JANUARY 2003 NUMBER 701 - Part II

Solar-Geophysical Data comprehensive reports

Data for July 2002 and Miscellaneous
Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

NEW DATA:

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

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Data for July 2002 and Late Data

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SOLAR-GEOPHYSICAL DATA

Number 701

(Issued in Two Parts)

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ACE SOLAR WIND, INTERPLANETARY MAGNETIC FIELD AND PARTICLES -- MONTHLY PLOTS

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Hα SOLAR FLARES

JULY 2002

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	SVTO	01	0753	0753	0756	S19	W28	10017	06	29.3	3	SF		3	E		11		
0002		01	09064	0907	0922	S20	W28	10017	06	29.3	16	SF					28		D
	KANZ	01	0906	0907	0920	S19	W28	10017	06	29.3	14	SF		2	E				
	SVTO	01	0910	0911U	0916	S19	W29	10017	06	29.3	6	SF		2	E		11		
	KHAR	01	0915E		0929	S21	W26	10017	06	29.5	14D	SF		3	P	0917	45		D
0003	KHAR	01	0915E		0936	S14	W59		06	27.0	21D	SF		3	P	0917	60		DH
0004	HOLL	01	1430	1432	1436	S29	W48	10015	06	27.9	6	SF		3	E		49		
		01	2131		2147	No Flare Patrol													
		01	2207		2342	No Flare Patrol													
		02	0917		1008	No Flare Patrol													
0005	RAMY	02	1411	1411	1432	S19	E37	10019	07	5.4	21	SF		3	E		28		F
0006	RAMY	02	1516	1521	1524	S19	W43	10017	06	29.4	8	SF		3	E		12		
0007	RAMY	02	1651	1652	1655	S17	W52	10017	06	28.8	4	SF		3	E		20		H
0008	RAMY	02	1840	1840	1849	S18	E30	10019	07	5.1	9	SF		3	E		23		
0009		02	19233	19243	1934	S18	W52	10017	06	28.9	11	SF					40		H
	HOLL	02	1923	1924	1930	S19	W51	10017	06	29.0	7	SF		3	E		45		
	RAMY	02	1926	1927	1938	S17	W53	10017	06	28.9	12	SF		3	E		35		H
0010		02	1949*	2029	2126	S18	W48	10017	06	29.3	97	SF					83		F
	HOLL	02	1949	2029	2110	S18	W51	10017	06	29.0	81	SF		3	E		102		F
	RAMY	02	2021	2029	2142	S18	W46	10017	06	29.4	81	SF		3	E		64		F
0011	HOLL	02	2111	2111	2117	S19	W49	10017	06	29.2	6	SF		3	E		12		
0012	RAMY	02	1953	1958	2017	S19	W46	10017	06	29.4	24	SF		3	E		23		FH
0013		02	19583	20013	2019	S18	E30	10019	07	5.1	21	SF					16		F
	RAMY	02	1958	2004	2024	S18	E30	10019	07	5.1	26	SF		3	E		23		F
	HOLL	02	2001	2001	2014	S17	E30	10019	07	5.1	13	SF		3	E		10		
		02	2249		2329	No Flare Patrol													
0014	HOLL	02	2330	2335	2341	S21	W47	10017	06	29.5	11	SF		3	E		20		F
0015	LEAR	03	0210	0213	0327	S20	W51	10017	06	29.3	77	1B		3	E		205		EF
0016	LEAR	03	0437	0444	0502	S18	E24	10019	07	5.0	25	SF		3	E		14		FH
0017		03	0705	0706	0710	S34	E71	10024	07	8.9	5	1F					100		H
	SVTO	03	0701E	0709U	0712D	S34	E72	10024	07	9.0	11D	1F		2	E		180		
	LEAR	03	0705	0706	0710	S35	E70	10024	07	8.9	5	SF		3	E		21		H
0018	KANZ	03	0800E	0800U	0803D	S19	E24	10019	07	5.2	3D	SF		2	E				
0019		03	0801	0818	0828	S20	E24	10019	07	5.2	27	SF					26		FH
	LEAR	03	0801	0818	0833	S20	E23	10019	07	5.1	32	SF		3	E		30		FH
	SVTO	03	0806E	0811U	0823	S19	E24	10019	07	5.2	17D	SF		2	E		22		
0020		03	0851	08511	0856	S22	E28	10019	07	5.5	5	SF					14		F
	LEAR	03	0851	0851	0855	S22	E28	10019	07	5.5	4	SF		3	E		11		F
	SVTO	03	0851	0852	0856	S22	E29	10019	07	5.6	5	SF		3	E		17		F
0021		03	1144	1156	1223	S19	E20	10019	07	5.0	39	1N					95		FH
	RAMY	03	1144	1156	1223	S18	E21	10019	07	5.1	39	1N		3	E		140		FH
	SVTO	03	1147E	1159U	1212D	S20	E20	10019	07	5.0	25D	SF		2	E		50		
0022	RAMY	03	1324	1324	1334	S19	W54	10017	06	29.5	10	SF		3	E		22		
0023	RAMY	03	1808	1808	1812	S19	W58	10017	06	29.4	4	SF		3	E		14		F

JULY 2002

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
0024	RAMY	03	1844	1844	1850	S18	W57	10017	06	29.5	6	SF		3	E		16		F
		03	1908		1923	No Flare Patrol													
0025	RAMY	03	1920	1920	1926	S17	W58	10017	06	29.5	6	SF		3	E		13		F
0026	RAMY	03	1927	2100	2214	S19	W62	10017	06	29.2	167	1N		3	E		153		F
		03	1934		2028	No Flare Patrol													
		03	2113		2123	No Flare Patrol													
0027	HOLL	03	2125E	2133U	2222	S18	W63	10017	06	29.2	57D	SF		3	E		43		
0028	RAMY	03	2100	2102	2113	S35	E62	10024	07	8.8	13	SF		3	E		20		
		03	2234		2316	No Flare Patrol													
0029	HOLL	03	2317E	2319U	2323D	S19	W63	10017	06	29.3	6D	SF		2	E		80		U
		03	2324		2337	No Flare Patrol													
0030	LEAR	04	0038	0039	0045	S18	W66	10017	06	29.1	7	SF		3	E		87		F
0031	LEAR	04	0127	0128	0133	S18	W62	10017	06	29.4	6	SF		3	E		29		F
0032	LEAR	04	0454	0455	0458	S19	W65	10017	06	29.3	4	SF		3	E		14		
0033	LEAR	04	0457	0459	0517	S20	E12	10019	07	5.1	20	SF		3	E		36		F
0034	SVTO	04	0506E	0506U	0518D	S20	E20	10019	07	5.7	12D	SF		2	E		42		F
0035		04	0617	06233	0640	S19	W66	10017	06	29.3	23	SF					50		FH
	LEAR	04	0617	0623	0640	S19	W66	10017	06	29.3	23	SF		3	E		45		F
	SVTO	04	0626E	0626	0634D	S19	W66	10017	06	29.3	8D	SF		2	E		56		FH
0036	LEAR	04	0733	0733	0742	S19	W77	10017	06	28.5	9	SF		3	E		41		F
0037	SVTO	04	1011	1013	1016	S19	W67	10017	06	29.4	5	SF		3	E		68		
0038	SVTO	04	1047	1047	1057	S18	W76	10017	06	28.8	10	SF		3	E		16		
0039	RAMY	04	1328	1328	1336	S20	W69	10017	06	29.4	8	SF		2	E		34		
0040		04	14511	14561	1514	S20	W71	10017	06	29.3	23	1B					141		H
	RAMY	04	1451	1456	1528	S19	W71	10017	06	29.3	37	1B		3	E		153		H
	SVTO	04	1451	1457	1507	S20	W73	10017	06	29.1	16	1B		3	E		139		
	HOLL	04	1452	1457	1508	S21	W68	10017	06	29.5	16	1N		3	E		130		
0041	RAMY	04	1609	1611	1614	S18	W70	10017	06	29.4	5	SF		3	E		47		
0042	RAMY	04	1617	1617	1623	S19	E06	10019	07	5.1	6	SF		3	E		19		F
0043	RAMY	04	1745	1747	1811	S19	E06	10019	07	5.2	26	SF		3	E		48		F
0044	RAMY	04	1743	1744	1749	S19	W72	10017	06	29.3	6	SF		3	E		26		
0045	RAMY	04	1753	1753	1803	S17	W79	10017	06	28.8	10	SF		3	E		16		
0046	RAMY	04	1846	1847	1852	S18	W79	10017	06	28.9	6	SF		3	E		31		
0047	RAMY	04	2118	2118	2127	S21	E23	10022	07	6.6	9	SF		3	E		17		F
		04	2231		2336	No Flare Patrol													
0048	LEAR	05	0739	0741	0748	S18	W88	10017	06	28.7	9	SF		3	E		15		
0049	RAMY	05	1321	1322	1325	S16	W85	10017	06	29.2	4	SF		3	E		15		H

Hα SOLAR FLARES

JULY 2002

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
0050		05	13283	13321	1341	S18	W87	10017	06	29.0	13	SF					32		H
	RAMY	05	1328	1332	1342	S18	W89	10017	06	28.9	14	SF		3	E		45		H
	HOLL	05	1329	1333	1341	S19	W82	10017	06	29.4	12	SF		3	E		22		
	SVTO	05	1331	1332	1340	S18	W89	10017	06	28.9	9	SF		3	E		30		
0051		05	15381	15414	1601	S29	W17	10021	07	4.3	23	SF					41		F
	RAMY	05	1538	1542	1604	S28	W18	10021	07	4.2	26	SF		3	E		40		
	HOLL	05	1539	1541	1556	S29	W15	10021	07	4.5	17	SF		3	E		39		F
	SVTO	05	1539	1545	1604	S29	W18	10021	07	4.2	25	SF		3	E		44		F
0052		05	1548	15515	1613	S19	W02	10019	07	5.5	25	SF					55		F
	HOLL	05	1548	1551	1612	S19	W01	10019	07	5.6	24	SF		3	E		51		F
	RAMY	05	1548	1551	1614	S19	W02	10019	07	5.5	26	SF		3	E		61		F
	SVTO	05	1548	1556	1614	S19	W03	10019	07	5.4	26	SF		3	E		52		F
0053		05	16141	16171	1627	S28	W16	10021	07	4.4	13	SF					22		F
	SVTO	05	1614	1617	1632	S29	W17	10021	07	4.3	18	SF		3	E		28		F
	RAMY	05	1615	1618	1622	S28	W16	10021	07	4.4	7	SF		3	E		16		
0054	RAMY	05	1726	1727	1730	S28	W18	10021	07	4.3	4	SF		3	E		21		
0055	RAMY	05	1733	1733	1739	S28	W16	10021	07	4.5	6	SF		3	E		19		
0056		05	1811	1823	1834	S28	W18	10021	07	4.3	23	SF					52		
	RAMY	05	1811	1823	1830	S28	W19	10021	07	4.3	19	SF		3	E		48		
	HOLL	05	1811	1823	1839	S28	W17	10021	07	4.4	28	SF		3	E		56		
0057	HOLL	05	2028	2029	2035	S29	W18	10021	07	4.4	7	SF		3	E		21		
0058	HOLL	05	2029	2033	2038	S20	E08	10022	07	6.5	9	SF		3	E		19		
0059		05	2049	20511	2102	S28	W18	10021	07	4.5	13	SF					55		
	HOLL	05	2049	2051	2101	S28	W19	10021	07	4.4	12	SF		3	E		60		
	RAMY	05	2049	2052	2102	S28	W18	10021	07	4.5	13	SF		3	E		50		
0060	HOLL	05	2132	2132	2136	S29	W19	10021	07	4.4	4	SF		3	E		12		
0061	HOLL	05	2200	2213	2225	S29	W21	10021	07	4.3	25	SF		3	E		36		
		05	2336		2400	No Flare Patrol													
		06	0000		0401	No Flare Patrol													
0062		06	09256	0937	1003	S19	W12	10019	07	5.5	38	1N					107		FS
	KANZ	06	0925	0937	1004	S19	W12	10019	07	5.5	39	1F		2	E				
	SVTO	06	0931	0937	1002	S19	W12	10019	07	5.5	31	1N		3	E		107		FS
0063		06	12375	12451	1302	N08	E25		07	8.4	25	SF					92		F
	KANZ	06	1237	1246	1303	N09	E24		07	8.3	26	1F		2	E				
	RAMY	06	1242	1245	1302	N09	E25		07	8.4	20	SF		3	E		88		F
	SVTO	06	1242	1246	1300	N07	E26		07	8.5	18	SF		2	E		96		F
		06	1817		1849	No Flare Patrol													
		06	1911		1917	No Flare Patrol													
		06	1921		2016	No Flare Patrol													
		06	2041		2354	No Flare Patrol													
		07	0054		0111	No Flare Patrol													
		07	0139		0159	No Flare Patrol													
		07	0300		0415	No Flare Patrol													
0064	RAMY	07	1301	1303	1312	S19	E46	10025	07	11.0	11	SF		3	E		23		F
		07	1650		1657	No Flare Patrol													
		07	1815		1826	No Flare Patrol													
		07	1832		1915	No Flare Patrol													
		07	1923		2341	No Flare Patrol													
		08	0138		0256	No Flare Patrol													
		08	0506		0516	No Flare Patrol													
		08	0524		0547	No Flare Patrol													
		08	1833		1844	No Flare Patrol													
		08	1851		2139	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
		08	2241		2336	No Flare Patrol													
		09	2109		2336	No Flare Patrol													
0065	LEAR	10	0146	0149	0159	N21	E71	10030	07	15.5	13	SF		3	E		26		F
0066	LEAR	10	0418	0419	0427	N18	E68	10030	07	15.3	9	SF		3	E		40		
0067		10	1034*	1048	1054	S20	E08	10025	07	11.0	20	SF					17		
	KANZ	10	1034	1041U	1055	S20	E07	10025	07	11.0	21	SF		2	E				
	RAMY	10	1046	1048	1054	S20	E08	10025	07	11.1	8	SF		3	E		17		
0068		10	12491	1250	1253	S20	E07	10025	07	11.1	4	SF					18		FH
	SVTO	10	1249	1250	1252	S19	E06	10025	07	11.0	3	SF		2	E		16		FH
	KANZ	10	1249	1250	1253	S21	E05	10025	07	10.9	4	SF		2	E				
	RAMY	10	1250	1250	1254	S19	E09	10025	07	11.2	4	SF		3	E		20		FH
0069		10	13072	13291	1404	S19	E08	10025	07	11.1	57	SF					78		FH
	KANZ	10	1307	1326U	1326D	S18	E08	10025	07	11.1	19D	SF		2	E				
	RAMY	10	1308	1329	1411	S19	E08	10025	07	11.1	63	SF		3	E		80		FH
	SVTO	10	1309	1330	1358	S19	E08	10025	07	11.1	49	SF		2	E		75		FH
0070	HOLL	10	1823	1828	1832	N21	E61	10030	07	15.4	9	SF		3	E		60		
0071	HOLL	10	1914	1914	1920	N22	E69	10030	07	16.1	6	SF		3	E		19		
0072	HOLL	10	1925	1927	1928	N22	E69	10030	07	16.1	3	SF		3	E		19		
		10	2205		2328	No Flare Patrol													
		10	2339		2400	No Flare Patrol													
		11	0000		0023	No Flare Patrol													
0073		11	07102	0712	0716	N19	E65	10030	07	16.2	6	SF					26		F
	SVTO	11	0710	0712	0718	N19	E66	10030	07	16.3	8	SF		3	E		35		F
	LEAR	11	0712	0712	0714	N19	E65	10030	07	16.3	2	SF		3	E		16		F
	KANZ	11	0712E	0715U	0715D	N19	E64	10030	07	16.2	3D	SF		2	E				
		11	0831		0904	No Flare Patrol													
0074	SVTO	11	1006	1020	1031	N20	E66	10030	07	16.5	25	SF		3	E		18		F
0075	SVTO	11	1034	1037	1049	N22	E62	10030	07	16.2	15	SF		3	E		22		
0076	KANZ	11	1325	1325	1331	S11	E49		07	15.2	6	SF		2	E				
0077	KANZ	11	1417	1418	1425	N19	E60	10030	07	16.2	8	SF		2	E				
0078	KANZ	11	1446	1453	1513	N21	E56	10030	07	15.9	27	2N		2	E				
		11	2039		2101	No Flare Patrol													
		11	2113		2120	No Flare Patrol													
		11	2204		2213	No Flare Patrol													
		11	2218		2400	No Flare Patrol													
		12	0000		0004	No Flare Patrol													
0079	SVTO	12	0659	0659	0709	N20	E47	10030	07	15.9	10	SF		3	E		17		F
0080		12	0851	0851	0905	N22	E42	10030	07	15.6	14	SF					18		F
	LEAR	12	0851	0851	0903	N22	E41	10030	07	15.5	12	SF		2	E		18		F
	SVTO	12	0851	0851	0907	N22	E43	10030	07	15.7	16	SF		3	E		17		F
0081	RAMY	12	1217	1217	1226	N18	E46	10030	07	16.0	9	SF		3	E		11		
0082		12	13331	13372	1350	N18	E46	10030	07	16.1	17	SF					57		
	KANZ	12	1333	1337	1350	N18	E44	10030	07	15.9	17	SF		2	E				
	SVTO	12	1334	1339	1350	N17	E47	10030	07	16.1	16	SF		3	E		57		
0083	HOLL	12	1334	1348	1351	N18	E45	10030	07	16.0	17	SF		3	E		12		

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0084		12	13511	1352	1354	N18	E45	10030	07	16.0	3	SF					14		
	SVTO	12	1351	1352	1354	N17	E45	10030	07	16.0	3	SF		3	E		14		
	KANZ	12	1352	1352	1355	N19	E45	10030	07	16.0	3	SF		2	E				
0085	SVTO	12	1551	1551	1558	N18	E41	10030	07	15.8	7	SF		3	E		11		
		12	1948		1957	No Flare Patrol													
0086	HOLL	12	2204	2204	2210	N19	E40	10030	07	16.0	6	SF		3	E		22		
0087	HOLL	12	2324	2326	2352	N19	E40	10030	07	16.0	28	SF		3	E		54		U
0088	HOLL	12	2354		2438	N18	E38	10030	07	15.9	44	2F		3	E		285		FU
0089	LEAR	12	2358	2401	2438	N18	E31	10030	07	15.3	40	1F		1	E		121		FH
0090		13	00397	00472	0101	N21	E38	10030	07	15.9	22	1F					122		F
	HOLL	13	0039	0049	0103	N22	E38	10030	07	15.9	24	1F		3	E		169		F
	LEAR	13	0046	0047	0059	N20	E39	10030	07	16.0	13	SF		2	E		76		F
0091	LEAR	13	0404	0404	0410	N19	E37	10030	07	16.0	6	SF		3	E		15		F
0092	LEAR	13	0554	0555	0557	N18	E36	10030	07	16.0	3	SF		2	E		13		F
0093	LEAR	13	0642	0644	0649	N12	E51	10031	07	17.1	7	SF		3	E		19		FU
0094	KANZ	13	0731	0735	0750	N16	E46	10031	07	16.8	19	SN		2	E				
0095		13	0752	07531	0756	N20	E36	10030	07	16.1	4	SF					24		
	KANZ	13	0752	0753	0756	N20	E35	10030	07	16.0	4	SF		2	E				
	SVTO	13	0752	0754	0756	N20	E37	10030	07	16.1	4	SF		3	E		27		
	LEAR	13	0752	0754	0757	N19	E36	10030	07	16.1	5	SF		3	E		21		
0096		13	08131	08151	0822	N17	E34	10030	07	15.9	9	SF					42		F
	KANZ	13	0813	0816	0823	N17	E34	10030	07	15.9	10	SF		2	E				
	LEAR	13	0814	0815	0821	N16	E34	10030	07	15.9	7	SF		2	E		36		F
	SVTO	13	0814	0815	0823	N17	E35	10030	07	16.0	9	SF		3	E		48		
0097	KANZ	13	1230	1231	1236	S19	W11	10032	07	12.7	6	SF		2	E				
0098	KANZ	13	1500	1501	1504	S20	E22	10034	07	15.3	4	SF		2	E				
0099		13	17222	1724	1731	N20	E24	10030	07	15.5	9	SF					25		F
	HOLL	13	1722	1724	1729	N21	E21	10030	07	15.3	7	SF		3	E		25		F
	RAMY	13	1724	1724	1733	N20	E26	10030	07	15.7	9	SF		3	E		25		F
		13	1956		2020	No Flare Patrol													
		13	2033		2039	No Flare Patrol													
0100	HOLL	13	2344	2348	2353	N18	E19	10030	07	15.4	9	SF		3	E		21		
0101	SVTO	14	0517	0517	0532	N17	E21	10030	07	15.8	15	SF		3	E		15		F
0102	LEAR	14	0644	0644	0652	N19	E22	10030	07	15.9	8	SF		3	E		17		F
0103	KANZ	14	0845E	0847	0851	N20	E20	10030	07	15.9	6D	SF		2	E				
		14	1004		1008	No Flare Patrol													
		14	1011		1021	No Flare Patrol													
0104	RAMY	14	1357	1400	1407	N20	E10	10030	07	15.3	10	SF		3	E		15		F
0105		14	14567	15054	1532	N18	E13	10030	07	15.6	36	SF					30		
	RAMY	14	1456	1509	1556	N17	E15	10030	07	15.8	60	SF		3	E		39		
	HOLL	14	1503	1505	1507	N18	E11	10030	07	15.5	4	SF		3	E		21		
0106	HOLL	14	1511	1513	1515	N18	E15	10030	07	15.8	4	SF		3	E		39		F

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0107		14	1515	1517	1524	N18	E15	10030	07	15.8	9	SF					24		F
	HOLL	14	1515	1517	1524	N18	E15	10030	07	15.8	9	SF		3	E		29		
	SVTO	14	1517E	1517U	1523D	N17	E15	10030	07	15.8	6D	SF		2	E		20		F
0108	SVTO	14	1526	1527	1534	N18	E10	10030	07	15.4	8	SF		3	E		12		
0109	RAMY	14	1612	1612	1617	N20	E17	10030	07	16.0	5	SF		3	E		31		
		14	2021		2303	No Flare Patrol													
		14	2312		2333	No Flare Patrol													
0110	LEAR	15	0131	0133	0137	N19	E09	10030	07	15.8	6	SF		3	E		10		
0111	LEAR	15	0201	0203	0213	N24	E08	10030	07	15.7	12	SF		3	E		28		FH
0112	LEAR	15	0422	0423	0429	N19	E08	10030	07	15.8	7	SF		3	E		15		F
0113	LEAR	15	0506	0507	0527	N21	E09	10030	07	15.9	21	SF		4	E		62		F
0114	SVTO	15	0901	0904	0910	N18	E05	10030	07	15.7	9	SF		3	E		11		
0115	SVTO	15	1022	1030	1040	N19	E04	10030	07	15.7	18	SF		3	E		23		F
0116	SVTO	15	1112	1145	1245	N20	E04	10030	07	15.8	93	SF		3	E		89		F
0117		15	1353	1402	1423	N18	E01	10030	07	15.6	30	SF					57		F
	SVTO	15	1353	1402	1446	N19	E02	10030	07	15.7	53	SF		2	E		88		F
	KANZ	15	1357E	1403U	1415	N18	E01	10030	07	15.6	18D	SF		2	E				
	RAMY	15	1402E	1403U	1409	N18	E01	10030	07	15.7	7D	SF		3	E		26		F
0118		15	1700	1720	1748	N22	E06	10030	07	16.2	48	SF					16		
	HOLL	15	1700	1720	1748	N22	E06	10030	07	16.2	48	SF		3	E		20		
	SVTO	15	1705E	1715U	1738D	N21	E07	10030	07	16.2	33D	SF		1	E		13		
0119	HOLL	15	1839	1839	1852	N17	W01	10030	07	15.7	13	SF		3	E		39		
0120	HOLL	15	1950	2011	2334D	N19	W01	10030	07	15.7	224D	3B		3	E		733		FU
		15	2054		2328	No Flare Patrol													
0121	LEAR	16	0512	0513	0521	S09	E77	10036	07	22.0	9	SF		3	E		28		
0122	LEAR	16	0639	0640	0726	N22	W02	10030	07	16.1	47	SN		3	E		70		EF
0123		16	0703E	0716	0728D	N22	W02	10030	07	16.1	25D	1F					60		F
	SVTO	16	0703E	0711U	0728D	N23	W02	10030	07	16.1	25D	SF		2	E		60		F
	KANZ	16	0712E	0716	0718D	N22	W03	10030	07	16.1	6D	1F		2	E				
0124		16	11412	11421	1156	S06	E70	10036	07	21.7	15	SF					56		
	SVTO	16	1141	1142	1152	S06	E69	10036	07	21.6	11	SF		3	E		43		
	RAMY	16	1143	1143	1201	S07	E70	10036	07	21.7	18	SF		3	E		70		
0125	SVTO	16	1150	1156	1215D	N23	W05	10030	07	16.1	25D	SF		3	E		28		
0126	RAMY	16	1151	1202	1215	N18	W14	10030	07	15.4	24	SF		3	E		28		F
0127	RAMY	16	1202	1221	1237	S08	E71	10036	07	21.8	35	SF		3	E		22		H
0128		16	1332	1343	1451D	N20	W08	10030	07	15.9	79D	1F					46		F
	SVTO	16	1332	1341U	1451D	N19	W10	10030	07	15.8	79D	SF		3	E		46		F
	KANZ	16	1338E	1343	1405D	N22	W07	10030	07	16.0	27D	1F		2	E				
0129		16	1339*	14019	1445	N21	W08	10030	07	15.9	66	SF					51		F
	RAMY	16	1339	1410	1445	N23	W07	10030	07	16.0	66	SF		3	E		51		F
	KANZ	16	1358	1401	1405D	N19	W10	10030	07	15.8	7D	SF		2	E				
0130	KANZ	16	1402	1403	1405D	N21	W12	10030	07	15.7	3D	SF		2	E				
0131	SVTO	16	1514E	1515	1518	S16	W71	10025	07	11.2	4D	SF		3	E		22		

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0132	RAMY	16	1536	1539	1549	N21	W09	10030	07	16.0	13	SF		3	E		18		F
0133		16	16142	16151	1632	N23	W07	10030	07	16.1	18	SF					12		F
	RAMY	16	1614	1615	1640	N23	W07	10030	07	16.1	26	SF		3	E		13		F
	SVTO	16	1616	1616	1624	N23	W07	10030	07	16.1	8	SF		3	E		10		F
0134	SVTO	16	1625	1632	1638	N23	W07	10030	07	16.1	13	SF		3	E		13		F
0135	RAMY	16	1622	1622	1643	S15	W67	10027	07	11.6	21	SF		3	E		15		
0136	RAMY	16	1707	1709	1712	S15	W72	10027	07	11.3	5	SF		3	E		15		
0137	RAMY	16	1719	1720	1725	S16	W73	10027	07	11.2	6	SF		3	E		12		F
0138	RAMY	16	1729	1730	1735	S15	W73	10027	07	11.2	6	SF		3	E		15		
0139		16	2124	21399	2206	N19	W14	10030	07	15.8	42	SF					34		F
	RAMY	16	2124	2139	2222D	N19	W14	10030	07	15.8	58D	SF		3	E		35		F
	HOLL	16	2124	2148	2206	N19	W15	10030	07	15.7	42	SF		3	E		33		F
0140	HOLL	16	2222	2224	2241	N16	E72	10037	07	22.4	19	SF		3	E		83		
0141	HOLL	16	2249	2255	2307	N20	W07	10030	07	16.4	18	SF		3	E		19		
0142	HOLL	16	2251	2253	2256	S05	E64	10036	07	21.7	5	SF		3	E		12		
		16	2309		2334	No Flare Patrol													
		16	2350		2400	No Flare Patrol													
0143	LEAR	17	0250	0251	0254	S08	E60	10036	07	21.6	4	SF		2	E		16		F
0144	LEAR	17	0255	0255	0300	S08	E60	10036	07	21.6	5	SF		2	E		22		F
0145	LEAR	17	0302	0303	0313	S08	E60	10036	07	21.6	11	SF		3	E		19		
0146	LEAR	17	0344	0345	0349	S08	E60	10036	07	21.6	5	SF		2	E		31		F
0147	LEAR	17	0350	0354	0401	S08	E60	10036	07	21.6	11	SF		3	E		47		
0148		17	0548	05502	0629	N20	W18	10030	07	15.9	41	1F					80		F
	LEAR	17	0548	0550	0629	N20	W18	10030	07	15.9	41	SF		3	E		56		F
	SVTO	17	0548	0552	0629	N21	W18	10030	07	15.9	41	1F		3	E		103		F
0149	LEAR	17	0552	0552	0603	S08	E58	10036	07	21.6	11	SF		3	E		13		
0150		17	06501	06521	0657	S06	E58	10036	07	21.6	7	SF					30		
	LEAR	17	0650	0652	0657	S06	E58	10036	07	21.6	7	SF		3	E		36		
	SVTO	17	0651	0653	0657	S06	E59	10036	07	21.7	6	SF		3	E		23		
0151		17	0701	0704	0753	N20	W16	10030	07	16.1	52	1B					198		FU
	LEAR	17	0701	0704	0747	N19	W16	10030	07	16.1	46	1B		3	E		183		UF
	SVTO	17	0701	0704	0759	N21	W17	10030	07	16.0	58	1B		3	E		213		UF
0152	LEAR	17	0809	0809	0815	S08	E57	10036	07	21.6	6	SF		3	E		19		
0153	LEAR	17	0825	0840	0857	N23	W18	10030	07	16.0	32	SF		3	E		26		F
		17	0929		0959	No Flare Patrol													
		17	1021		1039	No Flare Patrol													
0154	KHAR	17	1040E		1053	N21	W20	10030	07	15.9	13D	1F		2	V				B
0155	KHAR	17	1040E		1048	S18	W88	10025	07	10.7	8D	SF		2	V				H
0156	KHAR	17	1100U		1115U	S04	E56	10036	07	21.6	15U	SF		2	V				
		17	1103		1129	No Flare Patrol													
0157	KHAR	17	1115	1120	1129	S18	W88	10025	07	10.8	14	SN		2	V				

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0158	KHAR	17	1128		1225	N19	W17	10030	07	16.2	57	1F			2	V				L
		17	1226		1300	No Flare Patrol														
0159	RAMY	17	1832	1833	1838	N17	E62	10037	07	22.5	6	SF			3	E		19		F
		17	1930		2035	No Flare Patrol														
0160	HOLL	17	2045	2050	2051	N24	W24	10030	07	16.0	6	SF			3	E		28		
0161	HOLL	17	2053	2056	2113	N23	W23	10030	07	16.1	20	SF			3	E		23		
		17	2306		2311	No Flare Patrol														
		18	0111		0215	No Flare Patrol														
0162	LEAR	18	0330E	0336U	0345D	N20	W27	10030	07	16.1	15D	SB			1	E		88		EF
0163		18	06473	06512	0658	N19	W32	10030	07	15.8	11	SF						11		F
	LEAR	18	0647E	0647U	0658	N18	W33	10030	07	15.8	11D	SF			2	E		10		F
	KANZ	18	0647	0653	0659	N19	W32	10030	07	15.8	12	SF			2	E				
	SVTO	18	0650	0651	0657	N19	W32	10030	07	15.8	7	SF			3	E		12		F
0164		18	07411	07431	0801	N19	W33	10030	07	15.8	20	2B						518	7.5	FU
	LEAR	18	0741	0743U	0800D	N19	W30	10030	07	16.0	19D	2B			3	E		440		UF
	SVTO	18	0741	0744	0807	N19	W34	10030	07	15.7	26	2B			3	E		525		UF
	MITK	18	0742	0743	0755	N19	W34	10030	07	15.7	13	2N				C	0743	588	7.5	U
0165	SVTO	18	0830	0833	0853	N21	W29	10030	07	16.1	23	SF			3	E		49		
0166		18	11531	11561	1215	N16	E52	10037	07	22.4	22	1F						104		F
	RAMY	18	1153	1157	1215	N17	E53	10037	07	22.5	22	1F			3	E		125		F
	SVTO	18	1154	1156	1217D	N16	E52	10037	07	22.4	23D	SF			3	E		82		F
		18	1242		1246	No Flare Patrol														
0167	RAMY	18	1745	1747	1754	N21	W37	10030	07	15.9	9	SF			3	E		10		F
0168	RAMY	18	1800	1802	1810	S09	E28	10035	07	20.8	10	SF			3	E		24		F
		18	1853		2000	No Flare Patrol														
0169	HOLL	18	2019	2019	2049	S06	E39	10036	07	21.8	30	SF			3	E		20		F
		18	2109		2400	No Flare Patrol														
		19	0000		0409	No Flare Patrol														
		19	0437		0442	No Flare Patrol														
0170	SVTO	19	0507	0510	0517	N19	W45	10030	07	15.8	10	SF			3	E		39		F
0171	KANZ	19	0551	0552	0554	N20	W43	10030	07	15.9	3	SF			2	E				
0172	SVTO	19	0626	0634	0656	N15	W40	10030	07	16.2	30	SF			3	E		17		F
0173	KANZ	19	0839	0840	0842	N19	W49	10030	07	15.6	3	SF			2	E				
0174	KANZ	19	0917	0918	0922	N20	W45	10030	07	15.9	5	SF			2	E				
		19	0933		1017	No Flare Patrol														
0175	SVTO	19	1019E	1021U	1037D	S09	E19	10035	07	20.8	18D	SF			2	E		29		
0176	RAMY	19	1248	1249	1253	N20	W49	10030	07	15.8	5	SF			3	E		49		FH
0177	RAMY	19	1811	1813	1831	N18	W46	10030	07	16.2	20	SF			3	E		66		FH
0178	RAMY	19	1846	1847	1904	N17	W47	10030	07	16.2	18	SF			3	E		30		F
0179	RAMY	19	1907	1907	1910	N17	W48	10030	07	16.1	3	SF			3	E		26		FU

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0180	RAMY	19	1934	1942	1959	N18	W46	10030	07	16.3	25	SF		3	E		15		FH
0181	RAMY	19	2017	2018	2020	N21	W57	10030	07	15.5	3	SF		3	E		12		
		19	2233		2246	No Flare Patrol													
		19	2259		2329	No Flare Patrol													
		19	2334		2344	No Flare Patrol													
		19	2349		2400	No Flare Patrol													
		20	0000		0023	No Flare Patrol													
0182		20	0759E	0759U	0814	S11	E24	10036	07	22.1	15D	SF					34		F
	SVTO	20	0759E	0759U	0817D	S10	E25	10036	07	22.2	18D	SF		2	E		34		F
	KANZ	20	0801E	0801U	0814	S12	E22	10036	07	22.0	13D	SF		2	E				
0183	KANZ	20	0812	0812	0815	S07	E19	10036	07	21.8	3	SF		2	E				
0184		20	1232E	1242U	1259	N20	W60	10030	07	15.9	27D	1N					170		F
	SVTO	20	1232E	1242U	1256D	N20	W61	10030	07	15.8	24D	1N		2	E		186		F
	RAMY	20	1245E	1245U	1259	N20	W60	10030	07	15.9	14D	1N		2	E		155		
0185	SVTO	20	1301E	1305U	1311D	N21	W59	10030	07	16.0	10D	SF		2	E		74		
0186		20	13205	13254	1332	N16	E72	10038	07	26.0	12	SF					16		H
	KANZ	20	1320	1325	1332	N16	E71	10038	07	25.9	12	SF		2	E				
	RAMY	20	1325	1328	1332	N16	E72	10038	07	26.0	7	SF		2	E		14		H
	SVTO	20	1325	1329	1332	N17	E72	10038	07	26.0	7	SF		3	E		17		
0187	SVTO	20	1654	1655	1658	N21	W63	10030	07	15.9	4	SF		3	E		31		
0188		20	1701	1702	1704	N21	W64	10030	07	15.8	3	SF					42		FU
	RAMY	20	1701	1702	1704	N21	W63	10030	07	15.9	3	SF		3	E		27		U
	SVTO	20	1701E	1702U	1705D	N21	W64	10030	07	15.8	4D	SF		2	E		57		F
		20	2058		2400	No Flare Patrol													
		21	0000		0003	No Flare Patrol													
		21	0120		0146	No Flare Patrol													
0189		21	1335	1336	1341	S09	W17	10035	07	20.3	6	SF					22		
	SVTO	21	1335	1336	1340	S09	W17	10035	07	20.3	5	SF		3	E		17		
	KANZ	21	1335	1336	1342	S09	W17	10035	07	20.3	7	SF		2	E				
	RAMY	21	1335	1336	1342	S09	W17	10035	07	20.3	7	SF		3	E		26		
0190		21	15461	15471	1550	S09	W17	10035	07	20.4	4	SF					13		F
	SVTO	21	1546	1547	1549	S09	W18	10035	07	20.3	3	SF		3	E		14		
	RAMY	21	1547	1548	1550	S09	W16	10035	07	20.4	3	SF		3	E		12		F
		21	2244		2400	No Flare Patrol													
		22	0000		0221	No Flare Patrol													
0191	SVTO	22	0928	0930	0944	S12	W12	10036	07	21.5	16	SF		3	E		16		
0192		22	1616	1617	1619	N17	W78	10030	07	16.7	3	SF					21		
	HOLL	22	1616	1617	1619	N17	W76	10030	07	16.9	3	SF		3	E		24		
	RAMY	22	1616	1617	1619	N16	W80	10030	07	16.6	3	SF		3	E		20		
	SVTO	22	1616	1617	1619	N17	W78	10030	07	16.7	3	SF		3	E		18		
0193		22	16451	1649	1658	S08	W31	10035	07	20.4	13	SF					16		F
	RAMY	22	1645	1649	1659	S08	W31	10035	07	20.4	14	SF		3	E		14		F
	SVTO	22	1646	1647U	1700D	S07	W31	10035	07	20.4	14D	SF		2	E		17		F
	HOLL	22	1646	1649	1658	S08	W32	10035	07	20.3	12	SF		3	E		17		F
0194	RAMY	22	1913	1923	1933	S09	W28	10035	07	20.7	20	SF		3	E		23		F
		22	1947		2042	No Flare Patrol													
		22	2115		2131	No Flare Patrol													
		22	2135		2143	No Flare Patrol													
		22	2155		2214	No Flare Patrol													
0195	RAMY	22	2215E	2215U	2226D	S08	W33	10035	07	20.4	11D	SF		3	E		40		F

