APRIL 2003 NUMBER 704 - Part II

Solar-Geophysical Data comprehensive reports

Data for October 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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Solar-Geophysical Data comprehensive reports

Data for October 2002 and Late Data

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Number 704

(Issued in Two Parts)

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Hα S O L A R F L A R E S

OCTOBER 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	LEAR	01	0501	0505	0515	S20	E29	10137	10	3.4	14	SF		2	E		15		F
0002		01	0857	08571	0910	S19	E30	10137	10	3.7	13	SF					12		
	LEAR	01	0857	0857	0910	S18	E32	10137	10	3.8	13	SF		2	E		12		
	KANZ	01	0857	0858	0911	S20	E27	10137	10	3.4	14	SF		2	E				
0003	KANZ	01	1119	1120	1139	N11	W03	10138	10	1.2	20	SF		2	E				
0004	LEAR	01	1413E	1413U	1448	S30	W03	10137	10	1.3	35D	SF		3	E		14		F
0005	KANZ	02	0630E	0635U	0704	N11	W14	10138	10	1.2	34D	SF		2	E				
0006		02	0656	0656	0700	S19	E17	10137	10	3.6	4	SF					22		
	KANZ	02	0656	0656	0659	S20	E14	10137	10	3.3	3	SF		2	E				
	LEAR	02	0656	0656	0701	S18	E20	10137	10	3.8	5	SF		3	E		22		
0007	LEAR	02	0730	0734	0736	S18	E20	10137	10	3.8	6	SF		3	E		16		F
0008	KANZ	02	1209	1217	1236	S19	E12	10137	10	3.4	27	SF		2	E				
0009	LEAR	02	1209E	1217	1237	S18	E17	10134	10	3.8	28D	SF		3	E		21		F
0010	RAMY	02	1538E	1632U	1643D	S15	E17	10137	10	3.9	65D	SF		3	E		23		F
0011	HOLL	02	1912	1915	1938	S19	E14	10137	10	3.9	26	SF		3	E		21		
0012	LEAR	03	0111	0111	0115	S19	E07	10137	10	3.6	4	SF		3	E		18		F
0013	LEAR	03	0119	0120	0123	N29	W79	10129	09	27.0	4	SF		3	E		13		F
0014	LEAR	03	0130	0131	0133	N29	W80	10129	09	26.9	3	SF		3	E		20		F
0015	LEAR	03	0138	0144	0158	S19	E07	10137	10	3.6	20	SF		3	E		16		F
0016	LEAR	03	0159	0221	0301	S19	E06	10137	10	3.5	62	1N		3	E		115		F
0017	KHAR	03	0956U		1009	N17	E66		10	8.4	13U	SN		2	P	0958	40		DO
0018	KHAR	03	1006	1008	1017	S03	E83		10	9.6	11	SN		2	P	1012	50		HO
0019	KHAR	03	1010U		1023	S20	E02	10137	10	3.6	13U	SF		2	P	1012	65		E
0020	KANZ	03	1150	1150	1153	N11	W33	10138	10	1.0	3	SF		2	E				
0021	RAMY	03	1213E	1213U	1358D	S17	E06	10137	10	4.0	105D	SF		3	E		28		F
0022		03	1239	1244	1324	N08	W34	10134	10	1.0	45	SF					79		FH
	RAMY	03	1238E	1243U	1340	N09	W33	10134	10	1.0	62D	SF		3	E		79		FH
	KANZ	03	1239	1244	1308	N07	W34	10134	10	1.0	29	SF		2	E				
0023	KANZ	03	1241	1245	1301	S19	E01	10137	10	3.6	20	SF		2	E				
0024	RAMY	03	1530	1530	1549D	S16	E90		10	10.5	19D	SB		3	E		79		EF
		03	1751		1803	No Flare Patrol													
		03	1807		1814	No Flare Patrol													
0025	LEAR	04	0041	0045	0107	S19	W07	10137	10	3.5	26	SF		3	E		83		F
0026	LEAR	04	0139	0139	0142	N08	E63	10139	10	8.8	3	SF		3	E		10		
0027	LEAR	04	0420	0425	0446	S20	W09	10137	10	3.5	26	SF		2	E		74		F
0028	LEAR	04	0421	0430	0501	N10	E55	10139	10	8.3	40	SF		2	E		44		FH
0029		04	0536E	0537U	0606	S19	W09	10137	10	3.5	30D	1N					120		EF
	LEAR	04	0536E	0537U	0606	S19	W09	10137	10	3.5	30D	1N		2	E		166		FE
	SVTO	04	0542E	0542U	0550D	S19	W09	10137	10	3.5	8D	SF		2	E		75		F
		04	0703		0811	No Flare Patrol													

OCTOBER 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
0030		04	0845	0847	0852	N10	E54	10139	10	8.4	7	SF					30		
	LEAR	04	0845	0847	0855	N09	E54	10139	10	8.4	10	SF		2	E		35		
	SVTO	04	0846E	0846U	0850	N10	E55	10139	10	8.5	4D	SF		2	E		24		
0031	LEAR	04	0909	0913	0916	N11	E55	10139	10	8.5	7	SF		1	E		22		
0032		04	0859	09101	0918	S20	W14	10137	10	3.3	19	SF					26		F
	LEAR	04	0859	0910	0921	S20	W14	10137	10	3.3	22	SF		1	E		38		F
	SVTO	04	0910E	0911	0915	S19	W13	10137	10	3.4	5D	SF		3	E		13		
0033	SVTO	04	1026	1031	1045	N07	E50	10139	10	8.2	19	SF		3	E		68		FH
0034		04	1058	1105	1136	S20	W13	10137	10	3.5	38	1N					112		F
	RAMY	04	1037E	1112U	1140	S20	W10	10137	10	3.7	63D	1N		3	E		128		F
	SVTO	04	1058	1105	1131	S19	W16	10137	10	3.2	33	SF		3	E		96		F
0035	SVTO	04	1216	1221	1224	N09	E55	10139	10	8.6	8	SF		3	E		51		
0036	SVTO	04	1245	1250	1313	N08	E49	10139	10	8.2	28	1F		3	E		109		FH
0037	RAMY	04	1254E	1254U	1319D	N16	E53	10139	10	8.5	25D	1F		3	E		120		F
0038	SVTO	04	1307	1310	1314	S18	W16	10137	10	3.3	7	SF		3	E		12		
0039	RAMY	04	1338E	1340U	1348D	N16	E52	10139	10	8.5	10D	SF		3	E		44		F
0040	HOLL	04	1552	1554	1613	S19	W13	10137	10	3.7	21	SF		3	E		50		FH
0041	HOLL	04	1708	1709	1726	S21	W16	10137	10	3.5	18	SF		3	E		52		F
0042	HOLL	04	1911	1913	1922	N14	E47	10139	10	8.3	11	SF		4	E		28		FU
0043	HOLL	04	2003	2005	2021	N12	E46	10139	10	8.3	18	SF		3	E		27		
0044	HOLL	04	2235	2243	2308	N13	E43	10139	10	8.2	33	SF		3	E		80		FU
0045	HOLL	04	2335	2335	2350	S21	W19	10137	10	3.5	15	SF		3	E		25		F
0046	LEAR	05	0134	0136	0151	S16	W24	10137	10	3.2	17	SF		3	E		42		F
0047	LEAR	05	0237	0237	0244	S18	W20	10137	10	3.6	7	SF		3	E		31		F
0048	LEAR	05	0249	0300	0328	N10	E42	10139	10	8.3	39	SF		3	E		54		F
0049	LEAR	05	0354	0356	0400	N16	W58	10134	09	30.8	6	SF		3	E		36		F
0050	SVTO	05	0631E	0631U	0635D	N12	E44	10139	10	8.6	4D	SF		2	E		10		
		05	0703		0704	No Flare Patrol													
0051	SVTO	05	0725E	0727U	0731D	N08	E44	10139	10	8.6	6D	SF		2	E		34		
0052		05	0730E	0732U	0739	S18	W24	10137	10	3.5	9D	SF					20		
	SVTO	05	0730E	0732U	0736D	S17	W25	10137	10	3.4	6D	SF		2	E		20		
	KANZ	05	0730E	0732U	0739	S19	W23	10137	10	3.5	9D	SF		2	E				
0053		05	0753E	0753U	0801	N08	E38	10139	10	8.2	8D	SF					18		
	SVTO	05	0753E	0753U	0756D	N07	E38	10139	10	8.2	3D	SF		2	E		18		
	KANZ	05	0754E	0754U	0801	N10	E37	10139	10	8.1	7D	SF		2	E				
0054	KANZ	05	0853	0857	0909	S19	W23	10137	10	3.6	16	SF		2	E				
		05	1023		1027	No Flare Patrol													
0055	KANZ	05	1042	1042	1053D	S20	W25	10137	10	3.5	11D	SN		2	E				
0056	RAMY	05	1049E	1106	1117	S21	W25	10137	10	3.5	28D	SF		3	E		44		F

Hα SOLAR FLARES

OCTOBER 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
0057		05	1131	1132	1141	S19	W24	10137	10	3.6	10	SF					22		F
	KANZ	05	1131	1132	1138	S19	W24	10137	10	3.6	7	SF		2	E				
	RAMY	05	1131	1132	1144	S19	W23	10137	10	3.7	13	SF		3	E		22		F
0058	KANZ	05	1149	1152	1202	N09	W64	10138	09	30.7	13	SF		2	E				
0059	RAMY	05	1722	1727	1734	N14	E33	10139	10	8.2	12	SF		3	E		23		F
0060	HOLL	05	2047	2105	2127	N14	E31	10139	10	8.2	40	1F		3	E		107		FU
0061	LEAR	06	0438	0510	0516	S20	W37	10137	10	3.4	38	SF		2	E		36		H
0062	LEAR	06	0450	0452	0500	N12	E31	10139	10	8.5	10	1N		2	E		108		EH
0063	KANZ	06	1008	1010	1023	N09	E29	10139	10	8.6	15	SF		2	E				
0064	SVTO	06	1153E	1153U	1205D	N07	E30	10139	10	8.7	12D	SF		2	E		65		F
		07	0956		1037	No Flare Patrol													
0065	RAMY	07	1553	1555	1608	S12	E41	10140	10	10.7	15	SF		3	E		34		F
		07	1853		1857	No Flare Patrol													
		07	1931		1948	No Flare Patrol													
		07	1953		2100	No Flare Patrol													
		07	2118		2233	No Flare Patrol													
0066	LEAR	08	0327	0327	0338	N10	E00	10139	10	8.1	11	SF		3	E		16		
0067	LEAR	08	0711	0714	0733	S07	E23	10140	10	10.0	22	SF		3	E		23		U
0068	LEAR	08	0743	0746	0756	N12	W02	10139	10	8.2	13	SF		3	E		41		F
0069		08	15012	15021	1511	N10	E01	10139	10	8.7	10	SF					26		F
	SVTO	08	1501	1502	1512	N09	E01	10139	10	8.7	11	SF		3	E		34		
	RAMY	08	1503	1503	1510	N10	E01	10139	10	8.7	7	SF		3	E		17		F
		08	1627		2125	No Flare Patrol													
0070		08	23251	2326	2339	N12	W08	10139	10	8.4	14	SF					58		F
	LEAR	08	2325	2326	2342	N12	W06	10139	10	8.5	17	SF		3	E		74		F
	HOLL	08	2326	2326	2336	N11	W11	10139	10	8.1	10	SF		3	E		43		F
0071	LEAR	09	0426	0427	0429	S17	W52	10143	10	5.2	3	SF		3	E		21		F
0072	LEAR	09	0643	0644	0649	S11	E18	10140	10	10.6	6	SF		3	E		16		F
		09	0943		1037	No Flare Patrol													
		10	0959		1006	No Flare Patrol													
		10	1014		1028	No Flare Patrol													
		10	1042		1119	No Flare Patrol													
0073	RAMY	10	1257	1259	1305	N16	E53	10145	10	14.5	8	SF		3	E		17		F
0074	RAMY	10	1321	1323	1330	S18	W68	10143	10	5.4	9	SF		3	E		11		
0075	HOLL	10	1409	1412	1415	N13	W24	10139	10	8.8	6	SF		3	E		12		
0076		10	2324	2325	2331	N16	E61	10149	10	15.6	7	SF					38		
	LEAR	10	2324	2325	2331	N14	E61	10149	10	15.6	7	SF		3	E		37		
	HOLL	10	2324	2325	2331	N17	E61	10149	10	15.6	7	SF		3	E		40		
0077	LEAR	11	0153	0154	0202	N09	W36	10139	10	8.4	9	SF		3	E		18		F
0078	LEAR	11	0435	0439	0447	N09	W38	10139	10	8.3	12	SF		3	E		22		F
0079	LEAR	11	0832	0833	0844	N12	W38	10139	10	8.5	12	SF		3	E		31		F
0080	LEAR	11	0934	0936	0939	N09	W41	10139	10	8.3	5	SF		2	E		19		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		11	0942		0945	No Flare Patrol													
		11	0955		1230	No Flare Patrol													
0081	RAMY	11	1421	1421	1426	N14	E53	10149	10	15.6	5	SF		3	E		12		
0082	RAMY	11	1705	1716U	2105D	S17	W80	10143	10	5.6	240D	SF		3	E		12		HT
0083		11	2337	23371	2348	N08	W47	10139	10	8.5	11	SF					16		F
	HOLL	11	2337	2337	2345	N08	W47	10139	10	8.5	8	SF		3	E		12		F
	LEAR	11	2337	2338	2350	N09	W47	10139	10	8.4	13	SF		2	E		21		F
		12	1001		1009	No Flare Patrol													
		12	1013		1023	No Flare Patrol													
		12	1032		1052	No Flare Patrol													
		12	1137		1154	No Flare Patrol													
		12	1524		1558	No Flare Patrol													
		12	1623		2019	No Flare Patrol													
		12	2025		2320	No Flare Patrol													
0084	VORO	12	2336	2342	2408	N05	W46		10	9.5	32	SF		3	C	2342	99	1.5	
		13	1001		1153	No Flare Patrol													
		13	1306		1342	No Flare Patrol													
0085	RAMY	13	1402	1403	1409	N18	E23	10149	10	15.3	7	SF		3	E		12		F
0086	RAMY	13	1750	1759U	2132D	S07	W54	10150	10	9.7	222D	1F		3	E		159		FT
		13	1811		2229	No Flare Patrol													
0087	VORO	14	0002	0013	0044U	S12	W75		10	8.3	42U	1N		3	C	0013	179	6.4	
0088	LEAR	14	0020E	0020	0052	S13	E75	10159	10	19.7	32D	SF		2	E		75		F
0089	LEAR	14	0246	0248	0315	N10	E11	10145	10	14.9	29	SF		3	E		58		F
0090	LEAR	14	0931	0935	0958	S13	E60	10159	10	18.9	27	1F		2	E		147		FH
0091	SVTO	14	0937	0940	0957	S14	E62	10159	10	19.1	20	SF		3	E		24		FH
0092	KHAR	14	0940E		1010	S08	E62	10158	10	19.0	30D	1F		2	P	0950	220		ELO
0093	KHAR	14	1013	1014	1020	S03	E90		10	21.1	7	SF		2	P				HO
0094	HOLL	14	1958	2002	2026	S10	W55	10140	10	10.7	28	SF		3	E		58		
0095	RAMY	14	2022	2023	2030	S10	W71	10150	10	9.5	8	SF		3	E		51		
0096	LEAR	14	2319	2328	2338	N13	E05	10149	10	15.3	19	SF		3	E		18		F
0097	LEAR	15	0516	0516	0520	N14	E05	10149	10	15.6	4	SF		3	E		67		F
0098	RAMY	15	1325	1326	1337	S11	W64	10140	10	10.7	12	SF		3	E		20		F
0099		15	14101	14143	1458	N20	W04	10149	10	15.3	48	1N					114		FH
	RAMY	15	1410	1414	1511	N20	W04	10149	10	15.3	61	SN		3	E		93		FH
	SVTO	15	1411	1417	1444	N20	W04	10149	10	15.3	33	1F		3	E		134		F
0100	HOLL	15	1713	1714	1721	S10	W64	10140	10	10.9	8	SF		3	E		36		
0101	LEAR	16	0313	0314	0322	S20	E37	10160	10	19.0	9	SF		3	E		41		F
0102	LEAR	16	0422	0427	0433	S12	W87	10150	10	9.6	11	SF		3	E		61		
0103	RAMY	16	1149	1149	1153	S20	E32	10160	10	18.9	4	SF		3	E		13		
0104	HOLL	16	1445	1446	1451	N13	W14	10149	10	15.5	6	SF		3	E		30		F
0105	HOLL	16	1522	1527U	1534	N14	W13	10149	10	15.6	12	SF		3	E		11		

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		16	1724		1809	No Flare Patrol													
0106	RAMY	16	1842	1842	1846D	S21	E21	10157	A	10	18.4	4D	SF	3	E		116		
		16	1852		1919	No Flare Patrol													
		16	1937		1944	No Flare Patrol													
0107	LEAR	17	0358	0400	0412	S05	E21	10158		10	18.7	14	SF	3	E		29		F
0108	LEAR	17	0415	0419	0422	S05	E20	10158		10	18.7	7	SF	3	E		20		F
0109		17	1143	1144	1224	S04	E16	10158		10	18.7	41	SF				56		F
	SVTO	17	1143	1144	1221	S04	E16	10158		10	18.7	38	SF	3	E		66		F
	RAMY	17	1143	1144	1226	S04	E16	10158		10	18.7	43	SF	3	E		45		F
0110		17	1436	1440	1450	S10	E23	10159		10	19.3	14	SF				40		F
	SVTO	17	1436	1440	1447	S10	E23	10159		10	19.3	11	SF	3	E		36		F
	RAMY	17	1436	1440	1452	S10	E23	10159		10	19.3	16	SF	3	E		44		
		17	1821		1827	No Flare Patrol													
		17	1848		1856	No Flare Patrol													
0111	RAMY	17	1855	1858	1913	N14	W28	10149		10	15.7	18	SF	3	E		26		
		17	1905		2053	No Flare Patrol													
		17	2111		2132	No Flare Patrol													
0112	HOLL	17	2218	2219U	2227	N23	E75	10162		10	23.7	9	SF	3	E		18		
0113	LEAR	18	0237	0238	0242	N25	E86	10162		10	24.8	5	SF	3	E		42		
0114	LEAR	18	0559	0559	0607	N14	W39	10149		10	15.3	8	SF	2	E		16		
0115	LEAR	18	0657	0703	0734	S06	W01	10158		10	18.2	37	SF	3	E		48		F
		18	0957		0958	No Flare Patrol													
0116	RAMY	18	1208	1211	1216	N27	E82	10162		10	24.9	8	SF	3	E		12		FH
0117		18	1317	1317	1325	N12	W43	10149		10	15.3	8	SF				11		F
	KANZ	18	1317	1317	1324D	N12	W43	10149		10	15.3	7D	SF	2	E				
	RAMY	18	1317	1317	1325	N13	W43	10149		10	15.3	8	SF	3	E		11		F
0118	RAMY	18	1523	1525	1543	N25	E84	10162		10	25.1	20	SF	3	E		48		H
0119	RAMY	18	1617	1618	1621	N25	E81	10162		10	24.9	4	SF	3	E		15		
0120	RAMY	18	1924	1928	1945	N27	E82	10162		10	25.2	21	SF	3	E		15		
0121	HOLL	18	1933	1936	1941	N28	E79	10162		10	25.0	8	SF	3	E		22		F
0122	HOLL	18	1955	1956	2219D	N27	E75	10162		10	24.7	144D	SF	3	E		35		
0123	RAMY	18	2000	2000	2044	N26	E76	10162		10	24.7	44	SF	3	E		23		
		18	2015		2046	No Flare Patrol													
0124	RAMY	18	2126	2129U	2129D	S05	W04	10158		10	18.6	3D	SF	3	E		12		F
		18	2130		2217	No Flare Patrol													
0125	HOLL	18	2332	2333	2335	N14	W47	10149		10	15.4	3	SF	3	E		17		
0126	LEAR	18	2336	2338	2343	S04	W05	10158		10	18.6	7	SF	3	E		11		F
0127	LEAR	19	0001	0003	0010	S05	W06	10158		10	18.5	9	SF	4	E		13		F
0128	LEAR	19	0113	0118	0151	S05	W06	10158		10	18.6	38	1F	4	E		100		FH

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0129	LEAR	19	0214	0220	0223	N25	E71	10162	10	24.6	9	SF		3	E		25		F
0130	KANZ	19	0723	0723	0726	S05	W06	10158	10	18.8	3	SF		2	E				
0131	RAMY	19	1114	1115	1119	S03	W12	10158	10	18.6	5	SF		3	E		17		F
0132		19	1344	13454	1354	S18	W10	10160	10	18.8	10	SF					31		
	KANZ	19	1344	1345	1354	S18	W09	10160	10	18.9	10	SF		2	E				
	RAMY	19	1344	1349	1355	S18	W10	10160	10	18.8	11	SF		3	E		31		
0133	HOLL	19	1347	1349	1354	S18	W09	10159	10	18.9	7	SF		3	E		39		
0134	HOLL	19	1348	1350	1355	N11	W56	10145	10	15.4	7	SF		3	E		16		
0135	HOLL	19	1418	1419	1424	N25	E66	10162	10	24.7	6	SF		3	E		12		
0136	RAMY	19	1451	1459	1503	S06	W13	10158	10	18.6	12	SF		3	E		12		F
0137	HOLL	19	1756	1756	1803	S17	W11	10159	10	18.9	7	SF		3	E		13		F
0138	RAMY	19	1756	1822	1846	S18	W13	10160	10	18.7	50	SF		3	E		82		FH
0139	HOLL	19	1819	1834	1844	S18	W11	10159	10	18.9	25	SF		3	E		32		F
0140	HOLL	19	1827	1827	1835	N25	E67	10162	10	24.9	8	SF		3	E		13		
0141		19	1907*	20093	2110	N25	E65	10162	10	24.8	123	SF					61		F
	HOLL	19	1907	2009	2121	N25	E63	10162	10	24.7	134	SF		3	E		73		F
	RAMY	19	1958	2012	2058	N25	E67	10162	10	25.0	60	SF		3	E		49		F
0142	RAMY	19	1923	1930	1945	N26	E67	10162	10	25.0	22	SF		3	E		23		F
0143	HOLL	19	2114	2116	2124	S13	W48	10154	10	16.3	10	SF		3	E		46		
0144	HOLL	19	2154	2200	2204	N27	E65	10162	10	25.0	10	SF		3	E		15		F
0145	HOLL	19	2233	2235	2238	N26	E64	10162	10	24.9	5	SF		3	E		20		
		19	2240		2247	No Flare Patrol													
0146	HOLL	19	2306	2307	2315	N27	E64	10162	10	24.9	9	SF		3	E		30		
0147		19	2245E	2303U	2339	N14	W62	10149	10	15.3	54D	1F					157		F
	HOLL	19	2245E	2303U	2353D	N13	W59	10149	10	15.5	68D	1F		3	E		237		F
	LEAR	19	2307E	2307U	2339	N15	W64	10149	10	15.1	32D	SF		5	E		77		F
0148	LEAR	20	0037	0044	0117	N27	E61	10162	10	24.8	40	1F		4	E		107		F
0149	LEAR	20	0039	0045	0103	S18	W17	10160	10	18.7	24	SF		4	E		80		FH
0150	LEAR	20	0209	0222	0252	S18	W17	10160	10	18.8	43	1N		3	E		116		F
0151	LEAR	20	0242	0259	0315	S05	W22	10158	10	18.5	33	SF		3	E		27		F
0152	LEAR	20	0319	0319	0324	S05	W22	10158	10	18.5	5	SF		3	E		13		
0153	LEAR	20	0333	0337	0423	N26	E58	10162	10	24.6	50	2N		3	E		277		EF
0154	LEAR	20	0501	0514	0537	S18	W18	10160	10	18.8	36	1N		3	E		205		EF
0155	LEAR	20	0539	0542	0548	S20	W17	10160	10	18.9	9	SF		3	E		22		
0156	LEAR	20	0527	0529	0541	S14	W53	10154	10	16.2	14	SF		3	E		59		F
0157	LEAR	20	0544	0545	0549	N23	E58	10162	10	24.7	5	SF		3	E		11		
0158		20	06121	0614	0620	N24	E44	10162	10	23.6	8	SF					83		FH
	LEAR	20	0612	0614	0622	N25	E44	10162	10	23.7	10	SF		3	E		97		FH
	SVTO	20	0613	0614	0619	N23	E44	10162	10	23.6	6	SF		3	E		69		FH

