

FEBRUARY 2000 NUMBER 666 - Part II

# Solar-Geophysical Data comprehensive reports



Data for August 1999 and Miscellaneous  
Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

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NATIONAL ENVIRONMENTAL SATELLITE,  
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NATIONAL GEOPHYSICAL  
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FEBRUARY 2000 NUMBER 666 - Part II

# **Solar-Geophysical Data comprehensive reports**

Data for August 1999 and Late Data

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**NATIONAL GEOPHYSICAL DATA CENTER**

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# SOLAR-GEOPHYSICAL DATA

Number 666

(Issued in Two Parts)

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H $\alpha$  SOLAR FLARES

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Aug 99

AUGUST 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Xray	Obs See	Type	Time (UT)	Area Apparent (10-6 Disk)	Measurement Corr (Sq Deg)	Remarks
0026	HOLL	01	2312	2314	2326	S28	W27	8645	07	30.9	14	SF	3	E		52		F
0027	LEAR	02	0229	0232	0240	N17	E12	8650	08	3.0	11	SF	2	E		12		
0028	LEAR	02	0231	0232U	0257D	S18	W36	8647	07	30.5	26D	SF	2	E		24		
0029	LEAR	02	0402	0402	0415	S25	W32	8645	07	30.8	13	SF	3	E		25		
0030		02	0443A	0446	0458	S22	W37	8645	07	30.4	15	SF				42		EF
	LEAR	02	0443	0446	0503D	S21	W35	8645	07	30.6	20D	SF	3	E		53		E
	SVTO	02	0447	0448U	0458	S23	W39	8645	07	30.3	11	SF	3	E		31		F
0031	LEAR	02	0446	0446	0453	S20	W37	8647	07	30.5	7	SF	3	E		15		E
0032	LEAR	02	0455	0506U	0521D	N25	E06	8651	08	2.7	26D	SF	3	E		22		
0033	LEAR	02	0532E	0532U	0627D	S28	W28	8645	07	31.0	55D	SF	3	E		15		
0034	SVTO	02	0617	0619	0624	S21	W38	8647	07	30.4	7	SF	3	E		14		
0035		02	0522*	0629	0633	N24	E04	8651	08	2.5	71	SN				22		
	LEAR	02	0522	0530U	0624D	N23	E07	8651	08	2.8	62D	SF	3	E		22		
	KANZ	02	0629	0629	0633	N26	E01	8651	08	2.3	4	SN	2	C				
		02	0710		0716	No Flare Patrol												
		02	0734		0740	No Flare Patrol												
		02	0819		0924	No Flare Patrol												
0036	SVTO	02	0941	0948	1006	S29	W27	8645	07	31.3	25	SF	3	E		38		
0037	SVTO	02	0946E	0946U	0958	N26	W01	8651	08	2.3	12D	SN	3	E		46		
0038	RAMY	02	1126E	1154U	1212D	S21	W38	8645	07	30.7	46D	SN	3	E		58		F
0039	SVTO	02	1147E	1156U	1159	S30	W29	8645	07	31.2	12D	SF	3	E		34		
0040	SVTO	02	1259	1300	1305	S17	W44	8647	07	30.3	6	SF	3	E		27		F
0041	SVTO	02	1310	1311	1317	N19	E04	8650	08	2.8	7	SF	3	E		16		F
0042	SVTO	02	1408	1416	1436	S18	W43	8647	07	30.4	28	SF	3	E		30		F
0043		02	14121	14202	1438	N18	E25	8656	08	4.5	26	SF				63		F
	SVTO	02	1412	1420	1440	N18	E25	8656	08	4.5	28	SF	3	E		73		F
	HOLL	02	1413	1422	1435	N17	E25	8656	08	4.5	22	SF	3	E		53		
0044	SVTO	02	1423	1423	1429	N23	E03	8651	08	2.8	6	SF	3	E		11		F
0045		02	1424*	15341	1601	S18	W42	8647	07	30.5	97	SF				57		F
	RAMY	02	1424	1534	1623	S18	W43	8647	07	30.4	119	SF	3	E		73		
	SVTO	02	1533	1534	1555	S19	W43	8647	07	30.5	22	SF	3	E		41		F
	KANZ	02	1535	1535	1546	S18	W41	8647	07	30.6	11	SF	2	C				
0046	HOLL	02	1441	1450	1504	S27	W40	8645	07	30.6	23	SF	3	E		68		
0047	SVTO	02	1444	1447	1501	S29	W30	8645	07	31.3	17	SN	3	E		81		F
0048		02	15492	15501	1605	N18	E24	8656	08	4.5	16	SF				23		
	RAMY	02	1549	1551	1559	N18	E24	8656	08	4.5	10	SF	3	E		22		
	KANZ	02	1550	1550	1554D	N18	E23	8656	08	4.4	4D	SF	2	C				
	HOLL	02	1551	1551	1611	N18	E24	8656	08	4.5	20	SF	3	E		24		
0049		02	1628	16281	1633	S18	W45	8647	07	30.3	5	SF				31		F
	SVTO	02	1628	1628	1632	S19	W45	8647	07	30.3	4	SF	3	E		28		F
	RAMY	02	1628	1629	1634	S18	W45	8647	07	30.3	6	SF	3	E		34		
		02	1949		2335	No Flare Patrol												
0050	RAMY	02	2127E	2128U	2215D	S18	W46	8647	07	30.5	48D	1B	1	E		126		



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Aug 99

H $\alpha$  S O L A R F L A R E S

AUGUST 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/	CMP	Dur	Imp	Obs	Area Measurement	Corr	Remarks	
								USAF Region								Mo Day
0051	LEAR	03	0058	0058	0103	S17	W47	8647	07	30.6	5	SF	3	E	35	
0052	LEAR	03	0253	0259	0312	S17	W48	8647	07	30.6	19	SF	3	E	18	
0053	LEAR	03	0340	0342	0346	N23	W03	8651	08	2.9	6	SF	3	E	22	
0054	LEAR	03	0438	0441	0448	N23	W04	8651	08	2.9	10	SF	3	E	55	F
0055	LEAR	03	0453	0453	0511	N25	W03	8651	08	3.0	18	SF	3	E	21	
0056		03	0500	0501	0535	S19	W48	8647	07	30.6	35	SF			34	
	LEAR	03	0500	0501	0515	S18	W48	8647	07	30.6	15	SF	2	E	39	
	SVTO	03	0500	0502	0555	S20	W47	8647	07	30.7	55	SF	3	E	29	
0057	LEAR	03	0512	0543	0605	N25	W07	8651	08	2.7	53	SF	3	E	19	
0058		03	0720	0720	0746	N21	W03	8651	08	3.1	26	SF			15	
	SVTO	03	0720	0720	0745	N21	W04	8651	08	3.0	25	SF	3	E	15	
	KANZ	03	0721	0721	0746	N21	W02	8651	08	3.1	25	SF	2	C		
0059		03	0808	0809	0813	S18	W50	8647	07	30.6	5	SF			16	
	LEAR	03	0808	0809	0812	S18	W52	8647	07	30.5	4	SF	3	E	16	
	KANZ	03	0810	0810	0814	S19	W49	8647	07	30.7	4	SF	2	C		
0060		03	0840	0842	0846	S18	W52	8647	07	30.5	6	SN			11	
	LEAR	03	0840	0844	0847	S18	W54	8647	07	30.3	7	SF	3	E	11	
	KANZ	03	0842	0842	0846	S19	W51	8647	07	30.6	4	SN	2	C		
0061		03	1134	1143	1200	S28	W42	8645	07	31.2	26	SF			40	
	RAMY	03	1134	1145	1203	S28	W42	8645	07	31.2	29	SF	3	E	48	
	SVTO	03	1137	1143	1156	S28	W43	8645	07	31.1	19	SF	3	E	31	
0062		03	1144	1147	1152	N22	W08	8651	08	2.9	8	SF			27	
	RAMY	03	1144	1147	1154	N23	W09	8651	08	2.8	10	SF	3	E	30	
	SVTO	03	1147	1147	1150	N22	W08	8651	08	2.9	3	SF	3	E	24	
0063	RAMY	03	1203	1205	1216	N19	E12	8656	08	4.4	13	SF	3	E	12	
0064		03	1224	1225	1236	N19	E12	8656	08	4.4	12	SN			82	
	RAMY	03	1224	1225	1237	N19	E12	8656	08	4.4	13	SN	3	E	84	
	SVTO	03	1224	1226	1236	N19	E12	8656	08	4.4	12	SF	3	E	81	
0065		03	1253	1254	1256	N18	E12	8656	08	4.4	3	SF			14	
	SVTO	03	1253	1254	1256	N17	E13	8656	08	4.5	3	SF	3	E	19	
	RAMY	03	1253	1255	1256	N18	E11	8656	08	4.4	3	SF	3	E	10	
0066		03	1333	1337	1344	N20	W11	8651	08	2.7	11	SF			18	
	SVTO	03	1333	1337	1344	N19	W11	8651	08	2.7	11	SF	3	E	20	
	RAMY	03	1333	1338	1345	N20	W11	8651	08	2.7	12	SF	3	E	16	
0067	RAMY	03	1530	1532	1556	N17	E12	8656	08	4.5	26	SF	3	E	46	
0068	RAMY	03	1606	1607	1609	S18	W57	8647	07	30.4	3	SF	3	E	16	
		03	1740		2140	No Flare Patrol										
		03	2152		2209	No Flare Patrol										
0069	HOLL	03	2253	2257	2302	N17	E08	8656	08	4.6	9	SF	3	E	12	
		03	2307		2313	No Flare Patrol										
0070	LEAR	04	0336	0338	0340	S32	E58	8657	08	8.7	4	SF	3	E	12	
0071	LEAR	04	0351	0352	0358	N28	W18	8651	08	2.7	7	SF	3	E	16	
0072	LEAR	04	0413	0413	0419	S17	W62	8647	07	30.6	6	SF	3	E	20	
0073	SVTO	04	0548	0553	0704	S17	W57	8647	07	31.0	76	1N	3	E	180	F

H $\alpha$  SOLAR FLARES

7  
Aug 99

AUGUST 1999

Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	NOAA/USAF			CMP Mo Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
					Lat	CMD	Region							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0074	LEAR	04 0549	0555	0659	S16	W64	8647	07 30.5	70	1N		3	E	133		F	
0075	LEAR	04 0618	0621	0631	S28	W62	8645	07 30.5	13	SF		3	E	32			
0076	SVTO	04 0739	0739	0741	S17	W58	8647	07 31.0	2	SF		3	E	12			
0077		04 08551	0857	0902	S19	W68	8647	07 30.3	7	SF				66			
	SVTO	04 0855	0857	0904	S20	W68	8647	07 30.3	9	SF		3	E	77			
	LEAR	04 0856	0857	0901	S18	W69	8647	07 30.2	5	SF		3	E	54			
0078		04 0912	0913	0923	N17	E04	8656	08 4.7	11	SF				30			
	LEAR	04 0912	0913	0920	N17	E04	8656	08 4.7	8	SF		3	E	29			
	SVTO	04 0912	0913	0926	N17	E03	8656	08 4.6	14	SF		3	E	31			
0079		04 1038E	1046	1114	S28	E48	8657	08 8.2	360	SF				23			
	KANZ	04 1038E	1046	1114	S28	E51	8657	08 8.4	360	SF		2	C				
	RAMY	04 1041E	1042U	1110D	S27	E46	8657	08 8.0	290	SF		3	E	23			
0080		04 11424	11502	1213	N19	E00	8656	08 4.5	31	SF				28			
	KANZ	04 1142	1150	1216	N20	W00	8656	08 4.5	34	SF		2	C				
	RAMY	04 1146E	1146U	1201D	N20	E00	8656	08 4.5	150	SF		3	E	21			
	SVTO	04 1146	1152	1210	N17	E01	8656	08 4.6	24	SF		3	E	34			
0081		04 11553	12003	1216	S30	W64	8645	07 30.6	21	1F				160		F	
	KANZ	04 1155	1203	1216	S30	W62	8645	07 30.7	21	1F		2	C				
	SVTO	04 1158	1200	1233D	S30	W67	8645	07 30.3	350	1F		3	E	110			
	RAMY	04 1201E	1202U	1216	S29	W64	8645	07 30.6	150	1F		3	E	209		F	
0082		04 12191	12241	1235	S26	W62	8645	07 30.8	16	SF				30			
	RAMY	04 1219	1225	1235	S26	W64	8645	07 30.6	16	SF		3	E	30			
	KANZ	04 1220	1224	1232D	S26	W61	8645	07 30.9	120	SF		2	C				
0083	RAMY	04 1357	1359	1414	S29	W58	8645	07 31.0	17	SF		3	E	15			
0084	RAMY	04 1404	1406	1412	N21	W18	8651	08 3.2	8	SF		3	E	17			
0085		04 1449*	1451*	1534	N26	W23	8651	08 2.8	45	SF				22			
	RAMY	04 1449	1451	1532	N27	W23	8651	08 2.8	43	SF		3	E	29			
	SVTO	04 1517	1517	1536	N25	W23	8651	08 2.8	19	SF		3	E	14			
	KANZ	04 1522E		1522D	N27	W22	8651	08 2.9	190	SF		2	C				
0086	RAMY	04 1515	1515	1527	S27	W60	8645	07 31.0	12	SF		3	E	19			
0087	SVTO	04 1518	1605	1637	S16	W94	8649	07 28.6	79	SF		3	E	34			
0088	RAMY	04 1545	1556	1610	S24	W66	8645	07 30.6	25	SF		3	E	20		F	
0089		04 15542	1604	1624	S18	W66	8647	07 30.7	30	SF				35		F	
	SVTO	04 1554	1604	1627	S17	W63	8647	07 31.0	33	SF		3	E	33			
	RAMY	04 1556	1604	1622	S18	W69	8647	07 30.5	26	SF		3	E	37		F	
		04 1718		1724	No Flare Patrol												
0090	HOLL	04 1744	1745	1755	N27	W27	8651	08 2.6	11	SF		3	E	32			
		04 1759		1838	No Flare Patrol												
		04 1845		1916	No Flare Patrol												
0091	RAMY	04 1935	1936	1943	N26	W28	8651	08 2.6	8	SF		3	E	19		F	
		04 2017		2030	No Flare Patrol												
		04 2050		2105	No Flare Patrol												
		04 2112		2117	No Flare Patrol												
		04 2122		2400	No Flare Patrol												
		05 0000		0102	No Flare Patrol												
		05 0125		0154	No Flare Patrol												
0092	LEAR	05 0340	0343	0346	S15	W74	8647	07 30.6	6	SF		3	E	31			

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP No	Dur Day	Imp (Min)	Xray Opt	Obs See	Type	Area Measurement			Remarks	
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0093	SVTO	05	0501	0515	0526	S24	W79	8645	07	30.2	25	SF	3	E		58			
0094		05	05221	05243	0534	N26	W32	8651	08	2.7	12	SF				29		F	
	SVTO	05	0522	0524	0536	N27	W32	8651	08	2.7	14	SF	3	E		34		F	
	LEAR	05	0523	0527	0533	N25	W33	8651	08	2.7	10	SF	4	E		24			
0095	SVTO	05	0632	0633	0635	S25	W91	8644	07	29.3	3	SF	3	E		29			
0096	KANZ	05	0801	0805	0809	S22	W75	8647	07	30.7	8	SF	2	C					
0097	RAMY	05	1128	1132	1137	N20	W14	8656	08	4.4	9	SF	3	E		37			
0098	RAMY	05	1231	1245	1315	S21	W81	8647	07	30.4	44	SF	3	E		53			
0099	SVTO	05	1350	1353	1400	S17	W74	8647	07	31.0	10	SF	3	E		22			
0100	RAMY	05	1440	1443	1449	S31	W69	8645	07	31.2	9	SF	3	E		25		H	
0101		05	15091	15131	1525	S17	W82	8647	07	30.5	16	SF				39			
	RAMY	05	1509	1514	1527	S17	W81	8647	07	30.6	18	SF	3	E		45			
	SVTO	05	1510	1513	1523	S17	W88	8647	07	30.0	13	SF	3	E		33			
	KANZ	05	1515E		1515D	S17	W77	8647	07	30.9	13D	SF	2	C					
0102		05	1517	15171	1535	N28	W36	8651	08	2.8	18	SF				12		F	
	RAMY	05	1517	1517	1534	N27	W37	8651	08	2.7	17	SF	3	E		12			
	SVTO	05	1517	1518	1536	N28	W35	8651	08	2.9	19	SF	3	E		13		F	
0103		05	15209	15209	1531	S30	W69	8645	07	31.2	11	SF				16		FH	
	RAMY	05	1520	1520	1525	S30	W67	8645	07	31.4	5	SF	3	E		17			
	SVTO	05	1529	1529	1537	S31	W71	8645	07	31.0	8	SF	3	E		14		FH	
0104		05	15431	1551	1612	S25	W77	8645	07	30.8	29	1F				136		H	
	RAMY	05	1543	1551	1612	S25	W77	8645	07	30.8	29	1F	3	E		143		H	
	SVTO	05	1544	1551	1611	S25	W77	8645	07	30.8	27	1F	3	E		128		H	
0105		05	16152	16191	1630	S31	W70	8645	07	31.1	15	SF				48		H	
	RAMY	05	1615	1620	1633	S31	W69	8645	07	31.2	18	SF	3	E		50		H	
	SVTO	05	1617	1619	1627	S31	W70	8645	07	31.1	10	SF	3	E		46		H	
		05	1726		1757	No Flare Patrol													
0106	HOLL	05	1837	1851	1901	S27	W80	8645	07	30.6	24	1N	3	E		135			
0107	HOLL	05	1941	1946	1956	N26	W41	8651	08	2.6	15	SF	3	E		28			
		05	1958		2400	No Flare Patrol													
		06	0000		0007	No Flare Patrol													
0108	LEAR	06	0138	0138U	0145	N19	W21	8656	08	4.5	7	SF	3	E		11			
0109	LEAR	06	0139	0143	0150	S29	W73	8645	07	31.3	11	1F	3	E		100			
0110	LEAR	06	0243	0254	0257	S29	W73	8645	07	31.4	14	SF	3	E		16			
0111	LEAR	06	0421	0423	0426	S27	W78	8645	07	31.1	5	SF	2	E		29			
0112	LEAR	06	0429	0435	0438	S29	W75	8645	07	31.3	9	SF	3	E		19			
0113	KANZ	06	0807	0807	0815	S30	W77	8645	07	31.3	8	SF	2	C					
0114	RAMY	06	1054E	1055U	1104D	S29	W82	8645	07	31.0	10D	SF	3	E		63		H	
0115	RAMY	06	1147E	1147U	1152D	S14	E69	8662	08	11.7	5D	SF	3	E		29			
0116	KANZ	06	1345	1353	1409D	N33	W55		08	2.2	24D	SF	2	C					
0117	HOLL	06	1425E	1425U	1429	N17	W27	8656	08	4.5	4D	SF	2	E		85			

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																Time (UT)	Apparent (10-6 Disk)		Corr (Sq Deg)	
0118		06	14341	1440	1453	N17	W27	8656	08	4.5	19	SF					22		F	
	RAMY	06	1434	1440	1457	N17	W27	8656	08	4.5	23	SF		3	E		30			
	SVTO	06	1435	1440	1449	N17	W27	8656	08	4.5	14	SF		3	E		15		F	
0119	RAMY	06	1434	1435	1445	N22	W68	8648	08	1.4	11	SF		3	E		25			
0120	RAMY	06	1529	1529	1532	S30	W86	8645	07	31.0	3	SF		3	E		50			
0121		06	16252	16253	1636	S15	E65	8662	08	11.6	11	SF					39			
	RAMY	06	1625	1625	1634	S15	E66	8662	08	11.7	9	SF		3	E		10			
	SVTO	06	1626	1628	1633	S16	E62	8662	08	11.4	7	SF		3	E		15			
	HOLL	06	1627	1628	1640	S14	E66	8662	08	11.7	13	SF		3	E		91			
0122	RAMY	06	1634	1636	1638	S30	W85	8645	07	31.0	4	SF		3	E		13			
0123		06	1646	16462	1652	S28	W88	8645	07	30.9	6	SF					19			
	SVTO	06	1646	1646	1651	S25	W91	8645	07	30.7	5	SF		3	E		13			
	RAMY	06	1646	1648	1652	S30	W86	8645	07	31.0	6	SF		3	E		25			
0124		06	1707	1707	1728	N26	W52	8651	08	2.7	21	SF					36			
	RAMY	06	1707	1707	1720	N27	W50	8651	08	2.8	13	SF		3	E		15			
	HOLL	06	1709E	1709U	1735	N26	W55	8651	08	2.4	26D	SF		2	E		57			
0125		06	17401	17412	1746	S28	W90	8645	07	30.8	6	SF					36			
	HOLL	06	1740	1741	1747	S27	W93	8645	07	30.6	7	SF		3	E		30			
	RAMY	06	1741	1743	1746	S30	W86	8645	07	31.0	5	SF		3	E		43			
0126	HOLL	06	1838	1839	1851	S14	E65	8662	08	11.7	13	SF		3	E		34			
		06	2023		2054	No Flare Patrol														
		06	2129		2156	No Flare Patrol														
0127	HOLL	06	2324	2324	2335	N19	W34	8656	08	4.4	11	SF		3	E		11			
0128	HOLL	07	0012	0013	0017	S14	E62	8662	08	11.7	5	SF		3	E		18			
0129	HOLL	07	0048	0053	0101	N19	W35	8656	08	4.4	13	SF		3	E		11		F	
0130	HOLL	07	1546	1613	1630	N17	W41	8656	08	4.5	44	SF		3	E		35			
0131	HOLL	07	1727	1728	1735	N18	W40	8656	08	4.7	8	SF		3	E		17			
0132	HOLL	07	1847	1849	1854	S15	W24	8661	08	6.0	7	SF		3	E		27			
		07	1925		1939	No Flare Patrol														
0133	HOLL	07	1940	1941	1948	N17	W41	8656	08	4.7	8	SF		3	E		21			
		07	2219		2226	No Flare Patrol														
		07	2236		2242	No Flare Patrol														
0134	HOLL	07	2244	2245	2247	S14	E47	8662	08	11.5	3	SF		3	E		14		F	
0135	HOLL	07	2254	2254	2300	S14	E46	8662	08	11.4	6	SF		3	E		13			
0136	HOLL	07	2304	2307	2412	S28	E03	8657	08	8.2	68	SF		3	E		47		S	
0137	HOLL	08	0014	0018	0024	S28	E02	8657	08	8.2	10	SF		3	E		19		F	
0138	HOLL	07	2346	2351	2358	S13	E42	8662	08	11.1	12	SF		3	E		15		F	
0139	HOLL	08	0017	0018	0021	S13	E40	8662	08	11.0	4	SF		3	E		16		F	
0140	HOLL	08	0025	0025	0034	S13	E41	8662	08	11.1	9	SF		3	E		27			
0141	LEAR	08	0231	0231	0238	S17	E46	8662	08	11.6	7	SF		3	E		20			
0142	LEAR	08	0327	0327	0334	S16	E43	8662	08	11.4	7	SF		3	E		14			

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Grp #	Sta	Start Day	Max (UT)	End (UT)	Lat	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Area Measurement Time Apparent (UT) (10-6 Disk)	Corr (Sq Deg)	Remarks
0143	LEAR	08 0520	0521	0532	S13 E40	8662	08 11.2	12	SF			3 E	37		
0144		08 10371	10383	1112	S14 E35	8662	08 11.1	35	SF				83		
	KANZ	08 1037	1041	1105D	S14 E33	8662	08 10.9	28D	SF			2 C			
	SVTO	08 1038	1038	1120	S16 E39	8662	08 11.4	42	SF			3 E	80		
	RAMY	08 1041E	1042U	1104	S12 E33	8662	08 10.9	23D	SF			3 E	86		
0145		08 14002	14063	1422	S15 E38	8662	08 11.5	22	SF				24		F
	HOLL	08 1400	1409	1431	S14 E39	8662	08 11.5	31	SF			3 E	43		F
	SVTO	08 1401	1406	1416	S16 E37	8662	08 11.4	15	SF			3 E	13		
	RAMY	08 1402	1406	1419	S16 E38	8662	08 11.5	17	SF			3 E	17		
0146	HOLL	08 1424	1424	1432	S28 E00	8657	08 8.6	8	SF			3 E	21		
		08 1952		2326	No Flare Patrol										
0147	HOLL	09 0035	0036	0040	S14 E33	8662	08 11.5	5	SF			3 E	23		
0148	HOLL	09 0041	0043	0054	S14 E33	8662	08 11.5	13	SF			3 E	50		
0149	LEAR	09 0323	0324	0329	S31 W12	8657	08 8.2	6	SF			4 E	35		
0150	LEAR	09 0329	0333	0335	S31 W12	8657	08 8.2	6	SF			3 E	11		
0151	LEAR	09 0335	0337	0339	S31 W12	8657	08 8.2	4	SF			3 E	18		
0152		09 1133	1133	1141	S15 E26	8662	08 11.4	8	SF				10		
	RAMY	09 1133E	1133U	1141D	S15 E26	8662	08 11.4	8D	SF			2 E	10		
	KANZ	09 1133	1133	1141	S15 E26	8662	08 11.4	8	SF			2 C			
0153	RAMY	09 1825	1827	1833	S14 E15	8662	08 10.9	8	SF			3 E	15		F
0154		09 1842	1844	1914	S29 W18	8657	08 8.4	32	SF				40		FH
	RAMY	09 1842	1844	1909	S29 W17	8657	08 8.4	27	SF			3 E	35		FH
	HOLL	09 1842	1844	1918	S29 W18	8657	08 8.4	36	SF			3 E	45		
		09 2258		2303	No Flare Patrol										
		09 2319		2354	No Flare Patrol										
0155	LEAR	10 0010E	0010U	0015D	S31 W22	8657	08 8.3	5D	SF			2 E	20		
		10 0021		0510	No Flare Patrol										
0156	SVTO	10 0604	0611	0619	N15 W74	8656	08 4.6	15	SF			3 E	22		F
0157		10 07511	07511	0755	N14 W76	8656	08 4.6	4	SF				18		
	SVTO	10 0751	0751	0754	N14 W77	8656	08 4.5	3	SF			3 E	18		
	KANZ	10 0752	0752	0756	N14 W76	8656	08 4.6	4	SF			2 C			
0158	KHAR	10 0917E	0919	0958	N22 W85	8656	08 3.8	41D	SF			2 V			D
0159	KHAR	10 0917E		0958	N12 W78	8656	08 4.5	41D	SF			2 V			E
0160		10 09541	0958	1009	S14 E15	8662	08 11.5	15	1N				28		E
	KHAR	10 0954		1005D	S14 E16	8662	08 11.6	11D	1N			2 V			E
	SVTO	10 0955	0958	1009	S15 E14	8662	08 11.5	14	SF			3 E	28		
0161	SVTO	10 1156	1159	1204	N17 W82	8656	08 4.3	8	SF			3 E	49		
0162	SVTO	10 1331	1332	1343	S17 E13	8662	08 11.5	12	SF			3 E	12		
0163	RAMY	10 1402	1405	1414	N17 W76	8656	08 4.8	12	SF			3 E	63		
0164		10 1432	1437	1447	S30 W30	8657	08 8.2	15	SF				18		
	RAMY	10 1432	1437	1447	S30 W29	8657	08 8.3	15	SF			3 E	22		
	SVTO	10 1432	1442U	1504D	S30 W31	8657	08 8.2	32D	SF			3 E	15		
0165		10 14431	1447	1455	S15 E13	8662	08 11.6	12	SF				16		H
	SVTO	10 1443	1444U	1507D	S16 E10	8662	08 11.4	24D	SF			3 E	15		
	RAMY	10 1444	1447	1455	S14 E16	8662	08 11.8	11	SF			3 E	16		H

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Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks
															Apparent (10-6 Disk)	Corr (Sq Deg)	
0166	10	15262	15285	1538	S15	E12	8662	08	11.5	12	SF				20		H
	SVTO	10	1526	1533	1540	S16	E10	8662	08	11.4	14	SF	3	E	26		H
	RAMY	10	1528	1528	1537	S14	E15	8662	08	11.8	9	SF	3	E	13		
0167	10	16201	16222	1645	S15	E13	8662	08	11.7	25	SF				91		FH
	HOLL	10	1620	1624	1649	S15	E15	8662	08	11.8	29	1F	3	E	136		
	SVTO	10	1621E	1621U	1641D	S16	E09	8662	08	11.4	20D	SF	2	E	47		
	RAMY	10	1621	1622	1641	S14	E15	8662	08	11.8	20	SN	3	E	91		FH
0168	HOLL	10	1751	1756	1808	S14	E10	8662	08	11.5	17	SF	3	E	28		
0169	RAMY	10	1822	1822	1827	S30	W31	8657	08	8.3	5	SF	3	E	12		F
		10	1950		2117	No Flare Patrol											
0170	HOLL	10	2205	2207	2228	S14	E11	8662	08	11.7	23	SF	3	E	53		
		11	0458		0519	No Flare Patrol											
		11	0909		1035	No Flare Patrol											
0171	RAMY	11	1058E	1058U	1117D	S14	E04	8662	08	11.7	19D	SF	3	E	34		F
0172	RAMY	11	1322	1325	1333	S14	E03	8662	08	11.8	11	SF	3	E	21		F
		11	1811		1842	No Flare Patrol											
		11	2000		2057	No Flare Patrol											
0173	HOLL	11	2331	2332	2340	S16	W04	8662	08	11.7	9	SF	3	E	27		
		12	0146		0156	No Flare Patrol											
		12	0252		0433	No Flare Patrol											
0174	HOLL	12	2041	2041	2044	S14	W14	8662	08	11.8	3	SF	3	E	12		
		13	0000		0105	No Flare Patrol											
		13	0146		0408	No Flare Patrol											
		13	0420		0428	No Flare Patrol											
0175	SVTO	13	0603	0603	0607	S15	W20	8662	08	11.7	4	SF	3	E	24		
0176	SVTO	13	0749	0753	0804	S15	W20	8662	08	11.8	15	SF	3	E	39		FH
0177	KHAR	13	0855	0856	0905D	N36	E86		08	20.3	10D	SF	2	P	0901	30	DL
0178	KHAR	13	0918E	0919U	0924	S16	W22	8662	08	11.7	6D	SF	2	V			DH
0179	KHAR	13	1020	1026	1030D	S15	W22	8662	08	11.8	10D	SF	2	V			E
		13	1031		1051	No Flare Patrol											
0180	RAMY	13	1106E	1107U	1211D	S15	W21	8662	08	11.9	65D	SF	3	E	22		
0181	RAMY	13	1126E	1127	1143	S15	W21	8662	08	11.9	17D	SF	3	E	21		
0182	RAMY	13	1314	1330	1343	S16	W24	8662	08	11.7	29	SF	3	E	20		
0183	RAMY	13	1333	1333	1341	S33	W72	8657	08	7.8	8	SF	3	E	11		
0184	13	1550	15523	1616	S16	W27	8662	08	11.6	26	SF				74		F
	RAMY	13	1550	1552	1618	S16	W26	8662	08	11.7	28	SF	3	E	51		F
	HOLL	13	1550	1555	1616	S15	W26	8662	08	11.7	26	SF	3	E	78		
	SVTO	13	1557E	1558U	1615	S16	W29	8662	08	11.5	18D	SF	3	E	92		F
0185	13	1930	1940	1958	S14	W32	8662	08	11.4	28	SF				56		F
	HOLL	13	1930	1940	1958	S13	W31	8662	08	11.5	28	SF	3	E	50		F
	RAMY	13	1937E	1940	1959	S14	W32	8662	08	11.4	22D	SF	3	E	62		F
0186	HOLL	13	2141	2142	2146	N21	E74	8668	08	19.6	5	SF	3	E	15		
		14	0145		0545	No Flare Patrol											

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Grp #	Sta	Start Day	Max (UT)	End (UT)	Lat	NOAA/USAF Region	CMP Mo	Dur Day	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks	
													Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0187		14 07331	07411	0749	S15	W37 8662	08	11.5	16	SF				32		F	
	KANZ	14 0733	0741	0749	S14	W36 8662	08	11.6	16	SF	2	C					
	SVTO	14 0734	0742	0749	S16	W38 8662	08	11.4	15	SF	3	E		32		F	
0188	KANZ	14 0940	0940	0944	S15	W43 8662	08	11.1	4	SF	2	C					
0189		14 1008	1011	1028	S14	W38 8662	08	11.5	20	SF				20		F	
	SVTO	14 1008	1011	1028	S14	W37 8662	08	11.6	20	SF	3	E		20		F	
	KANZ	14 1015E		1015D	S14	W38 8662	08	11.5	20D	SF	2	C					
0190		14 1206	1209	1220	N23	E72 8668	08	20.0	14	1F				108		FH	
	SVTO	14 1206	1209	1219	N23	E72 8668	08	20.0	13	1F	3	E		128		FH	
	RAMY	14 1207E	1207U	1220	N23	E73 8668	08	20.1	13D	SF	3	E		88		H	
0191	HOLL	14 1429	1431	1433	N21	E64 8668	08	19.5	4	SF	3	E		15			
0192	HOLL	14 1529	1531	1547	S15	W43 8662	08	11.4	18	SF	3	E		23			
0193	LEAR	15 0120	0121	0148	S15	W45 8662	08	11.6	28	1N	4	E		105		F	
0194	KANZ	15 0653	0657	0701	N23	E65 8668	08	20.3	8	SF	2	C					
0195	KANZ	15 0753	0758	0826	N25	E67 8668	08	20.5	33	SF	2	C					
0196		15 12553	12571	1302	N22	E62 8668	08	20.3	7	SF				45			
	RAMY	15 1255	1257	1302	N23	E62 8668	08	20.3	7	SF	3	E		45			
	KANZ	15 1258	1258	1302	N21	E63 8668	08	20.4	4	SF	2	C					
0197	KANZ	15 1321	1326	1330	N26	E66 8668	08	20.7	9	SF	2	C					
0198	HOLL	15 1444	1444	1450	N24	E57 8668	08	20.0	6	SF	3	E		10			
0199		15 1451	1452	1456	N24	E58 8668	08	20.1	5	SF				10			
	RAMY	15 1451	1452	1455	N24	E58 8668	08	20.1	4	SF	3	E		10			
	HOLL	15 1451	1452	1456	N25	E57 8668	08	20.0	5	SF	3	E		11			
0200		15 16442	16536	1703	N18	E55 8668	08	19.9	19	SF				20		F	
	RAMY	15 1644	1653	1704	N17	E56 8668	08	19.9	20	SF	3	E		19		F	
	HOLL	15 1645	1655	1701	N19	E54 8668	08	19.8	16	SF	3	E		18			
	SVTO	15 1646	1659	1705	N17	E55 8668	08	19.9	19	SF	2	E		22			
		15 2213		2224	No Flare Patrol												
		16 0135		0407	No Flare Patrol												
0201		16 11472	11481	1156	N22	E50 8668	08	20.3	9	SF				13			
	RAMY	16 1147	1148	1154	N23	E50 8668	08	20.3	7	SF	3	E		13			
	KANZ	16 1149	1149	1157	N22	E51 8668	08	20.4	8	SF	2	C					
0202	HOLL	16 1335	1335	1346	N24	E47 8668	08	20.2	11	SF	3	E		26			
0203	SVTO	16 1336	1336	1341	N22	E40 8668	08	19.6	5	SF	3	E		12			
0204		16 16342	16401	1645	N23	E48 8668	08	20.4	11	SF				46			
	SVTO	16 1634	1640	1646	N22	E48 8668	08	20.4	12	SF	3	E		49			
	HOLL	16 1634	1641	1645	N24	E47 8668	08	20.3	11	SF	3	E		46			
	RAMY	16 1636	1640	1645	N23	E48 8668	08	20.4	9	SF	3	E		42			
0205	HOLL	16 2016	2026	2040	N24	E40 8668	08	19.9	24	SF	3	E		96		F	
		16 2224		2249	No Flare Patrol												
		16 2315		2327	No Flare Patrol												
0206	LEAR	17 0324	0326	0328	N23	E42 8668	08	20.4	4	SF	3	E		25			
		17 0450		0500	No Flare Patrol												
0207		17 12421	12463	1347	N24	E35 8668	08	20.2	65	SF				117		FH	
	RAMY	17 1242	1246	1341	N20	E34 8668	08	20.1	59	SF	3	E		93		FH	
	SVTO	17 1243	1249	1335	N25	E37 8668	08	20.4	52	1F	3	E		179		FH	
	HOLL	17 1247E	1250U	1405	N26	E35 8668	08	20.2	78D	SF	2	E		80		F	

