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H α SOLAR FLARES

JUNE 1998

Grp #	Sta	Day	Start (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 (10-6 Disk)	Corr (Sq Deg)	
0001	SVTO	01	0657	0700	0721	N22	W08	8227	05	31.7	24	SF	3	E		16		
			02 0152		0240			No Flare Patrol										
			02 0300		0348			No Flare Patrol										
			02 0407		0423			No Flare Patrol										
0002	KANZ	02	0813	0817	0825	S27	E43	8230	06	5.7	12	SF	2	C				
0003		02	12521	1253	1300	N30	W22	8227	05	31.8	8	SF				22		
	SVTO	02	1252	1253	1300	N30	W22	8227	05	31.8	8	SF	3	E		22		
	KANZ	02	1253	1253D	1253D	N29	W23	8227	05	31.7	8D	SF	2	C				
		03	0153		0303			No Flare Patrol										
		03	0312		0403			No Flare Patrol										
0004	KHAR	03	0912		0945	N19	E85	8234	06	9.9	33	SF	2	V				
0005		03	11265	11302	1150	N16	E84	8234	06	9.8	24	SN						
	KANZ	03	1126	1130	1150	N14	E83	8234	06	9.7	24	SF	2	C				
	KHAR	03	1131	1132	1150	N19	E85	8234	06	10.0	19	SN	2	V				
0006	KANZ	03	1230	1234	1250	N14	E83	8234	06	9.8	20	SF	2	C				
0007		03	13101	13101	1317	N28	E64	8233	06	8.5	7	SF				40		H
	KANZ	03	1310	1310	1318	N27	E63	8233	06	8.4	8	SF	2	C				H
	RAMY	03	1310	1311	1315	N29	E64	8233	06	8.6	5	SF	3	E		26		H
	SVTO	03	1311	1311	1318	N27	E65	8233	06	8.6	7	SF	3	E		53		H
0008		03	13541	1355	1401	N27	E64	8233	06	8.6	7	SF				24		H
	HOLL	03	1354	1355	1401	N27	E65	8233	06	8.6	7	SF	3	E		30		H
	SVTO	03	1355	1355	1401	N27	E64	8233	06	8.6	6	SF	3	E		18		H
0009		03	1416	1417	1420	N27	E64	8233	06	8.6	4	SF				16		H
	SVTO	03	1416	1417	1420	N27	E64	8233	06	8.6	4	SF	3	E		15		H
	HOLL	03	1416	1417	1420	N27	E65	8233	06	8.6	4	SF	3	E		16		H
0010		03	1427	1428	1433	N26	E64	8233	06	8.6	6	SF				31		H
	HOLL	03	1427	1428	1432	N27	E65	8233	06	8.7	5	SF	3	E		50		H
	SVTO	03	1427	1428	1434	N26	E64	8233	06	8.6	7	SF	3	E		12		H
0011	HOLL	03	1504	1509	1511	S21	E67	8232	06	8.8	7	SF	3	E		38		
0012		03	15081	15093	1517	N26	E64	8233	06	8.6	9	SF				34		H
	HOLL	03	1508	1509	1519	N26	E65	8233	06	8.7	11	SF	3	E		38		H
	SVTO	03	1509	1512	1515	N27	E63	8233	06	8.5	6	SF	3	E		29		H
0013	SVTO	03	1550	1551	1553	N25	E64	8233	06	8.6	3	SF	3	E		10		
0014		03	16127	16192	1634	N27	E63	8233	06	8.6	22	SF				23		F
	SVTO	03	1612	1619	1640	N25	E64	8233	06	8.6	28	SF	3	E		27		F
	HOLL	03	1615	1621	1636	N27	E62	8233	06	8.5	21	SF	3	E		31		
	RAMY	03	1619	1619	1626	N28	E64	8233	06	8.7	7	SF	3	E		12		
0015	HOLL	03	1922	1925	1931	S22	E66	8232	06	8.9	9	SF	3	E		25		
		03	2304		2400			No Flare Patrol										
		04	0000		0019			No Flare Patrol										
		04	0041		0121			No Flare Patrol										
		04	0249		0258			No Flare Patrol										
0016		04	08183	0822	0826	S24	E52	8232	06	8.4	8	SF				24		
	KANZ	04	0818	0822	0826	S23	E52	8232	06	8.3	8	SF	2	C				
	SVTO	04	0821	0822	0825	S25	E52	8232	06	8.4	4	SF	3	E		24		
0017	KHAR	04	0938		0947	S16	E55	8232	06	8.6	9	SF	2	V				DL
0018	KHAR	04	1011		1017	S23	E51	8232	06	8.3	6	SF	2	V				DL
0019	KHAR	04	1032		1040	S20	E46	8232	06	7.9	8	SF	2	V				DH

H α SOLAR FLARES

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Grp #	Sta	Start Day	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Time (UT)	Measurement Apparent (10 ⁻⁶ Disk)	Corr (Sq Deg)	Remarks
							Region	Day										
0020		04 11213	1125	1136	S22	E50	8232	06	8.3	15	SF				37			EFH
	KHAR	04 1121	1125	1145	S20	E50	8232	06	8.3	24	1N	2	V					HE
	SVTO	04 1122	1125	1128	S23	E49	8232	06	8.2	6	SF	3	E		37			FH
	KANZ	04 1124	1124U	1124D	S22	E51	8232	06	8.4	6D	SF	2	C					
0021	KHAR	04 1153		1200	S19	E58	8233A	06	8.9	7	SF	2	V					D
0022	KHAR	04 1157		1205D	S22	E48	8232	06	8.2	8D	SF	2	V					DH
0023		04 1459	1459	1503	S22	E50	8232	06	8.5	4	SF				16			F
	SVTO	04 1459	1459	1502	S22	E52	8232	06	8.6	3	SF	3	E		10			F
	HOLL	04 1459	1459	1504	S23	E47	8232	06	8.2	5	SF	3	E		21			
0024		04 16141	1615	1621	S24	E54	8232	06	8.8	7	SF				21			F
	HOLL	04 1614	1615	1621	S25	E55	8232	06	8.9	7	SF	3	E		29			
	SVTO	04 1615	1615	1621	S24	E54	8232	06	8.8	6	SF	3	E		13			F
0025	HOLL	04 2038	2039	2043	S27	E51	8232	06	8.8	5	SF	3	E		73			
0026	HOLL	04 2137	2144	2152	S25	E49	8232	06	8.7	15	SF	3	E		32			
0027	HOLL	05 0029	0031	0036	N27	E45	8233	06	8.5	7	SF	3	E		16			
0028	LEAR	05 0444	0444	0450	S26	E43	8232	06	8.5	6	SF	3	E		29			
0029		05 06471	0648	0656	S26	E45	8232	06	8.8	9	SF				11			F
	SVTO	05 0647	0648U	0655D	S25	E45	8232	06	8.8	8D	SF	3	E		11			F
	KANZ	05 0648	0648	0656	S27	E45	8232	06	8.8	8	SF	2	C					
0030		05 08361	08382	0900	N26	E40	8233	06	8.5	24	SF				21			
	KANZ	05 0836	0840	0900	N27	E40	8233	06	8.5	24	SF	2	C					
	SVTO	05 0837	0838	0900	N26	E40	8233	06	8.5	23	SF	3	E		21			
0031		05 09502	09511	0957	S22	E44	8232	06	8.8	7	SF				34			F
	SVTO	05 0950	0951	0958	S23	E43	8232	06	8.7	8	SF	3	E		34			F
	KANZ	05 0952	0952	0956	S22	E45	8232	06	8.9	4	SF	2	C					
0032	KANZ	05 1300	1300	1312	S27	W03	8230	06	5.3	12	SF	2	C					
0033		05 1419	1419	1425	S24	E42	8232	06	8.8	6	SF				50			F
	RAMY	05 1419	1419	1423	S23	E43	8232	06	8.9	4	SF	3	E		27			
	HOLL	05 1419	1419	1425	S24	E42	8232	06	8.8	6	SF	3	E		68			
	SVTO	05 1419	1419	1427	S24	E41	8232	06	8.8	8	SF	3	E		54			F
0034	HOLL	05 2254	2254	2257	S23	E37	8232	06	8.8	3	SF	3	E		15			
0035	SVTO	06 0658	0659	0706	S18	E31	8232	06	8.6	8	SF	3	E		11			F
0036	KHAR	06 1117		1140	N19	W07	8236	06	5.9	23	SF	2	V					L
		07 0324		0357	No Flare Patrol													
0037	SVTO	07 1112	1115	1121	N21	W16	8236	06	6.2	9	SF	3	E		20			F
0038		07 14462	1453	1519	S25	E11	8232	06	8.5	33	1F				155			F
	HOLL	07 1446	1453	1528	S23	E12	8232	06	8.5	42	1F	3	E		208			F
	SVTO	07 1447	1451U	1512	S26	E11	8232	06	8.5	25	1F	3	E		131			F
	RAMY	07 1448	1453	1516	S26	E11	8232	06	8.5	28	1F	3	E		126			
0039	SVTO	07 1538	1546	1555	S19	E14	8232	06	8.7	17	SF	3	E		16			F
0040	HOLL	07 1613	1613	1618	S26	E13	8232	06	8.7	5	SF	3	E		13			F
		07 2206		2400	No Flare Patrol													
		08 0000		0004	No Flare Patrol													
		08 0028		0036	No Flare Patrol													
		08 0112		0125	No Flare Patrol													
		08 0149		0158	No Flare Patrol													
		08 0358		0408	No Flare Patrol													

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Jun 98

H α SOLAR FLARES

JUNE 1998

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0041	HOLL	08	1558	1603	1700	S18	W03	8232	06	8.4	62	2N		3	E		353		FH
0042	HOLL	08	1956	2004	2008	S30	W08	8232	06	8.2	12	SF		3	E		19		F
0043	KANZ	09	0720	0724	0732	S19	W67	8230	06	4.2	12	SF		2	C				
0044	KANZ	09	0843E	0843U	0852D	S26	W10	8232	06	8.6	9D	SF		2	C				
			09 1629		1809	No Flare Patrol													
			09 2240		2400	No Flare Patrol													
			10 0000		0153	No Flare Patrol													
0045	URUM	10	0402	0406	0426	S19	W26	8232	06	8.2	24	SB			C		145	1.8	E
0046	KANZ	10	0705	0721	0725	S28	E14	8241	06	11.4	20	SF		2	C				
			10 0726		0732	No Flare Patrol													
			10 1059		1106	No Flare Patrol													
			10 1229		1251	No Flare Patrol													
			10 2155		2210	No Flare Patrol													
			10 2226		2400	No Flare Patrol													
			11 0000		0417	No Flare Patrol													
0047	SVTO	11	0606	0607	0609	S22	W61	8240	06	6.6	3	SF		2	E		20		
0048	KHAR	11	0933U		0947	S23	E24	8237	06	13.2	14U	SF		2	V				L
0049	HOLL	11	2249	2254	2302	S20	W68	8240	06	6.7	13	SF		3	E		70		
			11 2336		2346	No Flare Patrol													
			12 0051		0057	No Flare Patrol													
			12 0109		0135	No Flare Patrol													
			12 0142		0155	No Flare Patrol													
0050	URUM	12	0250	0252	0257	N18	E11	8238	06	12.9	7	SB			C		96	1.1	E
0051	LEAR	12	0251	0252	0256	S19	W70	8240	06	6.8	5	SF		3	E		29		
0052	URUM	12	0453E	0456	0501	S21	W70	8240	06	6.8	8D	SB			P		32		D
0053	SVTO	12	0455	0456	0501	N18	E11	8239	06	13.0	6	SF		3	E		22		
0054		12	05363	0540	0544	S22	W74	8240	06	6.5	8	SF					36		
	SVTO	12	0536	0540	0545D	S22	W73	8240	06	6.6	9D	SF		3	E		50		
	LEAR	12	0539	0540	0544	S22	W74	8240	06	6.5	5	SF		3	E		21		
0055		12	0803	08041	0808	S22	W76	8240	06	6.5	5	SF					29		
	SVTO	12	0803	0804	0808	S22	W76	8240	06	6.5	5	SF		3	E		30		
	LEAR	12	0803	0805	0807	S22	W75	8240	06	6.6	4	SF		3	E		28		
0056	SVTO	12	0916	0919	0925D	S22	W77	8240	06	6.5	9D	1F		3	E		140		
0057	HOLL	12	1404	1408	1414	S19	W77	8240	06	6.7	10	SF		3	E		47		
0058	HOLL	12	1558	1603	1605	S19	W77	8240	06	6.8	7	SF		3	E		19		
			12 2102		2108	No Flare Patrol													
0059	HOLL	12	2110	2110	2148	S25	E54	8242	06	17.1	38	SF		3	E		92		
0060	HOLL	12	2219	2233	2244	S23	E54	8242	06	17.1	25	SF		3	E		23		
			12 2257		2303	No Flare Patrol													
0061	HOLL	12	2304	2319	2333	S24	E53	8242	06	17.0	29	SF		3	E		49		
0062		13	03045	03083	0315	S22	E52	8242	06	17.1	11	1N					88	2.9	E
	URUM	13	0304	0308	0312D	S22	E51	8242	06	17.0	8D	1N			P		161	2.9	E
	LEAR	13	0309	0311	0315	S22	E54	8242	06	17.3	6	SF		3	E		16		