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0159	KANZ	20	0804	0805	0807	N25	E55	10162	10	24.6	3	SF		2	E				
0160		20	09002	0902	0909	N24	E42	10162	10	23.6	9	1F					85		FH
	LEAR	20	0900	0902	0910	N25	E42	10162	10	23.6	10	1F		3	E		113		FH
	KANZ	20	0900	0902	0910	N26	E42	10162	10	23.6	10	1F		2	E				
	SVTO	20	0902	0902	0906	N22	E43	10162	10	23.7	4	SF		3	E		57		F
0161		20	09102	09132	0925	S03	W23	10158	10	18.7	15	SF					38		F
	KANZ	20	0910	0915	0927	S04	W22	10158	10	18.7	17	SF		2	E				
	LEAR	20	0911	0913	0929	S04	W23	10158	10	18.7	18	SF		3	E		54		F
	SVTO	20	0912	0913	0920	S02	W23	10158	10	18.7	8	SF		3	E		21		F
0162		20	0952	0952	0959	N23	E56	10162	10	24.7	7	SF					58		H
	KANZ	20	0952	0952	0958	N25	E55	10162	10	24.7	6	SF		2	E				
	SVTO	20	0952	0952	1000	N21	E58	10162	10	24.8	8	SF		3	E		58		H
0163	KANZ	20	1121	1122	1133	N25	E40	10162	10	23.6	12	SF		2	E				
0164		20	11255	1132	1136	N24	E54	10162	10	24.6	11	SF					41		FH
	RAMY	20	1125	1132	1137	N25	E55	10162	10	24.7	12	SF		3	E		59		FH
	KANZ	20	1129	1132	1136	N25	E52	10162	10	24.5	7	SF		2	E				
	SVTO	20	1130	1132	1134	N21	E55	10162	10	24.7	4	SF		3	E		23		
0165		20	13504	13552	1423	N28	E55	10162	10	24.9	33	SF					44		
	HOLL	20	1350	1357	1423	N28	E55	10162	10	24.9	33	SF		3	E		44		
	KANZ	20	1354	1355	1408D	N28	E55	10162	10	24.9	14D	SF		2	E				
0166	HOLL	20	1353	1354	1357	S14	W56	10154	10	16.3	4	SF		3	E		10		
0167		20	1356*	19202	1950	N26	E54	10162	10	24.8	354	SF					42		FHT
	RAMY	20	1356	1920	2015	N28	E57	10162	10	25.0	379	SF		3	E		73		FHT
	HOLL	20	1914	1922	1926	N25	E51	10162	10	24.7	12	SF		3	E		12		F
0168	SVTO	20	1357	1359	1416	N21	E50	10162	10	24.4	19	SF		3	E		45		F
0169	HOLL	20	1411	1415	1442	S13	W63	10154	10	15.8	31	SF		3	E		56		
0170	SVTO	20	1422	1424U	1450	S16	W25	10159	10	18.7	28	1F		3	E		178		F
0171	RAMY	20	1422	1424	1503	S19	W23	10160	10	18.8	41	1B		3	E		184		HU
0172	HOLL	20	1422	1430	1432	S15	W18	10159	10	19.2	10	1N		3	E		169		
0173	RAMY	20	1424	1425	1436	S10	W18	10159	10	19.2	12	SF		3	E		16		F
0174	HOLL	20	1428	1456	1519	S19	W19	10160	10	19.1	51	SF		3	E		20		FU
0175	HOLL	20	1444	1502	1509	N26	E56	10162	10	25.0	25	SF		3	E		11		
0176		20	16021	16021	1611	S06	W30	10158	10	18.4	9	SF					12		F
	RAMY	20	1602	1602	1611	S05	W27	10158	10	18.6	9	SF		3	E		10		F
	HOLL	20	1603	1603	1611	S08	W32	10158	10	18.3	8	SF		3	E		13		
0177	HOLL	20	1603	1603	1609	N23	E39	10162	10	23.7	6	SF		3	E		22		
0178	HOLL	20	1755	1756	1811	N25	E52	10162	10	24.8	16	SF		3	E		21		
0179	HOLL	20	1803	1804	1807	S12	W52	10154	10	16.8	4	SF		3	E		35		F
0180	HOLL	20	1846	1846	1853	N25	E51	10162	10	24.7	7	SF		3	E		14		
0181		20	18462	1859	1914	S18	W26	10160	10	18.8	28	SF					28		F
	RAMY	20	1846	1859	1918	S18	W26	10160	10	18.8	32	SF		3	E		32		F
	HOLL	20	1848	1859	1911	S17	W26	10160	10	18.8	23	SF		3	E		23		
0182	RAMY	20	2032	2032	2045	N25	E53	10162	10	25.0	13	SF		3	E		25		
0183	HOLL	20	2241	2245	2300	N25	E47	10162	10	24.6	19	SF		3	E		17		F

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0184	HOLL	20	2306	2308	2330	N25	E49	10162	10	24.7	24	SF		3	E		50		F
0185	LEAR	21	0056	0056	0104	S17	W30	10160	10	18.7	8	SF		3	E		22		F
0186	LEAR	21	0214	0224	0253	S05	W32	10158	10	18.7	39	SF		4	E		36		F
0187	LEAR	21	0418	0419	0424	S14	W65	10154	10	16.3	6	SF		4	E		23		F
0188	LEAR	21	0457	0603	0614	N23	E41	10162	10	24.4	77	SF		3	E		28		F
0189	SVTO	21	0705	0706	0708	N22	E48	10162	10	25.0	3	SF		3	E		20		
0190		21	0835	08361	0846	N22	E44	10162	10	24.7	11	SF					54		
	SVTO	21	0835	0836	0846	N20	E46	10162	10	24.9	11	SF		3	E		54		
	KANZ	21	0835	0837	0841D	N23	E43	10162	10	24.7	6D	SF		2	E				
0191		21	08561	0857	0901	S20	W30	10160	10	19.1	5	SF					14		
	SVTO	21	0856	0857	0901	S19	W31	10160	10	19.0	5	SF		3	E		14		
	KANZ	21	0857	0857	0901	S21	W30	10160	10	19.1	4	SF		2	E				
0192	SVTO	21	0943	0943	0950	S16	W32	10160	10	19.0	7	SF		3	E		16		
0193	SVTO	21	1158	1222	1239	N21	E42	10162	10	24.7	41	SF		3	E		41		F
0194	RAMY	21	1510	1510	1514	N23	E28	10162	10	23.8	4	SF		3	E		16		
		21	1827		1832	No Flare Patrol													
		21	1840		2040	No Flare Patrol													
0195	RAMY	21	2049	2102	2131	N25	E38	10162	10	24.8	42	SF		3	E		73		F
0196	HOLL	21	2103	2105	2128	S19	W40	10160	10	18.8	25	SF		3	E		35		F
0197	RAMY	21	2112	2118	2152D	S19	W40	10160	10	18.8	40D	1N		3	E		216		FU
0198	HOLL	21	2105E	2105	2114	S22	W47	10163	10	18.3	9D	SF		3	E		16		
0199	HOLL	21	2259	2259	2302	S13	W82	10154	10	15.8	3	SF		3	E		58		F
0200	LEAR	21	2342	2353	2406	N23	E23	10162	10	23.7	24	SF		3	E		35		F
0201	LEAR	22	0227	0231	0243	N20	E57	10165	10	26.5	16	SF		3	E		63		F
0202	LEAR	22	0412	0413	0427	N23	E31	10162	10	24.6	15	SF		3	E		19		F
0203		22	1146	1146	1149	S06	W55	10158	10	18.4	3	SF					12		
	RAMY	22	1146	1146	1149	S07	W55	10158	10	18.4	3	SF		3	E		12		
	KANZ	22	1146	1146	1151D	S06	W55	10158	10	18.4	5D	SF		2	E				
0204		22	12451	12472	1253	N28	E28	10162	10	24.7	8	SF					20		F
	KANZ	22	1245	1249	1253	N27	E27	10162	10	24.6	8	SF		2	E				
	RAMY	22	1246	1247	1253	N28	E29	10162	10	24.8	7	SF		3	E		20		F
0205	RAMY	22	1326	1326	1333	S07	W58	10158	10	18.2	7	SF		3	E		13		
0206	RAMY	22	1532	1533	1700	N28	E27	10162	10	24.7	88	SF		3	E		88		F
		22	2110		2119	No Flare Patrol													
		22	2141		2154	No Flare Patrol													
0207	LEAR	23	0047	0116	0145	S04	W62	10158	10	18.4	58	SF		3	E		61		F
0208	LEAR	23	0101	0101	0104	N25	E22	10162	10	24.7	3	SF		3	E		18		F
0209	LEAR	23	0634	0635	0641	S16	W60	10160	10	18.7	7	SF		3	E		25		
0210	KANZ	23	0756	0757	0759D	N25	E15	10162	10	24.5	3D	SF		2	E				
0211	RAMY	23	1538	1616	1716	N20	E37	10165	10	26.5	98	SF		3	E		99		F

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0212	HOLL	23	1554	1603U	1652D	N21	E40	10165	10	26.7	58D	SF		3	E		15		
		23	1746		1913	No Flare Patrol													
		23	2138		2228	No Flare Patrol													
0213	LEAR	24	0814	0817	0834	N28	E09	10162	10	25.0	20	SF		3	E		27		
		24	1218		1228	No Flare Patrol													
		24	1313		1328	No Flare Patrol													
0214	KANZ	24	1403	1404	1406	N24	W13	10162B	10	23.6	3	SF		2	E				
0215	KANZ	24	1406	1407	1414	N27	E02	10162	10	24.7	8	SF		2	E				
0216		24	16341	16352	1646	N28	E04	10162	10	25.0	12	SF					22		
	RAMY	24	1634	1635	1647	N28	E03	10162	10	24.9	13	SF		3	E		26		
	HOLL	24	1635	1637	1644	N28	E04	10162	10	25.0	9	SF		3	E		18		
0217		24	18041	1810	1824	N23	W14	10162	10	23.7	20	1N					161		FH
	RAMY	24	1804	1810	1825	N23	W14	10162	10	23.7	21	1N		3	E		148		FH
	HOLL	24	1805	1809U	1822	N23	W14	10162	10	23.7	17	1N		3	E		174		FH
		24	1950		2046	No Flare Patrol													
		24	2053		2057	No Flare Patrol													
0218		25	0702	07021	0705	N28	W02	10162	10	25.1	3	SF					28		
	KANZ	25	0702	0702	0705	N27	W03	10162	10	25.0	3	SF		2	E				
	LEAR	25	0702	0703	0705	N28	W02	10162	10	25.1	3	SF		3	E		28		
0219	KANZ	25	0915	0916	0921	N27	W04	10162	10	25.1	6	SF		2	E				
0220	KANZ	25	0952	0953	0957	N27	W04	10162	10	25.1	5	SF		2	E				
0221	KANZ	25	1204	1212	1218	N22	W25	10162	10	23.6	14	SF		2	E				
0222	RAMY	25	1320	1321	1335	N24	W16	10162	10	24.3	15	SF		3	E		26		F
0223		25	1409	14101	1418	N24	W28	10162	10	23.4	9	SF					16		F
	HOLL	25	1409	1410	1417	N25	W28	10162	10	23.4	8	SF		3	E		15		
	RAMY	25	1409	1411	1418	N24	W28	10162	10	23.4	9	SF		3	E		18		F
0224	HOLL	25	1521	1521	1526	N25	W14	10162	10	24.5	5	SF		3	E		24		
0225	HOLL	25	1620	1643	1703	N27	W10	10162	10	24.9	43	1F		3	E		123		F
0226	RAMY	25	1726	1737	1907	N28	W11	10162	10	24.9	101	1F		3	E		133		F
		26	0014		0550	No Flare Patrol													
0227	KHAR	26	1202	1204	1208	S11	W85		10	20.1	6	SF		2	V				DH
0228	KANZ	26	1429	1431	1438	N27	W39	10162	10	23.6	9	SF		2	E				
		26	1739		1804	No Flare Patrol													
		26	1814		1822	No Flare Patrol													
		26	2125		2131	No Flare Patrol													
		26	2138		2205	No Flare Patrol													
		26	2226		2314	No Flare Patrol													
		27	0000		0027	No Flare Patrol													
0229	LEAR	27	0259	0300	0305	N26	W31	10162	10	24.7	6	SF		2	E		15		
		27	0306		0322	No Flare Patrol													
0230	LEAR	27	0353	0353	0400	N26	W31	10162	10	24.7	7	SF		1	E		30		
		27	0457		0657	No Flare Patrol													
0231	KANZ	27	0751	0753	0800	N26	W49	10162	10	23.5	9	SF		2	E				

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0232		27	0820	08242	0832	N25	W34	10162	10	24.7	12	SF					23		F
	KANZ	27	0820	0824	0833	N24	W34	10162	10	24.7	13	SF	2	E					
	LEAR	27	0820	0826	0832	N26	W34	10162	10	24.7	12	SF	3	E			23		F
0233		27	0910	0912	0939	N25	W34	10162	10	24.7	29	SF					78		F
	SVTO	27	0908E	0912	0944D	N26	W34	10162	10	24.7	36D	SF	2	E			78		F
	KANZ	27	0910	0912	0939	N24	W35	10162	10	24.7	29	SF	2	E					
0234		27	0956	1001	1038	N26	W38	10162	10	24.5	42	SF					53		
	SVTO	27	0956	1001	1040	N27	W37	10162	10	24.5	44	SF	3	E			53		
	KANZ	27	0959E	1001	1037	N25	W39	10162	10	24.4	38D	SF	2	E					
0235	RAMY	27	1221	1221	1230	N25	W37	10162	10	24.6	9	SF	3	E			10		
0236	RAMY	27	1345	1345	1352	N24	W37	10162	10	24.7	7	SF	3	E			15		F
0237		27	14001	14001	1412	N24	W37	10162	10	24.7	12	SF					16		F
	KANZ	27	1400	1400	1406	N24	W37	10162	10	24.7	6	SF	2	E					
	SVTO	27	1400E	1400U	1409	N25	W37	10162	10	24.7	9D	SF	2	E			20		
	RAMY	27	1401	1401	1422	N24	W38	10162	10	24.6	21	SF	3	E			12		F
0238	SVTO	27	1447	1447	1450	N27	W37	10162	10	24.7	3	SF	3	E			40		
0239	RAMY	27	1746	1757	1801	N24	W40	10162	10	24.6	15	SF	3	E			10		F
0240	RAMY	27	1804	1807	1822	N23	W51	10162	10	23.8	18	SF	3	E			11		F
0241	RAMY	27	1917	1918	1922	N25	W40	10162	10	24.7	5	SF	3	E			35		
0242	RAMY	27	1924	1925	1936	N24	W40	10162	10	24.7	12	SF	3	E			20		
0243	RAMY	27	2030	2038	2108D	N24	W42	10162	10	24.6	38D	SF	3	E			87		F
		27	2124		2157	No Flare Patrol													
		27	2203		2223	No Flare Patrol													
		28	0000		0003	No Flare Patrol													
0244	LEAR	28	0025E	0027U	0040	N23	W56	10162	10	23.7	15D	SF	3	E			72		F
0245	LEAR	28	0552	0557	0559	N27	W44	10162	10	24.8	7	SF	2	E			10		
0246	LEAR	28	0712	0712	0717	N27	W45	10162	10	24.8	5	SF	3	E			22		
0247	KANZ	28	0851	0852	0855	N29	W61	10162B	10	23.6	4	SF	2	E					
0248	KANZ	28	0846	0849	0903	N23	W48	10162	10	24.7	17	SF	2	E					
0249		28	0909	0911	0925	N28	W44	10162	10	24.9	16	SF					15		
	SVTO	28	0909	0911	0913	N28	W43	10162	10	25.0	4	SF	3	E			15		
	KANZ	28	0909	0923U	0937	N27	W46	10162	10	24.8	28	SF	2	E					
0250	SVTO	28	0928	0931	0934	N27	W42	10162	10	25.1	6	SF	3	E			31		F
0251		28	09491	0953	1001	N28	W46	10162	10	24.8	12	SF					59		F
	KANZ	28	0949	0953	1001	N26	W48	10162	10	24.7	12	SF	2	E					
	SVTO	28	0950	0953	1004D	N29	W44	10162	10	25.0	14D	SF	3	E			59		F
0252	KANZ	28	1036	1036	1037	N26	W48	10162	10	24.7	1	SF	2	E					
0253		28	1133	11362	1145	N27	W48	10162	10	24.7	12	SF					32		F
	RAMY	28	1132E	1138	1147	N26	W47	10162	10	24.8	15D	SF	3	E			31		F
	KANZ	28	1133	1136	1144	N26	W48	10162	10	24.7	11	SF	2	E					
	SVTO	28	1133	1138	1144	N30	W48	10162	10	24.7	11	SF	3	E			32		
0254		28	1203	12041	1224	N29	W46	10162	10	24.9	21	1F					114		F
	SVTO	28	1203	1204	1219	N31	W46	10162	10	24.9	16	1F	3	E			114		F
	KANZ	28	1203	1205	1229	N27	W46	10162	10	24.9	26	1F	2	E					
0255	RAMY	28	1203	1204	1229	N23	W61	10162	10	23.8	26	1N	3	E			107		F

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0256	RAMY	28	1233	1236	1245	N26	W49	10162	10	24.7	12	SF		3	E		11		
0257	KANZ	28	1241	1241	1244	N26	W48	10162	10	24.8	3	SF		2	E				
0258		28	1252	12521	1302	N29	W51	10162	10	24.5	10	SF					26		FH
	RAMY	28	1252	1252	1303	N27	W49	10162	10	24.7	11	SF		3	E		26		FH
	SVTO	28	1252	1253	1301	N33	W54	10162	10	24.2	9	SF		3	E		25		
	KANZ	28	1252	1253	1302	N27	W49	10162	10	24.7	10	SF		2	E				
0259		28	13381	1342*	1421	N27	W62	10162	10	23.7	43	SF					40		FH
	RAMY	28	1338	1416	1435	N27	W62	10162	10	23.7	57	SF		3	E		40		FH
	KANZ	28	1339	1342	1407	N27	W62	10162	10	23.7	28	SF		2	E				
0260	KANZ	28	1357	1358	1427	N26	W48	10162	10	24.8	30	SF		2	E				
0261	SVTO	28	1414	1415	1424	N34	W56	10162	10	24.1	10	SF		3	E		39		
0262	RAMY	28	1454	1457	1511	N26	W50	10162	10	24.7	17	SF		3	E		16		FH
0263	RAMY	28	1541	1545	1549	N26	W50	10162	10	24.8	8	SF		3	E		13		
0264	RAMY	28	1600	1604	1625	N26	W50	10162	10	24.8	25	SF		3	E		41		
0265	RAMY	28	1629	1639	1644	N26	W50	10162	10	24.8	15	SF		3	E		17		
0266	RAMY	28	1644	1647	1656	N26	W50	10162	10	24.8	12	SF		3	E		11		
0267	RAMY	28	1752	1752	1757	N26	W52	10162	10	24.7	5	SF		3	E		31		
0268	RAMY	28	1807	1807	1812	S14	E30	10170	10	31.0	5	SF		3	E		12		F
0269		28	18217	18281	1836	N26	W50	10162	10	24.9	15	SF					35		FH
	RAMY	28	1821	1828	1838	N26	W51	10162	10	24.8	17	SF		3	E		51		FH
	HOLL	28	1828	1829	1834	N26	W50	10162	10	24.9	6	SF		3	E		19		F
0270	RAMY	28	1839	1839	1843	N26	W52	10162	10	24.7	4	SF		3	E		10		
0271	RAMY	28	1852	1901	2106D	N24	W58	10162	10	24.3	134D	1F		3	E		132		FH
0272	HOLL	28	1853	1854	1857	N28	W46	10162	10	25.2	4	SF		3	E		14		
0273	HOLL	28	1858	1901	1909	N23	W65	10162	10	23.8	11	SF		3	E		69		
0274	RAMY	28	2007	2015	2055D	S18	W67	10173	10	23.7	48D	SF		3	E		21		
0275	HOLL	28	2150	2151	2154	N27	W51	10162	10	24.9	4	SF		3	E		15		F
0276	HOLL	28	2335	2339	2342	S18	W65	10173	10	24.0	7	SF		3	E		36		
0277	LEAR	28	2354	2355	2401	N29	W53	10162	10	24.8	7	SF		3	E		55		
0278	LEAR	29	0309	0312	0333	N31	W51	10162	10	25.1	24	SF		3	E		49		F
0279		29	06391	06401	0648	S18	W75	10173	10	23.6	9	SF					18		
	LEAR	29	0639	0641	0648	S17	W75	10173	10	23.6	9	SF		3	E		23		
	SVTO	29	0640	0640	0647	S18	W75	10173	10	23.6	7	SF		3	E		14		
0280	SVTO	29	0644	0646	0659	N23	W72	10162	10	23.7	15	SF		3	E		92		
0281	LEAR	29	0645	0646	0652	N31	W55	10162	10	24.9	7	SF		3	E		54		F
0282		29	0744	07481	0759	N30	W56	10162	10	24.9	15	SF					18		
	LEAR	29	0744	0748	0801	N31	W56	10162	10	24.9	17	SF		3	E		18		
	KANZ	29	0744	0749	0757	N30	W56	10162	10	24.9	13	SF		2	E				
0283		29	09272	0930	0942	N28	W57	10162	10	24.9	15	SF					78		F
	KANZ	29	0927	0930	0940	N27	W57	10162	10	24.9	13	SF		2	E				
	LEAR	29	0927	0930	0943	N29	W58	10162	10	24.8	16	SF		3	E		96		F
	SVTO	29	0929	0930	0942	N28	W57	10162	10	24.9	13	SF		3	E		61		

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0284		29	1118	1120	1124	N28	W58	10162	10	24.9	6	SF					38		
	KANZ	29	1118	1120	1124	N27	W58	10162	10	24.9	6	SF		2	E				
	SVTO	29	1119	1120	1124	N28	W58	10162	10	24.9	5	SF		3	E		38		
0285	RAMY	29	1135	1136	1146	N16	E63	10175	A11	3.3	11	SF		3	E		28		
0286	RAMY	29	1138	1140	1146	N09	E88	10176	11	5.1	8	3F		3	E		629		
0287	RAMY	29	1152	1156	1159	N16	E63	10175	A11	3.3	7	SF		3	E		23		
0288	RAMY	29	1215	1219	1230	N16	E63	10175	A11	3.3	15	SF		3	E		24		F
0289	SVTO	29	1232	1233	1237	N28	W58	10162	10	25.0	5	SF		3	E		33		
0290	SVTO	29	1335	1336	1339	S19	W83	10173	10	23.2	4	SF		3	E		41		
0291	SVTO	29	1338	1339	1342	N23	W75	10162	10	23.8	4	SF		3	E		21		
0292		29	1344	13462	1358	N29	W60	10162	10	24.9	14	SF					42		F
	SVTO	29	1344	1346	1358	N28	W61	10162	10	24.8	14	SF		3	E		42		F
	KANZ	29	1344	1348	1358	N30	W59	10162	10	24.9	14	SF		2	E				
0293	RAMY	29	1348	1349	1355	S20	W78	10173	10	23.6	7	SF		3	E		49		F
0294		29	1420	1421	1430	N28	W60	10162	10	24.9	10	SF					58		H
	KANZ	29	1420	1421	1429	N27	W60	10162	10	24.9	9	SF		2	E				
	SVTO	29	1420	1421	1432	N28	W60	10162	10	24.9	12	SF		3	E		58		H
0295	RAMY	29	1431	1433	1436	S19	W77	10173	10	23.7	5	SF		3	E		12		
0296	RAMY	29	1446	1512	1529	S19	W78	10173	10	23.7	43	SF		3	E		79		FH
0297	HOLL	29	1448	1448	1456	S18	W76	10173	10	23.8	8	SF		3	E		18		
0298	HOLL	29	1517	1517	1518	S17	W77	10173	10	23.8	1	SF		3	E		10		
0299	HOLL	29	1503	1513	1518	S17	W77	10173	10	23.8	15	SF		3	E		29		
0300	RAMY	29	1537	1537	1546	N15	E62	10175	11	3.3	9	SF		3	E		10		F
0301	RAMY	29	1600	1602	1609	S19	W80	10173	10	23.6	9	SF		3	E		16		
0302	HOLL	29	1629	1631	1644	N30	W61	10162	10	24.9	15	SF		3	E		31		FH
0303	RAMY	29	1659	1701	1708	S19	W79	10173	10	23.7	9	SF		3	E		26		
0304	RAMY	29	1711	1712	1716	N15	E86	10177	11	5.2	5	SF		3	E		13		
0305	RAMY	29	1744	1744	1755	S19	W79	10173	10	23.7	11	SF		3	E		13		
0306	RAMY	29	1842	1848	1904	N15	E60	10175	11	3.3	22	SF		3	E		11		F
0307	RAMY	29	1913	1920	1927	N14	E60	10175	11	3.3	14	SF		3	E		12		
0308	RAMY	29	1930	1934	1954	N14	E59	10175	11	3.3	24	SF		3	E		14		
0309	RAMY	29	2059	2102	2118	N15	E58	10175	11	3.3	19	SF		3	E		28		
0310	LEAR	29	2255	2304	2336	N30	W65	10162	10	24.8	41	1F		3	E		103		FH
0311	HOLL	29	2303	2311	2313	N30	W65	10162	10	24.8	10	SF		3	E		17		F
0312	LEAR	30	0059	0100	0108	N29	W66	10162	10	24.9	9	SF		3	E		32		F
0313	LEAR	30	0109	0118	0136	N30	W64	10162	10	25.0	27	SF		3	E		58		F
0314	LEAR	30	0249	0251	0319	N30	W66	10162	10	24.9	30	1F		3	E		106		FH
0315	LEAR	30	0406	0406	0410	N29	W68	10162	10	24.8	4	1F		3	E		130		FH

Hα SOLAR FLARES

OCTOBER 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
0316	LEAR	30	0633	0633	0636	N27	W69	10162	10	24.9	3	SF		1	E		38		
0317		30	08306	0836	0842	N27	W70	10162	10	24.9	12	SF					28		
	LEAR	30	0830	0836	0843	N27	W70	10162	10	24.9	13	SF		3	E		47		
	SVTO	30	0836	0836	0840	N27	W71	10162	10	24.8	4	SF		3	E		10		
0318	RAMY	30	1122E	1122U	1140D	N25	W69	10162	10	25.1	18D	SF		3	E		43		
0319	RAMY	30	1342	1344	1402	N19	E55	10175	11	3.8	20	SF		3	E		10		F
0320	HOLL	30	1616	1616	1618	N28	W74	10162	10	24.9	2	SF		3	E		18		
0321	HOLL	30	1734	1735	1738	N27	W76	10162	10	24.8	4	SF		3	E		29		
0322	HOLL	30	2117	2123	2132	N15	E74	10177	11	5.5	15	SF		3	E		15		
0323	HOLL	30	2120	2121	2125	N26	W80	10162	10	24.7	5	SF		3	E		27		F
0324	HOLL	30	2156	2156	2201	N27	W78	10162	10	24.8	5	SF		3	E		47		
0325	HOLL	30	2231	2239	2246	N15	E73	10177	11	5.5	15	SF		3	E		25		F
		31	0005		0020	No Flare Patrol													
		31	0223		0232	No Flare Patrol													
		31	0300		0305	No Flare Patrol													
		31	0350		0428	No Flare Patrol													
		31	0444		0555	No Flare Patrol													
		31	0801		0935	No Flare Patrol													
0326	KANZ	31	0936E	0936U	1010	N14	E37	10175	11	3.2	34D	SF		2	E				
0327	KANZ	31	0943	0945	1001	N14	E17	10175	11	1.7	18	SF		2	E				
0328		31	10214	10303	1042	N15	E58	10177	11	4.8	21	SF					24		U
	KANZ	31	1021	1030	1042	N15	E58	10177	11	4.8	21	SF		2	E				
	SVTO	31	1025	1033	1052D	N15	E59	10177	11	4.9	27D	SF		3	E		24		U
0329	RAMY	31	1048E	1056U	1130	N16	E58	10177	11	4.8	42D	SF		3	E		89		F