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks
								Region	Mo Day							Apparent (10-6 Disk)	Corr (Sq Deg)	
0208	KANZ	17	1359E	1359U	1415D	N25	E39	8668	08	20.6	16D	SF	2	C				
0209	RAMY	17	1433	1435	1439	S16	W77	8662	08	11.8	6	SF	3	E		25		H
0210		17	15056	1522	1624	N24	E38	8668	08	20.6	79	SF				61		FU
	HOLL	17	1505	1522	1634	N24	E37	8668	08	20.5	89	SF	3	E		61		U
	SVTO	17	1511	1522	1615	N24	E38	8668	08	20.6	64	SF	3	E		61		F
0211	SVTO	17	1625	1625	1632	N24	E37	8668	08	20.5	7	SF	3	E		97		F
		17	2009		2021			No Flare Patrol										
		17	2242		2300			No Flare Patrol										
		17	2305		2342			No Flare Patrol										
		17	2347		2349			No Flare Patrol										
0212	HOLL	17	2349	2352	2402	S18	W84	8662	08	11.6	13	SF	3	E		21		
		17	2353		2355			No Flare Patrol										
0213		18	11512	1154	1202	N14	E05	8672	08	18.9	11	SF				18		F
	RAMY	18	1151	1154	1203	N14	E05	8672	08	18.9	12	SF	3	E		20		F
	SVTO	18	1153	1154	1201	N14	E05	8672	08	18.9	8	SF	3	E		17		F
0214	HOLL	18	1717	1719	1725	N14	E02	8672	08	18.9	8	SF	3	E		21		
		18	2130		2143			No Flare Patrol										
0215	HOLL	18	2148	2148	2152	N15	W01	8672	08	18.8	4	SF	3	E		16		F
0216		19	1139	1149	1244	N16	E04	8668	08	19.8	65	SF				72		F
	RAMY	19	1138E	1138U	1230	N17	E03	8668	08	19.7	52D	SF	3	E		51		F
	SVTO	19	1139	1149	1258	N16	E04	8668	08	19.8	79	SF	3	E		94		F
0217		19	1159	1204	1235	N14	W08	8672	08	18.9	36	1N				102		FH
	SVTO	19	1159	1204	1238	N13	W09	8672	08	18.8	39	1N	3	E		151		F
	RAMY	19	1208E	1208U	1232	N14	W08	8672	08	18.9	24D	SN	3	E		54		H
		19	1932		1948			No Flare Patrol										
		19	1954		2001			No Flare Patrol										
		19	2005		2100			No Flare Patrol										
		19	2156		2205			No Flare Patrol										
		19	2215		2256			No Flare Patrol										
		19	2300		2306			No Flare Patrol										
0218	SVTO	20	0827	0833	0851	N21	W02	8668	08	20.2	24	SF	3	E		27		F
0219	KHAR	20	1110E		1128	N16	W08	8668	08	19.8	18D	SF	2	V				DHL
0220	KHAR	20	1110E		1130	S18	E82	8673	08	26.7	20D	SF	2	V				DH
0221	KHAR	20	1218	1218	1223	S20	E76	8673	08	26.3	5	SF	2	P	1220	25		D
0222	KHAR	20	1250E	1302U	1305D	N18	E90		08	27.4	15D	SN	2	V				DH
0223		20	1302	1302	1308	S26	E76	8674	08	26.4	6	1N				12		H
	KHAR	20	1250E	1301U	1305D	S23	E75	8674	08	26.2	15D	1N	2	V				H
	RAMY	20	1302	1302	1308	S28	E76	8674	08	26.5	6	SF	3	E		12		
0224	RAMY	20	1309	1313	1316	S29	E78	8674	08	26.7	7	SF	3	E		14		
0225	SVTO	20	1306E	1306	1341	S28	E64	8674	08	25.5	35D	SF	3	E		42		F
0226		20	1407	1407*	1425	S25	E74	8674	08	26.3	18	SF				35		F
	HOLL	20	1332E	1419	1436	S24	E77	8674	08	26.5	64D	SF	3	E		65		
	RAMY	20	1407	1407	1410	S24	E70	8674	08	26.0	3	SF	3	E		16		
	SVTO	20	1407	1408	1429	S28	E75	8674	08	26.4	22	SF	3	E		23		F
0227		20	15352	15382	1545	N14	W26	8672	08	18.7	10	SF				16		
	RAMY	20	1535	1538	1546	N14	W26	8672	08	18.7	11	SF	3	E		19		
	HOLL	20	1537	1540	1544	N14	W26	8672	08	18.7	7	SF	3	E		14		





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Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF Region	CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
														Time (UT)	Apparent (10 <sup>-6</sup> Disk)	Corr (Sq Deg)	
		23 1528		1546	No Flare	Patrol											
		23 1648		1703	No Flare	Patrol											
		23 1709		2400	No Flare	Patrol											
0251	HOLL	23 1911	1919	1946	S25 E23	8611	08	25.6	35	SF		3	E		33		
0252	HOLL	23 1931	1935	1945	S15 W12	8603	08	22.9	14	SF		3	E		18		F
0253	HOLL	23 2303	2303	2320	N19 W19	8602	08	22.5	17	SF		3	E		16		F
		24 0000		0455	No Flare	Patrol											
0254	SVTO	24 0607	0612	0640	S27 E30	8674	08	26.6	33	1F		3	E		146		F
0255	SVTO	24 1116	1118	1139	N22 W56	8668	08	20.2	23	SF		3	E		14		
0256	SVTO	24 1449	1450	1454	N26 E73	8676	08	30.3	5	SF		3	E		29		
0257	SVTO	24 1552	1555	1628	S24 E30	8674	08	27.0	36	SF		3	E		29		F
0258	HOLL	24 1702	1720	1750	S26 E25	8674	08	26.6	48	1F		3	E		244		F
		24 1735		1746	No Flare	Patrol											
0259	HOLL	24 1751	1755	1758	S28 E25	8674	08	26.7	7	SF		3	E		32		
		24 1838		2034	No Flare	Patrol											
		24 2041		2047	No Flare	Patrol											
		24 2051		2116	No Flare	Patrol											
		24 2144		2224	No Flare	Patrol											
0260	HOLL	24 2238	2239	2243	S18 E23	8673	08	26.7	5	SF		3	E		15		
0261	HOLL	24 2252	2309	2358D	S17 E22	8673	08	26.6	66D	SF		3	E		29		
		24 2256		2305	No Flare	Patrol											
		24 2310		2313	No Flare	Patrol											
		24 2324		2330	No Flare	Patrol											
0262	LEAR	25 0135E	0136	0156	S28 E21	8674	08	26.7	21D	1N		3	E		144		
		25 0945		1033	No Flare	Patrol											
0263	RAMY	25 1446	1457	1520	S23 E17	8674	08	26.9	34	SF		3	E		39		F
0264	KANZ	25 1533E	1533U	1541	S23 E23	8674	08	27.4	8D	SF		2	C				
0265		25 16232	16241	1630	S28 E05	8674	08	26.1	7	SF					29		
	HOLL	25 1623	1624	1631	S28 E05	8674	08	26.1	8	SF		3	E		29		
	KANZ	25 1625	1625	1629	S28 E05	8674	08	26.1	4	SF		2	C				
0266		25 18021	18026	1814	S16 E04	8673	08	26.0	12	SF					18		
	RAMY	25 1802	1802	1812	S17 E05	8673	08	26.1	10	SF		3	E		22		
	HOLL	25 1803	1808	1815	S16 E04	8673	08	26.0	12	SF		3	E		14		
0267	HOLL	25 1826	1828	1830	N26 E64	8676	08	30.7	4	SF		3	E		13		
0268	HOLL	25 1829	1829	1838	S19 E09	8673	08	26.4	9	SF		3	E		23		
		25 1854		1950	No Flare	Patrol											
		25 2023		2105	No Flare	Patrol											
0269	HOLL	25 2123	2125	2245	S20 E08	8673	08	26.5	82	SF		3	E		97		
		25 2258		2308	No Flare	Patrol											
		26 0000		0443	No Flare	Patrol											
0270	LEAR	26 0702	0704	0709	S28 E05	8674	08	26.7	7	SF		3	E		15		

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Grp #	Sta	Start Day	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
														Time (UT)	Apparent (10 <sup>-6</sup> Disk)	Corr (Sq Deg)	
0271	SVTO	26	0936	0938	S22	E01	8673	08 26.5	20	SF		3	E		18		
0272	SVTO	26	0936	1108	S31	E08	8674	08 27.0	115	SN		3	E		63		F
0273	SVTO	26	1011	1018	S22	E08	8673	08 27.0	41	SF		3	E		23		F
0274		26	12502	1253	1305	S25	E04	8674	08 26.8	15	SF				34		F
	RAMY	26	1250	1253	1312	S22	E04	8674	08 26.8	22	SF	3	E		33		F
	SVTO	26	1252	1253	1258	S28	E04	8674	08 26.8	6	SF	3	E		34		
0275	RAMY	26	1335	1337	1339	S22	E05	8674	08 26.9	4	SF	3	E		19		
0276	RAMY	26	1455	1459	1513	S23	E06	8674	08 27.1	18	SF	3	E		23		
0277	HOLL	26	1634E	1636	1638	S23	E07	8674	08 27.2	40	SF	3	E		37		
0278	HOLL	26	1650	1653	1657	S20	W02	8673	08 26.5	7	SF	3	E		17		
0279	HOLL	26	1706	1713	1732	S21	E03	8674	08 26.9	26	SF	3	E		72		F
0280	HOLL	26	1733	1733	1737	S22	E02	8674	08 26.9	4	SF	3	E		41		F
0281	HOLL	26	1708	1711	1740	S19	W08	8673	08 26.1	32	SF	3	E		29		
		26	1817		1900	No Flare Patrol											
		26	1946		2002	No Flare Patrol											
		26	2011		2319	No Flare Patrol											
		27	0106		0523	No Flare Patrol											
0282	SVTO	27	0527E	0530U	0549D	S21	W10	8673	08 26.5	22D	SF	3	E		60		F
0283	SVTO	27	0618E	0621	0631	S20	W07	8673	08 26.7	13D	SF	3	E		44		
0284	SVTO	27	0631	0633	0640	S28	W16	8674	08 26.0	9	SF	3	E		11		
0285	SVTO	27	0928E	0930U	0936	S21	W12	8673	08 26.5	8D	SF	3	E		14		
0286	SVTO	27	0959	1013	1029D	S21	W11	8673	08 26.6	30D	SF	3	E		52		F
0287	KHAR	27	1040	1042	1050	N32	E90		09 3.6	10	SF	2	P	1045	20		D
0288	KHAR	27	1052		1125U	S21	W04	8674	08 27.1	33U	SF	2	V				
0289	KHAR	27	1132	1134	1137	S26	E03	8674	08 27.7	5	SN	2	V				D
0290	KHAR	27	1150		1210D	N14	W85	8680	08 21.1	20D	SF	2	V				E
0291		27	12458	1258*	1426	S23	W08	8674	08 26.9	101	2N				224		FI
	KHAR	27	1245	1311	1415	S23	W07	8674	08 27.0	90	2N	3	P				FI
	RAMY	27	1253	1258	1437	S23	W09	8674	08 26.8	104	1N	3	E		224		
0292		27	1256	1324	1438	S22	W12	8674	08 26.6	102	2N				342		F
	HOLL	27	1255E	1325U	1443	S23	W09	8674	08 26.8	108D	2N	2	E		352		F
	SVTO	27	1256	1324	1434	S22	W14	8674	08 26.5	98	2F	3	E		332		
0293	HOLL	27	1330E	1330U	1407	N19	E49	8675	08 31.3	37D	SF	3	E		29		
0294	HOLL	27	1456	1456	1502	N18	E44	8675	08 31.0	6	SF	3	E		10		
0295	HOLL	27	1458	1500	1503	S29	W01	8674	08 27.5	5	SF	3	E		12		
0296		27	15239	1523*	1542	N20	E46	8675	08 31.1	19	SF				18		
	RAMY	27	1523	1523	1528	N19	E45	8675	08 31.1	5	SF	3	E		10		
	HOLL	27	1532	1543	1555	N21	E46	8675	08 31.2	23	SF	3	E		27		
0297		27	15471	15481	1552	S20	W23	8673	08 25.9	5	SF				54		
	RAMY	27	1547	1549	1552	S20	W24	8673	08 25.8	5	SF	3	E		46		
	HOLL	27	1548	1548	1552	S20	W22	8673	08 26.0	4	SF	3	E		63		

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Grp #	Sta	Start Day	Start (UT)	Max (UT)	End (UT)	Lat	NOAA/USAF Region	CMP Mo	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement			Remarks																
														Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)																	
0298	HOLL	27	1556	1600	1638	N20	E46 8675	08 31.2	42	SF		3	E		39																		
0299	HOLL	27	1608	1609	1732	S19	W21 8673	08 26.1	84	1F		3	E		113																		
0300		27	16206	16332	1726	S30	E01 8674	08 27.7	66	1N					287																		
	HOLL	27	1620	1635	1754	S31	E04 8674	08 28.0	94	2N		3	E		547																		
	RAMY	27	1626	1633	1658	S30	W02 8674	08 27.5	32	SF		3	E		27																		
		27	1710		1721	No Flare Patrol																											
0301	HOLL	27	1759	1805	1811	N19	E48 8675	08 31.4	12	SF		3	E		54																		
0302	HOLL	27	1840	1841	1854	S20	W16 8673	08 26.5	14	SF		3	E		17																		
																		27	1906		1952	No Flare Patrol											
0303	HOLL	27	1959	2005	2018	S21	W14 8673	08 26.7	19	SF		3	E		23																		
																		27	2059		2104	No Flare Patrol											
																		27	2138		2256	No Flare Patrol											
0304	HOLL	27	2330	2331	2401	S20	W18 8673	08 26.6	31	SF		3	E		39																		
																		27	2333		2334	No Flare Patrol											
0305	LEAR	28	0055	0057	0112	S27	W16 8674	08 26.8	17	2N		3	E		235		EF																
																		28	0055		0057	S26	W16 8674	08 26.8	17	1F		3	E		175	FE	
																		28	0058E		0058U	S28	W16 8674	08 26.8	300	2N		3	E		295		
0306	SVTO	28	0821	0824	0826	N20	E31 8675	08 30.7	5	SF		3	E		14		H																
0307	KANZ	28	0858	0858	0906	S30	W30 8674	08 26.0	8	SF		2	C																				
																		28	0911		0915	No Flare Patrol											
																		28	0917		0924	No Flare Patrol											
0308	RAMY	28	11162	11221	1212	N28	E28 8676	08 30.6	56	SF		3	E		72		E																
																		28	1116		1123	N29	E27 8676	08 30.6	56	SF		2	C		72		
																		28	1118		1122	N27	E29 8676	08 30.7	500	SF		2	C				E
0309	RAMY	28	1139	1143	1200	N23	E18 8681	08 29.9	21	SF		3	E		12																		
0310	KANZ	28	1144	1202*	1233	N20	E32 8675	08 30.9	49	SF		2	C		15																		
																		28	1144		1202	N19	E33 8675	08 31.0	240	SF		3	E		15		
																		28	1144		1215	N20	E32 8675	08 30.9	49	SF		3	E		15		
0311	RAMY	28	1214	1215	1227	S24	W25 8674	08 26.6	13	SF		3	E		18																		
0312	HOLL	28	1333	1417	1458	N19	E35 8675	08 31.2	85	SF		3	E		54																		
0313	SVTO	28	1442	1446	1449	N16	E33 8675	08 31.1	7	SF		3	E		13																		
0314	SVTO	28	1454	1457	1507D	N16	E33 8675	08 31.1	130	SF		3	E		18																		
0315	HOLL	28	1353	1401	1425	S26	W12 8674	08 27.6	32	SF		3	E		41																		
0316	SVTO	28	14371	14572	1612	S20	W26 8674	08 26.6	95	SF		3	E		72		F																
																		28	1437		1457	S19	W26 8674	08 26.6	79	SF		3	E		62		
																		28	1438		1459	S21	W26 8674	08 26.6	111	SF		3	E		82		F
0317	HOLL	28	1437	1459	1531	S28	W23 8674	08 26.8	54	SF		3	E		95																		
0318	HOLL	28	1534	1551	1623	S25	W23 8674	08 26.9	49	SF		3	E		45																		
0319	RAMY	28	1619	1619	1629	N17	E35 8675	08 31.3	10	SF		3	E		15		FH																
0320	HOLL	28	1722	1746	1804	N22	E13 8681	08 29.7	42	SF		3	E		61																		
0321	HOLL	28	1749	1757	2325D	S26	W14 8674	08 27.6	3360	2N		3	E		317		T																

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Grp #	Sta	Start Day	Max (UT)	End (UT)	Lat	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks	
													Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
		28 2004		2215		No Flare Patrol											
		28 2243		2305		No Flare Patrol											
0322	SVTO	29 0606	0618	0628	N21	E06 8681	08 29.7	22	SF		3	E			17		
0323	SVTO	29 0633	0635	0639	N30	E17 8676	08 30.6	6	SF		3	E			18		
0324		29 0634	0637	0701	N19	E04 8681	08 29.6	27	SN						56		FH
	LEAR	29 0634	0637	0647	N19	E04 8681	08 29.6	13	SF		4	E			27		
	SVTO	29 0635	0637U	0715	N19	E04 8681	08 29.6	40	SN		3	E			86		FH
0325	SVTO	29 0636	0636	0638	N18	E22 8675	08 30.9	2	SF		3	E			16		
0326	SVTO	29 0855	0859	0910	S21	W29 8673	08 27.1	15	SF		3	E			12		
0327	SVTO	29 0859	0859	0906	N22	E05 8681	08 29.7	7	SF		3	E			14		
0328	SVTO	29 0907	0910	0927D	N20	E03 8681	08 29.6	20D	SF		3	E			16		
0329	SVTO	29 0914	0915	0922D	N17	E25 8675	08 31.3	8D	SF		3	E			14		
		29 1017		1029		No Flare Patrol											
0330		29 1112	1123	1136	S29	W33 8674	08 26.9	24	SF						56		F
	SVTO	29 1112	1123	1141	S29	W34 8674	08 26.8	29	SF		3	E			85		
	RAMY	29 1113	1123	1132	S29	W32 8674	08 26.9	19	SF		3	E			27		F
0331		29 1204	1208	1305	N20	E19 8675	08 30.9	61	SF						48		F
	RAMY	29 1204	1208	1305	N21	E18 8675	08 30.9	61	SF		3	E			63		F
	SVTO	29 1216E	1231U	1255D	N20	E20 8675	08 31.0	39D	SF		3	E			32		F
0332		29 1225	1228	1251	S20	W42 8674	08 26.3	26	SF						76		FU
	RAMY	29 1225	1228	1251	S21	W41 8674	08 26.4	26	SF		3	E			94		U
	SVTO	29 1227E	1228U	1255D	S20	W42 8674	08 26.3	28D	SF		3	E			57		F
0333	RAMY	29 1306	1306	1312	S24	W39 8674	08 26.5	6	SF		3	E			26		
0334		29 1307	1308	1318	N20	E02 8681	08 29.7	11	SF						24		F
	RAMY	29 1307	1308	1318	N21	E01 8681	08 29.6	11	SF		3	E			25		F
	SVTO	29 1307	1308	1319	N20	E02 8681	08 29.7	12	SF		3	E			24		F
0335		29 1333	1339	1349	N28	E12 8676	08 30.5	16	SF						12		F
	RAMY	29 1333	1339	1346	N27	E12 8676	08 30.5	13	SF		3	E			10		
	SVTO	29 1333	1339	1347	N27	E13 8676	08 30.6	14	SF		3	E			12		
	HOLL	29 1342E	1342U	1353	N30	E12 8676	08 30.5	11D	SF		3	E			13		F
0336	HOLL	29 1354	1358	1403	N21	E03 8681	08 29.8	9	SF		3	E			36		
0337	HOLL	29 1404	1405	1409	N22	E03 8681	08 29.8	5	SF		3	E			32		
0338	HOLL	29 1632	1634	1635	S19	W47 8673	08 26.1	3	SF		3	E			14		
0339	HOLL	29 1725	1730	1800	N20	W03 8681	08 29.5	35	1N		3	E			167		F
0340	HOLL	29 1928	1929	2002D	N22	E12 8675	08 30.7	34D	SF		3	E			61		
		29 1941		2021		No Flare Patrol											
		29 2026		2055		No Flare Patrol											
		29 2221		2240		No Flare Patrol											
		29 2313		2319		No Flare Patrol											
		29 2325		2400		No Flare Patrol											
		30 0000		0010		No Flare Patrol											
		30 0801		0826		No Flare Patrol											
0341	SVTO	30 0931E	0936U	0959D	S18	W53 8673	08 26.4	28D	SF		3	E			40		F
0342	SVTO	30 1022E	1022U	1030	S21	W43 8673	08 27.1	8D	SF		3	E			53		F

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks
																	Apparent (10-6 Disk)	Corr (Sq Deg)	
0343		30	1137	1137	1147	S22	W42	8674	08	27.2	10	SF					16		F
	RAMY	30	1137	1137	1148	S23	W42	8674	08	27.2	11	SF		3	E		20		
	SVTO	30	1137E	1142U	1146	S21	W43	8674	08	27.2	9D	SF		3	E		13		F
0344	SVTO	30	1138	1152U	1234D	N19	W13	8681	08	29.5	56D	SF		3	E		83		FZ
		30	1242		1255	No Flare Patrol													
0345		30	1437	1445	1516	S30	W46	8674	08	27.0	39	1N					168		FU
	RAMY	30	1437	1445	1514	S28	W45	8674	08	27.1	37	1N		3	E		158		F
	HOLL	30	1440	1445	1518	S31	W46	8674	08	27.0	38	1F		3	E		178		U
0346	HOLL	30	1529	1531	1538	N22	W09	8681	08	29.9	9	SF		3	E		14		
0347		30	1543	1549	1606	N20	W14	8681	08	29.6	23	SF					30		F
	RAMY	30	1543	1549	1601	N20	W14	8681	08	29.6	18	SF		3	E		21		F
	HOLL	30	1543	1549	1612	N20	W15	8681	08	29.5	29	SF		3	E		39		F
0348		30	1625	1627	1641	N18	W14	8681	08	29.6	16	SF					20		
	HOLL	30	1625	1627	1640	N19	W13	8681	08	29.7	15	SF		3	E		19		
	RAMY	30	1625	1628	1642	N18	W15	8681	08	29.5	17	SF		3	E		20		
0349		30	1701	1703	1716	S23	W48	8674	08	27.0	15	SF					18		F
	HOLL	30	1701	1703	1716	S23	W49	8674	08	26.9	15	SF		3	E		17		F
	RAMY	30	1701	1703	1717	S23	W46	8674	08	27.2	16	SF		3	E		18		
0350		30	1710	1710	1720	N21	W13	8681	08	29.7	10	SF					14		F
	RAMY	30	1710	1710	1721	N20	W13	8681	08	29.7	11	SF		3	E		13		
	HOLL	30	1710	1711	1719	N22	W13	8681	08	29.7	9	SF		3	E		14		F
0351	HOLL	30	1726	1728	1813	S21	W58	8673	08	26.3	47	SF		3	E		84		
0352	HOLL	30	1743	1806	1941	N18	W16	8681	08	29.5	118	2B		3	E		505		FZ
0353	HOLL	30	1746	1746	1756	S21	W48	8674	08	27.1	10	SF		3	E		15		
0354	HOLL	30	1801	1802	1805	N27	W03	8676	08	30.5	4	SF		3	E		17		
0355	HOLL	30	1816	1820	1834	N28	W01	8676	08	30.7	18	SF		3	E		28		
0356	HOLL	30	1841	1850	1854	N27	W03	8676	08	30.5	13	SF		3	E		23		
0357	HOLL	30	1856	1909	1945	N28	W01	8676	08	30.7	49	SF		3	E		24		
0358	HOLL	30	2056	2057	2108	N27	W03	8676	08	30.6	12	SF		3	E		58		
0359	HOLL	30	2127	2127	2131	N08	E09	8677	08	31.6	4	SF		3	E		20		
0360	HOLL	30	2230	2231	2233	S22	W50	8674	08	27.1	3	SF		3	E		16		
0361	HOLL	30	2345	2349	2357	S22	W50	8674	08	27.1	12	SF		3	E		12		
0362		31	0004*	0037	0049	N20	W18	8681	08	29.6	45	1F					116		F
	HOLL	31	0004	0038	0120D	N18	W18	8681	08	29.6	76D	1F		3	E		206		F
	LEAR	31	0029	0037	0049	N21	W18	8681	08	29.6	20	SF		4	E		26		
0363	LEAR	31	0545	0551	0600	N19	W20	8681	08	29.7	15	SF		3	E		41		F
		31	1022		1041	No Flare Patrol													
0364	RAMY	31	1125	1127	1135	N19	W25	8681	08	29.6	10	SF		3	E		17		
		31	1208		1213	No Flare Patrol													
		31	1255		1256	No Flare Patrol													
0365	HOLL	31	1649	1649	1655	N22	W26	8681	08	29.7	6	SF		3	E		22		
0366		31	1722	1731	1758	N20	W25	8681	08	29.8	36	SF					47		F
	HOLL	31	1722	1731	1813	N19	W25	8681	08	29.8	51	SF		3	E		72		F
	RAMY	31	1726	1735	1744	N20	W25	8681	08	29.8	18	SF		3	E		22		F

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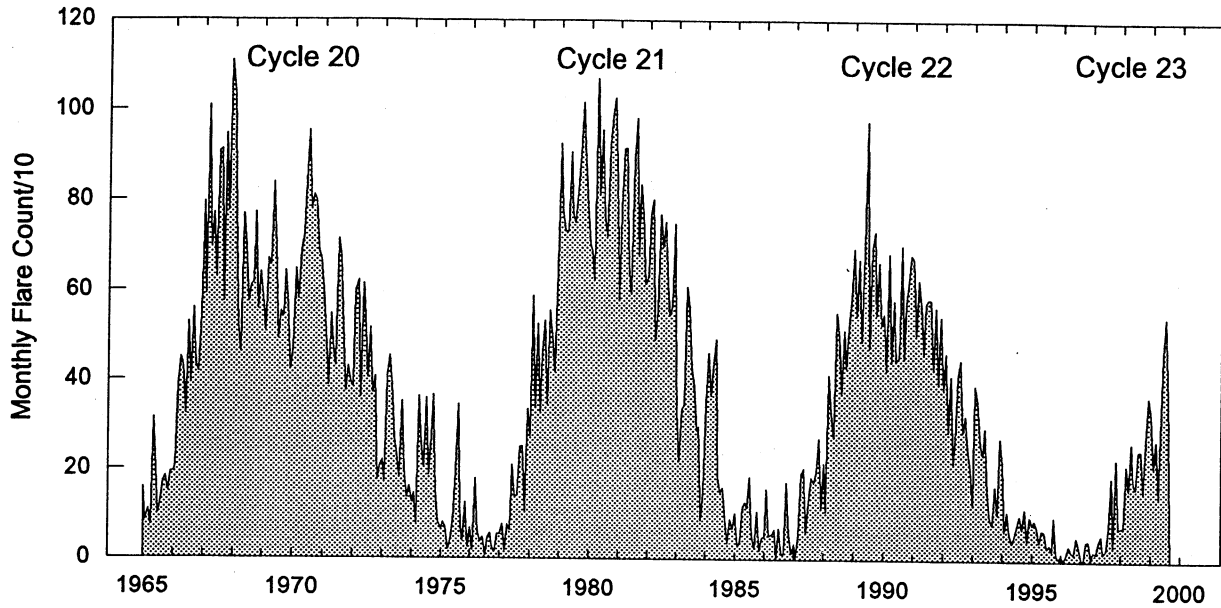
Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/		Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement		Remarks	
								USAF Region	CMP Mo Day						Time (UT)	Apparent (10-6 Disk)		Corr (Sq Deg)
0367	HOLL	31	1814	1817	1822	N19	W25	8681	08	29.8	8	SF	3	E		12		F
0368	HOLL	31	2356	2432	2503D	N08	W07	8677	08	31.5	67D	1F	3	E		127		

"Remarks"

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

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

# Monthly Counts of Grouped Solar Flares Jan 1965 - Aug 1999



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					2666

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





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

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m <sup>2</sup> Hz)	Mean		
01	235	CUBA	44 NS	1300.0E		530.00		7.0		
	280	CUBA	44 NS	1300.0E		530.00		15.0		
	245	SGMR	43 NS	2119.0	2156.0	122.0	440.0			QL=4 ST=2 TYP=1
	5730	IRKU	1 S	0113.8	0114.4	1.7	4.0		U	
	5730	IRKU	4 S/F	0130.0	0131.0	28.0	10.0		U	
	410	LEAR	8 S	0132.0	0133.0	2.0	83.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	0136.0	0136.0	U	100.0			QL=2 ST=2 TYP=3
	410	PALE	8 S	0141.0	0142.0	1.0	54.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0141.0	0142.0	2.0	160.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0142.0	0142.0	U	150.0			QL=2 ST=2 TYP=3
	5730	IRKU	1 S	0223.1	0224.4	4.5	7.0		U	
	245	LEAR	8 S	0246.0	0246.0	U	110.0			QL=2 ST=2 TYP=3
	245	PALE	8 S	0246.0	0246.0	U	120.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0259.0	0259.0	1.0	100.0			QL=2 ST=3 TYP=3
	5730	IRKU	21 GRF	0302.7	0324.5	39.3	16.0		U	
	410	LEAR	8 S	0416.0	0416.0	1.0	120.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	0416.0	0416.0	U	79.0			QL=2 ST=2 TYP=3
	410	SVTO	8 S	0416.0	0416.0	2.0	95.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0416.0	0416.0	U	55.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0420.0	0420.0	2.0	64.0			QL=2 ST=2 TYP=3
	245	SVTO	8 S	0420.0	0420.0	1.0	68.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0423.0	0424.0	1.0	84.0			QL=2 ST=2 TYP=3
	245	SVTO	8 S	0424.0	0424.0	1.0	80.0			QL=4 ST=2 TYP=3
	5730	IRKU	45 C	0640.4	0640.9	5.4	35.0		U	
	3000	IZMI	22 GRF	0640.8	0641.1	23.0	12.0			
	2950	GORK	46 C	0641.1	0644.3	10.2	44.7			
	600	GORK	1 S	0641.3	0641.4	0.6	4.0			
	600	GORK	7 C	0642.5	0643.1	2.8	19.0			
	410	LEAR	49 GB	0643.0	0643.0	15.0	1200.0			QL=2 ST=2 TYP=6
	410	SVTO	49 GB	0643.0	0643.0	14.0	690.0			QL=4 ST=2 TYP=6
	3000	IZMI	42 SER	0643.1	0643.8	2.5	75.0			
	900	GORK	2 S/F	0643.4	0644.5	2.0	15.0			
	245	LEAR	4 S/F	0645.0	0650.0	11.0	330.0			QL=2 ST=2 TYP=3
	245	SVTO	4 S/F	0645.0	0650.0	11.0	270.0			QL=4 ST=2 TYP=3
	204	IZMI	41 F	0645.2	0655.2	10.3U	46.0			
	5730	IRKU	1 S	0718.5	0719.8	4.4	9.0		U	
	410	LEAR	8 S	0747.0	0747.0	U	210.0			QL=2 ST=2 TYP=3
	245	LEAR	49 GB	0754.0	0754.0	U	1500.0			QL=2 ST=2 TYP=6
	410	LEAR	49 GB	0754.0	0754.0	U	770.0			QL=2 ST=2 TYP=6
	410	SVTO	49 GB	0754.0	0754.0	U	2700.0			QL=4 ST=3 TYP=6
	245	SVTO	49 GB	0754.0	0754.0	U	1500.0			QL=4 ST=3 TYP=6
	204	IZMI	45 C	0754.5	0754.6	0.4	5924.0			
	2950	GORK	1 S	0813.4	0814.0	7.0	5.6			
	245	LEAR	8 S	0815.0	0816.0	1.0	220.0			QL=2 ST=2 TYP=3
	204	IZMI	7 C	0825.8	0825.9	0.3	123.0			
	610	LEAR	8 S	0852.0	0852.0	U	220.0			QL=2 ST=2 TYP=3
	610	SVTO	8 S	0852.0	0852.0	U	180.0			QL=4 ST=2 TYP=3
	610	LEAR	8 S	0915.0	0916.0	1.0	120.0			QL=2 ST=2 TYP=3
	610	SVTO	8 S	0915.0	0916.0	1.0	130.0			QL=4 ST=2 TYP=3
	600	GORK	4 S/F	0915.5	0916.5	2.8	294.0			
900	GORK	41 F	0915.8	0917.0	1.3	12.0				
33	UPIC	46 C	0951.5	0952.5	2.0					
245	SGMR	8 S	1024.0	1024.0	2.0	430.0			QL=4 ST=2 TYP=3	
245	SVTO	8 S	1024.0	1024.0	1.0	260.0			QL=4 ST=2 TYP=3	
600	GORK	21 GRF	1036.0	1039.6	30.0	7.0				
245	SGMR	49 GB	1037.0	1038.0	1.0	2000.0			QL=4 ST=2 TYP=6	
245	SVTO	49 GB	1037.0	1038.0	1.0	2200.0			QL=4 ST=2 TYP=6	
204	IZMI	7 C	1037.9	1038.7	1.5	22.0				
410	SVTO	8 S	1038.0	1038.0	U	30.0			QL=4 ST=2 TYP=3	
3000	IZMI	7 C	1038.1	1038.4	2.1	19.0				
2950	GORK	3 S	1038.4	1038.9	4.8	13.0				
900	GORK	1 S	1038.5	1039.1	3.8	7.0				
600	GORK	40 F	1042.0	1044.6	6.7	18.0				
204	IZMI	7 C	1057.8	1057.9	0.2	51.0				
245	SGMR	8 S	1118.0	1119.0	1.0	66.0			QL=4 ST=2 TYP=3	
245	SVTO	8 S	1119.0	1119.0	U	64.0			QL=4 ST=2 TYP=3	
204	IZMI	41 F	1119.6	1119.7	0.2	113.0				
204	IZMI	42 SER	1144.2	1144.8	0.6	53.0				
245	SGMR	4 S/F	1308.0	1309.0	3.0	110.0			QL=4 ST=2 TYP=3	