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Grp #	Sta	Day	Start (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 ⁻⁶ Disk)	Corr (Sq Deg)	
0063	LEAR	13	0418	0419	0439	S27	E54	8242	06	17.4	21	1N	3	E		128		FH
0064	URUM	13	0525E	0529	0537	S25	W56	8232	06	8.9	12D	SN		P		96	2.0	D
0065	SVTO	13	0623	0625	0630	S24	W59	8232	06	8.7	7	SF	3	E		36		
0066	SVTO	13	0635E	0637U	0647D	S21	W89	8240	06	6.4	12D	SF	2	E		39		
		13	1001		1009	No Flare Patrol												
0067	KHAR	13	1120		1152	S26	W90	8240	06	6.5	32	SF	2	V				H
0068	HOLL	13	1423	1423	1426	S26	E46	8242	06	17.2	3	SF	3	E		16		
0069		13	15243	15275	1550	S26	W02	8237	06	13.5	26	1F				74		FHU
	HOLL	13	1524	1532	1555	S25	W04	8237	06	13.3	31	1F	3	E		123		UF
	RAMY	13	1527	1527	1545	S27	W01	8237	06	13.6	18	SF	4	E		25		UH
0070	SVTO	13	1527E	1527U	1540D	S28	W12	8237	06	12.7	13D	SF	2	E		89		FU
0071	HOLL	13	1555	1556	1613	S28	W12	8237	06	12.7	18	SF	3	E		60		
0072		13	1721	1728	1740	S24	E44	8242	06	17.1	19	SF				86		FH
	SVTO	13	1721	1728	1740	S24	E44	8242	06	17.1	19	SF	3	E		78		FH
	HOLL	13	1721	1728	1741	S23	E43	8242	06	17.0	20	SF	3	E		93		H
0073		13	1757	17581	1805	S21	E44	8242	06	17.1	8	SF				37		
	HOLL	13	1757	1758	1807	S22	E43	8242	06	17.0	10	SF	3	E		55		
	RAMY	13	1757	1759	1803	S20	E45	8242	06	17.2	6	SF	4	E		19		
0074	HOLL	13	2206	2210	2214	S23	E40	8242	06	17.0	8	SF	3	E		20		
0075		14	01051	0109	0117	S24	E44	8242	06	17.4	12	1N				82		
	HOLL	14	0105	0109	0119	S25	E46	8242	06	17.6	14	1N	3	E		111		
	LEAR	14	0106	0109	0115	S22	E42	8242	06	17.3	9	SF	3	E		52		
0076	LEAR	14	0257	0257	0300	S22	E41	8242	06	17.3	3	SF	3	E		14		
0077	SVTO	14	0434	0438	0443	S31	E12	8245	06	15.1	9	SF	3	E		24		F
0078		14	0519	0521	0529	S22	E36	8242	06	17.0	10	SF				26		F
	LEAR	14	0519	0521	0527	S22	E35	8242	06	16.9	8	SF	3	E		16		
	SVTO	14	0521E	0521U	0531	S21	E38	8242	06	17.1	10D	SF	3	E		37		F
0079		14	07391	07391	0746	N15	E61	8243	06	18.9	7	SF				15		
	SVTO	14	0739	0739	0744	N15	E62	8243	06	19.0	5	SF	3	E		15		
	KANZ	14	0740	0740	0748	N15	E60	8243	06	18.9	8	SF	2	C				
0080		14	08363	08392	0844	N14	E61	8243	06	19.0	8	SF				12		
	KANZ	14	0836	0840	0844	N15	E61	8243	06	19.0	8	SF	2	C				
	SVTO	14	0838	0841	0844	N15	E62	8243	06	19.0	6	SF	3	E		11		
	LEAR	14	0839	0839	0843	N13	E60	8243	06	18.9	4	SF	3	E		12		
0081	KHAR	14	1015		1025	N27	E70	8243A	06	19.9	10	SF	2	V				EH
0082	KANZ	14	1041	1041	1045	S22	W69	8232	06	9.1	4	SF	2	C				
0083	KHAR	14	1055U	1103	1110	N19	E59	8243	06	18.9	15U	SF	2	V				EL
0084		14	1528	15291	1541	N14	E59	8243	06	19.1	13	SF				42		F
	HOLL	14	1528	1529	1540	N14	E59	8243	06	19.1	12	SF	3	E		53		
	SVTO	14	1528	1530	1542	N15	E59	8243	06	19.1	14	SF	3	E		32		F
0085	HOLL	15	1325	1328	1330	N34	E10	8244	06	16.3	5	SF	3	E		16		
0086	URUM	16	2354	2357	0017	S23	E06	8242	06	17.4	23	SB		C		64	0.7	DG
0087	URUM	17	0055	0103	0111	N33	W11	8244	06	16.2	16	SN		C		80	1.0	E

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Grp #	Sta	Day	Start (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 (10-6 Disk)	Corr (Sq Deg)	
0088	URUM	17	0111	0121U	0126D	N19	E44		06	20.4	15D	SN		P		48	0.7	E
		17	0207		0300	No Flare Patrol												
0089	URUM	17	1012	1032	1055	N16	E21	8243	06	19.0	43	SF		C		48	0.5	D
0090	HOLL	17	1915	1921	1941	N18	E20	8243	06	19.3	26	SF	3	E		31		FH
0091		18	10084	1024	1032	N22	E09	8243	06	19.1	24	SN				96	1.1	DE
	KHAR	18	1008		1030U	N24	E08	8243	06	19.0	22U	SF	2	V				D
	URUM	18	1012	1024	1032	N21	E10	8243	06	19.2	20	SN		C		96	1.1	E
0092	KHAR	18	1152		1200	N20	E02	8243	06	18.6	8	SF	2	V				E
0093	KANZ	18	1232E	1236U	1236D	S27	W05	8250	06	18.1	4D	SF	2	C				
		18	1821		1827	No Flare Patrol												
0094	HOLL	18	1909	1910	1917	N20	E07	8243	06	19.3	8	SF	3	E		12		
0095	HOLL	18	1930	1931	1937	N21	E06	8243	06	19.3	7	SF	3	E		12		
		18	2016		2339	No Flare Patrol												
0096	URUM	19	0040	0044	0056	N22	E03	8243	06	19.2	16	SN		C		32	0.4	D
0097	HOLL	19	0043	0045	0050	N15	E02	8243	06	19.2	7	SF	3	E		14		
0098		19	06493	0656	0728	S30	E36	8249	06	22.1	39	SF				39		EH
	SVTO	19	0649	0700U	0717D	S29	E36	8249	06	22.1	28D	SF	1	E		49		
	LEAR	19	0652	0656	0728	S32	E36	8249	06	22.1	36	SF	4	E		29		EH
		19	0929		0959	No Flare Patrol												
0099	KANZ	20	0711	0711	0719	N33	W50	8244	06	16.3	8	SF	2	C				
0100		20	14193	14234	1449	N14	W23	8243	06	18.8	30	1N				140		FH
	HOLL	20	1255E	1427	1532D	N16	W23	8243	06	18.8	157D	2N	3	E		274		FH
	SVTO	20	1419	1426	1456	N13	W23	8243	06	18.9	37	1N	3	E		111		H
	KANZ	20	1419	1427	1447D	N13	W23	8243	06	18.9	28D	1F	2	C				
	RAMY	20	1422	1423	1442	N13	W24	8243	06	18.8	20	SF	3	E		34		
0101	HOLL	20	2028	2028	2033	N16	W21	8243	06	19.3	5	SF	3	E		26		F
0102	HOLL	20	2057	2100	2131	N16	W21	8243	06	19.3	34	1F	3	E		104		F
0103	HOLL	20	2148	2151	2158	N19	W22	8243	06	19.2	10	SF	3	E		24		F
0104	HOLL	20	2201	2210	2228	N17	W23	8243	06	19.2	27	SF	3	E		97		F
0105	HOLL	20	2329	2337	2342	N16	W23	8243	06	19.2	13	SF	3	E		13		
0106	HOLL	21	0031	0032	0036	N16	W24	8243	06	19.2	5	SF	3	E		11		
0107	HOLL	21	0101	0102	0106	N17	W23	8243	06	19.3	5	SF	3	E		17		
0108		21	04597	05078	0520	N16	W26	8243	06	19.2	21	SF				22		F
	LEAR	21	0459	0515	0519	N17	W25	8243	06	19.3	20	SF	3	E		18		
	SVTO	21	0506	0507	0521	N15	W27	8243	06	19.2	15	SF	3	E		25		F
0109	KANZ	21	0959	1003	1023	N15	W29	8251	06	19.2	24	SF	2	C				
0110	HOLL	21	1802	1808	1814	N16	W38	8243	06	18.9	12	SF	3	E		37		
0111	HOLL	21	2106	2109	2116	N16	W39	8243	06	18.9	10	SF	3	E		32		
0112	SVTO	22	0422E	0437	0512	N15	W39	8243	06	19.2	50D	SF	2	E		75		

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Grp #	Sta	Start Day	Max (UT)	End (UT)	Lat	CMD	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)	
0113		22 0432*	0433*	0500	N15	W46	8243	06	18.7	28	SN			42	1.0	EF	
	LEAR	22 0432	0433	0442	N16	W46	8243	06	18.7	10	SF	4	E	20		FE	
	URUM	22 0442	0446	0517	N14	W46	8243	06	18.7	35	SN		P	64	1.0	E	
0114		22 1457	1458	1502	N36	W80	8244	06	16.2	5	SF			28			
	HOLL	22 1457	1458	1502	N37	W78	8244	06	16.3	5	SF	3	E	34			
	SVTO	22 1458	1459	1502	N36	W81	8244	06	16.1	4	SF	2	E	21			
0115	SVTO	22 1605	1606	1612	N16	W61	8251	06	18.0	7	SF	3	E	15		F	
0116	HOLL	22 2025	2027	2030	N17	E80	8253	06	28.9	5	SF	3	E	11			
0117	HOLL	22 2032	2036	2044	N18	E82	8253	06	29.1	12	SF	3	E	36			
0118	HOLL	22 2247	2247	2254	N16	W52	8243	06	19.0	7	SF	3	E	11			
0119	HOLL	22 2349	2350	2356	S26	W18	8249	06	21.6	7	SF	3	E	11			
0120	HOLL	23 0102	0117	0153	N17	E76	8253	06	28.8	51	SF	3	E	42			
0121	URUM	23 0123	0130	0142	N17	E80	8253	06	29.1	19	1N		C	80		E	
0122	URUM	23 0130	0134	0142	N20	W49	8243	06	19.3	12	SB		C	32	0.5	D	
0123	SVTO	23 0527	0529	0548	N16	E76	8253	06	29.0	21	SF	2	E	39		H	
0124	SVTO	23 0931	0932	0944	N17	E73	8253	06	28.9	13	SF	3	E	23		F	
0125	SVTO	23 1031	1033	1041	N16	E72	8253	06	28.9	10	SF	3	E	58		FH	
0126		23 1518	1519	1526	N14	E70	8253	06	28.9	8	SF			33			
	SVTO	23 1518	1519	1524	N15	E69	8253	06	28.9	6	SF	3	E	30			
	HOLL	23 1518	1519	1527	N14	E70	8253	06	28.9	9	SF	3	E	36			
0127	HOLL	23 1918	1922	1930	N15	E68	8253	06	28.9	12	SF	3	E	94			
0128	HOLL	23 2302	2303	2308	N16	W68	8249	06	18.8	6	SF	3	E	13			
0129	URUM	24 0018E	0018	0026	N16	E64	8253	06	28.9	8D	SB		P	48	1.1	D	
0130	URUM	24 0248	0252	0256	N02	E68		06	29.2	8	SN		C	16		D	
0131	URUM	24 0324E	0324	0344	N16	W71	8243	06	18.7	20D	SB		P	64		E	
0132	URUM	24 0356E	0356	0404	N16	E61	8253	06	28.8	8D	SB		P	32	0.7	D	
0133	URUM	24 0412	0416	0420	N17	E59	8253	06	28.6	8	SN		C	32	0.7	D	
0134		24 0450	0451	0454	N16	E61	8253	06	28.8	4	SF			20			
	SVTO	24 0450	0451	0454	N16	E62	8253	06	28.9	4	SF	3	E	23			
	LEAR	24 0451	0451	0455	N16	E60	8253	06	28.7	4	SF	3	E	17			
0135	URUM	24 0508	0516	0527	N18	E66	8253	06	29.2	19	SN		C	64		E	
0136		24 0905	0903	0912	N16	E58	8253	06	28.8	7	SN			21	0.3	D	
	URUM	24 0903E	0903	0915	N16	E58	8253	06	28.8	12D	SB		P	16	0.3	D	
	LEAR	24 0905	0906	0910	N16	E58	8253	06	28.8	5	SF	3	E	21			
	SVTO	24 0905	0907	0910	N16	E58	8253	06	28.8	5	SF	3	E	27			
0137	SVTO	24 1131	1136	1151	N15	E62	8253	06	29.2	20	SF	3	E	37		F	
0138	SVTO	24 1212	1213	1216	N19	E61	8253	06	29.2	4	SF	3	E	20			
0139	HOLL	24 1353	1358	1405	N16	E63	8253	06	29.3	12	SF	3	E	10			
0140	HOLL	24 1747	1802	1823	N19	E57	8253	06	29.1	36	SF	3	E	67		F	
0141	HOLL	24 1841	1852	1900	N19	E56	8253	06	29.0	19	SF	3	E	27		F	