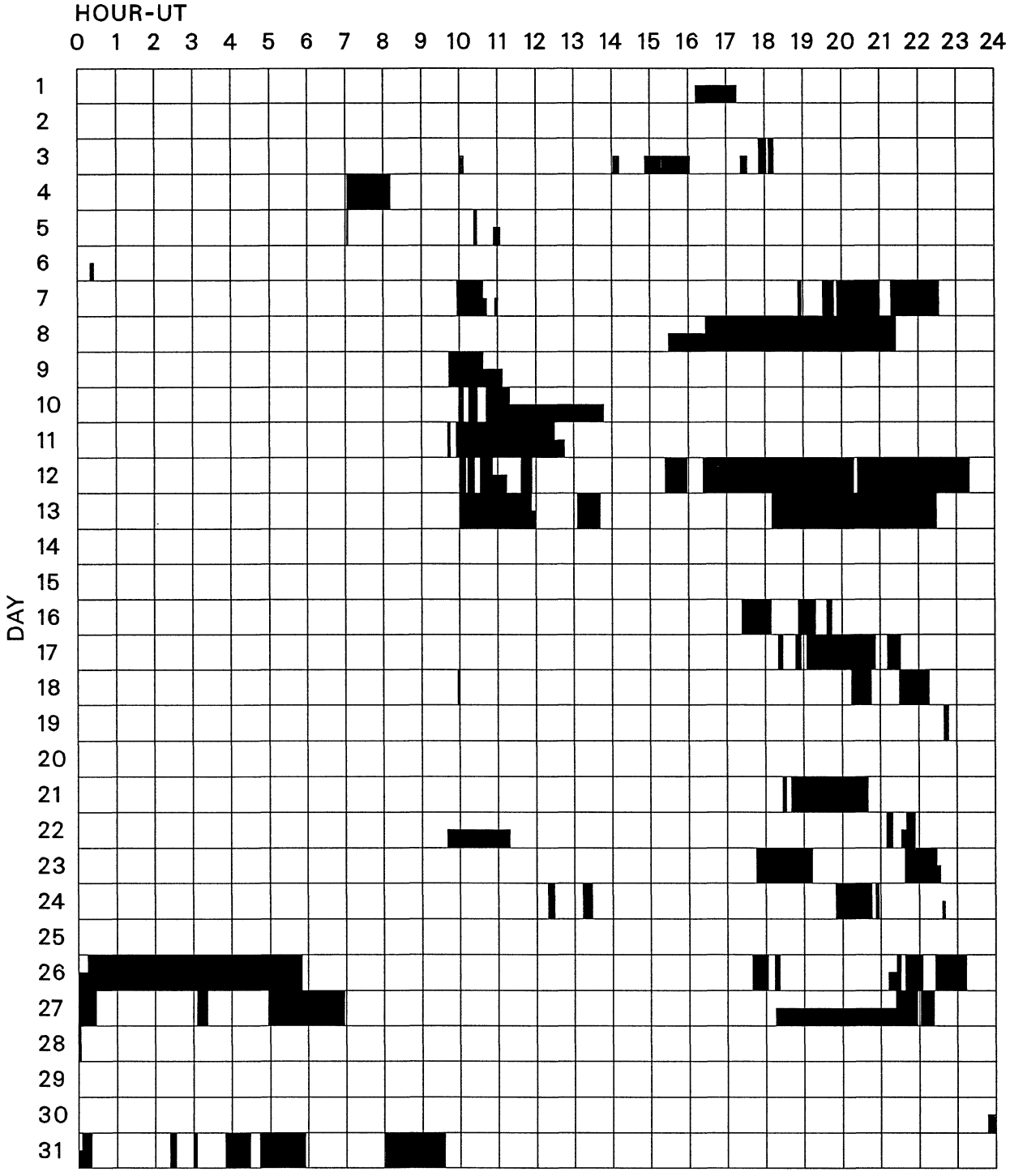
"Remarks"

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

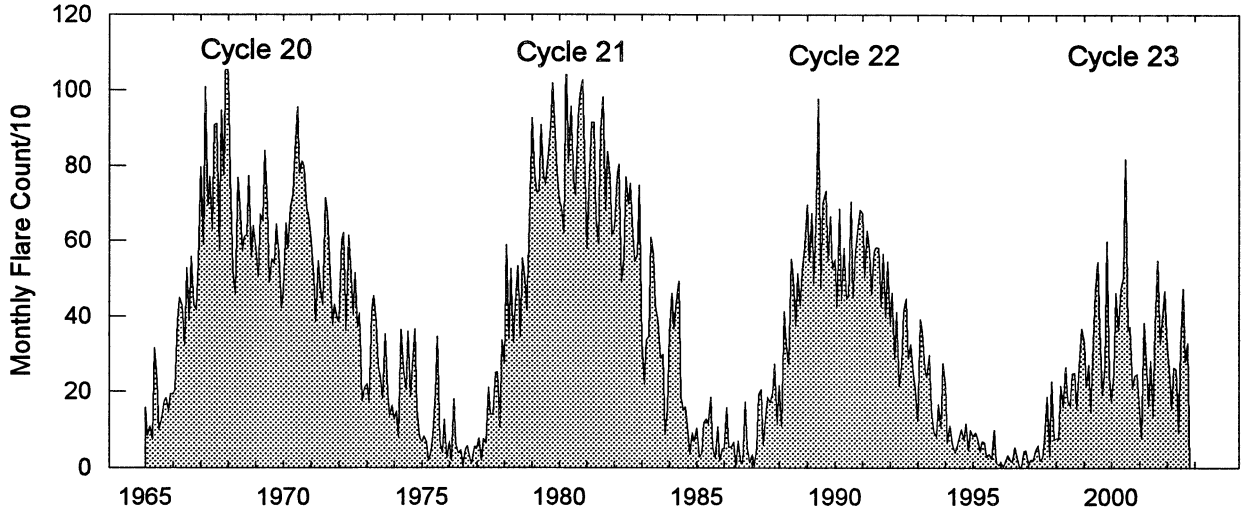
OCTOBER 2002



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	Voroshilov

Monthly Counts of Grouped Solar Flares
Jan 1965 - Oct 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	474	280	329			2748

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

SOLAR RADIO EMISSION
Outstanding Occurrences

OCTOBER 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	204	IZMI	44	NS	0600.0E		140.0D		25.0		
	127	TORN	43	NS	0803.0		187.0		16.0		V=1
	245	SGMR	43	NS	1419.0	1419.0	178.0	77.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2222.0	2337.0	277.0	540.0			QL=4 ST=2 TYP=1
	200	HIRA	8	S	0322.0	0322.0	1.0	85.0			0
	245	LEAR	8	S	0322.0	0322.0	1.0	120.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0500.0	0500.0	1.0	35.0			0
	245	LEAR	8	S	0504.0	0504.0	U	52.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0506.0	0506.0	U	82.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0525.0	0525.0	1.0	40.0			0
	245	LEAR	8	S	0525.0	0525.0	U	54.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0550.0	0550.0	1.0	20.0			ML
	245	LEAR	4	S/F	0551.0	0554.0	3.0	63.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0551.0	0554.0	3.0	50.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0559.0	0559.0	2.0	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0559.0	0600.0	2.0	92.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	0603.0	0605.0	3.0	150.0			QL=4 ST=2 TYP=8
	245	SVTO	8	S	0610.0	0610.0	2.0	90.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0615.0	0617.0	3.0	200.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0616.0	0617.0	3.0	170.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0718.4	0718.4	0.1	10.0			
	245	LEAR	8	S	0725.0	0725.0	1.0	63.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0733.0	0733.0	U	57.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0737.0	0737.0	U	110.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0737.6	0737.7	0.2	22.0			
	204	IZMI	42	SER	1104.8	1104.9	1.0	55.0			
	245	SVTO	8	S	1318.0	1320.0	2.0	160.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1320.0	1320.0	U	120.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2226.0	2227.0	1.0	150.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	2227.0	2227.0	U	140.0			QL=4 ST=2 TYP=3
02	204	IZMI	43	NS	0920.0		160.0D		15.0		
	235	CUBA	44	NS	1420.0E		280.0D		5.0		
	280	CUBA	44	NS	1420.0E		280.0D		13.0		
	245	LEAR	4	S/F	0154.0	0155.0	3.0	130.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0226.0	0226.0	3.0	55.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0242.0	0242.0	U	53.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0245.0	0245.0	6.0	140.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0245.0	0245.0	U	130.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0354.0	0354.0	U	77.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0354.0	0354.0	1.0	66.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0511.0	0511.0	U	62.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0513.0	0513.0	U	59.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0518.0	0518.0	1.0	76.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0552.0	0552.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0552.0	0552.0	1.0	89.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0556.0	0556.0	U	53.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	0654.7	0655.1	1.5	13.0			
	2950	GORK	41	F	0741.2	0742.0	3.9	6.8			
	2950	GORK	41	F	0741.2	0743.4		5.4			
	245	LEAR	8	S	0839.0	0839.0	U	85.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0839.0	0839.0	1.0	60.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0842.0	0842.0	1.0	290.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0842.0	0842.0	1.0	180.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0914.2	0915.2	1.1	41.0			
	245	LEAR	8	S	0933.0	0933.0	U	63.0			QL=4 ST=2 TYP=3
03	127	TORN	43	NS	0411.0		49.0		22.0D		V=2
	204	IZMI	43	NS	1112.0		48.0D		20.0		
	245	SGMR	43	NS	1516.0	1516.0	164.0	96.0			QL=4 ST=2 TYP=1
	2840	PEKG	3	S	0215.0	0219.5	12.0	13.4			
	2804	VORO	3	S	0217.8	0219.8	4.1	11.7			
	2804	VORO	29	PBI	0221.8	0221.8	27.0	5.5			
	245	SVTO	8	S	0813.0	0813.0	U	310.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0829.5	0829.6	0.1	7.0			
	245	SVTO	8	S	0830.0	0832.0	2.0	73.0			QL=4 ST=2 TYP=3
	2950	GORK	20	GRF	1008.4U	1011.0U	19.1D	14.0			
	3000	IZMI	22	GRF	1009.6	1011.0	2.9	14.0	4.9		
	245	SGMR	8	S	1447.0	1447.0	U	100.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

OCTOBER 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
03	245	SVTO	8	S	1447.0	1447.0	U	87.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1458.0	1459.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1458.0	1459.0	2.0	78.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1507.0	1509.0	2.0	94.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	1509.0	1509.0	3.0	62.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1516.0	1516.0	1.0	80.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1538.0	1538.0	U	85.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1551.0	1551.0	U	60.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1557.0	1557.0	U	58.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	2149.0	2156.0	13.0	3.0			
	2804	VORO	21	GRF	2335.0	2450.0	125.0	10.9			
	2800	PENT	1	S	2359.0	2405.0	14.0	3.0			
04	127	TORN	43	NS	0840.0		280.0		13.0		V=1
	2804	VORO	46	C	0040.6	0041.0	9.4	17.3			
	200	HIRA	8	S	0133.0	0133.0	1.0	145.0			0
	245	LEAR	8	S	0133.0	0133.0	U	340.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0143.0	0143.0	1.0	20.0			0
	2804	VORO	1	S	0212.2	0212.5	1.2	24.6			
	610	LEAR	8	S	0319.0	0319.0	U	91.0			QL=4 ST=2 TYP=3
	500	HIRA	7	C	0422.0	0426.0	6.0	55.0			0
	2695	LEAR	8	S	0535.0	0536.0	2.0	90.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0535.0	0536.0	2.0	120.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0535.0	0536.0	2.0	74.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0535.0	0537.0	3.0	92.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	0535.0	0536.0	3.0	110.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	0535.0	0536.0	18.0	82.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	0535.0	0536.0	18.0	63.0			QL=4 ST=2 TYP=3
	9100	GORK	46	C	0535.3	0536.8		62.0			
	9100	GORK	46	C	0535.3	0535.9	3.2	65.0			
	2950	GORK	4	S/F	0535.5	0536.8	4.5	100.0			
	9100	GORK	29	PBI	0538.5	0538.5	31.6	20.0			
	2950	GORK	29	PBI	0540.0	0540.0	26.5	8.7			
	2950	GORK	1	S	0731.8	0732.5	4.7	3.6			
	204	IZMI	42	SER	0906.9	0907.1	1.3	18.0			
	127	TORN	7	C	0907.2	0907.8	2.0		160.0		
	204	IZMI	42	SER	1021.5	1025.8	5.5	56.0			
	900	GORK	40	F	1022.0	1025.7	4.6	11.0			
	600	GORK	46	C	1022.4	1024.5	4.3	8.7			
	600	GORK	46	C	1022.4	1024.7		17.0			
	245	SVTO	8	S	1024.0	1025.0	1.0	41.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1025.0	1025.0	U	50.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	1132.5	1132.5	0.2	46.0			
	127	TORN	4	S/F	1142.5	1144.2	4.2		60.0		
	9500	CUBA	2	S/F	1245.8	1248.5	5.2	28.0	14.0		
	1415	SGMR	8	S	1246.0	1246.0	2.0	52.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1246.0	1248.0	2.0	37.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1246.0	1248.0	2.0	39.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1246.0	1246.0	1.0	28.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1247.0	1248.0	1.0	30.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1247.0	1247.0	U	21.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1248.0	1248.0	4.0	25.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1248.0	1248.0	5.0	38.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1248.0	1249.0	3.0	43.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1248.0	1249.0	2.0	30.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1248.0	1249.0	1.0	27.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1248.0	1249.0	2.0	32.0			QL=4 ST=2 TYP=3
	127	TORN	47	GB	1248.0	1248.7	2.2		1150.0		DISTURBED
	245	SGMR	8	S	1250.0	1250.0	1.0	90.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1250.0	1251.0	1.0	52.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1332.0	1332.0	U	130.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1332.0	1332.0	U	58.0			QL=4 ST=2 TYP=3
	9500	CUBA	3	S	1337.9	1338.5	2.9	76.0	38.0		
	8800	SGMR	8	S	1338.0	1338.0	U	59.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1338.0	1338.0	U	120.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1338.0	1338.0	U	83.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1338.0	1338.0	U	100.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1538.0	1552.0	54.0U	14.0			
	8800	SGMR	8	S	1634.0	1635.0	1.0	55.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
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OCTOBER 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
04	15400	SGMR	8	S	1634.0	1635.0	1.0	63.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1634.0	1634.5	2.8	38.0	19.0		
	9500	CUBA	2	S/F	1710.0	1710.6	1.0	31.0	15.0		
	2800	PENT	21	GRF	1857.0	1910.0	35.0U	7.0			
	2800	PENT	20	GRF	2046.0	2100.0	40.0	4.0			
	200	HIRA	7	C	2235.0	2242.0	8.0	290.0			0
	500	HIRA	7	C	2236.0	2239.0	9.0	170.0			0
	610	LEAR	4	S/F	2238.0	2242.0	4.0	110.0			QL=4 ST=2 TYP=3
	1415	LEAR	48	C	2238.0	2238.0	4.0	270.0			QL=4 ST=2 TYP=8
	2695	LEAR	4	S/F	2238.0	2242.0	4.0	140.0			QL=4 ST=2 TYP=3
	4995	LEAR	48	C	2238.0	2240.0	5.0	230.0			QL=4 ST=2 TYP=8
	8800	LEAR	48	C	2238.0	2240.0	5.0	280.0			QL=4 ST=2 TYP=8
	245	LEAR	48	C	2239.0	2242.0	4.0	5300.0			QL=4 ST=2 TYP=8
	410	LEAR	49	GB	2239.0	2241.0	2.0	1100.0			QL=4 ST=2 TYP=6
	15400	LEAR	48	C	2240.0	2240.0	2.0	77.0			QL=4 ST=2 TYP=8
	15400	LEAR	8	S	2240.0	2240.0	2.0	77.0			QL=4 ST=2 TYP=3
	500	HIRA	7	C	2308.0	2310.0	2.0	45.0			0
	2800	PENT	29	PBI	2329.0	2333.0	64.0	16.0			
	2840	PEKG	5	S	2330.0	2334.5	9.0	30.2			
	2804	VORO	1	S	2333.4	2334.4	2.1	30.6			
	4995	LEAR	8	S	2334.0	2334.0	U	56.0			QL=4 ST=2 TYP=3
	2804	VORO	29	PBI	2335.5	2335.5	45.0	6.5			
05	127	TORN	43	NS	0840.0		280.0		13.0		V=0
	235	CUBA	44	NS	1305.0E		525.0D		5.0		
	280	CUBA	44	NS	1305.0E		525.0D		13.0		
	200	HIRA	8	S	0134.0	0134.0	1.0	80.0			0
	2840	PEKG	1	S	0518.0	0519.4	10.0	8.4			
	9100	GORK	1	S	0722.4	0722.7	1.1	11.0			
	9100	GORK	7	C	0748.3	0751.3	7.5	11.0			
	9100	GORK	7	C	0748.3	0753.8		11.0			
	9100	GORK	2	S/F	0759.7	0800.8	2.8	11.0			
	9100	GORK	7	C	0942.6	0943.2	2.9	15.0			
	9100	GORK	7	C	0942.6	0944.6		7.6			
	3000	IZMI	45	C	1040.6	1042.1	35.0	115.0	20.6		
	9100	GORK	3	S	1041.0	1042.0	3.3	120.0			
	2695	SVTO	8	S	1041.0	1042.0	1.0	95.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1041.0	1042.0	2.0	190.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1041.0	1042.0	1.0	100.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1041.0	1041.0	1.0	46.0			QL=4 ST=2 TYP=3
	2950	GORK	4	S/F	1041.2	1042.1	2.9D	140.0			
	610	SGMR	8	S	1240.0	1240.0	U	120.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1240.0	1240.0	U	56.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1415.0	1415.0	2.0	370.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1415.0	1415.0	1.0	230.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1417.0	1417.0	U	31.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	1534.0	1602.0	54.0	4.0			
	410	SGMR	8	S	1627.0	1628.0	1.0	190.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1802.0	1802.0	1.0	98.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1803.0	1803.0	U	86.0			QL=4 ST=2 TYP=3
	610	PALE	4	S/F	1920.0	1922.0	3.0	140.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1920.0	1922.0	2.0	130.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1923.0	1923.0	U	88.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1926.0	1926.0	U	340.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	1936.0	1936.0	U	44.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	1936.0	1936.0	264.0	2200.0			QL=4 ST=1 TYP=6
	2800	PENT	29	PBI	2036.0	2049.0	116.0U	111.0			
	15400	PALE	8	S	2043.0	2043.0	U	24.0			QL=4 ST=2 TYP=3
	15400	PALE	20	GRF	2043.0	2058.0	23.0	51.0			QL=4 ST=2 TYP=2
	8800	PALE	8	S	2044.0	2044.0	U	26.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	2044.0	2046.0	11.0	170.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	2044.0	2046.0	10.0	170.0			QL=4 ST=2 TYP=8
	8800	PALE	48	C	2044.0	2100.0	23.0	300.0			QL=4 ST=2 TYP=8
	245	PALE	48	C	2045.0	2046.0	4.0	140.0			QL=4 ST=2 TYP=8
	410	SGMR	4	S/F	2045.0	2053.0	9.0	140.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	2045.0	2046.0	10.0	140.0			QL=4 ST=2 TYP=8
	410	SGMR	4	S/F	2045.0	2053.0	13.0	140.0			QL=4 ST=2 TYP=3
	410	PALE	48	C	2046.0	2053.0	13.0	190.0			QL=4 ST=2 TYP=8
	2695	PALE	48	C	2047.0	2049.0	12.0	100.0			QL=4 ST=2 TYP=8

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

OCTOBER 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
05	2695	SGMR	48	C	2047.0	2049.0	12.0	120.0			QL=4 ST=2 TYP=8
	1415	PALE	48	C	2048.0	2053.0	11.0	1200.0			QL=4 ST=2 TYP=8
	1415	SGMR	48	C	2048.0	2053.0	11.0	1100.0			QL=4 ST=2 TYP=8
	4995	SGMR	48	C	2049.0	2055.0	10.0	120.0			QL=4 ST=2 TYP=8
	610	PALE	48	C	2050.0	2054.0	9.0	650.0			QL=4 ST=2 TYP=8
	610	PALE	48	C	2050.0	2054.0	14.0	650.0			QL=4 ST=2 TYP=8
	4995	PALE	4	S/F	2052.0	2055.0	7.0	110.0			QL=4 ST=2 TYP=3
	610	SGMR	49	GB	2052.0	2054.0	6.0	540.0			QL=4 ST=2 TYP=6
	8800	SGMR	4	S/F	2054.0	2055.0	4.0	55.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2101.0	2101.0	U	52.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2115.0	2115.0	1.0	91.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2116.0	2116.0	U	24.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	2116.0	2116.0	U	71.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	2117.0	2117.0	U	21.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	2119.0	2119.0	1.0	520.0			QL=4 ST=2 TYP=6
	245	PALE	48	C	2124.0	2128.0	6.0	1100.0			QL=4 ST=2 TYP=8
	8800	PALE	4	S/F	2124.0	2124.0	4.0	35.0			QL=4 ST=2 TYP=3
	9500	CUBA	21	GRF	2145.0	2159.0	42.0	42.0	21.0		
	9500	CUBA	4	S/F	2151.9	2155.4	7.2	44.0	22.0		
	2840	PEKG	45	C	2246.0	2252.4	12.0	12.7			
06	127	TORN	43	NS	0825.0		325.0		11.0		V=1
	235	CUBA	44	NS	1335.0E		85.0D		5.0		
	280	CUBA	44	NS	1335.0E		85.0D		12.0		
	245	LEAR	8	S	0003.0	0004.0	1.0	80.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0004.0	0004.0	1.0	110.0			
	2840	PEKG	5	S	0119.0	0121.8	6.0	12.8			
	500	HIRA	8	S	0121.0	0121.0	1.0	10.0			0
	500	HIRA	8	S	0211.0	0212.0	1.0	40.0			0
	245	LEAR	8	S	0224.0	0224.0	U	55.0			QL=4 ST=2 TYP=3
	2804	VORO	40	F	0437.5	0440.0	7.5	40.0			
	2840	PEKG	3	S	0444.0	0450.0	14.0	51.7			
	610	LEAR	8	S	0448.0	0448.0	U	55.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0449.0	0449.0	1.0	86.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0449.0	0449.0	1.0	88.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0449.0	0449.0	1.0	79.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0449.0	0449.0	U	70.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0508.0	0510.4	5.0	3.7			
	4995	SGMR	8	S	1152.0	1152.0	U	41.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1152.0	1152.0	U	63.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1152.0	1152.0	U	29.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1152.0	1152.0	2.0	70.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1152.0	1152.0	1.0	63.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1152.0	1152.0	U	27.0			QL=4 ST=2 TYP=3
	3000	IZMI	41	F	1152.2	1153.2	3.8	20.0			
	245	SGMR	8	S	1817.0	1817.0	U	51.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	2328.0	2328.0	U	58.0			QL=4 ST=2 TYP=3
07	245	SGMR	43	NS	1307.0	1315.0	75.0	150.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1308.0	1339.0	49.0	220.0			QL=4 ST=2 TYP=1
	127	TORN	43	NS	1313.0		107.0		60.0		V=2
	245	SGMR	43	NS	1638.0	1702.0	259.0	330.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1702.0	2140.0	635.0	370.0			QL=4 ST=2 TYP=1
	410	LEAR	8	S	0121.0	0121.0	U	53.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0901.0	0901.0	U	140.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	1113.4	1113.5	0.2	2.3			
	245	SGMR	8	S	1303.0	1304.0	1.0	51.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1303.0	1304.0	1.0	71.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1312.0	1312.0	U	58.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1329.0	1329.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1508.0	1508.0	U	59.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	1547.0	1548.0	1.0	63.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	1621.0	1621.0	1.0	60.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	1632.0	1632.0	4.0	65.0			QL=4 ST=2 TYP=8
	2800	PENT	24	R	2131.0	2232.0D	61.0U	5.0			
	245	LEAR	48	C	2231.0	2232.0	7.0	180.0			QL=4 ST=3 TYP=8
	245	LEAR	8	S	2241.0	2241.0	U	84.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2338.0	2338.0	U	79.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

OCTOBER 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
08	245	LEAR	43	NS	0550.0	0746.0	187.0	140.0			QL=4 ST=2 TYP=1
	204	IZMI	43	NS	0600.0		360.0D		25.0		
	245	SVTO	43	NS	0733.0	0743.0	15.0	100.0			QL=4 ST=2 TYP=1
	127	TORN	44	NS	1210.0E		45.0D		16.0		V=1
	245	SGMR	43	NS	1220.0	1313.0	73.0	160.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1234.0	1258.0	59.0	110.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	0101.0	0101.0	1.0	74.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0108.0	0108.0	U	120.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0111.0	0111.0	U	84.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0201.0	0201.0	U	56.0			QL=4 ST=2 TYP=3
	200	HIRA	7	C	0323.0	0327.0	5.0	110.0			
	245	PALE	48	C	0323.0	0324.0	7.0	690.0			QL=4 ST=2 TYP=8
	500	HIRA	7	C	0324.0	0327.0	4.0	15.0			0
	245	LEAR	48	C	0422.0	0425.0	4.0	240.0			QL=4 ST=2 TYP=8
	200	HIRA	8	S	0423.0	0423.0	1.0	60.0			
	200	HIRA	7	C	0432.0	0433.0	3.0	130.0			
	245	LEAR	49	GB	0432.0	0433.0	2.0	730.0			QL=4 ST=2 TYP=6
	200	HIRA	7	C	0441.0	0442.0	3.0	300.0			
	245	LEAR	8	S	0442.0	0443.0	2.0	360.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0454.0	0454.0	U	73.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0534.0	0534.0	1.0	50.0			
	245	LEAR	8	S	0534.0	0534.0	1.0	79.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0534.0	0534.0	3.0	58.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0553.2	0554.3	2.6	30.0			
	204	IZMI	42	SER	0604.0	0607.2	5.1	77.0			
	204	IZMI	42	SER	0626.7	0626.8	0.7	34.0			
	200	HIRA	8	S	0630.0	0630.0	1.0	110.0			
	245	SVTO	8	S	0630.0	0630.0	U	110.0			QL=4 ST=2 TYP=3
	204	IZMI	45	C	0630.4	0630.5	0.4	201.0			
	204	IZMI	42	SER	0632.6	0633.3	1.4	38.0			
	245	SVTO	8	S	0720.0	0720.0	U	61.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0810.6	0812.4	2.3	299.0			
	204	IZMI	41	F	0842.2	0842.4	0.5	50.0			
	204	IZMI	41	F	1034.9	1035.4	0.9	62.0			
	245	SGMR	48	C	1127.0	1128.0	4.0	150.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	1200.0	1202.0	3.0	110.0			QL=4 ST=2 TYP=8
	245	SVTO	8	S	1202.0	1202.0	1.0	66.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1215.0	1216.0	3.0	87.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1222.0	1222.0	1.0	77.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1701.0	1701.0	1.0	75.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	2259.0	2259.0	1.0	35.0			
	2840	PEKG	5	S	2324.0	2326.2	7.0	38.3			
	2804	VORO	2	S/F	2325.0	2326.0	1.8	22.5			
09	127	TORN	44	NS	1240.0E		120.0D		35.0		V=2
	235	CUBA	44	NS	1700.0E		280.0D		4.0		
	280	CUBA	44	NS	1700.0E		280.0D		11.0		
	2800	PENT	1	S	0000.0	0005.0	10.0	14.0			
	245	SVTO	8	S	0957.0	0957.0	U	100.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1002.0	1002.0	U	63.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1009.0	1009.0	1.0	86.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1018.0	1018.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1023.0	1024.0	1.0	100.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	2222.0	2222.0	1.0	25.0			
10	127	TORN	44	NS	0920.0E		200.0D		8.0		V=1
	235	CUBA	44	NS	1320.0E		510.0D		4.0		
	280	CUBA	44	NS	1320.0E		510.0D		11.0		
	200	HIRA	8	S	0247.0	0247.0	1.0	30.0			
	204	IZMI	42	SER	0605.9	0606.2	3.0	39.0			
	8800	SGMR	8	S	1806.0	1807.0	2.0	150.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1806.0	1806.0	1.0	200.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	1806.0	1807.0	354.0	170.0			QL=4 ST=2 TYP=3
	9500	CUBA	3	S	1807.0	1807.0	2.8	132.0	66.0		
	4995	PALE	8	S	1807.0	1807.0	1.0	33.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	1807.0	1807.0	1.0	220.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	2201.0	2208.0	31.0U	13.0			
	500	HIRA	7	C	2205.0	2205.0	6.0	40.0			0
	200	HIRA	7	C	2208.0	2209.0	4.0	70.0			