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Mean			
01	245	SVTO	8 S	1309.0	1309.0	U	86.0			QL=4 ST=2 TYP=3	
	245	SGMR	49 GB	1323.0	1330.0	8.0	530.0			QL=4 ST=2 TYP=6	
	245	SVTO	8 S	1330.0	1330.0	U	480.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1348.0	1348.0	1.0	220.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1348.0	1348.0	1.0	180.0			QL=4 ST=2 TYP=3	
	2800	PENT	41 F	1414.0	1537.0	138.0U	17.0				
	6700	CUBA	21 GRF	1435.0	1942.0	457.0	30.0				OOL SUNSET
	9500	CUBA	21 GRF	1444.0	1947.0	434.0	35.0	17.0			
	410	SGMR	8 S	1515.0	1516.0	1.0	74.0				QL=4 ST=2 TYP=3
	410	SVTO	8 S	1515.0	1516.0	1.0	73.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1525.0	1525.0	2.0	270.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1525.0	1525.0	2.0	270.0				QL=4 ST=2 TYP=3
	280	CUBA	6 S	1526.8	1527.0	1.4	40.0				
	235	CUBA	6 S	1526.8	1527.0	1.4	80.0				
	245	SGMR	8 S	1536.0	1536.0	1.0	90.0				QL=4 ST=2 TYP=3
	410	SGMR	4 S/F	1536.0	1536.0	3.0	320.0				QL=4 ST=2 TYP=3
	410	SVTO	8 S	1536.0	1536.0	1.0	360.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1536.0	1536.0	1.0	84.0				QL=4 ST=2 TYP=3
	6700	CUBA	2 S/F	1536.0	1537.6	2.5	20.0	10.0			22R
	245	SGMR	8 S	1548.0	1549.0	1.0	240.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1549.0	1549.0	U	210.0				QL=4 ST=2 TYP=3
	9500	CUBA	1 S	1615.3	1616.0	2.8	31.0	15.0			
	6700	CUBA	2 S/F	1615.5	1616.0	2.7	34.0	17.0			OOL
	245	PALE	8 S	1654.0	1654.0	U	110.0				QL=4 ST=2 TYP=3
	410	PALE	8 S	1654.0	1654.0	U	71.0				QL=4 ST=2 TYP=3
	410	SGMR	8 S	1654.0	1654.0	U	110.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1654.0	1654.0	1.0	140.0				QL=4 ST=2 TYP=3
	410	SVTO	8 S	1654.0	1654.0	U	120.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1654.0	1654.0	1.0	110.0				QL=4 ST=2 TYP=3
	245	PALE	8 S	1713.0	1713.0	2.0	310.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1713.0	1713.0	2.0	250.0				QL=4 ST=2 TYP=3
	410	PALE	8 S	1715.0	1715.0	U	44.0				QL=4 ST=2 TYP=3
	610	PALE	8 S	1715.0	1715.0	U	68.0				QL=4 ST=2 TYP=3
	410	SVTO	8 S	1715.0	1715.0	U	53.0				QL=4 ST=2 TYP=3
	610	SGMR	8 S	1715.0	1715.0U	U	76.0				QL=2 ST=2 TYP=3
	410	SGMR	8 S	1715.0	1715.0U	U	51.0				QL=2 ST=2 TYP=3
	245	SGMR	8 S	1715.0	1715.0U	U	180.0				QL=2 ST=2 TYP=3
	6700	CUBA	2 S/F	1738.6	1739.1	2.5	13.0	6.0			13L
	410	SGMR	49 GB	1839.0	1841.0	3.0	600.0				QL=4 ST=2 TYP=6
	410	PALE	49 GB	1840.0	1841.0	2.0	660.0				QL=4 ST=2 TYP=6
	245	PALE	49 GB	1840.0	1841.0	2.0	990.0				QL=4 ST=2 TYP=6
	610	SGMR	8 S	1840.0	1841.0	2.0	240.0				QL=4 ST=2 TYP=3
	1415	SGMR	4 S/F	1840.0	1841.0	4.0	52.0				QL=4 ST=2 TYP=3
	245	SGMR	49 GB	1840.0	1841.0	2.0	920.0				QL=4 ST=2 TYP=6
	610	PALE	8 S	1841.0	1841.0	1.0	260.0				QL=4 ST=2 TYP=3
	410	PALE	4 S/F	1904.0	1905.0	3.0	71.0				QL=4 ST=2 TYP=3
	410	SGMR	8 S	1904.0	1905.0	1.0	72.0				QL=4 ST=2 TYP=3
	245	PALE	8 S	1947.0	1947.0	1.0	93.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1947.0	1948.0	1.0	68.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	2000.0	2000.0	U	110.0				QL=4 ST=2 TYP=3
245	PALE	8 S	2009.0	2009.0	1.0	94.0				QL=4 ST=2 TYP=3	
245	SGMR	8 S	2009.0	2010.0	1.0	71.0				QL=4 ST=2 TYP=3	
410	SGMR	8 S	2024.0	2024.0	1.0	1.0				QL=4 ST=2 TYP=3	
2800	PENT	45 C	2029.0	2057.0	122.0U	44.0					
245	PALE	48 C	2054.0	2058.0	4.0	1300.0				QL=4 ST=2 TYP=8	
6700	CUBA	1 S	2055.5	2057.6	4.5	26.0	13.0			27R	
410	PALE	8 S	2056.0	2057.0	2.0	74.0				QL=4 ST=2 TYP=3	
1415	PALE	8 S	2056.0	2057.0	2.0	140.0				QL=4 ST=2 TYP=3	
8800	SGMR	4 S/F	2056.0	2057.0	3.0	32.0				QL=4 ST=2 TYP=3	
2695	SGMR	4 S/F	2056.0	2057.0	3.0	36.0				QL=4 ST=2 TYP=3	
4995	SGMR	4 S/F	2056.0	2057.0	3.0	37.0				QL=4 ST=2 TYP=3	
1415	SGMR	4 S/F	2056.0	2057.0	3.0	120.0				QL=4 ST=2 TYP=3	
245	SGMR	49 GB	2056.0	2058.0	2.0	1300.0				QL=4 ST=2 TYP=6	
410	SGMR	4 S/F	2056.0	2058.0	3.0	65.0				QL=4 ST=2 TYP=3	
9500	CUBA	2 S/F	2056.8	2057.2	2.0	27.0	14.0				
8800	PALE	8 S	2057.0	2057.0	1.0	39.0				QL=4 ST=2 TYP=3	
610	PALE	8 S	2057.0	2057.0	U	22.0				QL=4 ST=2 TYP=3	
15400	SGMR	8 S	2057.0	2057.0	1.0	31.0				QL=4 ST=2 TYP=3	
235	CUBA	7 C	2057.0	2057.8	2.0	452.0	7.0				

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Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Flux Density Mean (2 Hz)	Int	Remarks	
01	280 CUBA	7 C	2057.0	2057.8	2.0	314.0				
	245 PALE	8 S	2100.0	2101.0	1.0	32.0			QL=4 ST=2 TYP=3	
	8800 PALE	4 S/F	2102.0	2105.0	7.0	51.0			QL=4 ST=2 TYP=3	
	245 SGMR	4 S/F	2102.0	2105.0	8.0	75.0			QL=4 ST=2 TYP=3	
	15400 SGMR	8 S	2103.0	2105.0	2.0	29.0			QL=4 ST=2 TYP=3	
	4995 SGMR	4 S/F	2104.0	2105.0	6.0	41.0			QL=4 ST=2 TYP=3	
	8800 SGMR	4 S/F	2104.0	2105.0	6.0	44.0			QL=4 ST=2 TYP=3	
	15400 PALE	4 S/F	2109.0	2109.0	6.0	45.0			QL=4 ST=2 TYP=3	
	245 PALE	8 S	2119.0	2119.0	U	120.0			QL=4 ST=2 TYP=3	
	245 PALE	8 S	2220.0	2220.0	U	66.0			QL=4 ST=2 TYP=3	
	610 SGMR	4 S/F	2310.0	2312.0	3.0	110.0			QL=2 ST=2 TYP=3	
	410 SGMR	49 GB	2310.0	2312.0	2.0	1600.0			QL=2 ST=2 TYP=6	
	610 PALE	8 S	2311.0	2312.0	1.0	130.0			QL=4 ST=2 TYP=3	
	1415 PALE	8 S	2311.0	2312.0	1.0	160.0			QL=4 ST=2 TYP=3	
	4995 PALE	8 S	2311.0	2311.0	1.0	43.0			QL=4 ST=2 TYP=3	
	410 PALE	49 GB	2311.0	2312.0	1.0	1500.0			QL=4 ST=2 TYP=6	
	5730 IRKU	46 C	2311.0	2311.9	5.7	52.0	U			
	2800 PENT	41 F	2328.0	0026.0	58.0	140.0				
	245 LEAR	8 S	2331.0	2331.0	1.0	160.0			QL=2 ST=2 TYP=3	
	245 PALE	8 S	2331.0	2331.0	U	220.0			QL=4 ST=2 TYP=3	
	245 LEAR	8 S	2351.0	2351.0	1.0	140.0			QL=2 ST=2 TYP=3	
	245 PALE	8 S	2354.0	2355.0	1.0	79.0			QL=4 ST=3 TYP=3	
	245 LEAR	8 S	2355.0	2355.0	U	69.0			QL=2 ST=2 TYP=3	
	02	204 IZMI	43 NS	0600.0		360.00		5.0		
		280 CUBA	44 NS	1300.0E		530.00		14.0		
		235 CUBA	44 NS	1300.0E		530.00		8.0		
		245 LEAR	8 S	0007.0	0007.0	U	93.0			QL=2 ST=2 TYP=3
245 LEAR		49 GB	0011.0	0012.0	2.0	560.0			QL=2 ST=2 TYP=6	
245 PALE		49 GB	0011.0	0012.0	2.0	720.0			QL=4 ST=2 TYP=6	
410 PALE		49 GB	0011.0	0012.0	3.0	2500.0			QL=4 ST=2 TYP=6	
410 LEAR		49 GB	0012.0	0012.0	U	1600.0			QL=2 ST=2 TYP=6	
245 LEAR		49 GB	0025.0	0026.0	2.0	4200.0			QL=2 ST=2 TYP=6	
410 LEAR		49 GB	0025.0	0026.0	3.0	4700.0			QL=2 ST=2 TYP=6	
1415 LEAR		49 GB	0025.0	0026.0	3.0	840.0			QL=4 ST=2 TYP=6	
2695 LEAR		4 S/F	0025.0	0026.0	3.0	150.0			QL=4 ST=2 TYP=3	
8800 LEAR		8 S	0025.0	0026.0	2.0	140.0			QL=4 ST=2 TYP=3	
610 LEAR		49 GB	0025.0	0026.0	3.0	1200.0			QL=2 ST=2 TYP=6	
4995 LEAR		8 S	0025.0	0026.0	2.0	140.0			QL=4 ST=2 TYP=3	
4995 PALE		8 S	0025.0	0026.0	2.0	150.0			QL=4 ST=2 TYP=3	
410 PALE		49 GB	0025.0	0026.0	3.0	5700.0			QL=4 ST=2 TYP=6	
245 PALE		49 GB	0025.0	0026.0	1.0	3400.0			QL=4 ST=2 TYP=6	
610 PALE		49 GB	0025.0	0026.0	3.0	1200.0			QL=4 ST=2 TYP=6	
1415 PALE		49 GB	0025.0	0026.0	3.0	910.0			QL=4 ST=2 TYP=6	
8800 PALE		8 S	0025.0	0026.0	2.0	140.0			QL=4 ST=2 TYP=3	
5730 IRKU		46 C	0025.0	0026.8	5.0	180.0	U			
15400 LEAR		8 S	0026.0	0026.0	1.0	46.0			QL=4 ST=2 TYP=3	
2695 PALE		8 S	0026.0	0026.0	1.0	130.0			QL=4 ST=2 TYP=3	
245 LEAR		4 S/F	0029.0	0030.0	3.0	340.0			QL=2 ST=2 TYP=3	
245 PALE		8 S	0030.0	0030.0	U	360.0			QL=4 ST=2 TYP=3	
5730 IRKU		1 S	0032.0	0032.4	4.0	14.0	U			
245 LEAR		8 S	0112.0	0112.0	U	94.0			QL=2 ST=2 TYP=3	
245 PALE		8 S	0112.0	0112.0	U	98.0			QL=4 ST=2 TYP=3	
245 LEAR		8 S	0212.0	0212.0	U	330.0			QL=2 ST=2 TYP=3	
245 PALE		8 S	0212.0	0212.0	U	460.0			QL=4 ST=2 TYP=3	
410 LEAR		4 S/F	0237.0	0239.0	3.0	230.0			QL=2 ST=2 TYP=3	
245 LEAR		8 S	0237.0	0237.0	2.0	310.0			QL=2 ST=2 TYP=3	
4995 LEAR		8 S	0237.0	0237.0	1.0	19.0			QL=4 ST=2 TYP=3	
8800 LEAR		8 S	0237.0	0237.0	1.0	23.0			QL=4 ST=2 TYP=3	
245 PALE		8 S	0237.0	0237.0	2.0	280.0			QL=4 ST=2 TYP=3	
5730 IRKU		4 S/F	0237.5	0237.8	4.0	36.0	U			
245 LEAR		49 GB	0301.0	0302.0	1.0	1200.0			QL=2 ST=2 TYP=6	
410 LEAR		8 S	0301.0	0302.0	1.0	310.0			QL=2 ST=2 TYP=3	
610 LEAR		8 S	0301.0	0302.0	1.0	140.0			QL=2 ST=2 TYP=3	
245 PALE	49 GB	0301.0	0302.0	1.0	990.0			QL=4 ST=2 TYP=6		
410 PALE	8 S	0301.0	0301.0	1.0	340.0			QL=4 ST=2 TYP=3		
610 PALE	8 S	0301.0	0301.0	1.0	150.0			QL=4 ST=2 TYP=3		
5730 IRKU	21 GRF	0500.4	0502.5	16.5	48.0	U				
245 LEAR	8 S	0520.0	0520.0	1.0	160.0			QL=2 ST=2 TYP=3		

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
02	245	LEAR	49 GB	0531.0	0531.0	1.0	940.0			QL=2 ST=2 TYP=6	
	1415	LEAR	8 S	0531.0	0531.0	2.0	47.0			QL=4 ST=2 TYP=3	
	2695	LEAR	8 S	0531.0	0531.0	1.0	31.0			QL=4 ST=2 TYP=3	
	4995	LEAR	8 S	0531.0	0531.0	U	28.0			QL=4 ST=2 TYP=3	
	610	LEAR	8 S	0531.0	0532.0	2.0	260.0			QL=2 ST=2 TYP=3	
	410	LEAR	49 GB	0531.0	0531.0	1.0	4500.0			QL=2 ST=2 TYP=6	
	410	SVTO	49 GB	0531.0	0531.0	1.0	5100.0			QL=4 ST=2 TYP=6	
	610	SVTO	8 S	0531.0	0532.0	1.0	190.0			QL=2 ST=2 TYP=3	
	245	SVTO	49 GB	0531.0	0531.0	1.0	830.0			QL=4 ST=2 TYP=6	
	1415	SVTO	8 S	0531.0	0531.0	1.0	39.0			QL=4 ST=2 TYP=3	
	2695	SVTO	8 S	0531.0	0531.0	1.0	36.0			QL=4 ST=2 TYP=3	
	5730	IRKU	46 C	0531.0	0531.5	4.0	71.0		U		
	2950	GORK	45 C	0531.4	0532.3	4.8	36.0				
	900	GORK	45 C	0531.7	0532.2U	6.4	62.0U				
	600	GORK	4 S/F	0531.7	0532.6	7.3	400.0				
	245	LEAR	4 S/F	0533.0	0534.0	3.0	44.0				QL=2 ST=2 TYP=3
	410	LEAR	8 S	0534.0	0534.0	2.0	230.0				QL=2 ST=2 TYP=3
	410	SVTO	49 GB	0534.0	0534.0	1.0	740.0				QL=4 ST=3 TYP=6
	245	SVTO	8 S	0534.0	0534.0	U	35.0				QL=4 ST=2 TYP=3
	245	LEAR	8 S	0544.0	0545.0	1.0	410.0				QL=2 ST=2 TYP=3
	245	SVTO	8 S	0544.0	0545.0	1.0	320.0				QL=4 ST=2 TYP=3
	5730	IRKU	1 S	0551.0	0552.7	8.0	12.0		U		
	2950	GORK	7 C	0552.1	0553.2	1.7	4.1				
	2950	GORK	3 S	0626.6	0628.6	4.8	71.0				
	5730	IRKU	46 C	0627.0	0628.0	3.6	168.0		U		
	2695	LEAR	8 S	0627.0	0628.0	1.0	69.0				QL=4 ST=2 TYP=3
	4995	LEAR	8 S	0627.0	0628.0	1.0	89.0				QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0627.0	0628.0	1.0	39.0				QL=4 ST=2 TYP=3
	15400	LEAR	8 S	0627.0	0627.0	1.0	89.0				QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0627.0	0627.0	1.0	110.0				QL=4 ST=2 TYP=3
	245	LEAR	49 GB	0627.0	0627.0	2.0	13000.0				QL=2 ST=2 TYP=6
	410	LEAR	8 S	0627.0	0627.0	1.0	340.0				QL=2 ST=2 TYP=3
	245	SVTO	49 GB	0627.0	0627.0	2.0	14000.0				QL=4 ST=2 TYP=6
	1415	SVTO	8 S	0627.0	0628.0	1.0	45.0				QL=4 ST=2 TYP=3
	2695	SVTO	8 S	0627.0	0628.0	1.0	65.0				QL=4 ST=2 TYP=3
	4995	SVTO	8 S	0627.0	0628.0	1.0	81.0				QL=4 ST=2 TYP=3
	410	SVTO	8 S	0627.0	0627.0	1.0	440.0				QL=4 ST=2 TYP=3
	15400	SVTO	8 S	0627.0	0627.0	1.0	83.0				QL=4 ST=2 TYP=3
	8800	SVTO	8 S	0627.0	0627.0	1.0	98.0				QL=4 ST=2 TYP=3
	3000	IZMI	45 C	0627.1	0628.1	5.4	83.0				
	900	GORK	3 S	0627.5	0628.7	9.0	26.2				
	204	IZMI	45 C	0627.6	0627.8	1.4	629.0				
	3000	IZMI	5 S	0640.6	0641.1	4.1	10.0				
	2950	GORK	1 S	0641.0	0641.5	2.6	3.7				
	204	IZMI	42 SER	0704.9	0711.0	7.9	30.0				
	204	IZMI	41 F	0715.1	0715.1	0.5	310.0				
	245	LEAR	49 GB	0732.0	0732.0	1.0	5800.0				QL=2 ST=2 TYP=6
	410	LEAR	8 S	0732.0	0732.0	1.0	420.0				QL=2 ST=2 TYP=3
	410	SVTO	49 GB	0732.0	0732.0	1.0	680.0				QL=4 ST=2 TYP=6
	245	SVTO	49 GB	0732.0	0732.0	1.0	5200.0				QL=4 ST=3 TYP=6
204	IZMI	45 C	0732.6	0732.7	0.6	449.0					
2950	GORK	1 S	0733.1	0733.2	1.0	5.6					
900	GORK	1 S	0733.1	0733.3	0.9	4.0					
245	LEAR	8 S	0905.0	0905.0	1.0	230.0				QL=2 ST=2 TYP=3	
410	SVTO	8 S	0905.0	0905.0	1.0	80.0				QL=4 ST=2 TYP=3	
245	SVTO	8 S	0905.0	0905.0	1.0	230.0				QL=4 ST=2 TYP=3	
5730	IRKU	8 S	0905.5	0905.9	1.4	58.0		U			
204	IZMI	7 C	0905.6	0906.0	0.5	196.0					
2950	GORK	1 S	0906.1	0906.3	0.6	3.2					
127	TORN	7 C	0914.4	0916.0	2.6	1000.0	140.0			UNCERTAIN	
245	LEAR	49 GB	0915.0	0916.0	1.0	27000.0				QL=2 ST=3 TYP=6	
4995	LEAR	8 S	0915.0	0916.0	1.0	67.0				QL=4 ST=3 TYP=3	
610	LEAR	4 S/F	0915.0	0915.0	4.0	200.0				QL=2 ST=3 TYP=3	
410	LEAR	49 GB	0915.0	0915.0	7.0	2000.0				QL=2 ST=3 TYP=6	
8800	SVTO	8 S	0915.0	0915.0	1.0	130.0				QL=4 ST=2 TYP=3	
245	SVTO	49 GB	0915.0	0916.0	1.0	30000.0				QL=4 ST=2 TYP=6	
610	SVTO	8 S	0915.0	0915.0	1.0	180.0				QL=2 ST=2 TYP=3	
15400	SVTO	8 S	0915.0	0916.0	1.0	92.0				QL=4 ST=2 TYP=3	
4995	SVTO	8 S	0915.0	0916.0	1.0	60.0				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

27  
Aug 99

AUGUST 1999

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
02	410	SVTO	49 GB	0915.0	0915.0	1.0	2200.0			QL=4 ST=2 TYP=6	
	5730	IRKU	8 S	0915.5	0916.0	1.5	289.0		U		
	204	IZMI	45 C	0915.8	0916.0	1.1	24725.0				
	900	GORK	4 S/F	0916.2	0916.4	1.8	58.0				
	2950	GORK	3 S	0916.2	0916.4	1.3	17.0				
	900	GORK	30 PBI	0918.0	0918.0	11.0	7.1				
	900	GORK	2 S/F	0921.9	0922.1	0.4	5.6				
	3000	IZMI	42 SER	0934.6	0945.2	14.1	60.0				
	245	LEAR	48 C	0943.0E	0945.0	3.0D	440.0				QL=2 ST=2 TYP=8
	410	SVTO	48 C	0943.0	0947.0	7.0	470.0				QL=4 ST=2 TYP=8
	245	SVTO	48 C	0943.0	0946.0	7.0	330.0				QL=2 ST=2 TYP=8
	204	IZMI	42 SER	0943.4	0946.2	7.2	469.0				
	1415	LEAR	8 S	0944.0E	0945.0	1.0D	38.0				QL=2 ST=2 TYP=3
	2695	LEAR	8 S	0944.0E	0945.0	1.0D	56.0				QL=2 ST=2 TYP=3
	5730	IRKU	46 C	0944.5	0945.0	6.5	268.0		U		
	410	LEAR	8 S	0945.0E	0945.0		56.0				QL=2 ST=2 TYP=3
	4995	LEAR	8 S	0945.0E	0945.0		57.0				QL=2 ST=2 TYP=3
	1415	SVTO	4 S/F	0945.0	0945.0	3.0	47.0				QL=4 ST=2 TYP=3
	2695	SVTO	8 S	0945.0	0945.0	2.0	43.0				QL=4 ST=2 TYP=3
	4995	SVTO	8 S	0946.0	0947.0	2.0	69.0				QL=4 ST=2 TYP=3
	8800	SVTO	4 S/F	0946.0	0947.0	4.0	56.0				QL=4 ST=2 TYP=3
	610	SVTO	8 S	0947.0	0947.0	1.0	84.0				QL=2 ST=2 TYP=3
	15400	SVTO	8 S	0947.0	0947.0	1.0	35.0				QL=4 ST=2 TYP=3
	204	IZMI	42 SER	1035.8	1035.9	29.1	174.0				
	204	IZMI	41 F	1107.0	1108.0	1.5	154.0				
	245	SVTO	48 C	1148.0	1149.0	4.0	1500.0				QL=4 ST=2 TYP=8
	410	SVTO	48 C	1148.0	1151.0	5.0	1000.0				QL=4 ST=2 TYP=8
	127	TORN	4 S/F	1148.0U	1152.0U	6.0U	410.0	80.0			
	204	IZMI	45 C	1148.6	1149.4	6.3	3890.0				
	245	SGMR	48 C	1149.0	1149.0	6.0	1300.0				QL=4 ST=2 TYP=8
	610	SGMR	49 GB	1149.0	1151.0	6.0	550.0				QL=4 ST=2 TYP=6
	410	SGMR	48 C	1149.0	1151.0	6.0	910.0				QL=4 ST=2 TYP=8
	33	UPIC	46 C	1150.0	1152.5	6.0					
	8800	SGMR	4 S/F	1151.0	1151.0	4.0	180.0				QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1151.0	1151.0	4.0	200.0				QL=4 ST=2 TYP=3
	1415	SGMR	4 S/F	1151.0	1152.0	4.0	410.0				QL=4 ST=2 TYP=3
	4995	SGMR	8 S	1151.0	1151.0	2.0	190.0				QL=4 ST=2 TYP=3
	15400	SGMR	8 S	1151.0	1152.0	2.0	170.0				QL=4 ST=2 TYP=3
	2695	SVTO	8 S	1151.0	1151.0	1.0	190.0				QL=4 ST=2 TYP=3
	15400	SVTO	8 S	1151.0	1152.0	1.0	170.0				QL=4 ST=2 TYP=3
	1415	SVTO	4 S/F	1151.0	1152.0	3.0	490.0				QL=4 ST=2 TYP=3
	4995	SVTO	8 S	1151.0	1151.0	1.0	200.0				QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1151.0	1151.0	1.0	210.0				QL=4 ST=2 TYP=3
	610	SVTO	8 S	1151.0	1152.0	1.0	430.0				QL=2 ST=2 TYP=3
	3000	IZMI	45 C	1151.3	1151.8	2.3	227.0				
	1415	SGMR	4 S/F	1247.0	1248.0	3.0	100.0				QL=4 ST=2 TYP=3
	1415	SVTO	4 S/F	1247.0	1248.0	3.0	120.0				QL=4 ST=2 TYP=3
	33	UPIC	46 C	1248.0	1249.0	2.5					
	610	SGMR	8 S	1250.0	1250.0	2.0	110.0				QL=4 ST=2 TYP=3
	610	SVTO	8 S	1250.0	1250.0	2.0	780.0				QL=4 ST=2 TYP=3
410	SGMR	49 GB	1251.0	1251.0	1.0	910.0				QL=4 ST=2 TYP=6	
245	SGMR	49 GB	1251.0	1251.0	1.0	730.0				QL=4 ST=2 TYP=6	
245	SVTO	49 GB	1251.0	1251.0	1.0	710.0				QL=2 ST=2 TYP=6	
410	SVTO	49 GB	1251.0	1251.0		1300.0			U	QL=4 ST=2 TYP=6	
410	SGMR	8 S	1307.0	1307.0	2.0	67.0				QL=4 ST=2 TYP=3	
245	SGMR	8 S	1307.0	1307.0	2.0	270.0				QL=4 ST=2 TYP=3	
245	SVTO	8 S	1307.0	1307.0	1.0	320.0				QL=2 ST=2 TYP=3	
410	SVTO	8 S	1307.0	1307.0	1.0	88.0				QL=4 ST=2 TYP=3	
410	SGMR	8 S	1401.0	1401.0	1.0	180.0				QL=4 ST=2 TYP=3	
245	SGMR	8 S	1401.0	1402.0	1.0	150.0				QL=4 ST=2 TYP=3	
245	SVTO	8 S	1401.0	1402.0	1.0	140.0				QL=4 ST=2 TYP=3	
410	SVTO	8 S	1401.0	1401.0	1.0	130.0				QL=4 ST=2 TYP=3	
2800	PENT	1 S	1407.0	1413.0	12.0	10.0					
245	SGMR	4 S/F	1412.0	1413.0	3.0	160.0				QL=4 ST=2 TYP=3	
410	SGMR	4 S/F	1412.0	1415.0	8.0	140.0				QL=4 ST=2 TYP=3	
33	UPIC	46 C	1412.5	1414.5	9.0						
245	SVTO	8 S	1413.0	1413.0	1.0	130.0				QL=4 ST=2 TYP=3	
410	SVTO	8 S	1415.0	1415.0		150.0			U	QL=4 ST=2 TYP=3	
2800	PENT	29 PBI	1431.0	1446.0	44.0	73.0					

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

AUGUST 1999

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
02	6700	CUBA	21 GRF	1439.0E	1439.0	195.0D	22.0			00L	
	410	SGMR	49 GB	1444.0	1446.0	7.0	7300.0			QL=4 ST=2 TYP=6	
	245	SGMR	48 C	1444.0	1449.0	7.0	6000.0			QL=4 ST=2 TYP=8	
	610	SGMR	4 S/F	1444.0	1446.0	5.0	240.0			QL=4 ST=2 TYP=3	
	410	SVTO	49 GB	1444.0	1446.0	6.0	7600.0			QL=4 ST=2 TYP=6	
	245	SVTO	48 C	1444.0	1449.0	6.0	4800.0			QL=2 ST=2 TYP=8	
	127	TORN	47 GB	1444.0	1447.0U	5.4	2200.0D	230.0D			
	33	UPIC	48 C	1444.0	1446.5	10.0					
	6700	CUBA	46 C	1444.5	1446.8	3.5	88.0	23.0			4L
	9500	CUBA	46 C	1444.5	1446.8	3.5	98.0	23.0			
	235	CUBA	7 C	1445.0	1447.0	3.0	3266.0				
	8800	SVTO	8 S	1445.0	1446.0	2.0	85.0				QL=4 ST=2 TYP=3
	280	CUBA	7 C	1445.0	1447.3	3.0	2088.0				
	8800	SGMR	8 S	1446.0	1446.0	1.0	60.0				QL=4 ST=2 TYP=3
	1415	SGMR	4 S/F	1446.0	1446.0	3.0	64.0				QL=4 ST=2 TYP=3
	4995	SGMR	8 S	1446.0	1446.0	2.0	57.0				QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1446.0	1446.0	3.0	64.0				QL=4 ST=2 TYP=3
	15400	SGMR	8 S	1446.0	1446.0	1.0	50.0				QL=4 ST=2 TYP=3
	1415	SVTO	8 S	1446.0	1446.0	1.0	75.0				QL=4 ST=2 TYP=3
	15400	SVTO	8 S	1446.0	1446.0	1.0	58.0				QL=4 ST=2 TYP=3
	4995	SVTO	8 S	1446.0	1446.0	1.0	56.0				QL=4 ST=2 TYP=3
	2695	SVTO	8 S	1446.0	1446.0	1.0	59.0				QL=4 ST=2 TYP=3
	610	SVTO	8 S	1446.0	1447.0	2.0	22.0				QL=4 ST=2 TYP=3
	2800	PENT	1 S	1525.0	1534.0	18.0	6.0				
	245	SGMR	8 S	1530.0	1530.0	1.0	86.0				QL=4 ST=2 TYP=3
	4995	SGMR	4 S/F	1530.0	1534.0	7.0	32.0				QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	1530.0	1534.0	7.0	68.0				QL=4 ST=2 TYP=3
	410	SGMR	8 S	1530.0	1530.0	1.0	50.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1530.0	1530.0	U	92.0				QL=4 ST=2 TYP=3
	15400	SGMR	4 S/F	1532.0	1534.0	4.0	100.0				QL=4 ST=2 TYP=3
	9500	CUBA	2 S/F	1533.0	1534.0	1.8	90.0	45.0			
	8800	SVTO	8 S	1533.0	1534.0	1.0	72.0				QL=4 ST=2 TYP=3
	15400	SVTO	8 S	1533.0	1534.0	1.0	90.0				QL=4 ST=2 TYP=3
	6700	CUBA	1 S	1533.2	1534.0	2.1	44.0	22.0			3R
	2800	PENT	20 GRF	1757.0	1826.0	79.0	14.0				
	6700	CUBA	20 GRF	1951.0	1959.0	41.0	17.0	8.0			00L
	245	PALE	8 S	1956.0	1957.0	1.0	160.0				QL=4 ST=2 TYP=3
	410	PALE	8 S	1956.0	1956.0	1.0	31.0				QL=4 ST=2 TYP=3
	2800	PENT	41 F	2048.0	2123.0	103.4U	528.0				
	6700	CUBA	31 ABS	2055.0	2105.0	19.8	11.0	5.0			00L
	9500	CUBA	31 ABS	2116.0	2118.6	4.8	16.0				
	6700	CUBA	47 GB	2120.0	2123.8	10.0	1058.0				5R
	9500	CUBA	47 GB	2120.8	2123.2	4.2	1177.0				
	2695	PALE	49 GB	2121.0	2123.0	6.0	550.0				QL=4 ST=2 TYP=6
	4995	PALE	49 GB	2121.0	2123.0	6.0	570.0				QL=4 ST=2 TYP=6
	8800	PALE	49 GB	2121.0	2123.0	6.0	920.0				QL=4 ST=2 TYP=6
	15400	PALE	49 GB	2121.0	2123.0	17.0	1500.0				QL=4 ST=2 TYP=6
	4995	SGMR	49 GB	2121.0	2123.0	24.0	690.0				QL=4 ST=2 TYP=6
	8800	SGMR	49 GB	2121.0	2123.0	24.0	1100.0				QL=4 ST=2 TYP=6
	15400	SGMR	49 GB	2121.0	2123.0	24.0	1300.0				QL=4 ST=2 TYP=6
2695	SGMR	48 C	2121.0	2123.0	22.0	570.0				QL=4 ST=2 TYP=8	
2800	HIRA	6 S	2122.0	2124.0	8.0	460.0				0	
1415	SGMR	4 S/F	2122.0	2124.0	21.0	360.0				QL=4 ST=2 TYP=3	
610	PALE	8 S	2124.0	2124.0	U	28.0				QL=4 ST=2 TYP=3	
200	HIRA	47 GB	2129.4	2129.6	0.8	650.0				0	
6700	CUBA	30 PBI	2130.0		55.0D	99.0				00L SUNSET	
245	PALE	8 S	2130.0	2130.0	1.0	71.0				QL=4 ST=2 TYP=3	
245	SGMR	48 C	2130.0	2137.0	13.0	280.0				QL=4 ST=2 TYP=8	
410	PALE	48 C	2132.0	2139.0	9.0	370.0				QL=4 ST=2 TYP=8	
410	SGMR	48 C	2132.0	2139.0	11.0	360.0				QL=4 ST=2 TYP=8	
280	CUBA	7 C	2134.2	2138.0	6.6	204.0					
235	CUBA	7 C	2134.2	2138.0	8.6	240.0					
9500	CUBA	2 S/F	2135.0	2138.0	3.5	52.0	26.0				
6700	CUBA	46 C	2135.0	2137.5	5.4	66.0	23.0			30L	
500	HIRA	46 C	2136.0	2139.0	7.5	380.0				0	
200	HIRA	46 C	2136.0	2137.0	5.0	120.0				0	
2800	HIRA	29 PBI	2136.2	2137.6	3.8	80.0				0	
610	SGMR	4 S/F	2137.0	2139.0	6.0	130.0				QL=4 ST=2 TYP=3	
245	SGMR	49 GB	2251.0	2252.0	2.0	1400.0				QL=4 ST=2 TYP=6	

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

29  
Aug 99

AUGUST 1999

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Mean (2 Hz)		
02	200	HIRA	47 GB	2252.2	2252.6	0.8	750.0		0	
03	204	IZMI	44 NS	0600.0E		360.0D		10.0		
	280	CUBA	44 NS	1300.0E		530.0D		16.0		
	235	CUBA	44 NS	1300.0E		530.0D		10.0		
	410	PALE	4 S/F	0024.0	0025.0	7.0	67.0			QL=4 ST=2 TYP=3
	245	PALE	4 S/F	0024.0	0025.0	7.0	250.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0025.0	0025.0	U	280.0			QL=2 ST=2 TYP=3
	200	HIRA	47 GB	0025.0	0025.2	0.4	600.0			0
	245	LEAR	8 S	0224.0	0225.0	2.0	340.0			QL=2 ST=2 TYP=3
	245	PALE	8 S	0224.0	0225.0	1.0	450.0			QL=4 ST=2 TYP=3
	200	HIRA	8 S	0224.8	0225.0	1.0	260.0			0
	5730	IRKU	1 S	0355.6	0357.0	4.1	9.0	U		
	245	LEAR	8 S	0427.0	0428.0	1.0	62.0			QL=2 ST=2 TYP=3
	245	PALE	8 S	0429.0	0430.0	2.0	140.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0429.0	0430.0	2.0	140.0			QL=2 ST=2 TYP=3
	200	HIRA	46 C	0429.8	0431.0	2.6	70.0			WL
	245	LEAR	8 S	0430.0	0430.0	1.0	150.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	0436.0	0438.0	2.0	110.0			QL=2 ST=2 TYP=3
	245	SVTO	8 S	0436.0	0438.0	2.0	130.0			QL=4 ST=2 TYP=3
	5730	IRKU	46 C	0436.7	0438.0	6.8	55.0	U		
	4995	LEAR	8 S	0437.0	0437.0	1.0	48.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0437.0	0437.0	1.0	23.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0437.0	0437.0	1.0	30.0			QL=4 ST=2 TYP=3
	2950	GORK	4 S/F	0437.1	0438.4	2.8	34.0			
	245	SVTO	8 S	0500.0	0500.0	1.0	390.0			QL=2 ST=2 TYP=3
	8800	SVTO	8 S	0501.0	0501.0	U	24.0			QL=4 ST=2 TYP=3
	15400	SVTO	8 S	0502.0	0502.0	U	28.0			QL=4 ST=2 TYP=3
	204	IZMI	7 C	0604.6	0604.9	0.3	30.0			
	245	SVTO	8 S	0653.0	0653.0	1.0	250.0			QL=2 ST=2 TYP=3
	2950	GORK	7 C	0718.0	0719.8	3.2	9.8			
	5730	IRKU	4 S/F	0718.5	0722.8	14.5	9.0	U		
	3000	IZMI	20 GRF	0718.6	0719.3	10.3	13.0			
	204	IZMI	41 F	0845.3	0845.6	0.5	177.0			
	5730	IRKU	1 S	0913.5	0914.2	2.5	2.0	U		
	245	SGMR	8 S	1031.0	1031.0	U	64.0			QL=4 ST=2 TYP=3
	33	UPIC	4 S/F	1119.5	1120.0	1.0				
	204	IZMI	7 C	1119.7	1119.9	0.5	23.0			
	204	IZMI	42 SER	1128.1	1131.4	3.3	122.0			
	410	SGMR	4 S/F	1134.0	1134.0	7.0	200.0			QL=4 ST=2 TYP=3
	4995	SVTO	4 S/F	1135.0	1136.0	3.0	54.0			QL=4 ST=3 TYP=3
	8800	SVTO	4 S/F	1135.0	1136.0	3.0	53.0			QL=4 ST=3 TYP=3
	3000	IZMI	22 GRF	1135.4	1137.0	4.2	49.0			
	4995	SGMR	8 S	1136.0	1136.0	2.0	29.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	1136.0	1137.0	1.0	55.0			QL=4 ST=3 TYP=3
	1415	SVTO	8 S	1136.0	1137.0	2.0	34.0			QL=4 ST=3 TYP=3
	1415	SGMR	4 S/F	1137.0	1137.0	4.0	24.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1137.0	1137.0	U	38.0			QL=4 ST=3 TYP=3
	245	SVTO	8 S	1137.0	1137.0	1.0	290.0			QL=4 ST=3 TYP=3
	245	SGMR	8 S	1214.0	1214.0	1.0	78.0			QL=4 ST=2 TYP=3
	245	SGMR	4 S/F	1222.0	1223.0	3.0	250.0			QL=4 ST=2 TYP=3
	610	SVTO	8 S	1222.0	1223.0	2.0	25.0			QL=4 ST=3 TYP=3
	33	UPIC	46 C	1222.0	1224.0	2.5				
	410	SGMR	8 S	1223.0	1223.0	2.0	70.0			QL=4 ST=2 TYP=3
	610	SGMR	8 S	1223.0	1223.0	2.0	24.0			QL=4 ST=2 TYP=3
	1415	SGMR	8 S	1223.0	1224.0	2.0	30.0			QL=4 ST=2 TYP=3
	1415	SVTO	8 S	1223.0	1223.0	1.0	32.0			QL=4 ST=3 TYP=3
	245	SVTO	49 GB	1223.0	1224.0	1.0	560.0			QL=4 ST=3 TYP=6
	410	SVTO	8 S	1223.0	1224.0	1.0	120.0			QL=4 ST=3 TYP=3
	245	SGMR	49 GB	1251.0	1253.0	4.0	690.0			QL=4 ST=2 TYP=6
	410	SGMR	4 S/F	1251.0	1253.0	4.0	200.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1251.0	1251.0	2.0	240.0			QL=4 ST=2 TYP=3
	245	SVTO	48 C	1251.0	1253.0	4.0	650.0			QL=2 ST=3 TYP=8
	245	SGMR	8 S	1613.0	1613.0	1.0	99.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1613.0	1613.0	1.0	57.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1651.0	1652.0	1.0	56.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1659.0	1659.0	U	77.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	1716.0	1717.0	2.0	140.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1719.0	1719.0	U	83.0			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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AUGUST 1999