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Grp #	Sta	Start Day	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)	
0142	HOLL	24 2014	2033	2038	N16	E57	8253	06 29.2	24	SF		3	E		23		
		24 2256		2400	No Flare Patrol												
		25 0000		0009	No Flare Patrol												
0143	URUM	25 0117	0121	0124	N16	E51	8253	06 28.9	7	SN			C		32	0.5	D
0144	URUM	25 0816	0820	0820D	N17	E48	8253	06 29.0	4D	SN			P		96	1.5	E
0145	HOLL	25 1834	1839	1855	N18	E42	8253	06 29.0	21	SF		3	E		43		
0146	HOLL	25 2038	2047	2221	N16	E41	8253	06 29.0	103	SF		3	E		69		F
0147	URUM	26 0023	0043	0059	N18	E43	8253	06 29.3	36	SB			C		32	0.5	D
0148	URUM	26 0358	0402	0411	N29	W06	8257	06 25.7	13	SF			C		32	0.4	D
		26 0517		0541	No Flare Patrol												
0149	HOLL	26 2149	2201	2211	N17	E28	8253	06 29.0	22	SF		3	E		20		
0150		27 01151	0119	0151	N18	E26	8253	06 29.0	36	1N					150		EFZ
	HOLL	27 0115	0119	0146D	N19	E25	8253	06 28.9	31D	1N		3	E		166		Z
	LEAR	27 0116	0119	0151	N18	E26	8253	06 29.0	35	1N		4	E		133		FE
0151		27 08471	08471	0900	N18	E24	8253	06 29.2	13	SF					18		
	LEAR	27 0847	0847	0900	N18	E24	8253	06 29.2	13	SF		3	E		18		
	KANZ	27 0848	0848	0900	N19	E24	8253	06 29.2	12	SF		2	C				
0152	HOLL	27 1304	1441	1509	N29	W26	8257	06 25.5	125	SF		3	E		27		
0153		27 13024	13052	1322	N17	E20	8253	06 29.1	20	SF					28		
	HOLL	27 1302	1307	1348	N16	E18	8253	06 28.9	46	SF		3	E		59		
	RAMY	27 1305	1305	1309	N18	E20	8253	06 29.1	4	SF		3	E		10		
	SVTO	27 1306	1307	1310	N17	E21	8253	06 29.1	4	SF		3	E		16		
0154	HOLL	27 1349	1355	1412	N16	E18	8253	06 28.9	23	SF		3	E		28		
0155	SVTO	27 1411	1412	1416	N22	E84	8259	07 4.0	5	SF		3	E		16		H
0156	HOLL	27 1813	1816	1831	N20	E18	8253	06 29.1	18	SF		3	E		45		
0157	HOLL	27 1847	1857	1925	N18	E19	8253	06 29.2	38	SF		3	E		60		
0158	HOLL	27 2002	2003	2012	N18	E18	8253	06 29.2	10	SF		3	E		15		
0159	HOLL	27 2022	2024	2035	N17	E17	8253	06 29.1	13	SF		3	E		19		
0160	HOLL	27 2244	2248	2253	N17	E14	8253	06 29.0	9	SF		3	E		24		
		27 2332		2337	No Flare Patrol												
0161		28 0352E	04012	0424	N19	E10	8253	06 28.9	32D	1N					145	3.2	EFH
	URUM	28 0352E	0403	0427	N21	E12	8253	06 29.1	35D	1B			P		289	3.2	E
	LEAR	28 0353E	0401	0422	N18	E12	8253	06 29.1	29D	1F		4	E		105		EH
	SVTO	28 0405E	0405U	0422	N17	E07	8253	06 28.7	17D	SF		1	E		41		F
0162	URUM	28 0523E	0523	0527	N29	W31	8257	06 25.8	4D	SB			P		48	0.6	D
0163	URUM	28 0527	0535	0543	N18	E11	8253	06 29.1	16	SN			C		32	0.3	D
0164	SVTO	28 1141	1142	1145	N16	E06	8253	06 28.9	4	SF		3	E		25		F
0165		28 1425	14251	1430	S22	E72	8260	07 4.1	5	SF					18		F
	SVTO	28 1425	1425	1429	S23	E72	8260	07 4.1	4	SF		3	E		16		
	HOLL	28 1425	1426	1431	S22	E72	8260	07 4.1	6	SF		3	E		21		F
0166	HOLL	28 1912	1916	1918	N18	E03	8253	06 29.0	6	SF		3	E		13		

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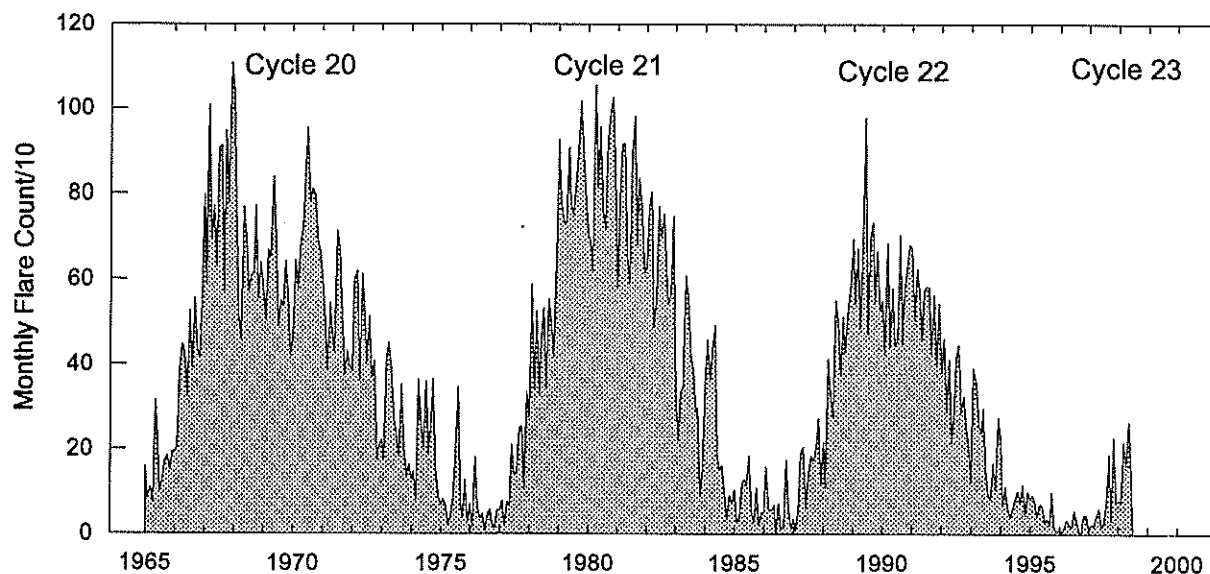
Grp #	Sta	Start Day	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0167	HOLL	28	1958	2003	2007	N18 E02	8253	06	29.0	9	SF		3	E		15		
0168	HOLL	28	2059	2059	2112	N19 E02	8253	06	29.0	13	SF		3	E		12		
0169	URUM	29	0451	0456	0508	N19 E00	8253	06	29.2	17	SN			C		48	0.5	D
0170	URUM	29	0508	0512	0523	N31 W52	8257	06	25.1	15	SN			C		32	0.6	D
0171		29	0617	06267	0650	N19 W04	8253	06	28.9	33	SF					43		F
	SVTO	29	0617	0626	0651	N19 W04	8253	06	28.9	34	SF		3	E		58		F
	LEAR	29	0617	0633	0648	N19 W03	8253	06	29.0	31	SF		3	E		28		F
0172	SVTO	29	0930	0930	0933	S13 E31	8258	07	1.7	3	SF		3	E		12		
		29	1405		1543	No Flare Patrol												
0173	HOLL	29	1710	1711	1715	S14 E26	8258	07	1.7	5	SF		3	E		16		
0174	HOLL	29	2216	2245	2323	S23 E21	8256	07	1.5	67	1F		3	E		154		
0175		30	0127*	01443	0205	N17 W15	8253	06	28.9	38	1N					144		
	URUM	30	0127	0144	0144D	N18 W15	8253	06	28.9	17D	SB			P		177	2.0	E
	HOLL	30	0140	0147	0205	N16 W15	8253	06	28.9	25	1F		3	E		111	2.0	E
0176	RAMY	30	1806E	1807U	1814	N19 W22	8253	06	29.1	8D	SF		2	E		12		
		30	2051		2241	No Flare Patrol												
0177	HOLL	30	2258	2300	2314	N19 W26	8253	06	29.0	16	SF		3	E		37		

"Remarks"

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

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

Monthly Counts of Grouped Solar Flares Jan 1965 - Jun 1998



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							972

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

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Jun 98

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

JUNE 1998

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Flux Density Mean	Int	Remarks
01	280	CUBA	44 NS	1300.0E		530.0D		15.0		
	235	CUBA	44 NS	1300.0E		530.0D		7.0		
	245	SVTO	43 NS	1329.0	1329.0	631.0	76.0			QL=4 ST=1 TYP=1
	245	PALE	8 S	0416.0	0416.0	1.0	53.0			QL=4 ST=2 TYP=3
	204	IZMI	42 SER	0625.7	0626.5	3.2	46.0			
	200	HIRA	8 S	0746.1	0746.4	0.6	30.0			0
	204	IZMI	41 F	0746.3	0746.7	1.3	159.0			
02	204	IZMI	43 NS	0630.0		113.0		20.0		
	280	CUBA	44 NS	1300.0E		530.0D		15.0		
	235	CUBA	44 NS	1300.0E		530.0D		8.0		
	245	PALE	8 S	1740.0	1740.0	U	56.0			QL=4 ST=2 TYP=3
03	235	CUBA	44 NS	1300.0E		530.0D		8.0		
	280	CUBA	44 NS	1300.0E		530.0D		18.0		
	245	SVTO	43 NS	1310.0	1310.0U	17.0	400.0			QL=2 ST=3 TYP=1
	245	SVTO	43 NS	1310.0	1310.0U	650.0	400.0			QL=2 ST=3 TYP=1
	245	SGMR	43 NS	1312.0	1325.0	18.0	110.0			QL=4 ST=2 TYP=1
	5730	IRKU	1 S	0141.1	0141.4	0.9	3.0		U	
	5730	IRKU	1 S	0212.0	0214.0	5.0	2.0		U	
	5730	IRKU	1 S	0246.1	0248.8	7.4	2.0		U	
	5730	IRKU	1 S	0547.0	0548.0	2.0	1.0		U	
	33	UPIC	45 C	1109.2	1109.9	2.3				
	245	SVTO	8 S	1238.0	1240.0	2.0	79.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1240.0	1240.0	U	78.0			QL=4 ST=2 TYP=3
	245	SVTO	49 GB	1256.0	1257.0	6.0	520.0			QL=2 ST=2 TYP=6
	245	SGMR	4 S/F	1257.0	1258.0	3.0	170.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1411.0	1413.0	2.0	70.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1412.0	1413.0	1.0	66.0			QL=4 ST=2 TYP=3
245	PALE	8 S	2008.0	2009.0	1.0	260.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	2008.0	2009.0	1.0	260.0			QL=4 ST=2 TYP=3	
200	HIRA	42 SER	2008.6	2009.4	2.5	220.0			0	
245	PALE	8 S	2030.0	2031.0	1.0	78.0			QL=4 ST=2 TYP=3	
200	HIRA	42 SER	2030.6	2031.1	0.6	70.0			0	
245	SGMR	8 S	2031.0	2031.0	U	79.0			QL=4 ST=2 TYP=3	
500	HIRA	8 S	2031.1	2031.2	0.2	40.0			0	
04	235	CUBA	44 NS	1300.0E		530.0D		9.0		
	280	CUBA	44 NS	1300.0E		530.0D		16.0		
	245	PALE	43 NS	2102.0	2115.0	63.0	120.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	2102.0	2115.0	64.0	120.0			QL=4 ST=2 TYP=1
	410	SGMR	43 NS	2116.0	2116.0	16.0	65.0			QL=4 ST=2 TYP=1
	245	LEAR	8 S	0010.0	0011.0	1.0	72.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0010.0	0011.0	1.0	84.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0328.0	0329.0	2.0	140.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0329.0	0329.0	1.0	94.0			QL=4 ST=2 TYP=3
	200	HIRA	42 SER	0329.2	0329.5	1.5	50.0			0
	204	IZMI	7 C	1022.9	1023.0	1.2	32.0			
	245	SGMR	8 S	1123.0	1124.0	1.0	370.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1123.0	1124.0	1.0	340.0			QL=4 ST=3 TYP=3
	204	IZMI	42 SER	1123.6	1123.7	1.4	73.0			
	204	IZMI	42 SER	1131.6	1131.8	1.6	22.0			
	245	SGMR	49 GB	1458.0	1459.0	1.0	630.0			QL=4 ST=2 TYP=6
	245	SVTO	49 GB	1458.0	1459.0	1.0	620.0			QL=4 ST=2 TYP=6
	280	CUBA	6 S	1458.3	1458.9	1.5	2400.0			
	235	CUBA	6 S	1458.3	1458.9	1.5	880.0			
	6700	CUBA	1 S	1905.2	1906.6	3.2	8.0		4.0	15R
200	HIRA	42 SER	2036.0	2039.0	4.0	390.0			ML	
2800	PENT	1 S	2037.0	2042.0	5.0					
500	HIRA	27 RF	2052.0	2132.0	110.0	20.0		7.0	WR	
410	PALE	8 S	2116.0	2116.0	U	67.0			QL=4 ST=2 TYP=3	
410	PALE	8 S	2141.0	2142.0	1.0	120.0			QL=4 ST=2 TYP=3	
410	PALE	8 S	2357.0	2357.0	1.0	130.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	2357.0	2357.0	1.0	150.0			QL=4 ST=2 TYP=3	
05	204	IZMI	43 NS	0600.0		360.0D		10.0		
	127	TORN	43 NS	0830.0	0954.2	370.0	160.0	2.0		V=1
	280	CUBA	44 NS	1300.0E		173.0D		21.0		
	235	CUBA	44 NS	1305.0E		173.0D		11.0		

