95.0U			
	9100	GORK	4	S/F	0627.2U	0627.6	4.7D	24.0			
	900	GORK	41	F	0730.3	0731.1	2.4	31.0			
	900	GORK	41	F	0730.3	0731.9		22.0			
	9100	GORK	21	GRF	0848.0	0957.3	120.7	18.0			
	900	GORK	46	C	0922.1	0922.5	1.9	68.0			
	900	GORK	46	C	0922.1	0922.8		96.0			
	9100	GORK	4	S/F	0922.2	0922.7	3.1	22.0			
	3000	IZMI	22	GRF	0922.5	0923.1	2.1	30.0	16.0		
	900	GORK	46	C	0931.1	0936.2		12.0			
	900	GORK	46	C	0931.1	0931.9	11.6	15.0			

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	2950	GORK	4	S/F	0952.2	0952.8	3.6	30.0			
	900	GORK	46	C	1052.7	1053.3		150.0			
	900	GORK	46	C	1052.7	1052.9	0.8	55.0			
	9500	CUBA	2	S/F	1521.0	1543.0	31.0	10.0	5.0		
	245	SGMR	8	S	1702.0	1702.0	U	74.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1828.0	1842.0	64.0U	36.0			
	9500	CUBA	2	S/F	1839.3	1841.8	5.0	22.0	11.0		
	4995	SGMR	4	S/F	1840.0	1841.0	4.0	48.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1840.0	1841.0	4.0	37.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1841.0	1842.0	3.0	28.0			QL=4 ST=2 TYP=3
14	127	TORN	44	NS	0650.0E		390.0D		14.0		V=0
	204	IZMI	44	NS	0700.0E		300.0D		20.0		
	235	CUBA	44	NS	1305.0E		525.0D		13.0		
	280	CUBA	44	NS	1305.0E		525.0D		26.0		
	245	SGMR	43	NS	1314.0	1325.0	425.0	240.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1317.0	1325.0	113.0	220.0			QL=2 ST=3 TYP=1
	9100	GORK	2	S/F	0720.5	0721.0	2.0	8.6			
	2950	GORK	21	GRF	0745.0	0923.2	156.0	12.0			
	9100	GORK	41	F	0748.2	0749.7	5.5	280.0U			
	9100	GORK	41	F	0749.7	0751.9		60.0			
	204	IZMI	41	F	0805.9	0806.3	0.4	136.0			
	204	IZMI	46	C	0915.8	0916.0	0.3	247.0			
	9100	GORK	1	S	0920.5	0920.7	0.5	8.5			
	4995	SVTO	8	S	0921.0	0922.0	1.0	48.0			QL=4 ST=2 TYP=3
	9100	GORK	21	GRF	0921.4	0949.4	67.2	130.0			
	2950	GORK	2	S/F	0921.8	0922.0	0.5	5.6			
	9100	GORK	3	S	0921.8	0922.0	0.4	30.0			
	8800	SVTO	8	S	0922.0	0922.0	U	57.0			QL=4 ST=2 TYP=3
	600	GORK	42	SER	0927.2	0940.0		19.0			
	600	GORK	42	SER	0927.2	0935.0	13.0	16.0			
	9100	GORK	4	S/F	1030.2	1031.1	1.8	270.0			
	600	GORK	46	C	1052.9	1053.2	1.0	19.0			
	600	GORK	46	C	1052.9	1053.7		12.0			
	245	SGMR	8	S	1250.0	1250.0	U	96.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1250.0	1250.0	U	78.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	1634.0	1706.0	40.0	13.0			
	9500	CUBA	2	S/F	2145.0	2146.3	3.0	30.0	15.0		
	2800	HIRA	3	S	2157.0	2206.0	14.0	185.0			0
	245	PALE	49	GB	2202.0	2202.0	1.0	1700.0			QL=4 ST=2 TYP=6
	4995	LEAR	8	S	2204.0	2205.0	2.0	93.0			QL=2 ST=2 TYP=3
	2695	LEAR	4	S/F	2204.0	2205.0	4.0	98.0			QL=2 ST=2 TYP=3
	1415	LEAR	8	S	2205.0	2205.0	U	22.0			QL=2 ST=2 TYP=3
	2695	PALE	8	S	2205.0	2205.0	U	71.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2205.0	2205.0	1.0	92.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	2221.0	2221.0	U	23.0			QL=4 ST=2 TYP=3
15	127	TORN	44	NS	0650.0E		480.0D		8.0		V=1
	235	CUBA	44	NS	1310.0E		520.0D		7.0		
	280	CUBA	44	NS	1310.0E		520.0D		20.0		
	610	LEAR	8	S	0019.0	0020.0	1.0	23.0			QL=4 ST=2 TYP=3
	2804	VORO	2	S/F	0032.1	0032.5	1.2	4.4			
	245	LEAR	8	S	0111.0	0111.0	1.0	76.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0113.0	0115.5	5.0	31.7			
	200	HIRA	7	C	0202.0	0203.0	4.0	60.0			0
	245	LEAR	8	S	0204.0	0204.0	U	150.0			QL=4 ST=2 TYP=3
	2804	VORO	3	S	0414.3	0415.6	3.1	9.3			
	200	HIRA	7	C	0656.0	0658.0	3.0	40.0			0
	204	IZMI	7	C	0841.9	0841.9	0.1	20.0			
	2950	GORK	2	S/F	0851.8	0853.7	2.2	11.0			
	9100	GORK	46	C	0854.0	0854.2	0.5	28.0			
	9100	GORK	46	C	0854.0	0854.4		34.0			
	900	GORK	8	S	0948.4	0948.5	0.3	173.0			
	204	IZMI	42	SER	1120.7	1124.1	4.0	134.0			
	4995	SVTO	8	S	1123.0	1124.0	1.0	25.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1123.0	1124.0	2.0	41.0			QL=4 ST=2 TYP=3
	3000	IZMI	22	GRF	1123.0	1124.2	3.4	30.0	10.0		
	245	SVTO	8	S	1124.0	1124.0	U	67.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1124.0	1124.0	U	24.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
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NOVEMBER 2001

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	1415	SVTO	8	S	1124.0	1124.0	U	24.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1124.0	1124.0	U	37.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1129.0	1129.0	1.0	210.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1529.0	1529.0	U	90.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1640.0	1640.0	U	61.0			QL=4 ST=2 TYP=3
	410	SGMR	48	C	1645.0	1645.0	4.0	120.0			QL=4 ST=2 TYP=8
	2800	PENT	1	S	1706.0	1718.0	17.0	11.0			
	410	PALE	8	S	1715.0	1715.0	2.0	100.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1715.0	1715.0	U	62.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1839.0	1839.0	U	53.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	2047.0	2058.0	45.0U	9.0			
	500	HIRA	7	C	2301.0	2303.0	4.0	45.0			0
	410	LEAR	8	S	2302.0	2304.0	2.0	160.0			QL=4 ST=2 TYP=3
16	127	TORN	44	NS	0650.0E		340.0D		17.0		V=1
	235	CUBA	44	NS	1305.0E		525.0D		7.0		
	280	CUBA	44	NS	1305.0E		525.0D		15.0		
	410	SGMR	43	NS	1437.0	1437.0	6.0	89.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1751.0	1945.0	131.0	370.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1752.0	1800.0	190.0	220.0			QL=4 ST=2 TYP=1
	2804	VORO	2	S/F	0117.5	0118.5	2.7	7.6			
	245	LEAR	8	S	0124.0	0125.0	2.0	71.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0128.0	0128.0	U	35.0			QL=4 ST=2 TYP=3
	2804	VORO	41	F	0245.2	0246.2	4.1	9.5			
	2804	VORO	41	F	0245.2	0307.3	23.1	10.6			
	900	GORK	2	S/F	0727.5	0727.7	1.5	8.5			
	204	IZMI	42	SER	1001.9	1002.5	1.2	15.0			
	127	TORN	46	C	1001.9	1002.9	1.9	2300.0	160.0		
	900	GORK	41	F	1004.7	1005.0	0.7	8.5			
	900	GORK	41	F	1004.7	1005.2		13.0			
	900	GORK	4	S/F	1008.5	1013.3	5.6	43.0			
	410	SVTO	8	S	1040.0	1041.0	1.0	170.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1055.0	1056.0	2.0	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1116.0	1116.0	U	72.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1135.0	1137.0	2.0	200.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1238.0	1238.0	U	59.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1253.0	1253.0	U	78.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1253.0	1253.0	U	67.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1300.0	1300.0	U	120.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1424.0	1424.0	U	61.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1437.0	1437.0	U	89.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1437.0	1437.0	1.0	140.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1645.0	1645.0	U	57.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1751.0	1751.0	U	83.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2216.0	2217.0	1.0	50.0			QL=2 ST=2 TYP=3
17	410	LEAR	43	NS	0150.0	0201.0	88.0	170.0			QL=4 ST=2 TYP=1
	410	PALE	43	NS	0150.0	1400.0	730.0	180.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	0152.0	0221.0	86.0	400.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0153.0	0205.0	85.0	350.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0430.0	0442.0	167.0	100.0			QL=4 ST=2 TYP=1
	127	TORN	44	NS	0700.0E		188.0D		14.0		V=1
	204	IZMI	43	NS	0724.0		276.0D		35.0		
	245	SVTO	43	NS	0740.0	0855.0	121.0	220.0			QL=2 ST=2 TYP=1
	245	LEAR	43	NS	0844.0	0855.0	81.0	270.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1030.0	1309.0	234.0	360.0			QL=2 ST=2 TYP=1
	235	CUBA	44	NS	1310.0E		520.0D		10.0		
	280	CUBA	44	NS	1310.0E		520.0D		24.0		
	2800	HIRA	29	PBI		0518.0	86.0	85.0			0
	2804	VORO	28	PRE	0410.0	0442.5	32.5	8.8			
	200	HIRA	7	C	0422.0	0553.0	97.0	10.0			0
	2800	HIRA	3	S	0442.0	0459.0	36.0	145.0			0
	2840	PEKG	3	S	0442.0	0459.8	72.0	153.6			
	2804	VORO	46	C	0442.5	0459.5	17.8	144.0			
	500	HIRA	7	C	0443.0	0452.0	11.0	60.0			0
	8800	LEAR	20	GRF	0446.0	0459.0	88.0	89.0			QL=4 ST=2 TYP=2
	4995	LEAR	20	GRF	0446.0	0459.0	125.0	120.0			QL=4 ST=2 TYP=2
	1415	LEAR	8	S	0447.0	0449.0	2.0	23.0			QL=4 ST=2 TYP=3
	410	LEAR	4	S/F	0447.0	0450.0	7.0	100.0			QL=4 ST=2 TYP=3

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

NOVEMBER 2001

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	15400	LEAR	20	GRF	0447.0	0533.0	103.0	78.0			QL=4 ST=2 TYP=2
	2695	LEAR	20	GRF	0449.0	0459.0	124.0	150.0			QL=4 ST=2 TYP=2
	245	LEAR	20	GRF	0451.0	0455.0	7.0	200.0			QL=4 ST=2 TYP=2
	610	LEAR	48	C	0512.0	0533.0	35.0	230.0			QL=4 ST=2 TYP=8
	500	HIRA	7	C	0513.0	0528.0	46.0	170.0			0
	245	SVTO	48	C	0559.0E	0633.0U	35.0D	110.0			QL=4 ST=3 TYP=8
	410	SVTO	48	C	0559.0E	0632.0U	33.0D	56.0			QL=4 ST=3 TYP=8
	1415	SVTO	46	C	0559.0E	0630.0U	31.0D	21.0			QL=4 ST=3 TYP=8
	2695	SVTO	46	C	0559.0E	0625.0U	37.0D	30.0			QL=4 ST=3 TYP=8
	4995	SVTO	48	C	0559.0E	0612.0U	37.0D	64.0			QL=4 ST=3 TYP=8
	8800	SVTO	46	C	0559.0E	0625.0U	37.0D	44.0			QL=4 ST=3 TYP=8
	15400	SVTO	48	C	0611.0E	0628.0U	25.0D	72.0			QL=4 ST=3 TYP=8
	245	LEAR	8	S	0730.0	0730.0	1.0	150.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0730.0	0730.0	U	130.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0733.0	0733.0	U	59.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0740.0	0740.0	U	170.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0746.0	0746.0	U	120.0			QL=4 ST=2 TYP=3
	127	TORN	4	S/F	0832.7	0833.4	1.3	490.0	130.0		
	245	LEAR	8	S	0839.0	0839.0	1.0	190.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0914.0	0914.4	9.6	236.0			
	204	IZMI	42	SER	0935.8	0937.5	3.6	203.0			
	900	GORK	4	S/F	1017.0	1017.2	0.5	25.0			
	9100	GORK	1	S	1058.4	1059.0	1.9	15.0			
	2800	PENT	21	GRF	1640.0	1700.0	50.0	9.0			
18	235	CUBA	44	NS	1500.0E		410.0D		9.0		
	280	CUBA	44	NS	1500.0E		410.0D		17.0		
	2840	PEKG	3	S	0740.0	0746.1	20.0	139.2			
	1415	LEAR	8	S	0745.0	0746.0	2.0	54.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0745.0	0746.0	2.0	140.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0745.0	0746.0	1.0	32.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0745.0	0746.0	3.0	130.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0745.0	0746.0	2.0	140.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0745.0	0746.0	3.0	120.0			QL=4 ST=2 TYP=3
	2950	GORK	3	S	0745.4	0746.1	11.6	130.0			
	900	GORK	4	S/F	0745.4	0746.2	5.6	33.0			
	3000	IZMI	45	C	0745.6	0746.1	5.0	134.0	28.0		
	9100	GORK	3	S	0745.7	0746.0	2.4	30.0			
	600	GORK	46	C	0745.7	0746.1		11.0			
	600	GORK	46	C	0745.7	0745.9	1.5	17.0			
	1415	SVTO	8	S	0746.0	0746.0	1.0	60.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0746.0	0746.0	U	46.0			QL=4 ST=2 TYP=3
	3000	IZMI	1	S	0832.2	0832.2	0.1	38.0	12.0		
	9100	GORK	2	S/F	0852.6	0853.5	2.1	8.8			
	9100	GORK	21	GRF	0915.0	0949.5	99.0D	23.0			
	9100	GORK	4	S/F	0915.3	0915.6	0.7	140.0			
	2695	LEAR	4	S/F	0916.0	0917.0	7.0	120.0			QL=4 ST=2 TYP=3
	4995	SVTO	48	C	0916.0	0919.0	10.0	140.0			QL=4 ST=2 TYP=8
	2950	GORK	46	C	0916.1	0920.0		65.0			
	2950	GORK	23	GRF	0916.1	1003.0	97.9D	17.0			
	2950	GORK	23	GRF	0916.1	1041.2		17.0			
	2950	GORK	46	C	0916.1	0917.6	12.3	120.0			
	9100	GORK	46	C	0916.3	0917.5	13.5	75.0			
	9100	GORK	46	C	0916.3	0919.8		90.0			
	3000	IZMI	46	C	0916.8	0917.6	7.5	138.0	47.0		
	4995	LEAR	48	C	0917.0	0919.0	6.0	110.0			QL=4 ST=2 TYP=8
	8800	LEAR	48	C	0917.0	0919.0	6.0	110.0			QL=4 ST=2 TYP=8
	8800	SVTO	48	C	0917.0	0919.0	6.0	120.0			QL=4 ST=2 TYP=8
	1415	SVTO	8	S	0917.0	0919.0	2.0	47.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0917.0	0917.0	6.0	110.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	0917.0	0919.0	4.0	44.0			QL=4 ST=2 TYP=3
	900	GORK	41	F	0917.0	0922.1		13.0			
	900	GORK	41	F	0917.0	0918.7	8.7	16.0			
	15400	LEAR	8	S	0919.0	0919.0	1.0	38.0			QL=4 ST=2 TYP=3
	900	GORK	1	S	0940.5	0941.7	2.5	7.7			
	600	GORK	4	S/F	0940.7	0941.8	2.3	15.0			
	600	GORK	4	S/F	0949.4	0949.6	0.8	160.0U			
	9100	GORK	1	S	1029.7	1030.0	1.1	8.6			
	9100	GORK	1	S	1046.2	1047.2	2.4	6.7			