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Mean			
03	245	PALE	8 S	1723.0	1723.0	1.0	240.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1723.0	1723.0	U	160.0			QL=2 ST=2 TYP=3	
	245	PALE	8 S	1753.0	1754.0	1.0	61.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1754.0	1754.0	1.0	51.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1829.0	1829.0	U	100.0			QL=4 ST=2 TYP=3	
	245	PALE	8 S	1959.0	1959.0	U	72.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1959.0	1959.0	1.0	64.0			QL=4 ST=2 TYP=3	
	245	LEAR	8 S	2338.0	2338.0	U	56.0			QL=2 ST=2 TYP=3	
04	245	LEAR	43 NS	0057.0	0105.0	53.0	70.0			QL=2 ST=2 TYP=1	
	245	LEAR	43 NS	0057.0	0649.0	529.0	110.0			QL=2 ST=2 TYP=1	
	204	IZMI	44 NS	0600.0E		360.0D		15.0			
	245	SVTO	43 NS	0641.0	0728.0	389.0	220.0			QL=4 ST=2 TYP=1	
	235	CUBA	44 NS	1300.0E		530.0D		11.0			
	280	CUBA	44 NS	1300.0E		530.0D		17.0			
	245	LEAR	48 C	0034.0	0037.0	3.0	54.0				QL=2 ST=2 TYP=8
	2695	LEAR	4 S/F	0230.0	0239.0	10.0	25.0				QL=4 ST=2 TYP=3
	410	LEAR	4 S/F	0231.0	0239.0	9.0	350.0				QL=2 ST=2 TYP=3
	610	LEAR	49 GB	0233.0	0239.0	7.0	690.0				QL=2 ST=2 TYP=6
	1415	LEAR	4 S/F	0236.0	0239.0	4.0	220.0				QL=4 ST=2 TYP=3
	245	LEAR	4 S/F	0236.0	0239.0	4.0	140.0				QL=2 ST=2 TYP=3
	5730	IRKU	45 C	0236.5	0242.8	8.5	38.0		U		
	500	HIRA	42 SER	0238.0	0242.5	12.0	320.0				ML
	610	LEAR	8 S	0242.0	0242.0	2.0	200.0				QL=2 ST=2 TYP=3
	410	LEAR	8 S	0242.0	0243.0	2.0	110.0				QL=2 ST=2 TYP=3
	245	LEAR	49 GB	0242.0	0243.0	2.0	660.0				QL=2 ST=2 TYP=6
	2695	LEAR	8 S	0242.0	0243.0	1.0	62.0				QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0242.0	0243.0	2.0	99.0				QL=4 ST=2 TYP=3
	2800	HIRA	4 S/F	0242.6	0243.2	1.2	50.0				0
	200	HIRA	8 S	0243.0	0243.3	0.6	50.0				0
	5730	IRKU	4 S/F	0348.5	0350.5	5.5	134.0		U		
	2950	GORK	4 S/F	0349.2	0351.5	4.3	26.0				
	2950	GORK	29 PBI	0353.5	0354.1	6.5	5.0				
	5730	IRKU	1 S	0411.2	0412.5	5.4	32.0		U		
	5730	IRKU	1 S	0438.0	0438.9	5.0	25.0		U		
	5730	IRKU	1 S	0452.7	0453.4	5.3	17.0		U		
	2950	GORK	47 GB	0542.9	0550.3	41.4	239.0				
	5730	IRKU	48 C	0544.0	0549.6	74.0	953.0		U		
	2800	HIRA	45 C	0547.5	0550.0	10.0	180.0				0
	2695	LEAR	4 S/F	0548.0	0549.0	8.0	230.0				QL=4 ST=2 TYP=3
	1415	LEAR	4 S/F	0548.0	0549.0	7.0	230.0				QL=4 ST=2 TYP=3
	1415	SVTO	48 C	0548.0	0549.0	8.0	210.0				QL=4 ST=2 TYP=8
	4995	LEAR	4 S/F	0548.0	0549.0	25.0	400.0				QL=4 ST=2 TYP=3
	15400	LEAR	4 S/F	0548.0	0549.0	20.0	280.0				QL=4 ST=2 TYP=3
	4995	SVTO	48 C	0548.0	0549.0	27.0	370.0				QL=4 ST=2 TYP=8
	2695	SVTO	48 C	0548.0	0549.0	25.0	230.0				QL=4 ST=2 TYP=8
	8800	LEAR	4 S/F	0548.0	0549.0	31.0	500.0				QL=4 ST=2 TYP=3
	410	SVTO	48 C	0548.0	0606.0	37.0	240.0				QL=4 ST=2 TYP=8
	15400	SVTO	4 S/F	0548.0	0549.0	43.0	300.0				QL=4 ST=2 TYP=3
	8800	SVTO	49 GB	0548.0	0549.0	45.0	500.0				QL=4 ST=2 TYP=6
	900	GORK	40 F	0548.4	0551.0	42.4	100.0				
600	GORK	40 F	0548.7	0600.5	39.4	44.0					
245	LEAR	8 S	0549.0	0549.0	U	120.0				QL=2 ST=2 TYP=3	
245	SVTO	4 S/F	0549.0	0557.0	36.0	300.0				QL=4 ST=3 TYP=3	
610	LEAR	4 S/F	0550.0	0550.0	3.0	26.0				QL=2 ST=2 TYP=3	
3000	IZMI	45 C	0550.0E	0550.2U	30.0U	223.0U					
610	SVTO	4 S/F	0551.0	0552.0	3.0	29.0				QL=4 ST=2 TYP=3	
200	HIRA	4 S/F	0551.2	0551.8	1.2	460.0				0	
500	HIRA	46 C	0557.0	0603.5	20.0	380.0				WL	
410	LEAR	4 S/F	0559.0	0603.0	16.0	360.0				QL=2 ST=2 TYP=3	
2950	GORK	29 PBI	0624.3	0624.3	26.6	12.0					
245	LEAR	8 S	0641.0	0641.0	1.0	110.0				QL=2 ST=2 TYP=3	
3000	IZMI	5 S	0737.4	0737.6	0.7	16.0					
245	SVTO	8 S	0913.0	0913.0	1.0	77.0				QL=2 ST=2 TYP=3	
410	SGMR	4 S/F	1139.0	1140.0	4.0	110.0				QL=4 ST=2 TYP=3	
410	SVTO	8 S	1139.0	1140.0	1.0	73.0				QL=4 ST=2 TYP=3	
204	IZMI	42 SER	1139.2	1142.7	6.6	84.0					
3000	IZMI	20 GRF	1139.7	1140.3	7.4	15.0					
245	SGMR	4 S/F	1140.0	1142.0	3.0	75.0				QL=4 ST=2 TYP=3	

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
04	245	SVTO	8 S	1140.0	1142.0	2.0	290.0			QL=2 ST=2 TYP=3
		410 SGMR	8 S	1143.0	1143.0	1.0	59.0			QL=4 ST=2 TYP=3
	6700	CUBA	22 GRF	1448.0	1608.0	151.0	24.0			00L
	9500	CUBA	23 GRF	1526.0	1606.0	134.0	26.0	12.0		
	2800	PENT	45 C	1740.0	1810.0	111.0U	34.0			
	6700	CUBA	21 GRF	1750.0	1825.0	109.0	35.0	17.0		00L
	9500	CUBA	21 GRF	1801.0	1827.0	91.0	35.0	17.0		
	4995	PALE	4 S/F	1808.0	1810.0	6.0	140.0			QL=4 ST=2 TYP=3
	8800	PALE	4 S/F	1808.0	1810.0	4.0	110.0			QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1808.0	1810.0	3.0	26.0			QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	1808.0	1809.0	8.0	78.0			QL=2 ST=2 TYP=3
	15400	SGMR	4 S/F	1808.0	1810.0	4.0	20.0			QL=4 ST=2 TYP=3
	4995	SGMR	4 S/F	1808.0	1810.0	10.0	130.0			QL=4 ST=2 TYP=3
	6700	CUBA	4 S/F	1808.4	1810.0	4.1	133.0	66.0		8R
	2695	PALE	8 S	1809.0	1810.0	1.0	27.0			QL=4 ST=2 TYP=3
	9500	CUBA	3 S	1818.3	1820.0	4.2	94.0	47.0		
	2800	PENT	1 S	2145.0	2153.0	17.0	6.0			
5730	IRKU	8 S	2328.7	2329.0	0.7	12.0		U		
5730	IRKU	1 S	2335.4	2335.8	2.6	7.0		U		
05	235	CUBA	44 NS	1300.0E		530.0D		9.0		
	280	CUBA	44 NS	1300.0E		530.0D		18.0		
	5730	IRKU	8 S	0025.5	0025.8	0.5	6.0		U	
	5730	IRKU	45 C	0037.0	0049.0	43.0	31.0		U	
	5730	IRKU	8 S	0302.3	0302.6	0.6	8.0		U	
	5730	IRKU	45 C	0520.0	0523.3	37.0	42.0		U	
	204	IZMI	41 F	0819.2	0819.4	0.6	92.0			
	235	CUBA	6 S	1358.8	1359.0	0.6	179.0			
	280	CUBA	6 S	1358.8	1359.0	0.6	84.0			
	245	SGMR	8 S	1439.0	1439.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1439.0	1439.0	U	97.0			QL=4 ST=2 TYP=3
	280	CUBA	7 C	1445.2	1445.4	0.8	100.0			
	235	CUBA	7 C	1445.2	1445.4	0.8	250.0			
	410	SGMR	8 S	1505.0	1505.0	U	60.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1505.0	1505.0	U	65.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1526.0	1527.0	1.0	76.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1526.0	1526.0	1.0	50.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1534.0	1534.0	U	62.0			QL=4 ST=2 TYP=3
	2800	PENT	20 GRF	1536.0	1618.0	56.0U	18.0			
	245	SGMR	8 S	1544.0	1545.0	2.0	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1544.0	1545.0	1.0	85.0			QL=4 ST=2 TYP=3
	4995	SGMR	20 GRF	1607.0	1618.0	31.0	59.0			QL=4 ST=2 TYP=2
	2695	SGMR	20 GRF	1617.0	1619.0	21.0	23.0			QL=4 ST=2 TYP=2
8800	SGMR	20 GRF	1617.0	1618.0	21.0	23.0			QL=2 ST=2 TYP=2	
15400	SGMR	20 GRF	1619.0	1624.0	18.0	14.0			QL=4 ST=2 TYP=2	
2800	PENT	41 F	2130.0	2215.0	62.0U	20.0			0	
2800	HIRA	8 S	2215.3	2215.4	0.2	30.0				
2695	SGMR	8 S	2238.0	2238.0	1.0	27.0			QL=4 ST=2 TYP=3	
4995	SGMR	8 S	2238.0	2238.0	1.0	41.0			QL=4 ST=2 TYP=3	
8800	SGMR	8 S	2238.0	2238.0	1.0	50.0			QL=2 ST=2 TYP=3	
2800	PENT	1 S	2328.0	2329.0	11.0	18.0				
06	204	IZMI	44 NS	0600.0E		360.0D		5.0		
	245	SVTO	43 NS	1037.0	1045.0	40.0	83.0			QL=4 ST=2 TYP=1
	235	CUBA	44 NS	1300.0E		530.0D		12.0		
	280	CUBA	44 NS	1300.0E		530.0D		19.0		
	5730	IRKU	2 S/F	0004.0	0005.5	10.0	9.0		U	
	200	HIRA	42 SER	0004.5	0004.7	5.0	220.0			0
	245	SVTO	4 S/F	0518.0	0522.0	4.0	110.0			QL=4 ST=2 TYP=3
	5730	IRKU	8 S	0519.1	0519.5	0.9	8.0		U	
	600	GORK	3 S	0519.2	0519.9	1.1	31.0			
	900	GORK	2 S/F	0519.5	0519.8	0.9	12.0			
	200	HIRA	8 S	0519.6	0520.0	0.8	180.0			0
	2950	GORK	2 S/F	0519.6	0519.9	0.9	9.0			
	204	IZMI	7 C	0606.5	0606.6	0.3	33.0			
	245	SVTO	8 S	0852.0	0853.0	1.0	84.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	0853.0	0853.0	U	38.0			QL=4 ST=2 TYP=3
245	SVTO	8 S	0929.0	0930.0	2.0	220.0			QL=2 ST=2 TYP=3	
245	LEAR	8 S	0930.0	0930.0	U	110.0			QL=2 ST=2 TYP=3	

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AUGUST 1999

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 <sup>-22</sup> W/m <sup>2</sup> Hz)		Int	Remarks
							Peak	Mean		
06	245	SVTO	8 S	0942.0	0942.0	1.0	120.0			QL=2 ST=2 TYP=3
	3000	IZMI	20 GRF	0949.1	0949.3	2.5	13.0			
	2950	GORK	2 S/F	0949.5	0949.8	1.2	7.2			
	245	SVTO	8 S	1035.0	1036.0	1.0	210.0			QL=2 ST=2 TYP=3
	410	SVTO	8 S	1156.0	1158.0	2.0	87.0			QL=4 ST=2 TYP=3
	9500	CUBA	22 GRF	1340.0	1346.0	40.0	17.0	8.0		
	2800	PENT	20 GRF	1400.0	1417.0	44.0	7.0			
	9500	CUBA	45 C	1608.5	1610.3	8.0	123.0	61.0		
	9500	CUBA	45 C	1608.5	1613.5		115.0			
	245	SGMR	8 S	1617.0	1617.0	U	91.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1617.0	1617.0	U	74.0			QL=4 ST=2 TYP=3
	4995	SGMR	48 C	1630.0	1634.0	9.0	82.0			QL=4 ST=2 TYP=8
	245	SGMR	48 C	1630.0	1633.0	9.0	190.0			QL=4 ST=2 TYP=8
	8800	SGMR	48 C	1630.0	1631.0	7.0	76.0			QL=2 ST=2 TYP=8
	2695	SGMR	4 S/F	1630.0	1631.0	9.0	45.0			QL=4 ST=2 TYP=3
	15400	SGMR	4 S/F	1630.0	1631.0	9.0	79.0			QL=4 ST=2 TYP=3
	4995	SVTO	48 C	1630.0	1634.0	6.0	51.0			QL=4 ST=2 TYP=8
	2695	SVTO	4 S/F	1630.0	1631.0	3.0	37.0			QL=4 ST=2 TYP=3
	245	SVTO	4 S/F	1630.0	1633.0	4.0	180.0			QL=4 ST=2 TYP=3
	15400	SVTO	4 S/F	1630.0	1631.0	6.0	64.0			QL=4 ST=2 TYP=3
	8800	SVTO	48 C	1630.0	1631.0	4.0	69.0			QL=4 ST=2 TYP=8
	1415	SGMR	4 S/F	1633.0	1633.0	6.0	33.0			QL=4 ST=2 TYP=3
	2800	PENT	1 S	2258.0	2301.0	6.0	18.0			
	245	PALE	8 S	2301.0	2301.0	1.0	180.0			QL=4 ST=2 TYP=3
245	SGMR	8 S	2301.0	2301.0	U	76.0			QL=2 ST=2 TYP=3	
200	HIRA	8 S	2301.0	2301.4	0.8	140.0			0	
245	LEAR	8 S	2356.0	2356.0	2.0	73.0			QL=2 ST=2 TYP=3	
07	280	CUBA	44 NS	1300.0E		530.0D		17.0		
	235	CUBA	44 NS	1300.0E		530.0D		8.0		
	245	PALE	8 S	0012.0	0013.0	1.0	140.0			QL=4 ST=2 TYP=3
	5730	IRKU	8 S	0110.2	0110.7	1.7	13.0		U	
	245	LEAR	8 S	0153.0	0154.0	1.0	130.0			QL=2 ST=2 TYP=3
	200	HIRA	42 SER	0153.5	0153.7	5.0	120.0			0
	245	PALE	8 S	0154.0	0154.0	U	91.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0546.0	0546.0	U	70.0			QL=4 ST=2 TYP=3
	204	IZMI	42 SER	1046.5	1047.8	3.2	76.0			
	2800	PENT	1 S	1852.0	1858.0	11.0	11.0			
	2800	PENT	40 F	2029.0	2051.0	39.0	26.0			
	245	SGMR	4 S/F	2302.0	2305.0	4.0	87.0			QL=2 ST=2 TYP=3
	410	SGMR	4 S/F	2303.0	2305.0	3.0	120.0			QL=2 ST=2 TYP=3
	245	LEAR	4 S/F	2303.0E	2306.0U	6.0D	130.0			QL=2 ST=2 TYP=3
	410	LEAR	4 S/F	2303.0E	2306.0U	6.0D	92.0			QL=2 ST=2 TYP=3
	245	PALE	4 S/F	2304.0	2305.0	4.0	120.0			QL=4 ST=2 TYP=3
	410	PALE	4 S/F	2304.0	2306.0	3.0	75.0			QL=4 ST=2 TYP=3
	200	HIRA	4 S/F	2304.5	2306.5	5.5	50.0			MR
610	PALE	8 S	2305.0	2306.0	1.0	27.0			QL=4 ST=2 TYP=3	
1415	PALE	4 S/F	2306.0	2306.0	3.0	29.0			QL=4 ST=2 TYP=3	
2695	PALE	8 S	2306.0	2306.0	2.0	30.0			QL=4 ST=2 TYP=3	
08	235	CUBA	44 NS	1300.0E		530.0D		8.0		
	280	CUBA	44 NS	1300.0E		530.0D		18.0		
	5730	IRKU	1 S	0230.0	0230.9	3.0	9.0		U	
	900	GORK	4 S/F	0326.2	0327.3	2.8	20.0			
	600	GORK	40 F	0326.8	0327.5	3.2	7.0			
	2950	GORK	1 S	0326.9	0327.3	0.4	3.3			
	5730	IRKU	1 S	0532.5	0533.8	12.5	27.0		U	
	5730	IRKU	1 S	0645.3	0646.2	3.3	12.0		U	
	4995	SVTO	8 S	0751.0	0752.0	1.0	58.0			QL=4 ST=2 TYP=3
	5730	IRKU	4 S/F	0751.3	0752.2	4.5	123.0		U	
	3000	IZMI	20 GRF	0751.6	0752.4	2.2	23.0	12.0		
	2950	GORK	3 S	0752.1	0752.9	1.9	19.3			
	600	GORK	40 F	1031.9	1036.6	6.5	38.0			
	900	GORK	40 F	1033.0	1036.3	8.6	57.0			
	2950	GORK	2 S/F	1038.1	1038.7	1.7	12.3			
6700	CUBA	22 GRF	1333.0E	1333.0	870.0D	12.0	6.0			00L SUNRISE
2800	PENT	4 S/F	2055.0	2115.0	44.0	9.0				
1415	PALE	4 S/F	2114.0	2116.0	3.0	270.0			QL=4 ST=2 TYP=3	
1415	SGMR	4 S/F	2114.0	2116.0	3.0	270.0			QL=4 ST=2 TYP=3	

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
08	410	LEAR	8 S	2342.0	2342.0	1.0	64.0			QL=2 ST=2 TYP=3
09	235	CUBA	44 NS	1300.0E		530.0D		9.0		
	280	CUBA	44 NS	1300.0E		530.0D		18.0		
	2800	HIRA	3 S	0248.5	0251.0	6.0	30.0			WR
	1415	PALE	4 S/F	0249.0	0251.0	4.0	51.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	0250.0	0250.0	1.0	29.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	0251.0	0251.0	1.0	32.0			QL=4 ST=2 TYP=3
	610	PALE	20 GRF	0251.0	0258.0	12.0	93.0			QL=4 ST=2 TYP=2
	500	HIRA	46 C	0252.5	0258.5	15.0	60.0			WR
	245	PALE	49 GB	0254.0	0257.0	8.0	570.0			QL=4 ST=2 TYP=6
	245	LEAR	49 GB	0255.0	0257.0	5.0	520.0			QL=2 ST=2 TYP=6
	410	LEAR	4 S/F	0255.0	0256.0	6.0	77.0			QL=2 ST=2 TYP=3
	610	LEAR	4 S/F	0255.0	0258.0	8.0	100.0			QL=2 ST=2 TYP=3
	200	HIRA	46 C	0255.0	0256.2	11.0	50.0			0
5730	IRKU	8 S	0905.9	0906.2	0.5	18.0		U		
2800	PENT	4 S/F	2328.0	2332.0	9.0	6.0				
10	235	CUBA	44 NS	1300.0E		530.0D		10.0		
	280	CUBA	44 NS	1300.0E		530.0D		16.0		
	2950	GORK	20 GRF	0438.2	0440.5	18.8	3.3			
	2950	GORK	20 GRF	0625.5	0700.0U	44.0	4.0U			
	245	LEAR	8 S	0725.0	0725.0		78.0			QL=2 ST=2 TYP=3
	2950	GORK	42 SER	0736.9	0737.8	2.9	3.3			
	600	GORK	4 S/F	0737.0	0737.3	0.8	16.0			
	600	GORK	4 S/F	0937.5	0937.8	0.7	13.0			
	2950	GORK	20 GRF	0953.0	0955.2	32.2	6.7			
	600	GORK	4 S/F	1013.8	1014.0	0.8	32.0			
	2800	PENT	1 S	1439.0	1443.0	10.0	6.0			
	280	CUBA	7 C	1444.0	1446.5	6.0	20.0			
	235	CUBA	7 C	1444.0	1446.5	6.8	29.0			
	245	SGMR	49 GB	1526.0	1527.0	2.0	840.0			QL=4 ST=2 TYP=6
	245	SVTO	49 GB	1526.0	1528.0	2.0	660.0			QL=2 ST=3 TYP=6
	235	CUBA	7 C	1526.4	1528.3	2.7	388.0			
	280	CUBA	7 C	1526.4	1528.3	2.8	224.0			
	245	SVTO	49 GB	1527.0	1528.0	1.0	660.0			QL=2 ST=2 TYP=6
	410	SGMR	8 S	1528.0	1528.0		64.0		U	QL=4 ST=2 TYP=3
	410	SVTO	8 S	1528.0	1528.0		56.0		U	QL=4 ST=2 TYP=3
	2800	PENT	29 PBI	1617.0	1622.0	15.0	69.0			
	245	SGMR	49 GB	1621.0	1622.0	2.0	1700.0			QL=4 ST=2 TYP=6
	1415	SGMR	8 S	1621.0	1622.0	2.0	99.0			QL=4 ST=2 TYP=3
	4995	SGMR	4 S/F	1621.0	1622.0	3.0	180.0			QL=4 ST=2 TYP=3
	610	SGMR	8 S	1621.0	1622.0	2.0	210.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1621.0	1621.0	2.0	370.0			QL=4 ST=2 TYP=3
	610	SVTO	8 S	1621.0	1622.0	1.0	90.0			QL=2 ST=2 TYP=3
	4995	SVTO	8 S	1621.0	1622.0	2.0	160.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	1621.0	1622.0	2.0	67.0			QL=4 ST=2 TYP=3
	245	SVTO	49 GB	1621.0	1622.0	2.0	1400.0			QL=4 ST=2 TYP=6
	410	SVTO	8 S	1621.0	1621.0	1.0	330.0			QL=4 ST=2 TYP=3
	1415	SVTO	8 S	1621.0	1621.0	1.0	99.0			QL=4 ST=2 TYP=3
	6700	CUBA	3 S	1621.5	1622.2	3.5	144.0		72.0	11L
	33	UPIC	45 C	1621.5	1622.5	1.5				
	2695	SGMR	8 S	1622.0	1622.0	2.0	62.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1622.0	1622.0	2.0	56.0			QL=2 ST=2 TYP=3
	15400	SGMR	8 S	1622.0	1622.0	1.0	33.0			QL=4 ST=2 TYP=3
	15400	SVTO	8 S	1622.0	1622.0		34.0		U	QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1622.0	1622.0	1.0	78.0			QL=4 ST=2 TYP=3
	280	CUBA	7 C	1751.4	1753.9	2.5	1041.0			
235	CUBA	7 C	1751.4	1753.9	2.5	1379.0				
410	PALE	8 S	1753.0	1753.0	1.0	44.0			QL=4 ST=3 TYP=3	
245	PALE	49 GB	1753.0	1753.0	1.0	1900.0			QL=4 ST=3 TYP=6	
410	SGMR	8 S	1753.0	1753.0		46.0		U	QL=4 ST=3 TYP=3	
245	SGMR	49 GB	1753.0	1753.0	1.0	1800.0			QL=4 ST=3 TYP=6	
245	SGMR	8 S	2046.0	2048.0	2.0	60.0			QL=4 ST=3 TYP=3	
2800	PENT	1 S	2202.0	2206.0	9.0	6.0				
245	PALE	49 GB	2205.0	2205.0	2.0	580.0			QL=4 ST=2 TYP=6	
410	SGMR	4 S/F	2205.0	2206.0	3.0	120.0			QL=4 ST=2 TYP=3	
245	SGMR	49 GB	2205.0	2205.0	2.0	960.0			QL=4 ST=2 TYP=6	
410	PALE	8 S	2206.0	2206.0	1.0	130.0			QL=4 ST=2 TYP=3	

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
10	6700	CUBA	2 S/F	2206.0	2206.5	1.0	17.0	8.0		29L
11	235	CUBA	44 NS	1300.0E		530.0D		8.0		
	280	CUBA	44 NS	1300.0E		530.0D		18.0		
	245	LEAR	8 S	0816.0	0816.0	U	53.0			QL=2 ST=2 TYP=3
	204	IZMI	41 F	0816.6	0816.7	0.4	38.0			
	204	IZMI	7 C	1024.6	1024.9	0.4	11.0			
	235	CUBA	7 C	1318.8	1320.2	8.2	29.0			
	280	CUBA	7 C	1318.8	1320.2	8.2	16.0			
	410	LEAR	4 S/F	2318.0	2318.0	4.0	26.0			QL=2 ST=2 TYP=3
	245	LEAR	4 S/F	2318.0	2319.0	4.0	270.0			QL=2 ST=2 TYP=3
	245	PALE	8 S	2318.0	2319.0	1.0	330.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	2318.0	2319.0	1.0	51.0			QL=4 ST=2 TYP=3
245	SGMR	8 S	2318.0	2319.0	1.0	200.0			QL=2 ST=3 TYP=3	
200	HIRA	4 S/F	2318.0	2318.7	1.6	340.0			0	
12	235	CUBA	44 NS	1300.0E		530.0D		8.0		
	280	CUBA	44 NS	1300.0E		530.0D		16.0		
	410	LEAR	8 S	0300.0	0300.0	1.0	60.0			QL=2 ST=2 TYP=3
	2950	GORK	21 GRF	0534.8	0548.5	98.2	7.4			
	900	GORK	42 SER	0542.8	0543.3	6.2	20.0			
	2950	GORK	7 C	0543.1	0543.2	0.7	3.7			
	33	UPIC	45 C	1207.5	1209.5	3.5				
	9500	CUBA	23 GRF	1349.0	1353.0	31.0	14.0	7.0		
	200	HIRA	8 S	2039.7	2040.0	0.6	60.0			0
	235	CUBA	6 S	2040.0	2040.0	0.5	290.0			
	280	CUBA	6 S	2040.0	2040.0	0.5	16.0			
	245	PALE	8 S	2040.0	2040.0	U	270.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	2040.0	2040.0	U	200.0			QL=4 ST=2 TYP=3
13	235	CUBA	44 NS	1300.0E		530.0D		7.0		
	280	CUBA	44 NS	1300.0E		530.0D		17.0		
	610	SVTO	8 S	0718.0	0719.0	1.0	57.0			QL=4 ST=2 TYP=3
	3000	IZMI	5 S	0718.2	0719.1	1.8	12.0	6.0		
	900	GORK	45 C	0718.3	0718.5	1.1	8.0			
	2950	GORK	40 F	0718.4	0719.0	0.9	10.0			
	600	GORK	40 F	0718.4	0719.3	1.2	94.0			
	610	LEAR	8 S	0719.0	0719.0	U	78.0			QL=2 ST=2 TYP=3
	410	LEAR	4 S/F	0747.0	0749.0	3.0	56.0			QL=2 ST=2 TYP=3
	245	LEAR	4 S/F	0747.0	0749.0	3.0	230.0			QL=2 ST=2 TYP=3
	410	SVTO	8 S	0747.0	0748.0	1.0	140.0			QL=2 ST=2 TYP=3
	2950	GORK	46 C	0747.3	0749.3	4.0	23.5			QL=4 ST=2 TYP=3
	200	HIRA	42 SER	0747.6	0747.8	2.6	160.0			0
	5730	IRKU	45 C	0747.8	0749.7	6.7	39.0			U
	3000	IZMI	22 GRF	0747.9	0749.7	3.2	22.0			
	600	GORK	40 F	0748.2	0749.2	4.3	39.0			
	900	GORK	46 C	0748.3	0748.9	2.0	15.0			
	4995	SVTO	8 S	0749.0	0749.0	1.0	31.0			
	6700	CUBA	21 GRF	1539.0	1555.0	92.0	11.0	5.0		QL=4 ST=2 TYP=3
	2800	PENT	45 C	1542.0	1550.0	39.0	14.0			00L
	6700	CUBA	2 S/F	1549.2	1550.0	2.8	11.0	5.0		28L
	2800	PENT	1 S	1658.0	1702.0	5.0	9.0			
	9500	CUBA	1 S	1702.0	1703.0	11.7	39.0	19.0		
	9500	CUBA	21 GRF	1956.0	2111.0	104.0	20.0	10.0		
	6700	CUBA	21 GRF	2024.0	2110.0	46.0	13.0	6.0		00L
	610	PALE	8 S	2116.0	2116.0	U	43.0			QL=4 ST=2 TYP=3
	4995	PALE	8 S	2116.0	2116.0	1.0	71.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	2116.0	2116.0	1.0	97.0			QL=4 ST=2 TYP=3
	8800	PALE	8 S	2116.0	2116.0	1.0	76.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	2116.0	2116.0	1.0	40.0			QL=4 ST=2 TYP=3
15400	SGMR	8 S	2116.0	2116.0	1.0	46.0			QL=4 ST=2 TYP=3	
2695	SGMR	8 S	2116.0	2116.0	2.0	37.0			QL=4 ST=2 TYP=3	
8800	SGMR	8 S	2116.0	2116.0	2.0	67.0			QL=2 ST=2 TYP=3	
410	SGMR	8 S	2116.0	2116.0	U	87.0			QL=4 ST=2 TYP=3	
4995	SGMR	8 S	2116.0	2116.0	2.0	82.0			QL=4 ST=2 TYP=3	
6700	CUBA	2 S/F	2116.0	2116.5	3.0	75.0	34.0		6L	
9500	CUBA	1 S	2117.0E	2117.0	1.0D	21.0	10.0			
2800	PENT	40 F	2121.0	2126.0	8.0	6046.0				
245	SGMR	8 S	2136.0	2136.0	U	110.0			QL=4 ST=2 TYP=3	

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Flux Density Mean	Int	Remarks	
13	6700	CUBA	1 S	2137.0	2137.8	1.6	17.0	8.0		00L	
		HIRA	8 S	2333.5	2333.8	0.6	160.0			0	
		HIRA	8 S	2341.7	2341.8	0.2	140.0			0	
14	280	CUBA	44 NS	1300.0E		390.0D		16.0			
		CUBA	44 NS	1300.0E		530.0D		8.0			
		LEAR	8 S	0305.0	0306.0	2.0	150.0			QL=2 ST=2 TYP=3	
		IRKU	1 S	0423.7	0424.2	1.8	6.0		U		
		IZMI	42 SER	0629.8	0630.0	0.8	126.0				
		GORK	45 C	0913.6	0914.5	1.1	8.1				
		IRKU	4 S/F	0913.9	0914.6	3.9	28.0		U		
		SVTO	8 S	0951.0	0952.0	1.0	91.0			QL=4 ST=2 TYP=3	
		IZMI	41 F	1151.1	1151.2	0.2	80.0				
		SVTO	8 S	1200.0	1200.0	1.0	73.0			QL=4 ST=2 TYP=3	
		SGMR	49 GB	1205.0	1206.0	3.0	900.0			QL=4 ST=2 TYP=6	
		SGMR	4 S/F	1205.0	1207.0	3.0	130.0			QL=4 ST=2 TYP=3	
		SVTO	4 S/F	1205.0	1207.0	3.0	98.0			QL=4 ST=2 TYP=3	
		SVTO	49 GB	1205.0	1206.0	3.0	900.0			QL=4 ST=2 TYP=6	
		SGMR	4 S/F	1206.0	1208.0	3.0	250.0			QL=4 ST=2 TYP=3	
		SGMR	4 S/F	1206.0	1208.0	3.0	360.0			QL=2 ST=2 TYP=3	
		SGMR	49 GB	1206.0	1207.0	3.0	580.0			QL=4 ST=2 TYP=6	
		SGMR	8 S	1206.0	1207.0	2.0	120.0			QL=4 ST=2 TYP=3	
		SVTO	8 S	1206.0	1208.0	2.0	84.0			QL=4 ST=2 TYP=3	
		SVTO	4 S/F	1206.0	1207.0	3.0	64.0			QL=2 ST=2 TYP=3	
		SVTO	4 S/F	1206.0	1208.0	4.0	220.0			QL=4 ST=2 TYP=3	
		SVTO	4 S/F	1206.0	1207.0	4.0	140.0			QL=4 ST=2 TYP=3	
		UPIC	46 C	1206.0	1207.5	7.0					
		TORN	47 GB	1207.2	1208.0	2.6	770.0		130.0		
		CUBA	21 GRF	1323.0	1326.0	24.0	5.0		2.0		00L
		CUBA	1 S	1323.7	1324.5	1.9	11.0		5.0		
		CUBA	1 S	1324.0	1324.8	1.6	8.0		4.0		39L
CUBA	7 C	1520.2	1523.0	3.8	19.0						
CUBA	7 C	1520.2	1523.0	3.8	11.0						
PALE	49 GB	1937.0	1938.0	2.0	950.0				QL=4 ST=2 TYP=6		
SGMR	8 S	1937.0	1938.0	2.0	130.0				QL=4 ST=2 TYP=3		
SGMR	49 GB	1937.0	1938.0	2.0	680.0				QL=4 ST=2 TYP=6		
PALE	8 S	1938.0	1938.0	1.0	150.0				QL=4 ST=2 TYP=3		
15	280	CUBA	44 NS	1300.0E		470.0D		16.0			
		CUBA	44 NS	1400.0E		470.0D		9.0			
		IRKU	4 S/F	0119.2	0121.4	10.5	27.0		U		
		LEAR	8 S	0354.0	0355.0	1.0	270.0			QL=2 ST=2 TYP=3	
		GORK	20 GRF	0651.8	0654.2	9.0	6.5				
		IZMI	20 GRF	0652.8	0654.3	3.8	12.0				
		IRKU	1 S	0653.0	0654.0	5.0	14.0		U		
		IRKU	8 S	0712.0	0712.3	1.5	6.0		U		
		GORK	4 S/F	0749.8	0750.8	2.0	16.3				
		IZMI	23 GRF	0750.7	0751.9	44.3	22.0				
		IRKU	4 S/F	0750.9	0751.8	37.1	19.0		U		
		SGMR	8 S	1320.0	1320.0	2.0	56.0			QL=4 ST=2 TYP=3	
		SGMR	8 S	1320.0	1320.0	2.0	150.0			QL=4 ST=2 TYP=3	
		SVTO	8 S	1320.0	1320.0	1.0	180.0			QL=4 ST=2 TYP=3	
		SVTO	8 S	1320.0	1320.0	1.0	63.0			QL=4 ST=2 TYP=3	
		PENT	1 S	1818.0	1824.0	15.0	5.0				
		SGMR	8 S	1827.0	1827.0	2.0	87.0			QL=4 ST=2 TYP=3	
SGMR	8 S	1827.0	1827.0	2.0	37.0			QL=4 ST=2 TYP=3			
16	280	CUBA	44 NS	1300.0E		530.0D		15.0			
		CUBA	44 NS	1300.0E		530.0D		9.0			
		CUBA	44 NS	1639.5E	1639.8	0.5D	28.0				
		IZMI	7 C	0633.0	0633.1	0.2	9.0				
		IZMI	41 F	0634.3	0634.5	0.3	40.0				
		UPIC	4 S/F	1159.5	1200.0	1.5					
16	280	IZMI	7 C	1159.8	1159.9	0.2	66.0				
		UPIC	46 C	1304.5	1304.6	4.0					
		CUBA	41 F	1634.0	1639.9	13.6	17.0				
		CUBA	41 F	1634.0	1639.9	13.6	17.0				