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

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JUNE 1998

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Flux Density Mean	Int	Remarks
05	200	HIRA	42 SER	0002.4	0002.7	0.9	70.0			0
	5730	IRKU	4 S/F	0300.5	0304.2	18.0	5.0		U	
	2840	BEIJ	5 S	0439.0	0444.0	14.0	8.0	6.8		
		5730	IRKU	1 S	0441.8	0444.0	9.2	3.0		U
	200	HIRA	8 S	0443.5	0443.7	0.6	50.0			ML
	2840	BEIJ	5 S	0641.0	0646.0	14.0	6.2	5.2		
	3000	IZMI	7 C	0948.6	0950.9	8.1	34.0			
	2840	BEIJ	5 S	0949.0	0951.0	7.0	33.7	28.6		
	5730	IRKU	45 C	0949.6	0950.4	6.6	21.0		U	
	33	UPIC	46 C	0949.9	0954.3	5.9				
	245	SGMR	8 S	0952.0	0953.0	1.0	60.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0952.0	0953.0	1.0	81.0			QL=4 ST=2 TYP=3
	610	SGMR	4 S/F	1416.0	1419.0	3.0	52.0			QL=4 ST=3 TYP=3
	245	SGMR	8 S	1417.0	1417.0	2.0	22.0			QL=4 ST=3 TYP=3
	410	SGMR	4 S/F	1417.0	1419.0	3.0	18.0			QL=4 ST=2 TYP=3
	610	SGMR	4 S/F	1417.0	1419.0	3.0	52.0			QL=4 ST=2 TYP=3
	6700	CUBA	20 GRF	1417.0	1419.0	25.0	8.0	4.0		30R
	2800	PENT	1 S	1418.0	1423.0	5.0				
	410	SGMR	8 S	1419.0	1419.0		24.0		U	QL=4 ST=3 TYP=3
	33	UPIC	4 S/F	1505.6	1506.0	2.2				
	245	SVTO	8 S	1743.0	1744.0	1.0	58.0			QL=4 ST=3 TYP=3
	245	SGMR	8 S	2038.0	2038.0		54.0		U	QL=4 ST=2 TYP=3
	245	PALE	8 S	2203.0	2203.0		64.0		U	QL=4 ST=2 TYP=3
	245	SGMR	8 S	2203.0	2203.0		92.0		U	QL=4 ST=3 TYP=3
	245	PALE	8 S	2253.0	2253.0		98.0		U	QL=4 ST=2 TYP=3
	245	SGMR	8 S	2253.0	2253.0		95.0		U	QL=4 ST=3 TYP=3
	245	PALE	8 S	2305.0	2305.0		53.0		U	QL=4 ST=2 TYP=3
06	245	PALE	43 NS	0020.0'	0143.0	87.0	120.0			QL=4 ST=2 TYP=1
	204	IZMI	44 NS	0600.0E		360.0D		10.0		
	127	TORN	43 NS	0900.0	0937.7	200.0	120.0			V=1
	245	SGMR	43 NS	1022.0	1028.0	6.0	93.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1156.0	1233.0	75.0	160.0			QL=4 ST=3 TYP=1
	245	SVTO	43 NS	1156.0	1233.0	82.0	150.0			QL=4 ST=2 TYP=1
	235	CUBA	44 NS	1300.0E		530.0D		10.0		
	280	CUBA	44 NS	1300.0E		530.0D		18.0		
	245	PALE	8 S	0009.0	0009.0	1.0	62.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0014.0	0014.0	1.0	140.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0014.0	0014.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	LEAR	4 S/F	0218.0	0219.0	3.0	110.0			QL=4 ST=2 TYP=3
	245	PALE	4 S/F	0218.0	0219.0	3.0	260.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0425.0	0425.0	1.0	220.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0425.0	0425.0		220.0		U	QL=4 ST=2 TYP=3
	245	SVTO	8 S	0425.0	0425.0	1.0	300.0			QL=4 ST=2 TYP=3
	200	HIRA	42 SER	0425.0	0430.7	6.0	190.0			WL
	2840	BEIJ	5 S	0429.0	0430.0	2.0	20.9	18.3		
	410	LEAR	8 S	0429.0	0429.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0429.0	0429.0	1.0	130.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	0429.0	0429.0	1.0	86.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0429.0	0429.0	1.0	180.0			QL=4 ST=2 TYP=3
	5730	IRKU	1 S	0429.3	0429.9	2.2	6.0		U	
	245	LEAR	8 S	0515.0	0515.0	1.0	61.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0515.0	0515.0	1.0	75.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0538.0	0539.0	1.0	110.0			QL=4 ST=3 TYP=3
	245	LEAR	8 S	0539.0	0539.0		110.0		U	QL=4 ST=2 TYP=3
	204	IZMI	41 F	0729.9	0730.2	0.5	88.0			
	127	TORN	7 C	0803.4	0804.3	2.0	1500.0	740.0		
	204	IZMI	41 F	0803.6	0804.5	1.3	103.0			
	33	UPIC	46 C	0804.0	0804.3	2.0				
	245	SVTO	8 S	0849.0	0850.0	1.0	110.0			QL=4 ST=3 TYP=3
	204	IZMI	42 SER	0937.4	0937.7	0.6	99.0			
204	IZMI	42 SER	1012.8	1022.2	28.3	173.0				
245	SGMR	4 S/F	1106.0	1111.0	7.0	80.0			QL=4 ST=2 TYP=3	
245	SVTO	8 S	1111.0	1111.0	1.0	64.0			QL=4 ST=3 TYP=3	
204	IZMI	25 R	1136.0		14.0D		10.0			
245	SGMR	49 GB	1310.0	1310.0	1.0	820.0			QL=2 ST=3 TYP=6	
245	SVTO	49 GB	1310.0	1310.0	1.0	740.0			QL=2 ST=3 TYP=6	
07	204	IZMI	43 NS	1001.0		120.0D		10.0		

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

JUNE 1998

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Mean	Int	Remarks	
07	410	SGMR	43 NS	1137.0	1137.0	U	51.0			QL=4 ST=2 TYP=1	
	245	SGMR	43 NS	1230.0	1230.0	U	56.0			QL=4 ST=2 TYP=1	
	245	SVTO	43 NS	1230.0	1242.0	12.0	82.0			QL=4 ST=2 TYP=1	
	280	CUBA	44 NS	1300.0E		510.00		22.0			
	235	CUBA	44 NS	1300.0E		510.00		12.0			
	245	SGMR	43 NS	1553.0	1600.0	19.0	120.0			QL=4 ST=2 TYP=1	
	245	SVTO	43 NS	1558.0	1600.0	64.0	160.0			QL=4 ST=3 TYP=1	
	245	SVTO	43 NS	1658.0	1600.0	4.0	160.0			QL=4 ST=2 TYP=1	
	245	SGMR	43 NS	1934.0	1934.0	U	83.0			QL=4 ST=2 TYP=1	
	5730	IRKU	1 S	0043.8	0044.4	6.2	2.0		U		
	500	HIRA	8 S	0615.0	0615.1	0.2	10.0			WR	
	204	IZMI	42 SER	0700.8	0702.8	8.2	52.0				
	33	UPIC	46 C	0912.0	0912.3	7.8					
	410	SVTO	8 S	1136.0	1137.0	2.0	58.0			QL=4 ST=3 TYP=3	
	245	SGMR	8 S	1419.0	1420.0	1.0	100.0			QL=4 ST=2 TYP=3	
	245	SVTO	8 S	1419.0	1420.0	1.0	120.0			QL=2 ST=2 TYP=3	
	245	SVTO	8 S	1444.0	1444.0	2.0	83.0			QL=2 ST=2 TYP=3	
	2800	PENT	3 S	1445.0	1632.00	107.00					
	4995	SVTO	8 S	1449.0	1449.0	1.0	28.0			QL=4 ST=2 TYP=3	
	8800	SVTO	8 S	1449.0	1449.0	1.0	23.0			QL=2 ST=2 TYP=3	
410	SGMR	8 S	1812.0	1812.0	U	79.0			QL=4 ST=2 TYP=3		
08	280	CUBA	44 NS	1300.0E		530.00		20.0			
	235	CUBA	44 NS	1300.0E		530.00		11.0			
	245	SGMR	43 NS	1942.0	2109.0	149.0	140.0			QL=4 ST=2 TYP=1	
	245	PALE	43 NS	2053.0	2109.0	40.0	130.0			QL=2 ST=2 TYP=1	
	245	LEAR	8 S	0420.0	0420.0	U	55.0			QL=4 ST=2 TYP=3	
	245	PALE	8 S	0420.0	0420.0	1.0	60.0			QL=2 ST=2 TYP=3	
	245	SVTO	8 S	0420.0	0420.0	1.0	65.0			QL=4 ST=2 TYP=3	
	410	LEAR	8 S	0421.0	0421.0	U	61.0			QL=4 ST=2 TYP=3	
	410	PALE	8 S	0421.0	0421.0	U	81.0			QL=2 ST=2 TYP=3	
	410	SVTO	8 S	0421.0	0421.0	U	49.0			QL=4 ST=2 TYP=3	
	204	IZMI	25 R	0618.5		71.3		15.0			
	410	SVTO	8 S	0658.0	0659.0	2.0	89.0			QL=4 ST=2 TYP=3	
	204	IZMI	7 C	0906.5	0906.5	0.2	49.0				
	6700	CUBA	21 GRF	1548.0	1606.0	70.0	26.0		13.0		42R
	2695	SVTO	8 S	1559.0	1600.0	1.0	25.0				QL=4 ST=2 TYP=3
	2800	PENT	4 S/F	1559.0	1634.00	35.00					
	410	SVTO	4 S/F	1600.0	1601.0	3.0	120.0				QL=4 ST=2 TYP=3
	410	SGMR	4 S/F	1601.0	1601.0	7.0	110.0				QL=4 ST=2 TYP=3
	245	SGMR	4 S/F	1601.0	1602.0	7.0	290.0				QL=4 ST=2 TYP=3
	4995	SVTO	4 S/F	1601.0	1603.0	5.0	54.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1601.0	1601.0	2.0	290.0				QL=4 ST=2 TYP=3
	6700	CUBA	1 S	1601.4	1603.0	3.1	29.0		14.0		16R
	4995	SGMR	4 S/F	1602.0	1603.0	6.0	53.0				QL=4 ST=2 TYP=3
	1415	SGMR	4 S/F	1602.0	1603.0	6.0	44.0				QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1602.0	1603.0	6.0	57.0				QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	1602.0	1603.0	6.0	31.0				QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1602.0	1602.0	2.0	41.0				QL=2 ST=2 TYP=3
	1415	SVTO	8 S	1602.0	1603.0	2.0	53.0				QL=4 ST=2 TYP=3
	245	SGMR	4 S/F	1615.0	1616.0	3.0	62.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1616.0	1616.0	U	75.0				QL=4 ST=2 TYP=3
	245	PALE	8 S	1753.0	1753.0	U	51.0				QL=2 ST=2 TYP=3
	245	PALE	8 S	1915.0	1915.0	1.0	88.0				QL=2 ST=2 TYP=3
	245	SGMR	8 S	1915.0	1916.0	1.0	83.0				QL=4 ST=2 TYP=3
245	PALE	4 S/F	1920.0	1920.0	6.0	58.0				QL=2 ST=2 TYP=3	
245	SGMR	8 S	1920.0	1920.0	1.0	55.0				QL=4 ST=2 TYP=3	
245	PALE	8 S	1942.0	1942.0	1.0	65.0				QL=2 ST=2 TYP=3	
245	PALE	4 S/F	1945.0	1946.0	8.0	53.0				QL=2 ST=2 TYP=3	
245	PALE	8 S	2045.0	2045.0	U	55.0				QL=2 ST=2 TYP=3	
245	PALE	8 S	2049.0	2050.0	1.0	70.0				QL=2 ST=2 TYP=3	
410	PALE	8 S	2051.0	2051.0	1.0	110.0				QL=2 ST=2 TYP=3	
410	SGMR	8 S	2051.0	2051.0	U	96.0				QL=4 ST=2 TYP=3	
1415	PALE	8 S	2055.0	2056.0	2.0	72.0				QL=4 ST=2 TYP=3	
1415	SGMR	8 S	2055.0	2056.0	1.0	80.0				QL=4 ST=2 TYP=3	
245	PALE	8 S	2211.0	2211.0	U	52.0				QL=2 ST=2 TYP=3	
09	204	IZMI	44 NS	0600.0E		100.00		15.0			
	127	TORN	43 NS	0859.0	1048.0	253.0	40.0	1.0		V=1	