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		22	2227		2229	No Flare Patrol													
		22	2233		2330	No Flare Patrol													
0196		23	0023	0029	0240	S12	E70	10039	07	28.3	137	2B					236		EF
	HOLL	23	0021E	0032U	0159D	S11	E67	10039	07	28.0	98D	1B		3	E		184		F
	LEAR	23	0023	0029	0240	S13	E72	10039	07	28.4	137	2B		3	E		288		FE
0197	HOLL	23	0040	0043	0052	S11	W29	10035	07	20.8	12	SF		3	E		38		F
0198		23	0516	05221	0532	S08	W34	10035	07	20.7	16	SF					30		F
	SVTO	23	0516	0522	0529	S08	W34	10035	07	20.7	13	SF		3	E		27		F
	LEAR	23	0516	0523	0534	S07	W34	10035	07	20.7	18	SF		3	E		33		F
0199	LEAR	23	0542	0546	0610	S08	W22	10036	07	21.6	28	SF		3	E		15		F
0200	LEAR	23	0620	0628	0648	S08	W22	10036	07	21.6	28	SF		3	E		23		F
0201		23	09001	0904	0915	S08	W36	10035	07	20.7	15	SF					32		F
	LEAR	23	0900	0904	0907D	S07	W34	10035	07	20.8	7D	SF		2	E		25		F
	SVTO	23	0901	0904	0915	S08	W37	10035	07	20.6	14	SF		3	E		38		F
	KANZ	23	0907E		0915	S08	W38	10035	07	20.5	8D	SF		2	E				
0202	SVTO	23	1059	1102	1107	S08	W22	10036	07	21.8	8	SF		3	E		12		F
0203		23	2100*	2105*	2114	S07	W24	10036	07	22.1	14	SF					20		F
	HOLL	23	2100	2105	2108	S07	W24	10036	07	22.1	8	SF		3	E		27		F
	HOLL	23	2115	2115	2121	S07	W24	10036	07	22.1	6	SF		3	E		12		
0204	HOLL	23	2247	2248	2254	S20	E59	10044	07	28.5	7	SF		3	E		49		
		24	0002		0006	No Flare Patrol													
		24	0039		0100	No Flare Patrol													
		24	0134		0335	No Flare Patrol													
0205	LEAR	24	0322	0325U	0335	S16	E59	10039	07	28.6	13	SF		4	E		13		
0206	KANZ	24	1004	1006	1011	S20	E22	10042	07	26.1	7	SF		2	E				
0207	SVTO	24	1132	1134	1138	S09	E51	10039	07	28.3	6	SF		3	E		10		F
0208	RAMY	24	1241	1245	1400	S21	E49	10039	07	28.3	79	SF		3	E		12		F
0209		24	1514*	15441	1658	S14	E46	10039	07	28.1	104	1F					140		FH
	HOLL	24	1514	1545	1659	S13	E49	10039	07	28.3	105	1F		3	E		161		FH
	RAMY	24	1538	1544	1658	S15	E44	10039	07	28.0	80	1F		3	E		120		F
0210	HOLL	24	1746	1749	1753	S06	W40	10036	07	21.7	7	SF		3	E		27		
0211	HOLL	24	1812	1813	1823	S12	E51	10039	07	28.6	11	SF		3	E		21		
0212	HOLL	24	1845	1845	1855	S13	E51	10039	07	28.6	10	SF		3	E		15		
0213	HOLL	24	1914	1916	1920	S13	E47	10039	07	28.3	6	SF		3	E		24		
0214	HOLL	24	2032	2032	2039	S21	E49	10044	07	28.6	7	SF		3	E		11		
		24	2204		2400	No Flare Patrol													
0215	LEAR	25	0403	0403	0408	S13	E46	10039	07	28.6	5	SF		3	E		11		
0216	RAMY	25	1240	1240	1252	S21	E08	10042	07	26.1	12	SF		2	E		52		F
0217		25	14243	14245	1442	S13	W47	10036	07	22.0	18	SF					15		F
	RAMY	25	1424	1424	1446	S12	W47	10036	07	22.0	22	SF		3	E		16		F
	HOLL	25	1424	1429	1441	S14	W47	10036	07	22.0	17	SF		3	E		17		F
	SVTO	25	1427	1427	1438	S13	W48	10036	07	22.0	11	SF		3	E		13		
0218	HOLL	25	1439	1441	1445	S15	E36	10039	07	28.3	6	SF		3	E		17		F

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0219		25	1525	1525	1533	S13	W54	10036	07	21.6	8	SF					20		F
	SVTO	25	1525	1525	1532	S14	W54	10036	07	21.6	7	SF		3	E		15		
	RAMY	25	1525	1525	1534	S12	W54	10036	07	21.6	9	SF		3	E		25		F
0220		25	19021	19021	1910	S16	E44	10039	07	29.1	8	SF					18		
	HOLL	25	1902	1902	1910	S16	E44	10039	07	29.1	8	SF		3	E		18		
	RAMY	25	1903	1903	1909	S17	E44	10039	07	29.1	6	SF		3	E		17		
0221	HOLL	25	2111	2111	2117	S20	E33	10044	07	28.4	6	SF		3	E		40		F
		25	2145		2151	No Flare Patrol													
0222	HOLL	25	2258E	2307U	2317D	S20	E33	10044	07	28.5	19D	SF		2	E		88		FU
		25	2318		2400	No Flare Patrol													
		26	0000		0004	No Flare Patrol													
0223		26	0006E	0006U	0035	S20	E30	10044	07	28.3	29D	1N					110		U
	LEAR	26	0006E	0006U	0035	S19	E32	10044	07	28.4	29D	SF		1	E		45		
	HOLL	26	0007E	0014U	0020D	S20	E28	10044	07	28.1	13D	1N		2	E		175		U
0224		26	0631*	06412	0655	S20	E26	10044	07	28.3	24	SN					48	0.4	EF
	LEAR	26	0631	0641	0659	S20	E27	10044	07	28.3	28	SN		3	E		60		F
	KANZ	26	0632	0643	0700	S20	E26	10044	07	28.3	28	1F		2	E				
	MITK	26	0641	0642	0646	S21	E26	10044	07	28.3	5	SN			C	0642	35	0.4	E
0225		26	0657	07001	0718	S13	E30	10039	07	28.5	21	SF					24		F
	KANZ	26	0657	0700	0711	S12	E28	10039	07	28.4	14	SF		2	E				
	LEAR	26	0657	0701	0725	S14	E31	10039	07	28.6	28	SF		3	E		24		F
0226		26	0807	0828	0901	S19	E27	10044	07	28.4	54	1N					98		F
	LEAR	26	0807	0828	0901	S19	E27	10044	07	28.4	54	SN		3	E		77		F
	SVTO	26	0813E	0814U	0913D	S19	E27	10044	07	28.4	60D	1F		3	E		120		F
0227	SVTO	26	0813E	0814U	0820D	N19	E60	10048	07	30.9	7D	SF		3	E		29		
0228	LEAR	26	0920	0922	0929	S20	E30	10044	07	28.7	9	SF		1	E		30		F
		26	0933		0947	No Flare Patrol													
		26	0951		1145	No Flare Patrol													
		26	1150		1229	No Flare Patrol													
0229	HOLL	26	1304	1321	1439	S22	E29	10044	07	28.8	95	SF		3	E		68		FH
0230	HOLL	26	1328	1328	1334	N19	E58	10048	07	31.0	6	SF		3	E		15		
0231	SVTO	26	1338E	1342U	1347D	S19	E24	10044	07	28.4	9D	SF		3	E		75		F
0232	HOLL	26	1530	1537	1546	S20	E22	10044	07	28.3	16	SF		3	E		23		F
0233	HOLL	26	1607	1613	1634	S18	E19	10044	07	28.1	27	SF		3	E		35		F
0234	HOLL	26	1658	1659	1705	S19	E22	10044	07	28.4	7	SF		3	E		13		
0235	HOLL	26	1817	1821	1837	S22	E18	10044	07	28.1	20	SF		3	E		47		F
0236	HOLL	26	1838	1838	1842	S20	E21	10044	07	28.4	4	SF		3	E		12		F
0237	HOLL	26	1845	1901	1909	S21	E21	10044	07	28.4	24	SF		3	E		97		FH
0238	HOLL	26	1910	1910	1918	S18	E17	10044	07	28.1	8	SF		3	E		12		
0239	HOLL	26	1925	1925	1929	S18	E24	10044	07	28.6	4	SF		3	E		15		
0240	HOLL	26	2051	2113	2259D	S19	E26	10044	07	28.8	128D	2N		3	E		360		FH
0241	HOLL	26	2141	2143	2147	S11	E19	10039	07	28.3	6	SF		3	E		45		F
		26	2300		2330	No Flare Patrol													

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0242	LEAR	26	2331E	2331U	2600	S18	E20	10044	07	28.5	149D	1N		1	E		124		FT
0243	LEAR	27	0214	0216	0222	S14	E14	10039	07	28.1	8	SF		2	E		23		F
0244	LEAR	27	0435	0438	0446	S20	E12	10044	07	28.1	11	SF		3	E		28		F
0245	LEAR	27	0628	0631	0652	S12	E15	10039	07	28.4	24	SF		3	E		19		F
0246	LEAR	27	0836	0837	0842	S11	E12	10039	07	28.3	6	SF		3	E		19		F
		27	0917		0945	No Flare Patrol													
		27	0954		1002	No Flare Patrol													
		27	1004		1011	No Flare Patrol													
		27	1022		1034	No Flare Patrol													
		27	1114		1157	No Flare Patrol													
		27	1204		1205	No Flare Patrol													
		27	1221		1225	No Flare Patrol													
		27	1237		1242	No Flare Patrol													
		27	1246		1252	No Flare Patrol													
0247	HOLL	27	1343	1343	1347	S21	E13	10044	07	28.6	4	SF		3	E		13		F
		27	1359		1409	No Flare Patrol													
0248	HOLL	27	1511	1512	1515	S11	E08	10039	07	28.2	4	SF		3	E		37		
0249	HOLL	27	1558	1602	1606	S08	E27	10050	07	29.7	8	SF		3	E		18		
0250	HOLL	27	1608	1621	1627	S07	E27	10050	07	29.7	19	SF		3	E		13		
0251	HOLL	27	1948	1948	1952	S08	E25	10050	07	29.7	4	SF		3	E		13		
		28	0007		0029	No Flare Patrol													
0252	LEAR	28	0030E	0030U	0125	S22	E07	10044	07	28.5	55D	1N		2	E		109		F
0253	LEAR	28	0031	0032	0042	S11	E03	10039	07	28.2	11	SF		2	E		23		F
0254	LEAR	28	0418	0422	0431	S13	E04	10039	07	28.5	13	SF		3	E		19		F
0255	LEAR	28	0555	0557	0612	S19	W02	10044	07	28.1	17	SF		3	E		46		F
0256		28	06374	06403	0646	S12	E01	10039	07	28.3	9	SF					14		
	KANZ	28	0637	0640	0645	S11	E01	10039	07	28.3	8	SF		2	E				
	LEAR	28	0641	0643	0647	S12	E01	10039	07	28.3	6	SF		3	E		14		
0257	LEAR	28	0842	0844	0853	S19	E03	10044	07	28.6	11	SF		3	E		30		F
0258	KANZ	28	0842	0843	0851	S18	W05	10044	07	28.0	9	SF		2	E				
0259	KANZ	28	1053	1054	1101	S11	W02	10039	07	28.3	8	SF		2	E				
0260		28	1054*	11041	1122	S14	E00	10039	07	28.4	28	SF					58		F
	SVTO	28	1054	1104	1126	S14	E00	10039	07	28.4	32	SF		3	E		58		F
	KANZ	28	1104	1105	1119	S14	W00	10039	07	28.5	15	SF		2	E				
0261		28	1048*	10499	1058	S08	E16	10050	07	29.6	10	SF					26		
	SVTO	28	1048	1049	1053	S08	E16	10050	07	29.6	5	SF		3	E		38		
	SVTO	28	1058	1058	1102	S07	E16	10050	07	29.6	4	SF		3	E		14		
0262		28	11401	11411	1148	S07	E14	10050	07	29.5	8	SF					23		F
	KANZ	28	1140	1141	1147	S07	E13	10050	07	29.4	7	SF		2	E				
	SVTO	28	1141	1142	1149	S07	E14	10050	07	29.5	8	SF		3	E		23		F
0263	HOLL	28	1336E	1339U	1346	N13	W09	10043	07	27.9	10D	SF		3	E		55		
		28	1425		1502	No Flare Patrol													
0264	SVTO	28	1458E	1459U	1506	S15	E00	10039	07	28.6	8D	SF		2	E		20		

Hα SOLAR FLARES

JULY 2002

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		28	1536		1550	No Flare Patrol													
		28	1554		2042	No Flare Patrol													
0265	HOLL	28	2044E	2053U	2108D	N11	W11	10043	07	28.0	24D	SF		3	E		47		
0266	HOLL	28	2125E	2129U	2134D	S07	E10	10050	07	29.6	9D	SF		3	E		64		F
		28	2157		2224	No Flare Patrol													
		28	2254		2334	No Flare Patrol													
		28	2340		2400	No Flare Patrol													
		29	0000		0059	No Flare Patrol													
		29	0227		0249	No Flare Patrol													
0267	LEAR	29	0250E	0250U	0255	S20	W14	10044	07	28.0	5D	1F		3	E		155		F
0268		29	0621	0627	0645	S11	W14	10039	07	28.2	24	SF					52		F
	SVTO	29	0617E	0624U	0624D	S11	W15	10039	07	28.1	7D	SF		1	E		52		F
	KANZ	29	0621	0627	0645	S11	W13	10039	07	28.3	24	SF		2	E				
0269	LEAR	29	0635	0640	0655	S13	W10	10039	07	28.5	20	SF		3	E		70		F
		29	0933		0944	No Flare Patrol													
0270	KHAR	29	1021		1032	S03	W05	10050	07	29.0	11	SF		3	P				E
0271		29	10281	10345	1140	S12	W14	10039	07	28.4	72	2N					480	5.2	I
	KANZ	29	1028	1039	1136	S13	W14	10039	07	28.4	68	1F		2	E				
	KHAR	29	1029	1034	1145	S12	W13	10039	07	28.4	76	2B		3	P	1044	480	5.2	I
0272	KHAR	29	1156		1220	S08	E02	10050	07	29.6	24	1F		2	P	1206	210		EO
0273	KHAR	29	1206U		1225	N21	E20	10048	07	31.0	19U	SN		2	P	1206	65		DO
0274	SVTO	29	1521	1608	1633	S08	W01	10050	07	29.6	72	SF		3	E		68		F
0275	HOLL	29	1530	1534	1540	S08	W01	10050	07	29.6	10	SF		3	E		18		
0276	SVTO	29	1626	1626	1632	S13	W18	10039	07	28.3	6	SF		3	E		17		
0277	SVTO	29	1704	1706	1722	S20	W24	10044	07	27.9	18	SF		2	E		22		F
0278	HOLL	29	1808	1810	1813	S14	W16	10039	07	28.5	5	SF		3	E		20		F
0279	HOLL	29	1937	1939	1956	S09	W02	10050	07	29.7	19	SF		3	E		87		F
0280	HOLL	29	2033	2036	2041	N14	W53	10038	07	25.8	8	SF		3	E		24		
0281	HOLL	29	2052	2054	2057	S10	W03	10050	07	29.6	5	SF		3	E		33		
0282	HOLL	29	2102	2109	2137	S08	W03	10050	07	29.6	35	SF		3	E		53		F
		29	2235		2248	No Flare Patrol													
		29	2255		2326	No Flare Patrol													
		30	0031		0042	No Flare Patrol													
		30	0221		0308	No Flare Patrol													
0283		30	0527	0528	0536	S13	W24	10039	07	28.4	9	SF					23		F
	SVTO	30	0527	0528	0536	S13	W24	10039	07	28.4	9	SF		3	E		23		F
	KANZ	30	0530E		0537	S13	W24	10039	07	28.4	7D	SF		2	E				
0284		30	0556	0557	0600	S12	W24	10039	07	28.4	4	SF					21		
	KANZ	30	0556	0557	0559	S12	W25	10039	07	28.4	3	SF		2	E				
	SVTO	30	0556	0557	0600	S13	W23	10039	07	28.5	4	SF		3	E		21		
0285	SVTO	30	0616	0624	0634	S08	W27	10039	07	28.2	18	SF		3	E		12		
0286		30	0717	07191	0730	S10	W27	10039	07	28.3	13	SF					28		F
	KANZ	30	0717	0719	0728	S09	W28	10039	07	28.2	11	SF		2	E				
	LEAR	30	0717	0719U	0732	S12	W24	10039	07	28.5	15	SF		3	E		32		F
	SVTO	30	0717	0720	0729	S09	W28	10039	07	28.2	12	SF		3	E		23		F

Hα SOLAR FLARES

JULY 2002

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0287	KHAR	30	1042		1050	S15	W16	10039	07	29.2	8	SF		3	P	1042	35		DO
0288	SVTO	30	1131	1134	1144	S19	W30	10044	07	28.2	13	SF		3	E		17		
0289	KHAR	30	1209	1210	1214	N12	W82		07	24.3	5	SF		2	V				D
		30	1250		1456	No Flare Patrol													
0290	SVTO	30	1512E	1518U	1522	S19	W27	10044	07	28.6	10D	SF		2	E		60		F
0291	SVTO	30	1540	1541	1545	N20	E03	10048	07	30.9	5	SF		2	E		21		
		30	1752		1800	No Flare Patrol													
		30	1902		1936	No Flare Patrol													
		30	2055		2151	No Flare Patrol													
		30	2231		2335	No Flare Patrol													
0292	LEAR	31	0046	0047	0051	S07	W17	10050	07	29.7	5	SF		3	E		19		
0293	LEAR	31	0050	0051	0105	S19	W34	10044	07	28.4	15	SF		3	E		49		F
0294	LEAR	31	0113	0115	0151	N18	W71	10038	07	25.6	38	SB		3	E		45		F
0295	LEAR	31	0144	0149	0230	S13	W30	10039	07	28.8	46	SB		3	E		73		FU
0296	LEAR	31	0207	0209	0222	S08	W22	10050	07	29.4	15	SF		3	E		12		
0297	LEAR	31	0445	0445	0459	S18	W39	10044	07	28.2	14	SF		3	E		40		F
0298	LEAR	31	0455	0456	0503	S09	W24	10050	07	29.4	8	SF		3	E		17		
0299		31	07183	0724	0730	S08	W26	10050	07	29.3	12	SF					16		F
	LEAR	31	0718	0724	0730	S09	W26	10050	07	29.3	12	SF		3	E		16		F
	KANZ	31	0721	0724	0729	S07	W27	10050	07	29.3	8	SF		2	E				
0300	KANZ	31	0953	0956	1001	S20	W45	10044	07	28.0	8	SF		2	E				
0301	SVTO	31	1010	1010	1017	S18	W42	10044	07	28.2	7	SF		3	E		25		
0302	KHAR	31	1048		1109	S11	W26	10050	07	29.5	21	SF		2	P				ET
0303		31	1109	1117U	1119U	S16	W33	10039	07	29.0	10U	SF					25		EFT
	KHAR	31	1109		1119U	S16	W32	10039	07	29.0	10U	SF		2	P				TE
	SVTO	31	1115E	1117U	1117D	S16	W34	10039	07	28.9	2D	SF		2	E		25		F
0304	KHAR	31	1117		1155U	S11	W27	10050	07	29.4	38U	SF		2	P				ET
0305	KHAR	31	1159		1210D	S11	W28	10050	07	29.4	11D	SN		2	P				T
		31	1211		1227	No Flare Patrol													
0306	KHAR	31	1228E		1235	S10	W29	10050	07	29.3	7D	SN		2	V				DHT
0307	KHAR	31	1317	1318	1325D	S11	W28	10050	07	29.4	8D	SF		2	V				LT
0308	HOLL	31	1340	1340	1342	S09	W29	10050	07	29.4	2	SF		3	E		16		
0309	HOLL	31	1415	1418	1423	S09	W31	10050	07	29.3	8	SF		3	E		11		F
0310	HOLL	31	1513	1514	1515	S10	W30	10050	07	29.4	2	SF		3	E		17		
0311	HOLL	31	1524	1525	1529	S09	W30	10050	07	29.4	5	SF		3	E		33		
0312	HOLL	31	1703	1704	1707	S10	W32	10050	07	29.3	4	SF		3	E		10		
0313	HOLL	31	1842	1842	1844	S10	W32	10050	07	29.4	2	SF		3	E		11		
0314	HOLL	31	2001	2003U	2019D	N21	W12	10048	07	30.9	18D	SF		3	E		90		
		31	2043		2106	No Flare Patrol													

Hα SOLAR FLARES

JULY 2002

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Opt	Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0315	HOLL	31	2117E	2117U	2123D	S20	W40	10044	07	28.8	6D	SF		3	E		12		
0316	HOLL	31	2305	2305	2308	S09	W34	10050	07	29.4	3	SF		3	E		16		
0317	HOLL	31	2343	2345	2425	S13	W44	10039	07	28.7	42	1F		3	E		123		FH
0318	HOLL	31	2345	2345	2355	S22	W47	10044	07	28.4	10	SF		3	E		15		

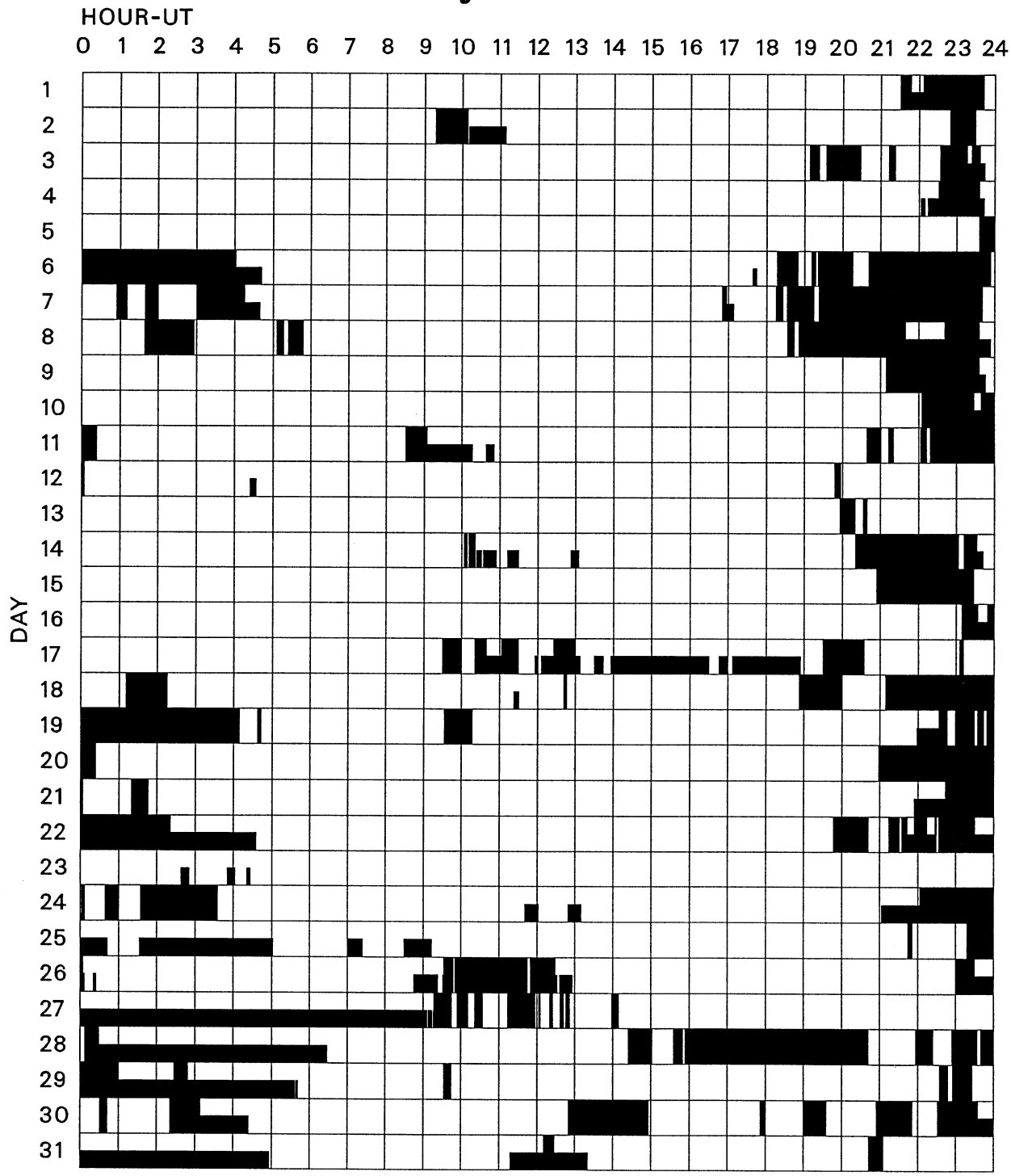
"Remarks"

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

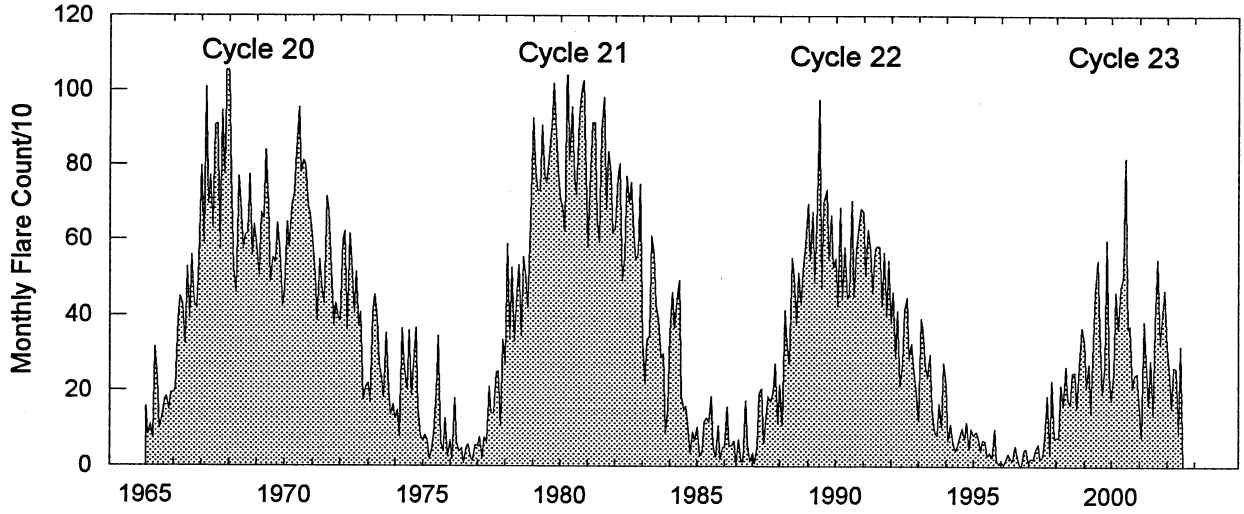
JULY 2002



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

Holloman	Learmonth	Ramey	San Vito
Mitaka	Kharkov	Kanzelhoehe	

Monthly Counts of Grouped Solar Flares
Jan 1965 - Jul 2002



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	468	3597
2002	318	261	155	263	259	91	318						1665