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
11	245	SGMR	43	NS	1424.0	1433.0	9.0	56.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1855.0	1907.0	81.0	78.0			QL=4 ST=2 TYP=1
	200	HIRA	8	S	0457.0	0458.0	1.0	95.0			
	245	LEAR	8	S	0457.0	0457.0	U	120.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0725.0	0725.0	U	59.0			QL=4 ST=2 TYP=3
	127	TORN	46	C	0725.5	0728.2	8.7	320.0	80.0		
	245	LEAR	8	S	0737.0	0737.0	U	52.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0826.0	0831.4	10.0	10.7			
	3000	IZMI	20	GRF	0830.9	0831.6	2.4	10.0	5.1		
	127	TORN	7	C	0921.0	0921.3	1.5	160.0	60.0		
	204	IZMI	41	F	1010.9	1010.9	0.2	11.0			
	245	SGMR	8	S	1127.0	1128.0	1.0	440.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1127.0	1128.0	1.0	310.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1127.0	1127.0	U	51.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1127.0	1127.0	U	24.0			QL=4 ST=2 TYP=3
	204	IZMI	46	C	1127.5	1128.0	1.7	1243.0			
	204	IZMI	25	R	1132.2	1137.6	5.6	12.0			
	245	SVTO	8	S	1354.0	1356.0	2.0	170.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1356.0	1356.0	U	49.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1421.4	1421.9	1.3	16.0	8.0		
	245	SVTO	8	S	1424.0	1424.0	U	54.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1542.0	1550.0	44.0	4.0			
	9500	CUBA	1	S	1717.2	1718.0	2.5	10.0	5.0		
	245	PALE	8	S	1825.0	1825.0	U	73.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1907.0	1907.0	U	78.0			QL=4 ST=2 TYP=3
12	204	IZMI	43	NS	0600.0		360.0D		15.0		
	127	TORN	44	NS	0820.0E		220.0D		18.0		V=2
	280	CUBA	44	NS	1300.0E		120.0D		12.0		
	245	SGMR	43	NS	1519.0	1633.0	206.0	69.0			QL=4 ST=2 TYP=1
	410	LEAR	8	S	0138.0	0138.0	U	53.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0857.6	0857.6	0.1	11.0			
	204	IZMI	41	F	0945.8	0946.2	0.8	55.0			
	245	LEAR	8	S	0946.0	0946.0	U	51.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1409.0	1409.0	U	250.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1409.0	1409.0	U	130.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1409.0	1409.0	U	26.0			QL=4 ST=2 TYP=3
	2800	PENT	24	R	1540.0	1632.0D	52.0U	3.0			
	9500	CUBA	1	S	1624.3	1624.4	0.7	17.0	8.0		
	2800	PENT	24	R	1905.0	1932.0D	27.0U	3.0			
13	204	IZMI	44	NS	0600.0E		360.0D		25.0		
	127	TORN	43	NS	0840.0		21.0		14.0		V=0
	235	CUBA	44	NS	1305.0E		295.0D		6.0		
	280	CUBA	44	NS	1305.0E		295.0D		15.0		
	4995	LEAR	20	GRF	0002.0	0004.0	25.0	45.0			QL=4 ST=2 TYP=2
	8800	LEAR	20	GRF	0008.0	0012.0	20.0	36.0			QL=4 ST=2 TYP=2
	15400	LEAR	20	GRF	0008.0	0021.0	27.0	40.0			QL=4 ST=2 TYP=2
	245	LEAR	8	S	0644.0	0644.0	U	56.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0711.8	0712.1	0.5	30.0			
	204	IZMI	41	F	0714.7	0714.9	0.9	48.0			
	204	IZMI	42	SER	0812.7	0813.7	1.2	71.0			
	245	LEAR	8	S	0813.0	0813.0	U	52.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0813.0	0813.0	U	62.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1158.0	1158.0	U	59.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1158.0	1158.0	U	69.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1350.0	1352.0	2.0	100.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1352.0	1352.0	U	66.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1715.0	1715.0	U	66.0			QL=4 ST=2 TYP=3
	2800	PENT	21	GRF	1735.0	1752.0	110.0	26.0			
	245	PALE	8	S	2028.0	2028.0	U	50.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2028.0	2028.0	U	56.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2131.0	2132.0	1.0	210.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2132.0	2132.0	U	98.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	2344.0	2356.3	46.0	123.9			
	2800	HIRA	7	C	2349.0	2404.0	26.0	75.0			0
	200	HIRA	7	C	2352.0	2354.0	5.0	35.0			
	2695	LEAR	20	GRF	2354.0	2356.0	24.0	83.0			QL=4 ST=2 TYP=2
	1415	LEAR	4	S/F	2355.0	2356.0	14.0	53.0			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
14	235	CUBA	44	NS	1300.0E		120.0D		5.0		
	280	CUBA	44	NS	1300.0E		120.0D		12.0		
	4995	LEAR	20	GRF	0002.0	0004.0	25.0	45.0			QL=4 ST=2 TYP=2
	4995	PALE	20	GRF	0002.0	0004.0	24.0	66.0			QL=4 ST=2 TYP=2
	8800	PALE	20	GRF	0003.0	0013.0	28.0	64.0			QL=4 ST=2 TYP=2
	245	PALE	20	GRF	0005.0	0008.0	23.0	45.0			QL=4 ST=2 TYP=2
	8800	LEAR	20	GRF	0008.0	0012.0	20.0	36.0			QL=4 ST=2 TYP=2
	15400	LEAR	20	GRF	0008.0	0021.0	27.0	40.0			QL=4 ST=2 TYP=2
	2840	PEKG	20	GRF	0234.0	0300.5	44.0	41.6			
	500	HIRA	7	C	0236.0	0317.0	53.0	35.0			0
	200	HIRA	7	C	0237.0	0254.0	38.0	30.0			
	245	PALE	48	C	0258.0	0303.0	14.0	120.0			QL=4 ST=2 TYP=8
	245	LEAR	8	S	0259.0	0259.0	U	59.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0302.0	0303.0	1.0	100.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	0307.0	0310.0	5.0	53.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0423.0	0423.0	1.0	15.0			
	500	HIRA	7	C	0424.0	0428.0	4.0	15.0			0
	200	HIRA	8	S	0645.0	0646.0	1.0	60.0			
	600	GORK	46	C	0645.0	0650.6		110.0			
	600	GORK	46	C	0645.0	0649.6	14.0	1400.0			
	610	LEAR	49	GB	0646.0	0649.0	7.0	1200.0			QL=4 ST=2 TYP=6
	610	SVTO	49	GB	0646.0	0649.0	7.0	990.0			QL=4 ST=3 TYP=6
	500	HIRA	7	C	0646.0	0650.0	12.0	200.0			0
	410	LEAR	8	S	0650.0	0650.0	U	75.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0650.0	0650.0	U	37.0			QL=4 ST=3 TYP=3
	900	GORK	2	S/F	0651.7	0653.5	3.7	4.5			
	600	GORK	41	F	0917.6	0918.0	1.3	18.0			
	600	GORK	41	F	0917.6	0918.6		6.0			
	600	GORK	21	GRF	0926.0	0943.2	21.5	6.0			
	3000	IZMI	22	GRF	0928.9	0940.3	23.5	14.0	6.8		
	600	GORK	41	F	0929.3	0932.1	8.0	3.4			
	900	GORK	41	F	0929.3	0932.1		25.0			
	600	GORK	41	F	0929.3	0936.3		6.0			
	900	GORK	41	F	0929.3	0931.6	18.3	23.0			
	245	SGMR	8	S	1154.0	1154.0	U	51.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	1420.0	1426.0	9.0	56.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	1423.0	1428.0	9.0	72.0			QL=4 ST=2 TYP=8
	410	SGMR	48	C	1425.0	1427.0	7.0	100.0			QL=4 ST=2 TYP=8
	610	SGMR	48	C	1425.0	1425.0	7.0	130.0			QL=4 ST=2 TYP=8
	1415	SGMR	48	C	1425.0	1426.0	7.0	50.0			QL=4 ST=2 TYP=8
	245	PALE	48	C	1741.0	1743.0	4.0	220.0			QL=4 ST=2 TYP=8
	245	SGMR	8	S	1741.0	1741.0	U	210.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1745.0	1745.0	U	150.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	1919.0	1923.0	8.0	4.0			
	2695	PALE	20	GRF	2353.0	2356.0	39.0	100.0			QL=4 ST=2 TYP=2
	1415	PALE	4	S/F	2355.0	2356.0	10.0	61.0			QL=4 ST=2 TYP=3
15	245	LEAR	8	S	0731.0	0731.0	U	84.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0731.0	0731.0	U	78.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0731.4	0731.7	0.9	381.0			
	204	IZMI	7	C	0734.8	0734.8	0.1	7.0			
	2695	SGMR	4	S/F	1411.0	1412.0	7.0	55.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1412.0	1412.0	U	31.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1412.0	1412.0	6.0	34.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1413.0	1413.0	U	31.0			QL=4 ST=2 TYP=3
16	204	IZMI	43	NS	0600.0		360.0D		35.0		
	127	TORN	44	NS	0630.0E		510.0D		34.0		V=3
	245	SGMR	43	NS	1142.0	2045.0	571.0	210.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1305.0E		475.0D		10.0		
	280	CUBA	44	NS	1305.0E		475.0D		18.0		
	245	SVTO	43	NS	1434.0	1530.0	75.0	81.0			QL=4 ST=3 TYP=1
	245	PALE	43	NS	1703.0	2035.0	417.0	220.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	1703.0	1930.0	417.0	140.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	1703.0	1936.0	417.0	190.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	1703.0	1703.0	417.0	63.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	1703.0	1719.0	417.0	91.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	1703.0	2056.0	417.0	880.0			QL=4 ST=1 TYP=1
	245	LEAR	8	S	0105.0	0105.0	U	84.0			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
16	2840	PEKG	45	C	0312.0E	0313.7	9.0D	28.0			
	2800	HIRA	4	S/F	0313.0	0314.0	3.0	30.0			0
	500	HIRA	8	S	0314.0	0314.0	1.0	70.0			0
	900	GORK	40	F	0524.2	0524.7	0.8	15.0			
	600	GORK	3	S	0524.3	0524.5	0.6	2.7			
	600	GORK	46	C	0959.1	0959.4	1.6	5.5			
	600	GORK	46	C	0959.1	0959.6		12.0			
	2950	GORK	4	S/F	0959.2	0959.6	1.2	14.0			
	900	GORK	2	S/F	0959.2	0959.8	0.9	7.9			
	3000	IZMI	5	S	0959.4	0959.7	0.5	16.0	8.3		
	245	SGMR	8	S	1140.0	1140.0	U	58.0			QL=4 ST=2 TYP=3
	2800	PENT	21	GRF	2046.0	2102.0	88.0	4.0			
17	245	LEAR	43	NS	0059.0	0444.0	493.0	78.0			QL=4 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		45.0		
	127	TORN	44	NS	0630.0E		45.0D		180.0		V=2
	245	SVTO	43	NS	0850.0	1015.0	282.0	230.0			QL=4 ST=2 TYP=1
	127	TORN	44	NS	1230.0E		150.0D		24.0		V=1
	235	CUBA	44	NS	1400.0E		470.0D		8.0		
	280	CUBA	44	NS	1400.0E		470.0D		17.0		
	245	PALE	43	NS	1703.0	2056.0	618.0	880.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	1002.0	1002.0	U	53.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	1804.0	1845.0	65.0	5.0			
18	2840	PEKG	5	S	0401.0	0403.0	5.0	10.3			
	245	LEAR	8	S	0512.0	0512.0	U	74.0			QL=4 ST=2 TYP=3
	600	GORK	3	S	0655.0	0655.3	0.7	11.0			
	204	IZMI	7	C	0720.5	0720.6	0.4	13.0			
	204	IZMI	42	SER	0914.4	0914.6	0.8	42.0			
	204	IZMI	42	SER	0917.8	0918.1	1.0	10.0			
	245	LEAR	8	S	1006.0	1006.0	U	65.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	1057.3	1057.6	0.7	67.0			
19	204	IZMI	43	NS	0600.0		360.0D				
	127	TORN	44	NS	0630.0E		350.0D		16.0		V=1
	235	CUBA	44	NS	1305.0E		355.0D		12.0		
	280	CUBA	44	NS	1305.0E		355.0D		22.0		
	245	SGMR	43	NS	1452.0	1528.0	36.0	79.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1755.0	1810.0	98.0	930.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1758.0	1821.0	153.0	160.0			QL=4 ST=2 TYP=1
	200	HIRA	7	C	0108.0	0109.0	3.0	45.0			
	2840	PEKG	3	S	0110.0	0113.9	12.0	18.4			
	2840	PEKG	1	S	0210.0	0213.4	9.0	6.0			
	200	HIRA	8	S	0524.0	0525.0	1.0	20.0			
	245	LEAR	8	S	0524.0	0524.0	1.0	130.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0524.0	0524.0	U	120.0			QL=4 ST=2 TYP=3
	600	GORK	42	SER	0904.7	0905.0	8.4	6.1			
	600	GORK	42	SER	0904.7	0912.7		11.0			
	127	TORN	4	S/F	1006.3	1006.7	0.8	100.0	35.0		
	204	IZMI	41	F	1006.4	1006.8	0.8	19.0			
	204	IZMI	42	SER	1009.5	1009.6	1.7	35.0			
	245	SVTO	8	S	1011.0	1011.0	U	310.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1011.0	1011.0	U	22.0			QL=4 ST=2 TYP=3
	900	GORK	46	C	1011.3	1011.6	0.7	40.0			
	600	GORK	4	S/F	1011.3	1011.6	0.7	83.0			
	204	IZMI	46	C	1011.3	1011.6	1.5	408.0			
	900	GORK	46	C	1011.3	1011.7		45.0			
	127	TORN	7	C	1011.4	1011.7	0.7	1800.0	900.0		
	3000	IZMI	5	S	1030.8	1031.9	1.7	11.0	4.9		
	610	SVTO	8	S	1035.0	1035.0	1.0	110.0			QL=4 ST=2 TYP=3
	204	IZMI	46	C	1045.8	1046.3	1.4	510.0			
	245	SVTO	8	S	1046.0	1046.0	U	150.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1046.0	1047.0	1.0	32.0			QL=4 ST=2 TYP=3
	127	TORN	4	S/F	1046.1	1046.5	1.1	840.0	420.0		
	245	SVTO	8	S	1052.0	1052.0	U	210.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1052.0	1052.0	1.0	67.0			QL=4 ST=2 TYP=3
	610	SVTO	48	C	1057.0	1103.0	11.0	110.0			QL=4 ST=2 TYP=8
	610	SVTO	4	S/F	1111.0	1112.0	4.0	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1148.0	1148.0	1.0	57.0			QL=4 ST=2 TYP=3

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OCTOBER 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
19	204	IZMI	42	SER	1148.0	1149.1	1.4	130.0			
	245	SGMR	8	S	1153.0	1153.0	2.0	60.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1201.0	1201.0	U	90.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1342.0	1342.0	1.0	880.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1342.0	1343.0	1.0	140.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1342.0	1342.0	U	81.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1342.0	1343.0	1.0	100.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1342.0	1342.0	U	94.0			QL=4 ST=2 TYP=3
	127	TORN	42	SER	1342.3	1347.4	6.0	930.0			DISTURBED
	245	SVTO	49	GB	1343.0	1343.0	U	630.0			QL=2 ST=2 TYP=6
	245	SGMR	8	S	1430.0	1430.0	U	83.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1433.0	1433.0	U	59.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1629.0	1629.0	U	100.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1640.0	1640.0	U	56.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1652.0	1652.0	U	430.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1747.0	1747.0	U	53.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1755.0	1756.0	1.0	220.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1755.0	1755.0	1.0	360.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1755.0	1755.0	U	33.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1805.0	1805.0	U	79.0			QL=4 ST=2 TYP=3
	2800	PENT	24	R	1806.0	1932.0D	86.0U	5.0			
	245	PALE	49	GB	1810.0	1810.0	U	930.0			QL=4 ST=2 TYP=6
	245	PALE	8	S	2028.0	2029.0	2.0	94.0			QL=4 ST=2 TYP=3
	2800	PENT	21	GRF	2044.0	2115.0	54.0	20.0			
20	204	IZMI	44	NS	0600.0E		360.0D		15.0		
	235	CUBA	44	NS	1310.0E		110.0D		7.0		
	280	CUBA	44	NS	1310.0E		110.0D		16.0		
	245	SGMR	43	NS	1654.0	1905.0	171.0	160.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	0032.0	0032.0	U	100.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0034.0	0042.5	33.0	56.1			
	2800	HIRA	7	C	0039.0	0042.0	7.0	40.0			
	245	LEAR	8	S	0039.0	0039.0	U	260.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	0039.0	0039.0	6.0	92.0			QL=4 ST=2 TYP=8
	410	PALE	4	S/F	0039.0	0043.0	4.0	92.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	0039.0	0041.0	5.0	94.0			QL=4 ST=2 TYP=3
	500	HIRA	7	C	0039.0	0040.0	10.0	20.0			
	2695	PALE	8	S	0040.0	0040.0	2.0	42.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0041.0	0041.0	2.0	70.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0041.0	0041.0	1.0	49.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0222.0	0222.0	U	68.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0329.0	0333.2	19.0	27.6			
	2800	HIRA	7	C	0332.0	0333.0	5.0	30.0			
	2840	PEKG	3	S	0459.0	0506.4	11.0	23.3			
	2800	HIRA	7	C	0501.0	0514.0	14.0	40.0			
	500	HIRA	7	C	0505.0	0514.0	10.0	135.0			
	245	LEAR	48	C	0510.0	0513.0	3.0	230.0			QL=4 ST=2 TYP=8
	2840	PEKG	5	S	0511.0	0514.0	9.0	32.9			
	410	LEAR	8	S	0514.0	0514.0	U	74.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0514.0	0514.0	U	62.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0514.0	0514.0	U	70.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0525.0	0529.2	10.0	8.7			
	245	SVTO	4	S/F	0536.0	0538.0	4.0	90.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0538.0	0538.0	U	55.0			QL=4 ST=2 TYP=3
	600	GORK	4	S/F	0540.2	0540.5	0.8	13.0			
	900	GORK	3	S	0540.3	0540.6	0.5	11.0			
	2840	PEKG	1	S	0610.0	0612.9	7.0	8.7			
	200	HIRA	8	S	0611.0	0612.0	2.0	195.0			
	204	IZMI	41	F	0611.7	0612.5	1.7	494.0			
	2950	GORK	4	S/F	0611.9	0613.0	2.5	9.1			
	900	GORK	41	F	0611.9	0612.4	3.5	6.6			
	900	GORK	41	F	0611.9	0614.8		8.8			
	600	GORK	46	C	0612.2	0615.2		65.0			
	600	GORK	46	C	0612.2	0614.8	3.8	16.0			
	245	SVTO	8	S	0613.0	0615.0	2.0	76.0			QL=2 ST=2 TYP=3
	204	IZMI	42	SER	0614.9	0615.6	1.6	176.0			
	500	HIRA	8	S	0615.0	0615.0	1.0	45.0			
	245	LEAR	8	S	0615.0	0615.0	U	55.0			QL=4 ST=2 TYP=3
	600	GORK	3	S	0737.8	0738.4	1.1	10.0			

S O L A R R A D I O E M I S S I O N
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
20	204	IZMI	41	F	0738.0	0738.4	0.8	52.0			
	204	IZMI	42	SER	0858.9	0859.2	0.6	30.0			
	2840	PEKG	5	S	0859.0	0902.5	8.0	25.6			
	245	SVTO	8	S	0901.0	0902.0	1.0	260.0			QL=4 ST=2 TYP=3
	2950	GORK	46	C	0901.4	0902.2		20.0			
	2950	GORK	46	C	0901.4	0901.9	3.1	17.0			
	600	GORK	46	C	0901.5	0902.0	5.5	14.0			
	600	GORK	46	C	0901.5	0903.8		6.0			
	900	GORK	46	C	0901.6	0902.0	2.9	7.7			
	3000	IZMI	7	C	0901.6	0902.2	1.4	21.0	11.7		
	900	GORK	46	C	0901.6	0902.4		8.8			
	245	LEAR	8	S	0902.0	0902.0	U	270.0			QL=4 ST=2 TYP=3
	2950	GORK	1	S	0910.4	0910.7	1.3	3.9			
	204	IZMI	42	SER	0916.9	0917.2	0.7	52.0			
	245	SGMR	8	S	1308.0	1308.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1351.0	1351.0	U	64.0			QL=4 ST=2 TYP=3
	9500	CUBA	21	GRF	1353.0	1359.0	49.0	13.0	6.0		
	2695	SGMR	8	S	1411.0	1412.0	1.0	59.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1411.0	1412.0	1.0	58.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1411.0	1411.0	1.0	38.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1411.0	1412.0	1.0	56.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1411.0	1412.0	1.0	46.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1411.5	1412.0	1.5	18.0	9.0		
	8800	SVTO	8	S	1412.0	1412.0	U	26.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1422.0	1424.0	2.0	55.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1422.2	1424.0	3.1	8.0	4.0		
	245	SGMR	8	S	1423.0	1423.0	U	52.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1423.0	1424.0	1.0	33.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1423.0	1423.0	U	24.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1423.0	1424.0	4.0	34.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1424.0	1424.0	U	26.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1425.0	1426.0	7.0	44.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1426.0	1426.0	U	58.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1426.0	1426.0	1.0	100.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1426.0	1426.0	1.0	55.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1426.0	1426.0	1.0	58.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1426.0	1426.0	U	68.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1426.0	1426.0	1.0	110.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1427.0	1427.0	U	59.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1427.0	1427.0	U	54.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1501.0	1501.0	U	92.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1628.0	1628.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1640.0	1640.0	U	55.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1742.0	1754.0	64.0	5.0			
	9500	CUBA	1	S	1919.5	1920.0	1.5	16.0	8.0		
	2800	PENT	20	GRF	2035.0	2112.0	112.0	20.0			
21	204	IZMI	44	NS	0625.0E		215.0D		15.0		
	235	CUBA	44	NS	1300.0E		510.0D		7.0		
	280	CUBA	44	NS	1300.0E		510.0D		15.0		
	245	SVTO	43	NS	1347.0	1353.0	6.0	310.0			QL=2 ST=2 TYP=1
	200	HIRA	8	S	0045.0	0045.0	1.0	20.0			
	2840	PEKG	1	S	0045.0	0048.1	7.0	7.0			
	245	LEAR	8	S	0058.0	0059.0	1.0	150.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0058.0	0059.0	1.0	180.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0059.0	0059.0	1.0	20.0			
	200	HIRA	8	S	0239.0	0240.0	1.0	90.0			
	204	IZMI	41	F	0612.9	0613.2	0.7	105.0			
	200	HIRA	8	S	0613.0	0613.0	1.0	55.0			
	500	HIRA	8	S	0613.0	0613.0	1.0	20.0			
	600	GORK	4	S/F	0613.1	0613.4	0.7	20.0			
	200	HIRA	8	S	0644.0	0645.0	1.0	30.0			
	245	LEAR	8	S	0700.0	0700.0	U	92.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0700.0	0700.0	U	110.0			QL=4 ST=2 TYP=3
	900	GORK	40	F	0741.9	0744.6	3.4	8.8			
	1415	LEAR	8	S	0743.0	0743.0	U	55.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0743.0	0743.0	1.0	65.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0833.0	0834.0	1.0	120.0			QL=4 ST=2 TYP=3
	204	IZMI	45	C	0833.8	0834.1	0.6	401.0			