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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		
09	235	CUBA	44 NS	1300.0E		530.0D		11.0		
	280	CUBA	44 NS	1300.0E		530.0D		18.0		
	245	SGMR	43 NS	1548.0	1557.0	37.0	120.0			QL=4 ST=2 TYP=1
	245	SVTO	43 NS	1548.0	1549.0	36.0	110.0			QL=4 ST=2 TYP=1
	245	PALE	43 NS	1840.0	1854.0	27.0	120.0			QL=2 ST=2 TYP=1
	245	SGMR	43 NS	1840.0	1854.0	27.0	120.0			QL=4 ST=3 TYP=1
	245	PALE	8 S	0209.0	0210.0	1.0	52.0			QL=2 ST=2 TYP=3
	410	LEAR	8 S	0412.0	0412.0	2.0	120.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	0412.0	0412.0	1.0	63.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0423.0	0423.0	1.0	63.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0423.0	0424.0	1.0	73.0			QL=2 ST=2 TYP=3
	245	SVTO	8 S	0423.0	0423.0	1.0	68.0			QL=4 ST=2 TYP=3
	204	IZMI	41 F	0610.7	0611.0	0.6	100.0			
	3000	IZMI	7 C	0836.0	0836.6	4.0	64.0			
	127	TORN	7 C	1013.3	1013.5	1.0	90.0	50.0		
	204	IZMI	7 C	1130.8	1131.2	0.7	36.0			
	245	SGMR	8 S	1400.0	1400.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1430.0	1430.0	1.0	60.0			QL=2 ST=2 TYP=3
	245	SGMR	49 GB	1442.0	1442.0	1.0	590.0			QL=4 ST=2 TYP=6
	410	SGMR	4 S/F	1601.0	1603.0	3.0	130.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1602.0	1603.0	1.0	95.0			QL=4 ST=2 TYP=3
	245	SGMR	49 GB	1611.0	1612.0	3.0	860.0			QL=4 ST=2 TYP=6
	410	SGMR	8 S	1612.0	1612.0	1.0	130.0			QL=4 ST=2 TYP=3
	245	SGMR	4 S/F	1833.0	1834.0	3.0	120.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1834.0	1834.0	1.0	120.0			QL=2 ST=2 TYP=3
	245	PALE	8 S	1835.0	1835.0	1.0	64.0			QL=2 ST=2 TYP=3
10	204	IZMI	43 NS	0600.0		360.0D		10.0		
	127	TORN	44 NS	0620.0E		290.0D		1.0		V=1, DISTURBED
	245	SVTO	43 NS	0912.0	0916.0	58.0	71.0			QL=4 ST=3 TYP=1
	245	SGMR	43 NS	1043.0	1107.0	47.0	94.0			QL=4 ST=2 TYP=1
	280	CUBA	44 NS	1300.0E		530.0D		17.0		
	235	CUBA	44 NS	1300.0E		530.0D		9.0		
	245	LEAR	8 S	0200.0	0200.0	1.0	70.0			QL=4 ST=2 TYP=3
	500	HIRA	42 SER	0402.5	0404.2	2.7	20.0			0
	245	LEAR	8 S	0403.0	0404.0	2.0	41.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0403.0	0404.0	2.0	44.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	0403.0	0404.0	1.0	78.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	0403.0	0404.0	1.0	77.0			QL=4 ST=3 TYP=3
	5730	IRKU	4 S/F	0403.0	0404.5	24.0	5.0		U	
	2840	BEIJ	45 C	0403.0	0406.9	6.0	7.6		6.0	
	410	LEAR	8 S	0404.0	0404.0	U	83.0			QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0404.0	0404.0	U	19.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0404.0	0404.0	1.0	42.0			QL=4 ST=2 TYP=3
	2800	HIRA	1 S	0404.0	0404.7	2.5	10.0		2.0	0
	2840	BEIJ	1 S	0423.0	0426.4	7.0	3.8		3.0	
	15400	LEAR	8 S	0903.0	0903.0	2.0	59.0			QL=2 ST=2 TYP=3
	245	LEAR	48 C	0916.0	0919.0	3.0	120.0			QL=4 ST=2 TYP=8
	204	IZMI	42 SER	0916.2	0945.7	90.0	309.0			
	245	LEAR	49 GB	0919.0	0919.0	3.0	580.0			
	6700	CUBA	21 GRF	1655.0	1725.0	48.0	14.0		7.0	QL=4 ST=2 TYP=6
	6700	CUBA	1 S	1718.9	1719.5	2.3	44.0		22.0	00L
	245	PALE	8 S	1846.0	1847.0	1.0	79.0			QL=4 ST=2 TYP=3
245	SGMR	8 S	1847.0	1847.0	U	85.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	2303.0	2304.0	1.0	52.0			QL=4 ST=2 TYP=3	
11	235	CUBA	44 NS	1300.0E		530.0D		7.0		
	280	CUBA	44 NS	1300.0E		530.0D		15.0		
	410	LEAR	8 S	0802.0	0802.0	1.0	19.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0802.0	0802.0	1.0	15.0			QL=4 ST=2 TYP=3
	500	HIRA	8 S	0802.6	0802.7	0.2	10.0			0
	200	HIRA	8 S	0802.6	0802.7	0.2	20.0			0
	204	IZMI	7 C	0802.7	0802.8	0.3	48.0			
	204	IZMI	22 GRF	0951.4	1007.8	89.6	21.0			
	3000	IZMI	22 GRF	1006.2	1007.3	14.8	16.0			
	3000	IZMI	22 GRF	1127.1	1134.8	28.9	18.0			
	1415	SGMR	20 GRF	1128.0	1134.0	12.0	23.0			QL=4 ST=2 TYP=2
	4995	SGMR	20 GRF	1128.0	1135.0	18.0	25.0			QL=4 ST=2 TYP=2
	2695	SVTO	20 GRF	1128.0	1134.0	13.0	42.0			QL=4 ST=2 TYP=2

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JUNE 1998

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
11	2695	SGMR	20 GRF	1128.0	1134.0	20.0	44.0			QL=4 ST=2 TYP=2	
	4995	SVTO	20 GRF	1129.0	1135.0	13.0	33.0			QL=4 ST=2 TYP=2	
	4995	SVTO	20 GRF	1129.0	0000.0	751.0	33.0			QL=4 ST=2 TYP=2	
	1415	SVTO	8 S	1130.0	1130.0		21.0			QL=4 ST=2 TYP=3	
12	410	PALE	43 NS	0151.0	0152.0	1329.0	64.0			QL=4 ST=3 TYP=1	
	410	LEAR	43 NS	0152.0	0156.0	98.0	50.0			QL=4 ST=2 TYP=1	
	245	LEAR	43 NS	0153.0	0424.0	240.0	96.0			QL=4 ST=2 TYP=1	
	245	SVTO	43 NS	0354.0	0444.0	64.0	140.0			QL=4 ST=2 TYP=1	
	245	SVTO	43 NS	0935.0	0939.0	4.0	60.0			QL=4 ST=2 TYP=1	
	280	CUBA	44 NS	1445.0E		383.0D		16.0			
	235	CUBA	44 NS	1445.0E		383.0D		9.0			
	410	LEAR	8 S	0149.0	0151.0	2.0	57.0				QL=4 ST=2 TYP=3
	5730	IRKU	1 S	0214.5	0215.7	7.3	3.0			U	
	245	PALE	8 S	0314.0	0314.0		88.0				QL=4 ST=2 TYP=3
	245	PALE	8 S	0403.0	0403.0	1.0	220.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	0403.0	0403.0	1.0	210.0				QL=2 ST=2 TYP=3
	245	LEAR	8 S	0444.0	0444.0	1.0	110.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	0444.0	0444.0		130.0			U	QL=2 ST=2 TYP=3
	245	SVTO	8 S	0632.0	0632.0		60.0			U	QL=4 ST=2 TYP=3
	204	IZMI	42 SER	0913.6	0913.7	0.3	69.0				
	204	IZMI	7 C	0920.1	0920.3	0.3	147.0				
	33	UPIC	46 C	0954.0	0955.0	3.0					
	33	UPIC	4 S/F	1109.0	1109.5	1.0					
	33	UPIC	4 S/F	1403.8	1404.0	0.5					
	33	UPIC	4 S/F	1559.7	1559.8	0.3					
	245	PALE	8 S	1732.0	1732.0	1.0	58.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1732.0	1732.0		55.0			U	QL=4 ST=2 TYP=3
	2800	PENT	8 S	2107.0	2113.0	6.0					
	2800	HIRA	3 S	2108.0	2109.7	4.0	40.0	12.0			WL
	500	HIRA	46 C	2108.2	2108.7	3.0	10.0	3.0			WL
	4995	PALE	8 S	2109.0	2109.0	1.0	48.0				QL=4 ST=2 TYP=3
2695	PALE	8 S	2109.0	2109.0	1.0	98.0				QL=4 ST=2 TYP=3	
8800	PALE	8 S	2109.0	2109.0	1.0	30.0				QL=4 ST=2 TYP=3	
4995	SGMR	8 S	2109.0	2109.0		28.0			U	QL=4 ST=2 TYP=3	
2695	SGMR	8 S	2109.0	2109.0	1.0	46.0				QL=4 ST=2 TYP=3	
245	PALE	4 S/F	2131.0	2131.0	7.0	65.0				QL=4 ST=2 TYP=3	
245	SGMR	4 S/F	2131.0	2131.0	6.0	62.0				QL=4 ST=2 TYP=3	
200	HIRA	42 SER	2131.0	2133.5	9.0	50.0				O	
200	HIRA	8 S	2229.7	2230.0	0.6	10.0				O	
2840	BEIJ	40 F	2311.0	2314.0	11.0	63.4	51.1				
500	HIRA	46 C	2312.0	2313.7	6.0	20.0	4.0			WL	
200	HIRA	42 SER	2312.7	2313.2	2.0	40.0				O	
5730	IRKU	4 S/F	2313.6	2315.5	7.3	33.0			U		
2800	HIRA	46 C	2314.5	2314.7	3.5	40.0	12.0			ML	
200	HIRA	8 S	2333.5	2333.7	0.4	30.0				O	
13	245	LEAR	43 NS	0000.0	0147.0		75.0			QL=4 ST=1 TYP=1	
	245	LEAR	43 NS	0000.0	2124.0		100.0			QL=4 ST=1 TYP=1	
	245	LEAR	43 NS	0109.0	0212.0	116.0	100.0			QL=4 ST=3 TYP=1	
	245	PALE	43 NS	0145.0	0158.0		160.0			QL=2 ST=2 TYP=1	
	280	CUBA	44 NS	1320.0E		510.0D		15.0			
	235	CUBA	44 NS	1320.0E		510.0D		8.0			
	610	SVTO	8 S	0000.0	0000.0		58.0			U	QL=2 ST=2 TYP=3
	200	HIRA	42 SER	0109.8	0110.0	0.9	20.0				O
	2840	BEIJ	1 S	0110.0	0111.0	3.0	2.2	1.8			
	500	HIRA	8 S	0110.2	0110.3	0.2	10.0				O
	410	PALE	8 S	0302.0	0302.0	1.0	60.0				QL=4 ST=2 TYP=3
	2840	BEIJ	40 F	0305.0	0307.8	6.0	24.2	19.5			
	500	HIRA	46 C	0306.0	0308.9	4.5	20.0	4.0			WL
	5730	IRKU	1 S	0306.2	0307.7	4.4	4.0			U	
	2800	HIRA	8 S	0307.8	0307.9	0.2	20.0				O
	610	LEAR	8 S	0309.0	0309.0		72.0				QL=4 ST=2 TYP=3
	610	PALE	8 S	0309.0	0309.0		82.0				QL=4 ST=2 TYP=3
	245	LEAR	49 GB	0415.0	0418.0	7.0	8900.0				QL=4 ST=2 TYP=6
	410	LEAR	49 GB	0415.0	0418.0	7.0	860.0				QL=4 ST=2 TYP=6
	5730	IRKU	45 C	0415.0	0418.6	30.5	67.0			U	
1415	LEAR	4 S/F	0416.0	0418.0	5.0	28.0				QL=4 ST=2 TYP=3	
2695	LEAR	4 S/F	0416.0	0418.0	4.0	42.0				QL=4 ST=2 TYP=3	

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Flux Density Mean	Int	Remarks
13	4995	LEAR	4 S/F	0416.0	0418.0	6.0	46.0			QL=4 ST=2 TYP=3
	8800	LEAR	4 S/F	0416.0	0418.0	6.0	94.0			QL=4 ST=2 TYP=3
	200	HIRA	46 C	0416.5	0418.5	3.0	2800.0			0
	610	LEAR	4 S/F	0417.0	0418.0	5.0	73.0			QL=4 ST=2 TYP=3
	15400	LEAR	4 S/F	0418.0	0418.0	4.0	80.0			QL=2 ST=2 TYP=3
	1415	SVTO	4 S/F	0418.0	0418.0	3.0	27.0			QL=2 ST=2 TYP=3
	410	SVTO	49 GB	0418.0	0418.0	1.0	1500.0			QL=4 ST=2 TYP=6
	610	SVTO	4 S/F	0418.0	0419.0	3.0	58.0			QL=2 ST=2 TYP=3
	2695	SVTO	8 S	0418.0	0418.0	1.0	45.0			QL=2 ST=2 TYP=3
	15400	SVTO	8 S	0418.0	0418.0	1.0	70.0			QL=2 ST=2 TYP=3
	245	SVTO	49 GB	0418.0	0418.0	1.0	11000.0			QL=4 ST=2 TYP=6
	8800	SVTO	8 S	0418.0	0418.0	1.0	50.0			QL=2 ST=2 TYP=3
	4995	SVTO	8 S	0418.0	0418.0	1.0	35.0			QL=2 ST=2 TYP=3
	500	HIRA	46 C	0418.5	0418.7	3.0	130.0	20.0		0
	2800	HIRA	8 S	0418.6	0419.1	1.0	40.0			0
	5730	IRKU	1 S	0639.5	0639.7	0.8	6.0		U	
	200	HIRA	42 SER	0850.0	0857.5	8.0	440.0			0
	204	IZMI	42 SER	0850.1	0853.6	8.2	1090.0			
	127	TORN	7 C	0852.6	0853.2	1.6	1100.0	530.0		
	410	LEAR	8 S	0853.0	0853.0	1.0	28.0			QL=4 ST=2 TYP=3
	245	LEAR	4 S/F	0853.0	0854.0	6.0	100.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	0853.0	0853.0	1.0	37.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0853.0	0854.0	1.0	130.0			QL=4 ST=2 TYP=3
	33	UPIC	42 SER	0853.9	1026.6	192.1				
	245	LEAR	8 S	0857.0	0857.0	1.0	73.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0857.0	0857.0	1.0	100.0			QL=4 ST=2 TYP=3
	204	IZMI	41 F	1157.4	1157.5	0.4	250.0	15.0		
	127	TORN	4 S/F	1203.0	1204.0	2.3	90.0	20.0		
	245	SGMR	49 GB	1249.0	1250.0	4.0	96.0			QL=4 ST=3 TYP=6
	245	SGMR	48 C	1249.0	1250.0	4.0	96.0			QL=4 ST=3 TYP=8
	245	SVTO	8 S	1250.0	1250.0		76.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1250.0	1250.0		25.0			QL=4 ST=2 TYP=3
245	SGMR	4 S/F	1525.0	1528.0	4.0	60.0			QL=4 ST=2 TYP=3	
410	SVTO	8 S	1526.0	1527.0	1.0	40.0			QL=4 ST=2 TYP=3	
245	SVTO	8 S	1527.0	1528.0	1.0	55.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1756.0	1756.0	1.0	260.0			QL=4 ST=2 TYP=3	
14	200	HIRA	42 SER	0104.7	0105.2	8.0	270.0			0
	410	LEAR	8 S	0105.0	0105.0	1.0	35.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0105.0	0107.0	2.0	280.0			QL=4 ST=2 TYP=3
	245	PALE	49 GB	0105.0	0107.0	2.0	620.0			QL=2 ST=2 TYP=6
	410	PALE	8 S	0105.0	0106.0	1.0	49.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0111.0	0112.0	1.0	71.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0112.0	0112.0	1.0	80.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	0249.0	0249.0	1.0	76.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0249.0	0249.0	1.0	110.0			QL=2 ST=2 TYP=3
	200	HIRA	8 S	0519.6	0519.9	0.5	20.0			0
	610	LEAR	8 S	0829.0	0830.0	1.0	69.0			QL=4 ST=2 TYP=3
	245	SVTO	49 GB	0925.0	0925.0		810.0			QL=4 ST=2 TYP=6
	410	SVTO	8 S	0925.0	0925.0		65.0			QL=4 ST=2 TYP=3
610	SGMR	4 S/F	1109.0	1113.0	4.0	150.0			QL=4 ST=2 TYP=3	
410	SGMR	4 S/F	1109.0	1113.0	6.0	48.0			QL=4 ST=2 TYP=3	
610	SVTO	4 S/F	1109.0	1113.0	4.0	170.0			QL=2 ST=2 TYP=3	
410	SVTO	4 S/F	1109.0	1113.0	4.0	36.0			QL=4 ST=2 TYP=3	
15	245	SVTO	8 S	0522.0	0522.0		57.0			QL=4 ST=2 TYP=3
	204	IZMI	42 SER	0725.5	0725.9	8.5	25.0			
16	3000	IZMI	20 GRF	0609.7	0613.6	110.0	9.0	4.0		
17	33	UPIC	46 C	1051.0	1054.5	4.8				
	2800	PENT	1 S	1915.0	1917.0	2.0				
18	127	TORN	44 NS	0700.0E		300.0D		5.0		V=2
	204	IZMI	42 SER	1127.6	1131.1	4.8	13.0			
19	245	LEAR	43 NS	0710.0	0723.0	24.0	51.0			QL=4 ST=2 TYP=1
	245	SVTO	43 NS	0716.0	0716.0	20.0	96.0			QL=4 ST=2 TYP=1
	280	CUBA	44 NS	1300.0E		420.0D		14.0		