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

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2002

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	235	CUBA	44	NS	1310.0E		520.0D		5.0		
	280	CUBA	44	NS	1310.0E		520.0D		12.0		
	15400	SGMR	4	S/F	1143.0	1145.0	737.0	110.0			QL=4 ST=1 TYP=3
	15400	SVTO	8	S	1144.0E	1145.0U	2.0D	69.0			QL=4 ST=3 TYP=3
	2695	SGMR	8	S	1145.0	1146.0	1.0	20.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1145.0	1146.0	1.0	33.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1145.0	1145.0	2.0	110.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1145.0E	1146.0U	1.0D	43.0			QL=4 ST=3 TYP=3
	8800	SVTO	8	S	1145.0E	1146.0U	2.0D	97.0			QL=4 ST=3 TYP=3
	3000	IZMI	5	S	1145.6	1146.2	2.1	21.0	9.5		
	2695	SVTO	8	S	1146.0E	1146.0U	U	21.0			QL=4 ST=3 TYP=3
	2800	PENT	20	GRF	1345.0	1453.0	107.0U	12.0			
02	235	CUBA	44	NS	1305.0E		525.0D		6.0		
	280	CUBA	44	NS	1305.0E		525.0D		11.0		
	2804	VORO	3	S	0000.0	0003.3	6.2	3.0			
	2840	PEKG	5	S	0000.0	0003.8	7.0	29.7			
	2804	VORO	8	S	0003.3	0003.4	0.3	24.4			
	204	IZMI	42	SER	0944.5	0945.0	1.3	10.0			
	2800	PENT	4	S/F	1353.0	1415.0	37.0	8.0			
	4995	SGMR	8	S	1410.0	1410.0	1.0	40.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1410.0	1410.0	1.0	84.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1410.0	1410.0	U	46.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1410.0	1410.0	1.0	37.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1410.0	1410.0	U	60.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1410.0	1410.0	U	35.0			QL=4 ST=2 TYP=3
	9500	CUBA	3	S	1410.0	1410.4	2.0	60.0	30.0		
	9500	CUBA	21	GRF	1944.0	1958.0	75.0	10.0	5.0		
	9500	CUBA	1	S	1954.2	1955.8	4.1	18.0	9.0		
	9500	CUBA	3	S	2020.0	2020.2	1.0	22.0	11.0		
	4995	SGMR	4	S/F	2024.0	2025.0	8.0	43.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2024.0	2025.0	8.0	95.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	2024.0	2025.0	8.0	71.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	2024.3	2025.6	10.7	51.0	25.0		
	8800	PALE	46	C	2025.0	2025.0	1.0	49.0			QL=4 ST=2 TYP=8
	200	HIRA	8	S	2308.0	2308.0	1.0	15.0			0
	2800	PENT	20	GRF	2349.0	2412.0	52.0	4.0			
03	235	CUBA	44	NS	1315.0E		515.0D		6.0		
	280	CUBA	44	NS	1315.0E		515.0D		14.0		
	245	PALE	8	S	0019.0	0019.0	1.0	160.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0132.0	0132.0	2.0	35.0			WR
	610	LEAR	8	S	0132.0	0132.0	2.0	170.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0135.0	0139.4	9.0	5.5			
	2804	VORO	1	S	0139.0	0139.4	1.8	4.5			
	15400	LEAR	49	GB	0209.0	0210.0	9.0	820.0			QL=4 ST=2 TYP=6
	8800	LEAR	49	GB	0209.0	0212.0	11.0	690.0			QL=4 ST=2 TYP=6
	2840	PEKG	3	S	0209.0	0212.5	33.0	219.1			
	2800	HIRA	3	S	0210.0	0212.0	9.0	175.0			0
	4995	LEAR	49	GB	0210.0	0212.0	8.0	610.0			QL=4 ST=2 TYP=6
	8800	PALE	48	C	0210.0	0212.0	6.0	550.0			QL=4 ST=2 TYP=8
	15400	PALE	48	C	0210.0	0210.0	3.0	740.0			QL=4 ST=2 TYP=8
	4995	PALE	49	GB	0210.0	0212.0	8.0	600.0			QL=4 ST=2 TYP=6
	2804	VORO	4	S/F	0210.0	0212.5	20.0	75.6			
	2695	LEAR	4	S/F	0211.0	0212.0	3.0	160.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0211.0	0212.0	3.0	140.0			QL=4 ST=2 TYP=3
	2804	VORO	29	PBI	0230.0	0230.0	75.0	14.4			
	2840	PEKG	1	S	0427.0	0430.5	9.0	6.7			
	610	LEAR	8	S	0630.0	0630.0	1.0	190.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0630.0	0631.0	1.0	110.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0631.0	0631.0	1.0	15.0			WR
	610	LEAR	8	S	0717.0	0717.0	U	85.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0717.0	0717.0	U	55.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0756.0	0759.8	15.0	12.2			
	3000	IZMI	5	S	0759.1	0759.6	2.1	11.0	6.2		
	2800	PENT	20	GRF	1435.0	1509.0	55.0	7.0			
	2800	PENT	29	PBI	1731.0	1742.0	89.0	13.0			
	2800	PENT	49	GB	1740.0	1740.0U	292.0U	500.0U			
	9500	CUBA	2	S/F	1807.2	1807.9	0.7	16.0	8.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
03	9500	CUBA	21	GRF	1842.0	1956.0	241.0D	26.0	13.0		SUN SET
	1415	PALE	8	S	1848.0	1848.0	2.0	84.0			QL=4 ST=3 TYP=3
	2800	PENT	29	PBI	1902.0	1917.0	15.0U	5.0			
	410	SGMR	48	C	1932.0	1935.0	6.0	80.0			QL=4 ST=2 TYP=8
	9500	CUBA	2	S/F	1943.1	1943.8	2.6	16.0	8.0		
	4995	PALE	48	C	2004.0	2012.0	18.0	900.0			QL=4 ST=2 TYP=8
	15400	SGMR	49	GB	2004.0	2011.0	15.0	730.0			QL=4 ST=2 TYP=6
	2695	SGMR	4	S/F	2004.0	2011.0	15.0	490.0			QL=4 ST=2 TYP=3
	2695	PALE	49	GB	2006.0	2012.0	18.0	510.0			QL=4 ST=2 TYP=6
	4995	SGMR	49	GB	2006.0	2011.0	13.0	530.0			QL=4 ST=2 TYP=6
	8800	SGMR	49	GB	2007.0	2011.0	12.0	830.0			QL=4 ST=2 TYP=6
	9500	CUBA	49	GB	2007.8	2012.0	14.2	519.0	259.0		
	15400	PALE	49	GB	2008.0	2012.0	5.0	620.0			QL=4 ST=2 TYP=6
	8800	PALE	49	GB	2008.0	2012.0	13.0	950.0			QL=4 ST=2 TYP=6
	1415	SGMR	4	S/F	2008.0	2012.0	10.0	160.0			QL=4 ST=2 TYP=3
	1415	PALE	4	S/F	2009.0	2012.0	7.0	150.0			QL=4 ST=2 TYP=3
	2800	HIRA	3	S	2010.0	2012.0	5.0	220.0			0
	410	SGMR	8	S	2017.0	2017.0	U	43.0			QL=4 ST=2 TYP=3
	2800	PENT	41	F	2103.0	2142.0	54.0	3.0			
	200	HIRA	47	GB	2207.0	2207.0	1.0	2405.0			0
	245	PALE	8	S	2207.0	2207.0	U	2100.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2207.0	2207.0	U	1700.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	2233.0	2234.0	1.0	75.0			0
	410	PALE	8	S	2249.0	2249.0	U	86.0			QL=4 ST=2 TYP=3
	2804	VORO	46	C	2318.0	2319.7	8.3	4.2			
04	235	CUBA	44	NS	1310.0E		520.0D		6.0		
	280	CUBA	44	NS	1310.0E		520.0D		12.0		
	200	HIRA	8	S	0017.0	0017.0	1.0	25.0			0
	245	LEAR	8	S	0017.0	0017.0	U	56.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	0022.0	0034.0	23.0	2.0			
	2804	VORO	8	S	0036.6	0037.0	0.8	3.8			
	2804	VORO	46	C	0125.0	0128.6	5.0	7.2			
	2840	PEKG	5	S	0126.0	0128.4	9.0	10.2			
	2804	VORO	29	PBI	0130.0	0130.0	20.0	3.8			
	200	HIRA	8	S	0224.0	0224.0	1.0	70.0			0
	2840	PEKG	1	S	0340.0	0344.4	9.0	3.9			
	200	HIRA	8	S	0341.0	0343.0	2.0	20.0			0
	2804	VORO	3	S	0341.6	0349.4	7.8	4.6			
	245	LEAR	8	S	0342.0	0342.0	U	80.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0453.0	0456.0	9.0	24.8			
	2800	HIRA	1	S	0454.0	0456.0	4.0	20.0			0
	200	HIRA	7	C	0454.0	0455.0	3.0	35.0			0
	245	LEAR	8	S	0455.0	0455.0	U	56.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0614.0	0616.6	16.0	23.6			
	3000	IZMI	7	C	0616.2	0616.6	0.7	20.0	12.0		
	4995	SVTO	8	S	0622.0	0623.0	1.0	32.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0622.0	0623.0	1.0	66.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0622.0	0623.0	1.0	33.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0623.0	0623.0	U	55.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0730.0	0732.1	8.0	38.4			
	2800	HIRA	1	S	0731.0	0732.0	4.0	30.0			
	4995	SVTO	4	S/F	0731.0	0732.0	3.0	78.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0731.0	0732.0	3.0	65.0			QL=4 ST=2 TYP=3
	3000	IZMI	45	C	0731.6	0732.2	1.4	40.0	21.9		
	204	IZMI	46	C	0731.7	0732.0	2.5	455.0			
	200	HIRA	8	S	0732.0	0732.0	1.0	180.0			0
	245	LEAR	8	S	0732.0	0732.0	U	100.0			QL=4 ST=3 TYP=3
	4995	LEAR	8	S	0732.0	0732.0	U	57.0			QL=4 ST=3 TYP=3
	245	SVTO	8	S	0732.0	0732.0	U	78.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0732.0	0732.0	U	25.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0732.0	0732.0	U	25.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0801.0	0801.0	U	78.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0801.0	0801.0	1.0	62.0			QL=4 ST=2 TYP=3
	3000	IZMI	5	S	1011.1	1011.5	0.7	8.0	4.5		
	9500	CUBA	21	GRF	1328.0	1410.0	57.0	7.0	3.0		
	9500	CUBA	2	S/F	1332.2	1332.8	3.8	9.0	4.0		
	610	SVTO	8	S	1344.0	1344.0	U	75.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	1434.0	1508.0	55.0	6.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
04	2800	PENT	29	PBI	1734.0	1742.0	16.0	13.0			
	2800	PENT	29	PBI	1906.0	1917.0	22.0U	6.0			
	2800	PENT	41	F	2101.0	2142.0	57.0	3.0			
	500	HIRA	8	S	2116.0	2117.0	1.0	30.0			
	200	HIRA	8	S	2325.0	2325.0	1.0	10.0			
05	235	CUBA	44	NS	1320.0E		510.0D		6.0		
	280	CUBA	44	NS	1320.0E		510.0D		15.0		
	245	SGMR	43	NS	1449.0	1610.0	81.0	59.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1933.0	2040.0	67.0	220.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	2140.0	2153.0	28.0	170.0			QL=4 ST=2 TYP=1
	2804	VORO	3	S	0206.5	0208.0	6.0	10.0			
	200	HIRA	8	S	0410.0	0411.0	1.0	50.0			
	200	HIRA	8	S	0620.0	0621.0	1.0	15.0			
	245	LEAR	8	S	0620.0	0620.0	1.0	72.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0621.0	0621.0	U	63.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1104.7	1107.7	4.2	15.0			
	245	SGMR	8	S	1225.0	1225.0	U	96.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1225.0	1225.0	U	58.0			QL=4 ST=2 TYP=3
	2695	SGMR	48	C	1315.0	1321.0	8.0	130.0			QL=4 ST=2 TYP=8
	610	SGMR	4	S/F	1315.0	1317.0	2.0	250.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1315.0	1321.0	8.0	120.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1315.0	1321.0	8.0	87.0			QL=4 ST=2 TYP=3
	410	SVTO	48	C	1316.0	1320.0	7.0	160.0			QL=4 ST=2 TYP=8
	610	SVTO	8	S	1317.0	1317.0	U	180.0			QL=4 ST=3 TYP=3
	245	SGMR	4	S/F	1319.0	1319.0	4.0	79.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1319.0	1320.0	2.0	49.0			QL=4 ST=2 TYP=3
	1415	SGMR	48	C	1320.0	1321.0	3.0	72.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	1320.0	1321.0	3.0	76.0			QL=4 ST=2 TYP=8
	15400	SGMR	48	C	1320.0	1320.0	3.0	210.0			QL=4 ST=2 TYP=8
	410	SGMR	4	S/F	1320.0	1320.0	1.0	150.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1320.0	1321.0	2.0	150.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1320.0	1321.0	2.0	190.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	1320.0	1321.0	3.0	68.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1320.0	1320.0	640.0	150.0			QL=4 ST=1 TYP=3
	9500	CUBA	4	S/F	1320.3	1321.3	4.1	134.0	67.0		
	2800	PENT	41	F	1333.0	1410.0	66.0	20.0			
	9500	CUBA	1	S	1336.2	1336.8	2.4	12.0	6.0		
	245	SGMR	8	S	1438.0	1439.0	2.0	53.0			QL=4 ST=2 TYP=3
	2800	PENT	40	F	1522.0	1557.0	70.0U	59.0			
	245	SGMR	48	C	1547.0	1551.0	19.0	1100.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	1547.0	1551.0	13.0	74.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	1547.0	1551.0	18.0	84.0			QL=4 ST=2 TYP=8
	15400	SGMR	48	C	1547.0	1551.0	14.0	66.0			QL=4 ST=2 TYP=8
	4995	SVTO	48	C	1547.0	1551.0	11.0	67.0			QL=4 ST=2 TYP=8
	8800	SVTO	48	C	1547.0	1548.0	10.0	56.0			QL=4 ST=2 TYP=8
	410	SVTO	4	S/F	1547.0	1547.0	10.0	33.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1547.0	1557.0	11.0	53.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1547.0	1551.0	10.0	49.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	1547.0	1551.0	26.0	780.0			QL=4 ST=2 TYP=8
	9500	CUBA	40	F	1547.2	1551.3	14.5	57.0	28.0		
	2695	SGMR	48	C	1554.0	1557.0	5.0	56.0			QL=4 ST=2 TYP=8
	410	SGMR	46	C	1555.0	1556.0	2.0	24.0			QL=4 ST=2 TYP=8
	610	SVTO	48	C	1556.0	1558.0	7.0	120.0			QL=4 ST=2 TYP=8
	1415	SVTO	4	S/F	1557.0	1603.0	7.0	310.0			QL=4 ST=2 TYP=3
	1415	SGMR	48	C	1602.0	1603.0	2.0	320.0			QL=4 ST=2 TYP=8
	610	SGMR	48	C	1603.0	1603.0	1.0	50.0			QL=4 ST=2 TYP=8
	235	CUBA	7	C	1646.1	1649.2	16.7	21.0	11.0		
	280	CUBA	7	C	1646.1	1649.2	16.7	57.0	29.0		
	245	PALE	48	C	1831.0	1833.0	2.0	78.0			QL=4 ST=2 TYP=8
	245	SGMR	8	S	1833.0	1833.0	U	51.0			QL=4 ST=2 TYP=3
	2800	PENT	41	F	2035.0	2041.0	27.0	9.0			
	245	SGMR	8	S	2140.0	2140.0	U	100.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	2148.0	2212.0	44.0U	9.0			
	245	PALE	8	S	2153.0	2153.0	U	240.0			QL=4 ST=2 TYP=3
06	245	PALE	43	NS	0345.0	0416.0	58.0	890.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0516.0	0528.0	61.0	170.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0526.0	0528.0	75.0	130.0			QL=2 ST=3 TYP=1

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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	204	IZMI	43	NS	0600.0		76.0D		55.0		
	204	IZMI	43	NS	0942.0		34.0		27.0		
	235	CUBA	44	NS	1315.0E		125.0D		5.0		
	280	CUBA	44	NS	1315.0E		125.0D		13.0		
	245	PALE	43	NS	2202.0	0059.0	328.0	950.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	0034.0	0034.0	U	120.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0144.0	0144.0	U	69.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0320.0	0332.0	25.0	54.7			
	245	PALE	48	C	0339.0	0339.0	U	70.0			QL=4 ST=2 TYP=8
	245	LEAR	8	S	0346.0	0346.0	U	94.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0419.0	0419.0	U	99.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0506.0	0506.0	U	62.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0506.0	0506.0	1.0	50.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0515.0	0517.0	2.0	90.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0532.0	0536.2	9.0	11.3			
	245	SVTO	8	S	0705.0	0707.0	2.0	56.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0706.0	0706.0	U	67.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0832.0	0833.0	1.0	180.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0832.0	0833.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	LEAR	48	C	0922.0	0922.0	U	52.0			QL=4 ST=2 TYP=8
	204	IZMI	42	SER	0922.3	0922.8	2.9	45.0			
	2840	PEKG	3	S	0926.0	0937.9	22.0	92.9			
	204	IZMI	46	C	0928.2	0930.4	6.0	591.0			
	245	LEAR	8	S	0930.0	0930.0	U	260.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	0930.0	0930.0	3.0	320.0			QL=4 ST=2 TYP=8
	3000	IZMI	45	C	0930.2	0937.9	10.4	98.0	23.0		
	2695	SVTO	4	S/F	0931.0	0937.0	8.0	57.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0931.0	0937.0	8.0	230.0			QL=4 ST=2 TYP=3
	410	SVTO	48	C	0931.0E	0937.0U	8.0D	540.0			QL=2 ST=2 TYP=8
	33	UPIC	42	SER	0931.5	0937.0	27.5				
	204	IZMI	46	C	0934.8	0936.3	4.8	3866.0			
	245	SVTO	48	C	0935.0	0937.0	4.0	320.0			QL=4 ST=2 TYP=8
	610	SVTO	49	GB	0935.0	0937.0	4.0	890.0			QL=4 ST=2 TYP=6
	8800	SVTO	4	S/F	0936.0	0937.0	3.0	190.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0937.0	0937.0	1.0	410.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0937.0	0937.0	2.0	97.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0947.0	0947.0	U	69.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1009.0	1009.0	1.0	67.0			QL=4 ST=2 TYP=3
	33	UPIC	42	SER	1129.5	1135.5	26.5				
	610	SGMR	8	S	1242.0	1242.0	U	32.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1242.0	1242.0	U	56.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1242.0	1242.0	U	78.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1242.0	1242.0	U	54.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1242.0	1242.0	U	66.0			QL=4 ST=2 TYP=3
	33	UPIC	46	C	1756.0	1756.5	2.0				
	245	PALE	8	S	2046.0	2046.0	1.0	88.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2046.0	2046.0	U	70.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	2343.0	2426.0	85.0U	9.0			
07	235	CUBA	44	NS	1330.0E		90.0D		6.0		
	280	CUBA	44	NS	1330.0E		90.0D		12.0		
	2840	PEKG	1	S	0333.0	0335.3	7.0	2.7			
	2840	PEKG	3	S	0357.0	0358.8	11.0	57.8			
	245	LEAR	48	C	0358.0	0358.0	7.0	1800.0			QL=4 ST=2 TYP=8
	4995	LEAR	8	S	0358.0	0358.0	1.0	110.0			QL=4 ST=2 TYP=3
	2695	PALE	48	C	0358.0	0358.0	1.0	53.0			QL=4 ST=2 TYP=8
	4995	PALE	48	C	0358.0	0358.0	1.0	120.0			QL=4 ST=2 TYP=8
	4995	SVTO	8	S	0358.0E	0358.0U	1.0D	100.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	0358.0E	0358.0U	1.0D	65.0			QL=2 ST=2 TYP=3
	15400	SVTO	8	S	0401.0E	0401.0U	U	43.0			QL=2 ST=2 TYP=3
	410	LEAR	8	S	0405.0	0405.0	U	57.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0421.0	0425.9	8.0	7.4			
	245	PALE	8	S	0446.0	0447.0	1.0	80.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	1112.6	1114.7	2.5	71.0			
	245	SGMR	8	S	1114.0	1114.0	U	62.0			QL=4 ST=2 TYP=3
08	204	IZMI	43	NS	1124.0		36.0D		15.0		
	235	CUBA	44	NS	1305.0E		475.0D		10.0		
	280	CUBA	44	NS	1305.0E		475.0D		10.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
08	200	HIRA	7	C	0049.0	0051.0	3.0	90.0			
	200	HIRA	8	S	0734.0	0734.0	1.0	15.0			
	204	IZMI	41	F	0734.4	0734.7	0.5	38.0			
	200	HIRA	8	S	0809.0	0810.0	1.0	15.0			
	204	IZMI	42	SER	0809.1	0809.9	3.0	40.0			
	2840	PEKG	20	GRF	0910.0	0915.1	12.0	8.2			
	33	UPIC	46	C	0912.5	0913.5	4.0				
	2950	GORK	2	S/F	0913.1	0914.9	4.3	6.6			
	900	GORK	2	S/F	0913.6	0914.7	4.4	3.7			
	600	GORK	2	S/F	0913.9	0915.3	2.5	3.4			
	9100	GORK	1	S	0914.5	0915.0	1.6	6.3			
	3000	IZMI	20	GRF	0914.6	0914.9	0.9	6.0			
	245	SGMR	8	S	1139.0	1139.0	1.0	99.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1139.0	1140.0	1.0	57.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	1139.8	1139.9	0.5	89.0			
	2695	SVTO	8	S	1141.0	1141.0	U	21.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	1322.0	1322.0	U	100.0			QL=4 ST=2 TYP=8
	245	SVTO	8	S	1322.0	1322.0	U	51.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	1614.0	1619.0	10.0	4.0			
	200	HIRA	8	S	2318.0	2319.0	1.0	30.0			0
09	235	CUBA	44	NS	1315.0E		285.0D		5.0		
	280	CUBA	44	NS	1315.0E		285.0D		11.0		
	200	HIRA	8	S	0059.0	0101.0	2.0	70.0			0
	200	HIRA	8	S	0231.0	0231.0	1.0	15.0			0
	200	HIRA	7	C	0402.0	0403.0	5.0	45.0			0
	204	IZMI	42	SER	0846.5	0846.6	0.5	34.0			
	245	SVTO	8	S	1048.0	1048.0	U	170.0			QL=4 ST=2 TYP=3
	2800	PENT	41	F	1809.0	1858.0	83.0U	185.0			
	1415	PALE	48	C	1857.0	1857.0	1.0	51.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	1857.0	1858.0	4.0	200.0			QL=4 ST=2 TYP=8
	1415	SGMR	4	S/F	1857.0	1857.0	5.0	57.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1857.0	1858.0	4.0	250.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1917.0	1917.0	U	68.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1918.0	1918.0	U	85.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1923.0	1923.0	1.0	470.0			QL=4 ST=2 TYP=3
10	235	CUBA	44	NS	1305.0E		475.0D		5.0		
	280	CUBA	44	NS	1305.0E		475.0D		9.0		
	2840	PEKG	5	S	0417.0	0419.0	7.0	20.5			
	2804	VORO	40	F	0418.1	0419.0	1.2	16.3			
	204	IZMI	42	SER	1034.5	1035.2	4.1	10.0			
	33	UPIC	42	SER	1034.5	1038.5	13.0				
	33	UPIC	42	SER	1343.5	1407.5	25.5				
	2800	PENT	20	GRF	1413.0	1436.0	85.0	4.0			
	2800	PENT	40	F	1539.0	1547.0	14.0	16.0			
11	235	CUBA	44	NS	1400.0E		470.0D		5.0		
	280	CUBA	44	NS	1400.0E		470.0D		12.0		
	2800	PENT	3	S	0034.0	0045.0	30.0	10.0			
	410	PALE	48	C	0331.0	0333.0	7.0	97.0			QL=4 ST=2 TYP=8
	9100	GORK	7	C	0410.5	0410.7	0.6	30.0			
	9100	GORK	7	C	0410.5	0410.8		26.0			
	900	GORK	2	S/F	0423.7	0424.0	0.6	18.0			
	9100	GORK	42	SER	0425.5	0426.0	4.6	380.0			
	9100	GORK	42	SER	0425.5	0427.3		220.0			
	9100	GORK	42	SER	0425.5	0429.7		50.0			
	9100	GORK	7	C	0506.2	0506.5	1.7	15.0			
	9100	GORK	7	C	0506.2	0506.8		8.5			
	2800	PENT	29	PBI	1438.0	1448.0	114.0U	457.0			
	9500	CUBA	49	GB	1446.2	1448.8	8.1	604.0	30.2		
	9500	CUBA	29	PBI	1454.3	1457.3	185.7	32.0	16.0		
12	204	IZMI	43	NS	0550.0		65.0D		10.0		
	235	CUBA	44	NS	1300.0E		300.0D		6.0		
	280	CUBA	44	NS	1300.0E		300.0D		12.0		
	8800	LEAR	8	S	0000.0	0000.0	U	53.0			QL=4 ST=2 TYP=3
	2804	VORO	3	S	0113.1	0114.0	3.0	3.2			
	2840	PEKG	1	S	0210.0	0213.8	7.0	9.3			

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	245	LEAR	8	S	0552.0	0552.0	U	70.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0552.0	0552.0	U	69.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1216.0	1216.0	U	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1234.0	1234.0	U	54.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1335.0	1335.0	U	51.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1414.0	1414.0	U	98.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1414.0	1414.0	U	85.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1602.0	1602.0	U	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1626.0	1626.0	U	52.0			QL=4 ST=2 TYP=3
	2800	PENT	28	PRE	2335.0	0000.0	39.0	76.0			
	2840	PEKG	45	C	2350.0	2400.7	24.0	87.8			
	2800	HIRA	7	C	2357.0	2401.0	6.0	65.0			0
	2804	VORO	4	S/F	2357.0	2400.6	8.0	64.2			
	2695	LEAR	4	S/F	2358.0	0000.0	3.0	64.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	2358.0	0000.0	3.0	72.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2359.0	0000.0	2.0	75.0			0
13	235	CUBA	44	NS	1600.0E		180.0D		5.0		
	280	CUBA	44	NS	1600.0E		180.0D		12.0		
	8800	PALE	46	C	0000.0	0000.0	U	48.0			QL=4 ST=2 TYP=8
	2695	PALE	8	S	0000.0	0000.0	1.0	60.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0000.0	0000.0	1.0	72.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0007.0	0008.0	1.0	30.0			0
	500	HIRA	8	S	0008.0	0008.0	1.0	10.0			0
	2840	PEKG	3	S	0043.0	0047.5	10.0	35.5			
	2800	HIRA	8	S	0047.0	0047.0	1.0	30.0			0
	4995	LEAR	8	S	0047.0	0047.0	U	50.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0047.0	0047.0	U	74.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0047.0	0047.0	U	39.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0047.0	0047.0	U	42.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0047.0	0047.0	U	68.0			QL=4 ST=2 TYP=3
	2804	VORO	3	S	0047.3	0047.9	2.1	28.9			
	9100	GORK	1	S	0403.5	0403.9	2.7	18.0			
	200	HIRA	8	S	0623.0	0623.0	1.0	10.0			WL
	204	IZMI	7	C	0826.9	0826.9	0.1	5.0			
14	204	IZMI	43	NS	0807.0		233.0D		10.0		
	235	CUBA	44	NS	1300.0E		530.0D		7.0		
	280	CUBA	44	NS	1300.0E		530.0D		11.0		
	200	HIRA	8	S	0508.0	0509.0	1.0	25.0			0
	2840	PEKG	3	S	0509.0	0517.0	20.0	27.7			
	2800	HIRA	1	S	0514.0	0517.0	4.0	20.0			0
	200	HIRA	8	S	0515.0	0517.0	3.0	490.0			0
	245	LEAR	8	S	0515.0	0516.0	2.0	290.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0516.0	0516.0	U	76.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0516.0	0516.0	1.0	36.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0516.0	0517.0	1.0	270.0			QL=4 ST=2 TYP=3
	9100	GORK	7	C	0516.3	0517.0		25.0			
	9100	GORK	7	C	0516.3	0516.9	2.1	23.0			
	600	GORK	7	C	0516.5	0516.6	0.5	12.0			
	600	GORK	7	C	0516.5	0516.9		16.0			
	900	GORK	46	C	0516.6	0517.0	2.9	40.0			
	900	GORK	46	C	0516.6	0517.1		58.0			
	500	HIRA	8	S	0517.0	0517.0	1.0	155.0			0
	2840	PEKG	1	S	0641.0	0643.8	7.0	7.6			
	9100	GORK	3	S	0642.8	0643.5	4.4	20.0			
	9100	GORK	3	S	0657.8	0658.0	0.7	25.0			
	200	HIRA	8	S	0700.0	0700.0	1.0	15.0			MR
	33	UPIC	46	C	0933.0	0935.0U	2.5				UNCERTN
	204	IZMI	42	SER	0933.8	0934.4	1.5	50.0			
	245	SVTO	8	S	0934.0	0934.0	U	54.0			QL=4 ST=2 TYP=3
	2800	PENT	28	PRE	1416.0	1503.0	68.0	18.0			
	33	UPIC	46	C	1502.5	1503.5	4.5				
	8800	SGMR	8	S	1612.0	1612.0	U	29.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1612.0	1612.0	U	50.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1838.0	1839.0	1.0	65.0			QL=4 ST=2 TYP=3
	2800	PENT	24	R	2110.0	2153.0	82.0U	11.0			
15	204	IZMI	44	NS	0600.0E		360.0D		10.0		

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15	235	CUBA	44	NS	1300.0E		530.0D		7.0		
	280	CUBA	44	NS	1300.0E		530.0D		12.0		
	2800	PENT	1	S	0041.0	0051.0	17.0	10.0			
	2840	PEKG	3	S	0042.0	0051.1	12.0	23.8			
	15400	LEAR	46	C	0048.0	0049.0	1.0	40.0			QL=4 ST=2 TYP=8
	2804	VORO	40	F	0050.8	0051.1	1.2	11.4			
	245	LEAR	49	GB	0051.0	0051.0	U	3800.0			QL=4 ST=2 TYP=6
	9100	GORK	2	S/F	0342.2	0344.6	7.5	25.0			
	9100	GORK	2	S/F	0352.6	0353.5	3.1	15.0			
	9100	GORK	2	S/F	0416.2	0416.7	1.6	5.2			
	9100	GORK	1	S	0421.1	0422.1	2.7	15.0			
	2840	PEKG	45	C	0504.0	0506.7	10.0	8.8			
	4995	LEAR	8	S	0506.0	0507.0	2.0	51.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0510.0	0510.0	U	61.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0510.0	0510.0	U	57.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0518.0	0518.0	U	21.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0617.0	0618.0	2.0	88.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0618.0	0618.0	U	110.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0753.9	0754.1	0.6	91.0			
	245	LEAR	8	S	0754.0	0754.0	U	83.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0754.0	0754.0	U	70.0			QL=4 ST=3 TYP=3
	245	LEAR	8	S	0801.0	0801.0	U	57.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0833.0	0835.0	2.0	60.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0835.0	0835.0	U	62.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	1102.0	1102.0	1.0	110.0			QL=4 ST=2 TYP=8
	3000	IZMI	45	C	1142.7	1145.6	8.0	214.0	103.9		
	410	SGMR	48	C	1143.0	1144.0	6.0	610.0			QL=4 ST=2 TYP=8
	2695	SGMR	4	S/F	1143.0	1145.0	12.0	210.0			QL=4 ST=2 TYP=3
	1415	SGMR	48	C	1143.0	1146.0	737.0	110.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	1143.0	1146.0	737.0	220.0			QL=4 ST=2 TYP=8
	245	SGMR	49	GB	1143.0	1144.0	737.0	2100.0			QL=4 ST=2 TYP=6
	33	UPIC	46	C	1143.5	1144.5	5.0				
	610	SGMR	4	S/F	1144.0	1146.0	6.0	290.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1144.0	1146.0	736.0	210.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	1144.0	1146.0	736.0	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1209.0	1209.0	U	150.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1209.0	1209.0	U	100.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	1345.0	1400.0	31.0	22.0			
	245	SVTO	8	S	1348.0	1349.0	1.0	22.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	1348.0	1349.0	3.0	150.0			QL=4 ST=2 TYP=3
	33	UPIC	46	C	1348.0	1349.0	2.0				
	410	SGMR	8	S	1349.0	1349.0	U	110.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1349.0	1349.0	611.0	35.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1400.0	1400.0	U	46.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1400.0	1400.0	U	400.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	1400.0	1400.0	U	660.0			QL=4 ST=2 TYP=6
	245	SVTO	8	S	1400.0	1400.0	U	22.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1400.0	1400.0	U	22.0			QL=4 ST=2 TYP=3
	33	UPIC	45	C	1406.0	1406.5	1.5				
	245	SVTO	8	S	1623.0	1623.0	U	51.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1700.0	1700.5	1.0	14.0	7.0		
	245	PALE	8	S	1900.0	1900.0	U	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1900.0	1900.0	U	86.0			QL=4 ST=2 TYP=3
	2800	PENT	49	GB	1924.0	2452.0U	328.0U	500.0U			
	235	CUBA	49	GB	1935.0	2119.0		1939.0	970.0U		
	280	CUBA	49	GB	1935.0	2119.0		2981.0U	1490.0U		
	235	CUBA	49	GB	1935.0	2004.0	135.0D	2059.0	1030.0U		
	280	CUBA	49	GB	1935.0	2004.0	135.0D	3014.0U	1507.0U		
	245	PALE	8	S	1938.0	1938.0	U	60.0			QL=4 ST=2 TYP=3
	9500	CUBA	28	PRE	1949.0	2001.0	12.0	35.0	17.0		
	2695	SGMR	49	GB	1955.0	2142.0	159.0	2100.0			QL=4 ST=2 TYP=6
	1415	SGMR	48	C	1956.0	2142.0	158.0	500.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	1957.0	2004.0	144.0	1900.0			QL=4 ST=3 TYP=8
	4995	SGMR	49	GB	1957.0	2142.0	157.0	5000.0			QL=4 ST=2 TYP=6
	4995	PALE	48	C	1958.0	2004.0	126.0	6400.0			QL=4 ST=3 TYP=8
	410	SGMR	48	C	2000.0	2003.0	154.0	11000.0			QL=4 ST=2 TYP=8
	9500	CUBA	47	GB	2001.0	2024.0		522.0	261.0		
	9500	CUBA	47	GB	2001.0	2004.0	29.2	4158.0	2079.0		
	8800	PALE	48	C	2001.0	2004.0	105.0	15000.0			QL=4 ST=3 TYP=8