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

AUGUST 1999

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m <sup>2</sup> Hz)	Mean		
16	245	SGMR	8 S	1639.0	1639.0	1.0	56.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1639.0	1639.0	1.0	64.0			QL=4 ST=2 TYP=3
	2800	PENT	1 S	1728.0	1731.0	25.0	15.0			
	280	CUBA	7 C	1728.3	1730.7	4.2	16.0			
	6700	CUBA	1 S	1728.4	1731.3	5.4	11.0	6.0		20L
	245	PALE	8 S	1730.0	1731.0	1.0	280.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1730.0	1730.0	1.0	200.0			QL=4 ST=2 TYP=3
	6700	CUBA	2 S/F	2025.3	2026.0	2.1	11.0	5.0		24L
17	245	SVTO	43 NS	0820.0	0837.0	76.0	150.0			QL=4 ST=2 TYP=1
	235	CUBA	44 NS	1300.0E		420.0D		44.0		
	280	CUBA	44 NS	1300.0E		420.0D		89.0		
	245	SGMR	43 NS	1455.0	1649.0	273.0	620.0			QL=4 ST=3 TYP=1
	245	SGMR	43 NS	1555.0	1649.0	213.0	620.0			QL=4 ST=2 TYP=1
	5730	IRKU	1 S	0334.0	0334.3	7.5	15.0		U	
	5730	IRKU	8 S	0346.5	0347.0	1.0	11.0		U	
	245	LEAR	8 S	0820.0	0820.0	1.0	66.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	0837.0	0837.0	U	150.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	0848.0	0848.0	1.0	150.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	0905.0	0905.0	U	62.0			QL=2 ST=2 TYP=3
	410	LEAR	8 S	0941.0	0941.0	U	61.0			QL=2 ST=2 TYP=3
	410	SVTO	8 S	0941.0	0941.0	1.0	120.0			QL=4 ST=2 TYP=3
	6700	CUBA	22 GRF	1244.0	1249.0	13.0	15.0	7.0		27L
	2695	SGMR	4 S/F	1244.0	1246.0	10.0	68.0			QL=4 ST=2 TYP=3
	9500	CUBA	21 GRF	1244.0	1251.0	46.0	22.0	11.0		
	9500	CUBA	2 S/F	1245.7	1246.6	1.9	22.0	11.0		
	245	SGMR	8 S	1247.0	1247.0	2.0	130.0			QL=4 ST=2 TYP=3
	4995	SGMR	4 S/F	1247.0	1247.0	673.0	29.0			QL=4 ST=1 TYP=3
	4995	SGMR	46 C	1247.0	1250.0	673.0	31.0			QL=4 ST=1 TYP=8
	1415	SGMR	4 S/F	1248.0	1249.0	6.0	21.0			QL=4 ST=2 TYP=3
	15400	SGMR	46 C	1249.0	1252.0	5.0	38.0			QL=4 ST=2 TYP=8
	8800	SGMR	4 S/F	1250.0	1250.0	4.0	11.0			QL=2 ST=2 TYP=3
	410	SVTO	20 GRF	1448.0	1532.0	155.0	530.0			QL=2 ST=2 TYP=2
	610	SVTO	48 C	1449.0	1502.0	154.0	51.0			QL=2 ST=2 TYP=8
	1415	SGMR	20 GRF	1449.0	1631.0	257.0	110.0			QL=4 ST=2 TYP=2
	1415	SVTO	46 C	1452.0	1501.0	151.0	48.0			QL=4 ST=2 TYP=8
	1415	SVTO	20 GRF	1452.0	1501.0	548.0	48.0			QL=4 ST=2 TYP=2
	6700	CUBA	20 GRF	1453.0	1636.0	318.0	28.0	14.0		7R
	2695	SGMR	20 GRF	1454.0	1603.0	252.0	39.0			QL=4 ST=2 TYP=2
	245	SVTO	48 C	1455.0E	1513.0	148.0D	560.0			QL=2 ST=2 TYP=8
	245	SVTO	20 GRF	1455.0E	1513.0	148.0D	560.0			QL=2 ST=3 TYP=2
4995	SGMR	20 GRF	1457.0	1603.0	249.0	40.0			QL=4 ST=2 TYP=2	
8800	SGMR	20 GRF	1502.0	1622.0	244.0	27.0			QL=2 ST=2 TYP=2	
15400	SGMR	20 GRF	1532.0	1624.0	214.0	31.0			QL=4 ST=2 TYP=2	
235	CUBA	41 F	1639.3	1639.6	5.3	28.0				
4995	PALE	8 S	1644.0E	1644.0U	U	30.0			QL=4 ST=2 TYP=3	
2695	PALE	8 S	1644.0E	1644.0U	1.0D	37.0			QL=4 ST=2 TYP=3	
1415	PALE	48 C	1644.0E	1738.0U	96.0D	710.0			QL=4 ST=2 TYP=8	
610	PALE	48 C	1644.0E	1726.0U	126.0D	270.0			QL=4 ST=2 TYP=8	
410	PALE	48 C	1644.0E	1738.0U	141.0D	550.0			QL=4 ST=2 TYP=8	
245	PALE	48 C	1644.0E	1738.0U	141.0D	820.0			QL=4 ST=2 TYP=8	
235	CUBA	7 C	1728.3	1730.7	4.2	26.0				
1415	SGMR	49 GB	1736.0	1738.0	3.0	660.0			QL=4 ST=2 TYP=6	
410	SGMR	8 S	1736.0	1738.0	2.0	310.0			QL=4 ST=2 TYP=3	
245	SGMR	49 GB	1737.0	1738.0	1.0	530.0			QL=4 ST=2 TYP=6	
610	SGMR	4 S/F	1737.0	1738.0	3.0	100.0			QL=4 ST=2 TYP=3	
15400	PALE	8 S	1902.0E	1902.0U	U	51.0			QL=4 ST=2 TYP=3	
18	280	CUBA	44 NS	1300.0E		420.0D		16.0		
	235	CUBA	44 NS	1300.0E		420.0D		8.0		
	245	PALE	8 S	0206.0	0206.0	U	140.0			QL=4 ST=2 TYP=3
	204	IZMI	7 C	0618.2	0618.3	0.2	37.0			
	5730	IRKU	1 S	0622.4	0623.4	4.6	19.0		U	
	204	IZMI	42 SER	0740.9	0742.0	1.5	35.0			
	5730	IRKU	1 S	0744.5	0747.6	3.9	21.0		U	
	204	IZMI	42 SER	0823.5	0824.1	0.8	17.0			
	245	SGMR	4 S/F	2000.0	2001.0	3.0	130.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2001.0	2001.0	U	170.0			QL=4 ST=2 TYP=3
	200	HIRA	8 S	2001.0	2001.2	0.4	50.0			WL

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 <sup>-22</sup> W/m <sup>2</sup> Hz)	Flux Density Mean	Int	Remarks
19	280	CUBA	44 NS	1300.0E		420.0D		17.0		
	235	CUBA	44 NS	1300.0E		420.0D		7.0		
	200	HIRA	8 S	0107.8	0108.3	1.0	120.0			0
	204	IZMI	42 SER	0623.4	0631.9	8.9	37.0			
	245	SVTO	8 S	0834.0	0834.0	U	150.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0840.0	0841.0	1.0	100.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0942.0	0942.0	U	58.0			QL=4 ST=2 TYP=3
	204	IZMI	42 SER	0947.5	0949.5	2.4	22.0			
	204	IZMI	7 C	1126.8	1126.9	0.2	30.0			
	33	UPIC	45 C	1141.5	1142.0	1.0				
	204	IZMI	42 SER	1152.7	1153.4	1.2	129.0			
	1415	SGMR	4 S/F	1158.0	1202.0	7.0	41.0			QL=4 ST=2 TYP=3
	610	SGMR	4 S/F	1158.0	1202.0	7.0	51.0			QL=4 ST=2 TYP=3
	33	UPIC	48 C	1158.5	1203.0	8.0				
	204	IZMI	45 C	1158.6	1200.6	2.7	89.0			
	2695	SGMR	4 S/F	1159.0	1202.0	6.0	58.0			QL=4 ST=2 TYP=3
	4995	SGMR	4 S/F	1159.0	1202.0	6.0	100.0			QL=4 ST=2 TYP=3
	410	SGMR	4 S/F	1159.0	1202.0	6.0	32.0			QL=4 ST=2 TYP=3
	245	SGMR	4 S/F	1159.0	1202.0	5.0	90.0			QL=4 ST=2 TYP=3
	245	SVTO	48 C	1159.0	1202.0	3.0	87.0			QL=4 ST=2 TYP=8
	8800	SGMR	4 S/F	1200.0	1202.0	5.0	50.0			QL=2 ST=2 TYP=3
	3000	IZMI	20 GRF	1201.8	1202.6	1.8	67.0			
	15400	SGMR	4 S/F	1202.0	1202.0	3.0	32.0			QL=4 ST=2 TYP=3
	610	SVTO	8 S	1202.0	1202.0	U	65.0			QL=2 ST=2 TYP=3
	1415	SVTO	8 S	1202.0	1202.0	1.0	42.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1202.0	1202.0	U	30.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1202.0	1202.0	U	45.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	1202.0	1202.0	1.0	64.0			QL=4 ST=2 TYP=3
	4995	SVTO	8 S	1202.0	1202.0	1.0	98.0			QL=4 ST=2 TYP=3
	245	PALE	49 GB	1820.0	1820.0	U	2100.0			QL=4 ST=2 TYP=6
245	SGMR	49 GB	1820.0	1820.0	1.0	1800.0			QL=4 ST=2 TYP=6	
245	PALE	49 GB	1835.0	1835.0	U	840.0			QL=4 ST=2 TYP=6	
245	SGMR	49 GB	1835.0	1835.0	1.0	650.0			QL=4 ST=2 TYP=6	
2800	PENT	1 S	2148.0	2158.0	19.0	3.0				
245	LEAR	49 GB	2318.0	2318.0	1.0	4500.0			QL=4 ST=2 TYP=6	
245	PALE	49 GB	2318.0	2318.0	3.0	2500.0			QL=4 ST=2 TYP=6	
200	HIRA	47 GB	2318.8	2319.2	0.8	2500.0			WR	
20	280	CUBA	44 NS	1300.0E		530.0D		17.0		
	235	CUBA	44 NS	1300.0E		530.0D		8.0		
	200	HIRA	8 S	0050.0	0050.1	0.2	100.0			0
	200	HIRA	8 S	0135.0	0135.1	0.2	50.0			0
	245	LEAR	8 S	0326.0	0326.0	1.0	310.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0326.0	0326.0	2.0	290.0			QL=4 ST=2 TYP=3
	245	LEAR	4 S/F	0445.0	0447.0	4.0	250.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0447.0	0447.0	2.0	180.0			QL=4 ST=2 TYP=3
	200	HIRA	42 SER	0447.2	0447.5	2.0	300.0			WR
	245	LEAR	8 S	0549.0	0549.0	1.0	220.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0549.0	0549.0	1.0	190.0			QL=4 ST=2 TYP=3
	5730	IRKU	1 S	0549.0	0550.6	3.6	14.0		U	
	200	HIRA	47 GB	0549.5	0549.8	0.6	2700.0			WR
	204	IZMI	7 C	0606.0	0606.1	0.4	77.0			
	245	LEAR	8 S	0624.0	0624.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0624.0	0624.0	1.0	70.0			QL=4 ST=2 TYP=3
	204	IZMI	45 C	0624.5	0624.7	0.6	3477.0			
	200	HIRA	47 GB	0624.8	0625.0	0.4	720.0			WR
	245	SVTO	4 S/F	0631.0	0632.0	3.0	62.0			QL=4 ST=2 TYP=3
	204	IZMI	41 F	0633.6	0633.7	0.4	53.0			
	5730	IRKU	4 S/F	0718.5	0720.5	7.0	63.0		U	
	2950	GORK	3 S	0718.7	0720.8	4.2	12.9			
	3000	IZMI	20 GRF	0718.7	0720.9	25.7	19.0		10.0	
	204	IZMI	42 SER	0754.7	0755.3	3.4	88.0			
	204	IZMI	41 F	0824.8	0825.4	2.1	94.0			
	245	LEAR	8 S	0825.0	0826.0	1.0	92.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0825.0	0826.0	1.0	55.0			QL=4 ST=2 TYP=3
204	IZMI	45 C	0919.3	0919.4	0.4	2726.0				
245	LEAR	4 S/F	0925.0	0926.0	3.0	350.0			QL=4 ST=2 TYP=3	
204	IZMI	45 C	0925.5	0927.1	2.3	6199.0				
245	SVTO	8 S	0926.0	0926.0	2.0	230.0			QL=4 ST=2 TYP=3	



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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
20	127	TORN	47 GB	0926.0	0927.2	2.6	1000.00	330.0		
	4995	SVTO	20 GRF	1226.0	1337.0	276.0	48.0			QL=4 ST=2 TYP=2
	2695	SVTO	20 GRF	1230.0	1303.0	289.0	45.0			QL=4 ST=2 TYP=2
	1415	SVTO	20 GRF	1242.0	1303.0	195.0	18.0			QL=4 ST=2 TYP=2
	8800	SVTO	20 GRF	1245.0	1404.0	216.0	34.0			QL=4 ST=2 TYP=2
	15400	SGMR	20 GRF	1250.0	1333.0U	575.0	50.0			QL=4 ST=2 TYP=2
	1415	SGMR	20 GRF	1250.0	1309.0U	670.0				QL=4 ST=1 TYP=2
	1415	SGMR	45 C	1250.0	1309.0U	670.0				QL=4 ST=1 TYP=8
	1415	SGMR	20 GRF	1250.0	1309.0U	670.0				QL=4 ST=1 TYP=2
	1415	SGMR	20 GRF	1250.0	1309.0U	670.0	45.0			QL=4 ST=1 TYP=2
	8800	SGMR	4 S/F	1251.0E	1259.0U	669.0D	4.0			QL=2 ST=1 TYP=3
	8800	SGMR	20 GRF	1251.0E	1259.0U	669.0D	4.0			QL=2 ST=1 TYP=2
	8800	SGMR	20 GRF	1256.0	1306.0U	580.0	46.0			QL=4 ST=2 TYP=2
	15400	SVTO	20 GRF	1259.0	1346.0	175.0	32.0			QL=4 ST=2 TYP=2
	245	SGMR	49 GB	1401.0	1407.0	8.0	1900.0			QL=4 ST=2 TYP=6
	245	SVTO	49 GB	1406.0	1407.0	1.0	1800.0			QL=4 ST=2 TYP=6
	280	CUBA	7 C	1406.9	1407.1	1.1	3539.0			
	235	CUBA	7 C	1406.9	1407.1	1.1	2816.0			
	245	SGMR	49 GB	1407.0	1408.0	2.0	1900.0			QL=4 ST=3 TYP=6
	33	UPIC	45 C	1407.5	1408.0	1.0				
	6700	CUBA	1 S	1410.0	1410.8	1.2	7.0	3.0		20R
	4995	PALE	4 S/F	1713.0	1713.0	265.0	20.0			QL=4 ST=2 TYP=3
	2695	PALE	4 S/F	1713.0	1721.0	265.0	1.0			QL=4 ST=2 TYP=3
	1415	PALE	4 S/F	1713.0	1721.0	265.0	1.0			QL=4 ST=2 TYP=3
	8800	PALE	4 S/F	1713.0	1713.0	265.0	2.0			QL=4 ST=2 TYP=3
	15400	PALE	4 S/F	1713.0	1720.0	265.0	7.0			QL=2 ST=2 TYP=3
	245	SGMR	8 S	1719.0	1719.0	1.0	270.0			QL=4 ST=2 TYP=3
	2800	PENT	4 S/F	1825.0	1827.0	21.0	168.0			
	2695	PALE	4 S/F	1826.0	1827.0	8.0	220.0			QL=4 ST=3 TYP=3
	15400	PALE	4 S/F	1826.0	1827.0	8.0	280.0			QL=4 ST=3 TYP=3
	1415	PALE	4 S/F	1826.0	1828.0	8.0	110.0			QL=4 ST=3 TYP=3
	610	PALE	4 S/F	1826.0	1828.0	8.0	59.0			QL=4 ST=3 TYP=3
	4995	PALE	4 S/F	1827.0	1827.0	7.0	210.0			QL=4 ST=3 TYP=3
	8800	PALE	4 S/F	1827.0	1827.0	3.0	150.0			QL=4 ST=3 TYP=3
	410	PALE	4 S/F	1827.0	1828.0	7.0	52.0			QL=4 ST=3 TYP=3
	245	PALE	49 GB	1827.0	1827.0	7.0	6200.0			QL=4 ST=3 TYP=6
	410	SGMR	4 S/F	1827.0	1828.0	4.0	53.0			QL=4 ST=2 TYP=3
	610	SGMR	4 S/F	1827.0	1828.0	4.0	50.0			QL=4 ST=2 TYP=3
	245	SGMR	49 GB	1827.0	1827.0	4.0	6100.0			QL=4 ST=2 TYP=6
	15400	SGMR	8 S	1827.0	1827.0	1.0	210.0			QL=4 ST=2 TYP=3
	1415	SGMR	4 S/F	1827.0	1828.0	4.0	120.0			QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1827.0	1827.0	4.0	180.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1827.0	1827.0	1.0	130.0			QL=2 ST=2 TYP=3
	4995	SGMR	8 S	1827.0	1827.0	1.0	200.0			QL=4 ST=2 TYP=3
	280	CUBA	7 C	1827.5	1827.9	1.2	5186.0			
	235	CUBA	7 C	1827.5	1827.9	1.2	848.0			
	2800	PENT	1 S	1919.0	1922.0	13.0U	118.0			
	245	PALE	49 GB	1922.0	1922.0	6.0	970.0			QL=4 ST=2 TYP=6
	8800	PALE	8 S	1922.0	1922.0	2.0	54.0			QL=4 ST=2 TYP=3
	4995	PALE	8 S	1922.0	1922.0	2.0	100.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	1922.0	1922.0	2.0	110.0			QL=4 ST=2 TYP=3
	15400	PALE	4 S/F	1922.0	1922.0	6.0	55.0			QL=2 ST=2 TYP=3
	610	PALE	4 S/F	1922.0	1922.0	6.0	37.0			QL=4 ST=2 TYP=3
	410	PALE	4 S/F	1922.0	1922.0	6.0	21.0			QL=4 ST=2 TYP=3
	1415	PALE	4 S/F	1922.0	1922.0	4.0	48.0			QL=4 ST=2 TYP=3
	245	SGMR	49 GB	1922.0	1923.0	2.0	850.0			QL=4 ST=3 TYP=6
	4995	SGMR	8 S	1922.0	1922.0	2.0	100.0			QL=4 ST=3 TYP=3
	8800	SGMR	8 S	1922.0	1922.0	2.0	65.0			QL=2 ST=3 TYP=3
	2695	SGMR	8 S	1922.0	1922.0	2.0	140.0			QL=4 ST=3 TYP=3
	15400	SGMR	8 S	1922.0	1922.0	2.0	58.0			QL=4 ST=3 TYP=3
	1415	SGMR	8 S	1922.0	1922.0	2.0	59.0			QL=4 ST=3 TYP=3
	235	CUBA	6 S	1922.8	1922.8	0.4	24.0			
	280	CUBA	6 S	1922.8	1922.8	0.4	24.0			
	410	SGMR	8 S	1923.0	1923.0	1.0	15.0			QL=4 ST=3 TYP=3
	610	SGMR	8 S	1923.0	1923.0	1.0	22.0			QL=4 ST=3 TYP=3
	2800	PENT	41 F	2038.0	2056.0	88.0	32.0			
	245	PALE	8 S	2055.0	2056.0	2.0	35.0			QL=4 ST=2 TYP=3
	4995	PALE	8 S	2055.0	2056.0	2.0	43.0			QL=4 ST=2 TYP=3
	15400	PALE	8 S	2055.0	2056.0	2.0	120.0			QL=4 ST=2 TYP=3

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Mean	Int	Remarks	
20	8800	PALE	8 S	2055.0	2056.0	2.0	81.0			QL=4 ST=2 TYP=3	
	6700	CUBA	21 GRF	2055.0	2117.0	24.0	13.0	6.0		00L	
	6700	CUBA	45 C	2055.6	2056.8	8.4	56.0	13.0		11R	
	4995	SGMR	8 S	2056.0	2056.0	1.0	50.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	2056.0	2056.0	U	32.0			QL=4 ST=2 TYP=3	
	2695	SGMR	8 S	2056.0	2056.0	U	45.0			QL=4 ST=2 TYP=3	
	15400	SGMR	8 S	2056.0	2056.0	1.0	85.0			QL=4 ST=2 TYP=3	
	8800	SGMR	8 S	2056.0	2056.0	1.0	54.0			QL=2 ST=2 TYP=3	
	1415	SGMR	8 S	2056.0	2056.0	U	28.0			QL=4 ST=2 TYP=3	
	200	HIRA	8 S	2056.0	2056.4	0.8	160.0			0	
	245	LEAR	49 GB	2305.0	2306.0	4.0	18000.0			QL=4 ST=2 TYP=6	
	4995	LEAR	49 GB	2305.0	2306.0	7.0	900.0			QL=4 ST=2 TYP=6	
	8800	LEAR	49 GB	2305.0	2306.0	2.0	1100.0			QL=4 ST=2 TYP=6	
	15400	LEAR	49 GB	2305.0	2306.0	2.0	1000.0			QL=4 ST=2 TYP=6	
	2695	LEAR	4 S/F	2305.0	2306.0	8.0	460.0			QL=4 ST=2 TYP=3	
	1415	LEAR	4 S/F	2305.0	2306.0	8.0	240.0			QL=4 ST=2 TYP=3	
	8800	PALE	49 GB	2305.0	2306.0	5.0	1100.0			QL=4 ST=2 TYP=6	
	4995	PALE	49 GB	2305.0	2306.0	7.0	910.0			QL=4 ST=2 TYP=6	
	15400	PALE	49 GB	2305.0	2306.0	4.0	2100.0			QL=4 ST=2 TYP=6	
	245	PALE	49 GB	2305.0	2306.0	5.0	13000.0			QL=4 ST=2 TYP=6	
	1415	PALE	4 S/F	2305.0	2306.0	15.0	280.0			QL=4 ST=2 TYP=3	
	2695	PALE	4 S/F	2305.0	2306.0	15.0	480.0			QL=4 ST=2 TYP=3	
	200	HIRA	47 GB	2305.8	2306.0	6.5	5000.0			WR	
	610	LEAR	4 S/F	2306.0	2306.0	7.0	150.0			QL=4 ST=2 TYP=3	
	410	LEAR	4 S/F	2306.0	2306.0	7.0	130.0			QL=4 ST=2 TYP=3	
	610	PALE	4 S/F	2306.0	2306.0	8.0	170.0			QL=4 ST=2 TYP=3	
	410	PALE	4 S/F	2306.0	2306.0	7.0	110.0			QL=4 ST=2 TYP=3	
	245	SGMR	49 GB	2306.0	2306.0	2.0	3500.0			QL=2 ST=3 TYP=6	
	2800	HIRA	29 PBI	2306.0	2306.2	15.0	460.0			0	
	500	HIRA	29 PBI	2306.0	2306.5	20.0	80.0			WL	
	21	245	LEAR	49 GB	0127.0	0127.0	U	860.0			QL=4 ST=2 TYP=6
		204	IZMI	7 C	0557.9	0558.1	0.3	26.0			
		204	IZMI	7 C	0855.5	0855.6	0.2	235.0			
		245	LEAR	8 S	0911.0	0911.0	2.0	100.0			QL=4 ST=2 TYP=3
245		SVTO	8 S	0911.0	0911.0	U	62.0			QL=4 ST=2 TYP=3	
204		IZMI	7 C	0931.1	0931.2	0.2	21.0				
204		IZMI	7 C	0941.8	0941.8	0.2	29.0				
245		SGMR	8 S	1102.0	1102.0	2.0	160.0			QL=4 ST=2 TYP=3	
245		SVTO	8 S	1102.0	1102.0	1.0	250.0			QL=4 ST=2 TYP=3	
8800		SVTO	8 S	1102.0	1102.0	1.0	33.0			QL=4 ST=2 TYP=3	
15400		SVTO	8 S	1102.0	1102.0	1.0	29.0			QL=4 ST=2 TYP=3	
4995		SVTO	8 S	1102.0	1102.0	1.0	35.0			QL=4 ST=2 TYP=3	
33		UPIC	4 S/F	1102.0	1103.0	2.0					
204		IZMI	45 C	1102.5	1102.9	1.3	8244.0				
204		IZMI	42 SER	1115.3	1115.9	1.1	116.0				
204		IZMI	45 C	1117.0	1117.2	0.6	297.0				
204		IZMI	7 C	1129.7	1129.9	0.3	33.0				
204		IZMI	7 C	1132.2	1132.3	0.2	7.0				
204		IZMI	41 F	1139.9	1140.1	0.4	140.0				
2800		PENT	1 S	1452.0	1507.0	33.0	10.0				
6700		CUBA	21 GRF	1505.0	1516.0	26.0	5.0	2.0		00L	
6700		CUBA	2 S/F	1506.2	1507.5	2.8	15.0	7.0		9R	
6700		CUBA	45 C	1632.6	1633.5	3.4	268.0	33.0		6R	
15400		SGMR	49 GB	1633.0	1633.0	2.0	560.0			QL=4 ST=2 TYP=6	
245		SGMR	49 GB	1633.0	1633.0	5.0	9600.0			QL=4 ST=2 TYP=6	
1415		SGMR	4 S/F	1633.0	1633.0	5.0	120.0			QL=4 ST=2 TYP=3	
610		SGMR	4 S/F	1633.0	1634.0	5.0	58.0			QL=4 ST=2 TYP=3	
2695		SGMR	4 S/F	1633.0	1633.0	5.0	290.0			QL=4 ST=2 TYP=3	
4995		SGMR	4 S/F	1633.0	1633.0	4.0	240.0			QL=4 ST=2 TYP=3	
410		SGMR	4 S/F	1633.0	1634.0	5.0	200.0			QL=4 ST=2 TYP=3	
8800		SGMR	4 S/F	1633.0	1633.0	4.0	250.0			QL=2 ST=2 TYP=3	
33		UPIC	46 C	1633.5	1634.5	2.0					
6700		CUBA	31 ABS	1637.5	1657.8	66.5	10.0	5.0		00L	
6700		CUBA	20 GRF	1853.0	1902.0	25.0	5.0	2.0		15L	
2800	PENT	8 S	2207.0	2213.0	15.0	286.0					
1415	SGMR	8 S	2212.0	2213.0	2.0	110.0			QL=4 ST=2 TYP=3		
4995	SGMR	8 S	2212.0	2213.0	2.0	290.0			QL=4 ST=2 TYP=3		
15400	SGMR	8 S	2212.0	2213.0	2.0	360.0			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 <sup>-22</sup> W/m <sup>2</sup> Hz)	Flux Density Mean	Int	Remarks
21	8800	SGMR	8 S	2212.0	2213.0	2.0	140.0			QL=2 ST=2 TYP=3
	2695	SGMR	4 S/F	2212.0	2213.0	5.0	250.0			QL=4 ST=2 TYP=3
	200	HIRA	47 GB	2212.6	2212.8	3.2	650.0			WR
	2800	HIRA	29 PBI	2212.6	2212.9	4.6	240.0			WR
	245	SGMR	8 S	2213.0	2213.0	2.0	170.0			QL=4 ST=2 TYP=3
	610	SGMR	8 S	2213.0	2213.0		6.0		U	QL=4 ST=2 TYP=3
	410	SGMR	4 S/F	2213.0	2213.0	3.0	18.0			QL=4 ST=2 TYP=3
22	235	CUBA	44 NS	1300.0E		530.00		9.0		
	280	CUBA	44 NS	1450.0E		420.00		19.0		
	204	IZMI	7 C	0732.8	0732.9	0.2	27.0			
	245	LEAR	8 S	0738.0	0738.0	1.0	78.0			QL=4 ST=2 TYP=3
	204	IZMI	41 F	0924.5	0924.7	0.3	12.0			
	15400	SGMR	8 S	1246.0	1246.0	1.0	38.0			QL=2 ST=2 TYP=3
	15400	SVTO	8 S	1246.0	1246.0	1.0	40.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1246.0	1246.0	1.0	16.0			QL=4 ST=2 TYP=3
	6700	CUBA	21 GRF	1255.0	1343.0	279.0	22.0		11.0	00L
	2800	PENT	41 F	1405.0	1411.0	147.00	95.0			
	33	UPIC	46 C	1410.5	1411.0	2.5				
	15400	SGMR	4 S/F	1411.0	1411.0	6.0	45.0			QL=4 ST=2 TYP=3
	610	SGMR	4 S/F	1411.0	1412.0	6.0	23.0			QL=4 ST=2 TYP=3
	1415	SVTO	8 S	1411.0	1411.0	1.0	23.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	1411.0	1411.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1411.0	1411.0		140.0			QL=4 ST=2 TYP=3
	127	TORN	7 C	1412.0	1413.00	2.3	340.0		66.0	
	33	UPIC	46 C	1548.0	1548.5	3.5				
	6700	CUBA	45 C	1548.0	1550.8	3.7	26.0		13.0	5R
	280	CUBA	7 C	1548.4	1550.8	2.7	269.0			
	235	CUBA	7 C	1548.4	1550.8	2.7	639.0			
	15400	SVTO	4 S/F	1550.0	1553.0	3.0	38.0			QL=4 ST=2 TYP=3
	410	SGMR	4 S/F	1556.0	1556.0	3.0	91.0			QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1556.0	1556.0	3.0	34.0			QL=4 ST=2 TYP=3
	610	SGMR	8 S	1556.0	1556.0	2.0	93.0			QL=4 ST=2 TYP=3
	4995	SGMR	4 S/F	1556.0	1557.0	3.0	18.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1556.0	1556.0	2.0	110.0			QL=4 ST=2 TYP=3
	15400	SGMR	4 S/F	1557.0	1558.0	3.0	12.0			QL=4 ST=2 TYP=3
	4995	SVTO	8 S	1557.0	1557.0		23.0			QL=2 ST=2 TYP=3
	245	SGMR	4 S/F	1600.0	1603.0	3.0	140.0			QL=4 ST=2 TYP=3
	245	SVTO	4 S/F	1600.0	1603.0	3.0	120.0			QL=4 ST=2 TYP=3
	610	SVTO	4 S/F	1633.0	1636.0	6.0	63.0			QL=4 ST=2 TYP=3
	245	PALE	49 GB	1634.0	1636.0	5.0	960.0			QL=4 ST=2 TYP=6
	245	SGMR	49 GB	1634.0	1636.0	7.0	1200.0			QL=4 ST=3 TYP=6
	410	SVTO	4 S/F	1634.0	1636.0	5.0	100.0			QL=4 ST=2 TYP=3
	245	SVTO	49 GB	1634.0	1636.0	5.0	700.0			QL=4 ST=2 TYP=6
	410	PALE	4 S/F	1635.0	1636.0	3.0	75.0			QL=4 ST=2 TYP=3
	410	SGMR	4 S/F	1635.0	1636.0	5.0	82.0			QL=4 ST=2 TYP=3
	610	SGMR	4 S/F	1635.0	1636.0	3.0	74.0			QL=4 ST=2 TYP=3
	610	PALE	8 S	1636.0	1636.0		29.0			QL=4 ST=2 TYP=3
	4995	SGMR	4 S/F	1636.0	1636.0	5.0	28.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1652.0	1652.0		53.0			QL=4 ST=2 TYP=3
	2800	PENT	41 F	1758.0	1805.0	35.0	4.0			
	245	PALE	8 S	1803.0	1803.0	1.0	70.0			QL=4 ST=2 TYP=3
	15400	PALE	4 S/F	1806.0	1808.0	8.0	47.0			QL=4 ST=2 TYP=3
	4995	SGMR	4 S/F	1806.0	1807.0	7.0	120.0			QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	1806.0	1807.0	7.0	110.0			QL=4 ST=2 TYP=3
	1415	SGMR	4 S/F	1806.0	1807.0	6.0	32.0			QL=4 ST=2 TYP=3
	15400	SGMR	4 S/F	1806.0	1807.0	7.0	61.0			QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1806.0	1806.0	4.0	86.0			QL=4 ST=2 TYP=3
	2695	PALE	4 S/F	1806.0	1806.0	10.0	88.0			QL=4 ST=2 TYP=3
	4995	PALE	4 S/F	1806.0	1807.0	10.0	100.0			QL=4 ST=2 TYP=3
1415	PALE	4 S/F	1806.0	1807.0	10.0	34.0			QL=4 ST=2 TYP=3	
8800	PALE	4 S/F	1806.0	1807.0	10.0	80.0			QL=4 ST=2 TYP=3	
280	CUBA	7 C	1821.2	1824.0	4.2	21.0				
235	CUBA	7 C	1821.2	1824.0	4.2	27.0				
4995	PALE	8 S	1932.0	1932.0		32.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	2008.0	2008.0	1.0	93.0			QL=4 ST=2 TYP=3	
2695	SGMR	4 S/F	2009.0	2010.0	5.0	260.0			QL=4 ST=2 TYP=3	
4995	PALE	8 S	2010.0	2010.0	1.0	170.0			QL=4 ST=2 TYP=3	
2695	PALE	4 S/F	2010.0	2010.0	5.0	270.0			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 <sup>-22</sup> W/m <sup>2</sup> Hz)	Flux Density Mean (2 Hz)	Int	Remarks
22	8800	PALE	8 S	2010.0	2010.0	1.0	170.0			QL=4 ST=2 TYP=3
	1415	PALE	4 S/F	2010.0	2010.0	11.0	190.0			QL=4 ST=2 TYP=3
	2800	PENT	20 GRF	2128.0	2212.0	64.00	13.0			
23	235	CUBA	44 NS	1300.0E		500.00		9.0		
	280	CUBA	44 NS	1300.0E		500.00		21.0		
	245	LEAR	49 GB	0056.0	0056.0	U	910.0			QL=2 ST=2 TYP=6
	245	PALE	49 GB	0056.0	0056.0	U	980.0			QL=4 ST=2 TYP=6
	3000	IZMI	20 GRF	0957.4	1001.3	9.0	17.0			
	2950	GORK	3 S	1000.1	1001.2	3.5	7.5			
	204	IZMI	42 SER	1055.9	1056.0	0.7	44.0			
	3000	IZMI	5 S	1126.4	1127.0	0.7	22.0			
	33	UPIC	46 C	1244.5	1245.5	1.5				
	245	SVTO	8 S	1256.0	1256.0	U	55.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1318.0	1318.0	U	51.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1343.0	1343.0	1.0	70.0			QL=4 ST=2 TYP=3
	2800	PENT	1 S	1523.0	1528.0	10.0	7.0			
	2800	PENT	1 S	1610.0	1619.0	22.00	13.0			
	245	SGMR	8 S	1617.0	1617.0	2.0	75.0			QL=4 ST=2 TYP=3
	6700	CUBA	21 GRF	1635.0	1805.0	152.0	25.0	12.0		OOL
	4995	SVTO	8 S	1706.0	1707.0	1.0	60.0			QL=2 ST=2 TYP=3
	8800	SVTO	8 S	1706.0	1707.0	1.0	51.0			QL=2 ST=2 TYP=3
	15400	SVTO	8 S	1706.0	1707.0	2.0	63.0			QL=2 ST=2 TYP=3
	2695	SVTO	8 S	1706.0	1707.0	1.0	61.0			QL=2 ST=2 TYP=3
	1415	SVTO	8 S	1706.0	1706.0	1.0	29.0			QL=2 ST=2 TYP=3
	2800	PENT	29 PBI	1748.0	1804.0	88.0	70.0			
	4995	SGMR	4 S/F	1803.0	1804.0	8.0	75.0			QL=4 ST=2 TYP=3
	1415	PALE	8 S	1804.0	1804.0	1.0	38.0			QL=4 ST=2 TYP=3
	15400	PALE	4 S/F	1804.0	1804.0	5.0	40.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	1804.0	1804.0	U	41.0			QL=4 ST=2 TYP=3
	4995	PALE	4 S/F	1804.0	1805.0	9.0	70.0			QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	1804.0	1804.0	3.0	49.0			QL=2 ST=2 TYP=3
	1415	SGMR	4 S/F	1804.0	1804.0	3.0	36.0			QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1804.0	1804.0	5.0	60.0			QL=4 ST=2 TYP=3
	6700	CUBA	2 S/F	1807.0	1808.0	3.0	30.0	15.0		14R
	8800	PALE	8 S	1807.0	1807.0	1.0	24.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1831.0	1831.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1831.0	1831.0	1.0	140.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1847.0	1847.0	U	50.0			QL=4 ST=2 TYP=3
	245	SGMR	4 S/F	1847.0	1847.0	4.0	53.0			QL=4 ST=2 TYP=3
	1415	PALE	8 S	1932.0	1932.0	U	46.0			QL=4 ST=2 TYP=3
610	PALE	8 S	1932.0	1932.0	2.0	44.0			QL=4 ST=2 TYP=3	
15400	PALE	8 S	1932.0	1932.0	U	37.0			QL=4 ST=2 TYP=3	
410	SGMR	8 S	1932.0	1932.0	2.0	33.0			QL=4 ST=2 TYP=3	
1415	SGMR	8 S	1932.0	1932.0	2.0	42.0			QL=4 ST=2 TYP=3	
610	SGMR	8 S	1932.0	1932.0	2.0	36.0			QL=4 ST=2 TYP=3	
4995	SGMR	4 S/F	1932.0	1932.0	4.0	55.0			QL=4 ST=2 TYP=3	
2695	SGMR	4 S/F	1932.0	1932.0	3.0	28.0			QL=4 ST=2 TYP=3	
245	SGMR	4 S/F	1933.0	1933.0	3.0	100.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	2008.0	2008.0	1.0	93.0			QL=4 ST=2 TYP=3	
410	PALE	49 GB	2009.0	2010.0	231.0	760.0			QL=4 ST=1 TYP=6	
6700	CUBA	2 S/F	2026.8	2028.8	2.7	18.0	9.0		11R	
2800	PENT	29 PBI	2052.0	2106.0	54.0	25.0				
24	204	IZMI	43 NS	0549.0		42.00		5.0		
	235	CUBA	44 NS	1300.0E		444.00		10.0		
	280	CUBA	44 NS	1300.0E		444.00		20.0		
	5730	IRKU	1 S	0124.6	0127.3	4.4	13.0		U	
	200	HIRA	8 S	0421.0	0421.2	0.4	180.0			0
	245	SVTO	8 S	0429.0	0430.0	1.0	140.0			QL=2 ST=2 TYP=3
	2800	HIRA	29 PBI	0604.0	0610.0	11.0	50.0			0
	3000	IZMI	45 C	0604.0	0610.4	22.4	67.0			
	2950	GORK	4 S/F	0604.4	0610.4	10.3	59.0			
	900	GORK	20 GRF	0604.5	0608.1	7.5	7.0			
	2695	LEAR	4 S/F	0606.0	0610.0	4.0	61.0			QL=4 ST=2 TYP=3
	4995	LEAR	4 S/F	0606.0	0610.0	4.0	25.0			QL=4 ST=2 TYP=3
	1415	LEAR	4 S/F	0606.0	0610.0	6.0	31.0			QL=4 ST=2 TYP=3
2695	SVTO	4 S/F	0607.0	0610.0	8.0	74.0			QL=4 ST=2 TYP=3	
245	LEAR	4 S/F	0608.0	0611.0	4.0	110.0			QL=4 ST=2 TYP=3	