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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	LEAR	8	S	0834.0	0834.0	U	150.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0912.0	0912.0	U	51.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0920.2	0921.4	4.4	25.0			
	204	IZMI	7	C	0938.8	0938.9	0.3	25.0			
	204	IZMI	42	SER	0946.6	0947.3	1.3	23.0			
	245	SVTO	8	S	1006.0	1007.0	1.0	66.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1009.0	1010.0	1.0	92.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1014.0	1014.0	U	58.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1016.0	1016.0	U	59.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1016.2	1016.3	0.7	93.0			
	245	SGMR	8	S	1325.0	1325.0	U	55.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	1346.0	1347.0	4.0	250.0			QL=4 ST=2 TYP=8
	127	TORN	4	S/F	1347.1	1348.1	1.8	130.0	35.0		
	245	SGMR	49	GB	1352.0	1353.0	1.0	570.0			QL=4 ST=2 TYP=6
	127	TORN	48	C	1352.2	1352.7	2.1	960.0	140.0		
	245	SGMR	8	S	1419.0	1419.0	U	77.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1419.0	1419.0	U	96.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1419.0	1419.0	U	31.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1419.0	1419.0	U	180.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1512.0	1512.0	U	190.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1512.0	1512.0	U	87.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1512.0	1512.0	U	110.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1512.0	1512.0	U	100.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1620.0	1620.0	U	59.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1627.0	1627.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1655.0	1655.0	U	55.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1822.0	1822.0	U	140.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	2005.2	2005.4	1.2	13.0	6.0		
	2800	PENT	29	PBI	2028.0	2105.0	124.0U	23.0			
	245	PALE	8	S	2105.0	2105.0	U	51.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2105.0	2105.0	U	200.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	2348.0	2352.3	22.0	10.8			
22	127	TORN	43	NS	0750.0		70.0D		17.0		V=1
	245	SGMR	43	NS	1127.0	1808.0	594.0	960.0			QL=4 ST=2 TYP=1
	410	SGMR	43	NS	1130.0	1158.0	155.0	150.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1305.0E		175.0D		7.0		
	280	CUBA	44	NS	1305.0E		175.0D		10.0		
	410	SGMR	43	NS	1645.0	1700.0	177.0	170.0			QL=4 ST=2 TYP=1
	410	PALE	43	NS	1709.0	1710.0	395.0	52.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1709.0	1710.0	411.0	100.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	1709.0	2304.0	411.0	350.0			QL=4 ST=1 TYP=1
	245	LEAR	43	NS	2220.0	2305.0	162.0	300.0			QL=4 ST=2 TYP=1
	200	HIRA	8	S	0230.0	0231.0	1.0	160.0			0
	410	LEAR	8	S	0259.0	0259.0	U	51.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0335.0	0335.0	1.0	60.0			0
	200	HIRA	8	S	0335.0	0335.0	1.0	60.0			0
	245	LEAR	8	S	0335.0	0335.0	U	60.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0410.0	0413.2	7.0	14.0			
	900	GORK	41	F	0648.2	0650.1		6.6			
	900	GORK	41	F	0648.2	0648.4	2.7	2.2			
	600	GORK	7	C	0649.4	0650.0		5.9			
	600	GORK	7	C	0649.4	0649.7	1.4	3.1			
	204	IZMI	42	SER	0742.8	0744.1	1.8	25.0			
	127	TORN	45	C	0743.0	0744.0	2.0	220.0	70.0		
	204	IZMI	45	C	0745.9	0746.3	0.7	345.0			
	245	SVTO	8	S	0746.0	0746.0	U	230.0			QL=4 ST=2 TYP=3
	600	GORK	46	C	0746.0	0746.3	0.8	12.0			
	600	GORK	46	C	0746.0	0746.4		5.2			
	127	TORN	8	S	0746.2	0746.3	0.3	370.0	190.0		
	245	LEAR	8	S	0925.0	0925.0	U	250.0			QL=4 ST=2 TYP=3
	900	GORK	41	F	0925.3	0926.2		100.0			
	600	GORK	41	F	0925.3	0926.2		2.0			
	900	GORK	41	F	0925.3	0925.5	1.3	2.2			
	600	GORK	41	F	0925.3	0925.5	1.2	7.0			
	204	IZMI	45	C	0925.3	0925.5	1.1	214.0			
	245	SVTO	8	S	0955.0	0956.0	2.0	85.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0956.0	0956.0	U	79.0			QL=4 ST=2 TYP=3
	600	GORK	41	F	1022.5	1028.4		23.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	600	GORK	41	F	1022.5	1026.7	7.7	28.0			
	900	GORK	40	F	1023.0	1028.4	9.1	3.3			
	204	IZMI	42	SER	1024.2	1042.4	24.6	64.0			
	245	SGMR	8	S	1125.0	1125.0	U	72.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1126.0	1126.0	U	28.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1521.0	1521.0	U	65.0			QL=4 ST=2 TYP=3
	2800	PENT	29	PBI	1528.0	1532.0	64.0U	94.0			
	15400	SVTO	48	C	1530.0E	1532.0U	5.0D	340.0			QL=2 ST=2 TYP=8
	9500	CUBA	4	S/F	1531.8	1534.7	6.2	362.0	181.0		
	2695	SGMR	4	S/F	1532.0	1532.0	5.0	110.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1532.0	1532.0	5.0	230.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1532.0	1534.0	5.0	420.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	1532.0	1532.0	5.0	330.0			QL=4 ST=2 TYP=3
	2695	SVTO	48	C	1532.0E	1532.0U	3.0D	78.0			QL=2 ST=2 TYP=8
	4995	SVTO	48	C	1532.0E	1532.0U	3.0D	210.0			QL=2 ST=2 TYP=8
	8800	SVTO	48	C	1532.0E	1532.0U	3.0D	200.0			QL=2 ST=2 TYP=8
	1415	SGMR	4	S/F	1533.0	1534.0	4.0	150.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1533.0E	1534.0U	2.0D	100.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1638.0	1638.0	U	63.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1807.0	1808.0	1.0	960.0			QL=2 ST=2 TYP=6
	2800	PENT	1	S	2206.0	2223.0	26.0U	10.0			
	245	LEAR	8	S	2209.0	2210.0	1.0	65.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2213.0	2213.0	U	66.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	2335.0	2336.0	1.0	30.0			0
23	410	PALE	43	NS	0242.0	0258.0	40.0	100.0			QL=4 ST=2 TYP=1
	127	TORN	44	NS	1230.0E		150.0D		5.0		V=1,DISTURBED
	235	CUBA	44	NS	1300.0E		420.0D		6.0		
	280	CUBA	44	NS	1300.0E		420.0D		14.0		
	245	PALE	43	NS	1709.0	2304.0	516.0	350.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1952.0	2016.0	80.0	490.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	2001.0	2011.0	95.0	130.0			QL=4 ST=2 TYP=1
	410	SGMR	43	NS	2003.0	2003.0	4.0	100.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2210.0	2211.0	54.0	380.0			QL=2 ST=3 TYP=1
	245	LEAR	43	NS	2210.0	2211.0	110.0	380.0			QL=2 ST=3 TYP=1
	245	LEAR	43	NS	2349.0	0800.0	615.0	790.0			QL=4 ST=2 TYP=1
	500	HIRA	7	C	0226.0	0248.0	50.0	40.0			0
	410	LEAR	8	S	0259.0	0300.0	1.0	68.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0409.0	0410.0	1.0	80.0			WL
	245	LEAR	8	S	0409.0	0409.0	U	440.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0409.0	0409.0	U	74.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0422.0	0426.5	8.0	5.0			
	204	IZMI	7	C	0640.8	0640.8	0.2	33.0			
	600	GORK	41	F	0713.4	0717.3		22.0			
	600	GORK	41	F	0713.4	0722.7		17.0			
	600	GORK	41	F	0713.4	0716.9	11.8	60.0			
	410	SVTO	8	S	0715.0	0715.0	U	57.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0719.0	0719.0	2.0	52.0			QL=4 ST=2 TYP=3
	2840	PEKG	45	C	0753.0	0756.0	10.0	6.3			
	3000	IZMI	22	GRF	0754.7	0756.9	23.0	16.0	3.4		
	2950	GORK	7	C	0755.5	0756.2	2.4	14.0			
	2950	GORK	7	C	0755.5	0756.8		11.0			
	245	SVTO	8	S	0758.0	0759.0	1.0	75.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0758.0	0759.0	1.0	30.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0759.0	0759.0	U	100.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0837.0	0837.0	U	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0837.0	0837.0	U	98.0			QL=4 ST=2 TYP=3
	204	IZMI	45	C	0837.4	0837.5	0.5	185.0			
	204	IZMI	7	C	0856.5	0856.6	0.3	16.0			
	600	GORK	7	C	0956.1	0956.3	0.6	7.7			
	600	GORK	7	C	0956.1	0956.4		12.0			
	900	GORK	7	C	1002.0	1002.7	1.0	7.8			
	900	GORK	7	C	1002.0	1002.9		4.4			
	9100	GORK	3	S	1016.5	1016.6	0.3	15.0			
	204	IZMI	42	SER	1031.3	1032.0	2.2	43.0			
	600	GORK	7	C	1031.3	1032.1	1.3	4.8			
	600	GORK	7	C	1031.3	1032.3		4.8			
	900	GORK	7	C	1031.5	1032.0	1.0	3.3			
	900	GORK	7	C	1031.5	1032.2		5.6			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
23	9100	GORK	1	S	1031.7	1032.0	0.6	12.0			
	204	IZMI	41	F	1048.3	1048.5	0.6	10.0			
	204	IZMI	41	F	1056.6	1056.9	0.7	19.0			
	245	SGMR	49	GB	1221.0	1221.0	U	690.0			QL=4 ST=2 TYP=6
	2800	PENT	20	GRF	1534.0	1749.0D	135.0U				
	1415	SGMR	8	S	1549.0	1549.0	U	84.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	1929.0	1930.0	1.0	210.0			QL=4 ST=2 TYP=6
	245	SGMR	8	S	1929.0	1929.0	U	260.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1957.0	1957.0	U	75.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	2003.0	2003.0	1.0	100.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2007.0	2008.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	2009.0	2014.0	7.0	1000.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	2016.0	2021.0	6.0	1000.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	2025.0	2027.0	7.0	990.0			QL=4 ST=2 TYP=8
	245	LEAR	8	S	2335.0	2335.0	1.0	78.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2339.0	2340.0	1.0	92.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2344.0	2344.0	1.0	95.0			QL=4 ST=2 TYP=3
24	410	PALE	43	NS	0018.0	0041.0	105.0	110.0			QL=4 ST=2 TYP=1
	204	IZMI	43	NS	0600.0		360.0D		30.0		
	410	SVTO	43	NS	0746.0	0752.0	9.0	100.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1127.0	1419.0	342.0	880.0			QL=4 ST=2 TYP=1
	127	TORN	44	NS	1320.0E		90.0D		14.0D		V=1
	235	CUBA	44	NS	1320.0E		460.0D		10.0		
	280	CUBA	44	NS	1320.0E		460.0D		8.0		
	245	PALE	43	NS	1847.0	1847.0	167.0	400.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1925.0	2039.0	120.0	470.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	2155.0	2211.0	350.0	610.0			QL=4 ST=2 TYP=1
	2840	PEKG	45	C	0007.0	0009.6	12.0	30.7			
	245	LEAR	49	GB	0008.0	0009.0	1.0	760.0			QL=2 ST=2 TYP=6
	2800	HIRA	8	S	0009.0	0009.0	1.0	35.0			0
	500	HIRA	8	S	0009.0	0010.0	2.0	25.0			WR
	245	PALE	49	GB	0009.0	0009.0	U	920.0			QL=4 ST=2 TYP=6
	410	PALE	8	S	0009.0	0010.0	2.0	67.0			QL=4 ST=2 TYP=3
	500	HIRA	8	S	0053.0	0053.0	1.0	10.0			0
	410	LEAR	8	S	0053.0	0053.0	U	69.0			QL=2 ST=2 TYP=3
	2840	PEKG	1	S	0224.0	0226.9	9.0	4.8			
	500	HIRA	8	S	0226.0	0228.0	2.0	160.0			0
	410	LEAR	8	S	0226.0	0227.0	1.0	440.0			QL=4 ST=2 TYP=3
	410	PALE	49	GB	0226.0	0227.0	1.0	790.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	0227.0	0227.0	U	660.0			QL=4 ST=2 TYP=6
	500	HIRA	42	SER	0337.0	0357.0	20.0	35.0			0
	204	IZMI	45	C	0608.3	0608.4	0.5	124.0			
	410	SVTO	48	C	0734.0	0735.0	5.0	87.0			QL=4 ST=2 TYP=8
	204	IZMI	25	R	0735.0		56.0		95.0		
	204	IZMI	42	SER	0735.9	0736.3	1.5	218.0			
	245	SVTO	48	C	0736.0	0738.0	2.0	840.0			QL=4 ST=2 TYP=8
	245	LEAR	48	C	0750.0	0751.0	5.0	130.0			QL=2 ST=2 TYP=8
	2840	PEKG	3	S	0751.0	0800.8	17.0	15.4			
	600	GORK	41	F	0751.4	0755.1		7.3			
	600	GORK	41	F	0751.4	0752.3	5.2	60.0			
	900	GORK	41	F	0751.4	0751.5	5.6	5.4			
	900	GORK	41	F	0751.4	0754.6		36.0			
	900	GORK	41	F	0751.4	0755.7		16.0			
	410	LEAR	48	C	0752.0	0753.0	3.0	76.0			QL=4 ST=2 TYP=8
	3000	IZMI	40	F	0753.4	0754.4	2.0	7.0			
	2950	GORK	4	S/F	0754.0	0800.9U	8.5	14.0U			
	204	IZMI	46	C	0754.5	0754.9	0.7	625.0			
	410	LEAR	8	S	0800.0	0801.0	1.0	76.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	0800.0	0800.0	1.0	660.0			QL=4 ST=2 TYP=6
	4995	SVTO	8	S	0800.0	0800.0	1.0	24.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0800.0	0800.0	1.0	22.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	0800.0	0800.0	1.0	23.0			QL=4 ST=2 TYP=3
	204	IZMI	45	C	0800.4	0800.8	1.7	3320.0			
	3000	IZMI	7	C	0800.8	0800.9	0.3	12.0	5.7		
	410	SVTO	8	S	0801.0	0801.0	U	70.0			QL=4 ST=2 TYP=3
	2950	GORK	2	S/F	0813.8	0815.1	4.0	3.9			
	204	IZMI	25	R	1007.0		233.0D		130.0		
	204	IZMI	42	SER	1110.0	1111.4	68.0	190.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
24	3000	IZMI	40	F	1111.3	1111.6	1.8	8.0			
	204	IZMI	46	C	1112.2	1112.6	0.6	4200.0			
	204	IZMI	42	SER	1123.0	1123.4	2.9	335.0			
	204	IZMI	42	SER	1146.0	1147.9	4.3	454.0			
	127	TORN	42	SER	1411.7	1415.4	13.3	440.0D	50.0D		
	410	SVTO	8	S	1418.0	1419.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	1419.0	1421.0	2.0	390.0			QL=4 ST=2 TYP=8
	2800	PENT	29	PBI	1748.0	1806.0	104.0U	64.0			
	245	PALE	48	C	1804.0	1804.0	5.0	1300.0			QL=4 ST=2 TYP=8
	410	PALE	48	C	1804.0	1807.0	6.0	140.0			QL=4 ST=2 TYP=8
	610	PALE	4	S/F	1804.0	1807.0	6.0	110.0			QL=4 ST=2 TYP=3
	1415	PALE	49	GB	1804.0	1806.0	5.0	580.0			QL=4 ST=2 TYP=6
	2695	PALE	4	S/F	1804.0	1806.0	5.0	68.0			QL=4 ST=2 TYP=3
	1415	SGMR	49	GB	1804.0	1806.0	6.0	580.0			QL=4 ST=2 TYP=6
	2695	SGMR	4	S/F	1804.0	1806.0	6.0	65.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1804.0	1806.0	5.0	99.0			QL=4 ST=2 TYP=3
	610	SGMR	48	C	1804.0	1818.0	24.0	140.0			QL=4 ST=2 TYP=8
	410	SGMR	48	C	1804.0	1811.0	44.0	180.0			QL=4 ST=2 TYP=8
	245	SGMR	48	C	1804.0	1804.0	81.0	2100.0			QL=4 ST=2 TYP=8
	4995	PALE	8	S	1806.0	1806.0	1.0	100.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1806.0	1806.0	2.0	45.0			QL=4 ST=2 TYP=3
	245	PALE	48	C	1811.0	1815.0	36.0	1300.0			QL=4 ST=2 TYP=8
	410	PALE	48	C	1811.0	1811.0	34.0	180.0			QL=4 ST=2 TYP=8
	610	PALE	4	S/F	1813.0	1818.0	14.0	140.0			QL=4 ST=2 TYP=3
	2800	PENT	41	F	2030.0	2202.0	122.0U	17.0			
	500	HIRA	8	S	2202.0	2202.0	1.0	100.0			0
	500	HIRA	8	S	2212.0	2212.0	1.0	25.0			0
	200	HIRA	8	S	2226.0	2227.0	2.0	50.0			WL
	410	PALE	8	S	2327.0	2327.0	U	61.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2340.0	2340.0	U	65.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	2341.0	2341.0	1.0	200.0			0
25	245	PALE	43	NS	0107.0	0202.0	157.0	100.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	0127.0	0440.0	363.0	330.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0531.0	0541.0	97.0	230.0			QL=4 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		15.0		
	127	TORN	44	NS	0630.0E	0912.4	165.0D	190.0	19.0		V=1
	245	SVTO	44	NS	0840.0E	0840.0	100.0D	85.0			QL=2 ST=2 TYP=1
	245	SGMR	43	NS	1200.0	1202.0	132.0	450.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1232.0	1331.0	97.0	250.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1606.0	1840.0	307.0	560.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2209.0	2359.0	111.0	250.0			QL=4 ST=3 TYP=1
	245	LEAR	43	NS	2209.0	2221.0	111.0	240.0			QL=2 ST=3 TYP=1
	245	LEAR	43	NS	2209.0	0013.0	111.0	370.0			QL=4 ST=3 TYP=1
	2840	PEKG	5	S	0608.0	0610.4	8.0	10.6			
	9100	GORK	2	S/F	0610.1	0610.4	1.0	20.0			
	2950	GORK	1	S	0610.1	0610.4	1.5	11.0			
	2840	PEKG	1	S	0642.0	0644.9	7.0	5.8			
	204	IZMI	41	F	0643.9	0644.6	1.3	83.0			
	200	HIRA	8	S	0644.0	0645.0	1.0	40.0			0
	2840	PEKG	3	S	0658.0	0702.3	13.0	22.3			
	245	SVTO	8	S	0700.0E	0702.0U	2.0D	100.0			QL=2 ST=2 TYP=3
	500	HIRA	8	S	0702.0	0703.0	1.0	145.0			WL
	410	LEAR	8	S	0702.0	0702.0	U	57.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0702.0	0702.0	U	86.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0702.0	0702.0	U	41.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0702.0	0702.0	U	110.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0702.0	0702.0	U	48.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0702.0	0702.0	U	32.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0702.0	0702.0	U	38.0			QL=4 ST=2 TYP=3
	3000	IZMI	7	C	0702.0	0703.2	1.2	26.0	13.5		
	9100	GORK	7	C	0702.0	0702.3	1.6	30.0			
	2950	GORK	2	S/F	0702.0	0702.3	2.4	23.0			
	600	GORK	46	C	0702.0	0702.4	2.0	160.0			
	600	GORK	46	C	0702.0	0702.6		40.0			
	9100	GORK	7	C	0702.0	0702.7		16.0			
	900	GORK	4	S/F	0702.2	0702.4	2.1	60.0			
	204	IZMI	7	C	0716.2	0716.3	0.3	12.0			
	204	IZMI	42	SER	0720.8	0722.0	1.7	62.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
25	245	SVTO	8	S	0750.0E	0750.0U	U	52.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0840.0	0840.0	U	100.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0856.0	0858.0	2.0	94.0			QL=4 ST=3 TYP=3
	600	GORK	42	SER	0953.1	0956.0		130.0			
	600	GORK	42	SER	0953.1	0953.4	3.5	35.0			
	610	LEAR	8	S	0956.0	0956.0	U	57.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0956.0	0956.0	U	59.0			QL=4 ST=2 TYP=3
	2950	GORK	1	S	0956.0	0956.1	0.8	11.0			
	3000	IZMI	1	S	0956.0	0956.1	0.2	8.0	3.8		
	600	GORK	1	S	1034.6	1035.1	1.0	4.8			
	600	GORK	1	S	1046.3	1046.6	0.8	5.8			
	204	IZMI	42	SER	1100.9	1101.0	0.9	52.0			
	245	SGMR	8	S	1148.0	1148.0	U	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1152.0	1152.0	1.0	50.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1156.2	1156.4	0.4	143.0			
	245	SVTO	4	S/F	1200.0E	1202.0	4.0D	230.0			QL=2 ST=2 TYP=3
	410	SVTO	4	S/F	1202.0	1205.0	4.0	74.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1404.0	1404.0	U	59.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1404.0	1404.0	U	21.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1404.0E	1404.0U	U	49.0			QL=2 ST=2 TYP=3
	9500	CUBA	1	S	1412.5	1413.2	1.7	20.0	10.0		
	2800	PENT	40	F	1547.0	2039.0	292.0U				
	245	SGMR	49	GB	1843.0	1843.0	1.0	1100.0			QL=4 ST=2 TYP=6
	2800	PENT	29	PBI	2048.0	2055.0	104.0U	10.0			
26	204	IZMI	44	NS	0600.0E		170.0D		100.0		
	127	TORN	44	NS	0630.0E		490.0D		10.0		V=0
	204	IZMI	44	NS	0850.0E		190.0D		10.0		
	235	CUBA	44	NS	1300.0E		300.0D		6.0		
	280	CUBA	44	NS	1300.0E		300.0D		12.0		
	245	PALE	43	NS	1751.0	1822.0	369.0	100.0			QL=4 ST=1 TYP=1
	2840	PEKG	3	S	0324.0	0327.5	11.0	28.6			
	2800	HIRA	1	S	0327.0	0327.0	2.0	25.0			0
	500	HIRA	8	S	0327.0	0328.0	3.0	45.0			WR
	200	HIRA	8	S	0327.0	0327.0	2.0	100.0			WR
	204	IZMI	7	C	1037.9	1037.9	0.3	10.0			
	9500	CUBA	1	S	1428.5	1429.2	1.5	12.0	6.0		
	245	SGMR	8	S	1647.0	1647.0	U	53.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1753.0	1753.0	U	63.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	1813.0	1817.0	11.0	180.0			QL=4 ST=2 TYP=8
	410	PALE	8	S	2121.0	2121.0	U	110.0			QL=4 ST=2 TYP=3
27	127	TORN	43	NS	0807.0		143.0		8.0		V=1
	204	IZMI	43	NS	0818.0		222.0D		15.0		
	235	CUBA	44	NS	1420.0E		450.0D		6.0		
	280	CUBA	44	NS	1420.0E		450.0D		14.0		
	245	PALE	43	NS	1751.0	1955.0	354.0	160.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	0044.0	0044.0	U	69.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0152.0	0152.0	U	55.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0220.0	0220.0	U	60.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0512.0	0512.0	U	59.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0621.0	0621.0	1.0	60.0			QL=4 ST=2 TYP=3
	600	GORK	20	GRF	0645.9	0654.8	18.3	4.1			
	900	GORK	41	F	0652.2	0653.1	9.2	6.1			
	900	GORK	41	F	0652.2	0658.4		3.7			
	2950	GORK	41	F	0653.4	0656.5		2.3			
	2950	GORK	41	F	0653.4	0653.6	3.6	2.3			
	9100	GORK	7	C	0655.0	0655.3	7.2	7.2			
	9100	GORK	7	C	0655.0	0656.5		12.0			
	900	GORK	7	C	0730.6	0731.0		9.8			
	900	GORK	7	C	0730.6	0730.8	0.6	9.8			
	2950	GORK	20	GRF	0736.6	0749.3	26.9	4.2			
	600	GORK	42	SER	0809.7	0823.1		25.0			
	600	GORK	42	SER	0809.7	0817.7	16.2	20.0			
	245	LEAR	8	S	0826.0	0827.0	1.0	63.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0826.0	0827.0	1.0	53.0			QL=4 ST=2 TYP=3
	2950	GORK	23	GRF	0834.7	0959.1		9.5			
	2950	GORK	23	GRF	0834.7	0914.1	127.3D	8.2			
	204	IZMI	41	F	0842.6	0842.9	0.6	97.0			

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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
27	2950	GORK	2	S/F	0909.7	0910.3	2.0	5.4			
	3000	IZMI	40	F	0910.3	0910.7	0.6	5.0	1.9		
	3000	IZMI	20	GRF	0957.3	0957.7	10.3	7.0	2.2		
	900	GORK	7	C	1000.0	1000.2	0.8	2.5			
	900	GORK	7	C	1000.0	1000.6		4.9			
	9100	GORK	4	S/F	1001.9	1002.2	0.5	150.0			
	245	SVTO	8	S	1008.0	1008.0	U	59.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1111.0	1111.0	1.0	81.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1134.0	1134.0	2.0	55.0			QL=4 ST=2 TYP=3
	245	SGMR	48	C	1158.0	1159.0	1.0	77.0			QL=4 ST=2 TYP=8
	245	SGMR	8	S	1359.0	1400.0	1.0	86.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	1426.0	1429.0	3.0	200.0			QL=4 ST=2 TYP=8
	245	SGMR	8	S	1606.0	1607.0	1.0	89.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	1733.0	1752.0	67.0	4.0			
	2800	PENT	1	S	1918.0	1924.0	11.0	4.0			
	245	PALE	8	S	2044.0	2045.0	1.0	82.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	2044.0	2206.0	108.0U	6.0			
	245	LEAR	8	S	2234.0	2234.0	U	70.0			QL=2 ST=3 TYP=3
	500	HIRA	3	S	2251.0	2300.0	14.0	10.0			0
	200	HIRA	7	C	2252.0	2256.0	14.0	50.0			0
	245	LEAR	8	S	2255.0	2255.0	U	200.0			QL=2 ST=2 TYP=3
28	245	LEAR	43	NS	0343.0	0701.0	327.0	160.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0629.0	0643.0	117.0	130.0			QL=2 ST=2 TYP=1
	204	IZMI	44	NS	0700.0E		194.0D		100.0		
	127	TORN	44	NS	0840.0E		110.0D		7.0		V=0
	245	SGMR	43	NS	1256.0	1524.0	218.0	130.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1305.0E		295.0D		6.0		
	280	CUBA	44	NS	1305.0E		295.0D		12.0		
	245	SGMR	43	NS	1846.0	1928.0	66.0	190.0			QL=4 ST=2 TYP=1
	2840	PEKG	5	S	0023.0	0025.3	7.0	10.8			
	200	HIRA	8	S	0034.0	0034.0	1.0	25.0			0
	200	HIRA	8	S	0115.0	0116.0	4.0	50.0			WR
	200	HIRA	8	S	0139.0	0139.0	1.0	20.0			0
	500	HIRA	8	S	0142.0	0142.0	1.0	25.0			0
	245	LEAR	8	S	0203.0	0203.0	U	79.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0228.0	0228.0	1.0	20.0			0
	500	HIRA	8	S	0228.0	0231.0	3.0	20.0			0
	245	LEAR	8	S	0303.0	0303.0	U	66.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0357.0	0400.3	7.0	7.5			
	2840	PEKG	20	GRF	0513.0	0517.4	14.0	7.0			
	200	HIRA	7	C	0516.0	0519.0	8.0	20.0			0
	500	HIRA	8	S	0525.0	0525.0	1.0	15.0			0
	9100	GORK	21	GRF	0802.0	0923.3	178.0D	37.0			
	9100	GORK	3	S	0824.0	0824.2	0.4	35.0			
	900	GORK	2	S/F	0840.2	0841.1	1.4	3.7			
	600	GORK	2	S/F	0844.7	0844.9	0.5	5.0			
	2840	PEKG	5	S	0846.0	0850.9	9.0	21.2			
	2950	GORK	4	S/F	0849.0	0849.9	3.5	37.0			
	245	SVTO	8	S	0850.0	0851.0	1.0	55.0			QL=4 ST=2 TYP=3
	127	TORN	47	GB	0850.0	0851.0	1.6	730.0	200.0		
	9100	GORK	2	S/F	0850.0	0850.8	3.0	17.0			
	600	GORK	2	S/F	0850.4	0851.0	0.9	2.0			
	900	GORK	1	S	0850.6	0850.9	0.9	2.5			
	3000	IZMI	7	C	0850.6	0850.9	0.5	19.0	4.1		
	245	LEAR	8	S	1003.0	1004.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1003.0	1003.0	U	110.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1005.2	1005.6	0.7	83.0			
	204	IZMI	42	SER	1009.1	1009.5	0.8	80.0			
	245	SVTO	8	S	1013.0	1013.0	U	79.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1056.0	1057.0	1.0	55.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1103.0	1103.0	1.0	91.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1202.0	1203.0	5.0	170.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1202.0	1203.0	5.0	380.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1202.0	1202.0	2.0	410.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1203.0	1203.0	1.0	36.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1208.0	1208.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1214.0	1214.0	U	68.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1227.0	1227.0	2.0	69.0			QL=4 ST=2 TYP=3