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
15	245	PALE	48	C	2001.0	2129.0	140.0	25000.0			QL=4 ST=3 TYP=8
	1415	PALE	48	C	2001.0	2004.0	147.0	1100.0			QL=4 ST=3 TYP=8
	245	SGMR	48	C	2001.0	2129.0	153.0	22000.0			QL=4 ST=2 TYP=8
	8800	SGMR	49	GB	2001.0	2141.0	153.0	14000.0			QL=4 ST=2 TYP=6
	410	PALE	48	C	2001.0	2003.0	183.0	14000.0			QL=4 ST=3 TYP=8
	610	SGMR	48	C	2002.0	2004.0	152.0	4800.0			QL=4 ST=2 TYP=8
	15400	SGMR	4	S/F	2002.0	2230.0	152.0	20000.0			QL=4 ST=2 TYP=3
	200	HIRA	47	GB	2003.0	2004.0	12.0	3665.0			0
	500	HIRA	7	C	2003.0	2113.0	105.0	380.0			ML
	15400	PALE	48	C	2003.0	2004.0	113.0	20000.0			QL=4 ST=3 TYP=8
	2800	HIRA	47	GB	2003.0	2143.0	120.0	535.0			0
	610	PALE	48	C	2003.0	2005.0	142.0	5000.0			QL=4 ST=3 TYP=8
	9500	CUBA	29	PBI	2030.2	2030.2	7.7	43.0	21.0		
	9500	CUBA	31	ABS	2037.9	2053.5	24.9	-17.0	-8.0		
	9500	CUBA	22	GRF	2102.0	2142.0	91.0D	136.0	68.0		SUN SET
	1415	SGMR	48	C	2103.0	2142.0	91.0	500.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	2104.0	2141.0	88.0	160.0			QL=4 ST=2 TYP=8
	2695	SGMR	48	C	2111.0	2142.0	83.0	460.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	2111.0	2142.0	82.0	270.0			QL=4 ST=2 TYP=8
	200	HIRA	47	GB	2115.0	2122.0	21.0	1560.0			0
	2840	PEKG	3	S	2148.0	2208.0E	61.0	97.3			
	15400	SGMR	46	C	2228.0	2230.0	3.0	28.0			QL=4 ST=2 TYP=8
16	204	IZMI	44	NS	0600.0E		360.0D		20.0		
	245	PALE	8	S	0328.0	0328.0	1.0	120.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0638.0	0640.0	10.0	210.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0638.0	0640.6	21.0	117.3			
	9100	GORK	46	C	0638.6	0640.0	3.9	80.0			
	9100	GORK	46	C	0638.6	0640.5		90.0			
	3000	IZMI	45	C	0638.8	0640.5	11.0	131.0	37.0		
	2800	HIRA	3	S	0639.0	0641.0	6.0	115.0			0
	200	HIRA	8	S	0639.0	0639.0	1.0	40.0			MR
	1415	LEAR	4	S/F	0639.0	0640.0	3.0	80.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0639.0	0640.0	3.0	100.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0639.0	0640.0	3.0	190.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0639.0	0640.0	3.0	130.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	0639.0	0640.0	6.0	87.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0639.0	0640.0	8.0	110.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0639.0	0640.0	9.0	150.0			QL=4 ST=2 TYP=3
	900	GORK	4	S/F	0639.0	0641.7	4.0	30.0			
	15400	SVTO	4	S/F	0640.0	0640.0	6.0	24.0			QL=4 ST=2 TYP=3
	9100	GORK	29	PBI	0642.5	0642.5	15.2	18.0			
	900	GORK	30	PBI	0643.0	0643.0	7.4	20.0			
	900	GORK	46	C	0645.8	0646.0	1.3	20.0			
	900	GORK	46	C	0645.8	0646.3		17.0			
	900	GORK	46	C	0645.8	0646.9		44.0			
	204	IZMI	41	F	0647.8	0647.9	0.4	39.0	5.9		
	33	UPIC	45	C	0901.0	0901.7	1.0				UNCERTN
	2800	PENT	41	F	1347.0	1400.0	65.0	65.0			
	245	SGMR	8	S	1351.0	1352.0	2.0	79.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1351.0	1351.0	U	37.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1359.0	1400.0	7.0	120.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1359.0	1401.0	5.0	56.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1359.0	1400.0	7.0	140.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1400.0	1400.0	6.0	64.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1400.0	1400.0	6.0	130.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	1400.0	1402.0	6.0	66.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1400.0	1400.0	7.0	110.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1400.0	1403.0	7.0	65.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1411.0	1412.0	3.0	200.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	1411.0	1412.0	5.0	110.0			QL=2 ST=3 TYP=3
	410	PALE	48	C	1910.0	1910.0	1.0	120.0			QL=4 ST=2 TYP=8
	245	PALE	4	S/F	1910.0	1913.0	3.0	160.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1958.0	1958.0	U	60.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	2009.0	2010.0	3.0	92.0			QL=4 ST=2 TYP=8
	245	SGMR	4	S/F	2009.0	2009.0	3.0	89.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	2050.0	2131.0	87.0	17.0			
	245	PALE	48	C	2128.0	2136.0	8.0	280.0			QL=4 ST=2 TYP=8
	245	SGMR	4	S/F	2131.0	2132.0	7.0	110.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
16	8800	SGMR	4	S/F	2134.0	2135.0	4.0	58.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	2135.0	2135.0	3.0	35.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	2140.0	2140.0	4.0	120.0			QL=4 ST=2 TYP=3
17	204	IZMI	44	NS	0600.0E		360.0D		45.0		
	33	UPIC	43	NS	0918.0	1049.0	204.0				
	245	SGMR	43	NS	1245.0	1249.0	4.0	52.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1300.0E		530.0D		17.0		
	280	CUBA	44	NS	1300.0E		530.0D		29.0		
	245	SGMR	43	NS	1427.0	1532.0	88.0	160.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1730.0	1901.0	105.0	72.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	2149.0	2150.0	8.0	120.0			QL=4 ST=2 TYP=1
	2840	PEKG	3	S	0200.0	0204.5	20.0	11.7			
	9100	GORK	1	S	0416.0	0416.5	1.1	11.0			
	600	GORK	41	F	0432.8	0439.2	6.4	10.0			
	600	GORK	41	F	0432.8	0444.9		7.3			
	2840	PEKG	1	S	0436.0	0439.5	9.0	6.6			
	9100	GORK	45	C	0438.0	0439.4	4.6	33.0			
	9100	GORK	45	C	0438.0	0440.7		15.0			
	900	GORK	46	C	0438.3	0441.2		90.0			
	900	GORK	46	C	0438.3	0439.4	3.7	7.4			
	9100	GORK	2	S/F	0527.0	0527.2	1.0	13.0			
	900	GORK	41	F	0529.0	0529.1	4.3	4.5			
	900	GORK	41	F	0529.0	0532.3U		77.0U			
	9100	GORK	45	C	0546.8	0549.0		70.0			
	9100	GORK	45	C	0546.8	0548.7	3.2	65.0			
	8800	LEAR	8	S	0548.0	0549.0	1.0	81.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0548.0	0549.0	1.0	46.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0548.0	0549.0	1.0	75.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0548.0	0549.0	1.0	31.0			QL=4 ST=2 TYP=3
	9100	GORK	29	PBI	0550.0	0550.0	9.3	15.0			
	33	UPIC	48	C	0656.0	0702.8	18.0				
	245	SVTO	48	C	0657.0	0702.0U	24.0	1600.0			QL=2 ST=2 TYP=8
	900	GORK	46	C	0658.0	0713.0		280.0			
	900	GORK	46	C	0658.0	0703.6U	22.7	120.0U			
	9100	GORK	46	C	0658.5	0713.0		1600.0			
	9100	GORK	46	C	0658.5	0703.2	31.5D	1050.0			
	2840	PEKG	47	GB	0659.0	0701.1	33.0	416.2			
	2800	HIRA	47	GB	0700.0	0703.0	16.0	635.0			0
	500	HIRA	7	C	0700.0	0712.0	16.0	255.0			WL
	4995	LEAR	48	C	0700.0	0702.0	16.0	1000.0			QL=4 ST=2 TYP=8
	1415	SVTO	48	C	0700.0	0703.0	14.0	220.0			QL=4 ST=2 TYP=8
	2695	SVTO	48	C	0700.0	0703.0	14.0	550.0			QL=4 ST=2 TYP=8
	8800	LEAR	48	C	0700.0	0712.0	25.0	1900.0			QL=4 ST=2 TYP=8
	15400	LEAR	48	C	0700.0	0712.0	21.0	1800.0			QL=4 ST=2 TYP=8
	610	SVTO	48	C	0700.0	0701.0	21.0	290.0			QL=4 ST=2 TYP=8
	4995	SVTO	48	C	0700.0	0703.0	24.0	1000.0			QL=4 ST=2 TYP=8
	8800	SVTO	48	C	0700.0	0713.0	28.0	1500.0			QL=4 ST=2 TYP=8
	15400	SVTO	48	C	0700.0	0713.0	28.0	1500.0			QL=4 ST=2 TYP=8
	600	GORK	46	C	0700.1	0701.4	25.4	480.0			
	600	GORK	46	C	0700.1	0711.8		740.0			
	3000	IZMI	46	C	0700.2	0702.8	15.7	790.0	149.5		
	204	IZMI	46	C	0700.4	0702.8	14.5	259.0			
	1415	LEAR	4	S/F	0701.0	0703.0	3.0	200.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0701.0	0703.0	4.0	610.0			QL=4 ST=2 TYP=3
	410	SVTO	48	C	0701.0	0709.0	20.0	660.0			QL=4 ST=2 TYP=8
	2695	LEAR	4	S/F	0708.0	0712.0	5.0	130.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0711.0	0712.0	2.0	90.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0721.0	0721.0	1.0	25.0			0
	245	SVTO	8	S	0816.0E	0816.0U	U	73.0			QL=2 ST=2 TYP=3
	245	SGMR	4	S/F	1056.0	1058.0	3.0	77.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1058.0E	1058.0	U	51.0			QL=2 ST=2 TYP=3
	245	SGMR	48	C	1218.0	1219.0	3.0	69.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	1226.0	1226.0	4.0	55.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	1240.0	1242.0	2.0	67.0			QL=4 ST=2 TYP=8
	2800	PENT	20	GRF	1339.0	1414.0	72.0	4.0			
	245	SGMR	4	S/F	1410.0	1410.0	6.0	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1410.0E	1410.0	U	65.0			QL=2 ST=2 TYP=3
	2800	PENT	20	GRF	1505.0	1537.0	87.0U	3.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
17	245	SVTO	8	S	1532.0	1532.0	1.0	100.0			QL=4 ST=2 TYP=3
	2800	PENT	41	F	1730.0	1908.0	122.0U	5.0			
	9500	CUBA	46	C	1836.0	1836.3	3.0	33.0	16.0		
	9500	CUBA	21	GRF	1944.0	2014.0	166.0D	17.0	8.0		
	9500	CUBA	1	S	1946.4	1946.9	0.8	31.0	15.0		
	9500	CUBA	2	S/F	1949.8	1950.0	2.2	11.0	5.0		
	9500	CUBA	2	S/F	1954.0	1954.2	1.5	21.0	10.0		
	15400	PALE	48	C	2010.0	2010.0	1.0	64.0			QL=4 ST=2 TYP=8
	610	PALE	8	S	2010.0	2010.0	U	100.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2010.0	2010.0	1.0	55.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2010.0	2010.0	1.0	43.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2010.0	2010.0	1.0	57.0			QL=4 ST=2 TYP=3
	1415	SGMR	46	C	2010.0	2011.0	3.0	22.0			QL=4 ST=2 TYP=8
	2695	SGMR	48	C	2010.0	2010.0	3.0	75.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	2010.0	2010.0	3.0	87.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	2010.0	2010.0	3.0	110.0			QL=4 ST=2 TYP=8
	15400	SGMR	48	C	2010.0	2010.0	3.0	56.0			QL=4 ST=2 TYP=8
	610	SGMR	8	S	2010.0	2010.0	1.0	80.0			QL=4 ST=2 TYP=3
	9500	CUBA	4	S/F	2011.0	2011.9	2.5	110.0	55.0		
	245	SGMR	48	C	2027.0	2027.0	1.0	53.0			QL=4 ST=2 TYP=8
	2800	PENT	20	GRF	2033.0	2052.0	42.0	4.0			
	9500	CUBA	1	S	2127.8	2129.1	3.1	12.0	6.0		
	500	HIRA	4	S/F	2139.0	2140.0	3.0	60.0			WL
	200	HIRA	8	S	2139.0	2140.0	3.0	90.0			WL
	410	SGMR	8	S	2139.0	2140.0	1.0	95.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	2140.0	2142.0	2.0	59.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	2147.0	2147.0	U	58.0			QL=4 ST=2 TYP=8
	245	PALE	8	S	2149.0	2150.0	1.0	210.0			QL=4 ST=2 TYP=3
18	204	IZMI	44	NS	0600.0E		360.0D		40.0		
	245	SVTO	43	NS	0642.0	0643.0	95.0	97.0			QL=2 ST=2 TYP=1
	410	PALE	8	S	0300.0	0300.0	U	110.0			QL=4 ST=2 TYP=3
	9100	GORK	28	PRE	0321.7	0327.6	10.3	11.0			
	2840	PEKG	3	S	0327.0	0333.2	23.0	257.6			
	2800	HIRA	3	S	0332.0	0333.0	6.0	210.0			0
	1415	LEAR	8	S	0332.0	0333.0	2.0	110.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0332.0	0333.0	2.0	200.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0332.0	0333.0	1.0	240.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0332.0	0333.0	2.0	910.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	0332.0	0333.0	3.0	1800.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0332.0	0333.0	1.0	500.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	0332.0	0333.0	1.0	1500.0			QL=4 ST=2 TYP=3
	9100	GORK	4	S/F	0332.0	0333.0U	15.4	320.0			
	2804	VORO	4	S/F	0332.0	0333.2	13.0	80.0			
	900	GORK	46	C	0332.2	0333.2	10.8	37.0			
	900	GORK	46	C	0332.2	0335.3U		100.0U			
	600	GORK	2	S/F	0332.4	0333.1	1.5	3.7			
	1415	PALE	8	S	0333.0	0333.0	1.0	100.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0333.0	0333.0	1.0	210.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0333.0	0333.0	U	200.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0337.0	0337.0	U	92.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0337.0	0337.0	U	58.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0339.0	0339.0	1.0	80.0			WL
	9100	GORK	1	S	0350.7	0352.6	4.0	7.6			
	245	LEAR	8	S	0409.0	0409.0	U	82.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0417.0	0417.0	U	60.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0424.0	0424.0	U	100.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0426.0	0429.6	9.0	7.4			
	900	GORK	40	F	0426.6	0430.7	6.0	9.8			
	600	GORK	2	S/F	0428.9	0429.1	0.5	9.1			
	245	LEAR	8	S	0429.0	0429.0	1.0	100.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0429.0	0429.0	1.0	96.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0429.0	0429.0	U	160.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	0429.0	0430.6	2.8	7.6			
	500	HIRA	8	S	0430.0	0430.0	1.0	25.0			0
	200	HIRA	8	S	0444.0	0444.0	1.0	75.0			ML
	500	HIRA	7	C	0513.0	0515.0	4.0	60.0			WR
	500	HIRA	7	C	0549.0	0549.0	13.0	100.0			WR
	245	LEAR	8	S	0617.0	0617.0	1.0	150.0			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)	Mean	Int	Remarks
18	245	SVTO	8	S	0617.0	0617.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	LEAR	48	C	0620.0	0620.0	U	100.0			QL=4 ST=2 TYP=8
	245	SVTO	8	S	0620.0	0620.0	U	100.0			QL=4 ST=2 TYP=3
	245	LEAR	48	C	0632.0	0632.0	U	97.0			QL=4 ST=2 TYP=8
	2840	PEKG	3	S	0641.0	0646.8	16.0	22.9			
	245	LEAR	8	S	0642.0	0642.0	U	100.0			QL=4 ST=2 TYP=3
	500	HIRA	7	C	0646.0	0647.0	6.0	45.0			WL
	200	HIRA	7	C	0646.0	0646.0	5.0	60.0			0
	245	LEAR	48	C	0646.0	0646.0	4.0	420.0			QL=4 ST=2 TYP=8
	610	LEAR	46	C	0646.0	0646.0	U	41.0			QL=4 ST=2 TYP=8
	410	LEAR	49	GB	0646.0	0646.0	1.0	2100.0			QL=4 ST=2 TYP=6
	245	SVTO	48	C	0646.0	0646.0	4.0	370.0			QL=4 ST=3 TYP=8
	410	SVTO	49	GB	0646.0	0646.0	2.0	1500.0			QL=4 ST=2 TYP=6
	610	SVTO	8	S	0646.0	0646.0	1.0	41.0			QL=4 ST=2 TYP=3
	900	GORK	46	C	0646.0	0647.1	5.7	26.0			
	900	GORK	46	C	0646.0	0649.4		9.8			
	204	IZMI	41	F	0646.1	0646.4	5.1	194.0			
	9100	GORK	2	S/F	0646.1	0646.8	1.4	25.0			
	600	GORK	46	C	0646.1	0646.8	7.9	58.0			
	600	GORK	46	C	0646.1	0650.8		17.0			
	3000	IZMI	7	C	0646.4	0646.9	3.1	19.0	5.2		
	245	LEAR	8	S	0654.0	0655.0	1.0	52.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0718.0	0719.0	1.0	70.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0723.0	0743.2	46.0	371.3			
	9100	GORK	2	S/F	0725.2	0725.6	1.2	20.0			
	3000	IZMI	5	S	0725.6	0725.8	0.3	140.0	7.8		
	204	IZMI	46	C	0738.8	0742.5	13.0	4286.0			
	245	LEAR	48	C	0740.0	0742.0	8.0	2500.0			QL=4 ST=2 TYP=8
	245	SVTO	48	C	0740.0	0742.0	8.0	2200.0			QL=4 ST=2 TYP=8
	500	HIRA	47	GB	0740.0	0743.0	18.0	1990.0			ML
	410	LEAR	48	C	0740.0	0743.0	13.0	1900.0			QL=4 ST=2 TYP=8
	410	SVTO	48	C	0740.0	0743.0	13.0	1800.0			QL=4 ST=2 TYP=8
	610	SVTO	48	C	0740.0	0744.0	11.0	710.0			QL=4 ST=2 TYP=8
	4995	SVTO	49	GB	0740.0	0743.0	11.0	1200.0			QL=4 ST=2 TYP=6
	33	UPIC	48	C	0740.0	0742.5	12.0				
	9100	GORK	4	S/F	0740.0	0742.5U	20.6	310.0U			
	600	GORK	46	C	0740.1	0747.5U		130.0U			
	600	GORK	46	C	0740.1	0743.5U	14.2	130.0U			
	900	GORK	46	C	0740.3	0748.0U		100.0U			
	3000	IZMI	45	C	0740.3	0743.3	11.3	506.0	84.9		
	900	GORK	46	C	0740.3	0743.5	15.0	100.0U			
	2695	LEAR	49	GB	0741.0	0743.0	3.0	620.0			QL=4 ST=2 TYP=6
	8800	LEAR	49	GB	0741.0	0743.0	9.0	1700.0			QL=4 ST=2 TYP=6
	2695	SVTO	49	GB	0741.0	0743.0	9.0	560.0			QL=4 ST=2 TYP=6
	1415	SVTO	4	S/F	0741.0	0743.0	9.0	440.0			QL=4 ST=2 TYP=3
	2800	HIRA	47	GB	0741.0	0743.0	11.0	600.0			0
	610	LEAR	48	C	0741.0	0744.0	10.0	900.0			QL=4 ST=2 TYP=8
	8800	SVTO	49	GB	0741.0	0743.0	10.0	1500.0			QL=4 ST=2 TYP=6
	1415	LEAR	8	S	0742.0	0743.0	2.0	400.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	0742.0	0743.0	6.0	1700.0			QL=4 ST=2 TYP=3
	15400	SVTO	49	GB	0742.0	0743.0	8.0	1600.0			QL=4 ST=2 TYP=6
	4995	LEAR	8	S	0749.0	0749.0	U	61.0			QL=4 ST=2 TYP=3
	204	IZMI	25	R	0752.9		247.1D		60.0		
	245	LEAR	48	C	0755.0	0755.0	5.0	93.0			QL=4 ST=2 TYP=8
	245	SVTO	48	C	0755.0	0755.0	5.0	110.0			QL=4 ST=2 TYP=8
	410	LEAR	8	S	0756.0	0757.0	1.0	180.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0756.0	0756.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	LEAR	48	C	0813.0	0817.0	5.0	61.0			QL=4 ST=2 TYP=8
	410	SVTO	4	S/F	0814.0	0820.0	9.0	310.0			QL=4 ST=2 TYP=3
	410	LEAR	4	S/F	0816.0	0820.0	5.0	210.0			QL=4 ST=2 TYP=3
	9100	GORK	20	GRF	0828.1	0830.0	17.3	11.0			
	410	SVTO	8	S	0923.0	0924.0	2.0	65.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1142.0	1143.0	3.0	200.0			QL=4 ST=2 TYP=3
	33	UPIC	46	C	1142.0	1143.5	2.0				UNCERTN
	245	SVTO	8	S	1143.0E	1143.0U	U	160.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	1143.2	1143.3	0.2	144.0			
	3000	IZMI	20	GRF	1153.0	1154.5	1.9	11.0	6.5		
	245	SGMR	8	S	1216.0	1216.0	1.0	73.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1216.0E	1216.0U	U	56.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
18	245	SGMR	8	S	1234.0	1234.0	U	58.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1234.0	1234.0	1.0	230.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1234.0	1234.0	1.0	400.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	1244.0	1244.0	U	50.0			QL=4 ST=2 TYP=8
	245	SGMR	8	S	1303.0	1303.0	U	170.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1303.0E	1303.0U	U	90.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1329.0	1329.0	U	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1330.0	1330.0	U	72.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	1425.0	1426.0	1.0	1100.0			QL=4 ST=2 TYP=6
	245	SGMR	49	GB	1426.0	1426.0	2.0	1700.0			QL=4 ST=2 TYP=6
	410	SGMR	49	GB	1426.0	1426.0	U	610.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	1426.0	1426.0	U	1200.0			QL=4 ST=2 TYP=6
	33	UPIC	3	S	1426.0	1426.5	1.0				
	2800	PENT	41	F	1447.0	1529.0	105.0U	4.0			
	245	SGMR	8	S	1702.0	1702.0	U	61.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1702.0	1702.0	U	62.0			QL=4 ST=2 TYP=3
	410	PALE	49	GB	1714.0	1715.0	2.0	1400.0			QL=4 ST=2 TYP=6
	410	SGMR	49	GB	1714.0	1715.0	2.0	1000.0			QL=4 ST=2 TYP=6
	410	SVTO	49	GB	1714.0	1715.0	2.0	1500.0			QL=4 ST=3 TYP=6
	610	PALE	8	S	1734.0	1734.0	U	52.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1734.0	1734.0	U	78.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	1738.0	1744.0	12.0	5.0			
	410	PALE	8	S	1744.0	1744.0	U	54.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1744.0	1744.0	U	73.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1744.0	1744.0	U	68.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1816.0	1816.0	U	63.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	1821.0	1824.0	4.0	6700.0			QL=4 ST=2 TYP=3
	410	SGMR	49	GB	1821.0	1824.0	4.0	6700.0			QL=4 ST=2 TYP=6
	245	PALE	8	S	1823.0	1823.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1823.0	1823.0	U	74.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1824.0	1824.0	U	380.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1824.0	1824.0	U	270.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1826.0	1826.0	U	92.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1845.0	1911.0	47.0U	23.0			
	245	PALE	8	S	1852.0	1852.0	U	460.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	1909.0	1911.0	9.0	41000.0			QL=4 ST=2 TYP=3
	235	CUBA	47	GB	1909.5	1911.0	58.0	56.0	28.0		
	280	CUBA	47	GB	1909.5	1911.0	58.0	48.0	24.0		
	410	PALE	48	C	1910.0	1910.0	6.0	360.0			QL=4 ST=2 TYP=8
	610	PALE	4	S/F	1910.0	1912.0	5.0	77.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	1910.0	1911.0	4.0	31000.0			QL=4 ST=2 TYP=8
	410	SGMR	4	S/F	1910.0	1910.0	5.0	270.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1910.0	1912.0	4.0	51.0			QL=4 ST=2 TYP=3
	9500	CUBA	21	GRF	1910.0	1915.0	84.0	10.0	5.0		
	1415	PALE	8	S	1911.0	1912.0	2.0	45.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1911.0	1912.0	3.0	52.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	1925.0	1926.0	7.0	470.0			QL=4 ST=2 TYP=8
	610	PALE	48	C	1929.0	1930.0	2.0	79.0			QL=4 ST=2 TYP=8
	610	SGMR	8	S	1929.0	1930.0	2.0	67.0			QL=4 ST=2 TYP=3
	410	SGMR	46	C	1936.0	1937.0	1.0	45.0			QL=4 ST=2 TYP=8
	610	SGMR	48	C	1936.0	1937.0	6.0	79.0			QL=4 ST=2 TYP=8
	245	PALE	48	C	1940.0	1941.0	4.0	79.0			QL=4 ST=2 TYP=8
	410	PALE	48	C	1945.0	1945.0	U	53.0			QL=4 ST=2 TYP=8
	610	PALE	48	C	1945.0	1945.0	U	57.0			QL=4 ST=2 TYP=8
	610	PALE	48	C	1949.0	2014.0	56.0	930.0			QL=4 ST=2 TYP=8
	610	SGMR	48	C	1949.0	2014.0	56.0	850.0			QL=4 ST=2 TYP=8
	410	PALE	48	C	1950.0	2000.0	55.0	300.0			QL=4 ST=2 TYP=8
	410	SGMR	48	C	1950.0	2000.0	55.0	250.0			QL=4 ST=2 TYP=8
	9500	CUBA	2	S/F	1953.7	1954.7	1.9	15.0	7.0		
	500	HIRA	7	C	2010.0	2039.0	37.0	165.0			0
	245	PALE	8	S	2033.0	2033.0	1.0	430.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	2128.0	2148.0	64.0U	14.0			
	410	SGMR	8	S	2208.0	2208.0	U	320.0			QL=4 ST=2 TYP=3
	410	PALE	49	GB	2212.0	2213.0	1.0	1800.0			QL=4 ST=2 TYP=6
	245	PALE	8	S	2212.0	2212.0	1.0	320.0			QL=4 ST=2 TYP=3
	2804	VORO	2	S/F	2212.0	2212.3	1.5	13.8			
	500	HIRA	47	GB	2213.0	2213.0	1.0	575.0			0
	610	PALE	8	S	2213.0	2213.0	U	120.0			QL=4 ST=2 TYP=3
	410	SGMR	49	GB	2213.0	2213.0	U	1600.0			QL=4 ST=2 TYP=6

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2002

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	SGMR	8	S	2213.0	2213.0	U	210.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	2213.0	2213.0	U	110.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2253.0	2253.0	U	150.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2253.0	2253.0	U	100.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	2253.0	2254.0	15.0	150.0			ML
	2840	PEKG	3	S	2257.0	2315.3	45.0	53.4			
	410	PALE	8	S	2258.0	2258.0	U	110.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	2258.0	2258.0	U	120.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2258.0	2258.0	U	53.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	2258.0	2258.0	U	38.0			QL=4 ST=2 TYP=3
	2804	VORO	40	F	2258.5	2259.7	2.4	6.9			
	410	PALE	8	S	2305.0	2305.0	U	300.0			QL=4 ST=2 TYP=3
	2804	VORO	22	GRF	2305.0	2355.0	325.0	10.6			
	2804	VORO	46	C	2312.8	2315.3	3.8	37.4			
	2800	HIRA	4	S/F	2313.0	2315.0	4.0	40.0			0
	4995	PALE	8	S	2313.0	2313.0	1.0	86.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2314.0	2314.0	1.0	250.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2314.0	2314.0	U	84.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	2334.0	2355.0	44.0	11.0			
19	235	CUBA	44	NS	1300.0E		90.0D		7.0		
	280	CUBA	44	NS	1300.0E		90.0D		15.0		
	245	SGMR	43	NS	1651.0	1658.0	82.0	200.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	2015.0	2016.0	157.0	280.0			QL=4 ST=2 TYP=1
	245	PALE	8	S	0139.0	0139.0	2.0	56.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0223.0	0223.0	U	87.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0227.0	0227.0	1.0	100.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0227.0	0228.0	1.0	140.0			QL=4 ST=2 TYP=3
	2804	VORO	8	S	0227.6	0227.9	0.6	4.1			
	410	PALE	48	C	0325.0	0325.0	2.0	92.0			QL=4 ST=2 TYP=8
	245	PALE	8	S	0327.0	0327.0	U	71.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0433.0	0435.0	2.0	100.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0434.0	0435.0	2.0	190.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0435.0	0437.0	2.0	110.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0435.0	0436.0	1.0	140.0			QL=4 ST=2 TYP=3
	900	GORK	4	S/F	0449.9	0450.5	1.5	50.0			
	600	GORK	46	C	0450.3	0450.7	0.8	26.0			
	600	GORK	46	C	0450.3	0450.8		32.0			
	2840	PEKG	3	S	0504.0	0506.4	11.0	18.1			
	500	HIRA	8	S	0505.0	0506.0	4.0	230.0			
	410	SVTO	48	C	0505.0	0506.0	4.0	440.0			QL=4 ST=2 TYP=8
	600	GORK	7	C	0505.8	0506.4	1.3	55.0			
	600	GORK	7	C	0505.8	0506.7		20.0			
	610	SVTO	8	S	0506.0	0506.0	U	210.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0506.0	0506.0	2.0	22.0			QL=4 ST=2 TYP=3
	33	UPIC	46	C	0506.0	0508.0	3.0				
	9100	GORK	7	C	0506.3	0508.1		11.0			
	9100	GORK	7	C	0506.3	0508.1		11.0			
	9100	GORK	7	C	0506.3	0506.6	2.9	9.3			
	9100	GORK	7	C	0506.3	0506.6	2.9	9.3			
	245	SVTO	8	S	0507.0	0508.0	1.0	31.0			QL=4 ST=2 TYP=3
	2804	VORO	46	C	0515.8	0516.7	3.6	13.8			
	33	UPIC	45	C	0526.0	0529.5	4.0				
	500	HIRA	7	C	0549.0	0552.0	3.0	40.0			
	410	SVTO	8	S	0550.0	0550.0	1.0	97.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0836.0	0838.3	8.0	11.0			
	500	HIRA	8	S	0838.0	0839.0	1.0	40.0			
	410	SVTO	49	GB	0838.0	0838.0	1.0	880.0			QL=4 ST=2 TYP=6
	245	SVTO	8	S	0838.0	0838.0	U	21.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0838.0	0838.3	2.4	12.0			
	3000	IZMI	7	C	0838.2	0838.3	0.5	13.0	5.8		
	204	IZMI	42	SER	0849.2	0850.0	2.1	82.0			
	2840	PEKG	45	C	0913.0	0917.8	15.0	29.1			
	204	IZMI	42	SER	0915.9	0916.4	3.9	260.0			
	410	SVTO	48	C	0916.0	0916.0	3.0	1100.0			QL=4 ST=2 TYP=8
	245	SVTO	8	S	0916.0	0918.0	2.0	66.0			QL=4 ST=2 TYP=3
	610	SVTO	4	S/F	0916.0	0917.0	3.0	50.0			QL=4 ST=2 TYP=3
	600	GORK	41	F	0916.2	0919.3	8.9	30.0			
	600	GORK	41	F	0916.2	0924.9		28.0			

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

JULY 2002

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks
19	900	GORK	46	C	0917.4	0918.1	2.9	8.5			
	900	GORK	46	C	0917.4	0919.3		23.0			
	3000	IZMI	7	C	0917.8	0918.1	1.8	23.0	6.7		
	1415	SVTO	8	S	0918.0	0918.0	U	32.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0918.0	0918.0	U	23.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0918.0	0918.0	1.0	24.0			QL=4 ST=2 TYP=3
	33	UPIC	42	SER	1031.5	1246.0	276.0				
	410	SVTO	8	S	1052.0	1052.0	1.0	78.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1058.0	1058.0	U	190.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1206.0	1206.0	U	140.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1206.0	1206.0	U	140.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1246.0	1247.0	1.0	270.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1246.0	1247.0	1.0	190.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1247.0	1248.0	1.0	240.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1247.0	1248.0	1.0	280.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1429.0	1429.0	U	320.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1429.0	1429.0	U	36.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1429.0	1429.0	U	190.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1429.0	1429.0	U	38.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1429.0	1429.0	U	26.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	1433.0	1505.0	83.0	3.0			
	410	SGMR	8	S	1511.0	1511.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1542.0	1542.0	U	130.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1542.0	1542.0	U	130.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1558.0	1616.0	34.0U	10.0			
	245	SGMR	8	S	1623.0	1623.0	U	60.0			QL=4 ST=2 TYP=3
	33	UPIC	42	SER	1633.0	1646.2	21.0				
	245	SGMR	49	GB	1634.0	1635.0	2.0	1100.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	1634.0	1635.0	2.0	520.0			QL=4 ST=2 TYP=6
	410	SVTO	48	C	1638.0	1646.0	8.0	100.0			QL=4 ST=2 TYP=8
	410	SGMR	8	S	1641.0	1641.0	U	85.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1642.0	1642.0	U	190.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	1642.0	1644.0	4.0	250.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1646.0	1646.0	U	25.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1653.0	1653.0	U	180.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1653.0	1653.0	U	43.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	1657.0	1702.0	5.0	160.0			QL=4 ST=2 TYP=8
	410	SVTO	8	S	1701.0	1702.0	1.0	35.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1704.0	1704.0	U	71.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1704.0	1704.0	U	28.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1708.0	1708.0	U	130.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1708.0	1708.0	U	68.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1708.0	1708.0	U	24.0			QL=4 ST=2 TYP=3
	2800	PENT	41	F	1800.0	1847.0	76.0	17.0			
	245	PALE	8	S	1810.0	1810.0	U	170.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1810.0	1810.0	U	440.0			QL=4 ST=2 TYP=3
	410	SGMR	49	GB	1810.0	1810.0	U	520.0			QL=4 ST=2 TYP=6
	245	SGMR	8	S	1810.0	1810.0	U	130.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1810.0	1810.5	1.6	9.0	4.0		
	610	PALE	8	S	1811.0	1811.0	U	54.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1813.0	1813.0	U	190.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1813.0	1813.0	U	260.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1813.0	1813.0	U	190.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1813.0	1813.0	2.0	200.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	1847.0	1848.0	1.0	500.0			QL=4 ST=2 TYP=6
	245	PALE	8	S	1858.0	1858.0	1.0	1200.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1916.0	1916.0	U	120.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1916.0	1916.0	U	100.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	1918.0	1919.0	1.0	680.0			QL=4 ST=2 TYP=6
	200	HIRA	8	S	2015.0	2016.0	4.0	105.0			0
	245	PALE	48	C	2015.0	2016.0	3.0	340.0			QL=4 ST=2 TYP=8
	500	HIRA	8	S	2212.0	2212.0	1.0	35.0			0
	410	PALE	8	S	2212.0	2212.0	U	190.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2212.0	2212.0	U	160.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2222.0	2222.0	1.0	51.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2253.0	2253.0	U	170.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2324.0	2326.0	2.0	360.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2326.0	2326.0	U	160.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	2356.0	2402.0	6.0	830.0			QL=4 ST=2 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
20	245	SGMR	43	NS	1223.0	1223.0	200.0	150.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1500.0E		210.0D		6.0		
	280	CUBA	44	NS	1500.0E		210.0D		13.0		
	245	SGMR	43	NS	1927.0	1928.0	1.0	190.0			QL=4 ST=2 TYP=1
	200	HIRA	8	S	0023.0	0023.0	1.0	25.0			0
	500	HIRA	8	S	0054.0	0054.0	1.0	10.0			0
	245	PALE	8	S	0054.0	0054.0	1.0	210.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0117.0	0117.0	1.0	250.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0620.4	0620.9	0.8	12.0			
	2840	PEKG	3	S	0747.0	0750.0	15.0	21.1			
	3000	IZMI	22	GRF	0749.2	0749.8	14.4	11.0	3.2		
	2840	PEKG	3	S	0804.0	0809.6	15.0	19.4			
	3000	IZMI	22	GRF	0908.5	0909.8	1.6	17.0	9.7		
	245	SVTO	8	S	1006.0	1006.0	1.0	97.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1046.0	1046.0	2.0	130.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	1125.8	1125.8	0.1	52.0			
	245	SVTO	8	S	1223.0	1223.0	U	91.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1310.0	1310.0	U	53.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1502.0	1502.0	U	67.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1537.0	1537.0	U	56.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1543.0	1543.0	U	65.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1644.0	1644.0	1.0	210.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1644.0	1644.0	U	30.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1644.0	1644.0	1.0	180.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1834.0	1835.0	1.0	130.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1834.0	1835.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1906.0	1906.0	U	740.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1906.0	1906.0	U	650.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1906.0	1906.0	U	45.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1914.0	1914.0	U	59.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1914.0	1914.0	U	55.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1924.0	1924.0	U	220.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1924.0	1924.0	U	64.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1924.0	1924.0	U	180.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1924.0	1924.0	U	42.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1927.0	1927.0	1.0	250.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2008.0	2008.0	U	160.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2008.0	2008.0	1.0	120.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	2020.0	2023.0	6.0	30.0	15.0		
	4995	SGMR	4	S/F	2021.0	2024.0	5.0	90.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	2022.0	2022.0	4.0	52.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2022.0	2024.0	4.0	45.0			QL=4 ST=2 TYP=3
	2800	PENT	49	GB	2034.0	2113.0	116.0U	500.0U			
	9500	CUBA	47	GB	2103.0	2130.2	37.3	4597.0	2298.0		
	2800	HIRA	47	GB	2104.0	2130.0	50.0	2340.0			0
	500	HIRA	7	C	2104.0	2128.0	54.0	295.0			0
	2695	SGMR	48	C	2104.0	2129.0	59.0	2600.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	2104.0	2130.0	59.0	6500.0			QL=4 ST=2 TYP=8
	1415	PALE	48	C	2105.0	2127.0	43.0	1300.0			QL=4 ST=2 TYP=8
	15400	PALE	48	C	2105.0	2127.0	44.0	21000.0			QL=2 ST=2 TYP=8
	4995	PALE	48	C	2105.0	2130.0	53.0	4700.0			QL=2 ST=2 TYP=8
	8800	PALE	48	C	2105.0	2130.0	55.0	8900.0			QL=2 ST=2 TYP=8
	1415	SGMR	48	C	2105.0	2127.0	58.0	1500.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	2105.0	2130.0	58.0	20000.0			QL=4 ST=2 TYP=8
	15400	SGMR	48	C	2105.0	2128.0	58.0	43000.0			QL=4 ST=2 TYP=8
	200	HIRA	47	GB	2106.0	2116.0	30.0	6035.0			0
	245	PALE	48	C	2106.0	2106.0	48.0	12000.0			QL=4 ST=2 TYP=8
	410	PALE	48	C	2106.0	2130.0	49.0	330.0			QL=4 ST=2 TYP=8
	610	PALE	48	C	2106.0	2109.0	44.0	380.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	2106.0	2106.0	57.0	10000.0			QL=4 ST=2 TYP=8
	410	SGMR	48	C	2106.0	2130.0	57.0	310.0			QL=4 ST=2 TYP=8
	610	SGMR	48	C	2106.0	2109.0	57.0	430.0			QL=4 ST=2 TYP=8
	9500	CUBA	47	GB	2110.0E	2110.0		2606.0	1303.0		
	9500	CUBA	29	PBI	2140.3	2140.3	46.7	215.0	107.0		SUN SET
	2840	PEKG	3	S	2159.5	2207.1	41.0	58.4			
	245	LEAR	8	S	2324.0	2324.0	1.0	730.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	2328.0	2328.0	1.0	93.0			QL=4 ST=2 TYP=8
	200	HIRA	8	S	2329.0	2329.0	1.0	40.0			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
21	245	SVTO	43	NS	0515.0	0604.0	70.0	59.0			QL=2 ST=2 TYP=1
	204	IZMI	43	NS	0600.0		360.0D		20.0		
	245	SVTO	43	NS	0718.0	0733.0	21.0	95.0			QL=2 ST=2 TYP=1
	245	SVTO	43	NS	1025.0	1056.0	91.0	110.0			QL=2 ST=2 TYP=1
	245	SGMR	43	NS	1118.0	1137.0	132.0	160.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1459.0	1603.0	146.0	320.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1516.0	1516.0	524.0	85.0			QL=2 ST=3 TYP=1
	245	PALE	43	NS	1641.0	1657.0	101.0	300.0			QL=4 ST=2 TYP=1
	2840	PEKG	3	S	0224.0	0231.7	18.0	10.4			
	2804	VORO	40	F	0231.3	0231.5	1.6	14.0			
	200	HIRA	8	S	0305.0	0306.0	2.0	205.0			MR
	245	PALE	48	C	0427.0	0434.0	7.0	270.0			QL=4 ST=2 TYP=8
	410	PALE	8	S	0433.0	0434.0	1.0	330.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0434.0	0434.0	1.0	195.0			0
	245	LEAR	8	S	0434.0	0434.0	U	95.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0434.0	0434.0	U	150.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0442.0	0442.0	1.0	75.0			0
	245	LEAR	8	S	0442.0	0442.0	U	170.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0442.0	0442.0	U	68.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0442.0	0442.0	U	420.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0442.0	0442.0	U	190.0			QL=4 ST=2 TYP=3
	9100	GORK	2	S/F	0448.2	0450.3	4.5	7.5			
	200	HIRA	8	S	0449.0	0449.0	1.0	260.0			0
	245	LEAR	48	C	0449.0	0449.0	3.0	270.0			QL=4 ST=2 TYP=8
	245	PALE	48	C	0449.0	0449.0	3.0	720.0			QL=4 ST=2 TYP=8
	245	SVTO	8	S	0456.0E	0456.0U	U	55.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0533.0	0533.0	U	58.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0533.0E	0533.0U	1.0D	170.0			QL=2 ST=2 TYP=3
	9100	GORK	4	S/F	0555.2	0556.2	1.8	25.0			
	200	HIRA	8	S	0730.0	0731.0	2.0	30.0			WR
	2840	PEKG	3	S	0757.0	0804.8	24.0	20.2			
	3000	IZMI	22	GRF	0802.6	0804.6	3.3	20.0	7.2		
	204	IZMI	42	SER	0808.2	0811.2	4.7	150.0			
	245	SVTO	8	S	0810.0	0810.0	1.0	110.0			QL=2 ST=2 TYP=3
	200	HIRA	8	S	0811.0	0811.0	3.0	80.0			0
	245	SVTO	8	S	0844.0E	0844.0U	U	81.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0910.0	0910.0	U	270.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0910.0E	0910.0U	1.0D	490.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1009.0	1009.0	U	48.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	1010.0E	1013.0U	4.0D	53.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1245.0	1245.0	U	50.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1334.0	1334.0	U	73.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1334.0	1334.0	U	83.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1334.0	1334.0	U	27.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1417.0	1419.5	4.3	6.0	3.0		
	245	SGMR	8	S	1435.0	1437.0	2.0	60.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1603.0	1603.0	U	210.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1603.0	1603.0	U	77.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1621.3	1622.1	1.9	24.0	12.0		
	410	PALE	8	S	1732.0	1732.0	U	62.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1851.0	1851.0	U	100.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1933.0	1933.0	U	62.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2001.0	2001.0	U	87.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2001.0	2001.0	U	52.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2020.0	2021.0	1.0	150.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2020.0	2020.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2047.0	2047.0	U	53.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2124.0	2124.0	U	87.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2124.0	2124.0	U	50.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	2127.0	2205.0	56.0	9.0			
	245	PALE	8	S	2129.0	2129.0	U	87.0			QL=4 ST=2 TYP=3
22	204	IZMI	43	NS	0922.0		158.0D		15.0		
	245	SGMR	43	NS	1339.0	1454.0	206.0	150.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1441.0	1455.0	55.0	110.0			QL=2 ST=2 TYP=1
	245	LEAR	8	S	0021.0	0021.0	U	57.0			QL=4 ST=2 TYP=3
	2800	PENT	8	S	0128.0	0131.0	6.0	17.0			
	2840	PEKG	3	S	0129.0	0131.5	11.0	21.4			
	410	LEAR	8	S	0131.0	0131.0	U	72.0			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
22	410	PALE	8	S	0131.0	0131.0	U	170.0			QL=4 ST=2 TYP=3
	2804	VORO	40	F	0131.0	0131.7	2.5	19.6			
	2804	VORO	8	S	0138.8	0138.9	0.8	4.9			
	245	PALE	8	S	0320.0	0321.0	1.0	130.0			QL=4 ST=2 TYP=3
	900	GORK	42	SER	0450.4	0454.0	17.3	3.7			
	900	GORK	42	SER	0450.4	0507.4		35.0			
	9100	GORK	2	S/F	0453.6	0454.8	2.2	17.0			
	9100	GORK	29	PBI	0455.8	0455.8	8.5	11.0			
	245	SVTO	8	S	0518.0	0518.0	U	65.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	0634.9	0635.4	4.6	11.0			
	245	SVTO	8	S	0757.0	0757.0	U	51.0			QL=4 ST=2 TYP=3
	204	IZMI	46	C	0915.4	0915.9	1.0	378.0			
	245	SVTO	8	S	0918.0	0918.0	U	52.0			QL=4 ST=2 TYP=3
	204	IZMI	46	C	0918.0	0918.4	1.7	347.0			
	2840	PEKG	20	GRF	0921.0	0928.5	31.0	25.3			
	2950	GORK	46	C	0925.3	0929.0		74.0			
	2950	GORK	46	C	0925.3	0928.1	16.7	80.0			
	9100	GORK	20	GRF	0925.8	0926.8	17.0	11.0			
	245	LEAR	8	S	0926.0	0926.0	U	55.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	0926.0	0927.0	3.0	84.0			QL=4 ST=2 TYP=8
	600	GORK	41	F	0926.0	0931.2		14.0			
	600	GORK	41	F	0926.0	0926.9	6.5	6.9			
	900	GORK	40	F	0926.4	0926.9	5.6	6.1			
	204	IZMI	46	C	0926.4	0926.9	1.1	229.0			
	3000	IZMI	22	GRF	0926.5	0929.3	8.2	19.0	9.9		
	245	LEAR	8	S	0928.0	0928.0	U	57.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0928.3	0930.0	4.5	45.0			
	245	SVTO	8	S	0951.0	0952.0	1.0	98.0			QL=4 ST=2 TYP=3
	204	IZMI	45	C	0951.6	0951.8	0.3	157.0			
	245	SVTO	4	S/F	1007.0	1007.0	3.0	150.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1007.0	1008.4	1.6	58.0			
	245	SGMR	8	S	1148.0	1148.0	1.0	140.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1148.0	1148.0	2.0	97.0			QL=4 ST=2 TYP=3
	33	UPIC	42	SER	1148.0	1155.5	13.5				
	204	IZMI	41	F	1148.6	1148.8	0.6	90.0			
	610	SGMR	8	S	1149.0	1149.0	U	55.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1153.0	1154.0	2.0	54.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1154.0	1154.0	1.0	93.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1154.0	1154.0	U	42.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	1154.3	1154.6	1.5	97.0			
	245	SGMR	8	S	1207.0	1207.0	U	61.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1227.0	1227.0	U	54.0			QL=4 ST=2 TYP=3
	9500	CUBA	21	GRF	1257.0	1302.0	83.0	8.0	4.0		
	9500	CUBA	1	S	1259.7	1300.0	8.3	8.0	4.0		
	245	SVTO	8	S	1417.0	1417.0	U	50.0			QL=4 ST=3 TYP=3
	9500	CUBA	1	S	1455.4	1455.6	0.6	10.0	5.0		
	410	SVTO	8	S	1542.0	1542.0	1.0	110.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1542.0	1543.0	1.0	32.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1847.0	1847.0	U	130.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1847.0	1847.0	U	46.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1847.0	1847.0	U	84.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1847.0	1847.0	U	50.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	1855.0	1856.0	1.0	120.0			QL=4 ST=2 TYP=8
	245	SGMR	8	S	1855.0	1855.0	U	75.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1932.0	1932.0	U	52.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	2257.0	2301.0	6.0	17.7			
	2800	PENT	8	S	2258.0	2300.0	4.0	18.0			
23	245	LEAR	43	NS	0215.0	0227.0	114.0	130.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0458.0	0618.0	1142.0	220.0			QL=2 ST=3 TYP=1
	245	SVTO	43	NS	0922.0	0933.0	25.0	250.0			QL=2 ST=2 TYP=1
	245	LEAR	43	NS	0923.0	0930.0	19.0	210.0			QL=4 ST=3 TYP=1
	204	IZMI	43	NS	0954.0		126.0D		50.0		
	245	SVTO	43	NS	1029.0	1058.0	29.0	100.0			QL=2 ST=2 TYP=1
	245	SGMR	43	NS	1058.0	1327.0	340.0	250.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1157.0	1559.0	326.0	190.0			QL=2 ST=2 TYP=1
	245	SGMR	43	NS	1728.0	1846.0	147.0	330.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1954.0	2201.0	544.0	160.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	2150.0	2217.0	74.0	260.0			QL=4 ST=2 TYP=1