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

Outstanding Occurrences

NOVEMBER 2001

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	245	SVTO	8	S	1243.0	1244.0	1.0	55.0			QL=4 ST=2 TYP=3
	127	TORN	7	C	1244.4	1245.0U	1.0	130.0	40.0		DISTURBED
19	245	LEAR	43	NS	0301.0	0305.0	136.0	55.0			QL=4 ST=2 TYP=1
	127	TORN	44	NS	0750.0E		270.0D		12.0		V=0
	235	CUBA	44	NS	1300.0E		390.0D		7.0		
	280	CUBA	44	NS	1300.0E		390.0D		18.0		
	2804	VORO	21	GRF	0218.7	0234.0	32.0	6.4			
	2804	VORO	45	C	0228.2	0229.7	3.3	5.1			
	245	LEAR	48	C	0248.0	0250.0	4.0	88.0			QL=4 ST=2 TYP=8
	245	LEAR	8	S	0259.0	0259.0	U	130.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0530.0	0533.1	6.0	10.8			
	2840	PEKG	1	S	0645.0	0650.6	9.0	6.2			
	9100	GORK	23	GRF	0648.6	0659.2		17.0			
	9100	GORK	23	GRF	0648.6	0654.4	23.2	21.0			
	8800	LEAR	4	S/F	0649.0	0650.0	6.0	130.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0649.0	0651.0	8.0	52.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0649.0	0651.0	8.0	130.0			QL=4 ST=2 TYP=3
	9100	GORK	3	S	0649.8	0650.5	2.1	77.0			
	4995	LEAR	8	S	0650.0	0650.0	1.0	49.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0650.0	0650.0	1.0	140.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	0650.0	0650.0	7.0	98.0			QL=4 ST=2 TYP=3
	2950	GORK	2	S/F	0650.3	0650.7	1.5	5.6U			
	15400	LEAR	48	C	0800.0	0800.0	U	65.0			QL=4 ST=2 TYP=8
	900	GORK	42	SER	0801.6	0812.4		8.3			
	900	GORK	42	SER	0801.6	0801.8	10.9	6.2			
	2950	GORK	1	S	0803.8	0804.2	0.8	5.6			
	9100	GORK	4	S/F	0803.9	0804.2	2.8	22.0			
	15400	SVTO	8	S	0804.0	0804.0	U	67.0			QL=4 ST=3 TYP=3
	9500	CUBA	1	S	2111.0	2111.8	2.2	10.0	5.0		
20	204	IZMI	43	NS	0600.0		152.0		35.0		
	245	SVTO	43	NS	0712.0	0838.0	283.0	160.0			QL=2 ST=2 TYP=1
	245	LEAR	43	NS	0715.0	0736.0	108.0	140.0			QL=4 ST=2 TYP=1
	204	IZMI	44	NS	0832.0E		208.0D		10.0		
	235	CUBA	44	NS	1500.0E		210.0D		7.0		
	280	CUBA	44	NS	1500.0E		210.0D		17.0		
	245	SGMR	43	NS	1710.0	1717.0	48.0	140.0			QL=4 ST=2 TYP=1
	500	HIRA	7	C	0147.0	0149.0	4.0	55.0			0
	15400	LEAR	4	S/F	0147.0	0149.0	4.0	42.0			QL=4 ST=2 TYP=3
	2804	VORO	21	GRF	0147.0	0205.0	63.0	11.9			
	410	LEAR	8	S	0149.0	0149.0	1.0	180.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0149.0	0149.0	1.0	34.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0149.0	0149.0	U	180.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0154.0	0156.0	2.0	24.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0349.0	0350.0	1.0	78.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0434.0	0437.0	3.0	130.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0438.0	0439.0	1.0	80.0			QL=4 ST=2 TYP=3
	245	LEAR	48	C	0503.0	0507.0	5.0	110.0			QL=4 ST=2 TYP=8
	245	LEAR	8	S	0511.0	0512.0	2.0	170.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0530.0	0531.0	2.0	62.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0532.0	0533.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0537.0	0537.0	U	62.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0733.1	0733.2	0.6	178.0			
	9100	GORK	2	S/F	0744.8	0746.2	6.9	21.0			
	204	IZMI	42	SER	0801.4	0805.7	5.6	156.0			
	245	SVTO	48	C	0838.0	0840.0	4.0	460.0			QL=4 ST=2 TYP=8
	245	SVTO	48	C	0919.0	0920.0	1.0	380.0			QL=2 ST=2 TYP=8
	410	SVTO	8	S	0919.0	0919.0	U	35.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	1140.0	1140.0	1.0	7200.0			QL=2 ST=3 TYP=6
	610	SVTO	4	S/F	1213.0	1213.0	707.0	25.0			QL=2 ST=1 TYP=3
	15400	SVTO	46	C	1423.0	1423.0	U	25.0			QL=4 ST=3 TYP=8
	9500	CUBA	21	GRF	1431.0	1439.0	38.8	34.0	17.0		
	9500	CUBA	2	S/F	1433.0	1434.2	4.7	40.0	20.0		
	500	HIRA	8	S	2156.0	2156.0	1.0	25.0			0
21	204	IZMI	43	NS	0729.0		271.0D				
	127	TORN	43	NS	0730.0		280.0D		12.0		V=0
	245	SGMR	43	NS	1255.0	1437.0	232.0	330.0			QL=4 ST=2 TYP=1

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
21	280	CUBA	44	NS	1300.0E		530.0D		51.0		
	245	SVTO	43	NS	1305.0	1432.0	119.0	220.0			QL=2 ST=2 TYP=1
	410	SGMR	43	NS	1348.0	1430.0	60.0	110.0			QL=4 ST=2 TYP=1
	410	SVTO	43	NS	1350.0	1431.0	74.0	120.0			QL=2 ST=2 TYP=1
	1415	LEAR	8	S	0249.0	0249.0	U	83.0			QL=4 ST=2 TYP=3
	2804	VORO	21	GRF	0309.0	0315.0	42.0	6.1			
	2804	VORO	2	S/F	0317.5	0318.4	3.0	9.0			
	1415	LEAR	48	C	0409.0	0411.0	9.0	95.0			QL=4 ST=2 TYP=8
	2804	VORO	20	GRF	0409.0	0422.8	27.0	28.2			
	8800	SVTO	48	C	0729.0	0734.0	9.0	100.0			QL=4 ST=2 TYP=8
	2840	PEKG	3	S	0729.0	0734.1	13.0	20.3			
	9100	GORK	4	S/F	0730.9	0733.9	11.1	68.0			
	4995	SVTO	48	C	0731.0	0734.0	6.0	72.0			QL=4 ST=2 TYP=8
	3000	IZMI	20	GRF	0731.5	0734.1	3.7	20.0	10.0		
	2950	GORK	1	S	0732.3	0733.8	5.7	8.8			
	4995	LEAR	8	S	0733.0	0734.0	1.0	61.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0733.0	0733.0	1.0	75.0			QL=4 ST=2 TYP=3
	15400	SVTO	46	C	0733.0	0734.0	1.0	35.0			QL=4 ST=2 TYP=8
	9100	GORK	2	S/F	0748.1	0749.9	4.6	22.0			
	600	GORK	42	SER	0805.2	0805.4	15.6	55.0			
	600	GORK	42	SER	0805.2	0811.9		25.0			
	9100	GORK	46	C	0827.6	0830.3		27.0			
	9100	GORK	46	C	0827.6	0829.6	3.8	39.0			
	9100	GORK	29	PBI	0832.4	0832.4	6.4	15.0			
	9100	GORK	1	S	1006.8	1007.3	1.6	12.0			
	280	CUBA	27	RF	1305.5	1330.4	199.6	368.0	184.0		
	410	SGMR	8	S	1338.0	1338.0	U	72.0			QL=4 ST=2 TYP=3
22	127	TORN	44	NS	0700.0E		220.0D		10.0		V=1
	235	CUBA	44	NS	1300.0E		530.0D		6.0		
	280	CUBA	44	NS	1300.0E		530.0D		19.0		
	2804	VORO	1	S	0059.0	0059.8	2.0	13.7			
	2840	PEKG	1	S	0154.0	0159.7	10.0	9.2			
	2804	VORO	41	F	0307.5	0308.2	2.5	6.5			
	2804	VORO	41	F	0307.5	0312.6	5.1	6.5			
	410	PALE	48	C	0321.0	0323.0	2.0	57.0			QL=4 ST=3 TYP=8
	2804	VORO	46	C	0338.8	0341.8	5.0	6.5			
	2804	VORO	45	C	0454.5	0455.4	2.6	10.5			
	2695	LEAR	8	S	0728.0	0728.0	1.0	46.0			QL=4 ST=2 TYP=3
	2840	PEKG	45	C	0734.0	0739.1	7.0	66.2			
	3000	IZMI	42	SER	0735.9	0739.0	8.0	50.0			
	2695	SVTO	4	S/F	0736.0	0739.0	3.0	58.0			QL=4 ST=2 TYP=3
	2840	PEKG	45	C	0741.5	0743.0	5.0	17.8			
	3000	IZMI	20	GRF	0804.8	0805.2	1.5	8.0	4.0		
	1415	LEAR	8	S	0934.0	0935.0	1.0	64.0			QL=4 ST=2 TYP=3
	900	GORK	2	S/F	0950.1	0950.9	1.5	12.0			
	900	GORK	2	S/F	1049.3	1049.6	1.2	6.7			
	33	UPIC	48	C	1206.5	1208.0	7.0				
	410	SVTO	8	S	1219.0	1220.0	1.0	230.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1337.0	1337.0	U	54.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1337.0	1337.0	U	110.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1448.0	1448.0	3.0	97.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1449.0	1449.0	U	79.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1644.0	1706.0	48.0U	19.0			
	8800	SGMR	4	S/F	1704.0	1707.0	10.0	140.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1705.0	1706.0	4.0	73.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1705.0	1707.3	4.8	98.0	49.0		
	1415	SGMR	8	S	1708.0	1710.0	2.0	230.0			QL=4 ST=2 TYP=3
	15400	SGMR	46	C	1712.0	1712.0	U	26.0			QL=4 ST=2 TYP=8
	245	SGMR	8	S	1828.0	1828.0	1.0	450.0			QL=4 ST=2 TYP=3
	9500	CUBA	47	GB	2022.0	2027.4	15.5	519.0	259.0		
	1415	PALE	48	C	2023.0	2023.0	14.0	130.0			QL=4 ST=2 TYP=8
	2695	PALE	49	GB	2023.0	2027.0	16.0	630.0			QL=4 ST=2 TYP=6
	4995	PALE	48	C	2023.0	2027.0	217.0	580.0			QL=4 ST=1 TYP=8
	8800	PALE	48	C	2032.0	2032.0	4.0	190.0			QL=4 ST=2 TYP=8
	245	SGMR	8	S	2033.0	2033.0	U	62.0			QL=4 ST=2 TYP=3
	9500	CUBA	29	PBI	2037.5		57.5	76.0	38.0		
	245	PALE	8	S	2038.0	2039.0	1.0	260.0			QL=4 ST=2 TYP=3
	1415	LEAR	48	C	2158.0	2204.0	146.0	43000.0			QL=4 ST=3 TYP=8

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	2695	LEAR	48	C	2159.0	2257.0	145.0	9700.0			QL=4 ST=3 TYP=8
	1415	PALE	48	C	2159.0	0043.0	164.0	53000.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	2159.0	2259.0	165.0	1000.0			QL=4 ST=2 TYP=8
	9500	CUBA	4	S/F	2159.0	2203.2	7.0	204.0	102.0		
	2800	HIRA	47	GB	2200.0	2204.0	9.0	4415.0			0
	500	HIRA	8	S	2201.0	2202.0	2.0	165.0			0
	610	PALE	48	C	2201.0	2202.0	3.0	210.0			QL=4 ST=2 TYP=8
	245	PALE	49	GB	2201.0	2202.0	1.0	2700.0			QL=4 ST=2 TYP=6
	4995	LEAR	4	S/F	2201.0	2203.0	119.0	180.0			QL=4 ST=1 TYP=3
	610	PALE	48	C	2201.0	2357.0	117.0	3500.0			QL=4 ST=2 TYP=8
	245	PALE	48	C	2201.0	0042.0	161.0	2700.0			QL=4 ST=2 TYP=8
	245	LEAR	48	C	2201.0	2315.0U	143.0	2900.0			QL=4 ST=3 TYP=8
	410	LEAR	48	C	2201.0	2257.0U	143.0	2300.0			QL=4 ST=3 TYP=8
	610	LEAR	48	C	2201.0	2255.0U	140.0	1200.0			QL=4 ST=3 TYP=8
	200	HIRA	8	S	2202.0	2202.0	1.0	300.0			0
	410	PALE	8	S	2202.0	2202.0	1.0	340.0			QL=4 ST=2 TYP=3
	410	PALE	48	C	2202.0	2355.0	115.0	3100.0			QL=4 ST=2 TYP=8
	4995	LEAR	48	C	2202.0	2257.0	142.0	1000.0			QL=4 ST=3 TYP=8
	4995	PALE	48	C	2202.0	2305.0	173.0	1100.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	2202.0	2305.0	173.0	790.0			QL=4 ST=2 TYP=8
	8800	LEAR	4	S/F	2203.0	2203.0	117.0	120.0			QL=4 ST=1 TYP=3
	15400	LEAR	48	C	2203.0	2300.0	141.0	320.0			QL=4 ST=3 TYP=8
	15400	PALE	8	S	2204.0	2204.0	1.0	31.0			QL=4 ST=2 TYP=3
	8800	LEAR	48	C	2204.0	2302.0	140.0	640.0			QL=4 ST=3 TYP=8
	15400	PALE	48	C	2204.0	2302.0	143.0	290.0			QL=4 ST=2 TYP=8
	500	HIRA	47	GB	2227.0	2325.0	95.0	1410.0			0
	200	HIRA	47	GB	2232.0	2317.0	68.0	870.0			0
	2800	HIRA	47	GB	2245.0	2259.0	67.0	1115.0			0
	2804	VORO	46	C	2327.5	2327.5	25.0	217.0			
	2840	PEKG	3	S	2330.0E	2331.4	42.0D	278.5			
	2804	VORO	29	PBI	2352.5	2352.5	270.0	91.0			
23	33	UPIC	43	NS	0745.0		413.0				
	235	CUBA	44	NS	1315.0E		515.0D		5.0		
	280	CUBA	44	NS	1315.0E		515.0D		20.0		
	410	LEAR	8	S	0115.0	0115.0	U	54.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0119.0	0119.0	U	47.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0525.0	0529.0	7.0	47.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0529.0	0529.0	1.0	50.0			0
	600	GORK	42	SER	0740.6	0748.4		50.0			
	600	GORK	42	SER	0740.6	0744.8	8.0	19.0			
	2695	LEAR	46	C	0828.0	0828.0	2.0	35.0			QL=4 ST=2 TYP=8
	8800	LEAR	48	C	0828.0	0828.0	1.0	100.0			QL=4 ST=2 TYP=8
	1415	LEAR	8	S	0828.0	0828.0	1.0	87.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0828.0	0828.0	2.0	82.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0828.0	0828.0	1.0	170.0			QL=4 ST=2 TYP=3
	600	GORK	46	C	0828.9	0834.1		190.0			
	600	GORK	46	C	0828.9	0830.3	6.2	210.0			
	410	SVTO	48	C	0829.0	0830.0	2.0	170.0			QL=4 ST=2 TYP=8
	245	SVTO	49	GB	0829.0	0829.0	4.0	1300.0			QL=4 ST=3 TYP=6
	900	GORK	4	S/F	0829.1	0830.6U	6.5	130.0U			
	204	IZMI	42	SER	0829.6	0830.3	4.4	4761.0			
	9100	GORK	46	C	0829.7	0830.3	6.3	144.0			
	9100	GORK	46	C	0829.7	0830.9		130.0			
	3000	IZMI	41	F	0829.8	0830.4	4.5	46.0	13.0		
	2695	SVTO	46	C	0830.0	0830.0	1.0	41.0			QL=4 ST=2 TYP=8
	8800	SVTO	48	C	0830.0	0830.0	2.0	130.0			QL=4 ST=2 TYP=8
	1415	SVTO	8	S	0830.0	0830.0	1.0	95.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0830.0	0830.0	2.0	190.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0830.0	0831.0	3.0	100.0			QL=4 ST=2 TYP=3
	610	SVTO	48	C	0833.0	0834.0	1.0	67.0			QL=4 ST=2 TYP=8
	9100	GORK	40	F	0908.1	0910.1	2.5	265.0U			
	600	GORK	40	F	0911.7	0942.3	32.0	25.0			
	600	GORK	2	S/F	0932.1	0933.3	2.1	25.0			
	245	SVTO	48	C	1056.0	1058.0	2.0	63.0			QL=4 ST=2 TYP=8
	610	SVTO	48	C	1109.0	1110.0	4.0	100.0			QL=4 ST=2 TYP=8
	410	SVTO	8	S	1109.0	1110.0	2.0	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1116.0	1116.0	1.0	77.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1136.0	1136.0	U	51.0			QL=4 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 2001