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
24	600	GORK	41 F	0608.1	0612.1	4.2	7.0				
	1415	SVTO	8 S	0609.0	0610.0	2.0	35.0			QL=4 ST=2 TYP=3	
	4995	SVTO	8 S	0609.0	0610.0	2.0	41.0			QL=4 ST=2 TYP=3	
	5730	IRKU	1 S	0609.0	0610.2	3.0	35.0		U		
	245	SVTO	8 S	0611.0	0611.0		75.0			QL=4 ST=2 TYP=3	
	2950	GORK	29 PBI	0615.0	0615.0	53.2	17.0				
	245	SVTO	8 S	0823.0	0823.0		120.0			QL=4 ST=2 TYP=3	
	204	IZMI	7 C	1102.7	1102.8	0.2	36.0				
	6700	CUBA	1 S	1309.0	1311.2	6.0	5.0	2.0		35R	
	2800	PENT	1 S	1531.0	1547.0	61.0U	17.0				
	6700	CUBA	20 GRF	1553.0	1559.0	16.0	11.0			11R	
	6700	CUBA	23 GRF	1653.0	1712.0	89.0	17.0	8.0		9R	
	6700	CUBA	20 GRF	1947.0	2057.0	70.0	8.0	4.0		00L	
	2800	PENT	1 S	2128.0	2136.0	16.0	4.0				
	2800	PENT	C	2203.0	2216.0	29.0	8.0				
	245	LEAR	4 S/F	2345.0	2348.0	5.0	60.0			QL=4 ST=2 TYP=3	
	245	PALE	4 S/F	2345.0	2351.0	7.0	98.0			QL=4 ST=2 TYP=3	
	245	LEAR	8 S	2351.0	2351.0	1.0	190.0			QL=4 ST=2 TYP=3	
	25	4995	LEAR	4 S/F	0133.0	0135.0	4.0	300.0			QL=4 ST=2 TYP=3
		245	LEAR	49 GB	0133.0	0134.0	3.0	1600.0			QL=4 ST=2 TYP=6
245		PALE	49 GB	0133.0	0135.0	3.0	910.0			QL=4 ST=2 TYP=6	
5730		IRKU	46 C	0133.0	0136.6	13.0	294.0		U		
2800		HIRA	46 C	0133.4	0135.5	9.5	260.0			0	
200		HIRA	8 S	0133.6	0133.8	1.0	420.0			0	
2695		LEAR	4 S/F	0134.0	0135.0	4.0	310.0			QL=4 ST=2 TYP=3	
1415		LEAR	4 S/F	0134.0	0135.0	8.0	250.0			QL=4 ST=2 TYP=3	
4995		PALE	4 S/F	0134.0	0135.0	3.0	280.0			QL=4 ST=2 TYP=3	
2695		PALE	4 S/F	0134.0	0135.0	8.0	280.0			QL=4 ST=2 TYP=3	
1415		PALE	4 S/F	0134.0	0135.0	9.0	280.0			QL=4 ST=2 TYP=3	
610		PALE	4 S/F	0134.0	0136.0	8.0	76.0			QL=4 ST=2 TYP=3	
500		HIRA	29 PBI	0134.0	0136.5	13.0	30.0			0	
610		LEAR	4 S/F	0135.0	0136.0	4.0	81.0			QL=4 ST=2 TYP=3	
15400		LEAR	8 S	0135.0	0135.0	1.0	390.0			QL=4 ST=2 TYP=3	
410		LEAR	8 S	0135.0	0135.0	1.0	110.0			QL=4 ST=2 TYP=3	
8800		LEAR	8 S	0135.0	0135.0	1.0	400.0			QL=4 ST=2 TYP=3	
410		PALE	4 S/F	0135.0	0135.0	4.0	140.0			QL=4 ST=2 TYP=3	
8800		PALE	8 S	0135.0	0135.0	1.0	380.0			QL=4 ST=2 TYP=3	
15400		PALE	49 GB	0135.0	0135.0	1.0	510.0			QL=4 ST=2 TYP=6	
245		LEAR	8 S	0357.0	0358.0	1.0	310.0			QL=4 ST=2 TYP=3	
600		GORK	2 S/F	0438.9	0439.4	0.8	9.7				
900		GORK	2 S/F	0439.2	0439.4	0.5	3.5				
5730		IRKU	8 S	0452.7	0452.9	0.3	14.0		U		
204		IZMI	7 C	0603.5	0603.5	0.1	15.0				
2950		GORK	20 GRF	0607.1	0610.7	32.9	5.0				
2950		GORK	21 GRF	0719.5E	0724.2	21.3D	9.9				
3000		IZMI	7 C	0719.5	0720.6	9.6	27.0				
5730		IRKU	4 S/F	0719.8	0720.6	2.2	41.0		U		
2950		GORK	2 S/F	0720.3	0720.6	1.3	13.2				
204	IZMI	41 F	0738.1	0738.2	0.2	20.0					
245	SVTO	8 S	0857.0	0857.0	1.0	140.0			QL=4 ST=2 TYP=3		
204	IZMI	42 SER	1016.7	1017.3	0.7	8.0					
204	IZMI	42 SER	1115.0	1115.5	1.3	53.0					
6700	CUBA	23 GRF	1428.0	1509.0	171.0	22.0	11.0		14L		
2800	PENT	29 PBI	1431.0	1454.0	121.0U	24.0					
2800	PENT	29 PBI	1756.0	1829.0	83.0	16.0					
2800	PENT	29 PBI	2053.0	2125.0	88.0	22.0					
26	280	CUBA	44 NS	1300.0E		530.0D		18.0			
	235	CUBA	44 NS	1300.0E		530.0D		8.0			
	2950	GORK	22 GRF	0657.2	0704.4	60.7	16.0				
	2950	GORK	22 GRF	0931.5	0936.1	88.5D	52.0				
	245	SVTO	8 S	0952.0	0953.0	1.0	85.0			QL=4 ST=3 TYP=3	
	204	IZMI	7 C	1013.2	1013.3	0.2	14.0				
	410	SGMR	4 S/F	1106.0	1107.0	5.0	230.0			QL=4 ST=2 TYP=3	
	245	SGMR	49 GB	1106.0	1107.0	2.0	640.0			QL=4 ST=2 TYP=6	
	8800	SGMR	4 S/F	1106.0	1107.0	5.0	71.0			QL=2 ST=2 TYP=3	
	4995	SGMR	4 S/F	1106.0	1107.0	3.0	100.0			QL=4 ST=2 TYP=3	
2695	SGMR	4 S/F	1106.0	1107.0	5.0	110.0			QL=4 ST=2 TYP=3		

S O L A R R A D I O E M I S S I O N  
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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
26	1415	SGMR	4 S/F	1106.0	1107.0	5.0	92.0			QL=4 ST=2 TYP=3	
	410	SVTO	8 S	1106.0	1107.0	1.0	410.0			QL=4 ST=2 TYP=3	
	610	SVTO	8 S	1107.0	1107.0	1.0	30.0			QL=2 ST=2 TYP=3	
	1415	SVTO	8 S	1107.0	1107.0	2.0	79.0			QL=4 ST=2 TYP=3	
	4995	SVTO	8 S	1107.0	1107.0	1.0	86.0			QL=4 ST=2 TYP=3	
	8800	SVTO	8 S	1107.0	1107.0	1.0	75.0			QL=4 ST=2 TYP=3	
	245	SVTO	49 GB	1107.0	1107.0	1.0	700.0			QL=4 ST=2 TYP=6	
	2695	SVTO	8 S	1107.0	1107.0	1.0	81.0			QL=4 ST=2 TYP=3	
	204	IZMI	41 F	1107.5	1108.3	1.2	1.9				
	245	SVTO	8 S	1312.0	1312.0	1.0	130.0				QL=4 ST=2 TYP=3
	2800	PENT	1 S	1453.0	1506.0	32.0	9.0				
	245	SGMR	4 S/F	1503.0	1505.0	3.0	99.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1505.0	1505.0	U	100.0				QL=4 ST=2 TYP=3
	6700	CUBA	20 GRF	1708.0	1712.0	19.0	12.0	6.0			00L
	2800	PENT	1 S	1810.0	1856.0	82.0	13.0				
	6700	CUBA	20 GRF	1914.0	1958.0	76.0	11.0	5.0			11L
	2800	PENT	29 PBI	2039.0	2120.0	103.0	23.0				
	6700	CUBA	20 GRF	2057.0	2121.0	47.0	14.0	7.0			00L
	200	HIRA	47 GB	2120.0	2120.7	2.2	750.0				0
	27	235	CUBA	44 NS	1300.0E		530.0D		6.0		
280		CUBA	44 NS	1300.0E		530.0D		18.0			
2695		LEAR	20 GRF	0112.0	0126.0	36.0	32.0			QL=4 ST=2 TYP=2	
8800		LEAR	20 GRF	0112.0	0131.0	48.0	60.0			QL=4 ST=2 TYP=2	
4995		LEAR	20 GRF	0112.0	0132.0	48.0	54.0			QL=4 ST=2 TYP=2	
15400		LEAR	20 GRF	0112.0	0132.0	48.0	54.0			QL=4 ST=2 TYP=2	
4995		PALE	8 S	0122.0	0122.0	U	25.0			QL=4 ST=2 TYP=3	
4995		PALE	20 GRF	0122.0	0122.0	U	25.0			QL=4 ST=2 TYP=2	
8800		PALE	20 GRF	0132.0	0133.0	1348.0	62.0			QL=4 ST=1 TYP=2	
8800		PALE	4 S/F	0132.0	0133.0	1348.0	62.0			QL=4 ST=1 TYP=3	
8800		PALE	46 C	0140.0	0143.0	3.0	48.0			QL=4 ST=2 TYP=8	
8800		PALE	20 GRF	0140.0	0143.0	3.0	48.0			QL=4 ST=2 TYP=2	
4995		PALE	20 GRF	0140.0	0140.0	11.0	53.0			QL=4 ST=2 TYP=2	
4995		PALE	4 S/F	0140.0	0140.0	11.0	53.0			QL=4 ST=2 TYP=3	
2950		GORK	4 S/F	0433.3	0435.8	5.5	7.1				
2950		GORK	4 S/F	0521.0	0524.8U	15.0	44.0U				
2950		GORK	30 PBI	0536.0	0536.0	72.0	13.0				
2950		GORK	1 S	0606.9	0607.7	1.6	3.2				
2950		GORK	1 S	0609.2	0610.4	3.2	5.5				
900		GORK	46 C	0625.6	0630.8	10.4	9.3				
204		IZMI	42 SER	0626.7	0628.3	1.8	16.0				
2950		GORK	45 C	0627.3	0630.8	5.7	32.0				
600		GORK	7 C	0627.4	0630.9	7.5	3.4				
2695		LEAR	8 S	0630.0	0630.0	1.0	44.0				QL=4 ST=2 TYP=3
4995		LEAR	8 S	0630.0	0630.0	1.0	83.0				QL=4 ST=2 TYP=3
5730		IRKU	4 S/F	0630.0	0630.7	2.0	84.0		U		
2950		GORK	4 S/F	0638.8	0640.2	13.7	15.0				
900		GORK	2 S/F	0720.3	0720.5	0.3	3.4				
600		GORK	2 S/F	0720.3	0720.5	1.1	10.0				
2950		GORK	22 GRF	0723.9	0729.5	11.9	5.6				
204		IZMI	42 SER	0757.0	0758.6	3.0	175.0				
600		GORK	7 C	0826.4	0827.4	1.4	3.4				
900		GORK	7 C	0826.8	0827.4	0.8	2.5				
204		IZMI	41 F	0855.6	0856.3	1.2	55.0				
5730		IRKU	4 S/F	0923.2	0923.6	3.8	40.0		U		
33		UPIC	40 F	1234.0	1247.5	24.0					
4995		SGMR	4 S/F	1251.0	1256.0	28.0	240.0				QL=4 ST=3 TYP=3
2695		SGMR	4 S/F	1252.0	1256.0	10.0	160.0				QL=4 ST=3 TYP=3
2695		SVTO	4 S/F	1252.0	1256.0	13.0	150.0				QL=4 ST=2 TYP=3
8800		SGMR	4 S/F	1253.0	1256.0	26.0	100.0				QL=2 ST=3 TYP=3
4995	SVTO	48 C	1253.0	1255.0	33.0	200.0				QL=4 ST=2 TYP=8	
8800	SVTO	4 S/F	1254.0	1256.0	26.0	89.0				QL=4 ST=2 TYP=3	
1415	SVTO	4 S/F	1255.0	1256.0	3.0	40.0				QL=4 ST=2 TYP=3	
15400	SVTO	8 S	1256.0	1256.0	1.0	43.0				QL=4 ST=2 TYP=3	
33	UPIC	31 ABS	1258.0	1304.0	40.0						
6700	CUBA	21 GRF	1352.0E	1352.0U	43.0D	29.0	14.0			00L	
6700	CUBA	1 S	1408.0	1408.7	2.0	13.0	6.0			27L	
6700	CUBA	1 S	1408.0	1408.7	2.0	13.0	6.0			17L	
6700	CUBA	31 ABS	1435.0	1452.0	44.2	11.0	5.0			00L UNCERTAIN	

S O L A R R A D I O E M I S S I O N  
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AUGUST 1999

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22 W/m 2 Hz)	Mean		
27	2800 PENT	41 F	1442.0	1625.0	110.0U	93.0			
	6700 CUBA	1 S	1455.0	1455.2	0.8	12.0	6.0		17L
	6700 CUBA	21 GRF	1527.0	1639.0	303.0	83.0	41.0		12L
	245 SGMR	8 S	1546.0	1548.0	2.0	100.0			QL=4 ST=3 TYP=3
	245 SVTO	8 S	1548.0	1548.0	U	100.0			QL=4 ST=2 TYP=3
	4995 SGMR	20 GRF	1612.0	1638.0	129.0	95.0			QL=4 ST=2 TYP=2
	6700 CUBA	2 S/F	1612.8	1614.8	6.2	14.0	7.0		34L
	8800 SGMR	20 GRF	1613.0	1638.0	122.0	85.0			QL=4 ST=2 TYP=2
	2695 SGMR	20 GRF	1619.0	1638.0	100.0	50.0			QL=4 ST=2 TYP=2
	8800 SVTO	4 S/F	1622.0	1624.0	4.0	58.0			QL=2 ST=2 TYP=3
	2695 SVTO	4 S/F	1622.0	1622.0	19.0	89.0			QL=2 ST=2 TYP=3
	4995 SVTO	4 S/F	1622.0	1625.0	25.0	100.0			QL=2 ST=2 TYP=3
	4995 SGMR	4 S/F	1623.0	1625.0	8.0	130.0			QL=4 ST=2 TYP=3
	2695 SGMR	4 S/F	1623.0	1625.0	5.0	110.0			QL=4 ST=2 TYP=3
	1415 SVTO	48 C	1623.0	1625.0	3.0	110.0			QL=2 ST=2 TYP=8
	8800 SGMR	4 S/F	1623.0	1632.0	10.0	50.0			QL=2 ST=2 TYP=3
	15400 SGMR	4 S/F	1623.0	1632.0	10.0	27.0			QL=4 ST=2 TYP=3
	6700 CUBA	46 C	1623.3	1632.7	13.8	58.0	29.0		32L
	1415 SGMR	8 S	1624.0	1625.0	2.0	120.0			QL=4 ST=2 TYP=3
	1415 SGMR	20 GRF	1624.0	1638.0	93.0	59.0			QL=4 ST=2 TYP=2
	15400 SGMR	20 GRF	1626.0	1638.0	92.0	45.0			QL=4 ST=2 TYP=2
	4995 PALE	20 GRF	1643.0	1643.0	74.0	33.0			QL=4 ST=2 TYP=2
	2695 PALE	20 GRF	1643.0	1645.0	72.0	87.0			QL=4 ST=2 TYP=2
	4995 PALE	20 GRF	1643.0	1643.0U	74.0	33.0			QL=4 ST=2 TYP=2
	2695 PALE	20 GRF	1643.0	1645.0U	72.0	87.0			QL=4 ST=2 TYP=2
	1415 PALE	20 GRF	1644.0	1646.0	73.0	40.0			QL=4 ST=2 TYP=2
	1415 PALE	20 GRF	1644.0	1646.0U	73.0	40.0			QL=4 ST=2 TYP=2
	2695 SVTO	4 S/F	1649.0	1658.0	20.0	34.0			QL=2 ST=2 TYP=3
	4995 SVTO	48 C	1650.0	1651.0	19.0	69.0			QL=2 ST=2 TYP=8
	8800 SVTO	4 S/F	1651.0	1651.0	18.0	31.0			QL=2 ST=2 TYP=3
	1415 SVTO	4 S/F	1651.0	1700.0	18.0	28.0			QL=2 ST=2 TYP=3
	2800 PENT	1 S	1658.0	1701.0	5.0	11.0			
	8800 PALE	20 GRF	1716.0	1717.0	41.0	30.0			QL=4 ST=2 TYP=2
	8800 PALE	20 GRF	1716.0	1717.0U	41.0	30.0			QL=4 ST=2 TYP=2
	245 PALE	8 S	1755.0	1755.0	1.0	1100.0			QL=2 ST=2 TYP=3
	2800 PENT	41 F	1755.0	1825.0	57.0	25.0			
	6700 CUBA	1 S	1758.8	1759.6	1.0	14.0	7.0		00L
	245 SGMR	8 S	1816.0	1817.0	2.0	100.0			QL=4 ST=2 TYP=3
	410 SGMR	8 S	1816.0	1816.0	U	78.0			QL=4 ST=2 TYP=3
	280 CUBA	7 C	1816.2	1816.8	2.0	20.0			
	235 CUBA	7 C	1816.2	1816.8	2.0	32.0			
	200 HIRA	42 SER	2202.2	2202.5	2.0	100.0			WR
245 SGMR	8 S	2234.0	2234.0	U	160.0			QL=4 ST=2 TYP=3	
200 HIRA	8 S	2312.8	2313.0	0.4	60.0			0	
28	245 LEAR	8 S	0022.0	0022.0	U	390.0			QL=4 ST=2 TYP=3
	200 HIRA	42 SER	0022.2	0023.5	1.6	80.0			0
	2800 PENT	4 S/F	0040.0	0056.0	56.0U	256.0			
	5730 IRKU	49 GB	0045.5	0056.7	47.5	1155.0	U		
	4995 LEAR	49 GB	0052.0	0056.0	23.0	720.0			QL=4 ST=2 TYP=6
	4995 PALE	49 GB	0053.0	0056.0	17.0	780.0			QL=4 ST=2 TYP=6
	8800 PALE	49 GB	0053.0	0056.0	17.0	1100.0			QL=4 ST=2 TYP=6
	2695 LEAR	4 S/F	0054.0	0056.0	8.0	290.0			QL=4 ST=2 TYP=3
	8800 LEAR	49 GB	0054.0	0056.0	13.0	1100.0			QL=4 ST=2 TYP=6
	2800 HIRA	29 PBI	0054.5	0056.2	7.5	260.0			0
	15400 LEAR	4 S/F	0055.0	0056.0	3.0	420.0			QL=4 ST=2 TYP=3
	2695 PALE	4 S/F	0055.0	0056.0	4.0	250.0			QL=4 ST=2 TYP=3
	1415 PALE	8 S	0055.0	0056.0	1.0	21.0			QL=4 ST=2 TYP=3
	15400 PALE	49 GB	0055.0	0056.0	15.0	600.0			QL=4 ST=2 TYP=6
	200 HIRA	8 S	0200.5	0200.8	0.6	120.0			0
	5730 IRKU	1 S	0210.4	0211.3	2.6	20.0	U		
	5730 IRKU	1 S	0213.5	0214.4	3.5	25.0	U		
	2950 GORK	22 GRF	0603.8	0607.9	11.8	8.9			
	900 GORK	8 S	0616.2	0616.4	0.6	15.0			
	900 GORK	7 C	0827.5	0827.6	0.5	8.1			
	600 GORK	46 C	0827.5	0827.9	0.5	43.0			
204 IZMI	42 SER	0855.1	0855.5	1.3	47.0				
245 LEAR	8 S	0859.0	0859.0	U	71.0			QL=4 ST=2 TYP=3	
245 SVTO	8 S	0859.0	0859.0	U	40.0			QL=4 ST=2 TYP=3	

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AUGUST 1999

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
28	600	GORK	7 C	1027.0	1027.6	0.8	7.7			
	204	IZMI	45 C	1033.4	1033.5	0.6	859.0			
	204	IZMI	42 SER	1121.2	1121.2	0.2	83.0			
	2800	PENT	1 S	1445.0	1459.0	27.0	50.0			
	6700	CUBA	21 GRF	1454.0	1506.0	59.0	13.0	6.0		00L
	4995	SVTO	4 S/F	1457.0	1459.0	3.0	59.0			QL=4 ST=2 TYP=3
	2695	SVTO	4 S/F	1457.0	1459.0	3.0	52.0			QL=4 ST=2 TYP=3
	6700	CUBA	2 S/F	1458.0	1459.0	2.0	36.0	18.0		28L
	4995	SGMR	4 S/F	1458.0	1459.0	9.0	60.0			QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1458.0	1459.0	9.0	61.0			QL=4 ST=2 TYP=3
	1415	SVTO	8 S	1458.0	1459.0	1.0	23.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1458.0	1458.0	1.0	23.0			QL=4 ST=2 TYP=3
	1415	SGMR	4 S/F	1459.0	1459.0	4.0	20.0			QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	1459.0	1459.0	8.0	23.0			QL=2 ST=2 TYP=3
	6700	CUBA	1 S	1544.6	1545.0	1.4	16.0	8.0		25L
	6700	CUBA	47 GB	1552.0	1759.0		3199.0			5L
	6700	CUBA	47 GB	1552.0	1556.0U	17.0	3402.0D			4L
	6700	CUBA	1 S	1558.0	1558.9	1.8	11.0	5.0		19L
	2800	PENT	1 S	1614.0	1618.0	14.0	13.0			
	1415	PALE	4 S/F	1644.0	1646.0	4.0	48.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	1644.0	1644.0	2.0	63.0			QL=4 ST=2 TYP=3
	2800	PENT	29 PBI	1748.0	1756.0	104.0U	910.0			
	2695	SGMR	49 GB	1753.0	1756.0	22.0	1000.0			QL=4 ST=2 TYP=6
	8800	SGMR	49 GB	1753.0	1759.0	28.0	2400.0			QL=2 ST=2 TYP=6
	4995	SGMR	49 GB	1753.0	1800.0	27.0	1600.0			QL=4 ST=2 TYP=6
	8800	PALE	49 GB	1753.0	1759.0	37.0	1900.0			QL=4 ST=2 TYP=6
	2695	PALE	48 C	1753.0	1757.0	38.0	1000.0			QL=4 ST=2 TYP=8
	4995	PALE	49 GB	1753.0	1800.0	40.0	1700.0			QL=4 ST=2 TYP=6
	610	SGMR	4 S/F	1754.0	1755.0	17.0	170.0			QL=4 ST=2 TYP=3
	1415	SGMR	49 GB	1754.0	1757.0	17.0	610.0			QL=4 ST=2 TYP=6
	1415	PALE	49 GB	1754.0	1758.0	20.0	630.0			QL=4 ST=2 TYP=6
	15400	PALE	49 GB	1754.0	1759.0	23.0	3000.0			QL=4 ST=2 TYP=6
	15400	SGMR	49 GB	1754.0	1759.0	27.0	2100.0			QL=4 ST=2 TYP=6
	610	PALE	4 S/F	1755.0	1756.0	14.0	200.0			QL=4 ST=2 TYP=3
410	PALE	48 C	1757.0	1806.0	9.0	71.0			QL=4 ST=2 TYP=8	
410	SGMR	48 C	1757.0	1807.0	14.0	350.0			QL=4 ST=2 TYP=8	
235	CUBA	41 F	1757.2	1806.2	9.2	1586.0				
280	CUBA	41 F	1757.2	1757.2	92.0	2467.0				
245	PALE	49 GB	1758.0	1800.0	4.0	750.0			QL=4 ST=2 TYP=6	
245	SGMR	48 C	1759.0	1806.0	7.0	660.0			QL=4 ST=2 TYP=8	
6700	CUBA	29 PBI	1809.0		70.0	83.0	41.0		3L	
2800	PENT	41 F	2050.0	2213.0	102.0U	13.0				
29	204	IZMI	43 NS	0600.0		360.0D		5.0		
	235	CUBA	44 NS	1300.0E		530.0D		9.0		
	280	CUBA	44 NS	1300.0E		530.0D		22.0		
	245	LEAR	4 S/F	0006.0	0008.0	4.0	140.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0008.0	0008.0	U	100.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0010.0	0010.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0431.0	0431.0	U	82.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0618.0	0618.0	U	51.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0626.0	0626.0	1.0	310.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0626.0	0626.0	1.0	170.0			QL=4 ST=2 TYP=3
	2950	GORK	22 GRF	0626.3	0636.0	21.0	12.0			
	204	IZMI	41 F	0626.3	0626.7	1.0	55.0			
	3000	IZMI	1 S	0626.8	0627.2	0.6	9.0	4.5		
	3000	IZMI	20 GRF	0631.5	0635.9	23.2	18.0			
	245	LEAR	4 S/F	0633.0	0634.0	3.0	140.0			QL=4 ST=2 TYP=3
	245	SVTO	4 S/F	0633.0	0634.0	3.0	78.0			QL=4 ST=2 TYP=3
	204	IZMI	42 SER	0633.5	0634.8	1.9	296.0			
	245	LEAR	8 S	0726.0	0728.0	2.0	64.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0744.0	0745.0	1.0	59.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0934.0	0935.0	1.0	78.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1025.0	1026.0	1.0	59.0			QL=4 ST=2 TYP=3
	3000	IZMI	7 C	1156.8	1156.8	0.2	53.0			
245	SGMR	8 S	1200.0	1200.0	U	52.0			QL=4 ST=2 TYP=3	
245	SVTO	8 S	1200.0	1200.0	U	58.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1230.0	1230.0	U	53.0			QL=4 ST=2 TYP=3	
410	PALE	8 S	1725.0	1725.0	1.0	170.0			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

AUGUST 1999

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m <sup>2</sup> Hz)	Mean		
29	245	PALE	8 S	1725.0	1727.0	2.0	58.0			QL=4 ST=2 TYP=3
	6700	CUBA	21 GRF	1725.0	1728.0	41.0	20.0	10.0		00L
	6700	CUBA	2 S/F	1725.5	1727.0	2.5	18.0	9.0		37L
	33	UPIC	4 S/F	1727.0	1727.5	1.0				
30	245	LEAR	43 NS	0109.0	0111.0	306.0	81.0			QL=4 ST=2 TYP=1
	204	IZMI	44 NS	0600.0E		360.0D		5.0		
	245	LEAR	43 NS	0902.0	0947.0	54.0	66.0			QL=4 ST=2 TYP=1
	280	CUBA	44 NS	1300.0E		530.0D		27.0		
	235	CUBA	44 NS	1300.0E		530.0D		16.0		
	245	SGMR	43 NS	1830.0	2008.0U	110.0	120.0			QL=4 ST=3 TYP=1
	410	SGMR	43 NS	1830.0	1945.0U	110.0	45.0			QL=4 ST=3 TYP=1
	245	PALE	43 NS	1903.0	2008.0	85.0	140.0			QL=4 ST=2 TYP=1
	245	LEAR	8 S	0015.0	0015.0	U	83.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0021.0	0021.0	U	66.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0714.0	0715.0	1.0	84.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0735.0	0735.0	U	62.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0845.0	0846.0	1.0	67.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0845.0	0846.0	1.0	60.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0902.0	0902.0	U	60.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0917.0	0918.0	1.0	60.0			QL=4 ST=2 TYP=3
	2950	GORK	2 S/F	0920.3	0920.9	1.0	12.0			
	2950	GORK	29 PBI	0921.3	0921.3	5.7	4.0			
	3000	IZMI	5 S	1020.2	1020.9	1.0	19.0	9.0		
	245	SVTO	8 S	1103.0	1105.0	2.0	100.0			QL=4 ST=2 TYP=3
	6700	CUBA	21 GRF	1415.0	1450.0	73.0	35.0	17.0		4L
	2800	PENT	41 F	1432.0	1445.0	55.0	23.0			
	6700	CUBA	1 S	1433.9	1434.6	1.5	7.0	3.0		17L
	2695	SGMR	4 S/F	1443.0	1445.0	5.0	18.0			QL=4 ST=2 TYP=3
	4995	SVTO	4 S/F	1443.0	1445.0	3.0	70.0			QL=4 ST=2 TYP=3
	4995	SGMR	4 S/F	1443.0	1445.0	13.0	82.0			QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	1443.0	1445.0	10.0	21.0			QL=2 ST=2 TYP=3
	6700	CUBA	4 S/F	1443.0	1445.9	4.6	64.0	23.0		9L
	6700	CUBA	20 GRF	1611.0	1628.0	54.0D	14.0			00L 1705 RAIN
	280	CUBA	27 RF	1725.0E	1951.0	241.0D	57.0			1700-1725 OFF
	235	CUBA	27 RF	1725.0E	1951.0	241.0D	52.0			1700-1725 OFF
	2800	PENT	29 PBI	1735.0	1757.0	117.0U	51.0			
	8800	PALE	4 S/F	1754.0	1758.0	8.0	44.0			QL=4 ST=2 TYP=3
	1415	PALE	4 S/F	1754.0	1759.0	8.0	50.0			QL=4 ST=2 TYP=3
	4995	PALE	4 S/F	1754.0	1757.0	8.0	62.0			QL=4 ST=2 TYP=3
	2695	PALE	4 S/F	1754.0	1757.0	8.0	37.0			QL=4 ST=2 TYP=3
	610	PALE	4 S/F	1754.0	1800.0	8.0	200.0			QL=4 ST=2 TYP=3
	1415	SGMR	4 S/F	1754.0	1759.0	7.0	62.0			QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1754.0	1757.0	12.0	58.0			QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	1754.0	1757.0	12.0	52.0			QL=2 ST=2 TYP=3
	4995	SGMR	4 S/F	1754.0	1757.0	12.0	88.0			QL=4 ST=2 TYP=3
	15400	SGMR	20 GRF	1755.0	1805.0	11.0	46.0			QL=4 ST=2 TYP=2
610	SGMR	4 S/F	1756.0	1800.0	10.0	190.0			QL=4 ST=2 TYP=3	
15400	PALE	4 S/F	1757.0	1802.0	5.0	68.0			QL=4 ST=2 TYP=3	
2695	SGMR	20 GRF	1807.0	1810.0	7.0	22.0			QL=4 ST=2 TYP=2	
15400	SGMR	20 GRF	1807.0	1810.0	26.0	54.0			QL=4 ST=2 TYP=2	
8800	SGMR	20 GRF	1807.0	1810.0	33.0	51.0			QL=2 ST=2 TYP=2	
4995	SGMR	20 GRF	1807.0	1813.0	36.0	52.0			QL=4 ST=2 TYP=2	
245	SGMR	48 C	1924.0	1928.0	8.0	67.0			QL=4 ST=2 TYP=8	
245	SGMR	4 S/F	1931.0	1934.0	4.0	91.0			QL=4 ST=2 TYP=3	
245	SGMR	4 S/F	1936.0	1936.0	5.0	120.0			QL=4 ST=2 TYP=3	
245	SGMR	4 S/F	1944.0	1947.0	3.0	68.0			QL=4 ST=2 TYP=3	
245	SGMR	48 C	1950.0	1954.0	5.0	92.0			QL=4 ST=2 TYP=8	
245	SGMR	8 S	2008.0	2008.0	2.0	87.0			QL=4 ST=2 TYP=3	
2800	PENT	8 S	2054.0	2056.0	4.0	40.0				
2695	PALE	8 S	2055.0	2056.0	2.0	61.0			QL=4 ST=2 TYP=3	
2695	SGMR	8 S	2056.0	2056.0	1.0	60.0			QL=4 ST=2 TYP=3	
31	235	CUBA	44 NS	1300.0E		530.0D		9.0		
	280	CUBA	44 NS	1300.0E		530.0D		20.0		
	2950	GORK	20 GRF	0530.8	0548.4	58.8	12.0			
	900	GORK	1 S	0548.9	0549.1	0.4	3.1			
	410	SVTO	8 S	0939.0	0939.0	U	56.0			QL=4 ST=2 TYP=3
	33	UPIC	45 C	0959.0	1000.0	1.5				