SOLAR RADIO EMISSION
Outstanding Occurrences

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
23	245	LEAR	43	NS	2318.0	2332.0	87.0	88.0			QL=4 ST=2 TYP=1
	2800	PENT	49	GB	0010.0	0038.0	28.0U	500.0U			
	2840	PEKG	47	GB	0010.0	0029.6	107.0	1613.4			
	245	LEAR	48	C	0014.0	0014.0	1.0	92.0			QL=4 ST=2 TYP=8
	2804	VORO	47	GB	0018.2	0030.0	152.0	500.0			
	2800	HIRA	47	GB	0020.0	0030.0	60.0	1735.0			0
	4995	LEAR	48	C	0021.0	0038.0	83.0	4300.0			QL=4 ST=2 TYP=8
	2695	LEAR	48	C	0022.0	0029.0	82.0	1800.0			QL=4 ST=2 TYP=8
	8800	LEAR	48	C	0022.0	0038.0	83.0	9400.0			QL=4 ST=2 TYP=8
	4995	PALE	48	C	0022.0	0029.0	1418.0	3700.0			QL=4 ST=3 TYP=8
	1415	LEAR	48	C	0023.0	0028.0	81.0	1400.0			QL=4 ST=2 TYP=8
	15400	LEAR	48	C	0023.0	0031.0	82.0	10000.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	0023.0	0029.0	1417.0	1500.0			QL=4 ST=3 TYP=8
	8800	PALE	48	C	0023.0	0029.0	1417.0	6000.0			QL=4 ST=3 TYP=8
	500	HIRA	47	GB	0024.0	0030.0	53.0	950.0			0
	610	LEAR	48	C	0025.0	0029.0	68.0	1500.0			QL=4 ST=2 TYP=8
	410	LEAR	4	S/F	0025.0	0029.0	66.0	1400.0			QL=4 ST=2 TYP=3
	245	LEAR	48	C	0025.0	0029.0	75.0	6600.0			QL=4 ST=2 TYP=8
	410	PALE	48	C	0025.0	0029.0	1415.0	1400.0			QL=4 ST=3 TYP=8
	610	PALE	48	C	0025.0	0029.0	1415.0	1100.0			QL=4 ST=3 TYP=8
	1415	PALE	48	C	0025.0	0028.0	1415.0	1600.0			QL=4 ST=3 TYP=8
	15400	PALE	48	C	0025.0	0030.0	1415.0	10000.0			QL=4 ST=3 TYP=8
	200	HIRA	47	GB	0026.0	0029.0	52.0	4580.0			0
	245	PALE	48	C	0026.0	0029.0	1414.0	8000.0			QL=4 ST=3 TYP=8
	610	PALE	48	C	0050.0	0050.0	1.0	130.0			QL=4 ST=3 TYP=8
	410	PALE	48	C	0054.0	0103.0	16.0	140.0			QL=4 ST=3 TYP=8
	1415	PALE	46	C	0101.0	0102.0	1.0	42.0			QL=4 ST=3 TYP=8
	245	PALE	48	C	0104.0	0104.0	U	140.0			QL=4 ST=3 TYP=8
	2800	HIRA	3	S	0129.0	0132.0	12.0	405.0			0
	500	HIRA	4	S/F	0131.0	0131.0	4.0	30.0			0
	245	LEAR	48	C	0205.0	0210.0	5.0	51.0			QL=4 ST=2 TYP=8
	245	LEAR	8	S	0307.0	0307.0	U	330.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	0322.3	0322.9	1.3	9.6			
	245	LEAR	48	C	0456.0	0459.0	4.0	65.0			QL=4 ST=2 TYP=8
	600	GORK	40	F	0500.0	0509.0	27.0	11.0			
	245	LEAR	48	C	0503.0	0505.0	2.0	110.0			QL=4 ST=2 TYP=8
	245	LEAR	48	C	0523.0	0523.0	U	53.0			QL=4 ST=2 TYP=8
	245	LEAR	48	C	0603.0	0603.0	1.0	83.0			QL=4 ST=2 TYP=8
	245	LEAR	48	C	0607.0	0617.0	16.0	210.0			QL=4 ST=2 TYP=8
	245	LEAR	8	S	0741.0	0741.0	U	150.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0741.0	0741.0	U	130.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0852.0	0856.3	9.0	6.4			
	9100	GORK	20	GRF	0855.8	0913.4	30.4	15.0			
	2950	GORK	1	S	0855.8	0856.8	2.2	5.8			
	204	IZMI	42	SER	0859.8	0900.7	1.4	80.0			
	200	HIRA	8	S	0900.0	0901.0	1.0	35.0			0
	245	LEAR	49	GB	0908.0	0910.0	5.0	670.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	0909.0	0911.0	5.0	590.0			QL=4 ST=2 TYP=6
	4995	SGMR	8	S	1220.0	1221.0	2.0	35.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1220.0	1221.0	2.0	73.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1221.0	1222.0	1.0	36.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1221.0	1222.0	2.0	64.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	1401.0	1447.0	99.0	7.0			
	9500	CUBA	1	S	1845.5	1846.1	2.5	10.0	5.0		
	9500	CUBA	20	GRF	2028.0	2111.0	122.0	19.0	9.0		SUN SET
	2840	PEKG	1	S	2250.0	2252.3	5.0	5.2			
	8800	PALE	8	S	2251.0	2252.0	1.0	58.0			QL=4 ST=2 TYP=3
24	204	IZMI	44	NS	0600.0E		360.0D		25.0		
	245	SVTO	43	NS	0726.0	1453.0	599.0	220.0			QL=2 ST=2 TYP=1
	245	SGMR	43	NS	1103.0	1444.0	338.0	340.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1645.0	1841.0	733.0	840.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1705.0	2151.0	365.0	400.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2318.0	2334.0	417.0	220.0			QL=4 ST=2 TYP=1
	2800	PENT	20	GRF	0020.0	0030.0	75.0	6.0			
	2840	PEKG	1	S	0027.0	0030.5	7.0	5.2			
	245	LEAR	48	C	0103.0	0104.0	2.0	69.0			QL=4 ST=2 TYP=8
	245	LEAR	48	C	0202.0	0203.0	2.0	94.0			QL=4 ST=2 TYP=8
	245	LEAR	48	C	0226.0	0226.0	U	62.0			QL=4 ST=2 TYP=8

SOLAR RADIO EMISSION
Outstanding Occurrences

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
24	245	LEAR	8	S	0309.0	0309.0	U	51.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0319.0	0319.0	2.0	67.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0319.0	0319.0	1.0	170.0			QL=4 ST=2 TYP=3
	8800	PALE	46	C	0319.0	0320.0	1.0	44.0			QL=4 ST=2 TYP=8
	15400	PALE	8	S	0319.0	0320.0	1.0	180.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0320.0	0320.0	U	31.0			QL=4 ST=2 TYP=3
	245	LEAR	48	C	0333.0	0334.0	4.0	85.0			QL=4 ST=2 TYP=8
	2840	PEKG	20	GRF	0340.0	0346.1	15.0	11.5			
	9100	GORK	21	GRF	0342.8	0403.0	140.2	13.0			
	900	GORK	7	C	0343.0	0345.0	5.5	4.9			
	900	GORK	7	C	0343.0	0346.1		3.7			
	600	GORK	20	GRF	0343.4	0348.2	11.9	4.5			
	9100	GORK	2	S/F	0346.8	0347.3	1.7	12.0			
	2840	PEKG	5	S	0415.0	0418.3	6.0	12.2			
	9100	GORK	3	S	0418.0	0418.4	1.2	15.0			
	2950	GORK	3	S	0418.0U	0418.4	1.0D	13.0			
	900	GORK	46	C	0418.1	0418.3U	1.6	100.0U			
	900	GORK	46	C	0418.1	0418.6		60.0			
	600	GORK	2	S/F	0418.2	0418.4	0.7	8.2			
	600	GORK	47	GB	0422.9	0521.8	95.7	135.0			
	245	LEAR	48	C	0429.0	0430.0	1.0	65.0			QL=4 ST=2 TYP=8
	245	LEAR	48	C	0433.0	0434.0	2.0	110.0			QL=4 ST=2 TYP=8
	245	SVTO	8	S	0446.0E	0447.0	2.0D	77.0			QL=2 ST=2 TYP=3
	2950	GORK	20	GRF	0507.4	0513.5	13.8	6.7			
	900	GORK	7	C	0511.0	0512.2	2.0	14.0			
	900	GORK	7	C	0511.0	0512.9		4.8			
	9100	GORK	7	C	0511.5	0512.2	3.7	15.0			
	9100	GORK	7	C	0511.5	0513.2		9.5			
	9100	GORK	2	S/F	0634.6	0635.0	2.2	17.0			
	900	GORK	7	C	0710.3	0711.0		9.6			
	900	GORK	7	C	0710.3	0710.7	1.2	3.6			
	9100	GORK	1	S	0711.6	0712.0	1.1	11.0			
	204	IZMI	25	R	0934.0		86.0		40.0		
	600	GORK	46	C	0948.7	0949.3	2.2	17.0			
	600	GORK	46	C	0948.7	0949.5		8.2			
	245	SGMR	48	C	1044.0	1044.0	3.0	54.0			QL=2 ST=2 TYP=8
	410	SGMR	48	C	1252.0	1252.0	3.0	52.0			QL=4 ST=2 TYP=8
	410	SVTO	4	S/F	1253.0E	1255.0U	5.0D	99.0			QL=4 ST=2 TYP=3
	1415	SGMR	48	C	1535.0	1536.0	4.0	440.0			QL=4 ST=2 TYP=8
	1415	SVTO	48	C	1535.0	1536.0	4.0	410.0			QL=4 ST=2 TYP=8
	9500	CUBA	21	GRF	1535.0	1545.0	40.0	17.0	8.0		
	1415	SVTO	8	S	1544.0	1546.0	2.0	53.0			QL=4 ST=2 TYP=3
	410	SGMR	46	C	1546.0	1546.0	1.0	26.0			QL=4 ST=2 TYP=8
	1415	SGMR	8	S	1546.0	1548.0	2.0	93.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1548.0	1548.0	U	78.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1619.0E	1621.0U	2.0D	56.0			QL=2 ST=2 TYP=3
	15400	SGMR	48	C	1811.0	1811.0	1.0	71.0			QL=4 ST=2 TYP=8
	8800	SGMR	8	S	1845.0	1845.0	U	32.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1845.0	1845.0	U	51.0			QL=4 ST=2 TYP=3
	200	HIRA	7	C	2234.0	2236.0	5.0	95.0			0
	500	HIRA	4	S/F	2235.0	2238.0	4.0	10.0			0
	2840	PEKG	3	S	2242.0	2245.5	11.0	8.9			
25	245	SVTO	43	NS	0523.0	0526.0	3.0	76.0			QL=2 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		25.0		
	245	SVTO	43	NS	0617.0	0822.0	239.0	350.0			QL=2 ST=2 TYP=1
	245	LEAR	43	NS	0820.0	0909.0	83.0	210.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1232.0	1312.0	245.0	120.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1645.0	1647.0	435.0	430.0			QL=4 ST=3 TYP=1
	245	LEAR	43	NS	2318.0	0224.0	270.0	88.0			QL=4 ST=2 TYP=1
	9100	GORK	20	GRF	0318.0U	0324.5	27.0D	14.0			
	900	GORK	1	S	0321.0U	0321.7	4.0D	4.5			
	200	HIRA	7	C	0356.0	0358.0	4.0	70.0			0
	9100	GORK	20	GRF	0359.0	0403.0	20.5	16.0			
	600	GORK	7	C	0409.0U	0412.2		11.2			
	600	GORK	7	C	0409.0U	0411.8	7.0D	9.7			
	900	GORK	2	S/F	0409.6	0412.3	7.0	7.9			
	600	GORK	47	GB	0431.6	0517.7	73.4	300.0			
	245	SVTO	8	S	0504.0	0504.0	U	50.0			QL=2 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2002

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
25	245	LEAR	8	S	0648.0	0648.0	U	86.0			QL=4 ST=2 TYP=3
	245	LEAR	48	C	0755.0	0756.0	5.0	340.0			QL=4 ST=2 TYP=8
	245	LEAR	8	S	0808.0	0808.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0813.0	0813.0	U	150.0			QL=4 ST=2 TYP=3
	204	IZMI	46	C	0915.2	0915.5	0.4	418.0			
	900	GORK	3	S	1028.5	1028.7	1.1	18.0			
	2800	PENT	20	GRF	1356.0	1438.0	100.0	16.0			
	245	SGMR	8	S	1808.0	1808.0	U	63.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1915.0	1915.0	U	52.0			QL=4 ST=2 TYP=3
┌	200	HIRA	8	S	2009.0	2009.0	1.0	40.0			WR
└	245	SGMR	8	S	2009.0	2009.0	U	60.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2109.0	2109.0	U	67.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2122.0	2122.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2228.0	2228.0	U	59.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	2255.0	2306.9	34.0	36.3			
┌	2804	VORO	2	S/F	2300.0	2307.5	20.0	32.8			
└	2800	HIRA	1	S	2305.0	2307.0	4.0	20.0			0
26	245	SGMR	43	NS	1523.0	1547.0	24.0	75.0			QL=4 ST=2 TYP=1
┌	245	SGMR	43	NS	2136.0	2138.0	78.0	180.0			QL=4 ST=2 TYP=1
├	245	PALE	43	NS	2139.0	2317.0	438.0	200.0			QL=4 ST=2 TYP=1
├	245	PALE	43	NS	2312.0	0120.0	345.0	290.0			QL=4 ST=2 TYP=1
└	245	LEAR	43	NS	2317.0	0239.0	627.0	140.0			QL=4 ST=2 TYP=1
┌	2800	PENT	29	PBI	0002.0	0008.0	64.0U	276.0			
├	2840	PEKG	3	S	0003.0	0007.9	52.0	315.9			
├	2800	HIRA	3	S	0006.0	0008.0	7.0	260.0			0
├	2695	LEAR	4	S/F	0006.0	0008.0	5.0	250.0			QL=4 ST=3 TYP=3
├	4995	LEAR	4	S/F	0006.0	0007.0	6.0	500.0			QL=4 ST=3 TYP=3
├	8800	LEAR	4	S/F	0006.0	0007.0	4.0	360.0			QL=4 ST=3 TYP=3
├	2695	PALE	4	S/F	0006.0	0008.0	5.0	260.0			QL=4 ST=2 TYP=3
├	4995	PALE	4	S/F	0006.0	0008.0	4.0	460.0			QL=4 ST=2 TYP=3
├	8800	PALE	4	S/F	0006.0	0008.0	3.0	320.0			QL=4 ST=2 TYP=3
├	15400	LEAR	48	C	0006.0	0007.0	10.0	170.0			QL=4 ST=3 TYP=8
├	2804	VORO	4	S/F	0006.0	0007.5	19.0	80.0			
├	610	LEAR	8	S	0007.0	0007.0	U	84.0			QL=4 ST=3 TYP=3
├	1415	LEAR	8	S	0007.0	0008.0	2.0	59.0			QL=4 ST=3 TYP=3
├	15400	PALE	48	C	0007.0	0007.0	2.0	130.0			QL=4 ST=2 TYP=8
├	610	PALE	8	S	0007.0	0007.0	U	72.0			QL=4 ST=2 TYP=3
└	1415	PALE	8	S	0007.0	0008.0	2.0	72.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0047.0	0047.0	1.0	65.0			0
	245	LEAR	8	S	0419.0	0419.0	U	73.0			QL=4 ST=2 TYP=3
	600	GORK	40	F	0424.0	0424.2	0.7	60.0			
┌	900	GORK	4	S/F	0604.7	0605.2	0.7	6.8			
└	600	GORK	40	F	0604.8	0605.0	1.1	3.7			
┌	2950	GORK	23	GRF	0612.0	0622.1	79.0	10.0			
└	2950	GORK	23	GRF	0612.0	0658.6		12.0			
┌	9100	GORK	23	GRF	0630.0U	0701.1		24.0			
├	9100	GORK	23	GRF	0630.0U	0643.1	51.0D	22.0			
└	2950	GORK	2	S/F	0633.9	0634.6	2.9	7.0			
┌	600	GORK	46	C	0639.0	0639.1	0.6	37.0			
├	600	GORK	46	C	0639.0	0639.3		11.0			
├	8800	LEAR	8	S	0640.0	0640.0	1.0	85.0			QL=4 ST=3 TYP=3
├	8800	SVTO	4	S/F	0640.0	0641.0	4.0	94.0			QL=4 ST=2 TYP=3
├	15400	SVTO	4	S/F	0640.0	0641.0	8.0	34.0			QL=4 ST=2 TYP=3
├	9100	GORK	4	S/F	0640.4	0640.8	2.4	65.0			
└	4995	SVTO	8	S	0641.0	0641.0	U	35.0			QL=4 ST=2 TYP=3
┌	900	GORK	40	F	0701.0	0702.0	2.0	6.8			
├	245	LEAR	8	S	0701.0	0701.0	1.0	160.0			QL=4 ST=2 TYP=3
├	204	IZMI	7	C	0701.5	0701.8	0.5	110.0			
└	245	SVTO	8	S	0702.0	0702.0	U	150.0			QL=4 ST=2 TYP=3
┌	2950	GORK	21	GRF	0755.7	0859.0U	223.3	23.0			
├	200	HIRA	8	S	0759.0	0759.0	1.0	10.0			0
├	204	IZMI	42	SER	0759.0	0803.0	4.0	66.0			
└	2950	GORK	1	S	0801.4	0802.1	1.6	5.1			
┌	2950	GORK	20	GRF	0804.4	0810.4	10.2	9.0			
├	600	GORK	46	C	0809.9	0810.2	0.6	25.0			
├	600	GORK	46	C	0809.9	0810.4		6.4			
└	410	LEAR	8	S	0810.0	0810.0	U	52.0			QL=4 ST=2 TYP=3
	600	GORK	40	F	0812.5	0814.4	3.6	60.0			

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
26	9100	GORK	21	GRF	0819.0	0858.1	101.0	16.0			
	900	GORK	40	F	0906.9	0910.1	4.6	7.9			
	2840	PEKG	3	S	0917.0	0920.9	24.0	74.3			
	3000	IZMI	45	C	0918.0	0920.5	24.0	77.0			
	4995	LEAR	48	C	0919.0	0920.0	5.0	260.0			QL=4 ST=2 TYP=8
	8800	LEAR	48	C	0919.0	0920.0	4.0	280.0			QL=4 ST=2 TYP=8
	4995	SVTO	4	S/F	0919.0	0920.0	7.0	240.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0919.0	0920.0	6.0	290.0			QL=4 ST=2 TYP=3
	2950	GORK	46	C	0919.0	0921.3	20.0	65.0			
	2950	GORK	46	C	0919.0	0922.4		52.0			
	9100	GORK	46	C	0919.1	0922.4		110.0			
	9100	GORK	46	C	0919.1	0920.4	10.9	225.0			
	900	GORK	4	S/F	0919.2	0921.2	11.2	25.0			
	600	GORK	40	F	0919.4	0920.7	4.6	135.0			
	610	LEAR	8	S	0920.0	0920.0	U	58.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0920.0	0921.0	2.0	74.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	0920.0	0920.0	3.0	35.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0920.0	0921.0	6.0	59.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	0920.0	0921.0	3.0	50.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	0949.5	0950.5	1.5	13.0			
	204	IZMI	41	F	0950.5	0951.2	1.0	110.0			
	900	GORK	41	F	1015.2	1016.1	5.6	3.4			
	900	GORK	41	F	1015.2	1020.7		5.6			
	204	IZMI	42	SER	1015.8	1023.0	8.7	205.0U			
	245	SVTO	8	S	1016.0	1016.0	U	62.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1016.0	1016.0	U	58.0			QL=4 ST=2 TYP=3
	33	UPIC	42	SER	1016.0	1016.0	30.0				
	600	GORK	42	SER	1016.0	1020.1	12.8	43.0			
	600	GORK	42	SER	1016.0	1023.2		21.0			
	600	GORK	42	SER	1016.0	1027.9		46.0			
	245	SVTO	4	S/F	1020.0	1021.0	3.0	290.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	1020.0	1023.3	8.0	9.1			
	900	GORK	46	C	1021.0	1022.0	3.5	24.0			
	900	GORK	46	C	1021.0	1022.4		10.0			
	3000	IZMI	7	C	1022.5	1023.0	2.5	15.0			
	2950	GORK	7	C	1022.5	1023.5	2.8	15.0			
	2950	GORK	7	C	1022.5	1023.9		15.0			
	9100	GORK	1	S	1022.9	1023.8	2.0	11.0			
	410	SVTO	8	S	1023.0	1023.0	U	41.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	1044.5	1044.6	0.3	22.0			
	204	IZMI	42	SER	1129.0	1129.2	2.0	44.0			
	600	GORK	40	F	1129.6	1130.6	1.6	12.0			
	204	IZMI	41	F	1139.0	1139.5	1.0	44.0			
	410	SGMR	49	GB	1140.0	1140.0	U	510.0			QL=4 ST=2 TYP=6
	610	SGMR	8	S	1140.0	1140.0	U	27.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1158.0	1158.0	U	240.0			QL=4 ST=3 TYP=3
	245	SVTO	8	S	1158.0	1158.0	U	170.0			QL=4 ST=2 TYP=3
	204	IZMI	46	C	1158.2	1158.4	1.3	21.0U			
	610	SGMR	4	S/F	1326.0	1328.0	4.0	430.0			QL=4 ST=2 TYP=3
	610	SVTO	48	C	1326.0	1328.0	3.0	330.0			QL=4 ST=2 TYP=8
	410	SGMR	4	S/F	1327.0	1332.0	10.0	300.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	1328.0	1333.0	9.0	310.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1330.0	1330.0	U	21.0			QL=4 ST=2 TYP=3
	9500	CUBA	20	GRF	1336.0	1339.0	39.0	11.0	5.0		
	33	UPIC	42	SER	1421.0	1432.5	14.5				
	245	SGMR	8	S	1429.0	1429.0	U	68.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1432.0	1433.0	2.0	110.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	1432.0	1434.0	5.0	410.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1432.0	1433.0	2.0	77.0			QL=4 ST=2 TYP=3
	610	SVTO	4	S/F	1432.0	1434.0	4.0	300.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1529.0	1530.0	4.0	9.0	4.0		
	2800	PENT	1	S	1538.0	1552.0	20.0	9.0			
	245	SVTO	8	S	1547.0	1547.0	U	59.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1606.0	1606.0	1.0	71.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1606.0	1606.0	1.0	140.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1606.0	1606.0	2.0	77.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1606.0	1606.0	2.0	140.0			QL=4 ST=2 TYP=3
	9500	CUBA	3	S	1606.0E	1606.7	3.0D	100.0	50.0		
	245	SVTO	8	S	1607.0	1607.0	U	23.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
26	9500	CUBA	2	S/F	1611.6	1612.8	2.4	31.0	15.0		
	2800	PENT	20	GRF	1740.0	1859.0	83.0	36.0			
	9500	CUBA	21	GRF	1818.0	1828.0	39.0	28.0	14.0		
	9500	CUBA	2	S/F	1819.7	1823.2	4.3	14.0	7.0		
	245	PALE	8	S	1831.0	1831.0	U	71.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1848.3	1849.1	1.5	9.0	4.0		
	245	SGMR	8	S	1859.0	1859.0	U	630.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1859.0	1859.0	U	500.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1859.0	1859.0	U	33.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1859.0	1859.0	U	37.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1859.0	1859.0	U	44.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1859.0	1859.5	1.0	14.0	7.0		
	2800	PENT	49	GB	1912.0	2209.0	273.0	627.0			
	4995	SGMR	48	C	2049.0	2109.0	47.0	380.0			QL=4 ST=2 TYP=8
	9500	CUBA	46	C	2049.0	2106.2	27.0	289.0	144.0		
	4995	PALE	48	C	2050.0	2109.0	49.0	380.0			QL=4 ST=2 TYP=8
	2695	SGMR	48	C	2050.0	2108.0	46.0	170.0			QL=4 ST=2 TYP=8
	2800	HIRA	7	C	2051.0	2108.0	27.0	130.0			
	2695	PALE	48	C	2051.0	2109.0	42.0	180.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	2051.0	2109.0	48.0	370.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	2051.0	2106.0	45.0	430.0			QL=4 ST=2 TYP=8
	15400	PALE	48	C	2052.0	2052.0	U	63.0			QL=4 ST=2 TYP=8
	500	HIRA	7	C	2052.0	2127.0	49.0	445.0			0
	1415	SGMR	48	C	2052.0	2105.0	44.0	3000.0			QL=4 ST=2 TYP=8
	15400	SGMR	48	C	2052.0	2109.0	44.0	200.0			QL=4 ST=2 TYP=8
	9500	CUBA	46	C	2052.8E	2052.8		193.0	96.0		
	1415	PALE	4	S/F	2103.0	2105.0	10.0	3100.0			QL=4 ST=2 TYP=3
	15400	PALE	48	C	2104.0	2109.0	27.0	170.0			QL=4 ST=2 TYP=8
	9500	CUBA	46	C	2109.2E	2109.2		280.0	140.0		
	245	SGMR	48	C	2113.0	2113.0	23.0	83.0			QL=4 ST=2 TYP=8
	610	SGMR	48	C	2113.0	2121.0	23.0	2100.0			QL=4 ST=2 TYP=8
	410	SGMR	48	C	2114.0	2126.0	22.0	310.0			QL=4 ST=2 TYP=8
	610	PALE	48	C	2115.0	2121.0	15.0	2000.0			QL=4 ST=2 TYP=8
	9500	CUBA	30	PBI	2116.2	2116.2	74.0D	79.0	39.0		SUN SET
	245	PALE	48	C	2123.0	2138.0	16.0	250.0			QL=4 ST=2 TYP=8
	410	PALE	8	S	2138.0	2139.0	1.0	62.0			QL=4 ST=2 TYP=3
	2800	HIRA	47	GB	2201.0	2209.0	14.0	825.0			
	200	HIRA	47	GB	2201.0	2208.0	26.0	1155.0			0
	500	HIRA	47	GB	2201.0	2208.0	151.0	3390.0			MR
	245	SGMR	48	C	2202.0	2207.0	18.0	5900.0			QL=4 ST=2 TYP=8
	410	SGMR	49	GB	2202.0	2208.0	18.0	8700.0			QL=4 ST=2 TYP=6
	1415	SGMR	49	GB	2203.0	2207.0	17.0	1400.0			QL=4 ST=2 TYP=6
	610	SGMR	49	GB	2204.0	2209.0	16.0	7100.0			QL=4 ST=2 TYP=6
	2695	SGMR	49	GB	2204.0	2209.0	16.0	850.0			QL=4 ST=2 TYP=6
	4995	SGMR	49	GB	2204.0	2208.0	16.0	2000.0			QL=4 ST=2 TYP=6
	610	PALE	48	C	2204.0	2209.0U	13.0	6100.0			QL=2 ST=2 TYP=8
	245	PALE	49	GB	2204.0	2207.0U	11.0	8300.0			QL=2 ST=2 TYP=6
	410	PALE	49	GB	2204.0	2209.0U	15.0	7800.0			QL=2 ST=2 TYP=6
	8800	SGMR	49	GB	2206.0	2208.0	14.0	3800.0			QL=4 ST=2 TYP=6
	15400	SGMR	49	GB	2206.0	2208.0	14.0	2000.0			QL=4 ST=2 TYP=6
	1415	PALE	49	GB	2206.0	2208.0U	10.0	1400.0			QL=2 ST=2 TYP=6
	2695	PALE	48	C	2206.0	2209.0U	33.0	1000.0			QL=2 ST=2 TYP=8
	4995	PALE	48	C	2206.0	2208.0U	32.0	2100.0			QL=2 ST=2 TYP=8
	9500	CUBA	47	GB	2207.0E	2207.0	11.5D	276.0U	138.0U		
	8800	PALE	48	C	2207.0	2208.0U	31.0	2600.0			QL=2 ST=2 TYP=8
	15400	PALE	48	C	2207.0	2208.0U	32.0	1600.0			QL=2 ST=2 TYP=8
	2840	PEKG	47	GB	2208.0E	2208.3	97.0U	552.0			
	2695	SGMR	8	S	2236.0	2237.0	1.0	44.0			QL=2 ST=2 TYP=3
	4995	SGMR	8	S	2236.0	2237.0	1.0	57.0			QL=2 ST=2 TYP=3
	8800	SGMR	8	S	2236.0	2237.0	1.0	55.0			QL=2 ST=2 TYP=3
	410	PALE	48	C	2250.0	2251.0	7.0	120.0			QL=4 ST=2 TYP=8
	410	SGMR	4	S/F	2250.0	2251.0	4.0	94.0			QL=2 ST=2 TYP=3
	610	SGMR	4	S/F	2250.0	2251.0	4.0	80.0			QL=2 ST=2 TYP=3
	610	PALE	48	C	2251.0	2251.0	5.0	93.0			QL=4 ST=2 TYP=8
	410	PALE	48	C	2302.0	2302.0	9.0	470.0			QL=4 ST=2 TYP=8
	1415	PALE	48	C	2302.0	2305.0	9.0	100.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	2302.0	2305.0	8.0	78.0			QL=4 ST=2 TYP=8
	610	PALE	4	S/F	2302.0	2304.0	8.0	310.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	2318.0	2318.0	U	150.0			QL=2 ST=2 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
26	410	LEAR	4	S/F	2330.0	2332.0	3.0	81.0			QL=2 ST=2 TYP=3
	610	LEAR	4	S/F	2330.0	2331.0	3.0	98.0			QL=2 ST=2 TYP=3
	1415	LEAR	46	C	2331.0	2331.0	U	42.0			QL=2 ST=2 TYP=8
	410	LEAR	8	S	2353.0	2354.0	1.0	60.0			QL=4 ST=2 TYP=3
27	245	SVTO	44	NS	0508.0E	0606.0U	92.0D	96.0			QL=2 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		30.0		
	245	SGMR	43	NS	1102.0	1102.0	8.0	66.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1628.0	1632.0	34.0	63.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1643.0	1644.0	38.0	63.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	2122.0	2122.0	3.0	61.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2317.0	0138.0	43.0	97.0			QL=4 ST=1 TYP=1
	245	LEAR	43	NS	2348.0	0731.0	596.0	420.0			QL=4 ST=2 TYP=1
	2840	PEKG	20	GRF	0001.0	0008.7	33.0	12.2			
	1415	LEAR	46	C	0009.0	0009.0	U	34.0			QL=4 ST=2 TYP=8
	610	LEAR	4	S/F	0011.0	0015.0	7.0	61.0			QL=4 ST=2 TYP=3
	410	LEAR	48	C	0012.0	0014.0	8.0	73.0			QL=4 ST=2 TYP=8
	200	HIRA	7	C	0102.0	0104.0	4.0	65.0			O
	410	LEAR	8	S	0104.0	0104.0	U	51.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0146.0	0147.0	1.0	160.0			MR
	610	LEAR	8	S	0146.0	0147.0	1.0	250.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0147.0	0147.0	U	140.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0158.0	0158.0	U	76.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0208.0	0211.2	9.0	8.7			
	610	LEAR	8	S	0259.0	0300.0	1.0	69.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0300.0	0300.0	1.0	40.0			WR
	410	LEAR	48	C	0300.0	0300.0	U	60.0			QL=4 ST=2 TYP=8
	600	GORK	7	C	0355.3	0356.2		5.8			
	600	GORK	7	C	0355.3	0355.9	1.3	6.8			
	9100	GORK	1	S	0435.2	0438.1	7.2	7.5			
	2950	GORK	20	GRF	0435.4	0437.2	7.6	6.4			
	600	GORK	46	C	0452.3	0453.3	2.0	70.0			
	600	GORK	46	C	0452.3	0453.6		36.0			
	900	GORK	7	C	0453.1	0454.0		7.4			
	900	GORK	7	C	0453.1	0453.5	1.1	9.8			
	2950	GORK	1	S	0453.3	0453.5	0.8	3.6			
	9100	GORK	1	S	0549.4	0550.3	1.0	9.4			
	900	GORK	41	F	0721.2	0722.2		60.0			
	900	GORK	41	F	0721.2	0721.5	2.7	30.0			
	2950	GORK	1	S	0722.4	0722.7	0.9	3.8			
	600	GORK	46	C	0724.9	0727.2U	3.3	120.0U			
	600	GORK	46	C	0724.9	0727.4U		120.0U			
	900	GORK	46	C	0726.5	0727.0	1.5	24.0			
	900	GORK	46	C	0726.5	0727.4		50.0			
	500	HIRA	8	S	0727.0	0727.0	1.0	85.0			WR
	610	LEAR	8	S	0727.0	0727.0	U	78.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0727.0	0727.0	U	48.0			QL=4 ST=2 TYP=3
	2950	GORK	1	S	0727.3	0727.4	0.2	4.8			
	2840	PEKG	3	S	0827.0	0830.4	9.0	10.0			
	2950	GORK	7	C	0829.1	0830.3		10.0			
	2950	GORK	7	C	0829.1	0829.8	2.4	6.8			
	900	GORK	41	F	0830.0	0830.4	9.6	7.4			
	900	GORK	41	F	0830.0	0838.4		20.0			
	900	GORK	41	F	0830.0	0832.8		17.0			
	600	GORK	46	C	0929.2	0929.4	0.6	8.7			
	600	GORK	46	C	0929.2	0929.6		12.0			
	610	SVTO	8	S	0945.0	0945.0	U	22.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0946.0	0946.0	U	58.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0946.0	0946.0	U	96.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0951.0	0951.0	U	60.0			QL=4 ST=2 TYP=3
	900	GORK	42	SER	1014.7	1024.1	14.2	28.0			
	900	GORK	42	SER	1014.7	1028.5		25.0			
	2840	PEKG	3	S	1020.0	1024.2	7.0	10.2			
	33	UPIC	46	C	1022.0	1024.0	6.0				
	600	GORK	40	F	1022.1	1024.1	16.7	100.0			
	600	GORK	40	F	1022.1	1029.3		55.0			
	2950	GORK	2	S/F	1023.5	1024.3	1.6	13.0			
	3000	IZMI	7	C	1023.6	1024.2	1.0	17.0	7.8		
	204	IZMI	42	SER	1023.9	1024.2	1.2	45.0			