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
23	245	SVTO	8	S	1139.0	1139.0	U	88.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	1709.0	1716.0	15.0	13.0			
	610	SGMR	8	S	1911.0	1911.0	1.0	210.0			QL=4 ST=2 TYP=3
	1415	LEAR	48	C	2158.0	2204.0	146.0	43000.0			QL=4 ST=3 TYP=8
	2695	LEAR	48	C	2159.0	2257.0	145.0	9700.0			QL=4 ST=3 TYP=8
	1415	PALE	48	C	2159.0	0043.0	164.0	53000.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	2159.0	2259.0	165.0	1000.0			QL=4 ST=2 TYP=8
	610	PALE	48	C	2201.0	2357.0	117.0	3500.0			QL=4 ST=2 TYP=8
	245	PALE	48	C	2201.0	0042.0	161.0	2700.0			QL=4 ST=2 TYP=8
	245	LEAR	48	C	2201.0	2315.0U	143.0	2900.0			QL=4 ST=3 TYP=8
	410	LEAR	48	C	2201.0	2257.0U	143.0	2300.0			QL=4 ST=3 TYP=8
	610	LEAR	48	C	2201.0	2255.0U	140.0	1200.0			QL=4 ST=3 TYP=8
	410	PALE	48	C	2202.0	2355.0	115.0	3100.0			QL=4 ST=2 TYP=8
	4995	LEAR	48	C	2202.0	2257.0	142.0	1000.0			QL=4 ST=3 TYP=8
	4995	PALE	48	C	2202.0	2305.0	173.0	1100.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	2202.0	2305.0	173.0	790.0			QL=4 ST=2 TYP=8
	15400	LEAR	48	C	2203.0	2300.0	141.0	320.0			QL=4 ST=3 TYP=8
	8800	LEAR	48	C	2204.0	2302.0	140.0	640.0			QL=4 ST=3 TYP=8
	15400	PALE	48	C	2204.0	2302.0	143.0	290.0			QL=4 ST=2 TYP=8
	410	LEAR	8	S	2258.0	2258.0	U	54.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	2353.0E	2353.0	2.0D	93.0			QL=4 ST=2 TYP=3
24	127	TORN	43	NS	0730.0		42.0D		6.0		V=0
	235	CUBA	44	NS	1500.0E		410.0D		5.0		
	280	CUBA	44	NS	1500.0E		410.0D		15.0		
	15400	PALE	8	S	0002.0	0002.0	U	60.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0016.0	0016.0	1.0	59.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0453.0	0455.4	8.0	18.7			
	15400	LEAR	8	S	0454.0	0455.0	2.0	94.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0454.0	0455.0	5.0	86.0			QL=4 ST=2 TYP=3
	2804	VORO	29	PBI	0457.1	0457.1	13.0	5.3			
	2840	PEKG	5	S	0547.0	0551.1	8.0	41.2			
	2800	HIRA	3	S	0549.0	0551.0	5.0	45.0			0
	500	HIRA	8	S	0549.0	0551.0	4.0	85.0			0
	410	LEAR	4	S/F	0549.0	0551.0	4.0	130.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0549.0	0551.0	4.0	120.0			QL=4 ST=2 TYP=3
	200	HIRA	7	C	0550.0	0553.0	4.0	30.0			0
	2695	LEAR	8	S	0550.0	0551.0	1.0	34.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0550.0	0551.0	2.0	250.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0550.0	0551.0	2.0	170.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0551.0	0551.0	U	28.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0551.0	0551.0	U	29.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0640.0	0641.0	1.0	50.0			QL=4 ST=2 TYP=3
	9100	GORK	7	C	0730.0	0730.6	4.2	8.7			
	9100	GORK	7	C	0730.0	0731.9		17.0			
	9100	GORK	40	F	0802.6	0804.5	3.4	300.0U			
	9100	GORK	46	C	0810.2	0810.4	0.5	35.0			
	9100	GORK	46	C	0810.2	0810.6		20.0			
	245	LEAR	8	S	0855.0	0855.0	1.0	80.0			QL=4 ST=2 TYP=3
	33	UPIC	48	C	0905.5	0910.5	9.5				
	9100	GORK	40	F	0912.2	0914.2	4.9	38.0			
	3000	IZMI	40	F	0940.2	0940.9	7.4	7.0	3.0		
	3000	IZMI	22	GRF	0949.1	0950.0	4.9	12.0	4.0		
	900	GORK	42	SER	1009.9	1010.0	47.8	6.2			
	900	GORK	42	SER	1009.9	1057.4		30.0			
	410	SGMR	48	C	1455.0	1455.0	2.0	91.0			QL=4 ST=2 TYP=8
	15400	SVTO	8	S	1500.0	1501.0	2.0	52.0			QL=2 ST=2 TYP=3
	9500	CUBA	21	GRF	1600.0	1607.0	18.0	17.0	8.0		
	15400	SGMR	4	S/F	1604.0	1606.0	3.0	100.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1605.4	1606.2	1.3	22.0	11.0		
	8800	SGMR	46	C	1708.0	1708.0	1.0	38.0			QL=4 ST=2 TYP=8
	15400	SGMR	48	C	1708.0	1708.0	7.0	79.0			QL=4 ST=2 TYP=8
	9500	CUBA	1	S	1708.0	1708.8	2.0	29.0	14.0		
	9500	CUBA	21	GRF	1747.0	1754.0	25.0	19.0	9.0		
	4995	PALE	48	C	1749.0	1750.0	4.0	56.0			QL=4 ST=2 TYP=8
	2695	SGMR	48	C	1749.0	1752.0	6.0	72.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	1749.0	1750.0	7.0	72.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	1749.0	1750.0	5.0	51.0			QL=4 ST=2 TYP=8
	9500	CUBA	2	S/F	1749.0	1750.5	5.0	31.0	15.0		

SOLAR RADIO EMISSION
Outstanding Occurrences

NOVEMBER 2001

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	2695	PALE	4	S/F	1750.0	1752.0	3.0	58.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1750.0	1753.0	3.0	86.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1751.0	1752.0	1.0	27.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1753.0	1753.0	U	73.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1912.9	1914.3	3.1	13.0	6.0		
	245	PALE	8	S	2114.0	2114.0	U	110.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2116.0	2116.0	U	51.0			QL=4 ST=2 TYP=3
25	127	TORN	44	NS	0700.0E		400.0D		7.0		V=0
	280	CUBA	44	NS	1310.0E		350.0D		15.0		
	245	LEAR	8	S	0004.0	0004.0	1.0	98.0			QL=4 ST=2 TYP=3
	2804	VORO	28	PRE	0100.0	0105.0	12.5	7.6			
	2840	PEKG	5	S	0110.0	0112.9	6.0	45.7			
	500	HIRA	8	S	0112.0	0113.0	2.0	105.0			0
	200	HIRA	47	GB	0112.0	0113.0	2.0	3095.0			0
	245	LEAR	49	GB	0112.0	0112.0	1.0	68000.0			QL=4 ST=2 TYP=6
	410	LEAR	8	S	0112.0	0112.0	1.0	160.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0112.0	0112.0	1.0	55.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	0112.0	0113.0	1.0	66000.0			QL=4 ST=2 TYP=6
	410	PALE	8	S	0112.0	0113.0	2.0	220.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0112.0	0113.0	1.0	63.0			QL=4 ST=2 TYP=3
	2804	VORO	46	C	0112.5	0113.1	1.8	42.0			
	2800	HIRA	8	S	0113.0	0113.0	1.0	40.0			0
	2695	LEAR	8	S	0113.0	0113.0	U	25.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0113.0	0113.0	U	42.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0203.0	0205.8	5.0	16.4			
	2804	VORO	46	C	0204.8	0205.1	1.7	28.5			
	2800	HIRA	3	S	0205.0	0206.0	2.0	30.0			0
	4995	LEAR	8	S	0205.0	0205.0	1.0	59.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0424.0	0426.7	6.0	10.0			
	2804	VORO	1	S	0425.6	0426.0	1.2	7.6			
	4995	LEAR	8	S	0426.0	0426.0	1.0	40.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0543.0	0544.0	1.0	140.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	0839.9	0840.8	2.5	13.0			
	9100	GORK	3	S	0917.5	0918.1	1.0	39.0			
	8800	SVTO	8	S	0918.0	0918.0	2.0	63.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0918.0	0918.0	U	21.0			QL=4 ST=2 TYP=3
	9100	GORK	29	PBI	0922.0	0922.0	3.5	8.5			
	9100	GORK	7	C	0926.1	0927.2		24.0			
	9100	GORK	7	C	0926.1	0926.8	1.9	24.0			
	9100	GORK	46	C	0947.4	0950.0		37.0			
	9100	GORK	21	GRF	0947.4	0957.0	36.6D	42.0			
	9100	GORK	46	C	0947.4	0948.5	4.2	17.0			
	15400	LEAR	20	GRF	0948.0	0949.0	7.0	160.0			QL=2 ST=2 TYP=2
	15400	SVTO	48	C	0948.0	0949.0	9.0	130.0			QL=4 ST=2 TYP=8
	2950	GORK	21	GRF	0948.0	0955.0	28.5	5.4			
	2950	GORK	4	S/F	0949.0	0950.1	1.7	13.0			
	8800	SVTO	4	S/F	1139.0	1141.0	5.0	66.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1141.0	1141.0	U	21.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1429.7	1430.4	2.2	7.0	3.0		
	9500	CUBA	21	GRF	1539.0	1547.0	39.0	12.0	6.0		
	9500	CUBA	1	S	1540.1	1541.5	2.5	11.0	5.0		
	2800	PENT	1	S	1649.0	1655.0	12.0	9.0			
	410	SGMR	8	S	1650.0	1650.0	1.0	100.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1652.8	1653.5	3.2	33.0	16.0		
	280	CUBA	7	C	1654.4	1656.2	2.8	122.0	61.0		
	410	SGMR	8	S	1655.0	1656.0	1.0	180.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1655.0	1656.0	1.0	42.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1656.0	1656.0	U	84.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2252.0	2253.0	1.0	56.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2300.0	2300.0	1.0	54.0			QL=4 ST=2 TYP=3
26	127	TORN	44	NS	0700.0E		220.0D		11.0		V=1
	610	PALE	8	S	0103.0	0104.0	1.0	71.0			QL=4 ST=3 TYP=3
	500	HIRA	7	C	0104.0	0106.0	2.0	185.0			0
	610	LEAR	8	S	0104.0	0104.0	U	81.0			QL=4 ST=2 TYP=3
	2804	VORO	41	F	0253.3	0256.1	4.4	87.4			
	2804	VORO	41	F	0253.3	0302.5	9.2	44.8			
	2840	PEKG	5	S	0744.0	0747.8	9.0	34.3			

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

NOVEMBER 2001

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	9100	GORK	4	S/F	0745.3	0747.6	7.7	120.0			
	2950	GORK	4	S/F	0745.5	0748.4	6.0	33.0			
	4995	LEAR	4	S/F	0746.0	0747.0	3.0	110.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0746.0	0747.0	3.0	130.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0746.0	0747.0	4.0	100.0			QL=4 ST=2 TYP=3
	3000	IZMI	22	GRF	0746.6	0748.2	3.5	32.0	14.0		
	2695	LEAR	8	S	0747.0	0748.0	1.0	26.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0747.0	0747.0	1.0	31.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0747.0	0748.0	1.0	25.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0747.0	0747.0	2.0	150.0			QL=4 ST=2 TYP=3
	33	UPIC	46	C	0824.5	0826.5	7.0				
	9100	GORK	4	S/F	1043.6	1044.0	1.0	16.0			
	410	SVTO	8	S	1049.0	1050.0	1.0	390.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1813.0	1814.0	1.0	490.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1813.0	1813.0	1.0	37.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1813.0	1814.0	1.0	150.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1814.0	1814.0	U	680.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1814.0	1814.0	U	55.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1814.0	1814.0	U	200.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	1956.0	2000.0	8.0	30.0			
	9500	CUBA	1	S	2000.0	2001.8	4.0	27.0	13.0		
	245	LEAR	8	S	2340.0	2340.0	1.0	260.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2340.0	2341.0	1.0	310.0			QL=4 ST=2 TYP=3
27	127	TORN	43	NS	0730.0		240.0		12.0		V=0
	280	CUBA	44	NS	1400.0E		4450.0D		15.0		
	9100	GORK	1	S	0741.1	0741.7	1.2	8.2			
	9100	GORK	1	S	0840.4	0840.6	0.8	8.3			
	900	GORK	1	S	0852.5	0852.7	0.4	5.6			
	33	UPIC	48	C	0908.0	0909.5	28.0				
	9100	GORK	1	S	0925.8	0926.3	1.0	8.3			
	3000	IZMI	22	GRF	1023.6	1027.1	5.0	16.0	6.0		
	2950	GORK	3	S	1026.0U	1027.3	2.6D	14.0			
	900	GORK	41	F	1026.2	1028.0		4.4			
	900	GORK	41	F	1026.2	1026.3	2.2	12.0			
	9500	CUBA	2	S/F	1434.3	1435.4	2.3	44.0	22.0		
	245	SGMR	8	S	1435.0	1435.0	1.0	330.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1435.0	1435.0	U	46.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1435.0	1435.0	1.0	250.0			QL=2 ST=2 TYP=3
	9500	CUBA	21	GRF	1542.0	1554.0	38.0	11.0	5.0		
	9500	CUBA	3	S	1543.8	1544.2	7.3	69.0	34.0		
	2695	SGMR	8	S	1545.0	1546.0	2.0	63.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1545.0	1546.0	2.0	99.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1545.0	1546.0	2.0	88.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1545.0	1546.0	1.0	34.0			QL=4 ST=2 TYP=3
	2800	PENT	4	S/F	2058.0	2117.0	33.0	32.0			
28	127	TORN	43	NS	0728.0		272.0		4.0		V=1
	245	SGMR	43	NS	1240.0	1246.0	6.0	150.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1305.0E		525.0D		5.0		
	280	CUBA	44	NS	1305.0E		525.0D		17.0		
	2804	VORO	2	S/F	0123.6	0124.4	1.3	4.5			
	245	LEAR	8	S	0428.0	0428.0	1.0	130.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0429.0	0429.0	1.0	45.0			0
	200	HIRA	8	S	0429.0	0429.0	1.0	70.0			0
	900	GORK	8	S	0823.3	0823.6	0.7	145.0			
	900	GORK	1	S	0841.4	0841.6	0.4	7.5			
	9100	GORK	2	S/F	0909.3	0910.0	1.3	10.0			
	9100	GORK	4	S/F	0942.0	0942.4	0.8	53.0			
	9100	GORK	40	F	0951.5	0952.7	1.7	18.0			
	2950	GORK	2	S/F	1020.8	1021.3	1.1	7.4			
	9100	GORK	2	S/F	1020.9	1021.6	1.1	9.9			
	900	GORK	2	S/F	1030.0	1030.4	0.7	10.0			
	204	IZMI	42	SER	1147.6	1149.0	1.8	24.0			
	245	SVTO	8	S	1245.0	1246.0	2.0	140.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1319.0	1319.0	U	150.0			QL=4 ST=2 TYP=3
	9500	CUBA	21	GRF	1322.0	1410.0	123.0	9.0	4.0		
	9500	CUBA	1	S	1449.0	1450.5	3.0	9.0	4.0		
	610	SGMR	8	S	1450.0	1450.0	1.0	62.0			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 2001

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
28	245	SGMR	8	S	1454.0	1455.0	2.0	230.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1454.0	1456.0	2.0	440.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1454.0	1454.0	U	38.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1455.0	1456.0	1.0	79.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1455.0	1455.0	1.0	130.0			QL=2 ST=2 TYP=3
	9500	CUBA	1	S	1455.8	1456.2	2.2	23.0	11.0		
	410	SGMR	8	S	1514.0	1514.0	U	90.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1522.0	1522.0	2.0	1900.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1522.0	1522.0	U	300.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1540.0	1542.0	3.0	160.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1540.0	1542.0	3.0	220.0			QL=4 ST=2 TYP=3
	9500	CUBA	3	S	1540.8	1541.8	3.2	109.0	54.0		
	245	SGMR	49	GB	1541.0	1542.0	1.0	670.0			QL=4 ST=2 TYP=6
	1415	SGMR	8	S	1542.0	1542.0	U	27.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1542.0	1542.0	U	26.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1542.0	1542.0	U	57.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1542.0	1542.0	1.0	140.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1542.0	1542.0	1.0	88.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1559.0	1559.0	1.0	240.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1559.0	1600.0	1.0	27.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1559.0	1559.0	1.0	89.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1559.0	1559.0	U	40.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1559.0	1559.0	1.0	63.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1559.0	1559.0	U	57.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1559.0	1559.2	1.0	32.0	16.0		
	2800	PENT	29	PBI	1626.0	1633.0	33.0	370.0			
	245	SGMR	48	C	1627.0	1633.0	16.0	12000.0			QL=4 ST=2 TYP=8
	410	SGMR	48	C	1628.0	1633.0	16.0	10000.0			QL=4 ST=2 TYP=8
	9500	CUBA	49	GB	1630.8	1632.2	4.2	883.0	441.0		
	610	SGMR	48	C	1632.0	1633.0	12.0	1700.0			QL=4 ST=2 TYP=8
	8800	SGMR	8	S	1633.0	1633.0	2.0	1400.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1633.0	1634.0	7.0	580.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1633.0	1634.0	4.0	450.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1633.0	1634.0	3.0	570.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	1633.0	1633.0	9.0	2000.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1703.0	1703.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1704.0	1704.0	U	600.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	1801.0	1801.0	1.0	53.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1801.0	1801.0	1.0	71.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1801.0	1801.6	1.0	17.0	8.0		
	8800	PALE	4	S/F	1802.0	1802.0	3.0	45.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1913.0	1913.0	U	210.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1913.0	1913.0	U	160.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1944.0	1944.0	U	130.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1944.0	1944.0	U	300.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	2228.0	2229.0	9.0	17.0			
	8800	LEAR	8	S	2317.0	2318.0	2.0	92.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	2317.0	2319.0	3.0	73.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2317.0	2318.0	2.0	120.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2318.0	2318.0	1.0	69.0			QL=4 ST=2 TYP=3
29	127	TORN	44	NS	0700.0E		450.0D		8.0		V=1
	245	SGMR	43	NS	1224.0	1547.0	230.0	560.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1505.0E		405.0D		5.0		
	280	CUBA	44	NS	1505.0E		405.0D		17.0		
	245	LEAR	8	S	0110.0	0110.0	1.0	380.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0120.0	0121.0	2.0	60.0			0
	2840	PEKG	3	S	0143.0	0149.3	14.0	190.7			
	200	HIRA	47	GB	0144.0	0150.0	8.0	1030.0			0
	245	LEAR	49	GB	0144.0	0144.0	1.0	1200.0			QL=4 ST=2 TYP=6
	410	LEAR	49	GB	0144.0	0144.0	3.0	2000.0			QL=4 ST=2 TYP=6
	8800	LEAR	4	S/F	0144.0	0145.0	5.0	140.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	0144.0	0144.0	3.0	5200.0			QL=4 ST=2 TYP=3
	2804	VORO	41	F	0144.4	0145.4	3.4	23.6			
	2804	VORO	41	F	0144.4	0149.4	5.3	97.3			
	2800	HIRA	7	C	0145.0	0149.0	7.0	160.0			0
	500	HIRA	47	GB	0145.0	0145.0	4.0	690.0			0
	1415	LEAR	8	S	0145.0	0145.0	2.0	38.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0145.0	0145.0	U	25.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