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

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OCTOBER 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
28	245	SGMR	8	S	1245.0	1245.0	U	75.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1338.0	1338.4	1.0	16.0	8.0		
	245	SVTO	8	S	1512.0	1512.0	U	65.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1522.0	1522.0	U	320.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1528.0	1528.0	U	100.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1841.0	1843.0	2.0	91.0			QL=4 ST=2 TYP=3
	2800	PENT	21	GRF	1841.0	1928.0	51.0U	21.0			
	9500	CUBA	20	GRF	1853.0	1917.0	24.0	16.0	8.0		
	245	PALE	8	S	1854.0	1854.0	U	68.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1927.0	1927.3	1.0	22.0	11.0		
	245	PALE	8	S	1928.0	1928.0	U	130.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	1928.0	1928.0	U	65.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1943.0	1945.8	6.0	46.0	23.0		
	245	PALE	8	S	1945.0	1945.0	1.0	200.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1945.0	1945.0	U	52.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	2225.0	2225.0	1.0	25.0			0
29	204	IZMI	44	NS	0700.0E		300.0D		15.0		
	127	TORN	44	NS	0810.0E		340.0D		14.0		V=1
	245	SGMR	43	NS	1327.0	1934.0	417.0	240.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	1906.0	2005.0	149.0	200.0			QL=4 ST=2 TYP=1
	245	PALE	8	S	0034.0	0034.0	U	59.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0111.0	0111.0	2.0	64.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0132.0	0132.0	1.0	25.0			WR
	245	PALE	8	S	0138.0	0138.0	U	54.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0204.0	0204.0	U	55.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0237.0	0237.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0237.0	0237.0	1.0	150.0			QL=4 ST=2 TYP=3
	2800	HIRA	3	S	0300.0	0311.0	21.0	60.0			0
	200	HIRA	42	SER	0305.0	0331.0	29.0	25.0			0
	500	HIRA	4	S/F	0307.0	0315.0	8.0	10.0			0
	4995	LEAR	8	S	0310.0	0311.0	2.0	84.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0310.0	0311.0	2.0	76.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0311.0	0311.0	U	47.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0312.0	0312.0	U	57.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0420.0	0421.0	3.0	880.0			QL=4 ST=2 TYP=6
	200	HIRA	8	S	0422.0	0423.0	2.0	80.0			0
	200	HIRA	8	S	0519.0	0519.0	1.0	20.0			0
	200	HIRA	8	S	0551.0	0551.0	1.0	20.0			0
	2950	GORK	1	S	0738.3	0739.5	3.5	2.9			
	204	IZMI	42	SER	0739.6	0739.7	1.2	24.0			
	245	LEAR	8	S	0814.0	0814.0	U	95.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0814.0	0814.0	U	84.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0837.7	0839.5	2.4	46.0			
	600	GORK	42	SER	0934.5	0949.0	17.5	16.0			
	600	GORK	42	SER	0934.5	0951.7		7.9			
	2950	GORK	1	S	0950.2	0950.3	0.3	6.7			
	245	SVTO	8	S	0956.0	0957.0	1.0	53.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1002.0	1002.0	1.0	140.0			QL=4 ST=2 TYP=3
	610	SVTO	4	S/F	1019.0	1021.0	4.0	61.0			QL=4 ST=2 TYP=3
	610	SVTO	48	C	1028.0	1028.0	4.0	110.0			QL=4 ST=2 TYP=8
	245	SVTO	8	S	1133.0	1133.0	U	380.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1135.0	1135.0	U	36.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1326.0	1327.0	2.0	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1333.0	1333.0	U	130.0			QL=4 ST=3 TYP=3
	245	SVTO	8	S	1338.0	1338.0	U	120.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1343.0	1344.0	1.0	120.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1343.0	1344.0	1.0	53.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1343.0	1344.0	1.0	34.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1343.0	1344.0	1.0	87.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1343.0	1344.0	1.0	43.0			QL=4 ST=2 TYP=3
	9500	CUBA	3	S	1343.3	1344.2	1.7	88.0	44.0		
	4995	SGMR	8	S	1344.0	1344.0	U	29.0			QL=4 ST=2 TYP=3
	9500	CUBA	2	S/F	1420.3	1421.3	2.4	20.0	10.0		
	8800	SGMR	8	S	1527.0	1528.0	1.0	70.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	1709.0	1711.0	4.0	110.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1713.0	1713.0	U	42.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1714.0	1714.0	U	46.0			QL=4 ST=2 TYP=3
	2800	PENT	21	GRF	1904.0	1913.0	24.0	5.0			

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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
29	410	SGMR	8	S	1952.0	1953.0	1.0	310.0			QL=4 ST=2 TYP=3
	2800	PENT	21	GRF	2144.0	2154.0	48.0U	4.0			
	245	LEAR	48	C	2338.0	2338.0	4.0	110.0			QL=2 ST=2 TYP=8
	500	HIRA	8	S	2345.0	2345.0	1.0	10.0			0
	200	HIRA	8	S	2356.0	2356.0	1.0	15.0			0
30	204	IZMI	44	NS	0700.0E		300.0D		30.0		
	245	LEAR	43	NS	0722.0	0909.0	160.0	120.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	0905.0	0930.0	54.0	120.0			QL=4 ST=2 TYP=1
	127	TORN	44	NS	0920.0E		100.0D		6.0		V=1,DISTURBED
	235	CUBA	44	NS	1320.0E		340.0D		6.0		
	280	CUBA	44	NS	1320.0E		340.0D		7.0		
	245	PALE	8	S	0056.0	0056.0	U	54.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0059.0	0059.0	U	54.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0059.0	0059.0	U	94.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0104.0	0104.0	U	170.0			QL=2 ST=2 TYP=3
	2840	PEKG	3	S	0403.0	0405.7	10.0	17.2			
	4995	LEAR	8	S	0405.0	0405.0	U	79.0			QL=4 ST=2 TYP=3
	2840	PEKG	20	GRF	0433.0	0442.2	17.0	5.5			
	200	HIRA	8	S	0637.0	0638.0	3.0	25.0			WL
	245	LEAR	8	S	0714.0	0714.0	U	84.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0714.0	0714.0	U	61.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0722.0	0722.0	U	51.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	0815.0	0816.2	2.2	18.0			
	204	IZMI	25	R	0850.0		100.0		60.0		
	9500	CUBA	21	GRF	1326.0	1334.0	15.0	14.0	7.0		
	9500	CUBA	2	S/F	1427.7	1427.7	0.8	14.0	7.0		
	9500	CUBA	2	S/F	1432.8	1434.3	2.4	19.0	9.0		
	9500	CUBA	1	S	1630.0	1631.0	2.5	9.0	4.0		
	245	SGMR	8	S	1903.0	1903.0	U	150.0			QL=4 ST=3 TYP=3
	245	PALE	8	S	1907.0	1907.0	U	170.0			QL=4 ST=2 TYP=3
	2800	PENT	40	F	1911.0	1921.0	18.0	5.0			
	9500	CUBA	1	S	1920.0	1920.9	2.8	40.0	20.0		
	9500	CUBA	1	S	1922.5	1922.8	1.4	39.0	19.0		
	2800	PENT	20	GRF	2137.0	2155.0	37.0	4.0			
	200	HIRA	7	C	2234.0	2236.0	5.0	145.0			0
	245	LEAR	8	S	2239.0	2239.0	U	51.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	2247.0	2247.0	U	66.0			QL=2 ST=2 TYP=3
31	280	CUBA	44	NS	1310.0E		290.0D		12.0		
	235	CUBA	44	NS	1310.0E		340.0D		5.0		
	200	HIRA	8	S	0508.0	0508.0	1.0	10.0			0
	204	IZMI	42	SER	0751.0	0753.9	4.0	25.0			
	127	TORN	4	S/F	0901.5	0903.4	3.3	134.0	70.0		UNCERTAIN
	3000	IZMI	7	C	0920.5	0925.2	12.0	31.0			
	2950	GORK	23	GRF	0921.0	1028.0		16.0			
	8800	SVTO	4	S/F	0921.0	0925.0	13.0	60.0			QL=4 ST=2 TYP=3
	9100	GORK	46	C	0921.0	0922.6	6.9	28.0			
	2950	GORK	45	C	0921.0	0925.7		26.0			
	9100	GORK	23	GRF	0921.0	0929.7	87.0	26.0			
	9100	GORK	46	C	0921.0	0925.8		31.0			
	9100	GORK	23	GRF	0921.0	0939.9		34.0			
	2950	GORK	45	C	0921.0	0921.9	6.5	11.0			
	2950	GORK	23	GRF	0921.0	0947.9	87.0	13.0			
	4995	SVTO	4	S/F	0922.0	0925.0	11.0	50.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	0923.0	0926.0	9.0	36.0			QL=4 ST=2 TYP=3
	900	GORK	4	S/F	0923.7	0926.2	3.4	140.0			
	610	LEAR	8	S	0925.0	0925.0	U	96.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0925.0	0925.0	1.0	110.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0925.0	0925.0	1.0	37.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0925.0	0925.0	U	23.0			QL=4 ST=2 TYP=3
	600	GORK	46	C	0925.2	0926.1		45.0			
	600	GORK	46	C	0925.2	0925.6	1.8	150.0			
	600	GORK	20	GRF	1009.0	1025.4	37.3	9.7			
	204	IZMI	41	F	1056.5	1056.8	0.6	115.0			
	204	IZMI	41	F	1128.2	1128.3	1.0	90.0			
	204	IZMI	42	SER	1158.0	1200.2	3.0D	39.0			
	245	SGMR	8	S	1623.0	1623.0	U	85.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1650.0	1651.0	10.0	150.0			QL=4 ST=2 TYP=3

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

OCTOBER 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	4995	SGMR	49	GB	1650.0	1651.0	10.0	1600.0			QL=4 ST=2 TYP=6
	8800	SGMR	49	GB	1650.0	1651.0	10.0	3300.0			QL=4 ST=2 TYP=6
	15400	SGMR	49	GB	1650.0	1651.0	10.0	2000.0			QL=4 ST=2 TYP=6
	9500	CUBA	49	GB	1650.3	1651.4	9.0	368.0	184.0		
	9500	CUBA	21	GRF	1823.0	1830.0	78.0	12.0	6.0		
	9500	CUBA	1	S	1827.9	1828.3	1.5	14.0	7.0		
	245	LEAR	8	S	2220.0	2220.0	1.0	180.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	2224.0	2224.0	U	59.0			QL=2 ST=3 TYP=3
	500	HIRA	42	SER	2302.0	2307.0	9.0	50.0			0

Reports are received routinely from the following observatories:

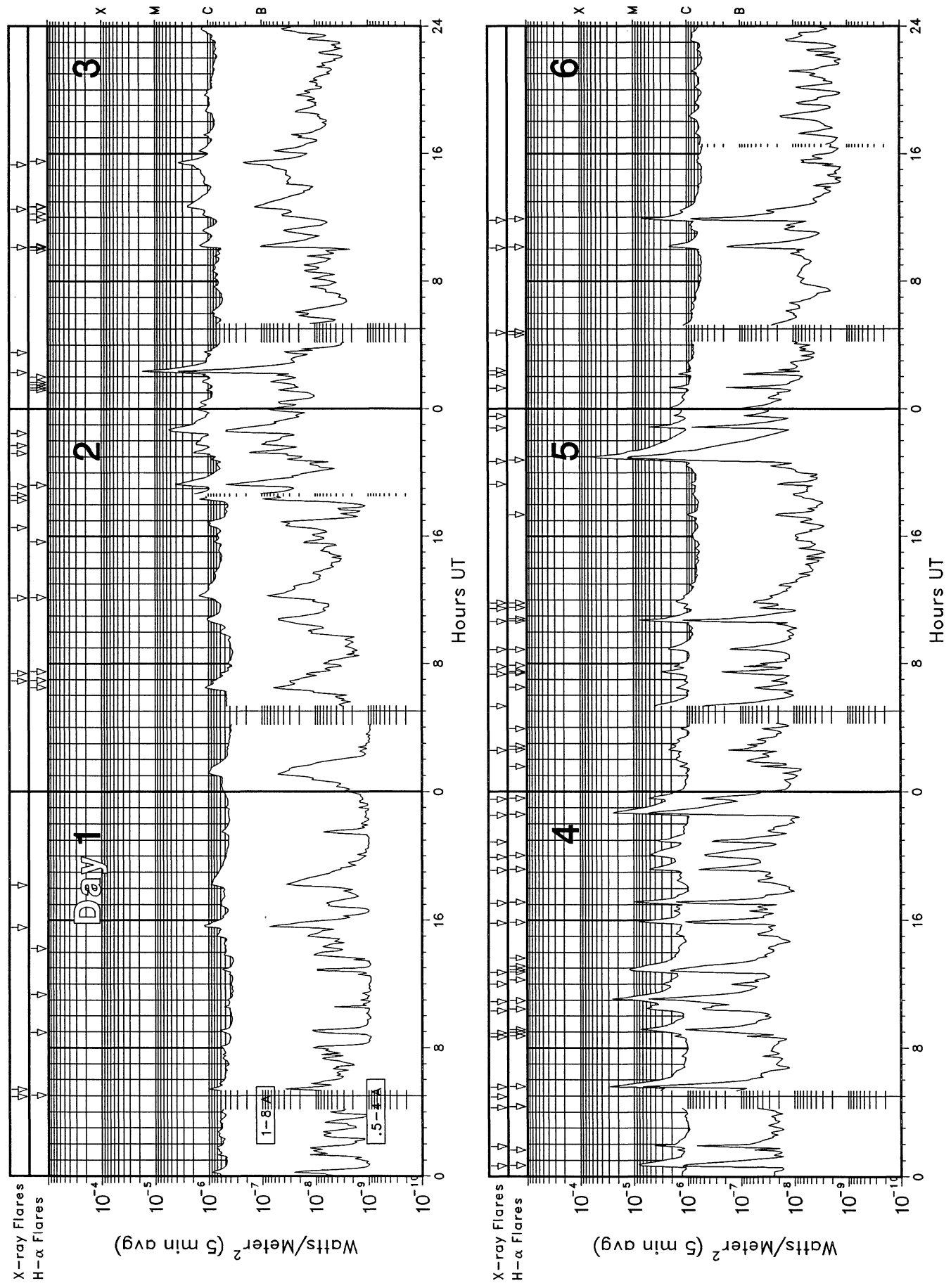
BERN = Berne	HUMN = Humain	ONDR = Ondrejov	SVTO = San Vito
CRIM = Crimea	IZMI = IZMIRAN	PEKG = Peking	TORN = Torun
CUBA = Havana	KISV = Kislovodsk	PALE = Palehua	TRST = Trieste
GORK = Gorky	KRAK = Krakow	PENT = Penticton	TYKW = Toyokawa
HIRA = Hiraiso	LEAR = Learmonth	POTS = Potsdam	UPIC = Upice
HUAN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

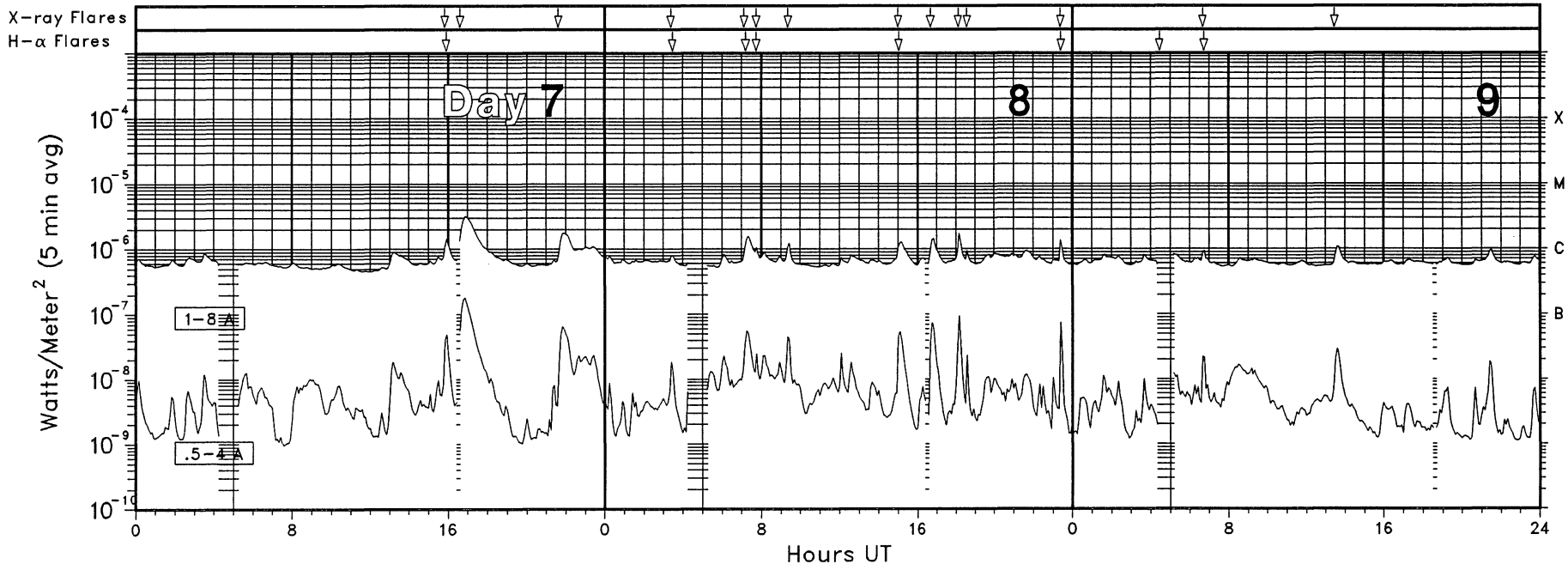
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F
3A Simple 2A	40 Rise Only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF	40F Rise Only F	260 Fall Only	31A Post Burst Decrease A
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A

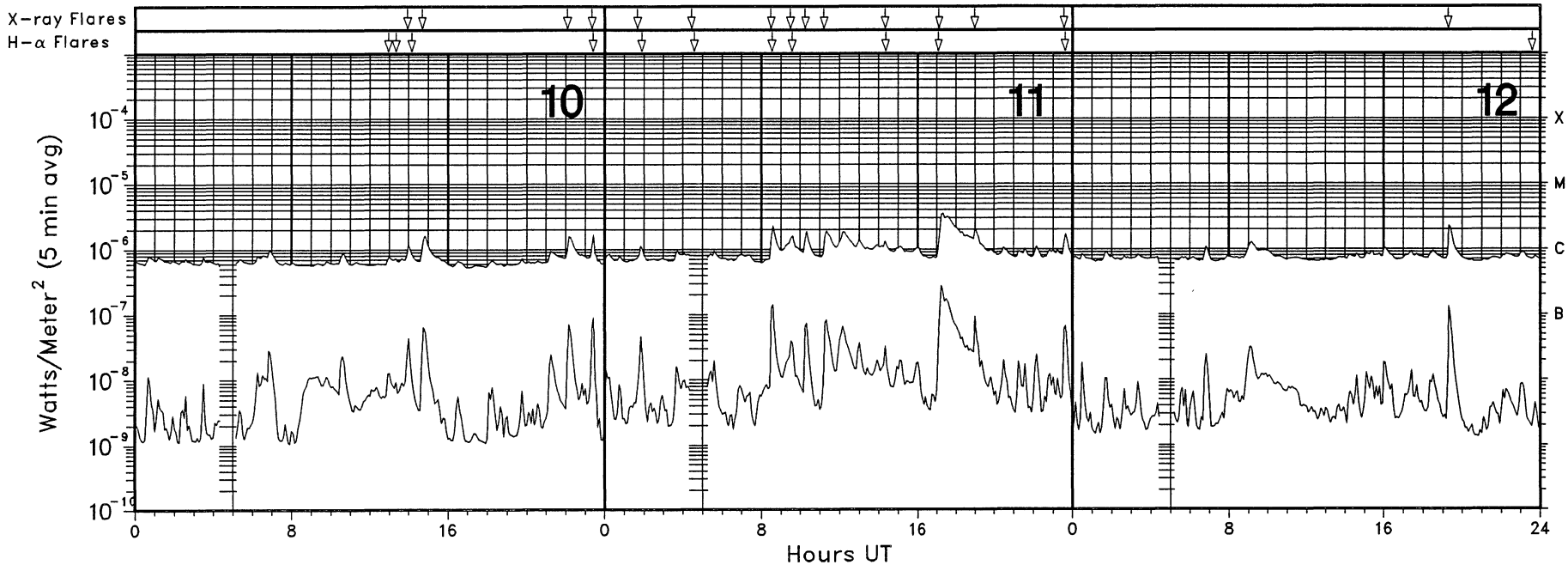
RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; and Hiraiso, Japan 500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

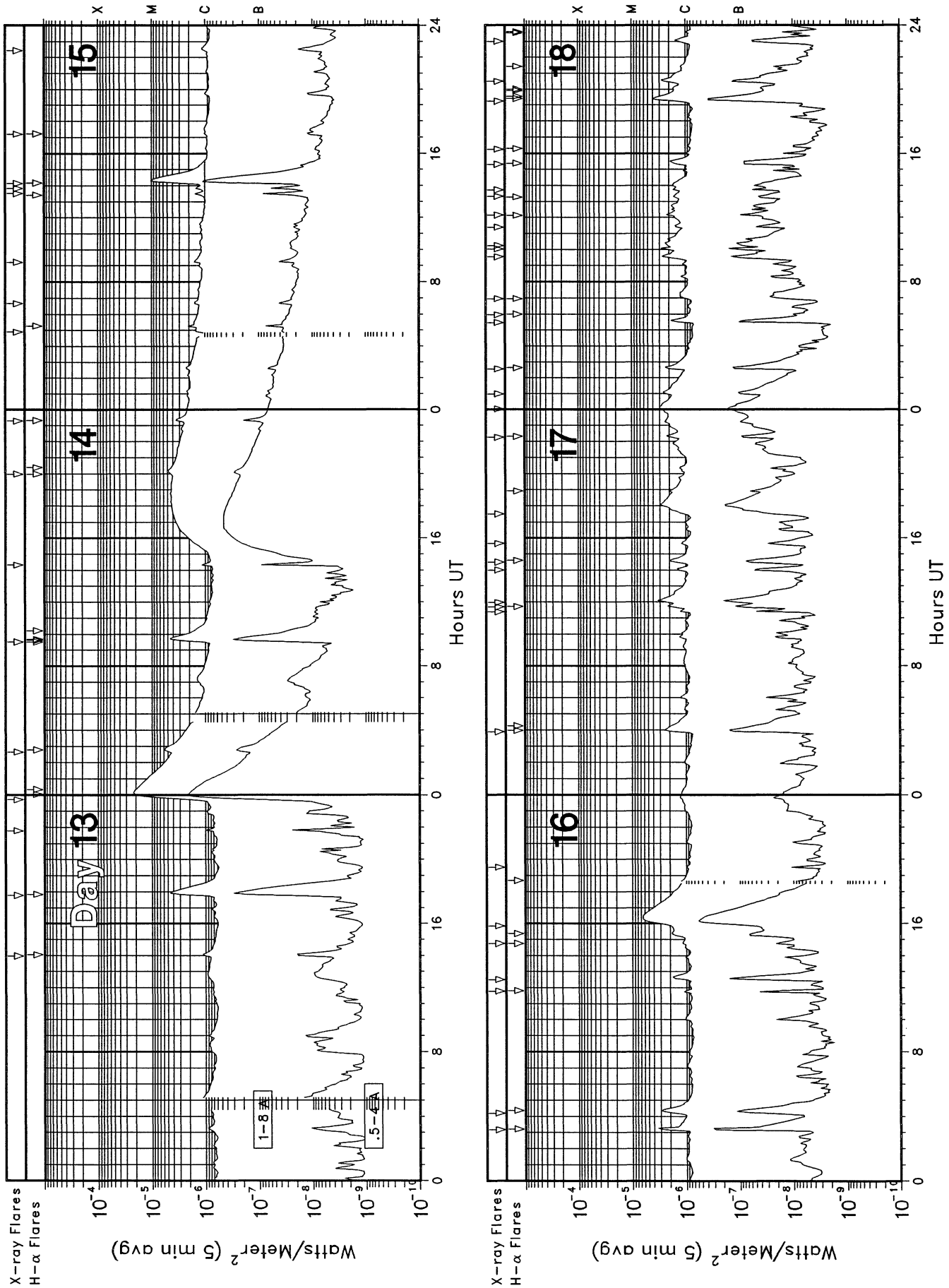

GOES X-RAY DETECTOR
October 2002
Day 1
1
2
3
4
5
6
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
1-8Å
.5-4Å
Hours UT
X
M
C
B