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

JUNE 1998

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
19	235	CUBA	44 NS	1300.0E		420.0D		6.0		
	33	UPIC	41 F	0548.5	0645.0	63.0				
	204	IZMI	25 R	0636.3	0723.3	120.0U	90.0			
	500	HIRA	46 C	0639.5	0655.5	46.0	300.0			MR
	410	LEAR	48 C	0640.0	0655.0	28.0	560.0			QL=4 ST=2 TYP=8
	410	SVTO	48 C	0640.0	0655.0	28.0	590.0			QL=4 ST=2 TYP=8
	245	LEAR	8 S	0643.0	0643.0		26.0			QL=4 ST=2 TYP=3
	245	SVTO	4 S/F	0643.0	0654.0	19.0	35.0			QL=4 ST=2 TYP=3
	610	LEAR	48 C	0650.0	0700.0	12.0	430.0			QL=4 ST=2 TYP=8
	610	SVTO	48 C	0651.0	0700.0	17.0	350.0			QL=4 ST=2 TYP=8
5730	IRKU	1 S	0651.0	0730.8	189.0U	8.0			U	
20	280	CUBA	43 NS	1420.0		450.0D		52.0		
	235	CUBA	43 NS	1420.0		450.0D		67.0		
	245	SGMR	43 NS	1505.0	1702.0	534.0	410.0			QL=4 ST=2 TYP=1
	245	SVTO	43 NS	1511.0	1701.0	163.0	550.0			QL=4 ST=2 TYP=1
	410	SVTO	43 NS	1657.0	1704.0	7.0	68.0			QL=4 ST=3 TYP=1
	410	SVTO	43 NS	1757.0	1704.0	1387.0	68.0			QL=4 ST=2 TYP=1
	127	TORN	46 C	1404.0	1406.6	7.0	970.0		130.0	
	2800	PENT	41 F	1410.0	1633.0	143.0				
	6700	CUBA	21 GRF	1413.0	1427.0	115.0	17.0		8.0	16L
	245	SGMR	48 C	1422.0	1448.0	34.0	280.0			QL=4 ST=3 TYP=8
	245	SVTO	48 C	1422.0	1458.0	49.0	850.0			QL=4 ST=2 TYP=8
	410	SVTO	48 C	1423.0	0000.0	577.0	1200.0			QL=4 ST=2 TYP=8
	410	SGMR	48 C	1425.0	1449.0	31.0	380.0			QL=4 ST=3 TYP=8
	610	SGMR	48 C	1426.0	1454.0	30.0	150.0			QL=4 ST=3 TYP=8
	33	UPIC	46 C	1430.0	1434.3	9.2				
	610	SVTO	4 S/F	1433.0	1434.0	567.0	120.0			QL=2 ST=1 TYP=3
	410	SGMR	49 GB	1456.0	1458.0U	4.0	1100.0			QL=4 ST=3 TYP=6
	245	SGMR	49 GB	1456.0	1458.0U	4.0	810.0			QL=4 ST=3 TYP=6
	2695	SGMR	4 S/F	1457.0	1459.0	3.0	59.0			QL=4 ST=3 TYP=3
	1415	SGMR	4 S/F	1457.0	1458.0	3.0	160.0			QL=4 ST=3 TYP=3
	610	SGMR	4 S/F	1457.0	1458.0	3.0	310.0			QL=4 ST=3 TYP=3
	280	CUBA	7 C	1457.8	1458.3	2.0	400.0			
	235	CUBA	7 C	1457.8	1458.7	2.0	1680.0			
	1415	SGMR	4 S/F	1458.0	1458.0	3.0	160.0			QL=4 ST=2 TYP=3
	610	SGMR	8 S	1458.0	1458.0	2.0	310.0			QL=4 ST=2 TYP=3
	245	SGMR	49 GB	1458.0	1458.0	7.0	810.0			QL=4 ST=2 TYP=6
	410	SGMR	49 GB	1458.0	1458.0	7.0	1100.0			QL=4 ST=2 TYP=6
	2695	SGMR	4 S/F	1458.0	1459.0	4.0	59.0			QL=4 ST=2 TYP=3
	6700	CUBA	1 S	1458.0	1458.5	3.0	18.0		9.0	18L
	33	UPIC	45 C	1458.0	1458.5	1.8				
	610	SGMR	4 S/F	1550.0	1551.0	5.0	120.0			QL=4 ST=2 TYP=3
	610	SVTO	8 S	1551.0	1551.0	1.0	93.0			QL=4 ST=2 TYP=3
	6700	CUBA	20 GRF	1754.0	1815.0	31.0	7.0		3.0	00L
	6700	CUBA	21 GRF	2020.0	2050.0	132.0	7.0		3.0	00L
	6700	CUBA	1 S	2058.6	2059.1	1.0	5.0		2.0	20R
2800	PENT	1 S	2108.0	2111.0	3.0					
500	HIRA	46 C	2108.2	2109.7	5.0	380.0			ML	
410	SGMR	8 S	2109.0	2109.0	1.0	310.0			QL=4 ST=2 TYP=3	
610	SGMR	49 GB	2109.0	2110.0	4.0	940.0			QL=4 ST=2 TYP=6	
6700	CUBA	1 S	2109.0	2109.8	1.0	8.0		4.0	COMPLEX POL	
200	HIRA	8 S	2109.9	2110.2	0.6	60.0			MR	
2800	HIRA	1 S	2112.5	2113.0	1.2	10.0		3.0	O	
500	HIRA	42 SER	2323.2	2324.7	2.5	80.0			ML	
610	SGMR	8 S	2324.0	2324.0	1.0	120.0			QL=4 ST=2 TYP=3	
21	245	SVTO	43 NS	0351.0	0354.0	94.0	200.0			QL=4 ST=2 TYP=1
	127	TORN	44 NS	0720.0E		300.0D		3.0		V=0,DISTURBED
	410	SVTO	43 NS	1657.0	1704.0	7.0	68.0			QL=4 ST=3 TYP=1
	500	HIRA	42 SER	0258.2	0301.0	3.5	20.0			WL
	5730	IRKU	1 S	0327.1	0327.4	0.9	2.0			U
	2840	BEIJ	1 S	0330.0	0331.0	2.0	6.0		5.7	
	5730	IRKU	4 S/F	0330.6	0331.6	4.4	10.0			U
	2840	BEIJ	1 S	0505.0	0508.0	8.0	18.1		17.0	
	245	LEAR	8 S	0506.0	0508.0	2.0	110.0			QL=4 ST=2 TYP=3
	500	HIRA	46 C	0506.2	0507.9	6.0	100.0		25.0	WR
	410	LEAR	8 S	0507.0	0508.0	2.0	250.0			QL=4 ST=2 TYP=3
610	LEAR	8 S	0507.0	0508.0	1.0	100.0			QL=4 ST=2 TYP=3	

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Flux Density Mean	Int	Remarks
21	1415	LEAR	8 S	0507.0	0508.0	1.0	150.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0507.0	0507.0	1.0	25.0			QL=4 ST=2 TYP=3
	610	SVTO	8 S	0507.0	0508.0	1.0	83.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0507.0	0508.0	2.0	140.0			QL=2 ST=2 TYP=3
	410	SVTO	8 S	0507.0	0508.0	2.0	300.0			QL=4 ST=2 TYP=3
	5730	IRKU	4 S/F	0507.7	0508.0	2.3	15.0		U	
	2800	HIRA	8 S	0508.4	0508.7	0.6	10.0			0
	245	LEAR	8 S	0710.0	0711.0	1.0	80.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0710.0	0711.0	1.0	120.0			QL=4 ST=3 TYP=3
	410	SVTO	8 S	0726.0	0726.0	1.0	180.0			QL=4 ST=3 TYP=3
	2840	BEIJ	1 S	0726.0	0728.1	5.0	24.2	22.6		
	245	SVTO	8 S	0727.0	0727.0	1.0	240.0			QL=4 ST=3 TYP=3
	610	SVTO	49 GB	0727.0	0728.0	1.0	1400.0			QL=4 ST=3 TYP=6
	5730	IRKU	4 S/F	0727.5	0728.1	1.8	14.0		U	
	500	HIRA	8 S	0727.5	0727.7	0.8	330.0			ML
	33	UPIC	46 C	0727.5	0727.8	4.0				
	2800	HIRA	8 S	0728.0	0728.5	1.0	20.0			0
	245	SVTO	8 S	0746.0	0746.0	1.0	51.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	0746.0	0746.0	1.0	270.0			QL=4 ST=2 TYP=3
	5730	IRKU	20 GRF	0954.0	1015.2	36.0U	18.0		U	
	33	UPIC	45 C	1802.5	1803.0	1.0				
2800	PENT	8 S	1803.0	1806.0	3.0				0	
200	HIRA	8 S	2105.2	2105.5	0.7	30.0			0	
22	127	TORN	44 NS	0620.0E		370.0D		2.0		V=1, DISTURBED
	235	CUBA	44 NS	1410.0E		460.0D		9.0		
	280	CUBA	44 NS	1410.0E		460.0D		16.0		
	2840	BEIJ	3 S	0405.0	0435.0	42.0	39.1			36.1
	2700	BEIJ	20 GRF	0418.0	0433.8	95.0	48.0			
	5730	IRKU	1 S	0428.0	0434.0	12.0	6.0		U	
	2800	HIRA	3 S	0428.5	0434.5	13.0	30.0		9.0	WR
	4995	LEAR	20 GRF	0429.0	0434.0	8.0	13.0			QL=4 ST=2 TYP=2
	410	LEAR	20 GRF	0429.0	0431.0	6.0	15.0			QL=4 ST=2 TYP=2
	2695	LEAR	20 GRF	0429.0	0434.0	8.0	24.0			QL=4 ST=2 TYP=2
	245	LEAR	20 GRF	0429.0	0438.0	10.0	10.0			QL=4 ST=2 TYP=2
	610	LEAR	20 GRF	0430.0	0433.0	5.0	6.0			QL=4 ST=2 TYP=2
	1415	LEAR	20 GRF	0430.0	0434.0	5.0	14.0			QL=4 ST=2 TYP=2
	4995	SVTO	20 GRF	0430.0	0433.0	5.0	11.0			QL=4 ST=3 TYP=2
	1415	SVTO	20 GRF	0430.0	0435.0	6.0	24.0			QL=4 ST=3 TYP=2
	2695	SVTO	20 GRF	0430.0	0434.0	5.0	20.0			QL=4 ST=3 TYP=2
	410	SVTO	20 GRF	0431.0	0435.0	4.0	46.0			QL=4 ST=3 TYP=2
	245	SVTO	20 GRF	0431.0	0435.0	5.0	11.0			QL=4 ST=3 TYP=2
	2840	BEIJ	29 PBI	0447.0		118.0	5.9		5.4	
	5730	IRKU	1 S	0617.5	0618.0	1.2	2.0		U	
	2840	BEIJ	1 S	0730.0	0730.7	6.0	6.2		5.8	
245	SGMR	8 S	1450.0	1451.0	2.0	130.0			QL=4 ST=2 TYP=3	
245	SVTO	8 S	1450.0	1451.0	2.0	130.0			QL=2 ST=3 TYP=3	
23	245	SGMR	8 S	1032.0	1032.0		240.0			QL=4 ST=3 TYP=3
	410	SGMR	4 S/F	1510.0	1510.0	5.0	78.0			QL=4 ST=2 TYP=3
	245	SGMR	49 GB	1510.0	1510.0	1.0	890.0			QL=4 ST=2 TYP=6
	410	SVTO	8 S	1510.0	1510.0	1.0	95.0			QL=2 ST=2 TYP=3
	245	SVTO	49 GB	1510.0	1510.0	1.0	880.0			QL=2 ST=2 TYP=6
	245	SGMR	8 S	1518.0	1518.0	1.0	210.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1518.0	1518.0	1.0	200.0			QL=2 ST=2 TYP=3
	410	SVTO	8 S	1518.0	1518.0		44.0		U	QL=2 ST=2 TYP=3
	610	SGMR	8 S	1521.0	1521.0	1.0	41.0			QL=4 ST=2 TYP=3
	245	SGMR	49 GB	1521.0	1521.0	1.0	1200.0			QL=4 ST=2 TYP=6
	410	SGMR	8 S	1521.0	1521.0	1.0	290.0			QL=4 ST=2 TYP=3
	245	SVTO	49 GB	1521.0	1521.0	1.0	910.0			QL=2 ST=2 TYP=6
	610	SVTO	8 S	1521.0	1521.0	1.0	38.0			QL=2 ST=2 TYP=3
	410	SVTO	8 S	1521.0	1521.0	1.0	350.0			QL=2 ST=2 TYP=3
410	SGMR	8 S	2259.0	2300.0	2.0	61.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	2300.0	2300.0	2.0	63.0			QL=4 ST=2 TYP=3	
24	500	HIRA	8 S	0353.4	0353.5	0.2	30.0			0
	200	HIRA	8 S	0354.0	0354.2	0.4	30.0			0
	410	SVTO	4 S/F	0448.0	0450.0	4.0	340.0			QL=4 ST=3 TYP=3
	245	SVTO	49 GB	0448.0	0450.0	4.0	540.0			QL=4 ST=3 TYP=6