NOVEMBER 2001

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	4995	LEAR	8	S	0145.0	0145.0	1.0	81.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0145.0	0145.0	2.0	180.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	0148.0	0151.0	3.0	1800.0			QL=4 ST=2 TYP=8
	610	PALE	8	S	0149.0	0149.0	U	54.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0149.0	0149.0	U	100.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0149.0	0149.0	U	100.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0149.0	0149.0	U	70.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	0149.0	0149.0	U	130.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0340.0	0341.0	2.0	40.0			WR
	610	LEAR	8	S	0441.0	0442.0	1.0	100.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0442.0	0442.0	1.0	240.0			0
	500	HIRA	47	GB	0515.0	0521.0	8.0	775.0			0
	200	HIRA	47	GB	0515.0	0521.0	8.0	1430.0			0
	245	LEAR	8	S	0516.0	0517.0	1.0	440.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0516.0	0516.0	1.0	260.0			QL=4 ST=2 TYP=3
	2804	VORO	2	S/F	0516.2	0517.0	1.5	4.9			
	2840	PEKG	5	S	0519.0	0521.0	5.0	22.1			
	2800	HIRA	1	S	0521.0	0521.0	2.0	30.0			0
	245	LEAR	49	GB	0521.0	0521.0	U	1900.0			QL=4 ST=2 TYP=6
	410	LEAR	49	GB	0521.0	0521.0	U	7100.0			QL=4 ST=2 TYP=6
	610	LEAR	8	S	0521.0	0521.0	1.0	480.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0521.0	0521.0	U	37.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0521.0	0521.0	U	57.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0521.0	0521.0	1.0	210.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0521.0	0521.0	1.0	200.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0728.1	0728.7	1.5	16.0			
	9100	GORK	1	S	0745.0	0745.7	1.7	8.6			
	204	IZMI	42	SER	0754.9	0755.6	2.7	33.0			
	204	IZMI	42	SER	0814.9	0815.4	0.7	11.0			
	9100	GORK	2	S/F	0920.0	0920.4	0.8	21.0			
	9100	GORK	23	GRF	0949.7	1030.0		65.0			
	9100	GORK	23	GRF	0949.7	0959.7	49.0D	14.0			
	9100	GORK	28	PRE	1011.5	1019.6	8.3	31.0			
	2950	GORK	45	C	1018.4	1021.4	4.7	27.0			
	2950	GORK	45	C	1018.4	1022.4		32.0			
	3000	IZMI	46	C	1018.4	1022.4	19.0	60.0	28.0		
	2950	GORK	21	GRF	1018.4	1027.8	21.0D	22.0			
	4995	SVTO	4	S/F	1019.0	1021.0	8.0	170.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1019.0	1021.0	8.0	120.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	1019.0	1021.0	11.0	220.0			QL=4 ST=2 TYP=3
	9100	GORK	46	C	1019.8	1021.3	9.9	235.0			
	9100	GORK	46	C	1019.8	1025.7		55.0			
	8800	LEAR	4	S/F	1020.0	1021.0	3.0	270.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1020.0	1022.0	7.0	34.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1020.0	1021.0	7.0	240.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	1021.0	1023.0	2.0	49.0			QL=4 ST=2 TYP=3
	9100	GORK	4	S/F	1032.7	1034.7	4.5	51.0			
	33	UPIC	41	F	1041.0	1102.5	187.5				
	4995	SVTO	4	S/F	1046.0	1058.0	16.0	83.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1057.0	1058.0	1.0	75.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1057.0	1058.0	1.0	190.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1057.0	1058.0	3.0	84.0			QL=4 ST=2 TYP=3
	3000	IZMI	22	GRF	1057.6	1057.9	2.2	75.0			
	1415	SVTO	8	S	1058.0	1058.0	U	26.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	1104.0	1107.0	6.0	53.0			QL=4 ST=3 TYP=3
	610	SVTO	4	S/F	1104.0	1107.0	3.0	44.0			QL=4 ST=3 TYP=3
	1415	SVTO	4	S/F	1104.0	1107.0	4.0	25.0			QL=4 ST=3 TYP=3
	8800	SVTO	4	S/F	1104.0	1107.0	7.0	76.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1104.0	1107.0	7.0	62.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1106.0	1107.0	1.0	19.0			QL=4 ST=3 TYP=3
	245	SVTO	8	S	1141.0	1142.0	1.0	130.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1141.0	1142.0	1.0	24.0			QL=4 ST=3 TYP=3
	410	SVTO	4	S/F	1141.0	1145.0	6.0	120.0			QL=4 ST=3 TYP=3
	410	SVTO	8	S	1150.0	1150.0	U	45.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1150.0	1150.0	1.0	190.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1150.0	1150.0	U	21.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1150.0	1150.0	U	24.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1150.0	1150.0	U	48.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1150.0	1150.0	1.0	51.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

NOVEMBER 2001

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	3000	IZMI	7	C	1150.2	1150.4	1.4	15.0			
	8800	SVTO	4	S/F	1155.0	1202.0	14.0	92.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1200.0	1201.0	2.0	100.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1201.0	1201.0	1.0	260.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1201.0	1201.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1210.0	1210.0	U	44.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1224.0	1224.0	U	53.0			QL=4 ST=2 TYP=3
	127	TORN	45	C	1226.0	1229.0	4.8	170.0	30.0		
	610	SGMR	8	S	1245.0	1247.0	2.0	450.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1245.0	1246.0	2.0	32.0			QL=4 ST=2 TYP=3
	610	SVTO	4	S/F	1245.0	1247.0	3.0	340.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	1245.0	1247.0	8.0	65.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1245.0	1247.0	6.0	71.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1246.0	1246.0	U	120.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1247.0	1247.0	U	74.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1247.0	1247.0	1.0	55.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1259.0	1300.0	1.0	640.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1259.0	1300.0	1.0	410.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1259.0	1259.0	1.0	87.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1259.0	1300.0	1.0	70.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	1300.0	1300.0	U	610.0			QL=4 ST=3 TYP=6
	245	SVTO	8	S	1300.0	1300.0	U	410.0			QL=4 ST=3 TYP=3
	610	SVTO	8	S	1300.0	1300.0	U	38.0			QL=4 ST=3 TYP=3
	4995	SVTO	8	S	1300.0	1300.0	U	31.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1300.0	1300.0	U	69.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1300.0	1300.0	U	60.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1325.0	1325.0	U	930.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1325.0	1325.0	U	590.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1325.0	1325.0	U	37.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	1325.0	1325.0	U	760.0			QL=4 ST=3 TYP=6
	410	SVTO	8	S	1325.0	1325.0	U	43.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1325.0	1325.0	U	310.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1325.0	1325.0	U	35.0			QL=4 ST=2 TYP=3
	9500	CUBA	4	S/F	1400.2	1403.5	7.0	269.0	134.0		
	610	SVTO	4	S/F	1401.0	1403.0	3.0	170.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1402.0	1403.0	2.0	940.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	1402.0	1403.0	2.0	640.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1403.0	1403.0	1.0	390.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1403.0	1403.0	1.0	140.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1403.0	1403.0	1.0	110.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1403.0	1403.0	1.0	46.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1403.0	1403.0	1.0	100.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1403.0	1403.0	1.0	290.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1403.0	1403.0	1.0	190.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1403.0	1403.0	1.0	430.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1403.0	1404.0	1.0	100.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1403.0	1404.0	1.0	37.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1403.0	1404.0	1.0	100.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1403.0	1404.0	1.0	270.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1403.0	1403.0	1.0	190.0			QL=4 ST=2 TYP=3
	127	TORN	4	S/F	1403.1	1404.1	2.3	310.0	90.0		
	127	TORN	4	S/F	1406.4	1408.0	1.9	240.0	60.0		
	245	SGMR	49	GB	1407.0	1408.0	1.0	660.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	1407.0	1408.0	1.0	500.0			QL=4 ST=3 TYP=6
	127	TORN	47	GB	1410.9	1411.8	2.7	740.0	210.0		
	245	SGMR	8	S	1517.0	1517.0	U	190.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1517.0	1517.0	U	85.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1517.0	1517.0	U	45.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1517.5	1519.0	2.5	21.0	10.0		
	245	SGMR	49	GB	1518.0	1519.0	1.0	2100.0			QL=4 ST=2 TYP=6
	610	SGMR	8	S	1518.0	1518.0	1.0	270.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1519.0	1519.0	U	340.0			QL=4 ST=2 TYP=3
	235	CUBA	7	C	1546.9	1547.2	1.1	43.0	22.0		
	280	CUBA	7	C	1546.9	1547.2	1.1	122.0	61.0		
	245	SGMR	49	GB	1610.0	1611.0	1.0	10000.0			QL=4 ST=2 TYP=6
	410	SGMR	49	GB	1610.0	1611.0	1.0	1600.0			QL=4 ST=2 TYP=6
	235	CUBA	7	C	1610.3	1614.0	7.8	268.0	134.0		
	280	CUBA	7	C	1610.3	1614.0	7.8	390.0	195.0		
	9500	CUBA	3	S	1610.8	1611.5	1.2	52.0	26.0		

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

NOVEMBER 2001

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	610	SGMR	8	S	1611.0	1611.0	U	350.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1611.0	1611.0	U	41.0			QL=2 ST=2 TYP=3
	2800	PENT	1	S	1659.0	1704.0	10.0	12.0			
	9500	CUBA	2	S/F	1702.8	1704.1	2.6	59.0	29.0		
	235	CUBA	7	C	1703.0	1703.0	1.5	91.0	45.0		
	245	SGMR	8	S	1703.0	1703.0	1.0	180.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1703.0	1704.0	1.0	50.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1703.0	1704.0	1.0	95.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1703.0	1703.0	1.0	38.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1703.0	1704.0	1.0	77.0			QL=4 ST=2 TYP=3
	280	CUBA	7	C	1703.0	1703.5	1.5	96.0	48.0		
	15400	SGMR	8	S	1704.0	1704.0	U	38.0			QL=2 ST=2 TYP=3
	2800	PENT	1	S	1722.0	1724.0	4.0	7.0			
	245	PALE	49	GB	1724.0	1725.0	1.0	1700.0			QL=4 ST=2 TYP=6
	245	SGMR	49	GB	1724.0	1724.0	U	1600.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1724.0	1724.0	U	68.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1725.0	1725.0	U	100.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1742.0	1742.3	1.0	13.0	6.0		
	9500	CUBA	2	S/F	1803.8	1805.6	4.7	50.0	25.0		
	245	PALE	48	C	1804.0	1804.0	3.0	460.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	1804.0	1808.0	4.0	72.0			QL=4 ST=2 TYP=8
	610	SGMR	49	GB	1804.0	1805.0	1.0	510.0			QL=4 ST=2 TYP=6
	245	SGMR	8	S	1804.0	1805.0	1.0	300.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1804.0	1805.0	1.0	250.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1804.0	1804.0	2.0	35.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1804.0	1804.0	2.0	46.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1804.0	1804.0	1.0	44.0			QL=2 ST=2 TYP=3
	610	PALE	49	GB	1805.0	1805.0	1.0	830.0			QL=4 ST=2 TYP=6
	410	PALE	8	S	1805.0	1805.0	2.0	450.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1807.0	1807.0	1.0	60.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1830.0	1830.0	U	470.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1903.0	1903.0	U	760.0			QL=4 ST=2 TYP=6
	245	PALE	8	S	1904.0	1904.0	U	760.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1945.0	1945.0	U	220.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1945.0	1945.0	U	38.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1946.0	1946.0	U	270.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1946.0	1946.0	U	93.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1948.8	1949.4	1.4	8.0	4.0		
	2800	PENT	29	PBI	2041.0	2046.0	29.0	16.0			
	9500	CUBA	1	S	2046.8	2047.0	1.1	13.0	6.0		
	410	PALE	8	S	2048.0	2050.0	2.0	110.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2050.0	2050.0	U	130.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	2107.2	2108.0	1.6	12.0	6.0		
	2800	PENT	29	PBI	2112.0	2121.0	18.0U	28.0			
	9500	CUBA	2	S/F	2120.5	2121.2	4.0	44.0	22.0		
	4995	PALE	48	C	2122.0	2122.0	1.0	69.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	2122.0	2122.0	U	57.0			QL=4 ST=2 TYP=8
	245	PALE	8	S	2122.0	2122.0	U	130.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2122.0	2122.0	U	420.0			QL=4 ST=2 TYP=3
30	204	IZMI	43	NS	0700.0		300.0D		10.0		
	127	TORN	44	NS	0700.0E		450.0D		9.0		V=2
	280	CUBA	44	NS	1405.0E		465.0D		17.0		
	2804	VORO	1	S	0000.1	0000.3	1.1	10.1			
	2804	VORO	46	C	0002.7	0004.1	5.0	93.4			
	2804	VORO	3	S	0011.0	0012.2	3.1	7.5			
	2804	VORO	2	S/F	0032.8	0033.3	2.2	16.5			
	2840	PEKG	3	S	0059.0	0104.6	17.0	132.1			
	2800	HIRA	4	S/F	0103.0	0105.0	4.0	130.0			0
	1415	LEAR	4	S/F	0103.0	0104.0	4.0	280.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0103.0	0104.0	3.0	150.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0103.0	0104.0	3.0	140.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	0103.0	0103.0	2.0	2900.0			QL=4 ST=2 TYP=6
	500	HIRA	4	S/F	0104.0	0105.0	5.0	135.0			0
	200	HIRA	8	S	0104.0	0108.0	5.0	30.0			0
	410	LEAR	8	S	0104.0	0104.0	U	120.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0104.0	0104.0	2.0	390.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0104.0	0104.0	1.0	120.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0104.0	0104.0	1.0	71.0			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 2001

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
30	410	PALE	48	C	0104.0	0105.0	1.0	240.0			QL=4 ST=2 TYP=8
	15400	PALE	48	C	0104.0	0104.0	1.0	65.0			QL=4 ST=2 TYP=8
	610	PALE	8	S	0104.0	0105.0	2.0	360.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0104.0	0105.0	2.0	270.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0104.0	0105.0	2.0	110.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0104.0	0105.0	2.0	150.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0104.0	0105.0	2.0	170.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0132.0	0133.6	4.0	19.1			
	500	HIRA	8	S	0222.0	0222.0	1.0	40.0			0
	200	HIRA	8	S	0222.0	0222.0	1.0	55.0			0
	245	LEAR	8	S	0222.0	0222.0	U	150.0			QL=4 ST=2 TYP=3
	2804	VORO	21	GRF	0300.3	0310.8	90.0	10.5			
	2804	VORO	8	S	0345.1	0345.3	0.5	4.7			
	2804	VORO	3	S	0405.6	0407.4	3.0	6.6			
	245	LEAR	49	GB	0514.0	0515.0	1.0	640.0			QL=4 ST=2 TYP=6
	200	HIRA	7	C	0539.0	0541.0	5.0	60.0			0
	15400	SVTO	4	S/F	0655.0	0657.0	4.0	58.0			QL=4 ST=2 TYP=3
	9100	GORK	3	S	0834.2	0834.7	2.5	26.0			
	33	UPIC	40	F	1306.5	1315.0	22.5				
	245	SGMR	8	S	1312.0	1312.0	1.0	67.0			QL=4 ST=2 TYP=3
	9500	CUBA	20	GRF	1404.0	1423.0	60.0	23.0	11.0		
	2695	SGMR	4	S/F	1408.0	1411.0	6.0	37.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1409.0	1409.0	5.0	68.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	1409.0	1410.0	4.0	54.0			QL=4 ST=3 TYP=3
	4995	SGMR	4	S/F	1410.0	1410.0	4.0	26.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1410.0	1413.0	4.0	34.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1413.0	1413.0	1.0	32.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1711.0	1712.0	3.0	58.0			QL=4 ST=2 TYP=3
	2800	PENT	4	S/F	1956.0	2000.0	8.0	33.0			
	9500	CUBA	4	S/F	1958.3	2000.2	4.7	198.0	99.0		
	8800	PALE	48	C	1959.0	2000.0	2.0	190.0			QL=4 ST=2 TYP=8
	4995	PALE	8	S	1959.0	2000.0	2.0	84.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	1959.0	2000.0	2.0	200.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	2011.0	2011.0	U	61.0			QL=4 ST=2 TYP=8