S O L A R R A D I O E M I S S I O N
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JULY 2002

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
27	410	SVTO	8	S	1024.0	1024.0	2.0	88.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1024.0E	1024.0	1.0D	69.0			QL=2 ST=2 TYP=3
	245	SVTO	4	S/F	1024.0	1024.0	3.0	74.0			QL=4 ST=2 TYP=3
	9100	GORK	3	S	1024.0	1024.3	1.2	13.0			
	204	IZMI	46	C	1028.9	1029.1	1.0	306.0			
	245	SVTO	8	S	1029.0	1029.0	U	130.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1029.0	1029.0	U	81.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1029.0E	1030.0	1.0D	76.0			QL=2 ST=2 TYP=3
	245	SGMR	48	C	1054.0	1055.0	4.0	68.0			QL=2 ST=2 TYP=8
	600	GORK	7	C	1107.0	1107.3	0.6	11.0			
	600	GORK	7	C	1107.0	1107.5		3.4			
	900	GORK	41	F	1110.3	1110.5	2.5	8.5			
	900	GORK	41	F	1110.3	1112.5		7.4			
	245	SGMR	8	S	1317.0	1317.0	U	78.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1317.0	1317.0	U	51.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1350.0	1350.3	1.2	7.0	3.0		
	245	SGMR	8	S	1356.0	1356.0	U	54.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1438.0	1438.0	U	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1438.0	1438.0	U	53.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1454.5	1454.8	0.8	7.0	3.0		
	9500	CUBA	2	S/F	1510.5	1510.8	2.6	9.0	4.0		
	245	SGMR	48	C	1522.0	1522.0	U	50.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	1625.0	1625.0	2.0	67.0			QL=4 ST=2 TYP=8
	2800	PENT	29	PBI	1732.0	1820.0	120.0U	14.0			
	245	PALE	8	S	1748.0	1748.0	U	120.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	1748.0	1748.0	4.0	76.0			QL=4 ST=2 TYP=8
	410	SGMR	46	C	1749.0	1750.0	1.0	24.0			QL=4 ST=2 TYP=8
	9500	CUBA	21	GRF	1820.0	1832.0	32.0	11.0	5.0		
	9500	CUBA	1	S	1822.0	1822.3	1.0	9.0	4.0		
	245	PALE	8	S	1832.0	1832.0	U	68.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	2007.0	2011.0	4.0	99.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2011.0	2011.0	U	50.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	2041.0	2044.0	7.0	200.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	2041.0	2043.0	5.0	100.0			QL=4 ST=2 TYP=8
	2800	PENT	20	GRF	2042.0	2110.0	58.0	6.0			
	500	HIRA	8	S	2110.0	2110.0	1.0	25.0			0
	200	HIRA	8	S	2110.0	2110.0	1.0	10.0			0
	245	SGMR	8	S	2110.0	2110.0	U	130.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2110.0	2110.0	U	51.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2113.0	2114.0	1.0	50.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2225.0	2225.0	U	54.0			QL=4 ST=2 TYP=3
	2800	PENT	4	S/F	2349.0	2430.0	78.0U	34.0			
28	245	SVTO	43	NS	0440.0	1600.0	1160.0	970.0			QL=4 ST=1 TYP=1
	245	SVTO	43	NS	0503.0	0000.0	1137.0	100.0			QL=2 ST=1 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		515.0		
	245	PALE	43	NS	2110.0	0017.0	466.0	420.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2316.0	0559.0	628.0	470.0			QL=4 ST=2 TYP=1
	2840	PEKG	3	S	0016.0	0031.0	41.0	36.5			
	500	HIRA	7	C	0018.0	0021.0	6.0	35.0			WR
	410	LEAR	48	C	0019.0	0021.0	4.0	130.0			QL=4 ST=2 TYP=8
	410	PALE	48	C	0020.0	0021.0	3.0	130.0			QL=4 ST=2 TYP=8
	2804	VORO	28	PRE	0020.0	0021.8	7.8	12.9			
	245	LEAR	48	C	0021.0	0022.0	3.0	100.0			QL=4 ST=2 TYP=8
	4995	LEAR	48	C	0021.0	0022.0	2.0	96.0			QL=4 ST=2 TYP=8
	610	LEAR	8	S	0021.0	0021.0	1.0	60.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0021.0	0022.0	2.0	280.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	0021.0	0021.0	3.0	290.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	0021.0	0022.0	2.0	180.0			QL=4 ST=2 TYP=8
	4995	PALE	48	C	0021.0	0022.0	2.0	88.0			QL=4 ST=2 TYP=8
	15400	PALE	8	S	0021.0	0022.0	2.0	220.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	0021.0	0022.0	3.0	320.0			QL=4 ST=2 TYP=3
	2804	VORO	45	C	0027.8	0030.8	22.2	27.0			
	2804	VORO	30	PBI	0050.0	0050.0	60.0	8.7			
	2840	PEKG	3	S	0109.0	0113.2	15.0	17.1			
	500	HIRA	4	S/F	0112.0	0113.0	4.0	70.0			WR
	200	HIRA	8	S	0112.0	0112.0	2.0	75.0			0
	245	LEAR	8	S	0112.0	0112.0	1.0	100.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0112.0	0113.0	1.0	57.0			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
28	2804	VORO	45	C	0112.0	0113.2	5.0	11.8			
	410	LEAR	8	S	0247.0	0248.0	1.0	120.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0248.0	0248.0	1.0	35.0			WR
	9100	GORK	1	S	0333.1	0334.5	4.5	18.0			
	2840	PEKG	3	S	0337.0E	0340.3	10.0U	17.9			
	900	GORK	40	F	0339.1	0339.8	2.7	100.0			
	2804	VORO	45	C	0340.0	0341.4	3.8	7.1			
	600	GORK	40	F	0353.3	0359.2	14.5	35.0			
	900	GORK	40	F	0354.0	0402.1	15.3	115.0			
	600	GORK	40	F	0542.7	0543.6	3.6	63.0			
	500	HIRA	8	S	0543.0	0544.0	1.0	45.0			WR
	410	LEAR	8	S	0543.0	0544.0	1.0	290.0			QL=4 ST=2 TYP=3
	900	GORK	40	F	0543.4	0543.8	2.2	15.0			
	2950	GORK	1	S	0543.5	0544.3	1.5	4.4			
	410	SVTO	8	S	0544.0	0544.0	U	180.0			QL=4 ST=3 TYP=3
	600	GORK	40	F	0554.2	0555.2	2.2	18.0			
	900	GORK	2	S/F	0554.2	0555.6	2.7	9.8			
	2950	GORK	1	S	0554.9	0556.3	1.8	3.6			
	9100	GORK	1	S	0555.1	0555.9	6.1	5.6			
	200	HIRA	7	C	0613.0	0615.0	4.0	30.0			0
	900	GORK	40	F	0626.8	0627.8	1.7	20.0			
	2950	GORK	2	S/F	0634.7	0635.4	1.7	6.2			
	2840	PEKG	1	S	0636.0	0638.2	9.0	4.8			
	9100	GORK	1	S	0637.8	0638.4	2.5	7.4			
	900	GORK	40	F	0638.6	0640.3	1.9	7.4			
	600	GORK	46	C	0647.5	0649.1		12.0			
	600	GORK	46	C	0647.5	0648.4	2.6	13.0			
	2950	GORK	1	S	0701.3	0702.1	1.9	4.5			
	900	GORK	2	S/F	0703.5	0703.7	0.9	11.0			
	600	GORK	7	C	0741.7	0742.1		5.1			
	600	GORK	7	C	0741.7	0741.8	0.7	6.0			
	900	GORK	7	C	0741.8	0742.1		11.0			
	900	GORK	7	C	0741.8	0741.9	0.6	17.0			
	900	GORK	42	SER	0810.6	0841.6		15.0			
	900	GORK	42	SER	0810.6	0819.6	43.8	17.0			
	2950	GORK	1	S	0823.7	0824.6	1.6	4.0			
	600	GORK	2	S/F	0823.7	0823.8	0.5	6.9			
	9100	GORK	2	S/F	0840.7	0841.3	2.4	14.0			
	600	GORK	40	F	0840.9	0841.2	2.8	40.0			
	2950	GORK	1	S	0841.1	0841.4	1.4	4.0			
	900	GORK	40	F	0853.3	0853.7	1.1	7.4			
	2950	GORK	1	S	0853.5	0854.0	1.0	3.0			
	9100	GORK	1	S	0941.4	0941.9	1.1	7.4			
	15400	SVTO	48	C	1041.0	1104.0	27.0	400.0			QL=4 ST=2 TYP=8
	245	SGMR	49	GB	1056.0	1056.0	6.0	1900.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	1056.0	1056.0	784.0	1800.0			QL=4 ST=2 TYP=6
	9100	GORK	4	S/F	1101.8	1104.2	12.1	180.0			
	15400	SGMR	4	S/F	1102.0	1104.0	3.0	350.0			QL=4 ST=2 TYP=3
	600	GORK	46	C	1102.6	1103.0	2.5	10.0			
	600	GORK	46	C	1102.6	1103.7		7.7			
	8800	SGMR	8	S	1103.0	1104.0	2.0	170.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1103.0	1104.0	2.0	48.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1103.0	1104.0	4.0	200.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1103.0	1104.0	5.0	400.0			QL=4 ST=3 TYP=3
	2950	GORK	20	GRF	1133.0	1145.4	45.0	17.0			
	2800	PENT	41	F	1415.0	1553.0	137.0U	16.0			
	9500	CUBA	1	S	1456.2	1457.2	2.6	34.0	17.0		
	8800	SGMR	8	S	1457.0	1457.0	U	41.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1457.0	1457.0	U	45.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1459.0	1459.0	U	100.0			QL=4 ST=2 TYP=3
	9500	CUBA	21	GRF	1549.0	1553.0	36.0	11.0	5.0		
	9500	CUBA	2	S/F	1549.4	1550.4	4.4	16.0	8.0		
	245	SGMR	49	GB	1725.0	1725.0	U	1800.0			QL=2 ST=2 TYP=6
	2800	PENT	20	GRF	1820.0	1852.0	72.0U	11.0			
	8800	PALE	48	C	1852.0	1853.0	5.0	56.0			QL=4 ST=2 TYP=8
	9500	CUBA	21	GRF	2004.0	2018.0	25.0	15.0	7.0		
	8800	SGMR	8	S	2009.0	2010.0	1.0	24.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	2009.0	2009.0	1.0	74.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	2009.2	2010.0	2.0	16.0	8.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
28	15400	PALE	48	C	2010.0	2010.0	U	63.0			QL=4 ST=3 TYP=8
	2800	PENT	29	PBI	2031.0	2039.0	72.0	18.0			
	2840	PEKG	3	S	2257.0	2302.0	25.0	24.6			
	2804	VORO	23	GRF	2301.1	2429.4	161.0	18.3			
	2804	VORO	2	S/F	2301.1	2301.9	2.5	19.1			
	2800	PENT	24	R	2333.0	2421.0	95.0	77.0			
	2840	PEKG	20	GRF	2346.0	2350.5	22.0	9.4			
	2804	VORO	2	S/F	2349.9	2350.5	1.8	6.6			
29	245	SVTO	43	NS	0404.0	0559.0	265.0	440.0			QL=2 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		210.0		
	245	SVTO	43	NS	1024.0	1223.0	816.0	270.0			QL=4 ST=3 TYP=1
	245	SGMR	43	NS	1056.0	1550.0	736.0	600.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1315.0E		515.0D		72.0		
	280	CUBA	44	NS	1315.0E		515.0D		56.0		
	245	PALE	43	NS	1649.0	1845.0	726.0	380.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2316.0	0811.0	629.0	460.0			QL=4 ST=2 TYP=1
	2840	PEKG	3	S	0018.0	0021.6	33.0	87.6			
	2800	HIRA	1	S	0020.0	0022.0	3.0	70.0			0
	2695	LEAR	8	S	0020.0	0021.0	2.0	74.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0020.0	0021.0	2.0	98.0			QL=4 ST=2 TYP=3
	4995	PALE	48	C	0020.0	0021.0	2.0	110.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	0020.0	0021.0	1.0	83.0			QL=4 ST=2 TYP=8
	2804	VORO	4	S/F	0020.0	0021.5	4.4	54.5			
	2695	PALE	48	C	0021.0	0021.0	U	74.0			QL=4 ST=2 TYP=8
	200	HIRA	8	S	0027.0	0027.0	1.0	65.0			WL
	2804	VORO	46	C	0231.0	0235.0U	30.1	68.0			
	2800	HIRA	3	S	0231.0	0236.0	13.0	375.0			0
	2840	PEKG	3	S	0231.0	0236.3	35.0	434.7			
	500	HIRA	47	GB	0233.0	0237.0	9.0	820.0			MR
	610	PALE	48	C	0233.0	0236.0	6.0	1400.0			QL=4 ST=2 TYP=8
	410	LEAR	48	C	0233.0	0235.0	24.0	1400.0			QL=4 ST=2 TYP=8
	610	LEAR	48	C	0233.0	0236.0	24.0	2500.0			QL=4 ST=2 TYP=8
	410	PALE	48	C	0234.0	0235.0	6.0	1300.0			QL=4 ST=2 TYP=8
	1415	LEAR	48	C	0234.0	0236.0	23.0	340.0			QL=4 ST=2 TYP=8
	2695	LEAR	48	C	0234.0	0236.0	23.0	380.0			QL=4 ST=2 TYP=8
	4995	LEAR	48	C	0234.0	0236.0	23.0	420.0			QL=4 ST=2 TYP=8
	200	HIRA	47	GB	0235.0	0236.0	7.0	630.0			ML
	4995	PALE	48	C	0235.0	0236.0	2.0	270.0			QL=4 ST=2 TYP=8
	1415	PALE	4	S/F	0235.0	0236.0	4.0	340.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	0235.0	0236.0	5.0	380.0			QL=4 ST=2 TYP=3
	8800	LEAR	48	C	0235.0	0236.0	16.0	280.0			QL=4 ST=2 TYP=8
	15400	LEAR	4	S/F	0235.0	0236.0	22.0	140.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0235.0	0236.0	1285.0	1700.0			QL=4 ST=1 TYP=6
	8800	PALE	48	C	0236.0	0236.0	1.0	120.0			QL=4 ST=2 TYP=8
	15400	PALE	48	C	0237.0	0237.0	U	58.0			QL=4 ST=2 TYP=8
	245	LEAR	48	C	0239.0	0240.0	2.0	860.0			QL=4 ST=2 TYP=8
	245	PALE	8	S	0240.0	0240.0	1.0	1100.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	0403.6	0403.8	0.5	11.0			
	2950	GORK	1	S	0453.8	0455.3	3.4	3.8			
	2950	GORK	41	F	0507.9	0510.1	20.1	4.8			
	2950	GORK	41	F	0507.9	0514.7		2.8			
	2950	GORK	41	F	0507.9	0519.7		2.8			
	2950	GORK	1	S	0619.9	0620.8	2.4	7.4			
	9100	GORK	20	GRF	0620.1	0623.2	14.3	11.0			
	900	GORK	40	F	0620.7	0621.5	3.8	4.2			
	600	GORK	40	F	0621.0	0631.2	12.9	8.2			
	9100	GORK	20	GRF	0730.4	0927.4	148.6	14.0			
	900	GORK	40	F	0731.3	0731.8	1.5	7.4			
	2950	GORK	1	S	0731.4	0731.7	0.7	4.6			
	2950	GORK	20	GRF	0734.8	0741.6	28.8	7.7			
	900	GORK	2	S/F	0736.5	0736.9	0.5	7.4			
	410	LEAR	8	S	0800.0	0800.0	U	51.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	1020.0	1039.9	34.0	141.3			
	9100	GORK	46	C	1023.5	1032.2	24.5	190.0			
	9100	GORK	46	C	1023.5	1039.6		440.0			
	245	SGMR	48	C	1029.0	1029.0	7.0	63.0			QL=2 ST=2 TYP=8
	2950	GORK	46	C	1030.2	1059.6		125.0			
	2950	GORK	46	C	1030.2	1106.6		105.0			

SOLAR RADIO EMISSION
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JULY 2002

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	2950	GORK	46	C	1030.2	1039.8	47.8	160.0			
	4995	SGMR	48	C	1031.0	1032.0	6.0	89.0			QL=4 ST=2 TYP=8
	15400	SGMR	48	C	1031.0	1031.0	1.0	55.0			QL=4 ST=2 TYP=8
	3000	IZMI	46	C	1031.4	1039.8	50.5	163.0	35.2		
	2695	SGMR	46	C	1032.0	1032.0	U	37.0			QL=4 ST=2 TYP=8
	610	SVTO	48	C	1032.0	1103.0	42.0	120.0			QL=4 ST=2 TYP=8
	2695	SVTO	48	C	1032.0	1040.0	43.0	110.0			QL=4 ST=2 TYP=8
	4995	SVTO	48	C	1032.0	1039.0	43.0	340.0			QL=4 ST=2 TYP=8
	8800	SVTO	48	C	1032.0	1039.0	43.0	520.0			QL=4 ST=2 TYP=8
	15400	SVTO	48	C	1032.0	1039.0	42.0	290.0			QL=4 ST=2 TYP=8
	410	SVTO	48	C	1035.0	1059.0	41.0	72.0			QL=4 ST=2 TYP=8
	8800	SGMR	8	S	1036.0	1036.0	1.0	54.0			QL=4 ST=2 TYP=3
	900	GORK	46	C	1037.3	1047.1		570.0			
	900	GORK	46	C	1037.3	1043.6	48.9	380.0			
	600	GORK	46	C	1037.5	1106.6		110.0			
	600	GORK	46	C	1037.5	1059.6	45.0	145.0			
	1415	SGMR	48	C	1038.0	1039.0	9.0	160.0			QL=4 ST=2 TYP=8
	2695	SGMR	48	C	1038.0	1039.0	9.0	130.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	1038.0	1039.0	8.0	330.0			QL=4 ST=2 TYP=8
	8800	SGMR	48	C	1038.0	1039.0	8.0	490.0			QL=4 ST=2 TYP=8
	15400	SGMR	48	C	1038.0	1039.0	2.0	240.0			QL=4 ST=2 TYP=8
	1415	SVTO	48	C	1038.0	1039.0	33.0	160.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	1040.0	1041.0	7.0	100.0			QL=2 ST=2 TYP=8
	33	UPIC	41	F	1041.5	1043.0	198.5				
	9100	GORK	30	PBI	1048.0	1048.0	92.0	57.0			
	9100	GORK	1	S	1050.1	1052.0	2.7	7.3			
	204	IZMI	25	R	1056.0		64.0D		32.0		
	410	SGMR	48	C	1059.0	1059.0	1.0	71.0			QL=4 ST=2 TYP=8
	610	SGMR	46	C	1059.0	1059.0	U	42.0			QL=4 ST=2 TYP=8
	2695	SGMR	48	C	1059.0	1059.0	1.0	86.0			QL=4 ST=2 TYP=8
	9100	GORK	1	S	1059.1	1059.5	2.9	11.0			
	9100	GORK	1	S	1106.0	1106.6	6.0	5.5			
	2950	GORK	29	PBI	1118.0	1118.0	63.0D	28.0			
	9100	GORK	1	S	1155.4	1156.7	2.3	11.0			
	2800	PENT	20	GRF	1416.0	1518.0	136.0U	8.0			
	245	PALE	48	C	1753.0	1754.0	3.0	1300.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	1754.0	1754.0	1.0	1000.0			QL=4 ST=3 TYP=8
	410	SGMR	8	S	1754.0	1754.0	U	66.0			QL=4 ST=3 TYP=3
	2800	PENT	20	GRF	1825.0	1854.0	67.0U	14.0			
	4995	SGMR	4	S/F	1937.0	1938.0	4.0	60.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1937.0	1938.0	4.0	62.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1937.1	1938.7	2.9	34.0	17.0		
	4995	PALE	48	C	1938.0	1939.0	1.0	66.0			QL=4 ST=2 TYP=8
	8800	PALE	46	C	1938.0	1938.0	1.0	47.0			QL=4 ST=2 TYP=8
	9500	CUBA	21	GRF	2018.0	2107.0	95.0	19.0	9.0		
	9500	CUBA	1	S	2023.7	2024.8	2.7	9.0	4.0		
	2800	PENT	29	PBI	2029.0	2034.0	123.0U	24.0			
	9500	CUBA	2	S/F	2032.2	2033.7	3.6	47.0	23.0		
	4995	PALE	48	C	2033.0	2033.0	1.0	76.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	2033.0	2033.0	1.0	57.0			QL=4 ST=2 TYP=8
	15400	SGMR	46	C	2033.0	2033.0	U	32.0			QL=4 ST=2 TYP=8
	4995	SGMR	8	S	2033.0	2033.0	2.0	60.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	2033.0	2033.0	1.0	59.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	2037.0	2045.0	8.0	76.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	2045.0	2045.0	1.0	25.0			0
	2800	PENT	20	GRF	2359.0	2440.0	103.0	12.0			
30	245	SVTO	43	NS	0405.0	0457.0U	1195.0	210.0			QL=2 ST=1 TYP=1
	245	SVTO	43	NS	0434.0	0811.0	775.0	300.0			QL=2 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		280.0		
	245	SGMR	43	NS	1058.0	1341.0	713.0	390.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1310.0E		410.0D		68.0		
	280	CUBA	44	NS	1310.0E		410.0D		58.0		
	245	PALE	43	NS	1643.0	2112.0	732.0	760.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2315.0	0159.0	630.0	190.0			QL=4 ST=2 TYP=1
	410	LEAR	8	S	0022.0	0022.0	U	53.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0107.0	0107.0	U	54.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0208.0	0208.0	U	51.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	0315.5U	0315.8	1.3D	15.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2002

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	9100	GORK	1	S	0348.5	0350.0	2.5	7.4			
	2804	VORO	1	S	0349.0	0349.4	1.8	4.8			
	600	GORK	2	S/F	0349.1	0350.0	1.4	8.2			
	900	GORK	41	F	0349.2	0354.6		3.7			
	900	GORK	41	F	0349.2	0349.9	5.9	7.4			
	600	GORK	4	S/F	0353.9	0354.5	1.5	25.0			
	9100	GORK	1	S	0434.3	0434.8	1.0	9.3			
	9100	GORK	3	S	0526.0	0527.1	3.0	32.0			
	2950	GORK	1	S	0526.3	0527.2	1.5	7.0			
	410	LEAR	8	S	0640.0	0640.0	U	87.0			QL=4 ST=2 TYP=3
	2950	GORK	1	S	0653.3	0654.4	3.9	4.4			
	2950	GORK	1	S	0720.5	0721.0	1.4	4.4			
	9100	GORK	1	S	0721.5	0722.4	1.5	7.4			
	9100	GORK	41	F	0821.8	0822.5	6.8	7.4			
	9100	GORK	41	F	0821.8	0827.5		7.4			
	900	GORK	40	F	0926.3	0927.3	1.6	23.0			
	900	GORK	45	C	0929.6	0930.3		115.0U			
	900	GORK	45	C	0929.6	0929.8	1.1	17.0			
	900	GORK	40	F	1024.7	1025.3	4.9	1.2			
	9100	GORK	1	S	1025.0	1025.2	0.5	14.0			
	9500	CUBA	1	S	1415.0	1415.3	1.0	12.0	6.0		
	9500	CUBA	1	S	1424.8	1425.9	4.0	20.0	10.0		
	2800	PENT	20	GRF	1430.0	1533.0	122.0U	17.0			
	9500	CUBA	1	S	1459.8	1500.0	1.2	15.0	7.0		
	9500	CUBA	1	S	1511.8	1512.0	1.1	16.0	8.0		
	245	SGMR	49	GB	1721.0	1721.0	U	570.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1721.0	1721.0	U	79.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1729.0	1737.0	123.0U	64.0			
	245	SGMR	8	S	1736.0	1737.0	1.0	460.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1736.3	1737.2	2.0	13.0	6.0		
	410	SGMR	8	S	1737.0	1737.0	U	180.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1737.0	1737.0	U	29.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1737.0	1737.0	U	37.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1737.0	1737.0	U	67.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1737.0	1737.0	U	31.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1825.0	1825.0	U	79.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	2320.0	2322.1	13.0	32.7			
	2804	VORO	3	S	2321.9	2322.2	3.3	27.2			
31	245	SVTO	43	NS	0456.0	0746.0U	245.0	180.0			QL=2 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		60.0		
	245	SGMR	43	NS	1148.0	1211.0	664.0	270.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1155.0	1155.0	5.0	68.0			QL=2 ST=2 TYP=1
	235	CUBA	44	NS	1335.0E		495.0D		17.0		
	280	CUBA	44	NS	1335.0E		495.0D		22.0		
	245	SVTO	43	NS	1418.0	1426.0U	49.0	120.0			QL=2 ST=2 TYP=1
	245	PALE	43	NS	1650.0	2005.0	285.0	320.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1653.0	0204.0	722.0	150.0			QL=4 ST=2 TYP=1
	245	SVTO	44	NS	1701.0E	1715.0	31.0D	160.0			QL=2 ST=2 TYP=1
	245	LEAR	43	NS	2334.0	0100.0	26.0	160.0			QL=4 ST=1 TYP=1
	245	LEAR	43	NS	2334.0	0117.0	26.0	390.0			QL=4 ST=1 TYP=1
	2800	PENT	41	F	0003.0	0148.0	123.0	56.0			
	2840	PEKG	20	GRF	0029.0	0033.8	32.0	25.6			
	2804	VORO	46	C	0030.3	0033.9	11.3	21.8			
	2840	PEKG	3	S	0138.0	0148.8	42.0	68.1			
	2800	HIRA	1	S	0140.0	0149.0	12.0	55.0			
	500	HIRA	1	S	0146.0	0149.0	5.0	15.0			
	410	LEAR	8	S	0148.0	0148.0	U	50.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0148.0	0148.0	1.0	38.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0148.0	0148.0	1.0	52.0			QL=4 ST=2 TYP=3
	4995	PALE	48	C	0148.0	0149.0	1.0	87.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	0148.0	0150.0	2.0	50.0			QL=4 ST=2 TYP=8
	2695	PALE	46	C	0149.0	0149.0	U	41.0			QL=4 ST=2 TYP=8
	200	HIRA	8	S	0209.0	0210.0	3.0	80.0			
	900	GORK	7	C	0313.6	0314.0		13.0			
	900	GORK	7	C	0313.6	0313.7	0.5	5.1			
	600	GORK	40	F	0343.2	0344.0	1.6	9.0			
	410	LEAR	8	S	0439.0	0439.0	U	58.0			QL=4 ST=2 TYP=3
	9100	GORK	7	C	0444.5	0445.0	1.7	16.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2002

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
31	9100	GORK	7	C	0444.5	0445.7		7.3			
	9100	GORK	7	C	0457.5	0500.0		13.0			
	9100	GORK	7	C	0457.5	0458.3	3.5	5.6			
	2950	GORK	1	S	0459.7	0500.0	0.6	5.6			
	900	GORK	40	F	0534.7	0535.3	2.2	6.4			
	600	GORK	7	C	0547.0	0547.5	2.1	8.0			
	600	GORK	7	C	0547.0	0548.7		8.0			
	900	GORK	1	S	0557.9	0558.3	0.8	5.1			
	600	GORK	7	C	0558.0	0558.0	0.6	11.0			
	600	GORK	7	C	0558.0	0559.2	1.2	9.0			
	2950	GORK	1	S	0608.7	0609.0	0.5	4.3			
	410	LEAR	48	C	0720.0	0723.0	3.0	70.0			QL=4 ST=2 TYP=8
	610	LEAR	48	C	0720.0	0720.0	1.0	87.0			QL=4 ST=2 TYP=8
	610	SVTO	8	S	0720.0E	0721.0	1.0D	74.0			QL=2 ST=3 TYP=3
	410	SVTO	4	S/F	0720.0	0723.0	4.0	64.0			QL=4 ST=2 TYP=3
	600	GORK	46	C	0720.4	0723.1		35.0			
	900	GORK	7	C	0720.4	0722.4	3.9	2.5			
	900	GORK	7	C	0720.4	0723.7		6.4			
	600	GORK	46	C	0720.4	0720.7	3.6	110.0			
	500	HIRA	42	SER	0721.0	0724.0	7.0	30.0			
	410	SVTO	8	S	0721.0E	0723.0	2.0D	73.0			QL=2 ST=3 TYP=3
	2840	PEKG	5	S	0731.0	0733.2	9.0	33.8			
	2950	GORK	7	C	0733.0	0733.2	0.8	38.0			
	3000	IZMI	7	C	0733.0	0733.2	0.4	39.0	17.9		
	2950	GORK	7	C	0733.0	0733.6		11.0			
	410	LEAR	8	S	0817.0	0817.0	U	100.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0849.0	0849.0	U	300.0			QL=4 ST=2 TYP=3
	900	GORK	40	F	0849.4	0850.3	1.6	5.1			
	500	HIRA	8	S	0850.0	0850.0	1.0	110.0			
	600	GORK	41	F	0850.0	0850.1	3.4	22.0			
	600	GORK	41	F	0850.0	0853.2		5.0			
	410	LEAR	8	S	0917.0	0917.0	U	2000.0			QL=4 ST=2 TYP=3
	410	SVTO	49	GB	0917.0	0917.0	U	2200.0			QL=4 ST=2 TYP=6
	900	GORK	2	S/F	0942.3	0942.7	0.5	11.0			
	900	GORK	7	C	0949.2	0956.0		13.0			
	900	GORK	7	C	0949.2	0952.5	19.3	17.0			
	9100	GORK	4	S/F	0952.1	0956.0	15.9	110.0			
	2950	GORK	45	C	0952.4	0953.1	9.5	11.0			
	2950	GORK	45	C	0952.4	0955.8		44.0			
	3000	IZMI	45	C	0952.8	0955.9	8.0	45.0	11.5		
	4995	SVTO	4	S/F	0953.0	0955.0	6.0	85.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0953.0	0955.0	7.0	110.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	0953.0	0955.0	7.0	69.0			QL=4 ST=2 TYP=3
	600	GORK	41	F	0956.0	1001.0		5.0			
	600	GORK	41	F	0956.0	0956.2	5.3	4.0			
	9100	GORK	1	S	1009.0	1009.5	1.2	23.0			
	245	SVTO	8	S	1133.0E	1133.0U	1.0D	62.0			QL=2 ST=2 TYP=3
	2695	SGMR	8	S	1224.0	1224.0	1.0	72.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1224.0	1224.0	1.0	51.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1224.0	1224.0	U	38.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	1357.0	1513.0	136.0	15.0			
	245	SVTO	8	S	1621.0E	1621.0	U	89.0			QL=2 ST=3 TYP=3
	9500	CUBA	2	S/F	1628.8	1629.4	3.5	11.0	5.0		
	245	SVTO	8	S	1649.0E	1649.0	1.0D	82.0			QL=2 ST=2 TYP=3
	9500	CUBA	1	S	1940.1	1940.5	1.1	6.0	3.0		
	500	HIRA	8	S	2104.0	2104.0	1.0	15.0			0
	200	HIRA	8	S	2104.0	2104.0	1.0	110.0			0
	245	SGMR	49	GB	2104.0	2104.0	U	670.0			QL=2 ST=2 TYP=6
	410	SGMR	8	S	2104.0	2104.0	U	35.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	2104.0	2104.0	U	59.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	2105.0	2116.0	52.0	10.0			
	500	HIRA	8	S	2117.0	2117.0	1.0	65.0			0
	410	SGMR	8	S	2117.0	2117.0	U	65.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	2137.0	2137.0	1.0	10.0			0
	2800	PENT	40	F	2331.0	2432.0	92.0	136.0			
	2804	VORO	41	F	2341.5	2355.0	14.5	27.5			
	2804	VORO	42	SER	2341.5	2343.8	6.6	66.5			
	2800	HIRA	4	S/F	2342.0	2344.0	5.0	70.0			
	500	HIRA	7	C	2342.0	2344.0	3.0	35.0			0

SOLAR RADIO EMISSION
Outstanding Occurrences

JULY 2002

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
31	2695	LEAR	4 S/F	2342.0	2344.0	3.0	67.0			QL=4 ST=2 TYP=3
	4995	LEAR	4 S/F	2342.0	2344.0	3.0	43.0			QL=4 ST=2 TYP=3
	200	HIRA	8 S	2343.0	2343.0	1.0	60.0			0
	245	LEAR	49 GB	2343.0	2343.0	1.0	520.0			QL=4 ST=2 TYP=6
	410	LEAR	8 S	2343.0	2343.0	1.0	170.0			QL=4 ST=2 TYP=3
	610	LEAR	8 S	2343.0	2343.0	1.0	42.0			QL=4 ST=2 TYP=3
	1415	LEAR	8 S	2343.0	2344.0	2.0	31.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2343.0	2343.0	1.0	620.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	2343.0	2344.0	1.0	140.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	2343.0	2345.0	2.0	61.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	2344.0	2345.0	1.0	35.0			QL=4 ST=2 TYP=3
	15400	LEAR	8 S	2345.0	2345.0	U	24.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	2353.0	2354.0	1.0	110.0			QL=4 ST=2 TYP=3
	2800	HIRA	1 S	2354.0	2355.0	3.0	30.0			
	2695	LEAR	8 S	2354.0	2355.0	1.0	42.0			QL=4 ST=2 TYP=3
	4995	LEAR	8 S	2354.0	2355.0	1.0	35.0			QL=4 ST=2 TYP=3

Reports are received routinely from the following observatories:

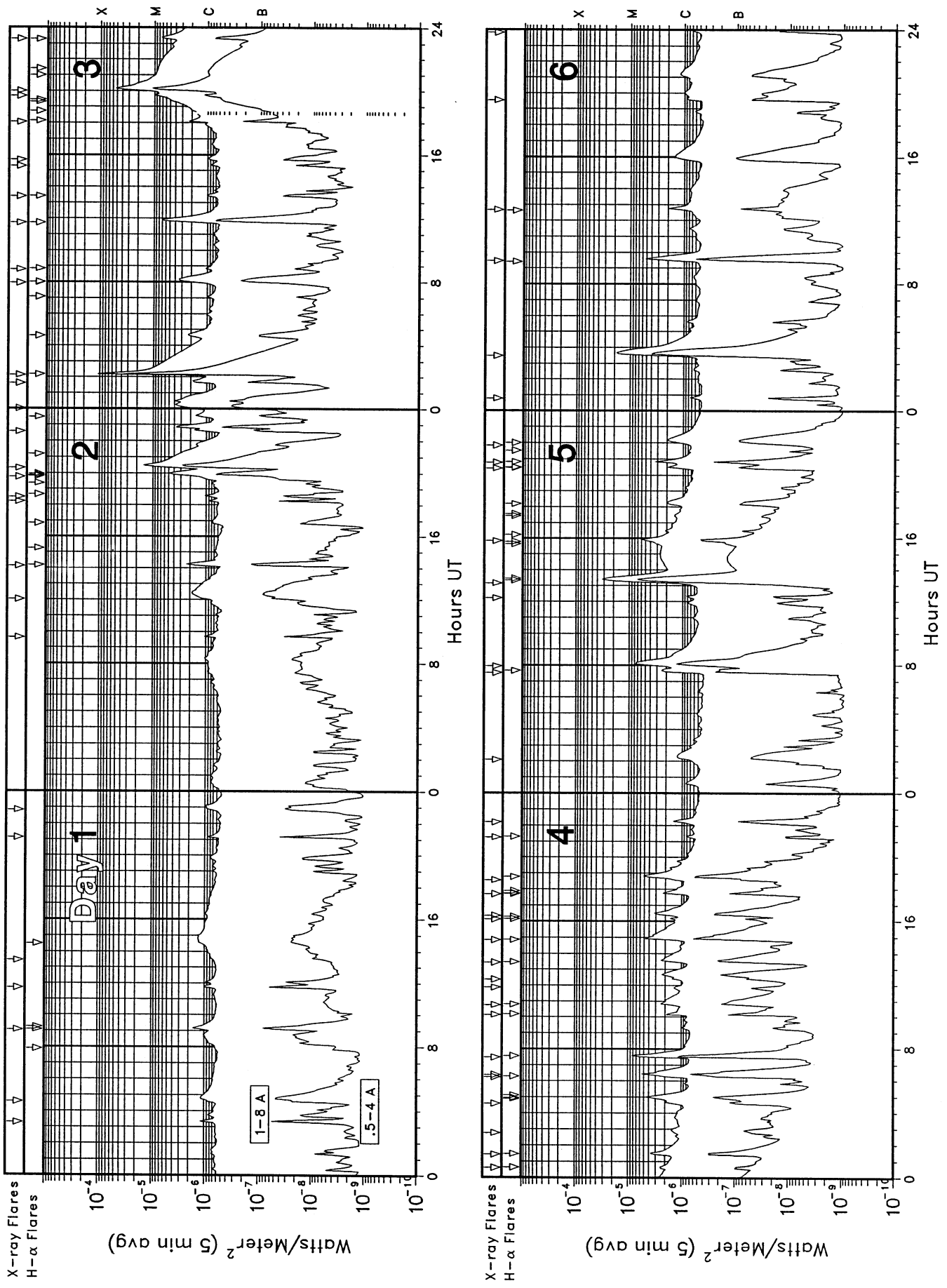
BERN = Berne	HUMN = Humain	ONDR = Ondrejov	SVTO = San Vito
CRIM = Crimea	IZMI = IZMIRAN	PEKG = Peking	TORN = Torun
CUBA = Havana	KISV = Kislovodsk	PALE = Palehua	TRST = Trieste
GORK = Gorky	KRAK = Krakow	PENT = Penticton	TYKW = Toyokawa
HIRA = Hiraiso	LEAR = Learmonth	POTS = Potsdam	UPIC = Upice
HUAN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