GOES X-RAY DETECTOR

October 2002

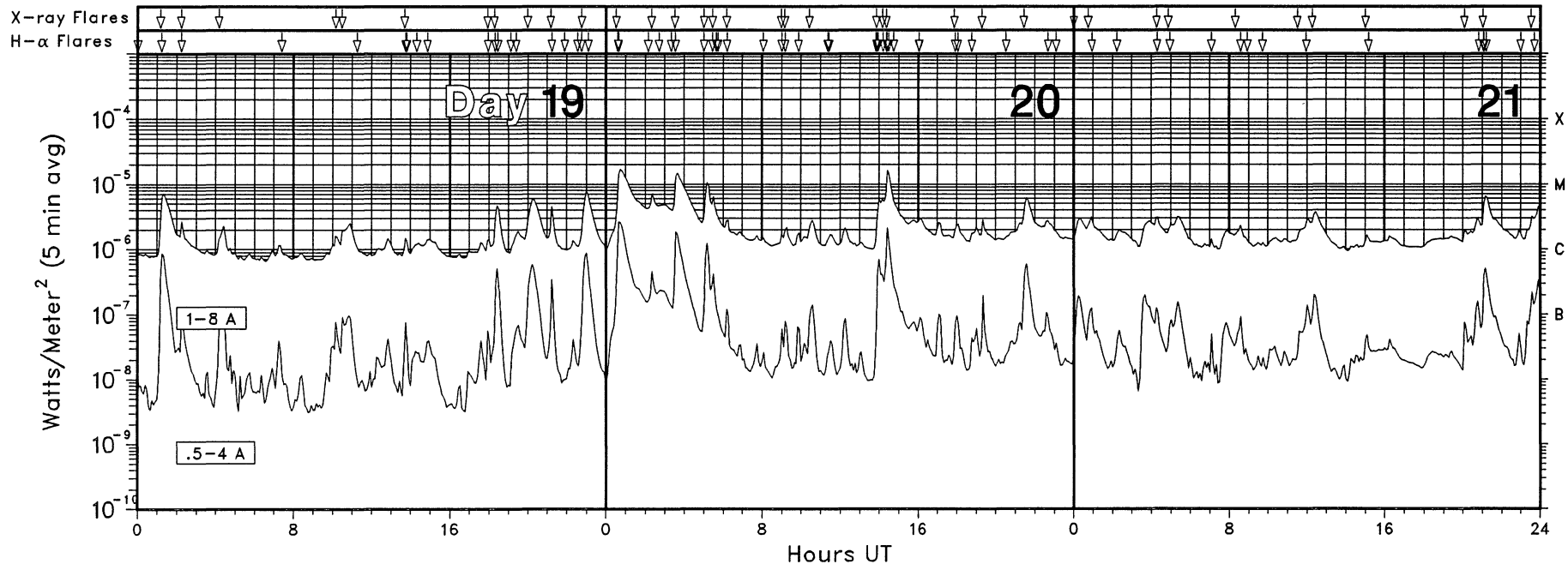


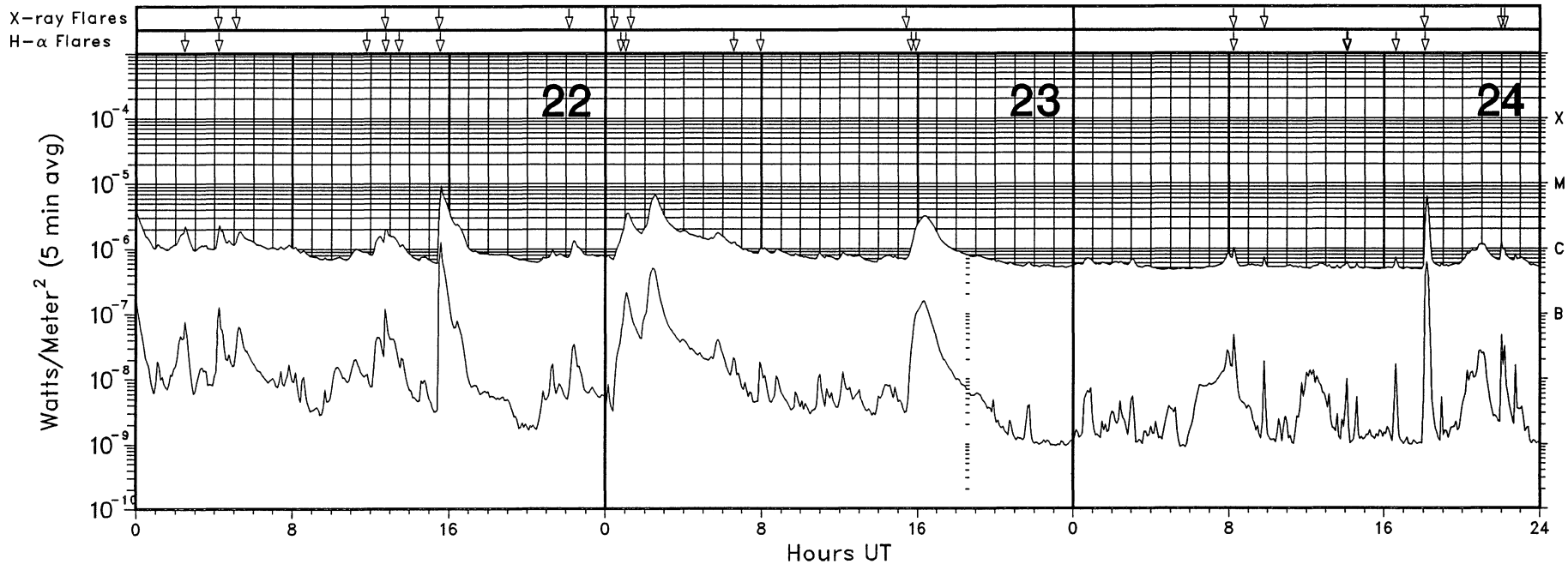


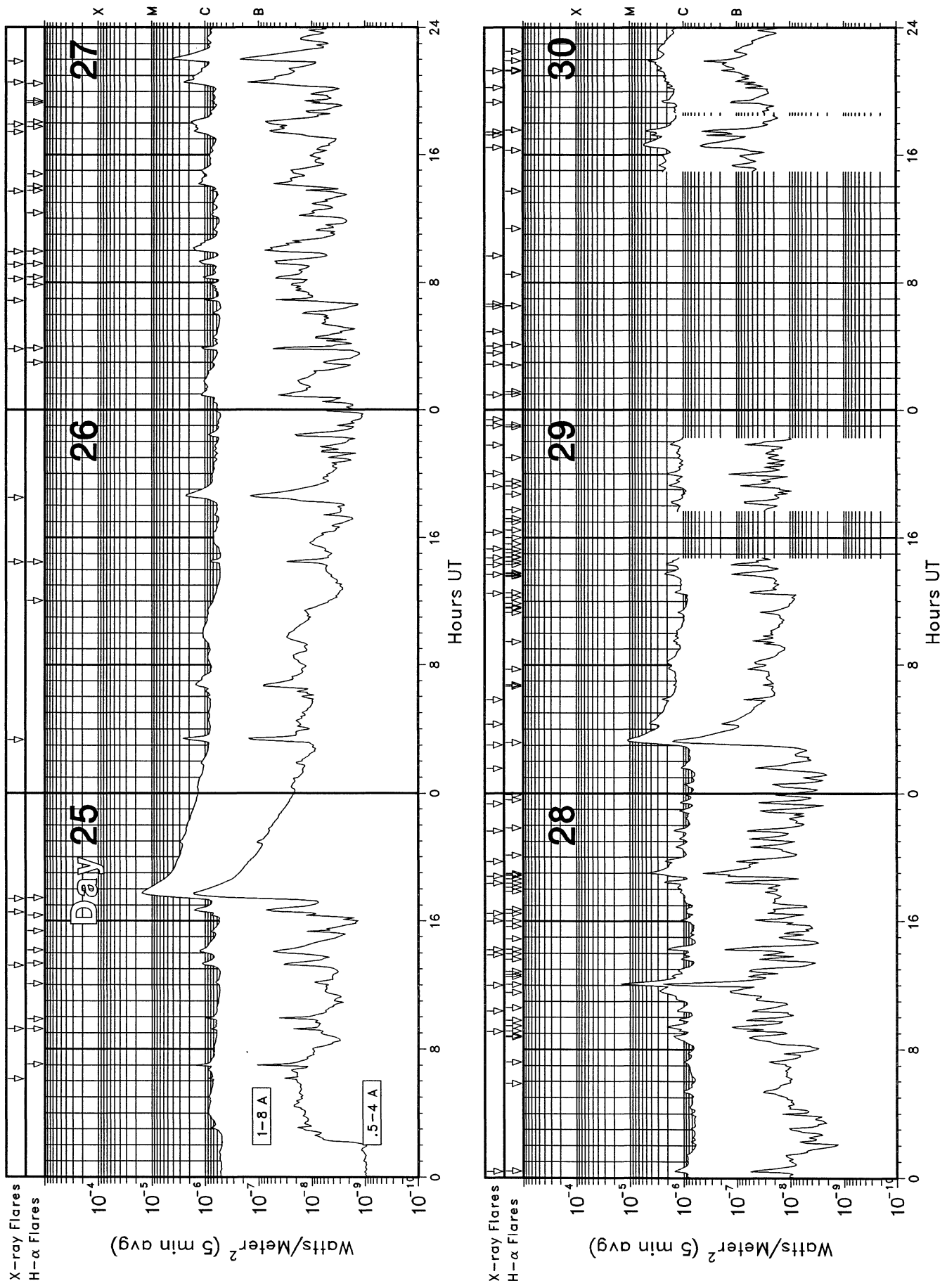

GOES X-RAY DETECTOR
October 2002
Day 13
14
15
16
17
18
X
M
C
B
1-8 Å
.5-4 Å
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT
0
8
16
24

GOES X-RAY DETECTOR

October 2002

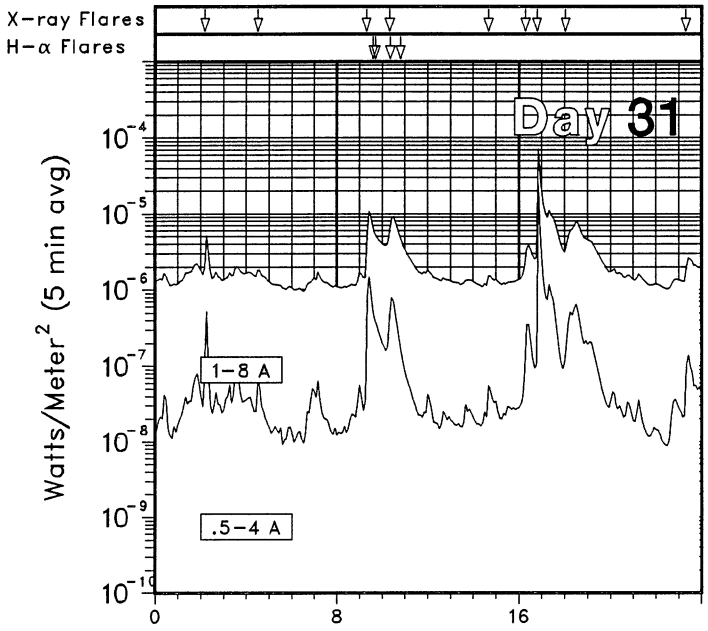





GOES X-RAY DETECTOR
October 2002
Day 25
26
27
28
29
30
X
M
C
B
1-8 A
.5-4 A
X-ray Flares
H-α Flares
Watts/Meter² (5 min avg)
Hours UT
0
8
16
24

GOES X-RAY DETECTOR

October 2002



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

October 2002

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
01	0456	0505	0513	S20	E29	SF	C1.4		10137	1.1E-03
01	0523	0527	0531				C1.0		10137	4.3E-04
01	1532	1539	1546				C1.3			9.2E-04
01	1811	1815	1837				B9.6			1.3E-03
02	0654	0656	0658	S18	E20	SF	B9.2		10137	2.0E-04
02	0723	0725	0727				B6.2		10137	1.5E-04
02	1207	1218	1233	S18	E17	SF	C1.6		10134	1.9E-03
02	1632	1656	1702	S15	E17	SF	C1.1		10137	1.6E-03
02	1815	1821	1827				C1.5		10137	8.4E-04
02	1834	1839	1845				C2.0		10137	1.2E-03
02	1908	1917	1926	S19	E14	SF	C4.2		10137	3.2E-03
02	2112	2118	2124				C2.0		10137	1.2E-03
02	2141	2146	2214				C1.6		10137	2.9E-03
02	2227	2241	2254				C5.5		10137	6.4E-03
03	0215	0221	0226	S19	E06	1N	M2.1		10137	7.5E-03
03	0331	0335	0338				C1.4			5.0E-04
03	1007	1014	1035				C1.4			2.0E-03
03	1231	1244	1300	N09	W33	SF	C2.5		10134	3.4E-03
03	1518	1528	1533	S16	E90	SB	C3.6		10000	2.8E-03
04	0039	0043	0053	S19	W07	SF	M1.0		10137	6.1E-03
04	0151	0155	0157				C7.0			1.3E-03
04	0417	0431	0455	S20	W09	SF	C4.1		10137	7.6E-03
04	0457	0501	0503				C5.3			1.4E-03
04	0534	0538	0541	S19	W09	1N	M4.0		10137	1.1E-02
04	0842	0846	0848	N09	E54	SF	C2.0		10139	5.8E-04
04	0856	0911	0918	S19	W13	SF	C8.0		10137	5.8E-03
04	1019	1031	1046	N07	E50	SF	C6.2		10139	7.0E-03
04	1054	1105	1109	S20	W10	1N	M3.5		10137	1.2E-02
04	1200	1203	1207				C3.2			1.2E-03
04	1243	1255	1307	N08	E49	1F	M1.2		10139	1.3E-02
04	1549	1555	1601	S19	W13	SF	C9.0		10137	4.5E-03
04	1704	1711	1715	S21	W16	SF	M1.2		10137	4.6E-03
04	1907	1912	1921	N14	E47	SF	C5.7		10139	3.5E-03
04	1956	2007	2022	N12	E46	SF	C4.8		10139	6.1E-03
04	2052	2100	2104				C4.5			2.2E-03
04	2232	2243	2251	N13	E43	SF	M2.7		10139	1.6E-02
04	2332	2335	2340	S21	W19	SF	C6.2		10137	2.2E-03
05	0234	0238	0242	S18	W20	SF	C2.8		10137	1.1E-03
05	0519	0522	0528				C4.2			2.0E-03
05	0720	0731	0736				C3.4		10137	2.1E-03
05	0748	0753	0756	N07	E38	SF	C2.0		10139	7.7E-04
05	0853	0858	0904				C2.5			1.4E-03
05	1039	1046	1048				M1.2			3.1E-03
05	1128	1132	1138	S19	W23	SF	C1.3		10137	6.6E-04
05	1149	1155	1202				C1.7			1.2E-03
05	1916	1919	1922				B9.7			3.2E-04
05	2042	2100	2108	N14	E31	1F	M5.9		10139	4.3E-02
05	2247	2252	2256				C6.2			2.1E-03
05	2331	2337	2342				C1.7			9.9E-04
06	0117	0122	0124				C2.6			7.4E-04
06	0208	0212	0214				C1.8			4.7E-04
06	0223	0226	0228				C1.1			2.9E-04
06	0446	0451	0453	N12	E31	1N	M2.4		10139	4.6E-03
06	1005	1010	1022				C2.2			1.7E-03
06	1149	1155	1158	N07	E30	SF	M1.0		10139	2.9E-03
07	1549	1556	1604	S12	E41	SF	C1.4		10140	1.1E-03
07	1636	1657	1729				C3.1			7.9E-03
07	2137	2156	2216				C1.8			3.4E-03
08	0322	0330	0335	N10	E00	SF	B8.3		10139	6.0E-04
08	0707	0721	0731	S07	E23	SF	C1.6		10140	1.8E-03
08	0743	0746	0749	N12	W02	SF	C1.1		10139	3.7E-04
08	0921	0925	0928				C1.3			5.1E-04
08	1459	1511	1521	N09	E01	SF	C1.2		10139	1.5E-03
08	1639	1651	1700				C1.4			1.5E-03
08	1806	1811	1818				C1.8			1.0E-03
08	1834	1837	1840				C1.0			3.3E-04
08	2323	2327	2331	N12	W06	SF	C1.6		10139	5.7E-04
09	0639	0645	0648	S11	E18	SF	C1.0		10140	4.7E-04
09	1327	1338	1349				C1.1			1.2E-03
10	1356	1402	1410	N13	W24	SF	C1.1		10139	8.8E-04
10	1441	1451	1501				C1.6			1.7E-03
10	2205	2214	2226				C1.6			1.7E-03
10	2321	2325	2327	N14	E61	SF	C2.5		10149	6.0E-04
11	0140	0153	0159	N09	W36	SF	C1.2		10139	1.1E-03
11	0426	0440	0446	N09	W38	SF	C1.1		10139	1.3E-03
11	0829	0835	0844	N12	W38	SF	C2.4		10139	1.7E-03
11	0929	0935	0938	N09	W41	SF	C1.7		10139	8.3E-04
11	1015	1020	1026				C2.0			1.1E-03
11	1112	1124	1138				C1.9			2.5E-03
11	1419	1421	1424	N14	E53	SF	C1.3		10149	3.9E-04
11	1707	1719	1753	S17	W80	SF	C3.7		10143	7.9E-03
11	1859	1903	1905				C2.6			7.5E-04
11	2334	2341	2349	N08	W47	SF	C1.7		10139	1.3E-03
12	1917	1922	1931				C2.6			1.6E-03
13	1358	1404	1413	N18	E23	SF	C1.1		10149	9.3E-04
13	1746	1757	1813	S07	W54	1F	C4.7		10150	5.4E-03
13	2147	2151	2155				C1.0			4.4E-04
13	2342	0010	0108	S13	E75	SF	M2.2		10159	7.9E-02
14	0238	0247	0301	N10	E11	SF	C5.8		10145	7.5E-03
14	0931	0945	0959	S13	E60	1F	C4.7		10159	5.8E-03
14	1419	1423	1426				C1.3			4.7E-04
14	1958	2010	2021	S10	W55	SF	C4.9		10140	6.4E-03
14	2317	2322	2331	N13	E05	SF	C3.5		10149	2.7E-03
15	0453	0517	0522	N14	E05	SF	C2.2		10149	2.7E-03
15	0639	0642	0646				C1.6			6.3E-04
15	0913	0917	0921				C1.6			7.1E-04
15	1331	1333	1335	S11	W64	SF	C2.0		10140	3.9E-04
15	1350	1353	1356				C1.7			5.4E-04
15	1408	1422	1437	N20	W04	1F	M1.0			1.3E-02
15	1712	1715	1717	S10	W64	SF	C1.0		10140	3.1E-04
15	2226	2234	2238				C1.1			7.9E-04
16	0310	0314	0317	S20	E37	SF	C7.1		10160	1.5E-03
16	0412	0424	0433	S12	W87	SF	C2.9		10150	3.0E-03
16	1147	1149	1151	S20	E32	SF	C1.8		10160	3.2E-04
16	1231	1239	1251				C1.8			1.8E-03
16	1445	1449	1451	N13	W14	SF	C1.2		10149	4.2E-04
16	1551	1627	1658				C6.5			2.0E-02
16	1931	1933	1934				C1.0			1.8E-04
17	0353	0358	0419	S05	E21	SF	C2.6		10158	3.3E-03
17	1123	1127	1132				C1.4			6.4E-04
17	1141	1144	1157	S04	E16	SF	C2.3		10158	1.9E-03
17	1158	1207	1215	S04	E16	SF	C3.5			2.7E-03
17	1400	1404	1410				C1.5			8.5E-04

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

October 2002

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
17	1430	1437	1443	S10	E23	SF	C2.0	10159		1.4E-03
17	1540	1543	1546				C1.2			4.3E-04
17	1730	1805	1853	N14	W28	SF	C3.0	10149		1.0E-02
17	2215	2221	2228	N23	E75	SF	C2.2	10162		1.6E-03
18	0002	0008	0012				C3.1			1.8E-03
18	1914	1927	1940	N28	E79	SF	C4.1	10162		4.8E-03
18	2029	2035	2041	N26	E76	SF	C2.9	10162		1.8E-03
18	2300	2306	2312				C1.6			1.0E-03
18	0059	0107	0112				C2.5			1.9E-03
18	0233	0239	0248	N25	E86	SF	C2.5	10162		1.8E-03
18	0528	0534	0542				C2.0			1.3E-03
18	0557	0559	0600	N14	W39	SF	B9.2	10149		1.6E-04
18	0657	0711	0714	S06	W01	SF	C1.2	10158		1.1E-03
18	0932	0936	0942				C2.7			1.5E-03
18	1002	1007	1010				C3.0			1.2E-03
18	1015	1027	1031				C2.4			2.1E-03
18	1124	1128	1137				C1.6			1.1E-03
18	1209	1212	1216	N27	E82	SF	C2.3	10162		9.0E-04
18	1319	1322	1325	N13	W43	SF	C1.6	10149		5.8E-04
18	1343	1347	1353				C1.7			9.1E-04
18	1519	1524	1537	N25	E84	SF	C2.1	10162		1.8E-03
18	1615	1617	1620	N25	E81	SF	B8.6	10162		2.5E-04
19	0110	0122	0141	S05	W06	1F	C7.2	10158		1.0E-02
19	0213	0217	0220	N25	E71	SF	C2.9	10162		1.0E-03
19	0409	0425	0432				C2.3			2.5E-03
19	1009	1013	1018				C1.7			8.4E-04
19	1028	1055	1103				C2.7			4.4E-03
19	1341	1349	1352	S18	W10	SF	C1.7	10160		8.9E-04
19	1754	1758	1806	S18	W13	SF	C1.5	10160		9.7E-04
19	1816	1828	1836				C5.0	10162		4.2E-03
19	1959	2020	2035				C5.9	10162		1.0E-02
19	2111	2116	2121	S13	W48	SF	C5.0	10154		2.1E-03
19	2246	2301	2314				C7.9			9.2E-03
20	0032	0045	0111	N27	E61	1F	M1.8	10162		2.9E-02
20	0219	0223	0227	S18	W17	1N	C7.5	10160		3.2E-03
20	0331	0339	0400	N26	E58	2N	M1.5	10162		2.0E-02
20	0501	0514	0519	S18	W18	1N	M1.2	10160		8.7E-03
20	0527	0531	0534	S14	W53	SF	C6.9	10154		2.6E-03
20	0611	0614	0617	N25	E44	SF	C3.6	10162		1.1E-03
20	0859	0903	0906	N25	E42	1F	C2.0	10162		7.0E-04
20	0909	0915	0919	S04	W23	SF	C2.4	10158		1.2E-03
20	1025	1037	1044				C2.8			2.8E-03
20	1351	1402	1410				C5.9	10162		4.6E-03
20	1410	1413	1421	S13	W63	SF	C6.6	10154		3.7E-03
20	1421	1428	1435	S19	W23	1B	M1.8	10160		1.1E-02
20	1752	1805	1810				C2.6	10154		2.3E-03
20	1917	1921	1925	N25	E51	SF	C3.1	10162		1.2E-03
20	2126	2137	2148				C6.3			6.7E-03
21	0000	0023	0040				C2.9			5.6E-03
21	0045	0057	0104	S17	W30	SF	C3.3	10160		3.0E-03
21	0416	0419	0422	S14	W65	SF	C3.6	10154		1.2E-03
21	0452	0523	0530	N23	E41	SF	C3.1	10162		5.7E-03
21	0819	0836	0841	N20	E46	SF	C2.3	10162		2.5E-03
21	1130	1204	1215				C2.9			5.9E-03
21	1215	1227	1236	N21	E42	SF	C3.7	10162		4.1E-03
21	1501	1505	1512	N23	E28	SF	C1.7	10162		1.0E-03
21	2004	2008	2017				C2.0			1.4E-03
21	2101	2113	2124	S19	W40	SF	C6.6	10160		7.2E-03
21	2332	2358	0007	N23	E23	SF	C4.7	10162		7.3E-03
22	0410	0415	0430	N23	E31	SF	C2.4	10162		2.3E-03
22	0505	0519	0532				C1.8			2.6E-03
22	1243	1248	1255	N28	E29	SF	C2.2	10162		1.4E-03
22	1529	1535	1551	N28	E27	SF	M1.0	10162		8.5E-03
22	2209	2228	2239				C1.3			1.9E-03
23	0027	0109	0116				C3.5	10162		5.5E-03
23	0117	0232	0247				C6.6	10158		1.9E-02
23	1523	1624	1700	N20	E37	SF	C3.2	10165		1.2E-02
24	0813	0818	0822	N28	E09	SF	C1.0	10162		5.1E-04
24	0949	0953	0955				B8.8			2.7E-04
24	1802	1810	1818	N23	W14	1N	C7.4	10162		3.9E-03
24	2159	2203	2206				C1.7			5.0E-04
24	2210	2213	2215				C1.2			3.0E-04
25	0608	0611	0613				C1.0			2.6E-04
25	0915	0919	0921				B9.4			2.8E-04
25	1313	1319	1328	N24	W16	SF	C1.1	10162		9.4E-04
25	1633	1643	1651	N27	W10	1F	C1.6	10162		1.4E-03
25	1723	1747	1822	N28	W11	1F	M1.5	10162		3.5E-02
26	0319	0327	0330				C2.8			1.5E-03
26	1429	1433	1438				B8.7			4.3E-04
26	1828	1838	1850				C2.3			2.6E-03
27	0350	0354	0357	N26	W31	SF	C1.6	10162		5.2E-04
27	0652	0656	0658				C1.3			3.4E-04
27	0813	0820	0824	N26	W34	SF	C1.2	10162		6.3E-04
27	0907	0921	0928	N26	W34	SF	C1.3	10162		1.4E-03
27	0955	1011	1022	N27	W37	SF	C1.6	10162		2.3E-03
27	1342	1346	1349	N24	W37	SF	B8.2	10162		3.1E-04
27	1726	1729	1737				C1.6			1.0E-03
27	1755	1758	1811	N24	W40	SF	C1.9	10162		1.6E-03
27	2034	2038	2042	N24	W42	SF	C2.9	10162		1.2E-03
27	2153	2204	2215				C4.3			4.0E-03
28	0023	0026	0033	N23	W56	SF	C1.6	10162		8.2E-04
28	0907	0928	0934	N27	W42	SF	C2.1	10162		2.4E-03
28	1024	1028	1038				C1.4			1.0E-03
28	1200	1205	1211	N23	W61	1N	M1.7	10162		7.4E-03
28	1355	1358	1401	N27	W62	SF	C1.1			3.6E-04
28	1413	1418	1422	N34	W56	SF	C2.5	10162		9.8E-04
28	1601	1604	1610	N26	W50	SF	C1.2	10162		5.7E-04
28	1629	1634	1637	N26	W50	SF	C1.0	10162		4.3E-04
28	1822	1830	1833	N26	W50	SF	C2.8	10162		1.4E-03
28	1849	1903	1910	N23	W65	SF	C5.0	10162		3.9E-03
28	1944	1947	1952				C2.3			1.0E-03
28	2139	2143	2147				C1.7			7.0E-04
28	2321	2327	2335	S18	W65	SF	C1.1	10173		8.5E-04
29	0133	0137	0146				C1.1			8.1E-04
29	0301	0320	0338	N31	W51	SF	M1.1	10162		1.6E-02
29	0418	0423	0432				C4.6			3.4E-03
29	0549	0552	0555				C2.9			8.8E-04
29	1230	1234	1246	N28	W58	SF	C1.4	10162		1.2E-03
29	1342	1348	1354	N28	W61	SF	C2.2	10162		1.5E-03
29	1419	1424	1430	N28	W60	SF	C2.2	10162		1.3E-03
29	1445	1448	1453	S18	W76	SF	C1.6	10173		7.1E-04
29	1519	1530	1539	N15	E62	SF	C8.7	10175		7.2E-03
29	1620	1633	1638	N30	W61	SF	C9.7	10162		6.4E-03
29	1911	1916	1923	N14	E60	SF	C1.9	10175		1.2E-03
29	1959	2003	2005	N14	E59	SF	C2.5	10175		7.4E-04
29	2147	2151	2157				C1.8			9.6E-04
29	2300	2309	2316	N30	W65	SF	C5.4	10162		3.6E-03
29	2323	2328	2332				C3.3			1.6E-03
30	0057	0122	0134	N30	W64	SF	C3.7	10162		5.3E-03
30	0253	0258	0311	N30	W66	1F	C3.6	10162		2.9E-03
30	0334	0341	0345				C1.9			1.1E-03