Reports are received routinely from the following observatories:

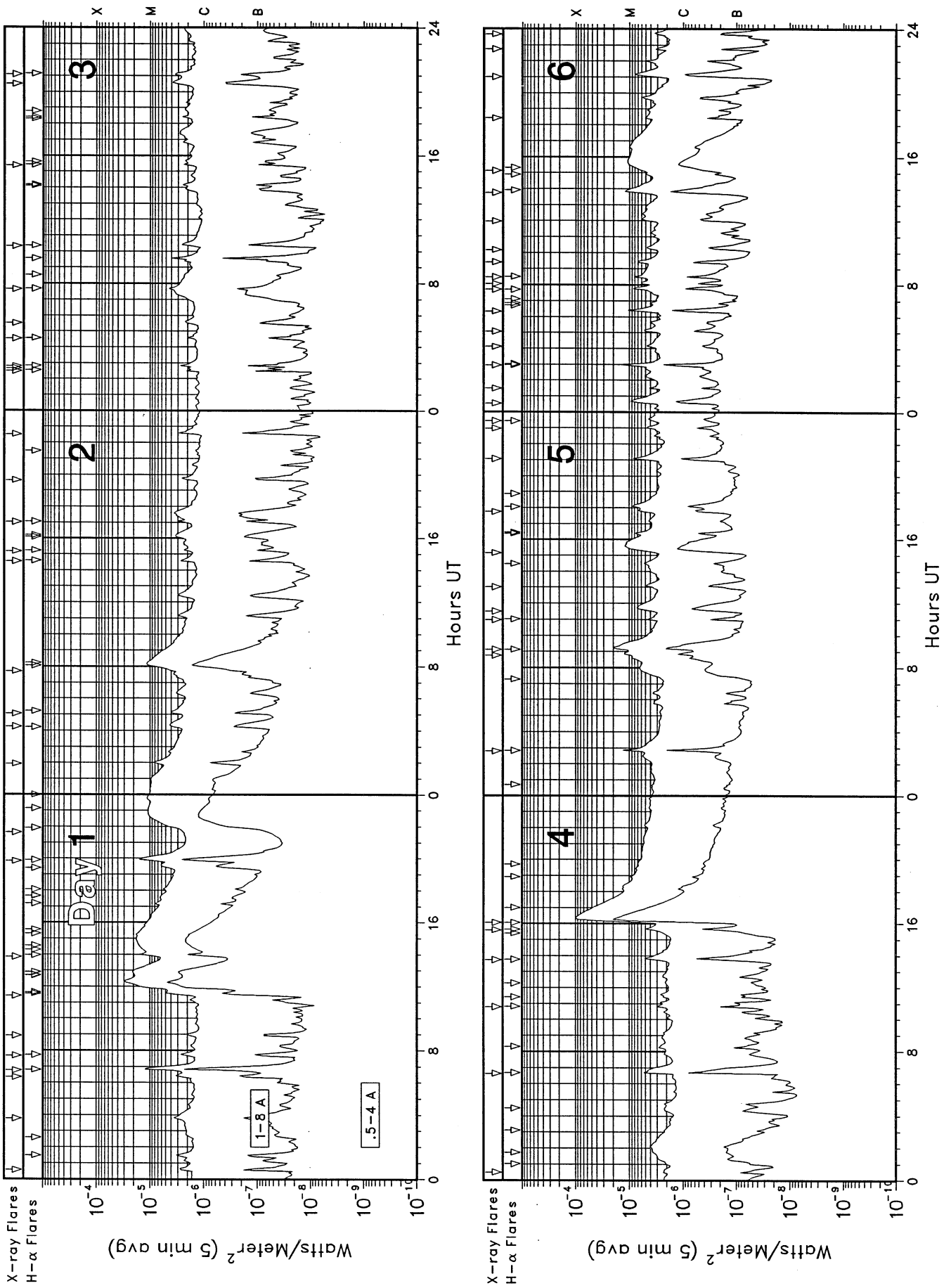
BERN = Berne	HUMN = Humain	ONDR = Ondrejov	SVTO = San Vito
CRIM = Crimea	IZMI = IZMIRAN	PEKG = Peking	TORN = Torun
CUBA = Havana	KISV = Kislovodsk	PALE = Palehua	TRST = Trieste
GORK = Gorky	KRAK = Krakow	PENT = Penticton	TYKW = Toyokawa
HIRA = Hiraiso	LEAR = Learmonth	POTS = Potsdam	UPIC = Upice
HUAN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

Explanation of Type Code:

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

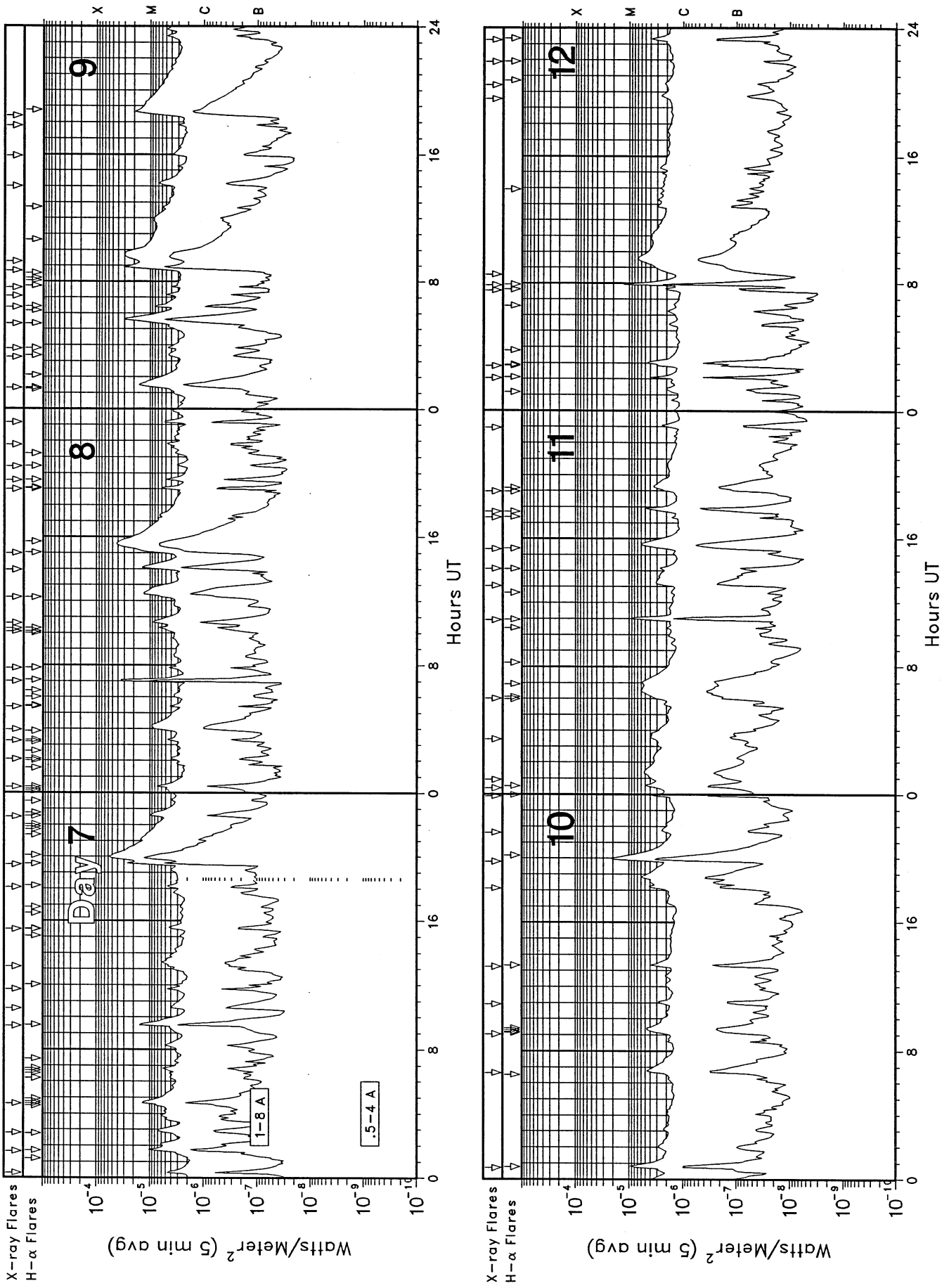
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F
3A Simple 2A	40 Rise Only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF	40F Rise Only F	260 Fall Only	31A Post Burst Decrease A
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A

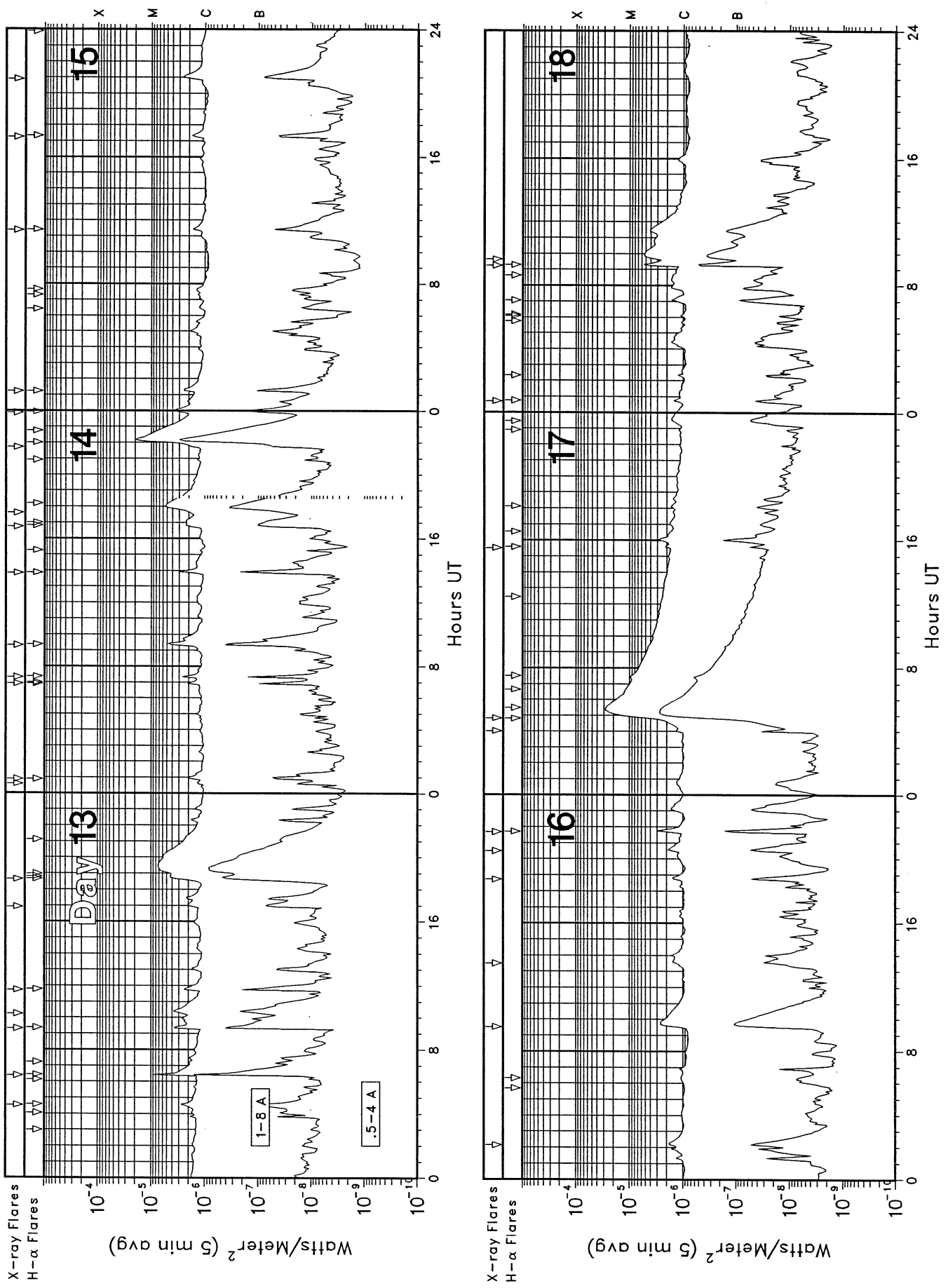
RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; and Hiraiso, Japan 500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


GOES X-RAY DETECTOR
November 2001
Day 1
1
2
3
4
5
6
X
M
C
B
1-8 A
.5-4 A
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT
0
8
16
24
10⁻⁴
10⁻⁵
10⁻⁶
10⁻⁷
10⁻⁸
10⁻⁹
10⁻¹⁰