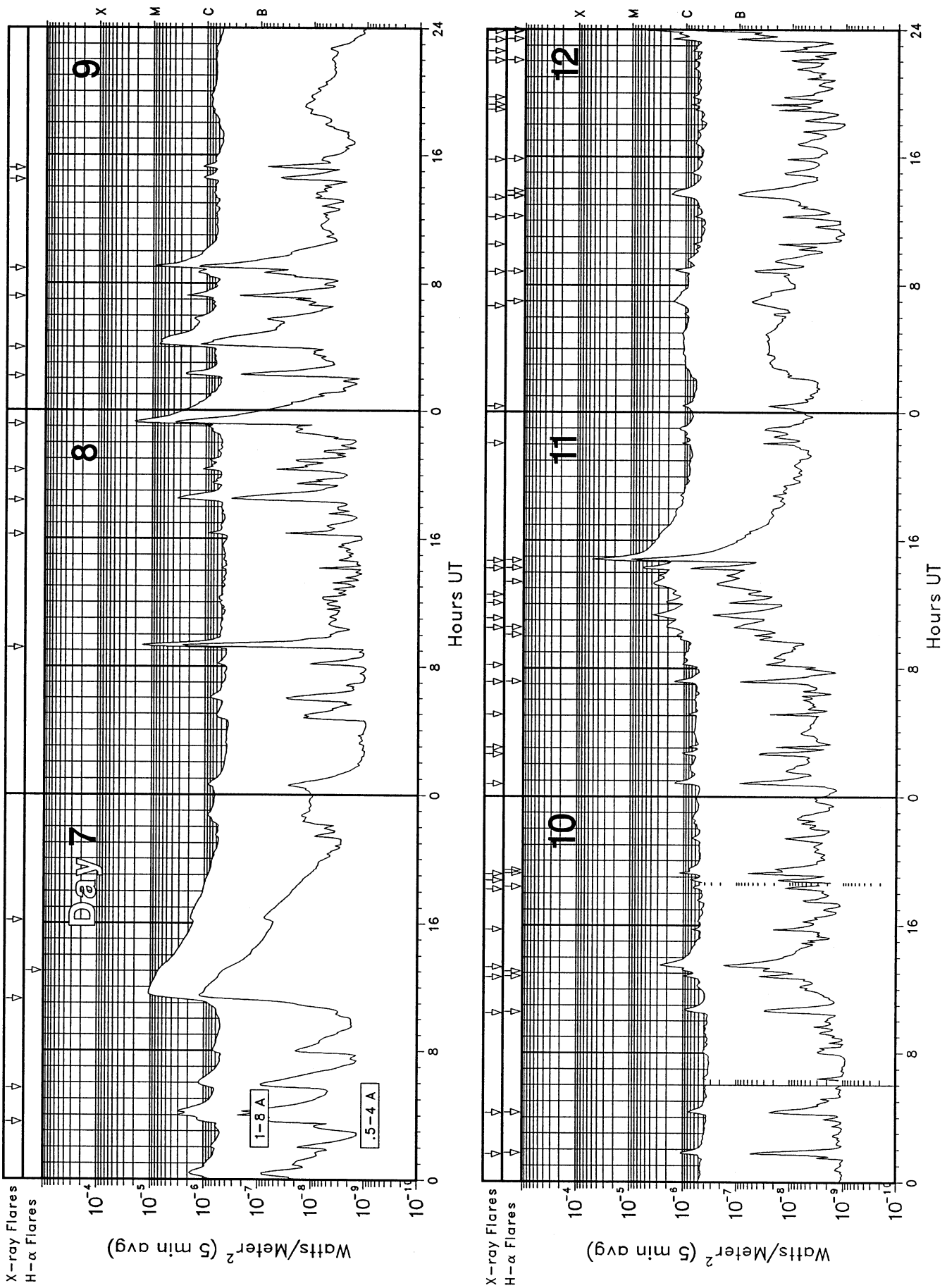
Explanation of Type Code:

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

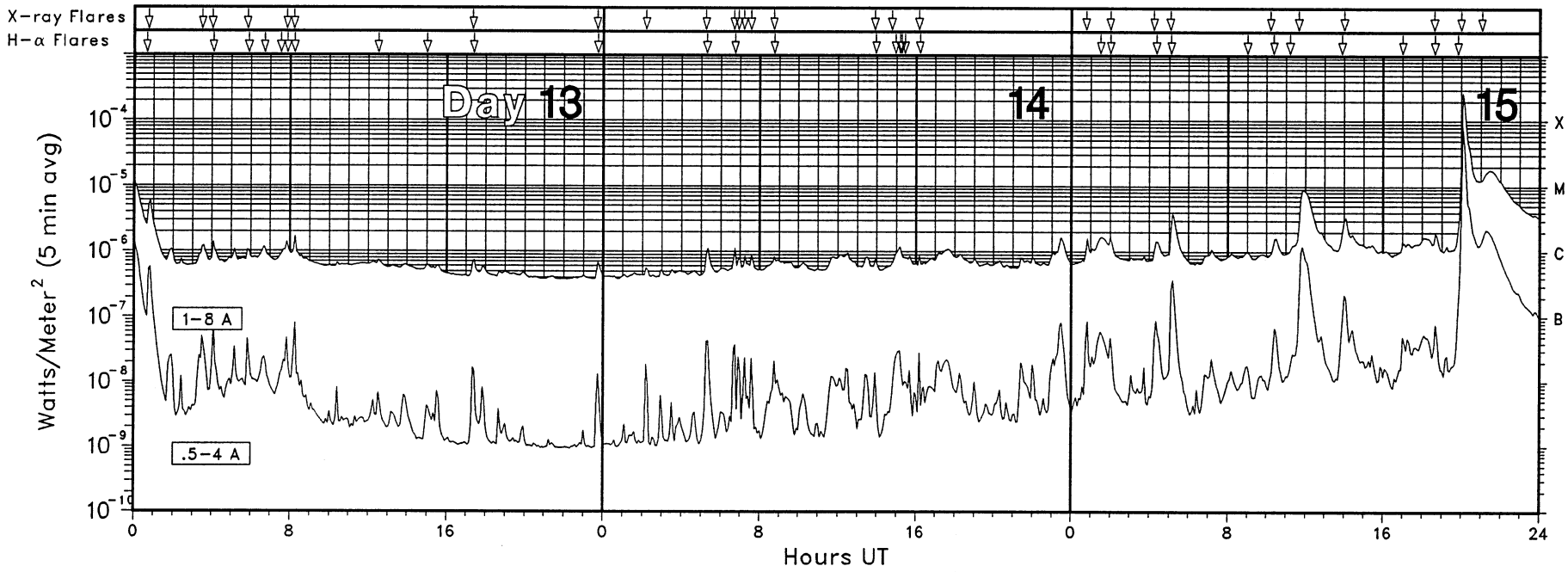
RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; and Hiraiso, Japan 500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

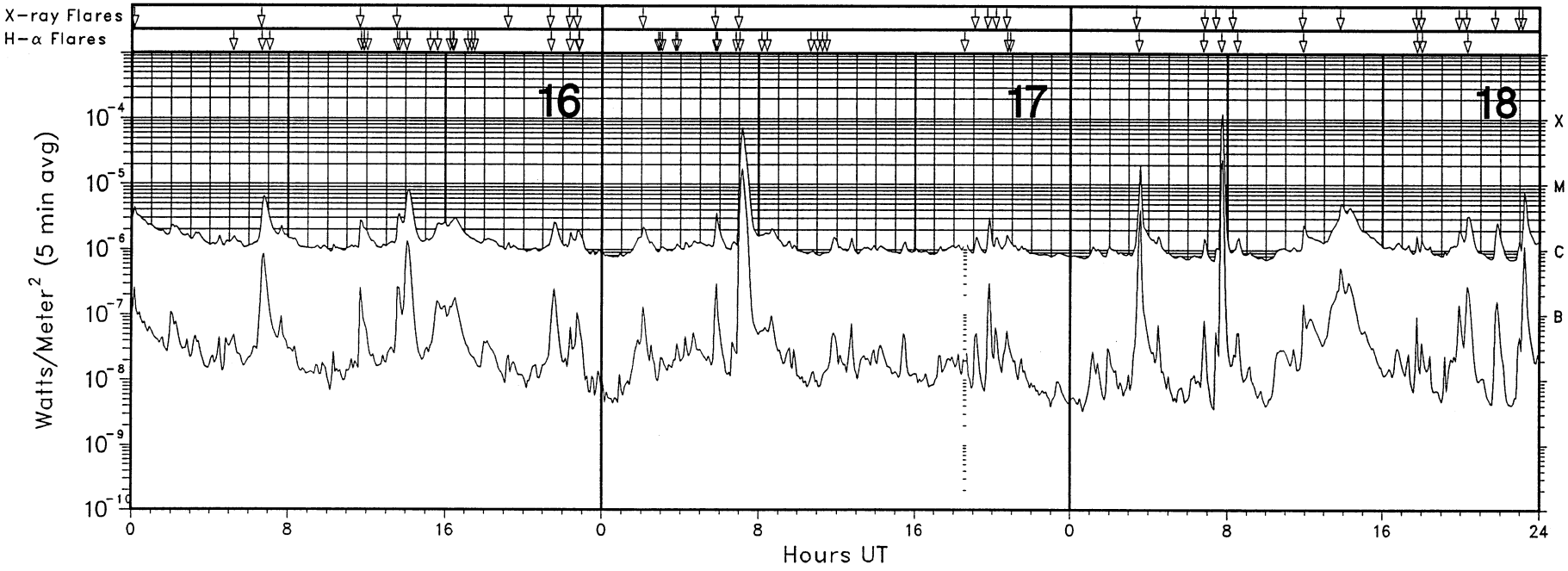

GOES X-RAY DETECTOR
July 2002
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT
Day 1
1-8 A
.5-4 A
X
M
C
B
1
2
3
4
5
6

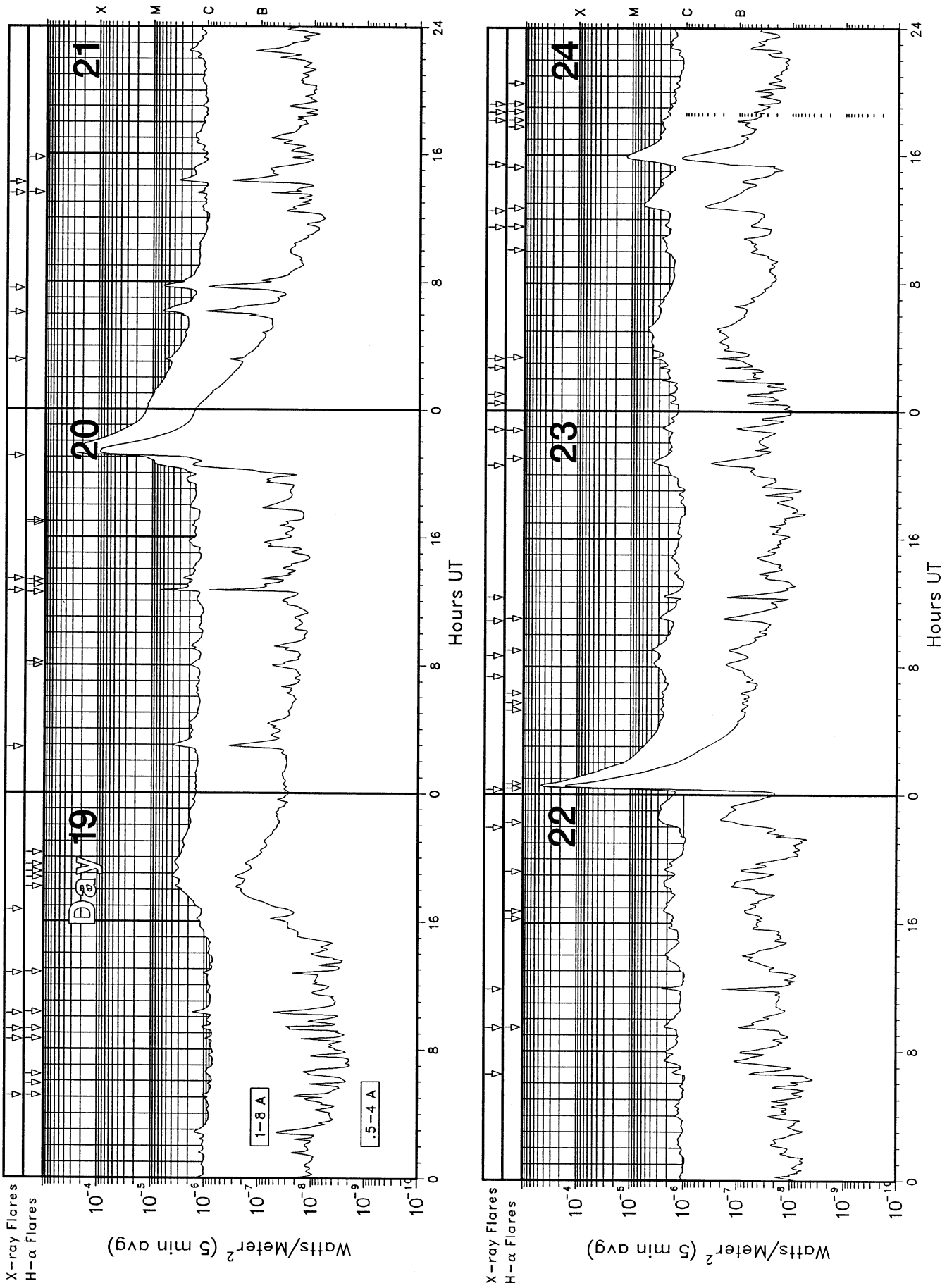

GOES X-RAY DETECTOR
July 2002
Day 7
8
9
10
11
12
1-8 A
.5-4 A
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT
X
M
C
B

GOES X-RAY DETECTOR

July 2002

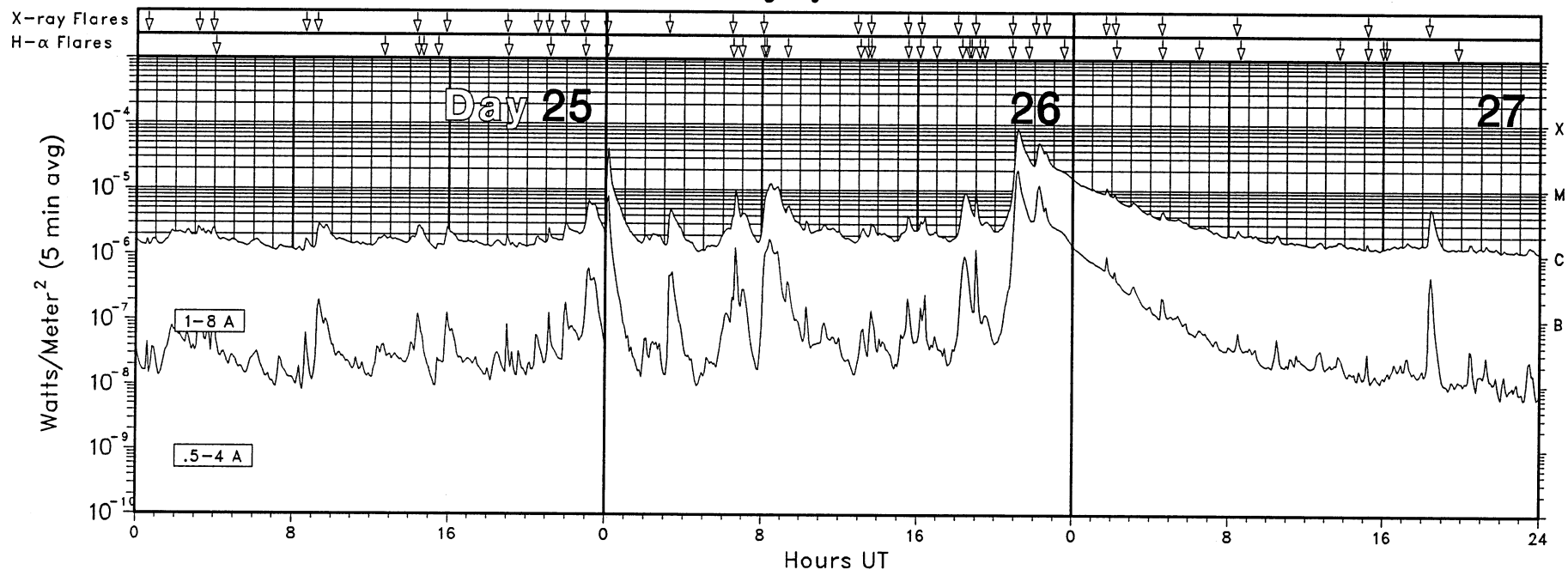


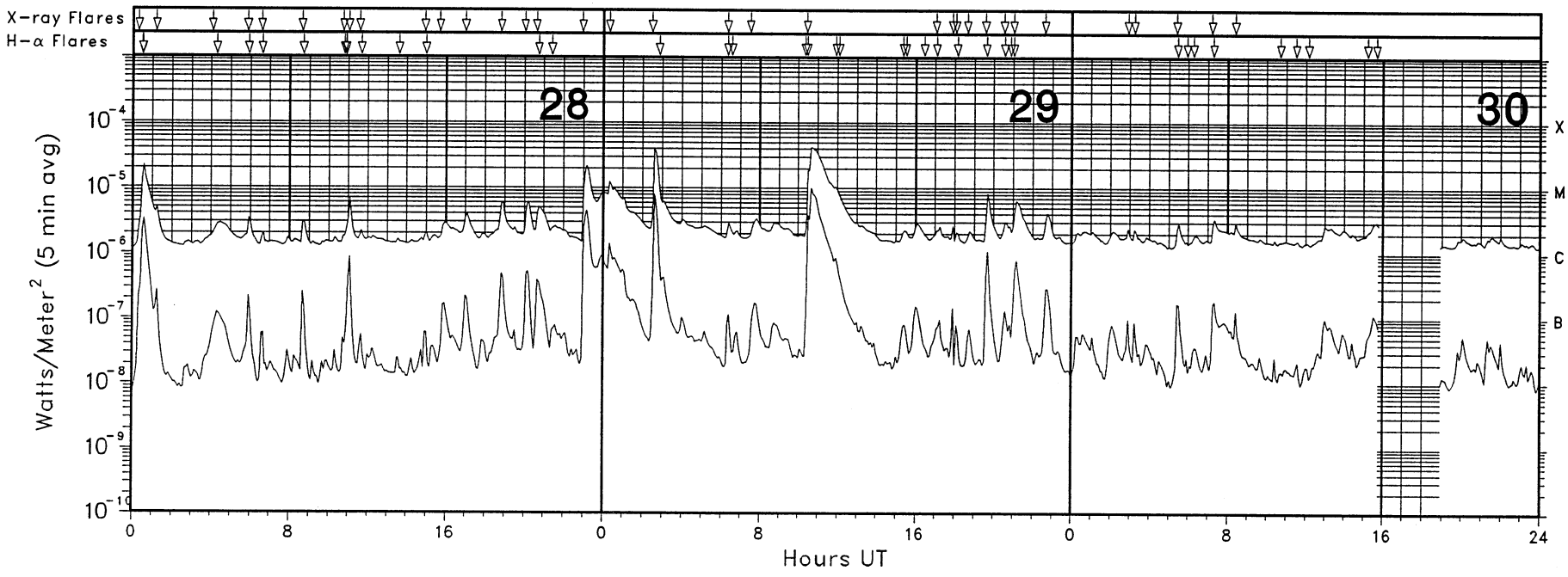



GOES X-RAY DETECTOR
July 2002
Day 19
20
21
22
23
24
X
M
C
B
1-8 A
.5-4 A
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT

GOES X-RAY DETECTOR

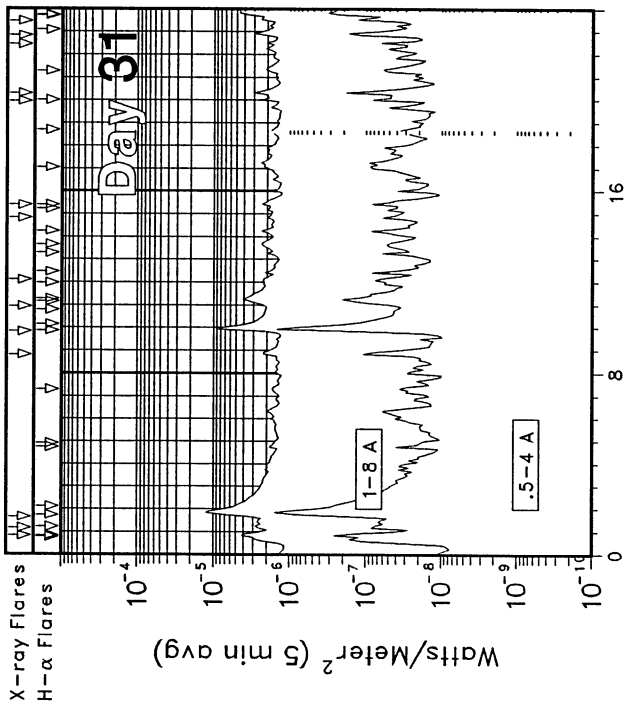
July 2002





GOES X-RAY DETECTOR

July 2002



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

July 2002

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
01	0317	0322	0326				C	1.3		5.5E-04
01	0435	0452	0516				C	1.2		2.5E-03
01	0904	0912	0918	S19	W29	SF	C	1.6	10017	1.1E-03
01	1143	1148	1154				C	1.1		6.3E-04
01	1327	1452	1512				C	1.3	10000	6.4E-03
01	2108	2111	2115				C	1.0		3.5E-04
01	2251	2304	2311				C	1.0		1.1E-03
02	0938	0942	0947				C	1.1		5.3E-04
02	1202	1230	1252				C	1.8		4.5E-03
02	1408	1417	1423	S19	E37	SF	C	2.3	10019	1.6E-03
02	1813	1817	1820				C	1.0		3.5E-04
02	1831	1836	1840	S18	E30	SF	C	1.0	10019	5.2E-04
02	1946	2001	2009	S19	W46	SF	C	5.2	10017	4.5E-03
02	2019	2031	2041	S18	W46	SF	M	1.5	10017	1.3E-02
02	2235	2253	2258				C	4.9		3.1E-03
03	0001	0031	0045				C	4.1		8.2E-03
03	0137	0144	0152				C	2.0		1.4E-03
03	0208	0213	0216	S20	W51	1B	X	1.5	10017	4.1E-02
03	0757	0809	0822	S20	E23	SF	C	3.4	10019	4.0E-03
03	0848	0851	0857	S22	E29	SF	C	1.1	10019	5.5E-04
03	1143	1154	1204	S18	E21	1N	C	7.3	10019	6.0E-03
03	1323	1330	1332	S19	W54	SF	C	1.2	10017	5.5E-04
03	1517	1521	1531				B	8.8		6.7E-04
03	1540	1544	1549				C	1.1		5.2E-04
03	1803	1808	1811	S19	W58	SF	C	3.0	10017	9.8E-04
03	1941	1945	1949				M	1.1		4.6E-03
03	2000	2010	2021				M	5.3	10017	4.5E-02
03	2318	2325	2332	S19	W63	SF	C	7.9	10017	5.6E-03
04	0036	0039	0042	S18	W66	SF	C	2.8	10017	9.4E-04
04	0124	0129	0134	S18	W62	SF	C	4.7	10017	2.1E-03
04	0246	0249	0253				C	1.5		6.0E-04
04	0435	0501	0508	S19	W65	SF	C	4.5	10019	5.1E-03
04	0614	0619	0622	S19	W66	SF	C	2.8	10017	9.7E-04
04	0622	0627	0630				C	6.5		2.3E-03
04	0727	0734	0739	S19	W77	SF	M	1.1	10017	4.3E-03
04	1008	1013	1017	S19	W67	SF	C	2.4	10017	9.3E-04
04	1045	1053	1111	S18	W76	SF	C	2.6	10017	3.1E-03
04	1151	1154	1156				C	1.6		4.4E-04
04	1222	1242	1253				C	2.3		3.2E-03
04	1326	1334	1350	S20	W69	SF	C	3.0	10017	2.8E-03
04	1450	1457	1503	S21	W68	1N	C	7.1	10017	2.8E-03
04	1607	1610	1612	S18	W70	SF	C	2.2	10017	5.1E-04
04	1621	1630	1638				C	3.4	10019	2.7E-03
04	1741	1746	1756				C	2.4	10019	1.6E-03
04	1834	1850	1900	S18	W79	SF	C	5.3	10017	5.1E-03
04	2115	2119	2124	S21	E23	SF	B	9.1	10022	4.3E-04
04	2211	2218	2223				C	1.4		9.1E-04
05	0205	0220	0239				C	1.2		2.2E-03
05	0731	0739	0753	S18	W88	SF	C	2.6	10017	2.5E-03
05	0756	0809	0820				C	7.8		8.1E-03
05	1213	1221	1223				C	1.0		4.7E-04
05	1310	1326	1337	S19	W82	SF	M	3.2	10017	3.0E-02
05	1550	1556	1600	S19	W02	SF	C	6.3	10019	3.3E-03
05	2025	2030	2041	S29	W18	SF	C	2.0	10021	1.5E-03
05	2047	2051	2056	S28	W19	SF	C	3.6	10021	1.5E-03
05	2150	2210	2225	S29	W21	SF	C	2.0	10021	3.0E-03
06	0047	0051	0054				B	8.0		3.0E-04
06	0328	0342	0355				M	1.8		2.0E-02
06	0927	0938	0943	S19	W12	1N	C	6.0	10019	3.2E-03
06	1240	1247	1252	N09	E25	SF	C	2.0	10000	1.1E-03
06	1933	2003	2036				C	1.0		3.3E-03
06	2349	2426	2444				C	1.8		3.8E-03
07	0334	0401	0427				C	3.5		6.3E-03
07	0541	0602	0624				C	1.2		2.7E-03
07	1115	1143	1317				M	1.0		6.2E-02
07	1610	1622	1639				C	1.8	10000	3.0E-03
08	0910	0921	0927				M	1.6		8.8E-03
08	1616	1622	1628				B	9.3		5.4E-04
08	1824	1831	1843				C	3.5		2.9E-03
08	2017	2022	2028				C	1.2		6.6E-04
08	2309	2320	2329				M	2.3		1.7E-02
09	0209	0218	0229				C	2.5		2.3E-03
09	0359	0413	0443				C	8.6		1.5E-02
09	0711	0716	0722				C	2.5		1.2E-03
09	0855	0905	0911				M	1.0		5.6E-03
09	1428	1437	1444				C	1.1		9.9E-04
09	1511	1517	1525				C	1.2		8.6E-04
10	0141	0150	0156	N21	E71	SF	C	1.1	10030	8.4E-04
10	0416	0421	0434	N18	E68	SF	B	7.9	10030	7.3E-04
10	1030	1046	1055				B	9.4		1.1E-03
10	1245	1250	1257	S19	E09	SF	C	1.0	10025	6.1E-04
10	1323	1333	1342	S19	E08	SF	C	2.7	10025	2.4E-03
10	1544	1548	1550				B	8.7		2.4E-04
10	1814	1822	1829	N21	E61	SF	B	6.8	10030	5.3E-04
10	1846	1850	1855				B	7.8		3.8E-04
10	1911	1915	1919	N22	E69	SF	C	1.4	10030	4.7E-04
11	0047	0053	0100				C	1.7		1.0E-03
11	0235	0240	0242				C	1.4		4.6E-04
11	0301	0305	0308				B	9.1		3.1E-04
11	0504	0507	0511				B	9.4		3.4E-04
11	0708	0713	0717	N19	E66	SF	C	2.1	10030	7.5E-04
11	0811	0818	0905				C	1.1		3.1E-03
11	1032	1038	1053	N22	E62	SF	C	2.1	10030	2.5E-03
11	1107	1121	1128				C	4.0		3.5E-03
11	1204	1208	1215				C	2.5		1.4E-03
11	1236	1239	1251	N19	E62	SF	C	1.7	10030	1.4E-03
11	1415	1419	1422	N19	E65	SF	M	1.0	10030	2.8E-03
11	1444	1451	1457	N21	E58	2N	M	5.8	10030	2.7E-02
11	2203	2206	2210				C	1.1		4.4E-04
12	0021	0026	0029				C	1.1		4.9E-04
12	0642	0659	0710	N20	E47	SF	C	1.7	10030	2.3E-03
12	0849	0856	0901	N22	E43	SF	C	1.6	10030	1.0E-03
12	1032	1035	1038				B	8.4		2.6E-04
12	1213	1217	1219	N18	E46	SF	B	7.2	10030	2.3E-04
12	1327	1341	1359	N17	E47	SF	C	1.8	10030	2.7E-03
12	1548	1552	1555	N18	E41	SF	B	6.5	10030	2.5E-04
12	1856	1859	1902				B	8.4		2.4E-04
12	1914	1917	1919				C	1.0		2.3E-04
12	1942	1945	1949				B	8.1		3.1E-04
12	2202	2205	2207	N19	E40	SF	B	8.3	10030	2.2E-04
12	2238	2242	2247				B	8.3		3.8E-04
12	2321	2326	2330	N19	E40	SF	C	2.1	10030	7.7E-04
12	2354	2408	2420	N18	E38	2F	M	1.1	10030	1.2E-02
13	0044	0050	0055	N22	E38	1F	C	6.7	10030	3.5E-03
13	0330	0334	0337				C	1.6		5.2E-04
13	0401	0406	0411	N19	E37	SF	C	1.4	10030	6.9E-04

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

July 2002

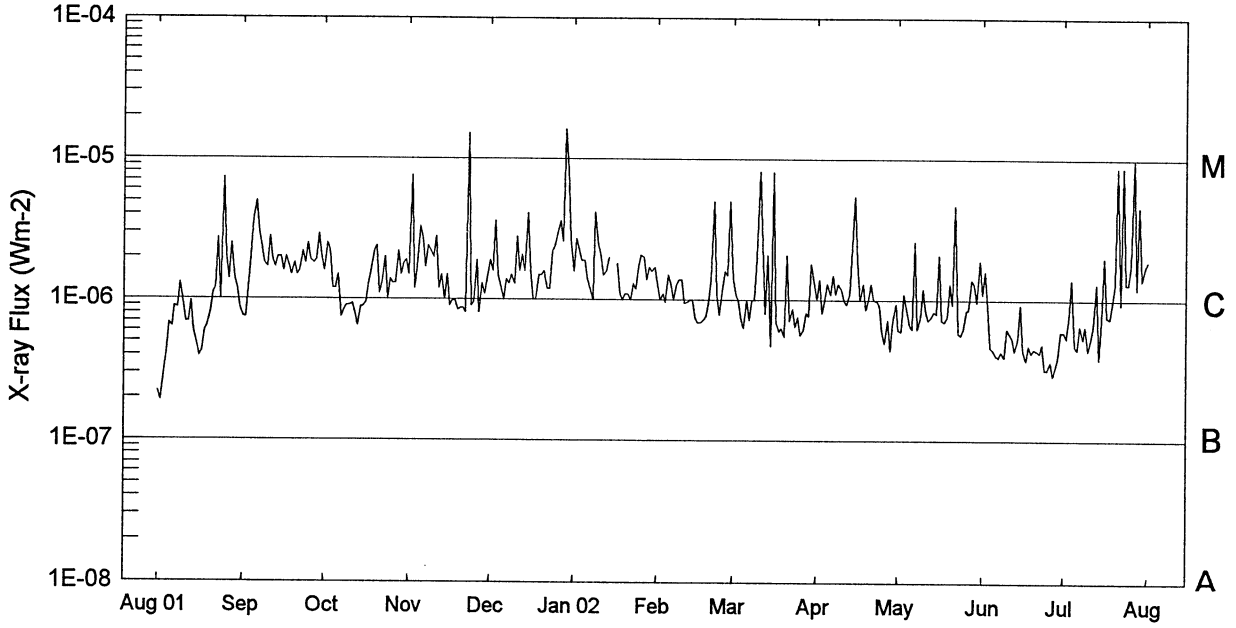
Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
13	0550	0554	0556	N18	E36	SF	C	1.7	10030	4.1E-04
13	0750	0753	0755	N19	E36	SF	C	1.6	10030	4.2E-04
13	0812	0815	0818	N17	E35	SF	C	2.2	10030	5.7E-04
13	1720	1724	1728	N21	E21	SF	B	8.6	10030	3.6E-04
13	2342	2346	2352	N18	E19	SF	B	7.2	10030	3.8E-04
14	0211	0214	0216				B	8.8		1.9E-04
14	0514	0520	0525	N17	E21	SF	C	1.2	10030	6.5E-04
14	0641	0645	0648	N19	E22	SF	C	1.5	10030	4.5E-04
14	0655	0659	0702				C	1.0		3.5E-04
14	0712	0715	0719				B	9.2		3.4E-04
14	0733	0737	0741				B	9.3		3.9E-04
14	0843	0846	0848				C	1.0		2.5E-04
14	1353	1358	1402	N20	E10	SF	B	7.8	10030	3.9E-04
14	1445	1511	1528	N17	E15	SF	C	1.2	10030	2.3E-03
14	1609	1612	1614	N20	E17	SF	C	1.2	10030	2.6E-04
15	0046	0050	0055				C	1.8		7.4E-04
15	0200	0202	0210	N24	E08	SF	C	1.6	10030	8.8E-04
15	0414	0423	0434	N19	E08	SF	C	1.6	10030	1.5E-03
15	0503	0512	0522	N21	E09	SF	C	3.8	10030	3.3E-03
15	1012	1029	1039	N19	E04	SF	C	1.6	10030	2.1E-03
15	1139	1155	1217	N20	E04	SF	C	9.1	10030	1.6E-02
15	1400	1404	1410	N18	E01	SF	C	3.6	10030	1.9E-03
15	1837	1840	1849	N17	W01	SF	C	1.9	10030	1.3E-03
15	1959	2008	2014	N19	W01	3B	X	3.0	10030	1.4E-01
15	2103	2132	2148				M	1.8	10030	4.3E-02
16	0008	0011	0015				C	4.6		1.8E-03
16	0637	0647	0700	N22	W02	SN	C	6.5	10030	7.2E-03
16	1138	1143	1149	S07	E70	SF	C	3.5	10036	1.7E-03
16	1331	1410	1421	N23	W07	SF	C	8.5	10030	1.3E-02
16	1912	1915	1917				C	1.4		3.8E-04
16	2122	2138	2148	N19	W14	SF	C	2.6	10030	3.1E-03
16	2221	2227	2232	N16	E72	SF	C	1.9	10037	1.1E-03
16	2244	2250	2255	N20	W07	SF	C	2.0	10030	1.2E-03
17	0203	0208	0214				C	2.3		1.4E-03
17	0545	0551	0556	N20	W18	SF	C	4.0	10030	1.9E-03
17	0658	0713	0719	N21	W17	1B	M	8.5	10030	5.3E-02
17	1904	1911	1919				C	1.5		1.2E-03
17	1943	1950	1956				C	3.4		1.9E-03
17	2009	2013	2019				C	1.6		9.0E-04
17	2042	2046	2053	N24	W24	SF	C	1.7	10030	1.0E-03
18	0322	0337	0340	N20	W27	SB	M	2.2	10030	9.1E-03
18	0649	0653	0657	N19	W32	SF	C	1.7	10030	7.0E-04
18	0724	0744	0749	N19	W30	2B	X	1.8	10030	5.6E-02
18	0815	0835	0840	N21	W29	SF	C	1.6	10030	1.8E-03
18	1151	1158	1206	N17	E53	1F	C	2.7	10037	1.8E-03
18	1348	1354	1404				C	5.4		4.6E-03
18	1742	1746	1751	N21	W37	SF	C	1.7	10030	7.7E-04
18	1757	1802	1808	S09	E28	SF	C	1.4	10035	8.5E-04
18	1952	1957	2006				C	2.1		1.5E-03
18	2016	2027	2035	S06	E39	SF	C	3.3	10036	3.2E-03
18	2143	2152	2201				C	2.6		2.2E-03
18	2256	2300	2302				C	1.8		5.0E-04
18	2308	2317	2323				C	8.2		4.4E-03
19	0506	0509	0512	N19	W45	SF	C	1.2	10030	4.0E-04
19	0837	0840	0844				C	1.0		3.8E-04
19	0915	0919	0923				C	1.3		5.0E-04
19	1015	1020	1027	S09	E19	SF	C	1.7	10035	1.0E-03
19	1245	1248	1251	N20	W49	SF	C	1.2	10030	3.8E-04
19	1646	1853	2037				C	3.9	10030	3.8E-02
20	0250	0300	0310				C	4.0		4.1E-03
20	1237	1242	1244	N20	W61	1N	C	9.6	10030	2.3E-03
20	1323	1327	1333	N17	E72	SF	C	2.7	10000	1.5E-03
20	2104	2130	2154				X	3.3		7.2E-01
21	0307	0310	0312				C	7.9		1.8E-03
21	0605	0613	0624				C	6.7		6.1E-03
21	0735	0745	0754				C	6.7		5.9E-03
21	1333	1337	1339	S09	W17	SF	C	1.8	10035	5.2E-04
21	1414	1421	1431				C	3.4		2.6E-03
22	0633	0639	0652				C	1.5		1.6E-03
22	0927	0934	0942	S12	W12	SF	C	2.3	10036	1.9E-03
22	1151	1156	1201				C	2.7		1.3E-03
22	2156	2238	2341	S08	W33	SF	C	3.1	10035	1.6E-02
23	0018	0035	0047	S13	E72	2B	X	4.8	10039	4.6E-01
23	0722	0814	0833				C	3.7		1.3E-02
23	0840	0906	0912	S08	W37	SF	C	4.0	10035	6.3E-03
23	1050	1105	1121	S08	W22	SF	C	2.8	10036	4.4E-03
23	1218	1223	1230				C	2.9		1.6E-03
23	2034	2050	2102	S07	W24	SF	C	3.0	10036	5.4E-03
23	2249	2256	2301	S20	E59	SF	C	2.6	10044	1.7E-03
24	0029	0033	0039				C	2.0		1.1E-03
24	0101	0104	0106				C	2.5		6.1E-04
24	0242	0246	0248				C	3.6		1.0E-03
24	0317	0321	0324	S16	E59	SF	C	4.5	10039	1.6E-03
24	1130	1139	1147				C	2.5		2.3E-03
24	1231	1256	1333	S21	E49	SF	C	6.1	10039	1.7E-02
24	1524	1555	1622	S13	E49	1F	M	1.2	10039	2.9E-02
24	1811	1813	1819	S12	E51	SF	C	3.2	10039	1.4E-03
24	1843	1848	1852	S13	E51	SF	C	2.2	10039	1.2E-03
24	1913	1915	1918	S13	E47	SF	C	2.3	10039	6.2E-04
25	0035	0038	0040				C	1.9	10039	4.9E-04
25	0310	0313	0316				C	2.9	10039	9.5E-04
25	0355	0358	0403	S13	E46	SF	C	2.7	10039	1.2E-03
25	0838	0842	0851				C	1.7	10039	1.2E-03
25	0914	0921	0956				C	2.9	10039	6.4E-03
25	1419	1430	1443	S14	W47	SF	C	2.7	10036	3.4E-03
25	1551	1558	1610				C	2.6	10036	2.6E-03
25	1859	1903	1906	S16	E44	SF	C	2.5	10039	8.0E-04
25	2031	2034	2039				C	2.0		9.0E-04
25	2107	2112	2114	S20	E33	SF	C	2.8	10044	9.6E-04
25	2155	2202	2214				C	3.1	10044	3.1E-03
25	2254	2311	2338	S20	E33	SF	C	6.7	10044	1.3E-02
26	0004	0010	0016	S20	E28	1N	M	4.9	10044	2.2E-02
26	0312	0319	0333				C	5.8	10044	5.1E-03
26	0628	0642	0648	S20	E27	SN	M	1.1	10044	7.4E-03
26	0804	0829	0902	S19	E27	SN	M	1.3	10044	3.4E-02
26	1255	1315	1324				C	2.7	10044	3.7E-03
26	1336	1342	1355				C	3.0	10044	3.2E-03
26	1528	1532	1539	S20	E22	SF	C	4.2	10044	2.5E-03
26	1610	1613	1616	S18	E19	SF	C	3.8	10044	1.2E-03
26	1803	1829	1845	S22	E18	SF	C	9.5	10044	1.5E-02
26	1857	1903	1906	S21	E21	SF	M	1.0	10044	4.3E-03
26	2051	2112	2129	S19	E26	2N	M	8.7	10044	1.2E-01
26	2203	2217	2232				M	5.3		7.4E-02
26	2236	2238	2241				M	4.6	10044	1.2E-02
27	0141	0147	0150				C	1.1		5.5E-03
27	0210	0212	0214	S14	E14	SF	C	9.6	10039	2.2E-03
27	0433	0439	0444	S20	E12	SF	C	5.1	10044	3.0E-03