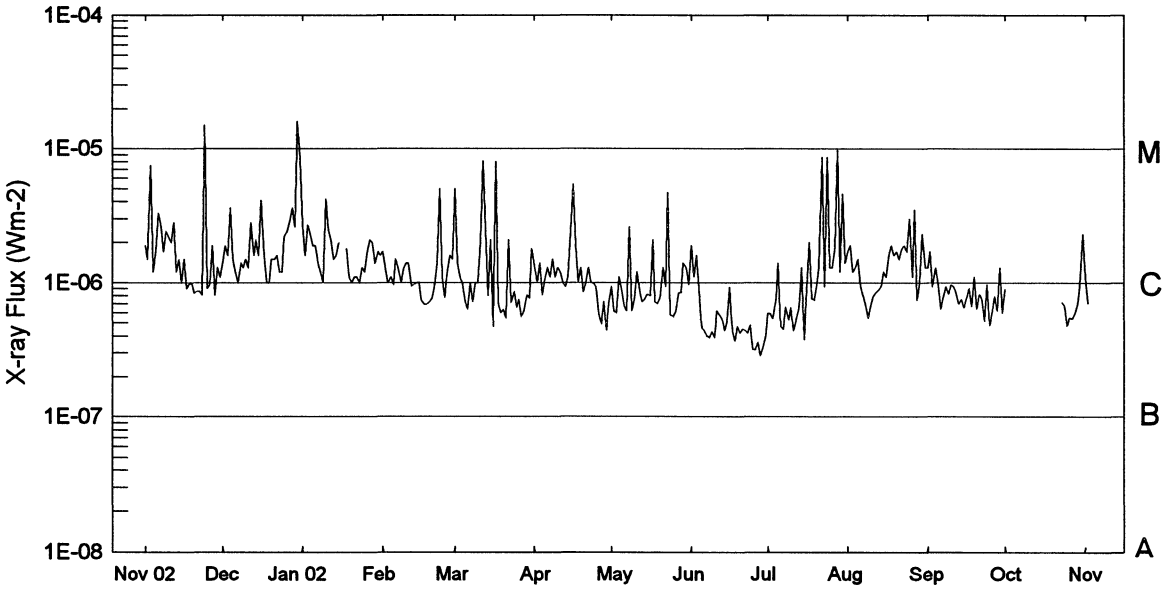
GOES S O L A R X-RAY F L A R E S
Preliminary Listing

October 2002

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
30	0402	0407	0417	N29	W68	1F	C	6.0	10162	3.6E-03
30	0456	0504	0509				C	3.9		2.5E-03
30	0630	0634	0636	N27	W69	SF	C	1.9	10162	6.0E-04
30	0640	0643	0646				C	2.2		6.9E-04
30	0940	0943	0945				C	1.6		3.8E-04
30	1627	1638	1654				C	5.5		7.4E-03
30	1714	1718	1720				C	5.2		1.4E-03
30	1727	1734	1738	N27	W76	SF	C	5.4	10162	3.0E-03
30	1919	1925	1929				C	2.8		1.4E-03
30	2014	2017	2020				C	2.1		6.8E-04
30	2118	2121	2124	N26	W80	SF	C	3.4	10162	1.1E-03

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
31	0211	0217	0221				C	5.7		2.4E-03
31	0430	0433	0437				C	2.1		8.0E-04
31	0918	0926	0939				M	1.1	10175	9.7E-03
31	1019	1030	1041	N15	E59	SF	C	9.5	10177	1.0E-02
31	1440	1444	1450				C	1.7	10175	9.2E-04
31	1617	1627	1637				C	3.9		4.0E-03
31	1647	1652	1655				X	1.2		2.5E-02
31	1802	1833	1846				C	8.0	10162	1.6E-02
31	2319	2327	2352				C	2.6	10175	4.4E-03

Preliminary GOES Satellite Daily X-Ray Background
Nov 2001 - Oct 2002



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

NOTE: * = Data not available.

ACTIVE PROMINENCES AND FILAMENTS

OCTOBER 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
03	BSL	0935E	1025	S02	E90	10	10.2	1	03	9	9	V	KHAR		
06	DSF	0945U	2232U	S24	W22	10	4.7		10	0	0	E	LEAR		
06	DSF	1540U	1045U	S23	W24	10	4.8		05	0	0	E	SVTO		
08	DSF	0950U	2339U	N35	E49	10	12.3		20	0	0	E	LEAR		
13	DSF	0959U	2241U	N40	E00	10	13.4		09	0	0	E	LEAR		
14	ADF	0940E	1022	S04	E67	10	19.5	2	12	9	9	V	KHAR		
15	DSF	0957U	2219U	S35	E06	10	15.9		80	0	0	E	LEAR		
21	DSF	2248U	0943	N16	W19	10	20.5	2	04	0	0	E	LEAR		
21	DSF	2248U	0943	N22	E33	10	24.5	2	05	0	0	E	LEAR	0162	
24	DSF	1507U	0639U	S24	E25	10	26.6		67	0	0	E	SVTO		
25	DSF	2342U	1400U	S29	E50	10	29.9		36	0	0	E	HOLL		
26	DSF	0944U	2317U	N33	W58	10	21.8		15	0	0	E	LEAR		
26	DSF	0944U	2317U	S08	E38	10	29.2		10	0	0	E	LEAR		
26	BSL	1201	1215D	S11	W90	10	19.7	1	05	9	9	V	KHAR		
26	DSF	1512U	0654U	N33	W58	10	22.0		15	0	0	E	SVTO		
26	DSF	1512U	0654U	S19	E28	10	28.8		11	0	0	E	SVTO		
28	DSF	2340U	1542U	N01	E36	10	31.7		06	0	0	E	HOLL		
29	DSF	1525U	0603U	S02	W43	10	26.4		25	0	0	E	SVTO		
29	DSF	2114U	1100U	S17	W24	10	28.1		24	0	0	E	RAMY		
29	DSF	2346U	1337U	S16	W44	10	26.6		16	0	0	E	HOLL		

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

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

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

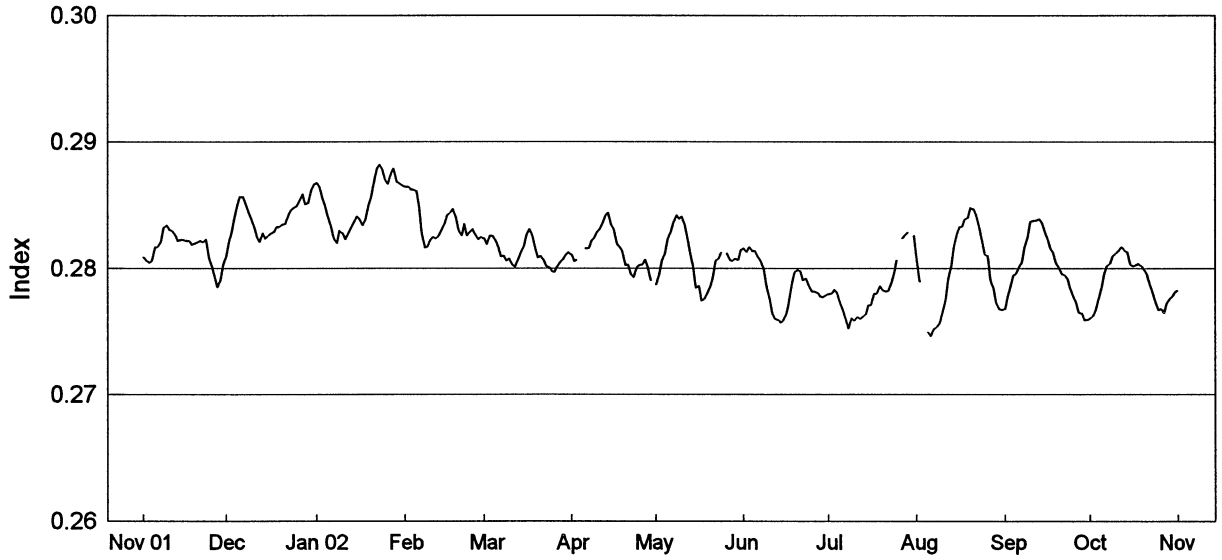
The remark "Bright Emission 1/3" indicates that bright emission was observed 1/3 of time.
The remark "Normal Emission 1/3" indicates that normal emission was observed 1/3 of time.

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

ABST = Abastumani
ATHN = Athens
BUCA = Bucharest
CATA = Catania
HOLL = Holloman
KHAR = Kharkov
LEAR = Learmonth
PALE = Palehua
RAMY = Ramey
SVTO = San Vito
VORO = Voroshilov
VALA = Valasske Mezirici
WROC = Wroclaw

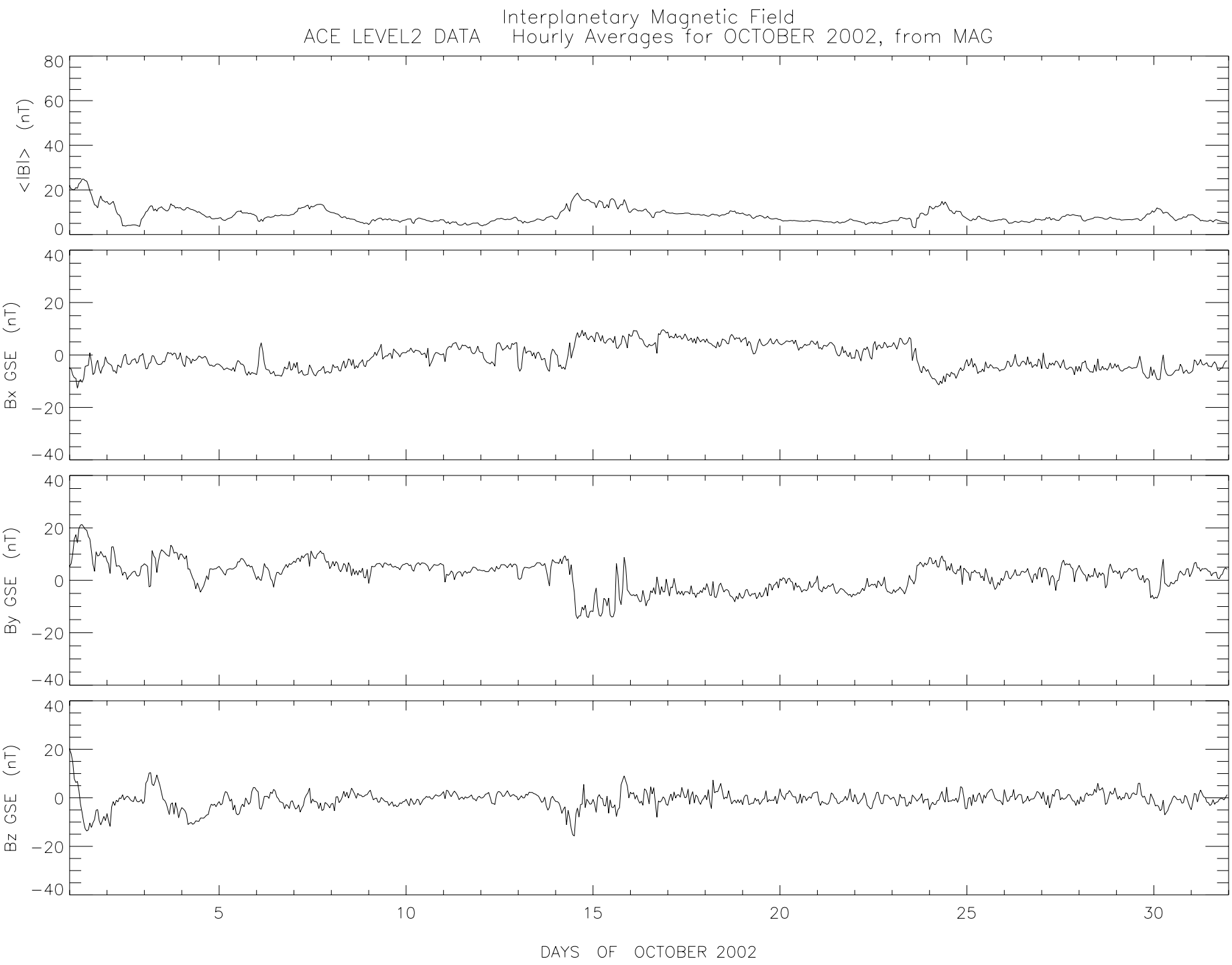
NOTE: The U.S. Air Force solar observing sites (HOLL, LEAR, RAMY, AND SVTO) have changed operational requirements and will only report the following: BSL, EPL, LPS, SPY, and DSF's.

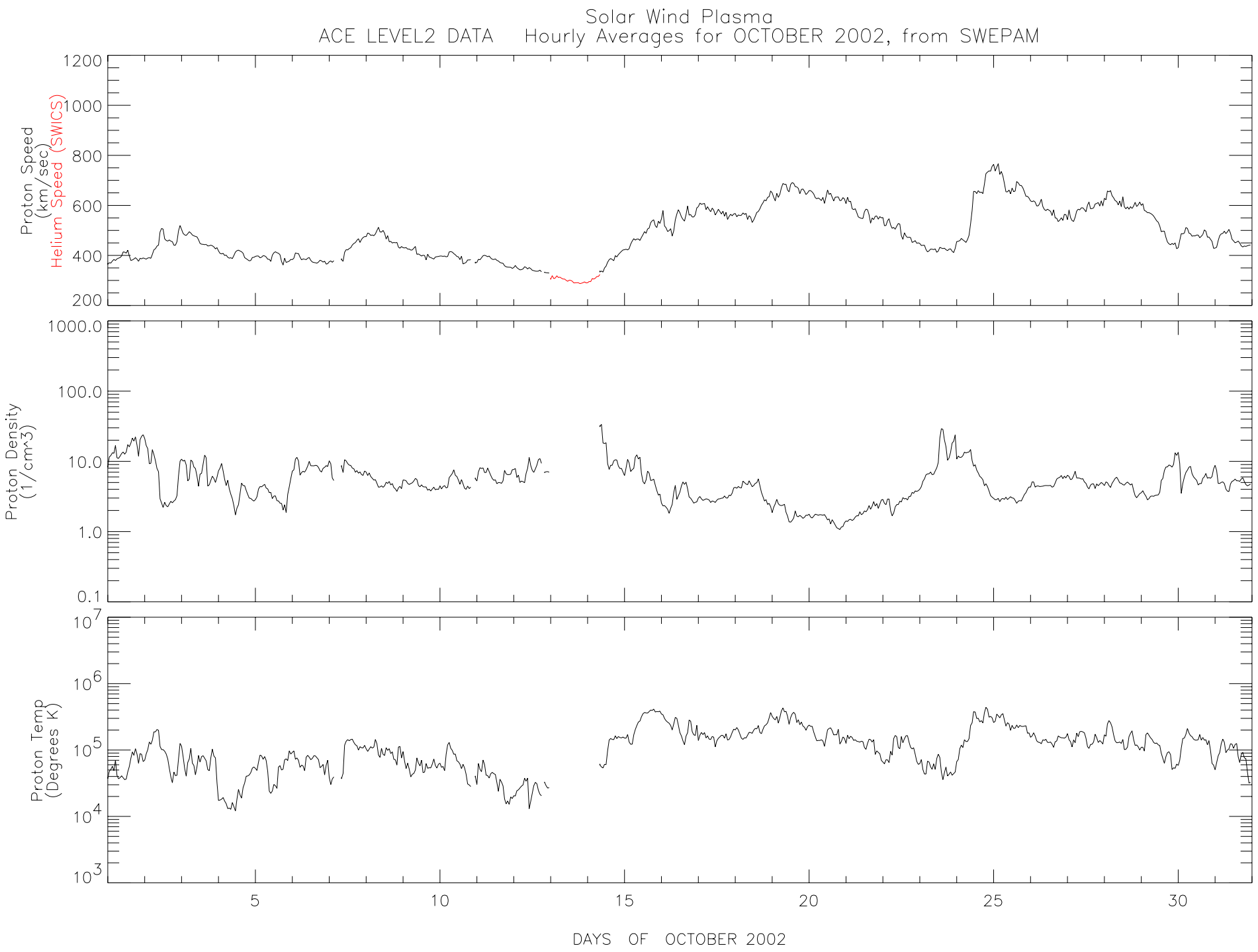
NOAA Solar Ultraviolet (UV) MgII Core-to-Wing Index
Nov 2001 - Oct 2002
Version 9.1

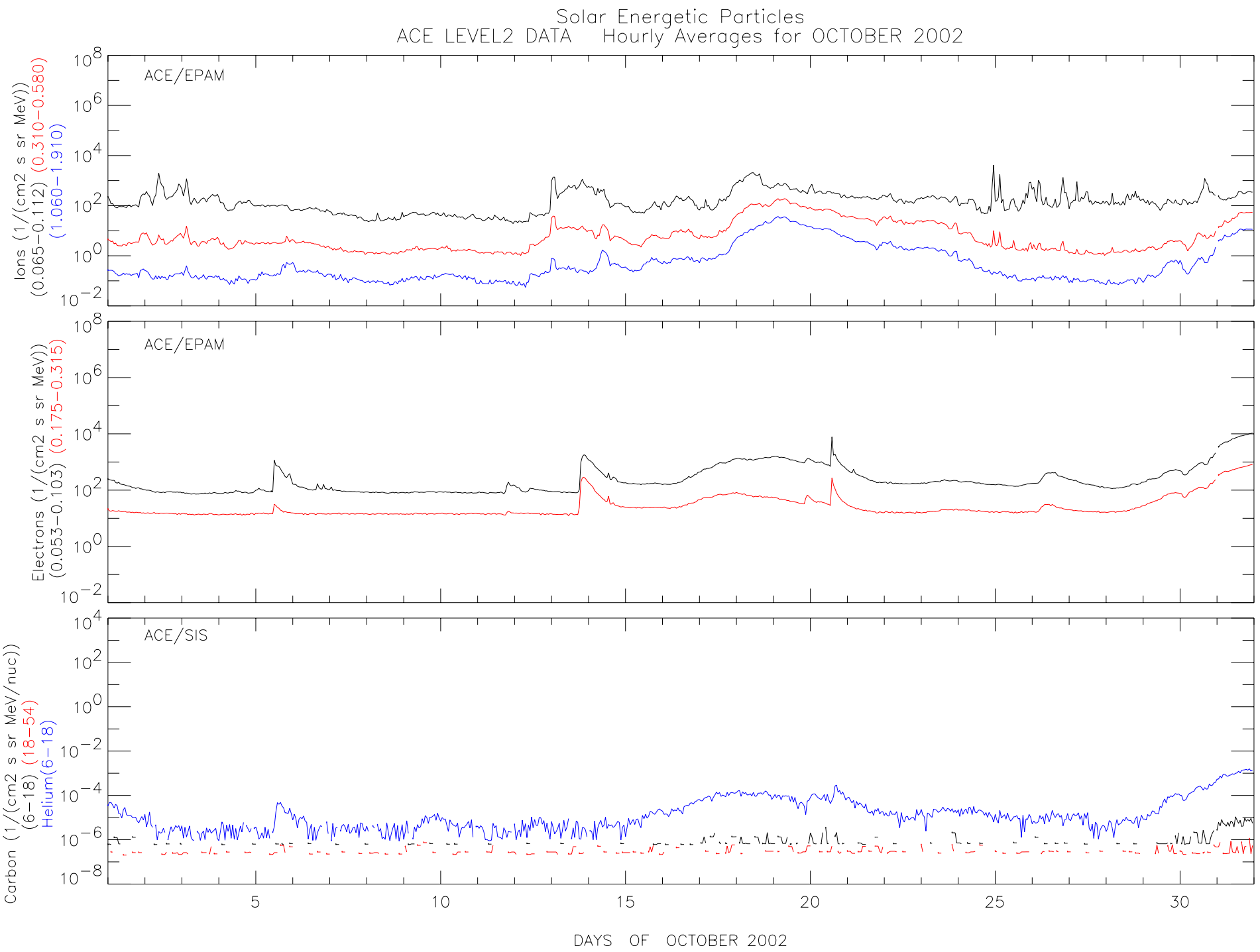


Day	Nov 01	Dec	Jan 02	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
1	0.2809	0.2821	0.2868	0.2865	0.2824	0.2811	0.2787	0.2816	0.2780	0.2808	0.2768	0.2760
2	0.2807	0.2828	0.2865	0.2865	0.2819	0.2806	0.2795	0.2813	0.2780	0.2789	0.2778	0.2762
3	0.2805	0.2841	0.2855	0.2863	0.2826	0.2807	0.2806	0.2817	0.2783	----	0.2785	0.2767
4	0.2806	0.2850	0.2849	0.2863	0.2826	----	0.2812	0.2814	0.2781	----	0.2795	0.2775
5	0.2817	0.2857	0.2841	0.2861	0.2822	----	0.2823	0.2814	0.2773	0.2749	0.2796	0.2785
6	0.2817	0.2857	0.2833	0.2849	0.2817	0.2816	0.2829	0.2809	0.2767	0.2746	0.2801	0.2796
7	0.2821	0.2851	0.2824	0.2828	0.2810	0.2816	0.2836	0.2806	0.2759	0.2752	0.2805	0.2802
8	0.2832	0.2844	0.2820	0.2817	0.2810	0.2822	0.2842	0.2799	0.2752	0.2753	0.2817	0.2804
9	0.2834	0.2839	0.2830	0.2817	0.2806	0.2824	0.2839	0.2786	0.2760	0.2756	0.2825	0.2810
10	0.2831	0.2832	0.2828	0.2823	0.2808	0.2829	0.2841	0.2776	0.2758	0.2764	0.2837	0.2812
11	0.2830	0.2825	0.2823	0.2825	0.2803	0.2831	0.2834	0.2764	0.2761	0.2774	0.2838	0.2814
12	0.2827	0.2821	0.2828	0.2824	0.2801	0.2835	0.2824	0.2760	0.2760	0.2791	0.2838	0.2817
13	0.2822	0.2828	0.2832	0.2826	0.2807	0.2842	0.2813	0.2759	0.2761	0.2802	0.2839	0.2815
14	0.2823	0.2824	0.2836	0.2830	0.2812	0.2844	0.2801	0.2757	0.2763	0.2817	0.2836	0.2813
15	0.2823	0.2826	0.2841	0.2835	0.2817	0.2834	0.2785	0.2758	0.2771	0.2826	0.2830	0.2804
16	0.2822	0.2828	0.2839	0.2842	0.2826	0.2831	0.2786	0.2763	0.2771	0.2833	0.2823	0.2802
17	0.2822	0.2829	0.2834	0.2844	0.2831	0.2819	0.2774	0.2773	0.2780	0.2833	0.2816	0.2803
18	0.2819	0.2833	0.2838	0.2847	0.2827	0.2817	0.2776	0.2788	0.2780	0.2839	0.2813	0.2804
19	0.2820	0.2833	0.2850	0.2840	0.2818	0.2814	0.2780	0.2797	0.2786	0.2840	0.2804	0.2805
20	0.2821	0.2835	0.2856	0.2830	0.2809	0.2803	0.2786	0.2799	0.2783	0.2848	0.2801	0.2806
21	0.2822	0.2835	0.2867	0.2826	0.2810	0.2803	0.2793	0.2798	0.2782	0.2847	0.2796	0.2796
22	0.2821	0.2842	0.2879	0.2835	0.2807	0.2795	0.2806	0.2791	0.2782	0.2842	0.2795	0.2787
23	0.2823	0.2846	0.2882	0.2826	0.2802	0.2793	0.2808	0.2792	0.2789	0.2832	0.2792	0.2781
24	0.2808	0.2848	0.2879	0.2829	0.2801	0.2801	0.2813	0.2787	0.2796	0.2822	0.2784	0.2773
25	0.2802	0.2849	0.2870	0.2831	0.2798	0.2803	----	0.2782	0.2807	0.2812	0.2777	0.2767
26	0.2793	0.2853	0.2867	0.2827	0.2797	0.2803	0.2812	0.2782	----	0.2810	0.2773	0.2768
27	0.2785	0.2859	0.2875	0.2823	0.2802	0.2807	0.2807	0.2781	0.2824	0.2791	0.2765	0.2764
28	0.2791	0.2851	0.2879	0.2825	0.2805	0.2801	0.2806	0.2778	0.2827	0.2784	0.2764	0.2772
29	0.2803	0.2852	0.2869		0.2807	0.279	----	0.2777	0.2829	0.2772	0.2759	0.2776
30	0.2810	0.2861	0.2868		0.2811	0.2786	----	0.2779	----	0.2768	0.2759	0.2778
31		0.2867	0.2866		0.2813		----		0.2826	0.2767		0.2782
Mean	0.2816	0.2841	0.2851	0.2836	0.2812	0.2814	0.2808	0.2787	0.2782	0.2799	0.2800	0.2790

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


Interplanetary Magnetic Field
ACE LEVEL2 DATA Hourly Averages for OCTOBER 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 OCTOBER 2002


Solar Wind Plasma
ACE LEVEL2 DATA Hourly Averages for OCTOBER 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 OCTOBER 2002


Solar Energetic Particles
ACE LEVEL2 DATA Hourly Averages for OCTOBER 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 OCTOBER 2002