GOES X-RAY DETECTOR

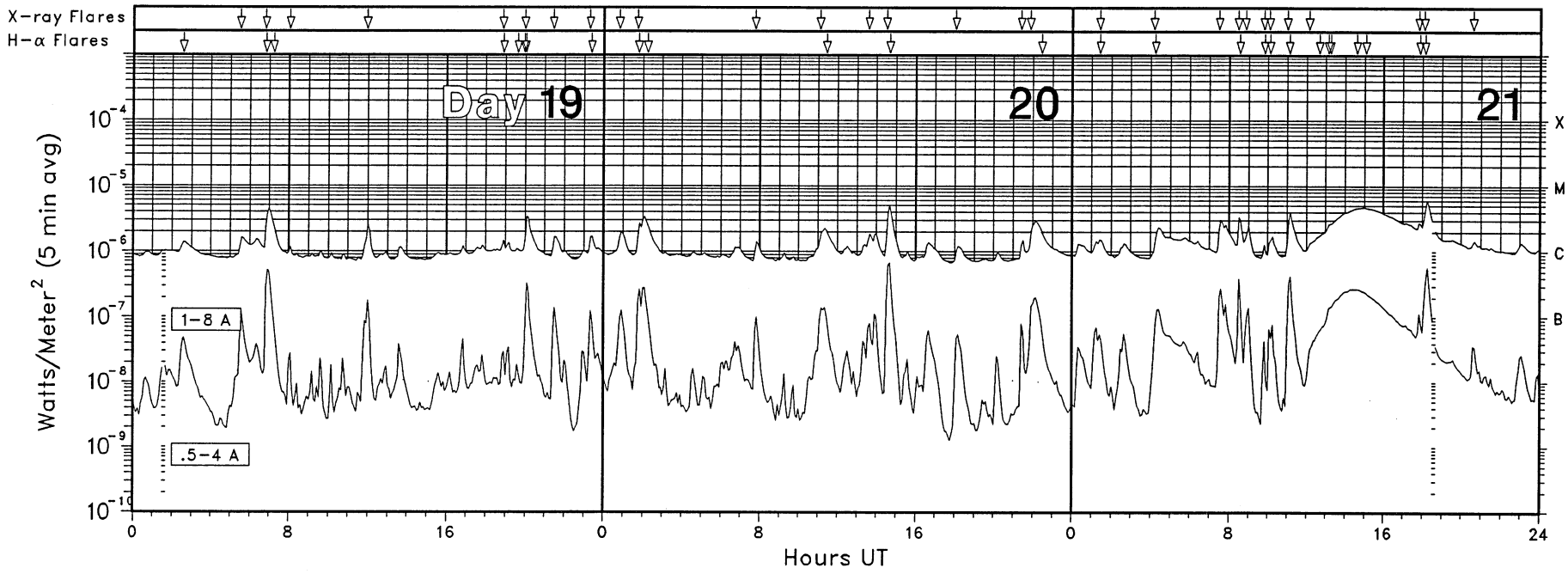
November 2001

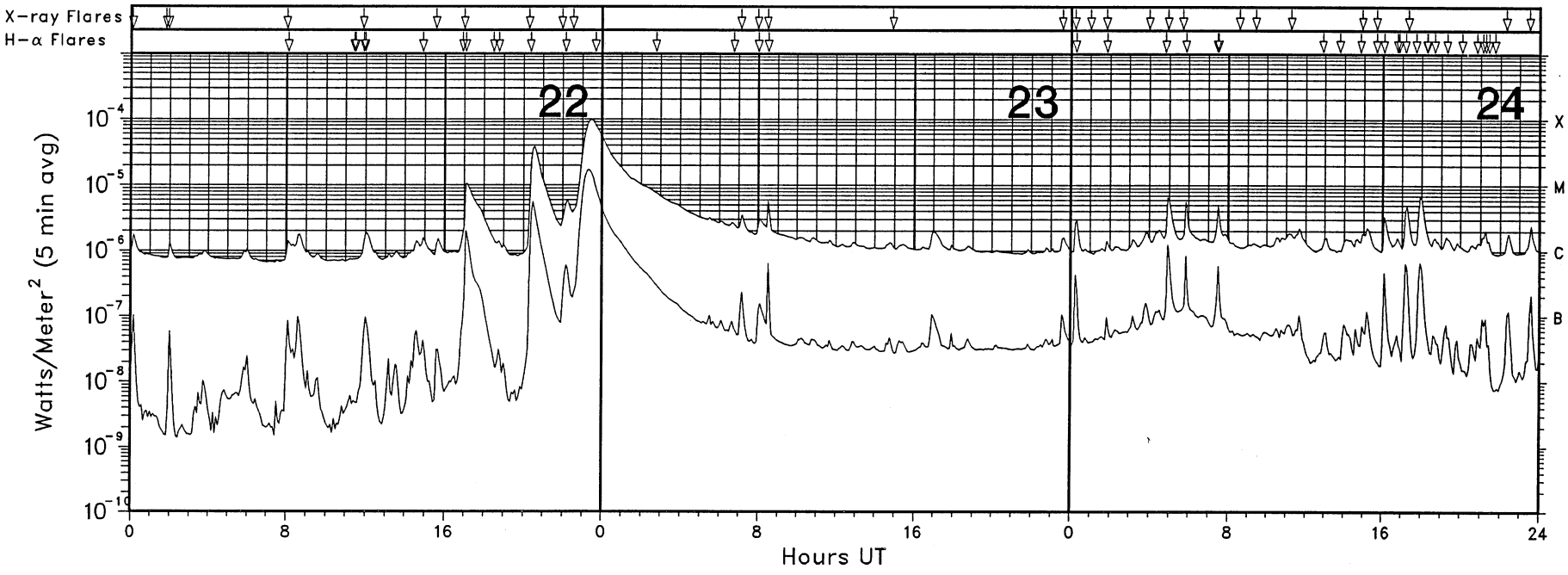


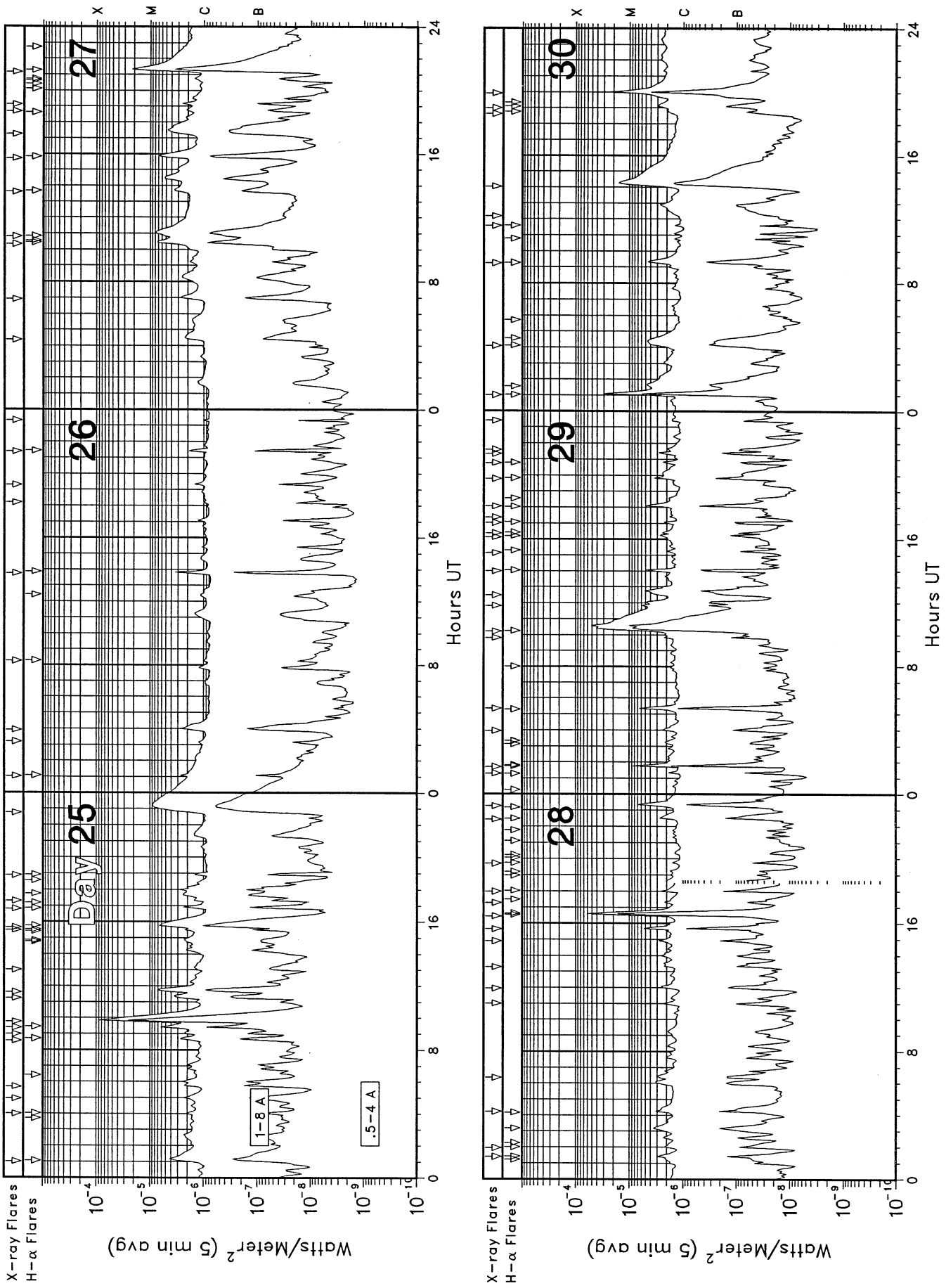

GOES X-RAY DETECTOR
November 2001
Day 13
14
15
16
17
18
1-8 A
.5-4 A
X
M
C
B
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT
0
8
16
24
10⁻⁴
10⁻⁵
10⁻⁶
10⁻⁷
10⁻⁸
10⁻⁹
10⁻¹⁰

GOES X-RAY DETECTOR

November 2001






GOES X-RAY DETECTOR
November 2001
Day
25
26
27
28
29
30
1-8 A
.5-4 A
X
M
C
B
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT
0
8
16
24

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

November 2001

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
01	0034	0039	0044				C3.3			1.6E-03
01	0346	0350	0357				C3.6			2.2E-03
01	0620	0626	0635				C3.2			2.6E-03
01	0645	0653	0700	N07	W62	SF	M1.3		9678	8.3E-03
01	0740	0744	0752	N06	E24	SF	C2.8		9684	1.7E-03
01	0855	0900	0905				C2.2			1.2E-03
01	1125	1210	1308				M3.3		9687	9.8E-02
01	1351	1503	1537	S19	E77	SF	M1.7		9687	9.5E-02
01	1950	1958	2007				M1.5		9687	1.3E-02
01	2138	2352	2359	N12	W23	1F	M1.1		9682	7.0E-02
02	0156	0201	0208				C8.9		9687	5.9E-03
02	0415	0419	0432				C4.4			4.2E-03
02	0503	0510	0518	S20	E62	SF	C4.0		9687	3.3E-03
02	0742	0809	0845	S20	E71	SF	M1.1		9687	3.1E-02
02	1433	1438	1442	S21	E70	SF	C3.1		9687	1.3E-03
02	1511	1515	1523	N12	W33	SF	C2.3		9682	1.5E-03
02	1701	1705	1710	N04	E03	SF	C3.2		9684	1.5E-03
02	1938	1945	1952				C2.6			1.8E-03
02	2231	2236	2242				C3.1		9687	1.5E-03
03	0229	0233	0235	N04	W10	SF	C2.7		9684	7.3E-04
03	0240	0243	0245				C2.1		9687	5.9E-04
03	0247	0252	0256	N03	W03	SF	C3.0		9684	1.3E-03
03	0432	0435	0438	N05	W07	SF	C2.3		9684	6.9E-04
03	0530	0535	0539				C2.4		9687	1.2E-03
03	0738	0741	0743				C5.1		9687	1.3E-03
03	1019	1029	1037	S21	E54	SF	C2.7		9687	2.3E-03
03	1523	1527	1531	N03	W09	SF	C2.4		9684	1.0E-03
03	2029	2039	2047				C3.8		9682	3.7E-03
03	2105	2109	2112	N03	W16	SF	C4.1		9684	1.5E-03
04	0030	0033	0036				C2.7			8.8E-04
04	0638	0643	0646	N14	W57	1N	C8.4		9682	2.3E-03
04	1048	1052	1057	S21	E42	SF	C3.2		9687	1.5E-03
04	1344	1352	1400	S19	E40	SF	C5.5		9687	3.9E-03
04	1536	1541	1547	S19	E37	SF	C5.1		9687	2.9E-03
04	1603	1620	1657	N06	W18	3B	X1.0		9684	2.2E-01
05	0247	0250	0253	S20	E34	SF	M1.7		9687	4.3E-03
05	0845	0854	0902				M1.2			1.1E-02
05	0907	0915	0922	N02	W37	1N	M2.1		9684	1.6E-02
05	1058	1103	1108	N12	W71	SF	C4.8		9682	2.5E-03
05	1130	1144	1203				C7.3			1.2E-02
05	1301	1309	1315				C5.0			3.7E-03
05	1509	1537	1619				M1.2			3.6E-02
05	1744	1808	1818	S19	E68	SF	C8.9			1.4E-02
05	2103	2107	2111				C8.9			3.7E-03
05	2258	2303	2309				C4.8			2.9E-03
05	2326	2336	2343	S21	E21	SF	C4.5		9687	4.0E-03
06	0032	0043	0055				C9.5			1.0E-02
06	0128	0132	0134				C5.6			1.4E-03
06	0256	0300	0303	S19	E10	1B	M2.0		9687	5.6E-03
06	0406	0410	0414				C5.2			2.2E-03
06	0504	0509	0513				C6.6			2.8E-03
06	0620	0625	0629				M1.2			4.5E-03
06	0742	0748	0753	S19	E07	SF	C9.1		9687	5.0E-03
06	0803	0808	0815				C6.4			4.2E-03
06	0829	0832	0834	S19	E62	SF	C9.8		9690	2.4E-03
06	0925	0929	0932				C9.0			3.1E-03
06	1010	1021	1051				C4.6			9.0E-03
06	1158	1227	1303				C5.9			2.0E-02
06	1345	1351	1405	S17	E05	SF	M1.2		9687	1.2E-02
06	1507	1549	1708	S18	E64	SF	M1.1		9690	6.8E-02
06	1825	1828	1831				C6.6			1.9E-03
06	2100	2110	2122				C8.2			7.8E-03
06	2244	2248	2252				C3.6			1.5E-03
06	2340	2344	2349				C3.9			1.8E-03
07	0018	0023	0028				C5.6			2.5E-03
07	0139	0146	0152	S18	E54	SF	M1.1		9690	6.3E-03
07	0248	0259	0305	S19	E53	SF	C7.5		9690	6.5E-03
07	0437	0444	0450	S19	E50	1N	M1.4		9690	9.6E-03
07	0927	0933	0939	S18	E58	SF	M2.0		9690	9.3E-03
07	1032	1038	1056				C4.1			5.1E-03
07	1144	1147	1151				C5.0			1.9E-03
07	1309	1325	1330				C6.7			6.3E-03
07	1528	1535	1544				C4.4		9690	3.7E-03
07	1805	1810	1815	S18	E52	SF	C5.1		9690	2.7E-03
07	1930	2001	2026	S17	E44	1N	M5.7		9690	1.2E-01
07	2231	2237	2249	S18	E41	SF	M1.0		9690	9.4E-03
08	0022	0025	0032	S19	E40	SF	C7.7		9690	4.0E-03
08	0205	0209	0213	S20	W08	SF	C4.8		9687	1.9E-03
08	0315	0321	0326	S18	E39	SF	C4.8		9690	2.8E-03
08	0357	0408	0425	S17	E38	SF	C9.2		9690	1.4E-02
08	0523	0527	0530	S20	W10	SF	C4.9		9687	1.7E-03
08	0659	0704	0706	S19	W19	1N	M9.1		9687	1.7E-02
08	0749	0750	0752	S18	E33	SF	C6.1		9690	9.0E-04
08	1005	1011	1015	S16	E32	SF	C5.0		9690	2.6E-03
08	1016	1019	1024	S20	W19	SF	C7.7		9687	3.2E-03
08	1036	1043	1050				C9.1			6.7E-03
08	1213	1229	1252	S17	E36	SF	M1.3		9690	2.3E-02
08	1356	1409	1420				M1.4			1.4E-02
08	1459	1535	1600	S17	E36	2F	M4.2		9690	1.0E-01
08	1859	1904	1907	S19	W25	SN	C8.8		9687	2.8E-03
08	1933	1936	1941	N08	W22	SF	C5.4		9692	2.2E-03
08	2024	2033	2038	S18	E37	SF	C3.2		9690	2.4E-03
08	2145	2150	2154	S17	E31	SF	C5.2		9690	2.5E-03
08	2309	2313	2318				C7.0			2.8E-03
09	0119	0133	0149	S19	E27	1F	M1.6		9690	2.2E-02
09	0314	0325	0337				C4.5			5.6E-03
09	0347	0352	0358	S19	E24	SF	C4.7		9690	2.8E-03
09	0520	0539	0548	S18	E25	1F	M3.1		9690	3.1E-02
09	0623	0629	0632	S17	E24	SF	M1.0		9690	4.2E-03
09	0705	0713	0717				C4.9			3.1E-03
09	0737	0741	0743				C4.8			1.3E-03
09	0841	0856	0908	S18	E26	1N	M3.3		9690	2.9E-02
09	0916	0943	1001				M3.0			6.7E-02
09	1400	1414	1424				C6.9			8.3E-03
09	1554	1600	1616				C3.7			4.5E-03
09	1747	1751	1753				C3.4			1.1E-03
09	1823	1841	1924	S21	W42	SF	M1.9		9687	4.7E-02
10	0042	0050	0058	S17	E22	SF	M1.0		9690	7.1E-03
10	0638	0645	0703	S20	E08	SF	C4.6		9690	6.0E-03
10	0902	0925	0937	S18	E14	SF	C4.9		9690	7.7E-03
10	1054	1107	1110				C3.0			2.4E-03
10	1314	1321	1328	S19	E07	SF	C4.0		9690	2.7E-03
10	1807	1816	1822				C4.2			3.4E-03
10	1947	2000	2009	S18	E05	1F	M2.3		9690	1.8E-02
10	2137	2147	2200				C2.4			3.1E-03
10	2353	2400	2403	S17	E09	SF	C5.6		9690	2.2E-03
11	0023	0035	0043	N15	W65	SF	C5.2		9686	4.7E-03
11	0054	0124	0143				C5.3			1.3E-02