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

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Aug 99

AUGUST 1999

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak	Mean		
						(10 -22 W/m 2 Hz)			
31	2950 GORK	7 C	1011.9	1012.2	0.7	4.5			
	2950 GORK	7 C	1023.0	1023.2	0.8	1.9			
	8800 SGMR	8 S	1259.0	1259.0	1.0	270.0		QL=2 ST=2 TYP=3	
	4995 SGMR	8 S	1259.0	1259.0	2.0	99.0		QL=4 ST=2 TYP=3	
	15400 SGMR	8 S	1259.0	1259.0	1.0	270.0		QL=4 ST=2 TYP=3	
	8800 SVTO	8 S	1259.0	1259.0	1.0	290.0		QL=2 ST=2 TYP=3	
	15400 SVTO	8 S	1259.0	1259.0	1.0	280.0		QL=2 ST=2 TYP=3	
	4995 SVTO	8 S	1259.0	1259.0	1.0	99.0		QL=4 ST=2 TYP=3	
	2800 PENT	1 S	1731.0	1732.0	3.0	5.0			

Reports are received routinely from the following observatories:

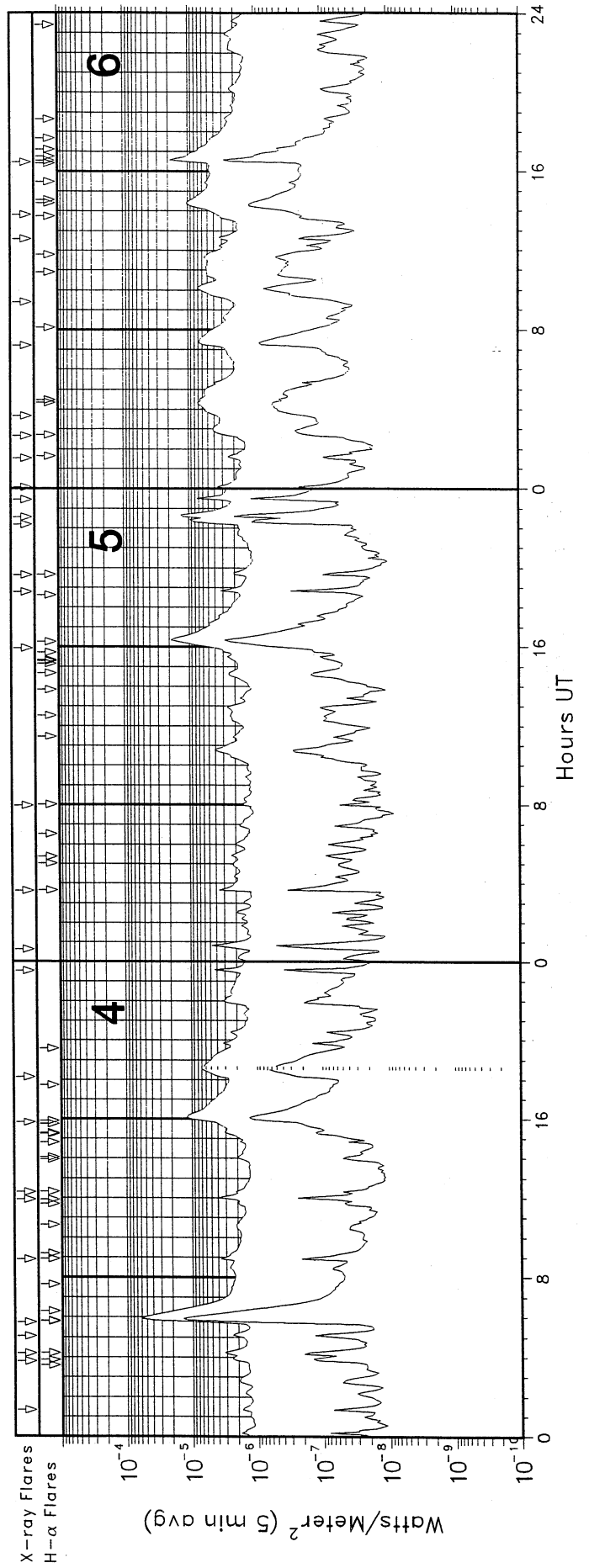
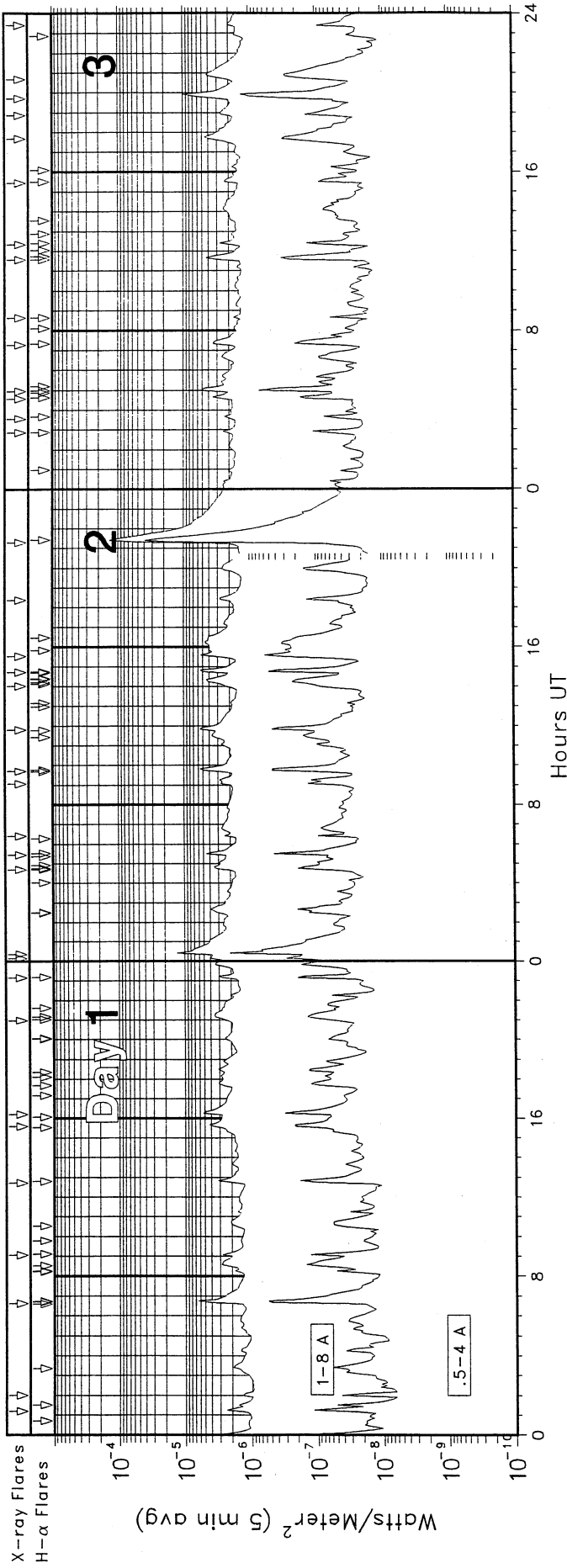
BERN = Berne	HUMN = Humain	ONDR = Ondrejov	SVTO = San Vito
CRIM = Crimea	IZMI = IZMIRAN	PEKG = Peking	TORN = Torun
CUBA = Havana	KISV = Kislovodsk	PALE = Palehua	TRST = Trieste
GORK = Gorky	KRAK = Krakow	PENT = Penticton	TYKW = Toyokawa
HIRA = Hiraiso	LEAR = Learmonth	POTS = Potsdam	UPIC = Upice
HUAN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

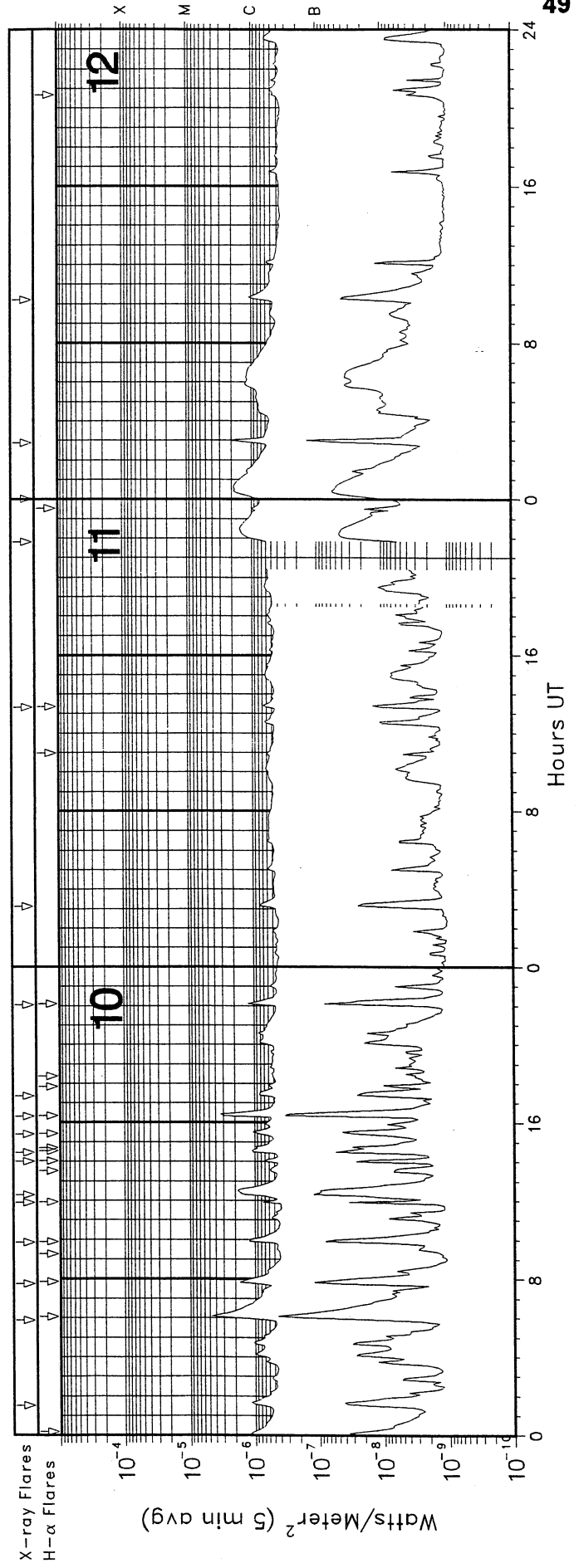
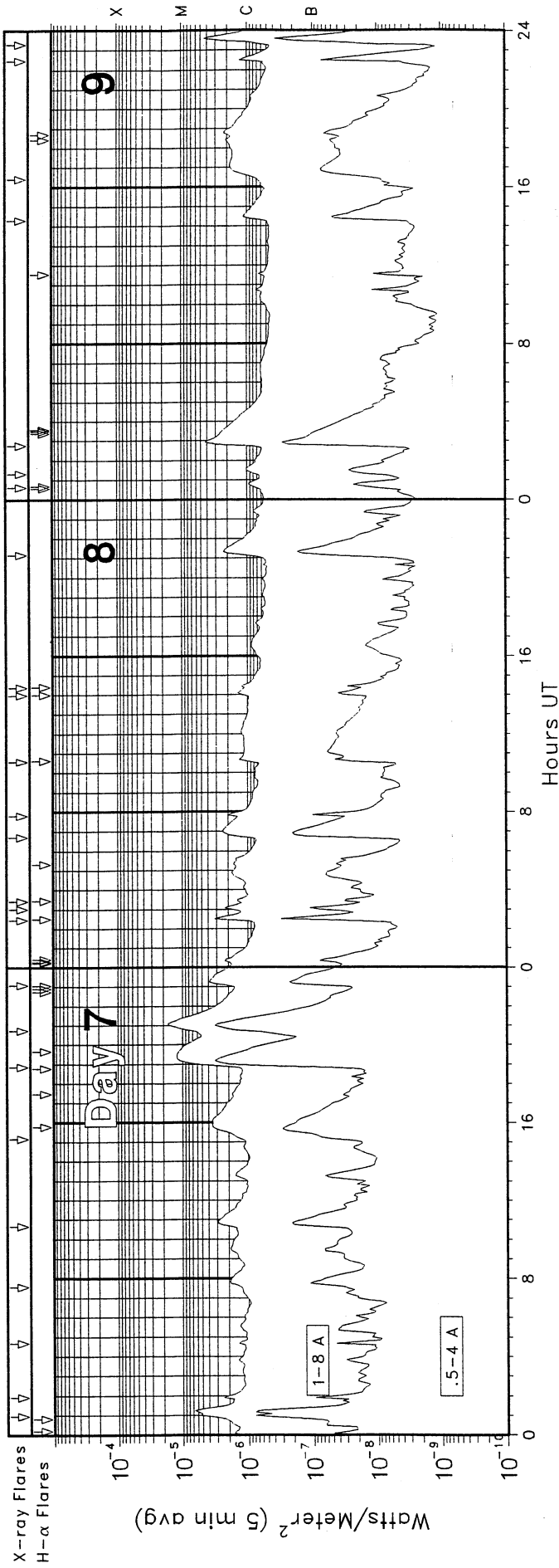
RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; and Hiraiso, Japan 500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

# GOES X-RAY DETECTOR August 1999

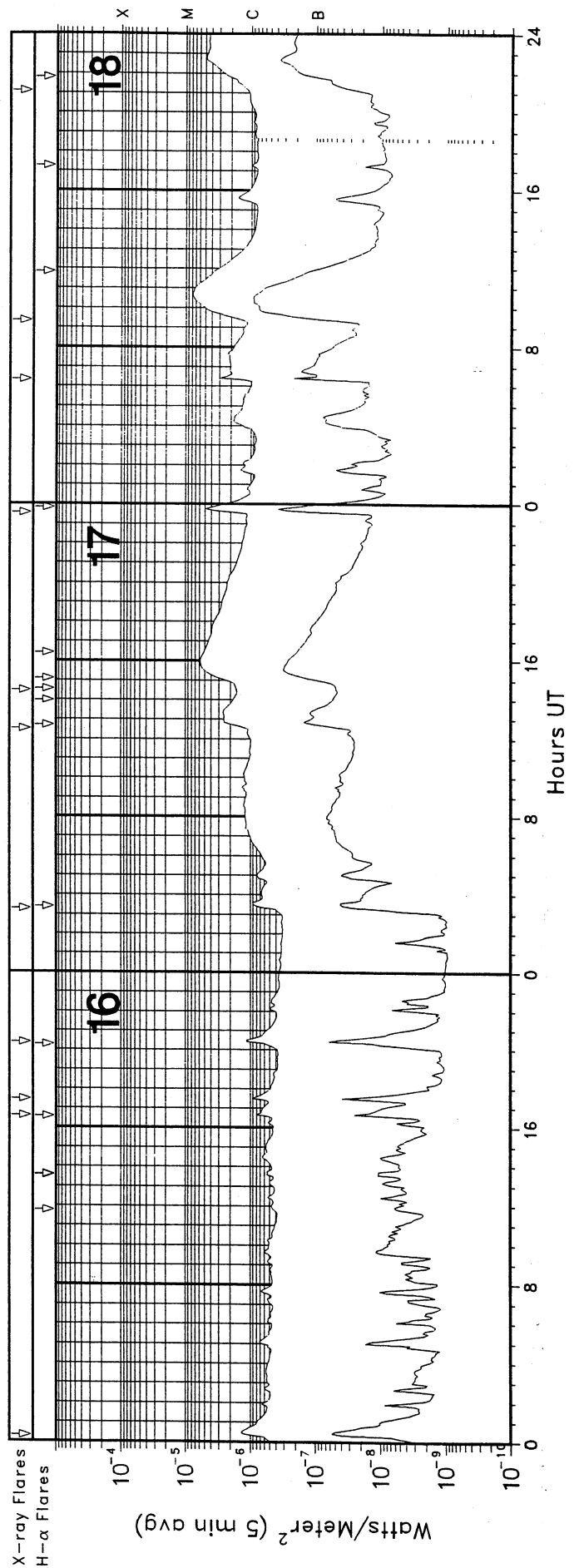
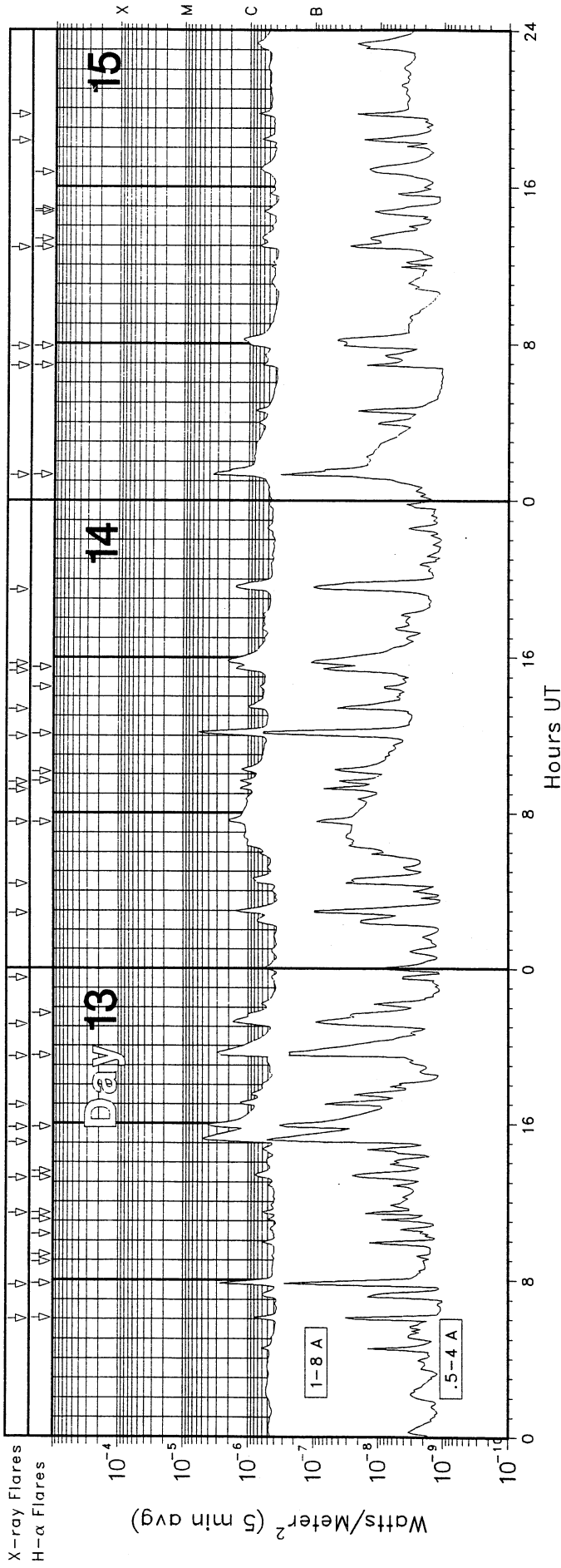


# GOES X-RAY DETECTOR

## August 1999

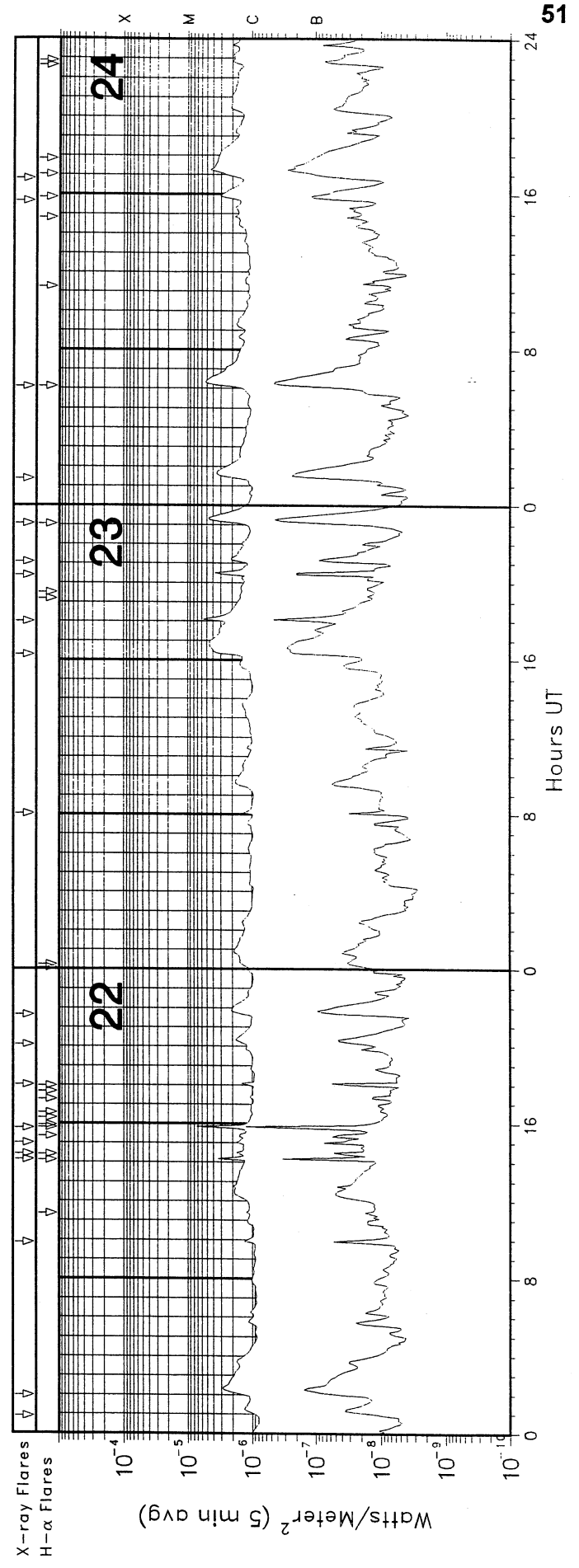
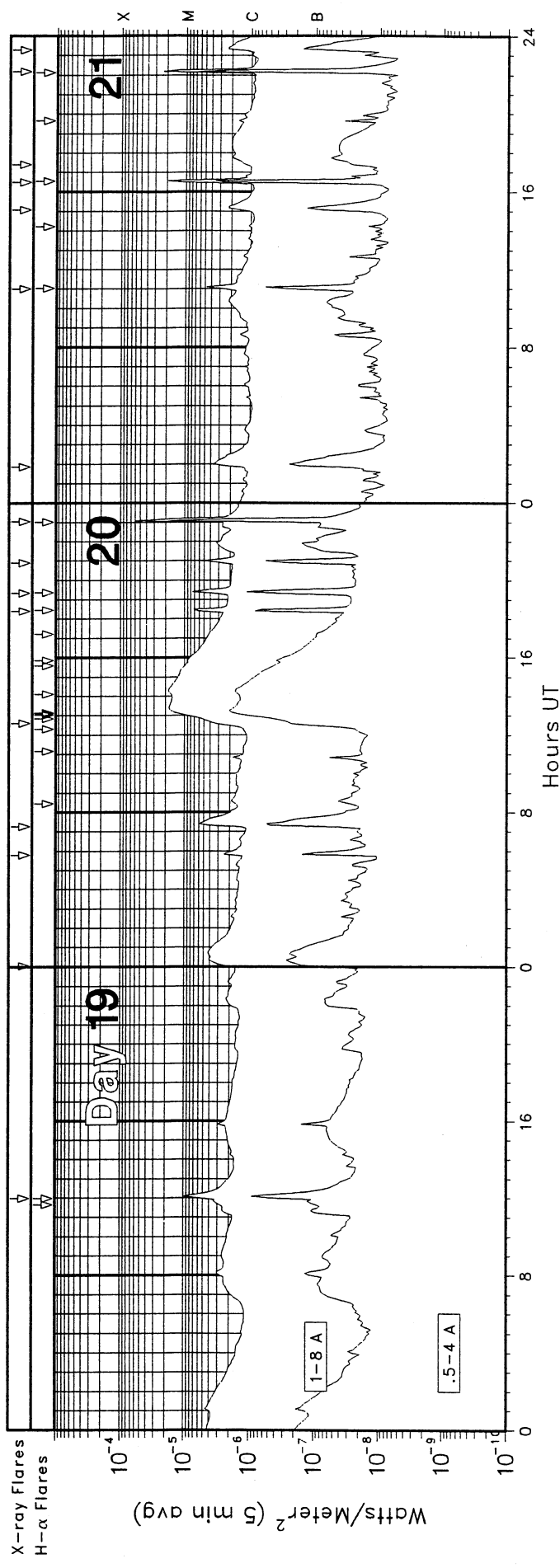


# GOES X-RAY DETECTOR August 1999



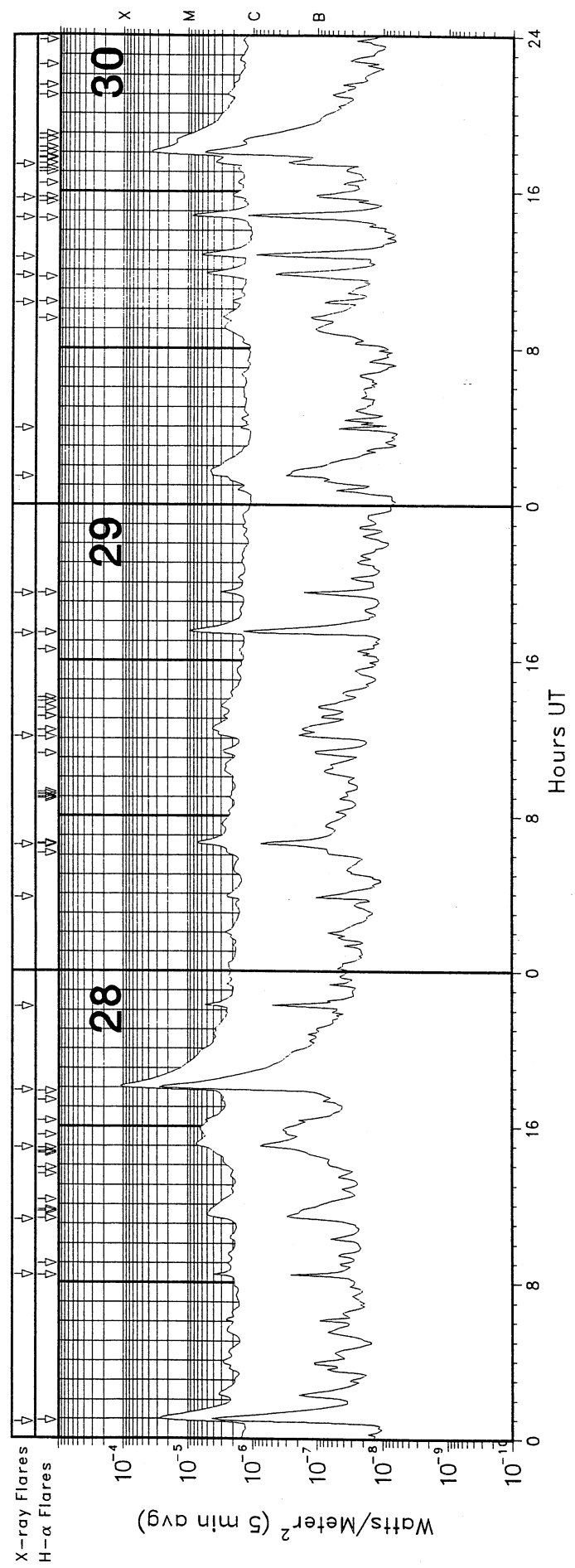
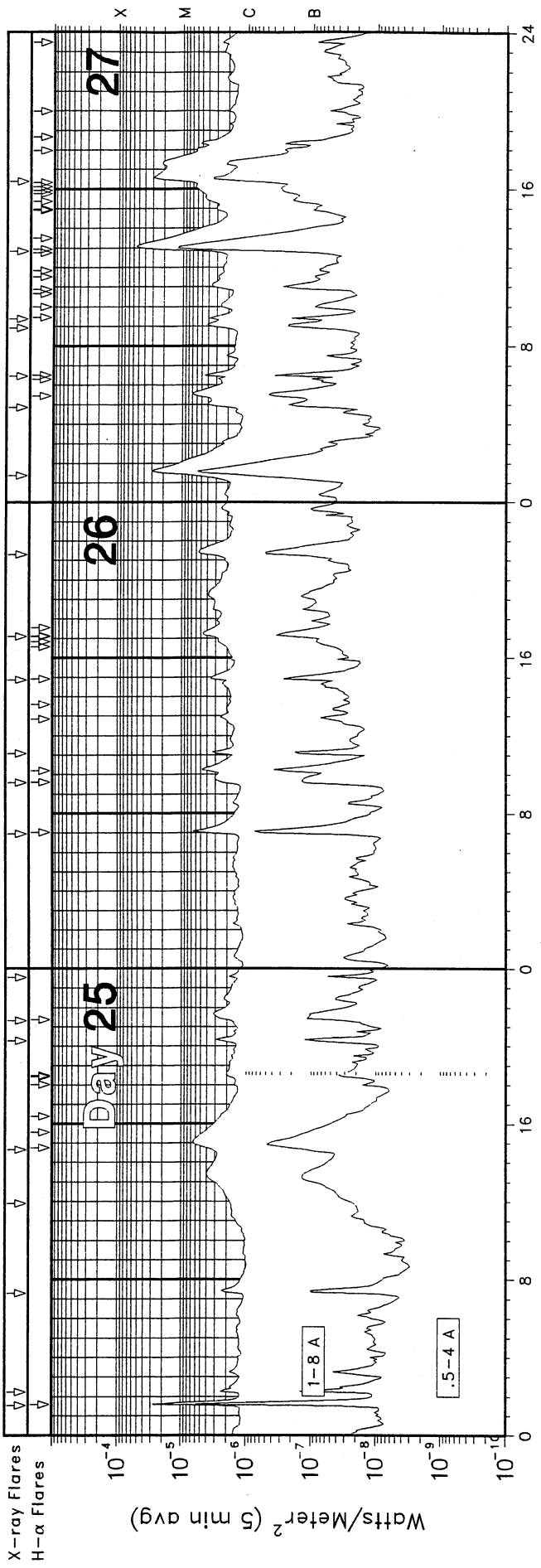
# GOES X-RAY DETECTOR

## August 1999



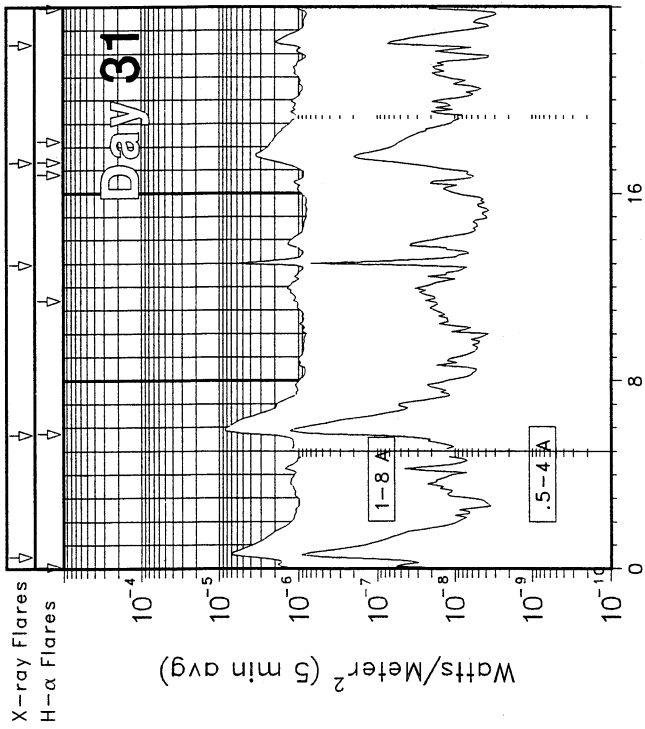
# GOES X-RAY DETECTOR

August 1999



# GOES X-RAY DETECTOR

August 1999





GOES SOLAR X-RAY FLARES  
\*\*Preliminary Listing\*\*

August 1999

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/USAF Region	Flux
01	0111	0116	0122				C2.5	1.3E-03	
01	0159	0203	0207				C1.6	6.7E-04	
01	0638	0645	0648				C9.2	8645	3.1E-03
01	0904	0907	0909	S23	W23	SF	C3.6	8645	8.4E-04
01	1244	1251	1258	S23	W33	SF	C3.3	8645	2.2E-03
01	1535	1539	1544	S22	W31	SF	C4.7	8645	2.2E-03
01	1612	1617	1625				C5.7		3.6E-03
01	2059	2116	2130	N27	E16	SF	C3.5	8651	5.7E-03
01	2310	2314	2317	S28	W27	SF	C4.3	8645	1.3E-03
02	0009	0013	0015				C5.4		1.5E-03
02	0023	0027	0030				M1.8		4.8E-03
02	0443	0449	0457	S21	W35	SF	C3.9	8645	2.7E-03
02	0528	0532	0536	S28	W28	SF	C5.8	8645	2.0E-03
02	0625	0628	0630				C3.3		7.5E-04
02	0904	0916	0922				C3.0		2.9E-03
02	0942	0950	0955	N26	W01	SN	C6.4	8651	3.6E-03
02	1148	1152	1159	S30	W29	SF	C6.3	8645	3.4E-03
02	1401	1419	1430	N17	E25	SF	C5.0	8656	5.7E-03
02	1443	1450	1454	S27	W40	SF	C6.9	8645	3.3E-03
02	1531	1535	1543	S19	W43	SF	C6.2	8647	3.3E-03
02	1823	1830	1836						2.0E-03
02	2118	2125	2138	S18	W46	1B	X1.4	8647	1.1E-01
03	0253	0256	0259	S17	W48	SF	C2.5	8647	8.5E-04
03	0335	0341	0345	N23	W03	SF	C2.4	8651	1.2E-03
03	0435	0439	0444	N23	W04	SF	C4.0	8651	1.7E-03
03	0458	0502	0510	S18	W48	SF	C5.7	8647	3.3E-03
03	0717	0724	0736	N21	W04	SF	C3.5		3.5E-03
03	0839	0842	0845	S18	W54	SF	C1.9	8647	6.0E-04
03	1134	1140	1148	S28	W42	SF	C4.6	8645	3.0E-03
03	1221	1225	1229	N19	E12	SN	C3.1	8656	1.2E-03
03	1528	1532	1543	N17	E12	SF	C2.5	8656	1.9E-03
03	1740	1745	1752				C4.7		3.0E-03
03	1851	1858	1913				C2.7		3.2E-03
03	1943	1955	1959				M1.3		6.0E-03
03	2040	2058	2114				C4.3		6.9E-03
03	2325	2328	2333				C2.2		9.8E-04
04	0119	0122	0127				C1.9	8649	8.4E-04
04	0347	0355	0408	N28	W18	SF	C2.4	8651	2.8E-03
04	0411	0414	0417	S17	W62	SF	C4.4	8647	1.3E-03
04	0503	0509	0513				C2.6		1.4E-03
04	0545	0557	0614	S16	W64	1N	M6.0	8647	7.0E-02
04	0853	0857	0902	S18	W69	SF	C3.9	8647	1.8E-03
04	1156	1201	1208	S30	W67	1F	C4.2	8645	2.4E-03
04	1217	1220	1225	S26	W64	SF	C2.2	8645	1.0E-03
04	1549	1607	1625	S17	W63	SF	M1.2	8647	1.9E-02
04	1808	1834	1905				C7.0		1.7E-02
04	2332	2336	2338				C5.4		1.5E-03
05	0038	0053	0057				C4.9		3.5E-03
05	0338	0342	0346	S15	W74	SF	C4.9	8647	1.5E-03
05	0759	0803	0807				C1.7		7.6E-04
05	1555	1623	1633	S31	W69	SF	M1.9	8645	2.6E-02
05	1847	1852	1856	S27	W80	1N	C3.4	8645	1.6E-03
05	1939	1944	1950	N26	W41	SF	C2.2	8651	1.4E-03
05	2212	2224	2232				M1.1		8.1E-03
05	2234	2239	2244				M1.5		7.8E-03
05	2327	2331	2335				C8.6		3.0E-03
06	0003	0008	0012				C3.9		1.8E-03
06	0132	0138	0143	N19	W21	SF	C2.7	8656	1.6E-03
06	0240	0259	0315	S29	W73	SF	C4.2	8645	7.7E-03
06	0341	0419	0505				C7.1		2.9E-02