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JUNE 1998

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	500	HIRA	42 SER	0449.2	0449.3	3.0	50.0			0
	410	LEAR	8 S	0450.0	0450.0	2.0	160.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0450.0	0450.0	1.0	300.0			QL=4 ST=2 TYP=3
	200	HIRA	42 SER	0450.7	0451.2	0.7	40.0			0
	5730	IRKU	1 S	0649.2	0649.4	0.8	2.0		U	
	5730	IRKU	1 S	0654.0	0655.5	3.0	1.0		U	
	204	IZMI	41 F	1020.5	1020.9	1.0	75.0			
	204	IZMI	41 F	1151.2	1152.5	1.5	150.0			
	6700	CUBA	20 GRF	1346.0	1407.0	43.0	4.0	2.0		00L
	6700	CUBA	21 GRF	1734.0	1921.0	270.0	24.0	12.0		11L 2204 OFF
	6700	CUBA	1 S	1759.3	1802.0	6.9	14.0	7.0		11L
6700	CUBA	1 S	1937.9	1938.2	1.8	14.0	7.0		12L	
25	5730	IRKU	21 GRF	0328.0	0329.7	19.0	3.0		U	
	5730	IRKU	1 S	0349.1	0349.7	1.2	1.0		U	
	5730	IRKU	1 S	0519.1	0519.4	0.6	2.0		U	
	5730	IRKU	1 S	0535.8	0536.2	4.3	2.0		U	
	5730	IRKU	1 S	0623.0	0627.0	12.0	3.0		U	
	245	SVTO	8 S	0927.0	0927.0	U	330.0			QL=2 ST=2 TYP=3
	6700	CUBA	23 GRF	1753.0	1845.0	53.0	12.0	6.0		12R
	4995	SGMR	4 S/F	2046.0	2047.0	4.0	49.0			QL=2 ST=2 TYP=3
	15400	SGMR	8 S	2047.0	2047.0	1.0	48.0			QL=2 ST=2 TYP=3
	8800	SGMR	8 S	2047.0	2047.0	1.0	57.0			QL=2 ST=2 TYP=3
2800	PENT	41 F	2047.0	2140.0	53.0					
26	204	IZMI	7 C	0558.2	0558.8	1.7	130.0			
	200	HIRA	8 S	0558.5	0558.7	0.4	20.0			0
	5730	IRKU	4 S/F	0949.5	0949.9	1.0	3.0		U	
27	2840	BEIJ	46 C	0038.0	0115.0	102.0	33.9	28.0		
	245	PALE	8 S	0043.0	0044.0	2.0	56.0			QL=4 ST=2 TYP=3
	610	PALE	8 S	0043.0	0044.0	2.0	120.0			QL=4 ST=2 TYP=3
	2800	HIRA	29 PBI	0114.2	0116.0	40.0	20.0	4.0		0
	5730	IRKU	45 C	0114.2	0116.5	60.8	31.0		U	
	4995	PALE	4 S/F	0115.0	0116.0	4.0	45.0			QL=4 ST=2 TYP=3
	2695	LEAR	4 S/F	0115.0	0116.0	10.0	41.0			QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0116.0	0116.0	U	26.0			QL=4 ST=2 TYP=3
	4995	LEAR	4 S/F	0116.0	0116.0	3.0	41.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	0116.0	0116.0	1.0	40.0			QL=4 ST=2 TYP=3
	1415	PALE	8 S	0116.0	0116.0	U	24.0			QL=4 ST=2 TYP=3
8800	LEAR	4 S/F	0118.0	0123.0	18.0	33.0			QL=4 ST=2 TYP=3	
28	204	IZMI	43 NS	0600.0		360.0D		5.0		
	235	CUBA	44 NS	1300.0E		440.0D		9.0		
	280	CUBA	44 NS	1300.0E		440.0D		17.0		
	245	SGMR	43 NS	1953.0	2059.0	82.0	200.0			QL=4 ST=2 TYP=1
	245	PALE	43 NS	2027.0	2059.0	181.0	190.0			QL=2 ST=2 TYP=1
	5730	IRKU	20 GRF	0602.7	0631.2	120.0U	14.0		U	
	4995	SGMR	8 S	1141.0	1141.0	U	27.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1141.0	1141.0	U	90.0			QL=4 ST=2 TYP=3
	15400	SGMR	8 S	1141.0	1141.0	U	42.0			QL=4 ST=2 TYP=3
	4995	SVTO	8 S	1141.0	1141.0	U	52.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1141.0	1141.0	U	130.0			QL=2 ST=2 TYP=3
	15400	SVTO	8 S	1141.0	1141.0	U	42.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1247.0	1247.0	U	91.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1247.0	1247.0	U	88.0			QL=4 ST=3 TYP=3
	245	SGMR	8 S	1657.0	1659.0	2.0	140.0			QL=2 ST=2 TYP=3
	245	PALE	4 S/F	1659.0	1659.0	4.0	130.0			QL=4 ST=2 TYP=3
	245	SVTO	4 S/F	1659.0	1659.0	4.0	300.0			QL=2 ST=3 TYP=3
	245	PALE	8 S	1956.0	1956.0	U	70.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2002.0	2002.0	1.0	56.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2012.0	2013.0	2.0	50.0			QL=4 ST=2 TYP=3
245	SGMR	8 S	2305.0	2305.0	1.0	70.0			QL=4 ST=2 TYP=3	
29	245	PALE	43 NS	0024.0	0027.0	49.0	240.0			QL=2 ST=2 TYP=1
	245	PALE	43 NS	0230.0	0232.0	125.0	120.0			QL=2 ST=2 TYP=1
	245	SVTO	43 NS	0410.0	0424.0	146.0	100.0			QL=4 ST=2 TYP=1
	204	IZMI	44 NS	0600.0E		360.0D		40.0		
	127	TORN	44 NS	0830.0E	0916.4	330.0D	100.0	13.0		V=2

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

23
Jun 98

JUNE 1998

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean		
29	245	SVTO	43 NS	0835.0	0849.0	276.0	120.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1216.0	1306.0	50.0	75.0			QL=4 ST=2 TYP=1
	280	CUBA	44 NS	1300.0E		440.0D		15.0		
	235	CUBA	44 NS	1300.0E		440.0D		8.0		
	245	LEAR	43 NS	2324.0	0854.0	607.0	200.0			QL=4 ST=2 TYP=1
	245	LEAR	8 S	0026.0	0027.0	1.0	150.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0228.0	0229.0	2.0	66.0			QL=2 ST=2 TYP=3
	5730	IRKU	1 S	0619.3	0619.4	1.7	2.0		U	
	245	SVTO	8 S	0854.0	0854.0	1.0	250.0			QL=2 ST=2 TYP=3
	33	UPIC	45 C	0905.0	0906.5	2.0				
	33	UPIC	46 C	0926.0	0929.5	4.5				
	245	SGMR	8 S	1106.0	1107.0	1.0	70.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1822.0	1824.0	2.0	130.0			QL=4 ST=2 TYP=3
	200	HIRA	42 SER	2222.7	2223.1	2.0	90.0			O
	245	PALE	8 S	2223.0	2223.0	1.0	210.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	2223.0	2223.0	1.0	220.0			QL=4 ST=2 TYP=3
500	HIRA	8 S	2224.0	2224.2	0.4	10.0			O	
245	PALE	4 S/F	2246.0	2248.0	3.0	70.0			QL=4 ST=2 TYP=3	
30	204	IZMI	44 NS	0600.0E		360.0D		20.0		
	245	SGMR	43 NS	1054.0	1145.0	66.0	93.0			QL=4 ST=2 TYP=1
	280	CUBA	44 NS	1300.0E		480.0D		17.0		
	235	CUBA	44 NS	1300.0E		480.0D		8.0		
	245	SGMR	43 NS	1831.0	1906.0	102.0	200.0			QL=4 ST=2 TYP=1
	245	PALE	43 NS	1839.0	1907.0	82.0	190.0			QL=2 ST=2 TYP=1
	5730	IRKU	21 GRF	0127.5	0146.5	62.5	9.0		U	
	245	PALE	4 S/F	0147.0	0149.0	3.0	150.0			QL=4 ST=2 TYP=3
	245	SVTO	4 S/F	1242.0	1246.0	7.0	220.0			QL=2 ST=2 TYP=3
	245	SGMR	48 C	1244.0	1244.0	5.0	74.0			QL=4 ST=2 TYP=8
	245	PALE	8 S	1814.0	1814.0	U	51.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1814.0	1814.0	U	57.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1830.0	1831.0	2.0	88.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	1930.0	1931.0	2.0	61.0			QL=4 ST=2 TYP=3
410	SGMR	8 S	1931.0	1931.0	U	38.0			QL=4 ST=2 TYP=3	

Reports are received routinely from the following observatories:

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

Explanation of Type Code:

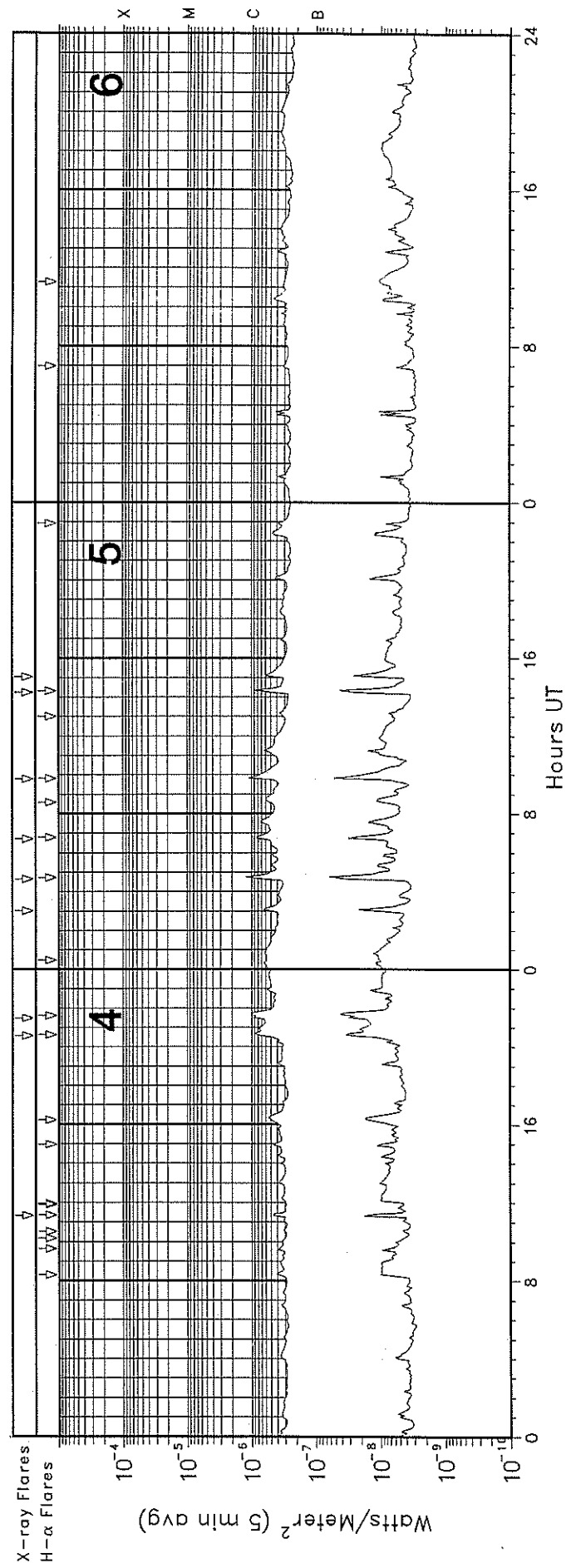
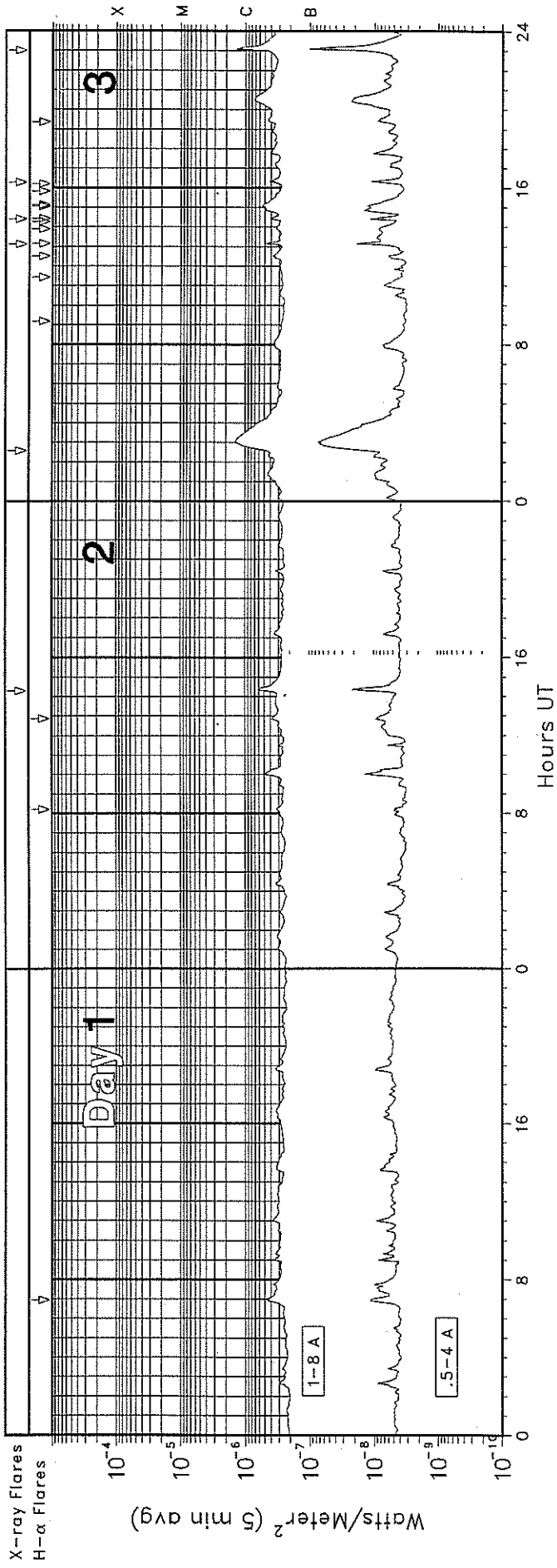
1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple 3F	28 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.