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

Preliminary Listing

November 2001

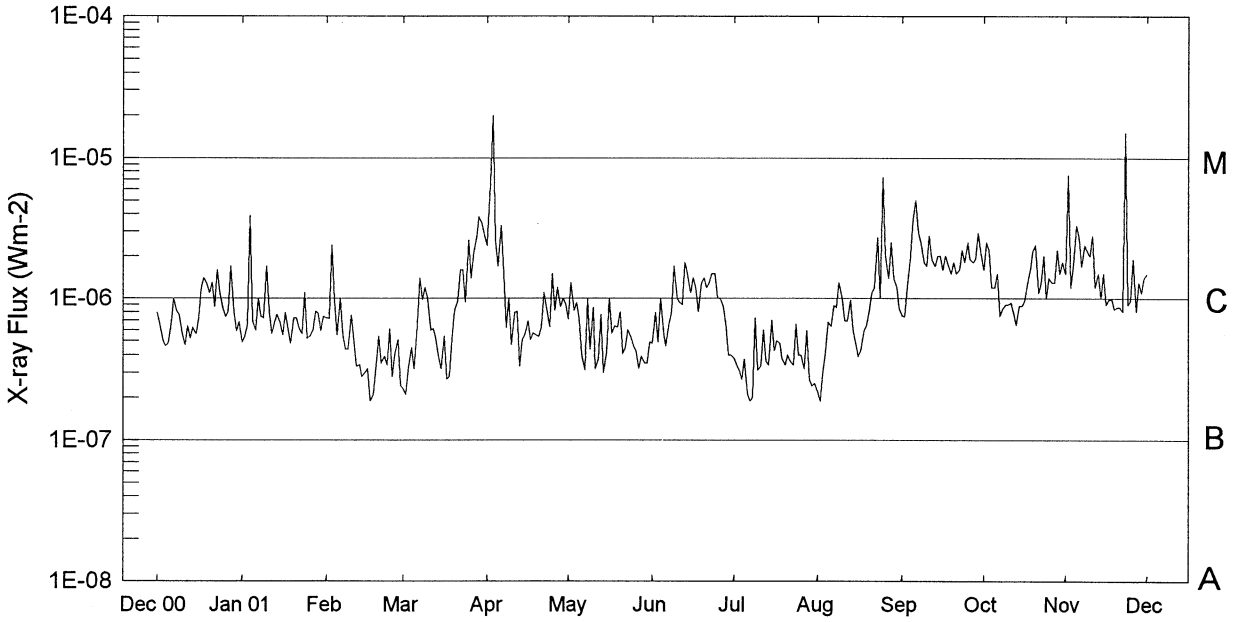
Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
11	0326	0350	0354				C	4.2		6.3E-03
11	0600	0634	0715	S19	W02	SF	C	6.1	9690	2.3E-02
11	1054	1103	1107	S17	E05	SF	M	1.4	9690	5.8E-03
11	1303	1317	1358	S18	W03	SF	C	3.2	9690	8.9E-03
11	1407	1410	1412	S20	W45	SF	C	3.1	9687	8.1E-04
11	1521	1540	1554	S18	W03	1F	C	6.0	9690	8.7E-03
11	1719	1722	1725	S19	W08	SF	C	1.7	9690	5.6E-04
11	1741	1756	1759	S18	W08	SF	C	6.9	9690	3.8E-03
11	1857	1916	1941	S19	W08	SF	C	3.5	9690	7.4E-03
11	2255	2306	2313				C	2.5		2.2E-03
12	0202	0207	0209	S17	W04	SF	C	5.4	9690	1.4E-03
12	0247	0301	0312	N07	W73	SF	C	4.8	9692	5.2E-03
12	0732	0736	0738	S17	W07	SF	C	2.3	9690	6.6E-04
12	0752	0757	0801	N07	W74	1B	M	1.6	9692	5.2E-03
12	0833	0938	1009				C	7.0		2.5E-02
12	1932	1947	1958				C	2.5		3.4E-03
12	2024	2033	2037	S16	W16	SF	C	2.4	9690	1.6E-03
12	2152	2155	2158	S16	W16	SF	C	2.0	9690	6.4E-04
12	2315	2319	2322				C	5.2		1.5E-03
13	0432	0435	0437				C	3.2		8.2E-04
13	0622	0626	0628	S17	W24	SN	M	1.5	9690	2.6E-03
13	0919	0923	0926	S20	W25	SF	C	6.9	9690	1.6E-03
13	1014	1027	1035				C	3.7		3.9E-03
13	1144	1149	1151	S17	W24	SF	C	3.6	9690	1.0E-03
13	1655	1705	1719				C	2.0		2.6E-03
13	1838	1925	2025	S20	W36	SF	C	7.2	9690	3.7E-02
14	0035	0038	0041				C	1.5		4.9E-04
14	0053	0102	0106	N13	E46	1F	C	2.1	9697	1.4E-03
14	0654	0658	0701	S16	W35	SF	C	2.5	9690	8.6E-04
14	0718	0722	0725	S18	W40	SF	C	3.0	9690	9.7E-04
14	0919	0924	0929	S18	W39	SF	C	5.8	9690	2.7E-03
14	1350	1356	1403	S17	W37	SF	C	3.0	9690	1.8E-03
14	1644	1709	1722				C	2.2	9690	4.7E-03
14	1736	1802	1828				C	5.4		1.2E-02
14	2143	2211	2234	S19	W49	1F	M	1.9	9690	3.0E-02
14	2353	2403	2409	N22	E15	SF	C	4.8	9703	4.7E-03
15	0113	0119	0125	S16	W46	SF	C	2.6	9690	1.7E-03
15	1122	1126	1134	S15	E65	SF	C	1.7	9704	1.1E-03
15	1715	1721	1729	S17	W53	SF	C	1.7	9690	1.3E-03
15	2054	2103	2117				C	2.5		3.0E-03
16	0208	0214	0221				C	1.8		1.3E-03
16	0931	0949	1021				C	2.6		6.5E-03
16	1329	1338	1353				C	1.5		2.1E-03
16	1843	1849	1856				C	1.6		1.1E-03
16	2029	2036	2049				C	1.8		2.0E-03
16	2140	2146	2152	N16	E09	1F	C	3.1	9697	1.8E-03
17	0400	0403	0410				C	1.4		7.7E-04
17	0449	0525	0611	S13	E42	1N	M	2.8	9704	1.0E-01
17	1531	1538	1543	N15	W01	SF	C	1.9	9697	1.4E-03
18	0042	0045	0049	S16	E29	SF	C	1.5	9704	6.1E-04
18	0914	0919	0924	S22	E25	SN	C	7.4	9704	2.8E-03
18	0937	1001	1025				C	5.3		1.3E-02
19	0530	0538	0558				C	1.6		2.4E-03
19	0648	0701	0713	S18	E11	SF	C	4.5	9704	5.1E-03
19	0802	0805	0807				C	1.5		3.6E-04
19	1157	1204	1207				C	2.7		1.3E-03
19	1852	1855	1858	N14	W29	SF	C	1.6	9697	5.3E-04
19	1959	2009	2017	S19	E04	SF	C	3.6	9704	2.9E-03
19	2126	2134	2148				C	1.7		1.9E-03
19	2318	2324	2331	S16	E01	SF	C	1.7	9704	1.2E-03
20	0048	0056	0106				C	2.1		1.9E-03
20	0144	0206	0221	S16	E01	SF	C	3.4	9704	5.8E-03
20	0745	0752	0803				C	1.4		1.3E-03
20	1105	1123	1135	S17	W03	SF	C	2.2	9704	3.5E-03
20	1335	1340	1349				C	1.8		1.4E-03
20	1430	1442	1451	S20	W04	SF	C	5.1	9704	4.5E-03
20	1802	1813	1828				C	1.2		1.7E-03
20	2124	2129	2134				C	1.7		8.2E-04
20	2152	2210	2230	S15	W09	SF	C	2.9	9704	5.6E-03
21	0125	0127	0131	S18	W12	SF	C	1.6	9704	5.4E-04
21	0410	0428	0449	S14	W12	SF	C	2.4	9704	4.3E-03
21	0729	0734	0747				C	3.5		2.8E-03
21	0827	0833	0839	S18	W15	SF	C	3.7	9704	2.0E-03
21	0850	0900	0904				C	2.7		1.7E-03
21	0947	0951	0954	S21	W15	SF	C	1.4	9704	5.1E-04
21	1005	1008	1013	S18	W17	SF	C	1.8	9704	7.2E-04
21	1100	1110	1119	S20	W17	SF	C	4.4	9704	3.3E-03
21	1207	1458	1650	S14	W19	SF	C	4.7	9704	5.8E-02T
21	1748	1752	1758	S20	W21	SF	C	2.8	9704	1.6E-03
21	1805	1818	1824	S20	W21	SF	C	6.3	9704	5.3E-03
21	2035	2040	2048				C	1.4		1.1E-03
22	0006	0012	0017				C	1.8		1.0E-03
22	0157	0202	0208				C	1.3		7.4E-04
22	0801	0839	0851	S19	W29	SF	C	1.8	9704	4.1E-03
22	1152	1203	1215	S21	W30	SF	C	1.9	9704	2.2E-03
22	1534	1541	1550				C	1.5		1.3E-03
22	1700	1708	1725	S18	W33	1F	M	1.2	9704	1.2E-02
22	2018	2036	2052	S25	W67	2B	M	3.8	9698	5.1E-02
22	2158	2215	2228				C	5.9	9704	8.1E-03
22	0149	0153	0157				C	1.4	9704	6.5E-04
22	2232	2330	2406				M	9.9	9704	3.1E-01
23	0706	0710	0716				C	3.6		2.0E-03
23	0759	0805	0820	S16	W45	SF	C	3.1	9704	3.4E-03
23	0828	0832	0836				C	6.3	9704	2.4E-03
23	1454	1513	1520				C	2.4	9704	3.0E-03
23	2334	2338	2346				C	1.7		1.1E-03
24	0013	0019	0024	S17	W52	SF	C	3.7	9704	1.7E-03
24	0149	0153	0157	S17	W53	SF	C	1.4	9704	6.5E-04
24	0100	0114	0123				C	4.5	9704	4.4E-03
24	2219	2227	2232				C	1.9		1.3E-03
24	2330	2335	2339				C	2.8		1.1E-03
24	0359	0402	0404				C	2.3	9704	6.0E-04
24	1454	1513	1520				C	2.4	9704	3.0E-03
24	0456	0501	0506				C	2.3		1.3E-03
24	1114	1119	1132				C	3.6		3.2E-03
24	0834	0844	0848				C	3.1	9704	1.9E-03
24	0541	0603	0609				C	2.4		3.4E-03
24	0924	0927	0930				C	7.6		2.2E-03
24	1539	1545	1559				C	7.8	9704	6.4E-03
24	1718	1801	1805	S18	W77	SF	C	3.1	9704	5.4E-03
24	2219	2227	2232				C	1.9		1.3E-03
24	2330	2335	2339				C	2.8		1.1E-03
25	0100	0114	0123	S19	W60	SF	C	4.5	9704	4.4E-03
25	0359	0402	0404	S18	W69	SF	C	2.3	9704	6.0E-04
25	0456	0501	0506				C	2.3		1.3E-03
25	0541	0603	0609				C	2.4		3.4E-03

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

November 2001

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
25	0834	0844	0848	S18	W71	SF	C3.1	9704	1.9E-03
25	0858	0904	0912				C2.3		1.7E-03
25	0924	0927	0930				C7.6		2.2E-03
25	0945	0951	0954				X1.1		3.1E-02
25	1114	1119	1132				C3.6		3.2E-03
25	1137	1147	1155				C7.5		6.0E-03
25	1300	1313	1328				C1.4		2.3E-03
25	1529	1532	1536	S18	W75	SF	C2.3	9704	8.9E-04
25	1539	1545	1559	S18	W74	SF	C7.8	9704	6.4E-03
25	1648	1656	1700	S18	W72	SF	C2.8	9704	1.3E-03
25	1718	1801	1805	S18	W77	SF	C3.1	9704	5.4E-03
25	1853	1859	1902	S17	W70	SF	C1.9	9704	7.6E-04
25	2245	2317	2358				C9.0		2.8E-02
26	0102	0105	0107	N03	E53	SF	C3.3	9715	7.8E-04
26	0311	0314	0316				C1.4		3.6E-04
26	0355	0401	0413				C2.5		2.3E-03
26	0815	0818	0821	S04	E68	SF	C1.0	9716	3.5E-04
26	1345	1350	1354	N06	E43	SF	C4.3	9715	1.4E-03
26	1811	1814	1816				C1.3		3.2E-04
26	1917	1921	1925				C1.5		6.4E-04
26	2123	2129	2131	S20	W90	SF	C2.6	9704	8.4E-04
26	2319	2322	2324				C1.2		3.1E-04
27	0422	0432	0452				C2.2		3.6E-03
27	0654	0703	0713				C2.7		2.6E-03
27	1020	1029	1039	S05	E84	SF	C7.9		6.8E-03
27	1048	1105	1116	S06	E85	SF	C8.1		1.1E-02
27	1336	1346	1358	S06	E89	SF	C3.5		4.2E-03
27	1543	1552	1604	N05	E35	SF	C6.9	9715	6.9E-03
27	1714	1731	1754				C4.7		9.1E-03
27	1841	1844	1856	S07	E82	SF	C2.0		1.7E-03
27	1907	1911	1915				C2.6		1.1E-03
27	2109	2121	2132	N03	E26	1F	M2.2	9715	1.7E-02
28	0123	0127	0131	N04	E23	SF	C3.1	9715	1.3E-03
28	0157	0201	0214				C2.2		2.0E-03
28	0413	0417	0419	S06	E77	SF	C3.8	9718	1.1E-03
28	0620	0624	0630				C3.6		1.8E-03
28	1100	1103	1106				C2.6		8.3E-04
28	1156	1205	1211				C2.7		2.0E-03
28	1317	1322	1340				C2.3		2.9E-03
28	1453	1457	1459				C3.2	9715	9.7E-04
28	1538	1543	1546				C7.7		2.3E-03
28	1626	1635	1641	N04	E16	1B	M6.9	9715	2.7E-02
28	1716	1720	1724				C2.3		1.0E-03
28	1758	1802	1805	S20	E71	SF	C3.6		9.8E-04
28	1942	1946	1948	N04	E15	SF	C1.7	9715	5.4E-04
28	2226	2232	2245	N07	E17	1F	C2.7	9715	2.6E-03
28	2315	2321	2328	N05	E18	1F	C7.2	9715	4.1E-03
29	0117	0122	0125				C1.9		7.7E-04
29	0142	0149	0151	N04	E12	SF	M1.1	9715	3.3E-03
29	0357	0403	0410				C2.3		1.6E-03
29	0520	0523	0526	N05	E09	SF	C8.8	9715	2.5E-03
29	0948	0952	0955				C2.7		8.7E-04
29	1012	1036	1043	N04	E10	1N	M5.5	9715	5.5E-02
29	1149	1152	1154				C6.5		1.7E-03
29	1229	1248	1251				C6.0		5.2E-03
29	1359	1405	1408	N05	E03	SF	C7.6	9715	2.3E-03
29	1508	1519	1521	N04	E05	SF	C2.4	9715	1.4E-03
29	1608	1617	1619	N04	E06	SF	C3.1	9715	1.6E-03
29	1623	1627	1631	N04	E06	SF	C2.5	9715	1.1E-03
29	1701	1705	1707	N05	E05	SF	C3.5	9715	8.9E-04
29	1722	1725	1729				C1.8		6.9E-04
29	1803	1806	1813	N06	E08	1F	C5.6	9715	2.5E-03
29	1946	1950	1956				C3.7		1.7E-03
29	2045	2051	2053	N06	E02	SF	C2.7	9715	1.0E-03
29	2120	2126	2130				C3.0		1.5E-03
29	2135	2139	2144				C2.2		1.0E-03
29	2324	2328	2338				C1.7		1.3E-03
30	0100	0106	0111	S06	E57	1N	M3.5	9718	1.2E-02
30	0405	0423	0438	S07	E52	SF	C4.6	9718	7.9E-03
30	0914	0923	0929	S05	E52	SF	C4.8	9718	3.4E-03
30	1133	1136	1139	N05	W03	SF	C1.6	9715	4.9E-04
30	1210	1255	1303				C2.9	9718	6.1E-03
30	1402	1418	1434				M1.5		2.0E-02
30	1837	1848	1854	N03	W04	SF	C2.1	9715	1.8E-03
30	1859	1908	1920	N01	W08	SF	C3.1	9715	3.3E-03
30	1955	2001	2004				M2.9	9714	8.7E-03

Preliminary GOES Satellite Daily X-Ray Background
Dec 2000 - Nov 2001



Day	Dec 00	Jan 01	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1	B7.9	B4.9	B7.3	B2.3	C2.4	B7.1	B4.8	B3.8	B2.2	B7.5	C1.6	C1.5
2	B6.5	B5.4	B7.2	B2.1	C6.5	C1.3	B7.9	B3.4	B1.9	B7.4	C2.5	C7.5
3	B5.0	B6.5	C2.4	B3.2	M2.0	B8.2	B4.9	B3.1	B3.0	C1.2	C2.2	C1.2
4	B4.6	C3.9	B9.8	B4.5	C2.6	B9.3	C1.0	B2.7	B4.1	C2.0	C1.2	C1.7
5	B4.8	B6.9	B5.5	B3.2	C1.7	B7.1	B5.6	B3.7	B6.8	C3.7	C1.2	C3.3
6	B6.9	B6.0	C1.0	B5.5	C3.3	B4.0	B4.6	B2.1	B6.4	C5.0	C1.5	C2.7
7	C1.0	C1.0	B5.5	C1.4	C1.5	B3.1	B6.6	B1.9	B8.9	C3.0	B7.5	C1.7
8	B8.1	B7.4	B4.4	B9.8	B6.2	C1.0	B7.9	B2.0	B8.7	C2.4	B8.4	C2.4
9	B7.7	B7.3	B4.4	C1.2	C1.0	B4.4	C1.7	B7.3	C1.3	C1.8	B9.1	C2.2
10	B5.8	C1.7	B7.6	C1.0	B4.7	B8.6	C1.0	B3.1	C1.0	C1.7	B9.0	C2.0
11	B4.7	B8.0	B5.0	B6.0	B7.9	B3.2	B9.3	B3.3	B6.9	C2.8	B9.3	C2.8
12	B6.4	B5.6	B3.3	B6.1	B8.1	B3.7	B9.0	B6.0	B6.9	C1.9	B8.0	C1.2
13	B5.2	B6.7	B3.4	B5.1	B3.3	B7.7	C1.8	B3.6	B9.7	C1.7	B6.5	C1.5
14	B6.2	B7.7	B2.8	B3.9	B5.1	B3.0	C1.5	B3.4	B5.9	C2.0	B8.9	C1.0
15	B5.6	B6.7	B3.0	B3.2	B5.5	B4.2	C1.1	B7.0	B4.8	C2.0	B8.9	C1.5
16	B7.2	B5.5	B3.2	B5.4	B6.9	C1.0	C1.4	B4.3	B3.9	C1.6	B9.5	B9.1
17	C1.2	B7.9	B1.9	B2.7	B5.1	B5.7	C1.2	B5.0	B4.3	C2.0	C1.3	B9.8
18	C1.4	B5.8	B2.1	B2.8	B5.7	B6.4	B8.1	B4.8	B5.9	C1.7	C1.6	B9.9
19	C1.3	B4.8	B3.3	B5.2	B5.5	B6.3	C1.3	B3.8	B6.5	C1.5	C2.2	B8.4
20	C1.1	B7.3	B5.4	B8.2	B5.4	B8.0	C1.4	B3.4	B8.1	C1.8	C2.4	B8.7
21	C1.3	B7.3	B3.5	B9.6	B6.4	B4.1	C1.2	B4.0	C1.1	C1.5	C1.1	B8.7
22	B8.8	B6.2	B3.9	C1.6	C1.1	B4.5	C1.3	B3.6	C1.2	C1.6	C1.3	B8.1
23	C1.6	B5.6	B3.4	C1.6	B8.1	B6.0	C1.5	B3.4	C2.7	C2.2	C2.0	M1.5
24	C1.1	C1.1	B6.1	B9.4	B6.3	B5.3	C1.5	B6.6	C1.0	C1.8	C1.0	B9.0
25	B8.4	B5.2	B2.8	C2.6	C1.5	B4.6	C1.0	B4.0	C7.2	C2.5	C1.4	B9.6
26	B7.4	B5.4	B4.1	C1.4	B8.2	B4.2	C1.0	B4.0	C2.0	C1.9	C1.3	C1.9
27	B8.1	B5.9	B5.1	C2.1	C1.2	B3.2	B8.8	B3.2	C1.4	C1.8	C1.3	B8.1
28	C1.7	B8.1	B2.4	C2.8	B8.8	B3.9	B6.5	B5.9	C2.5	C1.9	C2.2	C1.3
29	B8.1	B7.8		C3.8	C1.0	B3.5	B4.0	B2.7	C1.4	C2.9	C1.5	C1.1
30	B5.9	B5.9		C3.4	B9.0	B3.5	B4.0	B2.4	C1.2	C2.0	C1.8	C1.4
31	B6.8	B7.4		C2.8		B4.9		B2.5	B8.7		C1.9	