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/USAF Region	Flux
06	0712	0722	0751				C6.9		1.4E-02
06	0925	1007	1017				C7.1		1.5E-02
06	1235	1239	1245				C3.6		2.0E-03
06	1350	1427	1452	N17	W27	SF	M1.0	8656	2.7E-02
06	1628	1636	1645	S30	W85	SF	M1.8	8645	1.4E-02
07	0056	0115	0122	N19	W35	SF	C7.1	8656	8.6E-03
07	0154	0158	0202				C2.6		1.1E-03
07	0440	0443	0447				C1.6		6.2E-04
07	0734	0752	0805				C1.9		3.2E-03
07	1040	1057	1111				C2.9		4.8E-03
07	1510	1551	1644	N17	W41	SF	C3.5	8656	1.5E-02
07	1852	1925	2015				M1.2	8656	4.7E-02
07	2043	2105	2118				M1.7		2.7E-02
07	2305	2318	2344	S28	E03	SF	C3.9	8657	7.7E-03
08	0227	0233	0238	S17	E46	SF	C4.2	8662	1.7E-03
08	0301	0307	0313				C2.3		1.5E-03
08	0326	0327	0332	S16	E43	SF	C1.5	8662	5.3E-04
08	0643	0704	0739				C2.3		6.6E-03
08	0749	0753	0757				C2.3		9.4E-04
08	1035	1041	1255	S16	E39	SF	C1.3	8662	9.7E-03
08	1359	1404	1409	S14	E39	SF	C1.4	8662	7.6E-04
08	1423	1426	1431	S28	E00	SF	C1.2	8657	5.7E-04
08	2110	2123	2147				C2.2		4.2E-03
09	0037	0048	0057	S14	E33	SF	B9.6	8662	1.0E-03
09	0119	0134	0149				C1.0		1.7E-03
09	0246	0258	0330	S29	W11	1F	C4.3		7.9E-03
09	1419	1435	1511				C1.1		2.8E-03
09	1626	1846	1942				C2.1		1.9E-02
09	2228	2233	2242				C1.4		9.4E-04
09	2318	2337	2348				C4.5		4.3E-03
10	0130	0141	0148				C1.1		1.0E-03
10	0552	0607	0618	N15	W74	SF	C4.8	8656	4.0E-03
10	0745	0750	0801	N14	W77	SF	C2.0	8656	1.3E-03
10	0951	0959	1007	S15	E14	SF	C1.4	8662	1.0E-03
10	1153	1157	1159	N17	W82	SF	B9.8	8656	2.5E-04
10	1218	1233	1240				C1.9		2.1E-03
10	1400	1404	1407	N17	W76	SF	B8.7	8656	3.1E-04
10	1428	1432	1449	S30	W29	SF	C1.2	8657	1.2E-03
10	1524	1532	1537	S16	E10	SF	C1.0	8662	7.4E-04
10	1618	1624	1629	S15	E15	1F	C4.6	8662	1.9E-03
10	1721	1734	1740				B9.0		8.8E-04
10	2203	2208	2211	S14	E11	SF	C1.6	8662	5.3E-04
11	0307	0313	0321				B8.2		6.1E-04
11	1319	1326	1332	S14	E03	SF	B7.1	8662	4.9E-04
11	2149B	2229	2304				C1.5		5.6E-03
12	0000	0025	0115				C1.8		6.9E-03
12	0252	0301	0305				C2.4		1.2E-03
12	1012	1020	1033				C1.1		1.1E-03
13	0600	0605	0610	S15	W20	SF	B9.1	8662	4.3E-04
13	0745	0752	0757	S15	W20	SF	C3.0	8662	1.3E-03
13	1124	1129	1134	S15	W21	SF	B6.6	8662	3.4E-04
13	1312	1323	1332	S16	W24	SF	B8.0	8662	8.4E-04
13	1502	1515	1529				C5.3		5.5E-03
13	1548	1559	1605	S15	W26	SF	C4.2	8662	3.5E-03
13	1658	1704	1711				C1.4		9.5E-04
13	1927	1933	1951	S13	W31	SF	C3.2	8662	3.5E-03
13	2107	2117	2127				C1.7		1.7E-03
13	2331	2334	2336				B5.6		1.4E-04

GOES SOLAR X-RAY FLARES  
 \*\*Preliminary Listing\*\*

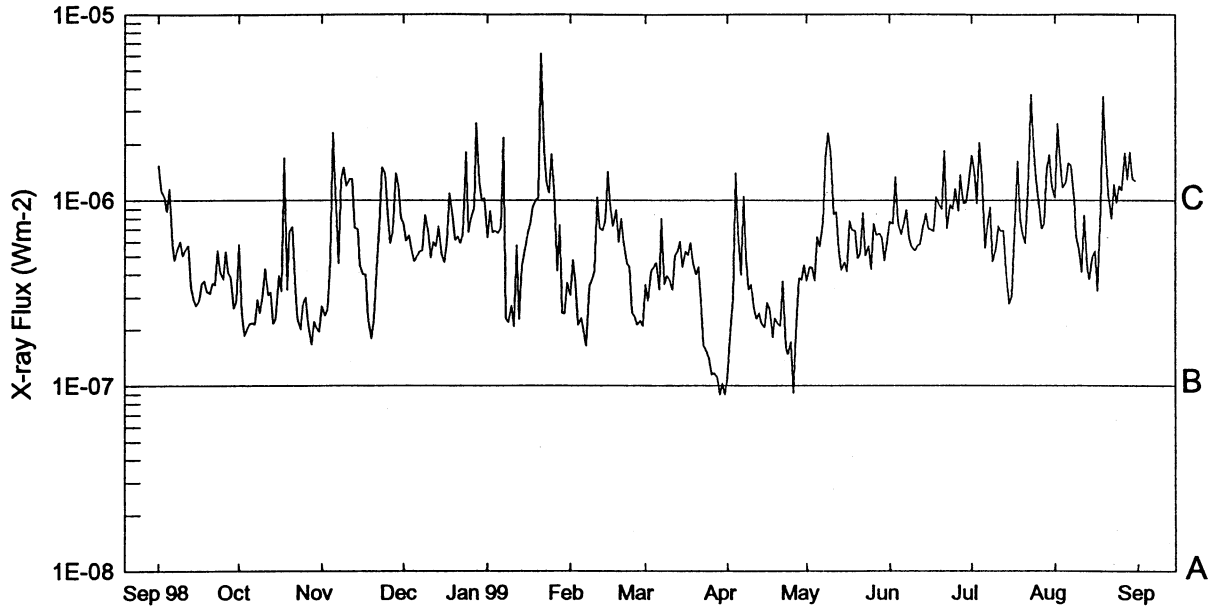
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 Aug 99

August 1999

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
14	0252	0300	0306				C1.6		1.1E-03
14	0422	0440	0447				B9.0		1.1E-03
14	0732	0740	0745	S16	W38	SF	C2.0	8662	1.4E-03
14	0913	0918	0924				C1.3		8.2E-04
14	0936	0940	0944				C1.5		6.2E-04
14	1158	1210	1215	N23	E72	1F	C7.2	8668	3.5E-03
14	1322	1329	1338				C1.0		8.5E-04
14	1519	1527	1537	S15	W43	SF	C1.5	8662	1.4E-03
14	1541	1550	1558				C2.1		1.9E-03
14	1927	1940	1948				C1.6		1.7E-03
15	0117	0123	0128	S15	W45	1N	C4.6	8662	1.9E-03
15	0652	0657	0705				B6.3		4.4E-04
15	0751	0815	0823				C1.3		2.0E-03
15	1253	1300	1311	N23	E62	SF	B7.2	8668	6.7E-04
15	1821	1825	1833				B6.7		4.2E-04
15	1941	1945	1950				B8.0		3.7E-04
16	0018	0034	0048	N19	E50	SF	C1.3	8668	2.1E-03
16	1637	1642	1653	N24	E47	SF	B8.1	8668	6.8E-04
16	1727	1732	1739				B9.7		6.0E-04
16	2023	2029	2035	N24	E40	SF	C1.2	8668	7.7E-04
17	0318	0334	0347	N23	E42	SF	B9.5	8668	1.4E-03
17	1232	1323	1357	N26	E35	SF	C2.6	8668	1.1E-02
17	1428	1602	1754				C5.9	8668	5.2E-02
17	2333	2345	2357	S18	W84	SF	C4.9	8662	5.0E-03
18	0621	0627	0636				C3.0		2.1E-03
18	0921	1043	1138				C7.8		4.5E-02
18	2107	2249	0208				C4.9		6.5E-02
19	1159	1205	1213	N13	W09	1N	M1.0	8672	6.5E-03
20	0003	0022	0126				C4.1		1.8E-02
20	0548	0553	0601				C2.5		1.7E-03
20	0716	0726	0745				C6.0		7.7E-03
20	1236	1418	1706	S28	E76		M1.8	8674	1.8E-01
20	1825	1829	1832	S23	E66	SF	M1.2	8674	3.3E-03
20	1921	1927	1932	S23	E66	SF	C7.8	8674	3.9E-03
20	2054	2101	2106				C5.1		2.7E-03
20	2303	2308	2310	S25	E64	1N	M9.8	8674	2.0E-02
21	0152	0201	0221				C3.7		5.1E-03
21	1100	1106	1111	S26	E58	SF	C5.2	8674	2.5E-03
21	1505	1513	1525				C2.2		2.4E-03
21	1630	1634	1637	S25	E56	1B	M3.7	8674	8.1E-03
21	1724	1745	1912				C2.0		1.2E-02
21	2210	2214	2216	S24	E52	1N	M5.9	8674	1.0E-02
21	2316	2323	2343				C2.4		3.2E-03
22	0054	0114	0144				C1.3		3.4E-03
22	0157	0218	0253				C2.9		7.6E-03
22	0952	0956	1004				C1.3		8.7E-04
22	1409	1412	1414	S28	E43	SN	C5.3	8674	1.0E-03
22	1427	1430	1433	S28	E43	SF	C2.0	8674	6.3E-04
22	1500	1503	1505	S25	E44	SF	C2.1	8674	5.4E-04
22	1546	1551	1554	S25	E43	SF	C9.8	8674	2.6E-03
22	1801	1805	1807	S27	E40	SF	C2.1	8674	5.6E-04
22	2006	2022	2032				C1.8		2.5E-03
22	2138	2149	2216				C2.0		4.2E-03
23	0803	0807	0811				C1.3		6.0E-04
23	1616	1647	1743				C4.5		2.0E-02

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
23	1801	1809	1812				C5.7		3.1E-03
23	2024	2029	2034				C4.5		1.9E-03
23	2105	2114	2129				C2.1		2.7E-03
23	2305	2320	2335				C4.7		6.5E-03
24	0123	0141	0204				C3.5		7.3E-03
24	0606	0623	0643	S27	E30	1F	C5.3	8674	9.6E-03
24	1540	1558	1612	S24	E30	SF	C3.1	8674	4.7E-03
24	1650	1717	1815	S26	E25	1F	C4.4	8674	1.6E-02
25	0132	0136	0140	S28	E21	1N	M3.6	8674	9.3E-03
25	0214	0218	0222				C3.1		1.1E-03
25	0718	0728	0734				C2.4		2.0E-03
25	1153	1327	1416				C4.0		2.5E-02
25	1439	1457	1533	S23	E17	SF	C6.5	8674	1.7E-02
25	2017	2021	2027				C3.0		1.6E-03
25	2119	2143	2155	S20	E08	SF	C3.3	8673	5.8E-03
25	2333	2336	2340				C1.9		7.3E-04
26	0657	0705	0714	S28	E05	SF	C7.1	8674	4.8E-03
26	0934	1017	1030				C4.8		1.1E-02
26	1105	1109	1114				C4.4		1.7E-03
26	1452	1459	1509	S23	E06	SF	C3.7	8674	3.2E-03
26	1706	1714	1720	S21	E03	SF	C4.7	8674	3.5E-03
26	2118	2122	2143				C5.5		7.5E-03
27	0122	0137	0151				M3.0		3.5E-02
27	0451	0536	0551	S21	W10	SF	C7.1	8673	1.7E-02
27	0628	0633	0636	S28	W16	SF	C5.5	8674	2.0E-03
27	0856	0907	0917				C4.2		4.5E-03
27	0923	0927	0930	S21	W12	SF	C4.2		1.6E-03
27	1250	1307	1322	S23	W09	2N	M5.5	8674	6.9E-02
27	1623	1636	1707	S31	E04	2N	M3.0	8674	5.9E-02
28	0050	0102	0116	S26	W16	1F	M2.8	8674	2.8E-02
28	0823	0828	0830	N20	E31	SF	C4.7	8675	1.6E-03
28	1113	1130	1217	N29	E27	SF	C5.1	8676	1.5E-02
28	1455	1508	1525				C7.3	8676	1.2E-02
28	1752	1805	1818	S26	W14	2N	X1.1	8674	1.1E-01
28	2211	2216	2222				C5.7		3.0E-03
29	0349	0354	0402				C2.7		1.9E-03
29	0632	0639	0647				C7.4	8675	5.6E-03
29	1205	1229	1249	S21	W41	SF	C4.4	8674	9.3E-03
29	1722	1731	1742	N20	W03	1N	C9.6	8681	7.9E-03
29	1926	1931	1936	N22	E12	SF	C3.2	8675	1.5E-03
30	0127	0148	0200				C4.4		8.0E-03
30	0355	0358	0401				C1.9		5.7E-04
30	1019	1022	1031	S21	W43	SF	C2.1	8673	1.4E-03
30	1142	1150	1156	N19	W13	SF	C5.6	8681	3.7E-03
30	1239	1248	1257				C6.5		5.0E-03
30	1440	1448	1455	S28	W45	1N	C9.4	8674	5.8E-03
30	1541	1551	1600	N20	W15	SF	C2.1	8681	2.1E-03
30	1723	1805	1821				M3.8	8674	5.2E-02
31	0030	0038	0051	N21	W18	SF	C7.3	8681	7.6E-03
31	0541	0554	0624	N19	W20	SF	C8.8	8681	1.7E-02
31	1257	1302	1306				C6.9		2.5E-03
31	1719	1741	1831	N19	W25	SF	C3.5	8681	1.1E-02
31	2223	2230	2244				C2.0		2.2E-03

# Preliminary GOES Satellite Daily X-Ray Background Sep 1998 - Aug 1999



Day	Sep 98	Oct	Nov	Dec	Jan 99	Feb	Mar	Apr	May	Jun	Jul	Aug
1	C1.5	B5.8	B2.7	B7.5	B6.3	B3.0	B3.5	B1.1	B3.7	B7.6	C1.7	C1.0
2	C1.1	B2.4	B2.4	B6.0	B8.7	B4.7	B2.8	B1.9	B4.3	B7.5	C1.4	C2.5
3	C1.0	B1.8	B2.6	B6.5	B6.7	B3.5	B4.1	B2.9	B4.3	C1.3	B9.5	C1.6
4	B8.7	B2.0	B4.8	B5.4	B6.8	B2.1	B4.3	C1.3	B3.7	B7.5	C2.0	C1.1
5	C1.1	B2.1	C2.3	B4.7	B6.6	B2.3	B4.6	B6.8	B6.3	B6.5	C1.3	C1.2
6	B5.8	B2.1	C1.1	B5.0	B7.0	B1.9	B3.3	B3.9	B5.6	B7.4	B5.5	C1.5
7	B4.7	B2.1	B4.6	B5.3	C2.1	B1.6	B8.0	C1.0	B7.6	B8.9	B7.4	C1.5
8	B5.4	B2.9	C1.3	B5.3	B2.3	B3.4	B3.5	B4.8	C1.6	B6.3	B9.1	C1.0
9	B6.0	B2.4	C1.5	B8.3	B2.2	B3.6	B3.9	B3.3	C2.2	B5.6	B4.6	B6.4
10	B5.0	B3.0	C1.2	B6.8	B2.7	B4.1	B3.7	B3.5	C1.8	B5.3	B5.4	B5.3
11	B5.4	B4.2	C1.3	B4.9	B2.0	C1.0	B3.3	B2.6	B8.4	B5.7	B7.2	B4.1
12	B5.7	B3.0	C1.3	B6.0	B5.7	B7.1	B5.0	B2.3	B8.7	B5.8	B6.8	B8.2
13	B3.4	B3.2	B7.1	B5.6	B2.2	B6.8	B5.2	B2.4	B5.4	B7.0	B6.8	B4.3
14	B2.9	B2.1	B7.0	B7.2	B4.4	B7.8	B6.0	B2.1	B4.2	B8.5	B4.1	B3.7
15	B2.7	B2.3	B4.5	B5.1	B5.5	C1.4	B4.3	B2.0	B4.6	B7.0	B2.7	B4.9
16	B2.8	B3.9	B4.0	B4.6	B6.6	B9.2	B5.3	B2.8	B4.1	B6.9	B3.0	B5.3
17	B3.6	B3.2	B4.0	B5.8	B7.4	B7.2	B5.0	B2.6	B7.7	B6.8	B6.5	B3.2
18	B3.7	C1.6	B2.3	C1.0	B9.2	B8.9	B5.9	B1.8	B6.9	C1.0	C1.6	B9.1
19	B3.2	B3.3	B1.8	B8.7	C1.0	B6.0	B4.6	B2.3	B6.8	B9.3	B7.9	C3.5
20	B3.1	B6.7	B2.3	B6.1	C1.0	B7.9	B3.9	B2.1	B4.8	B9.0	B6.6	C1.8
21	B3.5	B7.2	B4.2	B6.3	C6.1	B5.9	B4.4	B2.0	B5.1	C1.8	B5.8	C1.0
22	B3.5	B3.7	B7.2	B5.9	C1.8	B4.6	B2.8	B3.6	B8.5	B7.0	C1.1	B7.9
23	B5.3	B2.3	C1.5	B6.5	C1.2	B4.4	B1.6	B1.6	B5.0	B9.4	C3.6	C1.2
24	B4.1	B2.0	C1.4	C1.8	C1.0	B2.4	B1.5	B1.4	B5.6	B8.9	C1.9	B9.6
25	B3.7	B2.8	B8.4	B6.7	C1.7	B2.3	B1.4	B1.7	B4.2	C1.1	C1.3	C1.1
26	B5.3	B3.0	B5.9	B8.0	C1.1	B2.1	B1.1	A9.1	B7.5	B8.7	B9.8	C1.1
27	B4.0	B2.1	B6.8	B9.2	B4.2	B2.2	B1.1	B1.8	B6.5	C1.3	B7.0	C1.7
28	B3.8	B1.6	C1.4	C2.5	B7.4	B2.0	B1.1	B3.8	B6.6	B9.6	B7.4	C1.2
29	B2.6	B2.2	C1.2	C1.2	B2.4		A8.9	B3.7	B6.3	B9.6	C1.4	C1.8
30	B2.8	B2.0	B8.0	B9.9	B2.4		B1.0	B4.4	B4.7	C1.2	C1.7	C1.3
31		B1.9		C1.0	B3.6		A8.9		B6.3		C1.1	C1.2

## ACTIVE PROMINENCES AND FILAMENTS

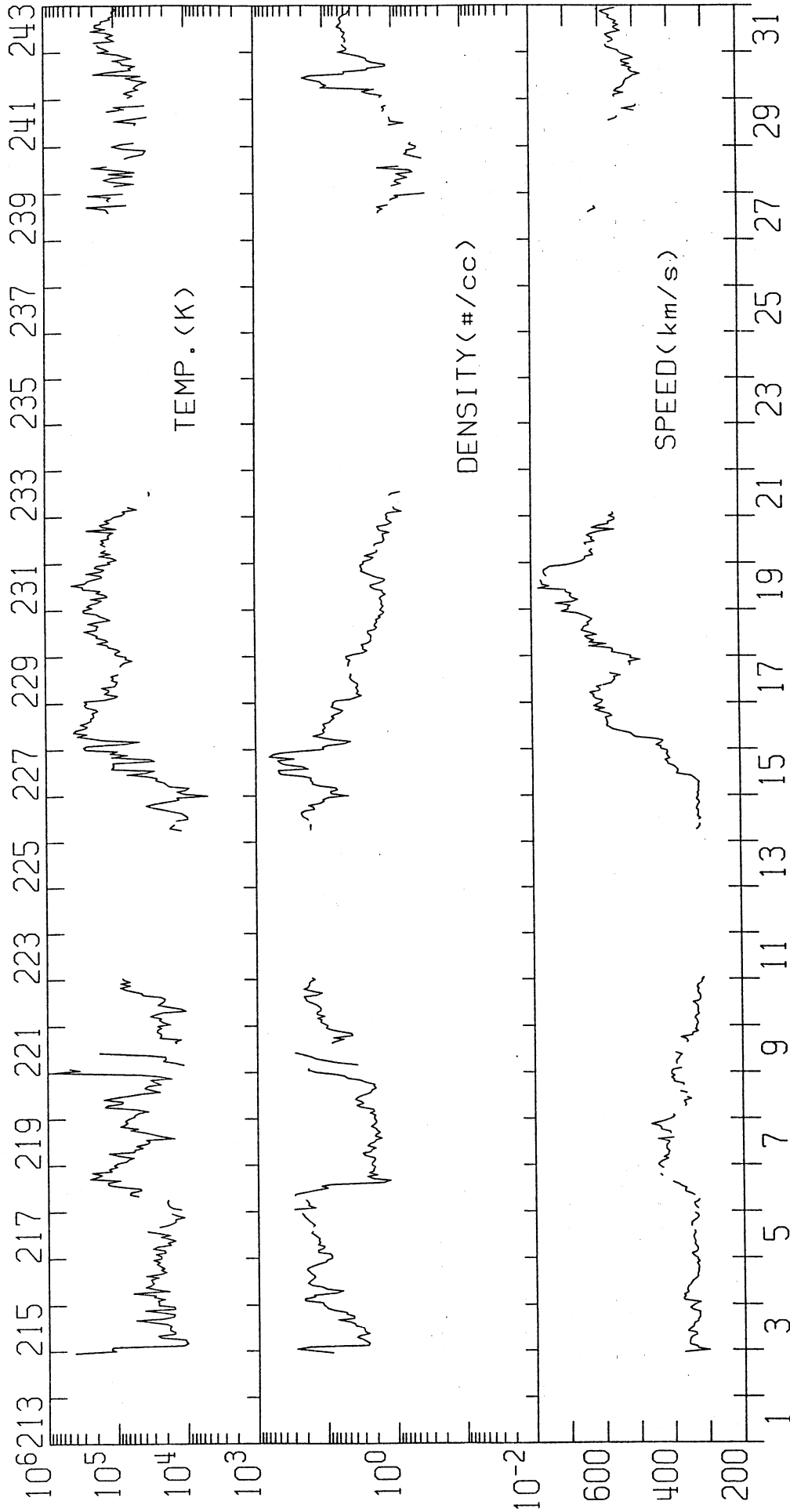
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Aug 99

AUGUST 1999

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
02	EPL	1611	1710D	S33	E90	08	9.8	3		0	0	E	HOLL		
02	DSF	1835U	1106U	S20	W11	08	1.9		08	0	0	E	RAMY		
03	DSF	1934U	2134	S14	W04	08	3.5		15	0	0	E	HOLL		
04	APR	1034E	1320D	S33	E90	08	11.6	2	8			P	WROC		
04	APR	1248E	1401D	S20	W90	07	28.7	2	6			P	WROC		
05	BSL	1542	1611	S31	W70	07	31.1			9	9	E	RAMY	8645	Flare Associated
05	BSL	1543	1610	S33	W74	07	30.9			9	9	E	SVTO	8645	Flare Associated
07	DSF	2254	2258	S23	E02	08	8.1	2	05	0	0	E	HOLL	8657	
10	DSF	1945U	1119U	N25	E33	08	13.4		09	0	0	E	RAMY		
11	DSF	0056U	1319U	N23	E22	08	12.7		10	0	0	E	HOLL		
11	DSF	0056U	1319U	S31	E36	08	13.9		13	0	0	E	HOLL		
11	DSF	0925U	1244U	N25	E25	08	13.3	2	09	0	0	E	SVTO		
11	DSF	1605U	1708	S06	W06	08	11.2	2	05	7	7	E	RAMY	8662	
11	EPL	2142	2235	N28	W90	08	4.9	3		9	9	E	HOLL		
11	BSL	2340	2354	N28	E90	08	19.0			9	9	E	HOLL		
12	DSF	1651U	0435U	N68	W35	08	9.5	2	23	0	0	E	SVTO		
12	BSL	1847	1854D	N13	E90	08	19.6			6	6	E	RAMY		
12	BSL	1850E	1900	N25	E90	08	19.7			4	4	E	HOLL		
13	APR	0835E	1030D	N37	E90	08	20.2	2	12	9	9	V	KHAR		
13	APR	0835E	1030D	N48	E90	08	20.2	2	07	9	9	V	KHAR		
13	DSD	0918E	0923	S14	W21	08	11.8	1	02		9	V	KHAR		
14	BSL	1214	1253D	N27	E73	08	20.2			9	9	E	RAMY	8668	Flare Associated
14	BSL	1227E	1259D	N27	E78	08	20.6			9	9	E	SVTO	8668	
16	APR	0918E	1244D	N54	W90	08	8.6	1	6			P	WROC		
17	EPL	0519E	0546D	S59	E79	08	24.1	3		8	9	E	SVTO		
17	DSF	0938U	2340U	N40	E61	08	22.4		21	0	0	E	LEAR		
17	ADF	1450	1537	N42	E33	08	20.3	3	22	0	0	E	HOLL		
18	APR	1023E	1134	S32	W90	08	11.3	2	6			P	WROC		
18	DSF	1535	1601	S19	W09	08	18.0	2	06	0	0	E	RAMY	8669	
19	ASR	0759E	1226D	S20	E90	08	26.2	1	7			P	WROC		
19	EPL	0809E	1018D	S13	E90	08	26.1	2	4			P	WROC		
20	ASR	0743E	1306D	S20	E90	08	27.2	0	4			P	WROC		
20	DSD	1110E	1128	N18	W08	08	19.9	1	04	9	9	V	KHAR		
20	ADF	1110E	1205	N21	W02	08	20.3	1	16	9	9	V	KHAR		
20	BSL	1115	1225D	S18	E90	08	27.3	1	03	9	9	V	KHAR		
20	APR	1155	1215	N38	E90	08	27.3	2	30	9	9	V	KHAR		
20	EPL	1530	1741	N47	W74	08	14.4	3		5	6	E	HOLL		
21	DSF	1300	1433	N30	W13	08	20.5	2	07	9	9	E	RAMY	8668	
21	LPS	1430	0139	S27	E90	08	28.6			9	5	E	HOLL		Flare Associated
22	DSF	1722U	0630U	S29	W22	08	21.0	2	19	0	0	E	SVTO		
23	DSF	2130U	1404U	N62	E27	08	26.3	3	11	0	0	E	HOLL		
24	EPL	0905E	0946	N29	E90	08	31.4	3	17			P	WROC		
24	BSL	0909E	0942D	N22	E90	08	31.3			9	9	E	SVTO		
25	APR	0803E	1207D	S16	W90	08	18.5	2	9			P	WROC		
25	ASR	1031E	1206D	N19	W90	08	18.6	1	7			P	WROC		
26	APR	0817E	1238	S46	E90	09	2.8	1	6			P	WROC		
26	APR	0817E	1238D	S26	E90	09	2.3	1	9			P	WROC		
27	APR	1035E	1210D	N13	W90	08	20.6	2	24	9	9	V	KHAR		

IMP 8 SOLAR WIND PLASMA  
AUGUST 1999

MIT/CSR IMP 8 PLASMA PARAMETERS



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IMP 8

MIT

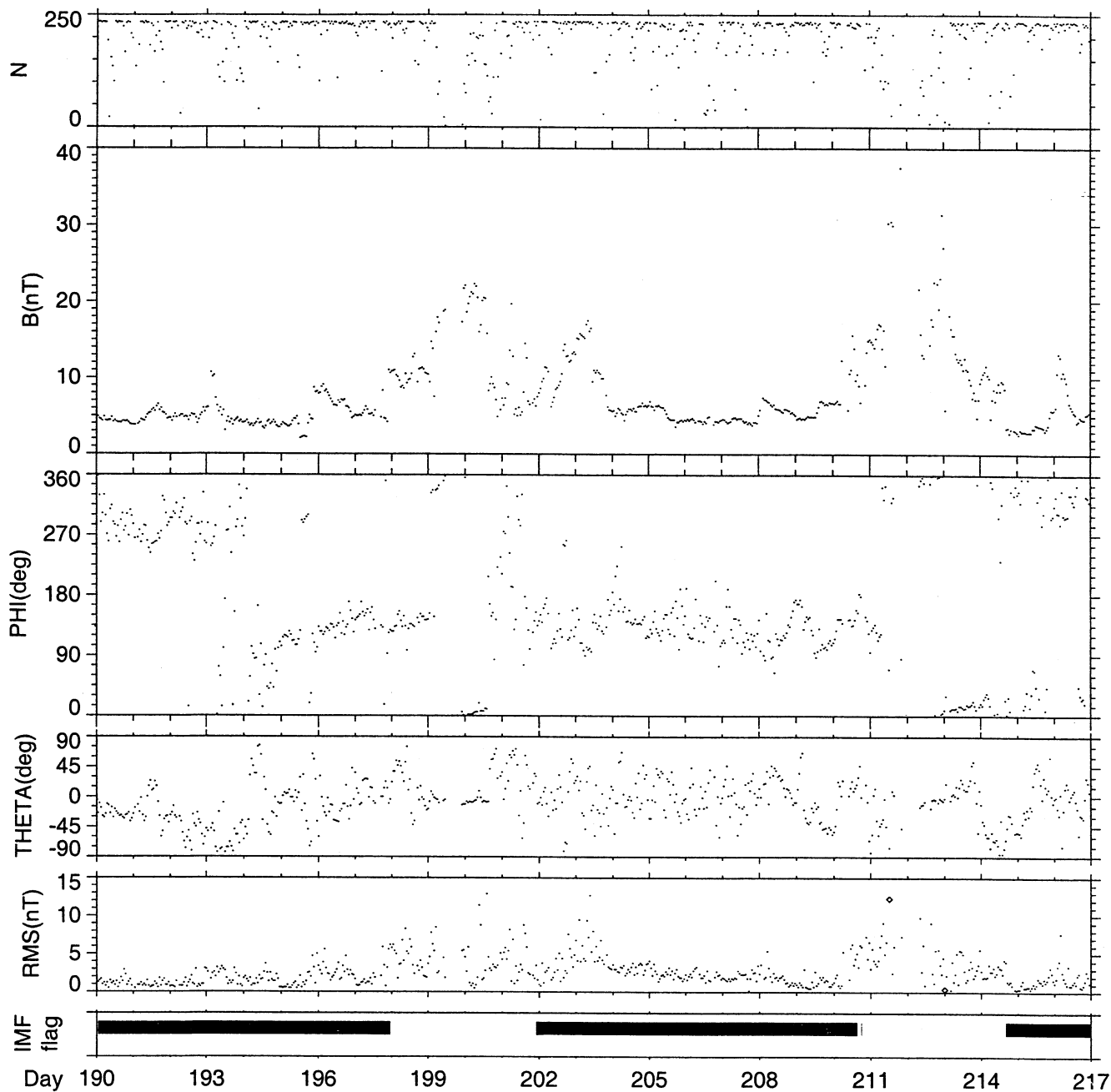
ONE-HOUR AVERAGES

### IMP-8 Magnetic Field Data in GSE Coordinates

1 Hour Averages

(c) DOY 190 - 217

July 9 1999 - August 5 1999



Generation Date : Wed Oct 13 10:27:49 1999

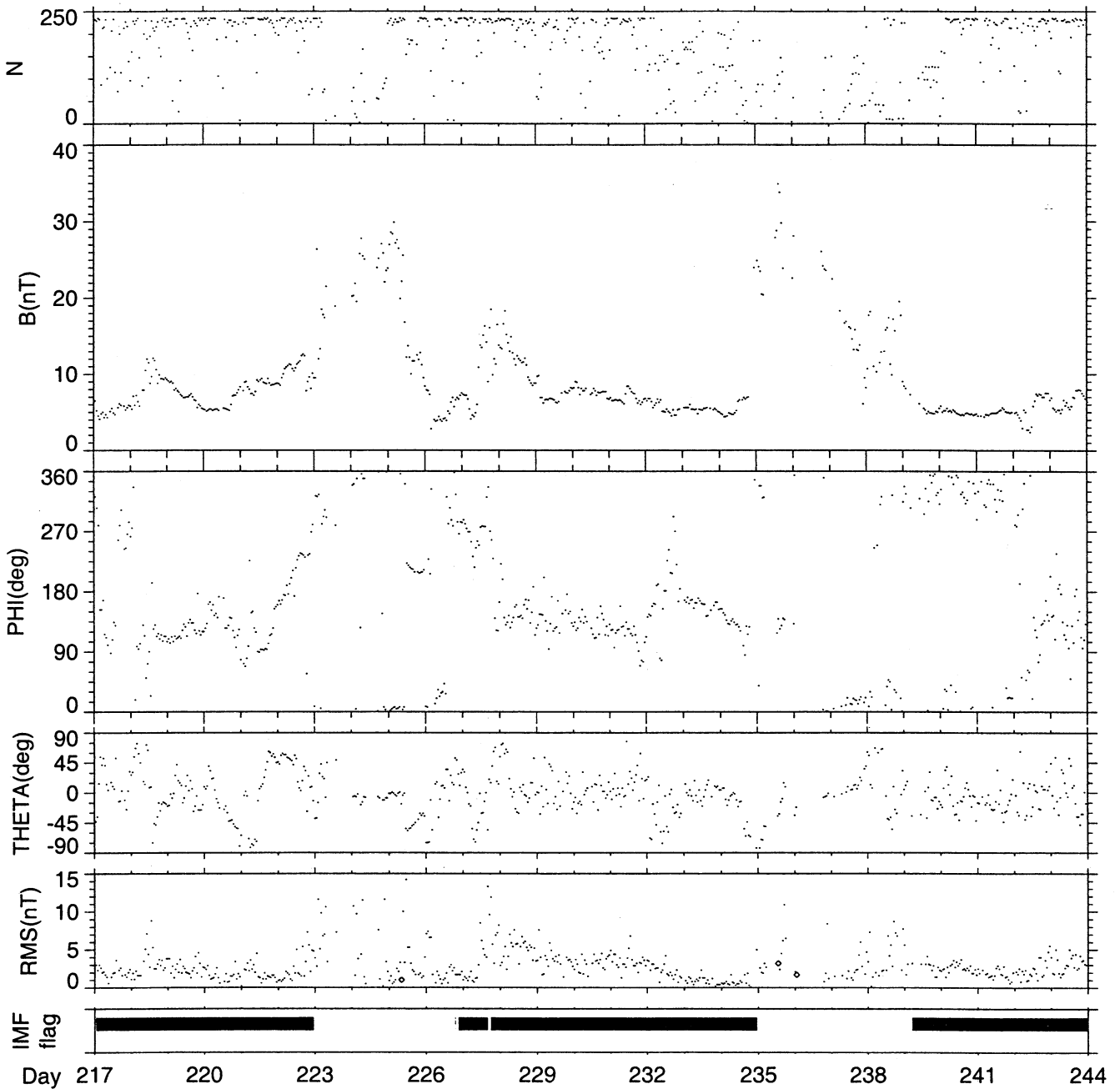
NOTE: The IMF "flag" (black boxes at the bottom of the plots) indicates where the interplanetary magnetic field regions are according to a dynamic model of the location of the bow shock. At all other times IMP-8 is in the magnetosphere.

### IMP-8 Magnetic Field Data in GSE Coordinates

1 Hour Averages

(c) DOY 217 - 244

August 5 1999 - September 1 1999



Generation Date : Wed Oct 13 10:27:50 1999

NOTE: The IMF "flag" (black boxes at the bottom of the plots) indicates where the interplanetary magnetic field regions are according to a dynamic model of the location of the bow shock. At all other times IMP-8 is in the magnetosphere.