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

July 2002

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
27	0824	0832	0837	S11	E12	SF	C2.5	10039	1.8E-03
27	1510	1512	1513	S11	E08	SF	C1.7	10039	2.9E-04
27	1818	1828	1838				C5.5		5.1E-03
28	0018	0035	0044				M2.3	10039	1.7E-02
28	0112	0116	0118				C5.3		1.7E-03
28	0404	0432	0454				C2.8		7.6E-03
28	0552	0558	0603	S19	W02	SF	C3.6	10044	1.9E-03
28	0635	0640	0643	S12	E01	SF	C2.5	10039	9.4E-04
28	0838	0844	0849	S19	E03	SF	C3.6	10044	1.9E-03
28	1045	1049	1051	S08	E16	SF	C2.2	10050	6.6E-04
28	1101	1106	1110				C7.6	10039	3.0E-03
28	1135	1141	1145	S07	E14	SF	C2.2	10050	1.2E-03
28	1455	1500	1504	S15	E00	SF	C2.3	10039	1.1E-03
28	1541	1600	1616				C2.9		5.1E-03
28	1659	1706	1712				C4.0		2.9E-03
28	1849	1854	1858				C7.1		3.3E-03
28	2002	2015	2022				C6.4		6.0E-03
28	2037	2050	2108	N11	W11	SF	C5.1	10043	8.0E-03
28	2258	2312	2324				M2.2		2.4E-02
29	0019	0023	0027				M1.4		5.8E-03
29	0229	0238	0246				M4.8		2.6E-02
29	0621	0626	0634	S11	W15	SF	C2.9	10039	2.1E-03
29	0731	0751	0804				C3.4		5.5E-03
29	1027	1044	1113				M4.7		8.5E-02
29	1702	1716	1720	S20	W24	SF	C2.7	10044	2.5E-03
29	1753	1756	1758				C3.8		8.2E-04
29	1804	1809	1812	S14	W16	SF	C2.5	10039	1.0E-03
29	1838	1848	1856				C2.2		2.1E-03
29	1934	1941	1950	S09	W02	SF	C8.6	10050	5.6E-03
29	2031	2037	2048	N14	W53	SF	C3.1	10038	2.9E-03
29	2101	2113	2127	S08	W03	SF	C6.5	10050	8.1E-03
29	2238	2245	2257				C4.2		4.2E-03
30	0254	0257	0300				C2.7		8.6E-04
30	0314	0317	0323				C2.5		1.2E-03
30	0524	0530	0535	S13	W24	SF	C3.3	10039	1.7E-03
30	0712	0722	0734	S09	W28	SF	C3.4	10039	3.7E-03
30	0824	0828	0831				C3.4		1.2E-03
31	0049	0053	0057	S19	W34	SF	C4.9	10044	2.0E-03
31	0110	0114	0119	N18	W71	SB	C3.0	10038	1.5E-03
31	0139	0153	0202	S13	W30	SB	M1.2	10039	1.2E-02
31	0849	0854	0900				C2.4		1.4E-03
31	0950	0958	1006				C9.6		6.0E-03
31	1057	1117	1130	S16	W34	SF	C4.2	10039	6.1E-03
31	1206	1209	1211				C2.7		7.2E-04
31	1449	1452	1454				C2.3		5.9E-04
31	1523	1526	1528	S09	W30	SF	C2.6	10050	6.9E-04
31	1958	2003	2005	N21	W12	SF	C2.8	10048	8.7E-04
31	2018	2022	2025				C3.3		1.1E-03
31	2227	2230	2233				C2.2		7.1E-04
31	2250	2255	2301				C3.0		1.7E-03
31	2328	2355	2412				C4.7		8.8E-03

Preliminary GOES Satellite Daily X-Ray Background
Aug 2001 - Jul 2002



Day	Aug 01	Sep	Oct	Nov	Dec	Jan 02	Feb	Mar	Apr	May	Jun	Jul
1	B2.2	B7.5	C1.6	C1.5	C1.9	C1.6	C1.3	C1.4	C1.0	C1.9	C1.1	B5.9
2	B1.9	B7.4	C2.5	C7.5	C1.6	C2.7	C1.0	C1.1	C1.4	C1.2	C1.6	B5.4
3	B3.0	C1.2	C2.2	C1.2	C3.6	C2.3	C1.1	B9.8	B8.1	C1.3	B9.0	B7.5
4	B4.1	C2.0	C1.2	C1.7	C1.5	C1.9	B9.6	B7.3	C1.0	C1.5	B4.6	C1.4
5	B6.8	C3.7	C1.2	C3.3	C1.2	C1.9	C1.5	B6.4	C1.3	B9.5	B4.4	B4.7
6	B6.4	C5.0	C1.5	C2.7	C1.0	C1.4	C1.3	B9.9	C1.1	B8.0	B4.0	B4.5
7	B8.9	C3.0	B7.5	C1.7	C1.4	C1.2	C1.0	B7.2	C1.5	B6.8	B3.9	B6.6
8	B8.7	C2.4	B8.4	C2.4	C1.3	C1.0	C1.3	C1.0	C1.1	B5.5	B4.3	B5.3
9	C1.3	C1.8	B9.1	C2.2	C1.5	C4.2	C1.4	C1.0	C1.3	B6.8	B3.9	B6.5
10	C1.0	C1.7	B9.0	C2.0	C1.3	C2.5	C1.4	C2.0	C1.2	B8.0	B6.2	B4.4
11	B6.9	C2.8	B9.3	C2.8	C2.8	C2.1	B9.5	C8.1	C1.0	B8.5	B5.8	B5.2
12	B6.9	C1.9	B8.0	C1.2	C1.6	C1.5	B9.6	C2.5	B9.3	B8.9	B5.4	B6.5
13	B9.7	C1.7	B6.5	C1.5	C2.1	C1.6	C1.0	B8.0	C1.1	B9.3	B4.4	C1.3
14	B5.9	C2.0	B8.9	C1.0	C1.6	C2.0	C1.0	C2.1	C2.4	C1.2	B5.2	B3.8
15	B4.8	C2.0	B8.9	C1.5	C4.1	*	B7.4	B4.7	C5.4	C1.1	B9.2	B7.3
16	B3.9	C1.6	B9.5	B9.1	C1.6	*	B6.9	C8.0	C1.9	C1.6	B4.4	C2.0
17	B4.3	C2.0	C1.3	B9.8	C1.0	C1.8	B6.9	B7.0	C1.0	C1.9	B3.7	B7.6
18	B5.9	C1.7	C1.6	B9.9	C1.0	C1.1	B7.2	B6.0	C1.3	C1.6	B4.7	B7.4
19	B6.5	C1.5	C2.2	B8.4	C1.5	C1.0	B7.6	B6.3	B8.6	C1.7	B4.2	B9.7
20	B8.1	C1.8	C2.4	B8.7	C1.5	C1.1	B9.5	B5.5	C1.0	C1.5	B4.5	C1.3
21	C1.1	C1.5	C1.1	B8.7	C1.6	C1.1	C1.4	C2.1	C1.3	C1.8	B4.4	C8.6
22	C1.2	C1.6	C1.3	B8.1	C1.2	C1.0	C5.0	B7.1	C1.0	C1.9	B4.2	B9.3
23	C2.7	C2.2	C2.0	M1.5	C1.2	C1.3	C1.1	B8.6	B9.9	C1.7	B4.8	C8.6
24	C1.0	C1.8	C1.0	B9.0	C2.2	C1.2	B7.8	B6.5	B9.2	C3.0	B3.2	C1.3
25	C7.2	C2.5	C1.4	B9.6	C2.4	C1.7	C1.2	B7.5	B5.9	C1.1	B3.2	C1.3
26	C2.0	C1.9	C1.3	C1.9	C2.9	C2.1	C1.6	B5.6	B4.9	C3.5	B3.6	C1.8
27	C1.4	C1.8	C1.3	B8.1	C3.6	C2.0	C1.5	B6.1	B7.2	B7.4	B2.9	C9.8
28	C2.5	C1.9	C2.2	C1.3	C2.6	C1.4	C5.0	B8.1	B4.4	C1.0	B3.3	C1.2
29	C1.4	C2.9	C1.5	C1.1	M1.6	C1.7		B7.7	B7.1	C2.3	B3.9	C4.6
30	C1.2	C2.0	C1.8	C1.4	C8.4	C1.6		C1.8	B9.4	C1.3	B5.9	C1.4
31	B8.7		C1.9		C2.7	C1.7		C1.4		C1.3		C1.7

NOTE: * = Data not available.

ACTIVE PROMINENCES AND FILAMENTS

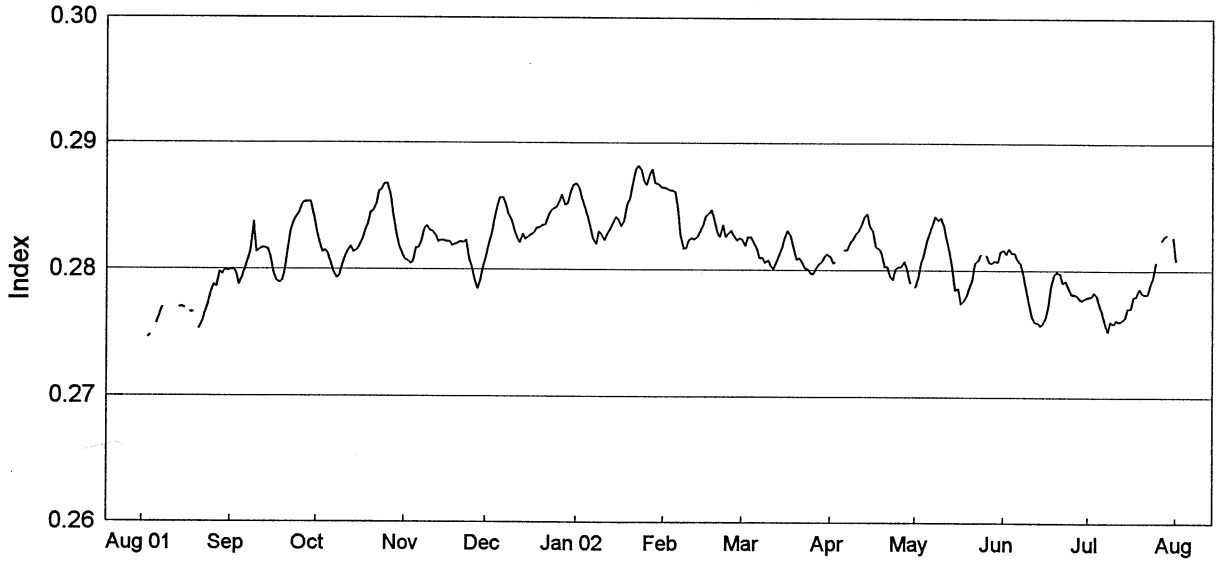
JULY 2002

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	BSL	0915E	0928	N07	W90	06	24.6	1	02	9	9	V	KHAR		
01	DSD	0915E	0944D	S16	W58	06	27.0	1	04	9	6	V	KHAR		
01	APR	0915E	0944D	S21	E90	07	8.2	2	12	9	9	V	KHAR		
01	APR	1120E	1131U	S25	E90	07	8.3	1	05	9	9	V	KHAR		
01	BSL	1120E	1144U	S18	E90	07	8.3	1	02	9	9	V	KHAR		
01	EPL	1255	1346	S29	E90	07	8.6	3		9	9	E	SVTO		
01	EPL	1310E	1347	S27	E90	07	8.6			7	8	E	RAMY		
06	DSF	0919	0930	S19	W14	07	5.3	3	04	9	6	E	SVTO	0019	Flare Associated
06	DSF	1723U	0444U	N12	E31	07	9.0		07	0	0	E	SVTO		
07	EPL	1039	1050	S13	W90	06	30.6	3		8	6	E	RAMY		
07	EPL	1048E	1059	S11	W90	06	30.7	3		9	6	E	SVTO		
07	DSF	1605U	1733U	N11	W49	07	4.0	3	28	0	0	E	RAMY		
07	DSF	1643U	0455U	N06	W75	07	2.1	2	24	0	0	E	SVTO		
07	DSF	1658U	1733U	N10	W52	07	3.8	3	35	0	0	E	HOLL		
13	DSF		2346U	S39	E50	07	17.0	2	32	0	0	E	LEAR		
13	DSF	0118U	1346U	S39	E60	07	17.9		37	0	0	E	HOLL		
17	DSD	0720	0741	N32	W21	07	15.6		10	0	0	E	LEAR	0030	Flare Associated
17	APR	1040E	1125	S20	W90	07	10.6	1	05	9	9	V	KHAR		
17	ADF	1051U	1113U	N23	W21	07	15.9	1	06	0	9	V	KHAR		
17	ADF	1056U	1126	N21	E65	07	22.4	1	04	9	0	V	KHAR		
17	ADF	1147	1154	N23	W21	07	15.9	1	06	0	9	V	KHAR		
18	DSF	1232U	1109U	N12	W33	07	16.0		20	0	0	E	RAMY		
20	DSF	1554U	0455U	N13	E08	07	21.3		05	0	0	E	SVTO		
20	DSF	2016U	1130U	N12	E06	07	21.3		10	0	0	E	RAMY		
21	DSF	1735U	0607U	S09	W37	07	18.9		07	0	0	E	SVTO		
21	DSF	1735U	0607U	S34	W33	07	19.1		11	0	0	E	SVTO		
21	DSF	2150U	1106U	S11	W37	07	19.1		11	0	0	E	RAMY		
21	DSF	2150U	1106U	S41	W25	07	19.9		10	0	0	E	RAMY		
22	DSF	1646U	0429U	N15	W42	07	19.5		05	0	0	E	SVTO		
22	DSF	2150U	1322U	S10	W39	07	20.0		10	0	0	E	HOLL		
22	DSF	2151U	1322U	S35	W37	07	19.9		10	0	0	E	HOLL		
29	ADF	0952E	1011	N31	W39	07	26.5	1	07	9	9	V	KHAR		
30	EPL	1558	1612	S26	E90	08	6.6	3		9	9	E	SVTO		
31	DSD	1231	1250	S14	W29	07	29.3	1	05	9	9	V	KHAR		
31	ADF	1320	1325D	S10	W30	07	29.3	1	03	9	6	V	KHAR		

NOAA Solar Ultraviolet (UV) MgII Core-to-Wing Index

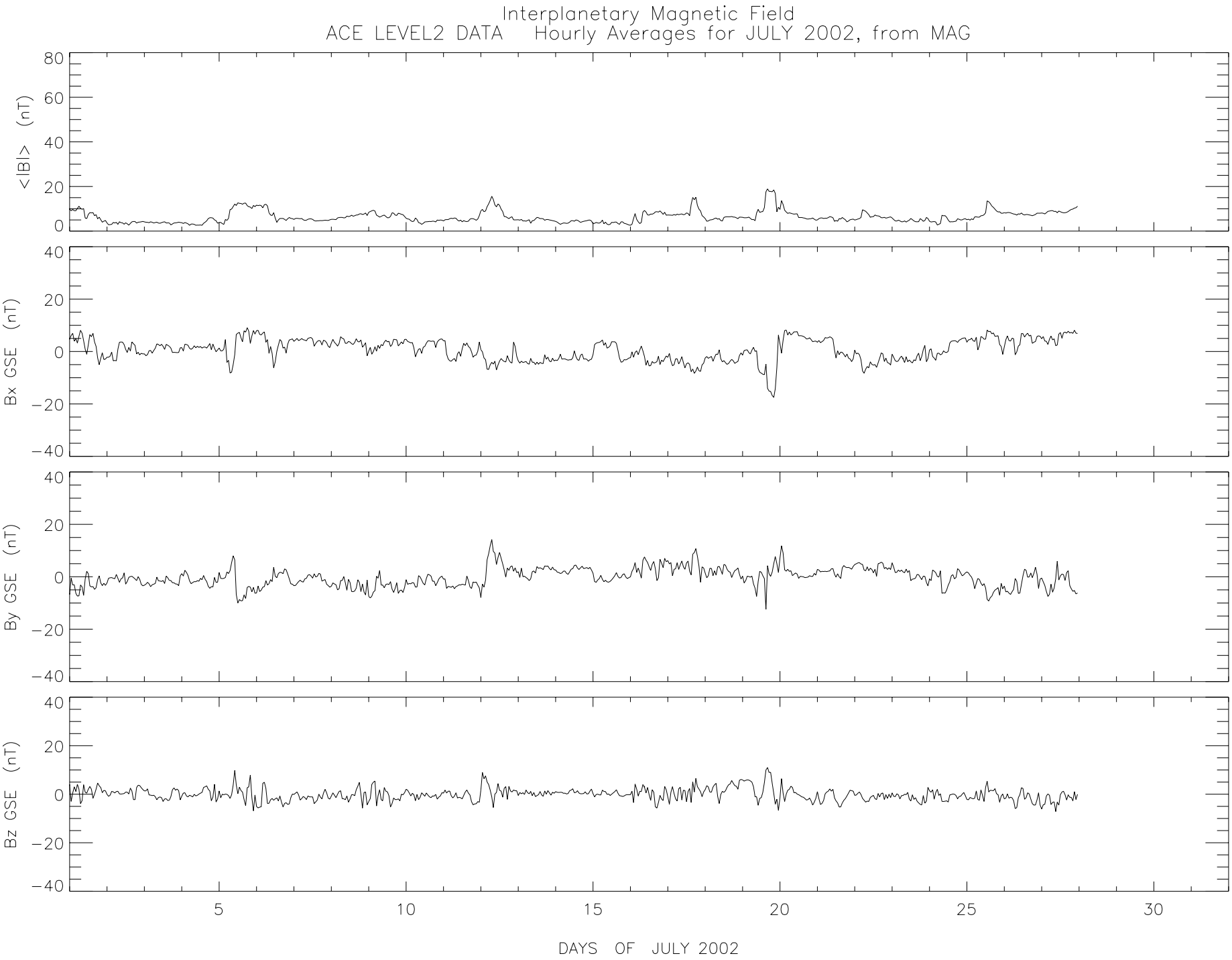
Aug 2001 - Jul 2002

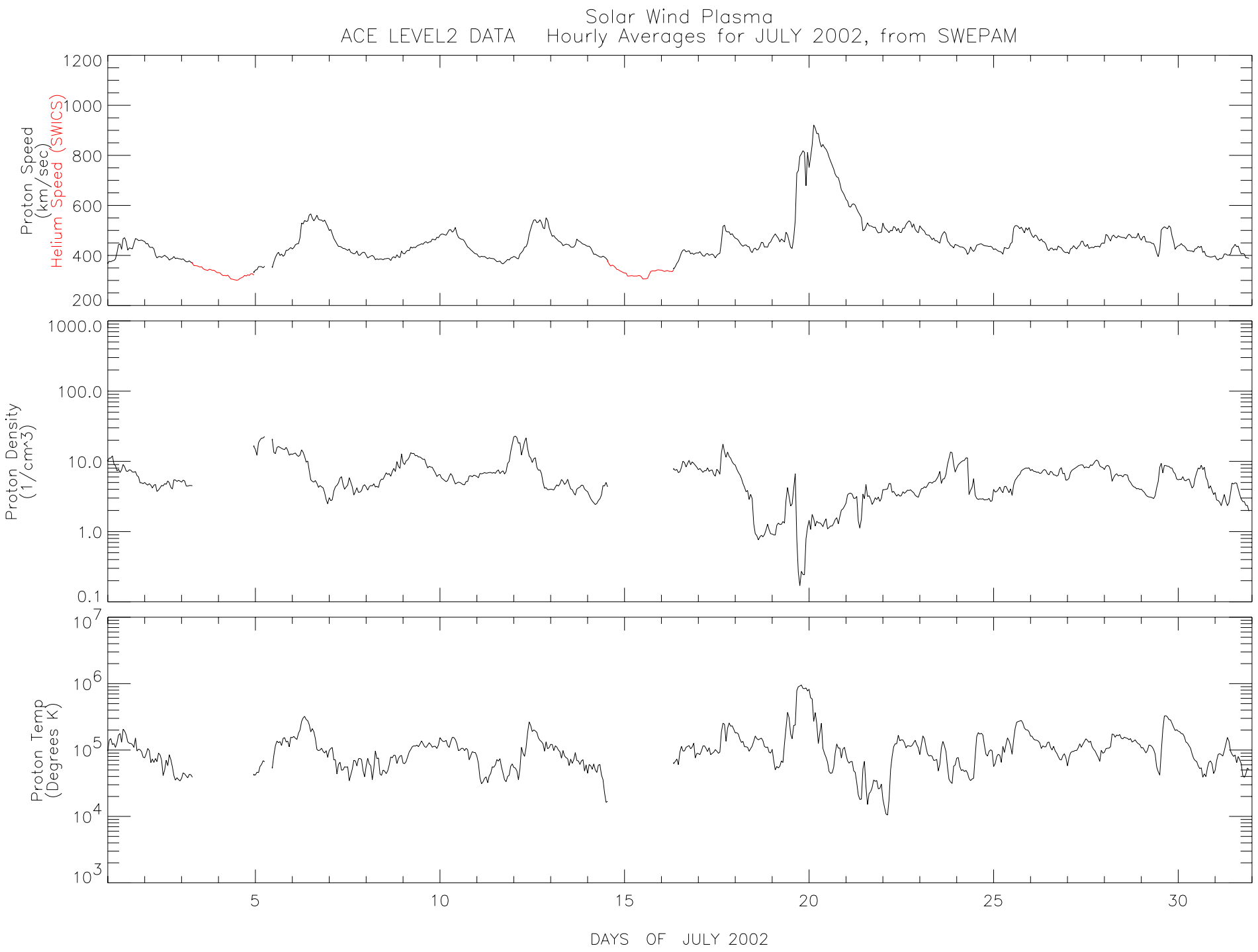
Version 9.1

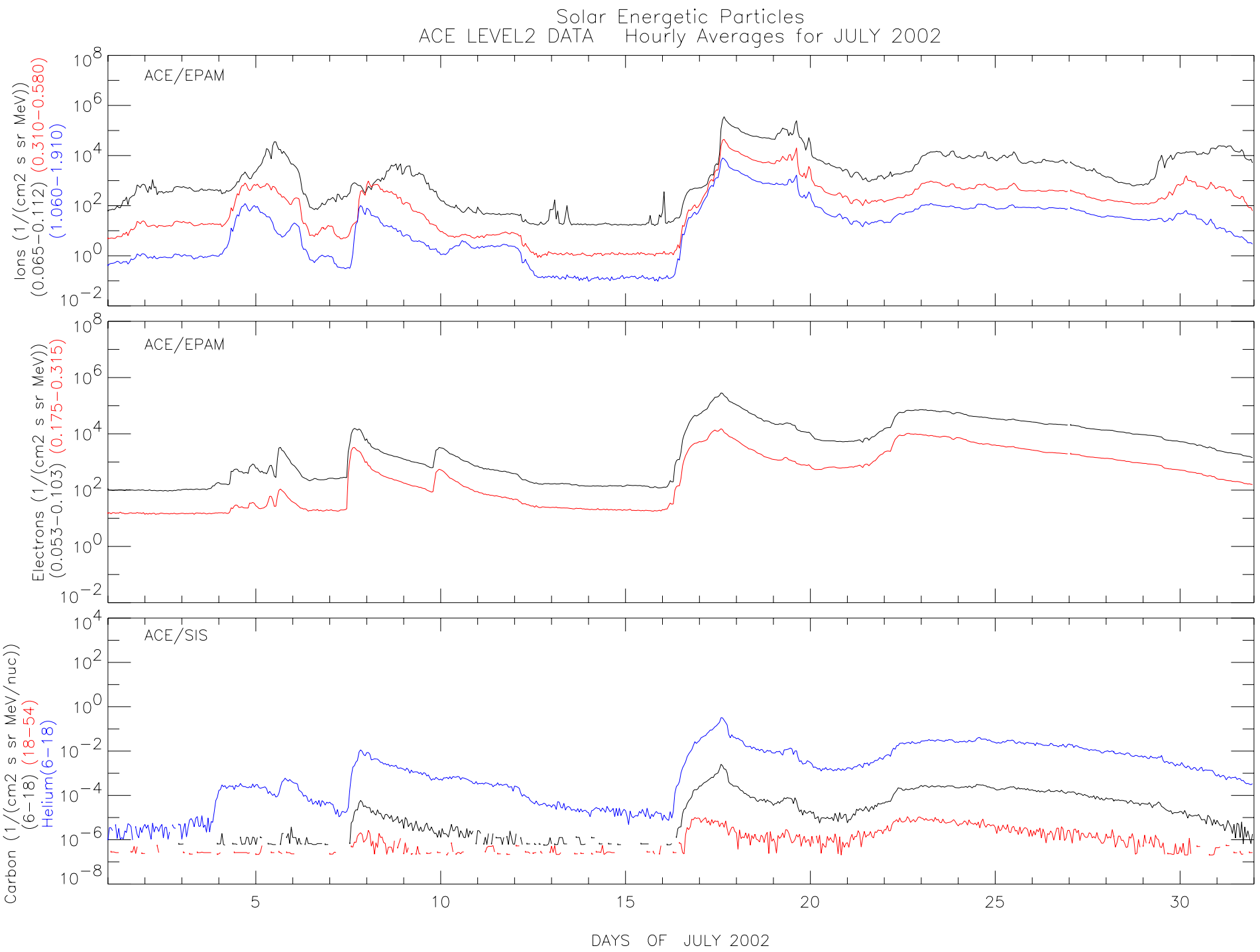


Day	Aug 01	Sep	Oct	Nov	Dec	Jan 02	Feb	Mar	Apr	May	Jun	Jul
1	0.2738	0.2800	0.2831	0.2809	0.2821	0.2868	0.2865	0.2824	0.2811	0.2787	0.2816	0.2780
2	----	0.2800	0.2822	0.2807	0.2828	0.2865	0.2865	0.2819	0.2806	0.2795	0.2813	0.2780
3	0.2746	0.2797	0.2814	0.2805	0.2841	0.2855	0.2863	0.2826	0.2807	0.2806	0.2817	0.2783
4	0.2748	0.2788	0.2815	0.2806	0.2850	0.2849	0.2863	0.2826	----	0.2812	0.2814	0.2781
5	----	0.2794	0.2813	0.2817	0.2857	0.2841	0.2861	0.2822	----	0.2823	0.2814	0.2773
6	0.2757	0.2800	0.2805	0.2817	0.2857	0.2833	0.2849	0.2817	0.2816	0.2829	0.2809	0.2767
7	0.2764	0.2808	0.2798	0.2821	0.2851	0.2824	0.2828	0.2810	0.2816	0.2836	0.2806	0.2759
8	0.2770	0.2815	0.2794	0.2832	0.2844	0.2820	0.2817	0.2810	0.2822	0.2842	0.2799	0.2752
9	----	0.2837	0.2795	0.2834	0.2839	0.2830	0.2817	0.2806	0.2824	0.2839	0.2786	0.2760
10	----	0.2814	0.2804	0.2831	0.2832	0.2828	0.2823	0.2808	0.2829	0.2841	0.2776	0.2758
11	----	0.2815	0.2810	0.2830	0.2825	0.2823	0.2825	0.2803	0.2831	0.2834	0.2764	0.2761
12	----	0.2817	0.2815	0.2827	0.2821	0.2828	0.2824	0.2801	0.2835	0.2824	0.2760	0.2760
13	----	0.2817	0.2818	0.2822	0.2828	0.2832	0.2826	0.2807	0.2842	0.2813	0.2759	0.2761
14	0.2770	0.2816	0.2814	0.2823	0.2824	0.2836	0.2830	0.2812	0.2844	0.2801	0.2757	0.2763
15	0.2771	0.2810	0.2815	0.2823	0.2826	0.2841	0.2835	0.2817	0.2834	0.2785	0.2758	0.2771
16	0.2769	0.2797	0.2818	0.2822	0.2828	0.2839	0.2842	0.2826	0.2831	0.2786	0.2763	0.2771
17	----	0.2792	0.2823	0.2822	0.2829	0.2834	0.2844	0.2831	0.2819	0.2774	0.2773	0.2780
18	0.2766	0.2790	0.2830	0.2819	0.2833	0.2838	0.2847	0.2827	0.2817	0.2776	0.2788	0.2780
19	0.2766	0.2791	0.2836	0.2820	0.2833	0.2850	0.2840	0.2818	0.2814	0.2780	0.2797	0.2786
20	----	0.2798	0.2845	0.2821	0.2835	0.2856	0.2830	0.2809	0.2803	0.2786	0.2799	0.2783
21	0.2753	0.2816	0.2846	0.2822	0.2835	0.2867	0.2826	0.2810	0.2803	0.2793	0.2798	0.2782
22	0.2758	0.2830	0.2851	0.2821	0.2842	0.2879	0.2835	0.2807	0.2795	0.2806	0.2791	0.2782
23	0.2765	0.2836	0.2862	0.2823	0.2846	0.2882	0.2826	0.2802	0.2793	0.2808	0.2792	0.2789
24	0.2773	0.2841	0.2863	0.2808	0.2848	0.2879	0.2829	0.2801	0.2801	0.2813	0.2787	0.2796
25	0.2781	0.2844	0.2868	0.2802	0.2849	0.2870	0.2831	0.2798	0.2803	----	0.2782	0.2807
26	0.2788	0.2851	0.2868	0.2793	0.2853	0.2867	0.2827	0.2797	0.2803	0.2812	0.2782	----
27	0.2786	0.2853	0.2859	0.2785	0.2859	0.2875	0.2823	0.2802	0.2807	0.2807	0.2781	0.2824
28	0.2798	0.2853	0.2844	0.2791	0.2851	0.2879	0.2825	0.2805	0.2801	0.2806	0.2778	0.2827
29	0.2796	0.2853	0.2829	0.2803	0.2852	0.2869		0.2807	0.279	----	0.2777	0.2829
30	0.2800	0.2842	0.2819	0.2810	0.2861	0.2868		0.2811	0.2786	----	0.2779	----
31	0.2799		0.2813		0.2867	0.2866		0.2813	----	----		0.2826
Mean	0.2771	0.2817	0.2827	0.2816	0.2841	0.2851	0.2836	0.2812	0.2814	0.2808	0.2787	0.2782

Data at: http://www.sec.noaa.gov/ftpmenu/sbuv.html


Interplanetary Magnetic Field
ACE LEVEL2 DATA Hourly Averages for JULY 2002, from MAG
<|B|> (nT)
Bx GSE (nT)
By GSE (nT)
Bz GSE (nT)
80
60
40
20
0
40
20
0
−20
−40
5
10
15
20
25
30
DAYS OF JULY 2002


Solar Wind Plasma
ACE LEVEL2 DATA Hourly Averages for JULY 2002, from SWEPAM
Proton Speed (km/sec)
Helium Speed (SWICS)
1200
1000
800
600
400
200
Proton Density (1/cm^3)
1000.0
100.0
10.0
1.0
0.1
Proton Temp (Degrees K)
10^7
10^6
10^5
10^4
10^3
5
10
15
20
25
30
DAYS OF JULY 2002


Solar Energetic Particles
ACE LEVEL2 DATA Hourly Averages for JULY 2002
ACE/EPAM
Ions (1/(cm2 s sr MeV))
(0.065–0.112) (0.310–0.580)
(1.060–1.910)
ACE/EPAM
Electrons (1/(cm2 s sr MeV))
(0.053–0.103) (0.175–0.315)
ACE/SIS
Carbon (1/(cm2 s sr MeV/nuc))
(6–18) (18–54)
Helium(6–18)
DAYS OF JULY 2002