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 2001

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	LPS	1347E	1452	S20	E90	11	8.4			9	9	E	SVTO		
01	LPS	1416E	0003	S20	E90	11	8.5			9	9	E	HOLL		
01	DSF	1432U	0657U	S18	E10	11	2.4		15	0	0	E	SVTO		
02	ASR	0328	0345	S18	E90	11	9.0			8	9	E	LEAR	9687	
03	DSF	1135U	1140U	S01	W27	11	1.5		10	0	0	E	RAMY		
03	DSF	1508U	0629U	N02	W30	11	1.4		09	0	0	E	SVTO		
04	DSF	1135U	1140U	S01	W27	11	2.5		10	0	0	E	RAMY		
04	DSF	2318U	1434	N12	W30	11	2.7		10	0	0	E	HOLL		
08	DSF	1357U	0649U	S30	E22	11	10.3		06	0	0	E	SVTO		
09	DSF	0956U	2245U	N09	W35	11	6.8		18	0	0	E	LEAR	9692	
09	DSF	2258U	1844U	S07	W30	11	7.7	2		0	0	E	HOLL	9692	
10	DSF	0438	0520	N05	W36	11	7.5		05	0	0	E	LEAR	9692	
10	DSF	0934U	2304U	N29	W06	11	9.9		06	0	0	E	LEAR		
10	DSF	0934U	2304U	S18	E40	11	13.4		05	0	0	E	LEAR		
10	DSF	1328U	0716U	N30	E09	11	11.3	2	06	0	0	E	SVTO		
13	DSF	0906U	2318U	N47	E01	11	13.5		06	0	0	E	LEAR		
16	DSF	2043U	1150U	S04	E49	11	20.5		10	0	0	E	RAMY		
17	DSF	0404	0435	S10	E47	11	20.7	1	13	0	0	E	LEAR		
18	DSF	0315	0611	S37	E33	11	20.8		11	0	0	E	LEAR		
21	DSF	0710U	2216U	N33	W04	11	21.0		16	0	0	E	LEAR		
21	DSF	0710U	2216U	N55	W01	11	21.2		10	0	0	E	LEAR		
21	DSF	1139	0653U	N34	W09	11	20.8	3	13	0	0	E	SVTO		
21	DSF	1458U	0653U	S27	W01	11	21.5		11	0	0	E	SVTO		
22	DSF	1005U	2209U	S10	W29	11	20.2		08	0	0	E	LEAR	9704	
22	DSF	1435U	0703U	S16	W33	11	20.1		10	0	0	E	SVTO	9704	
22	DSF	2048U	1135U	S18	W36	11	20.1		17	0	0	E	RAMY	9704	
23	DSF	0951U	2205U	S17	E40	11	26.4		26	0	0	E	LEAR		
23	DSF	1035U	0744U	S23	E45	11	26.9		13	0	0	E	SVTO		
23	DSF	2048U	1135U	S18	W36	11	21.1		17	0	0	E	RAMY	9704	
23	DSF	2107U	1120U	N21	W09	11	23.2		05	0	0	E	RAMY		
24	DSF	2247U	1444U	N21	W07	11	24.4		08	0	0	E	HOLL		
25	DSF	0842U	2242U	S01	W10	11	24.6		20	0	0	E	LEAR		
25	SPY	2226E	2249	S12	E90	12	2.7			4	6	E	LEAR		
25	SPY	2226E	2249	S12	E90	12	2.7	3		4	6	E	LEAR		
28	DSF	2301U	1646	S01	W36	11	26.3			0	0	E	HOLL		
29	DSF	1436U	0652U	N16	E16	11	30.8		10	0	0	E	SVTO		
30	DSF	0305	0523	N18	E17	12	1.4		12	0	0	E	LEAR		
30	DSF	2259U	1634	N19	E04	12	1.3			0	0	E	HOLL		

SOHO/LASCO CME CATALOG (http://cdaw.gsfc.nasa.gov)

The Center for Solar Physics and Space Weather (CSPSW) announces the availability of an online catalog of CME measurements. The catalog is developed using the SOHO data in cooperation with the Naval Research Laboratory and the Solar Data Analysis Center (SDAC) at the Goddard Space Flight Center. The entries start from January 1996 (immediately after the launch of SOHO). The catalog is complete up to December 2001 and will be current soon. There are about 3000 CMEs in the catalog.

The catalog contains a list of all CMEs identified by LASCO operators, and a few additional ones identified during our measurements. In addition, it contains a number of measurements that characterize the CMEs: Date and time of first appearance in the C2 coronagraph field of view, central position angle, angular width (twice the cone-angle), speed from linear fit to the height-time measurements, speed at the last height of measurement using quadratic fit, speed at 20 Ro using quadratic fit, acceleration obtained from the quadratic fit, and the actual position angle at which the height-time measurements are made. Links are also provided to the daily mpeg movies created by the Naval Research Laboratory using C2 and C3 coronagraph images and the Extreme-ultraviolet Imaging Telescope (EIT) images at 195 A. Each CME is identified by the date and time of occurrence. Here are some additional features of the catalog:

1. By clicking on the date, one can view javascript movies of the CMEs within the C2 field of view, with the EIT 195 images superposed so that the solar source of the CME could be identified.
2. By clicking on the time, one can view the actual height-time measurements.
3. By clicking on the linear speed, one can view the height-time plot (in gif format); by clicking on the second order speed, one can view the quadratic fit.

The catalog resides at the CSPSW's CDAW Data Center (http://cdaw.gsfc.nasa.gov), supported by NASA. The catalog will undergo frequent updates, so please check the web site frequently. Java-script movies may not be available for all dates at the moment.

We started this project initially to study the relation between interplanetary type II radio bursts observed by the Wind/WAVES and then extended to all CMEs. We hope this catalog will be useful to the scientific community in enhancing scientific return from US Space missions.

Sample measurements were made by two post-doctoral fellows, Drs S. Yashiro and G. Michalek to check for consistency. The measurements were within 10% error. We also consulted several CME researchers in developing this catalog: Drs. R. Howard (NRL), O. C. St. Cyr (CSPSW/NRL/GSFC), S. P. Plunkett (NRL), N. Rich (NRL) and G Lawrence (CSPSW).

We encourage everyone to use the catalog and send us comments and suggestions so we can improve and refine the catalog. We would be delighted to participate in collaborative projects that use the catalog. Please keep us informed about your projects that use the catalog so we can avoid conflicts.

We suggest that users of the catalog acknowledge the catalog to the effect of the following:

"This CME catalog is generated and maintained by the Center for Solar Physics and Space Weather, The Catholic University of America in cooperation with the Naval Research Laboratory and NASA. SOHO is a project of international cooperation between ESA and NASA."

Financial support for this project is provided by the Air Force Office of Scientific Research (AFOSR) and NASA.

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SOLAR CORONAL MASS EJECTIONS (CMEs) FROM SOHO/LASCO

http/cdaw/gsfc.nasa.gov

Center for Solar Physics and Space Weather (CSPSW) – The Catholic University of America
In cooperation with the Naval Research Laboratory (NRL)
and the National Aeronautical and Space Administration (NASA)

NOVEMBER 2001

First C2 Appearance		Central Position	Angular	Linear Fit	2nd order speed			Accel	Measurement Position
Date	Time UT	Angle degree	Width degree	Speed km/s	Initial km/s	Final km/s	20R km/s	m/s^2	Angle degree
2001/11/01	03:30:05	250	069	559	626	489	514	-5.5	272
2001/11/01	08:30:05	323	038	346	271	428	429	5.2	324
2001/11/01	09:30:05	190	023	134	156	113	0	-4.9	189
2001/11/01	14:30:05	115	195	1053	995	1114	1089	8.1	111
2001/11/01	22:30:05	Halo	360	453	450	455	454	0.2	305
2001/11/02	12:30:05	45	051	579	695	458	301	-17.6	47
2001/11/02	12:30:05	211	104	282	188	382	353	3.8	199
2001/11/02	22:30:05	53	047	145	135	154	199	1.2	47
2001/11/03	00:07:40	250	052	476	369	585	668	15.7	252
2001/11/03	12:05:07	78	206	208	135	300	410	6.4	71
2001/11/03	17:50:06	248	058	327	365	285	0	-7.5	252
2001/11/03	19:20:05	Halo	360	457	571	329	299	-9.9	359
2001/11/04	07:50:05	23	136	259	259	260	262	0.1	11
2001/11/04	13:55:05	159	025	233	124	329	842	29.2	161
2001/11/04	16:35:06	Halo	360	1810	2058	1514	1691	-63.4	239
2001/11/05	01:25:32	63	064	711	798	614	491	-17.0	55
2001/11/05	09:43:25	252	040	967	997	936	898	-8.1	259
2001/11/06	17:38:29	29	014	320	353	287	0	-7.5	24
2001/11/06	18:00:43	28	026	315	322	307	233	-2.1	24
2001/11/10	02:06:05	207	012	196	165	226	275	2.0	206
2001/11/10	07:27:23	233	040	500	440	557	622	8.4	229
2001/11/10	13:27:19	85	>155	480	586	372	0	-19.0	87
2001/11/10	19:50:05	204	038	173	121	225	417	6.5	205
2001/11/11	01:27:25	297	031	542	558	525	444	-5.0	292
2001/11/12	00:26:05	266	053	353	----	----	----	------	259
2001/11/12	03:50:05	17	125	180	187	171	96	-1.0	40
2001/11/12	09:26:05	105	099	174	115	231	620	15.2	111
2001/11/12	10:06:05	151	058	480	376	587	578	8.2	142
2001/11/12	10:06:05	293	067	502	473	532	543	2.9	293
2001/11/12	19:50:05	122	012	352	242	467	518	9.0	121
2001/11/12	20:26:05	197	066	399	315	485	634	12.6	203
2001/11/12	22:06:05	130	011	417	319	513	574	9.6	131
2001/11/13	05:06:05	132	016	364	278	448	564	10.4	131
2001/11/13	06:06:05	267	066	416	455	377	252	-6.0	287
2001/11/13	18:26:06	57	044	272	102	439	875	31.6	52
2001/11/14	02:26:05	88	032	226	272	180	0	-25.7	94
2001/11/15	12:06:06	0	035	198	151	243	658	17.2	358
2001/11/15	20:50:05	32	164	618	245	964	1609	106.6	47
2001/11/16	03:26:05	17	149	118	0	232	341	4.9	355
2001/11/16	05:26:05	78	012	338	322	353	387	1.9	75
2001/11/16	05:26:05	79	013	334	356	313	0	-6.0	82
2001/11/16	08:50:05	60	062	347	205	494	1082	51.1	44
2001/11/16	21:15:35	52	067	364	388	337	224	-4.2	55

SOLAR CORONAL MASS EJECTIONS (CMEs) FROM SOHO/LASCO

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NOVEMBER 2001

First C2 Appearance		Central Position	Angular	Linear Fit	2nd order speed			Accel	Measurement Position
Date	Time UT	Angle degree	Width degree	Speed km/s	Initial km/s	Final km/s	20R km/s	m/s^2	Angle degree
2001/11/17	00:30:05	98	020	636	823	466	0	-82.4	96
2001/11/17	05:30:06	Halo	360	1379	1505	1249	1350	-22.5	58
2001/11/17	10:56:24	354	057	282	282	282	283	0.0	349
2001/11/17	13:31:56	301	066	280	190	374	537	10.8	305
2001/11/17	15:06:05	235	035	459	420	500	689	12.6	222
2001/11/18	00:30:05	16	010	285	289	282	266	-0.6	21
2001/11/18	21:30:08	Halo	360	888	927	846	843	-7.0	225
2001/11/19	03:54:05	84	110	281	327	231	0	-6.2	75
2001/11/19	10:06:05	65	050	284	337	230	0	-13.8	58
2001/11/19	12:54:05	302	040	443	476	410	323	-5.3	295
2001/11/19	13:31:54	81	085	245	239	251	306	1.5	88
2001/11/19	14:30:05	64	069	265	264	267	275	0.2	64
2001/11/19	16:30:05	293	019	628	687	571	354	-14.5	303
2001/11/19	19:54:16	76	111	361	356	366	381	0.8	44
2001/11/20	04:30:28	309	038	586	708	465	0	-58.0	312
2001/11/20	08:06:05	314	036	183	171	196	335	3.4	314
2001/11/20	18:30:05	66	058	193	193	194	208	0.3	75
2001/11/21	00:30:05	172	003	229	81	374	597	15.6	171
2001/11/21	04:30:32	7	004	249	163	337	472	9.3	12
2001/11/21	14:06:05	Halo	360	518	534	502	507	-1.2	185
2001/11/22	03:30:05	226	026	126	93	158	549	12.1	223
2001/11/22	08:54:05	302	054	681	818	537	0	-33.2	294
2001/11/22	15:30:05	24	068	27	26	27	48	0.1	41
2001/11/22	20:30:33	Halo	360	1443	1662	1231	1307	-43.3	221
2001/11/22	23:30:05	Halo	360	1437	1503	1371	1409	-12.9	349
2001/11/23	00:54:05	197	071	806	403	1205	1199	53.8	200
2001/11/24	09:47:48	239	038	467	377	560	766	22.4	223
2001/11/24	12:17:24	35	075	137	83	192	364	5.2	31
2001/11/25	00:30:50	233	014	320	101	527	736	22.3	234
2001/11/25	01:31:50	256	009	580	704	456	0	-25.6	255
2001/11/25	11:07:00	248	013	377	280	473	637	14.7	250
2001/11/25	23:06:54	104	182	1574	1698	1449	1520	-26.6	104
2001/11/26	04:54:05	230	017	405	383	432	426	1.6	234
2001/11/26	07:54:15	115	056	478	407	553	615	9.6	109
2001/11/26	07:54:15	56	135	76	45	107	212	1.8	65
2001/11/26	23:06:05	52	122	288	311	265	0	-7.4	42
2001/11/27	03:54:05	59	111	216	168	269	306	2.7	57
2001/11/27	05:06:06	146	049	160	229	90	0	-21.1	145
2001/11/27	10:30:33	309	058	598	598	599	599	0.1	319
2001/11/27	18:30:05	316	073	637	674	599	601	-3.9	316
2001/11/28	00:54:05	273	058	330	357	303	263	-2.5	274
2001/11/28	09:30:05	72	004	366	322	414	423	3.4	69

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NOVEMBER 2001

First C2 Appearance		Central							
		Position	Angular	Linear Fit	-------2nd order speed--------			Accel	Measurement Position
Date	Time UT	Angle degree	Width degree	Speed km/s	Initial km/s	Final km/s	20R km/s	m/s^2	Angle degree
2001/11/28	17:30:06	Halo	360	500	500	501	502	0.1	46
2001/11/28	23:06:05	216	028	181	220	141	0	-5.6	223
2001/11/29	03:30:05	305	075	368	259	480	450	6.7	316
2001/11/29	12:54:05	48	092	297	285	311	311	0.7	68
2001/11/29	16:54:05	32	065	330	398	260	0	-7.6	37
2001/11/29	23:28:12	294	013	235	234	235	235	0.0	292
2001/11/30	14:30:05	122	106	374	306	442	582	10.0	124
2001/11/30	18:06:05	99	053	315	182	469	410	5.6	94
2001/11/30	18:30:05	65	039	261	237	285	531	9.3	53
2001/11/30	20:30:05	143	074	261	126	386	521	11.9	130
2001/11/30	21:08:05	261	062	235	179	291	890	31.6	274

If you use data from this catalog, we would appreciate an acknowledgment as follows:

"This CME catalog is generated and maintained by the Center for Solar Physics and Space Weather, The Catholic University of America in cooperation with the Naval Research Laboratory and NASA. SOHO is a project of international cooperation between ESA and NASA."

CME heights are measured at the fastest segment of the leading edge
PA= Postion Angle measured from Solar North in degrees (Counter clockwise)
ONLINE -- Click on date to view java script movies
ONLINE -- Click on time to see height-time digital files
ONLINE -- Click on speed to view height-time plot
Numbers in 2nd order fit columns correspond to the speed at the last height of measurement and at a distance of 20 solar radii.