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Jun 98

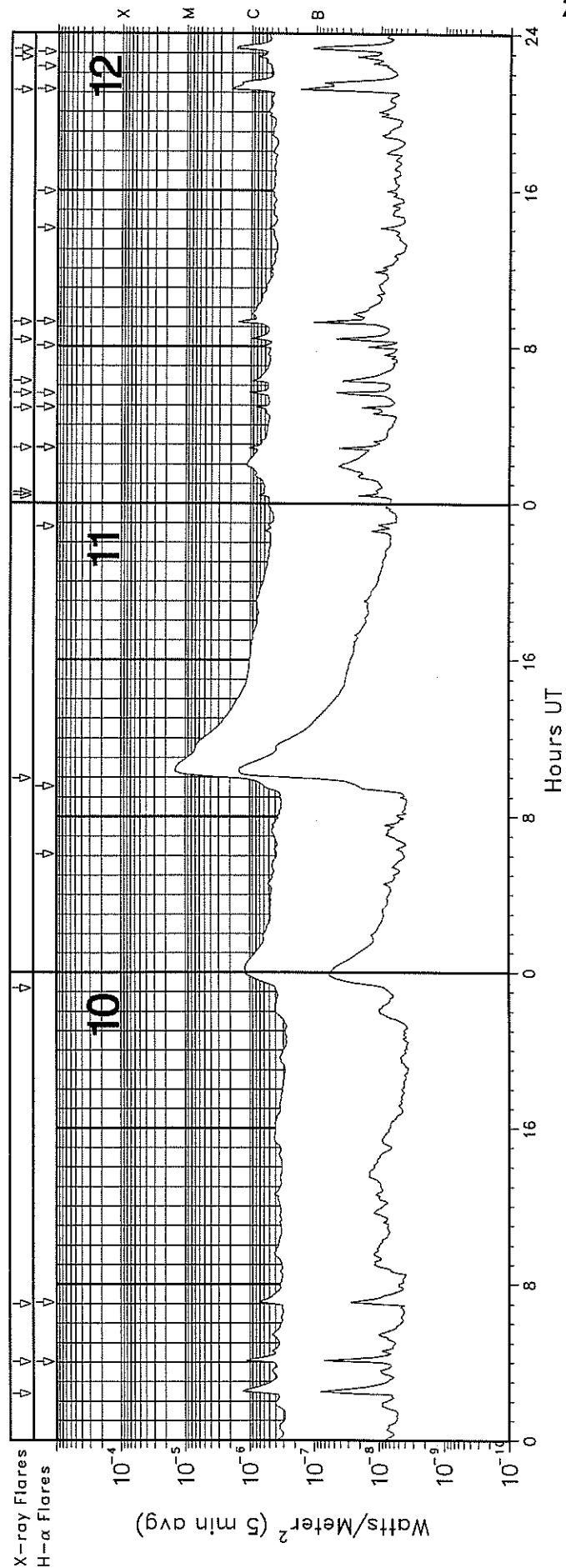
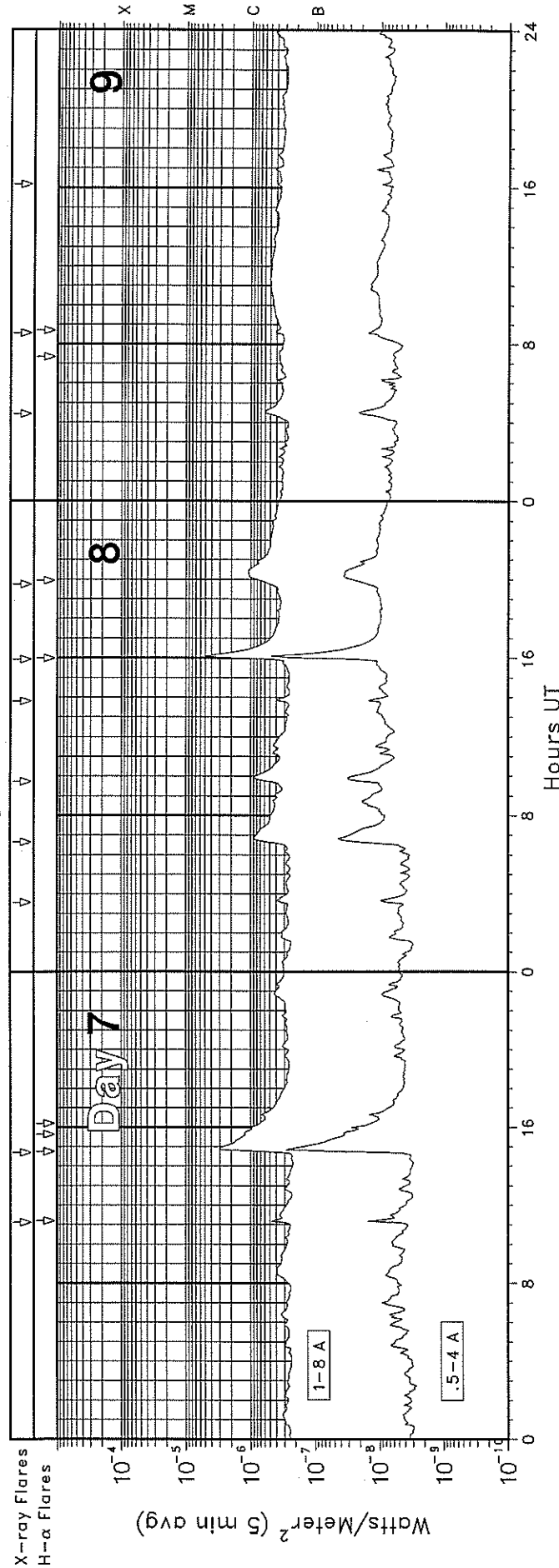
GOES X-RAY DETECTOR

June 1998

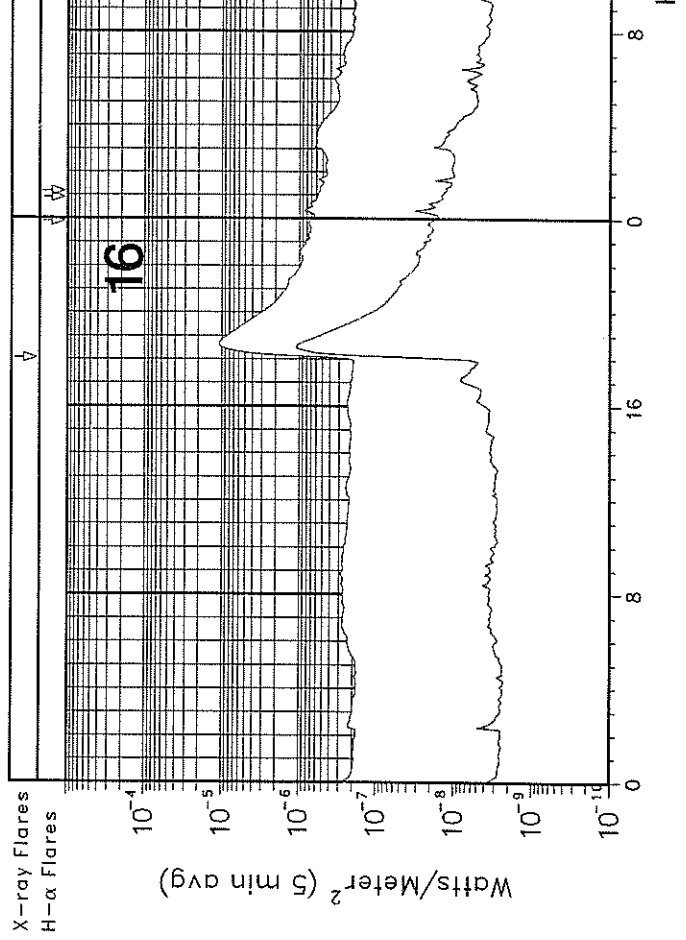
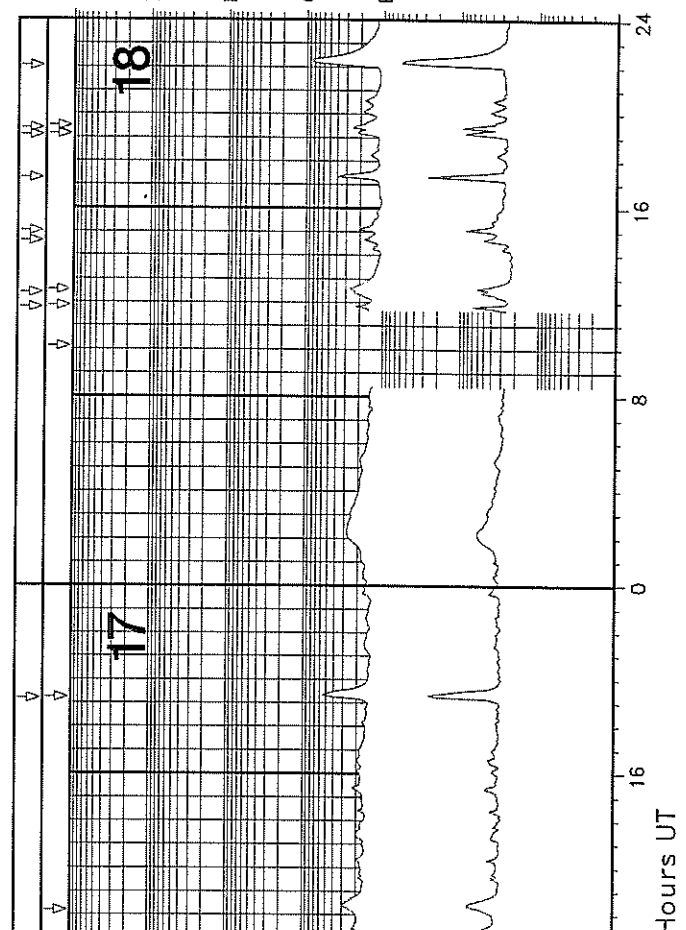
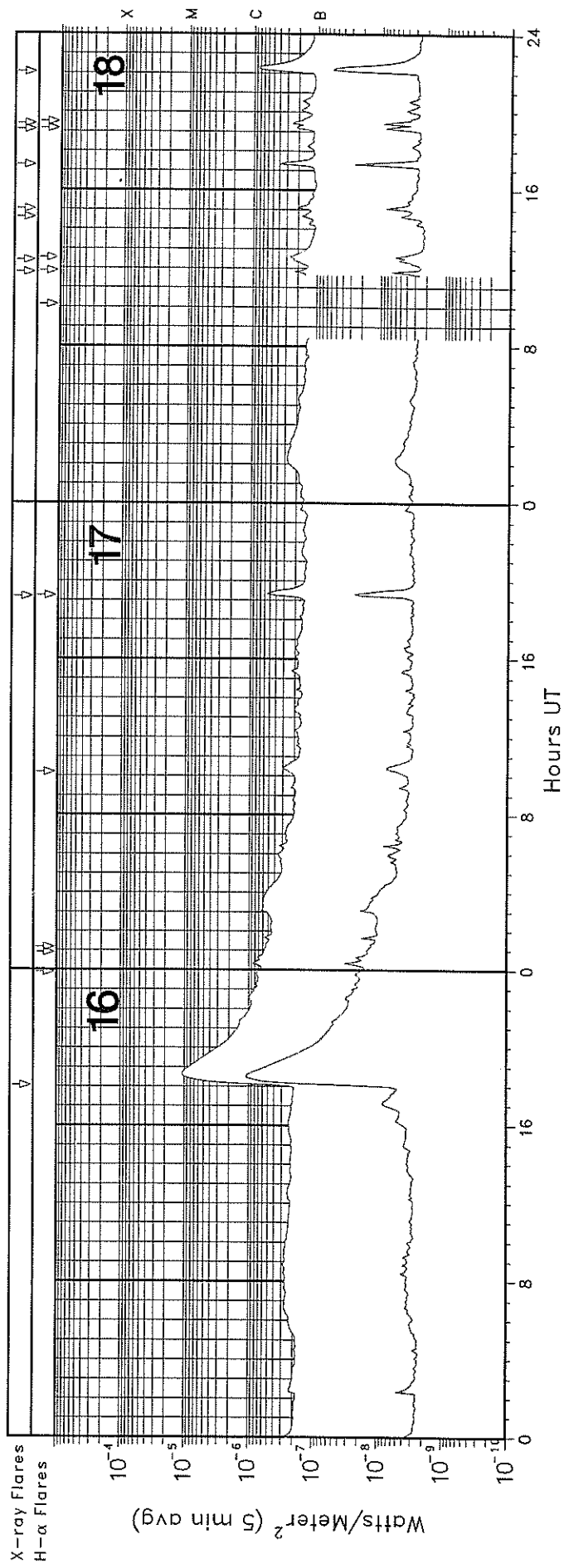
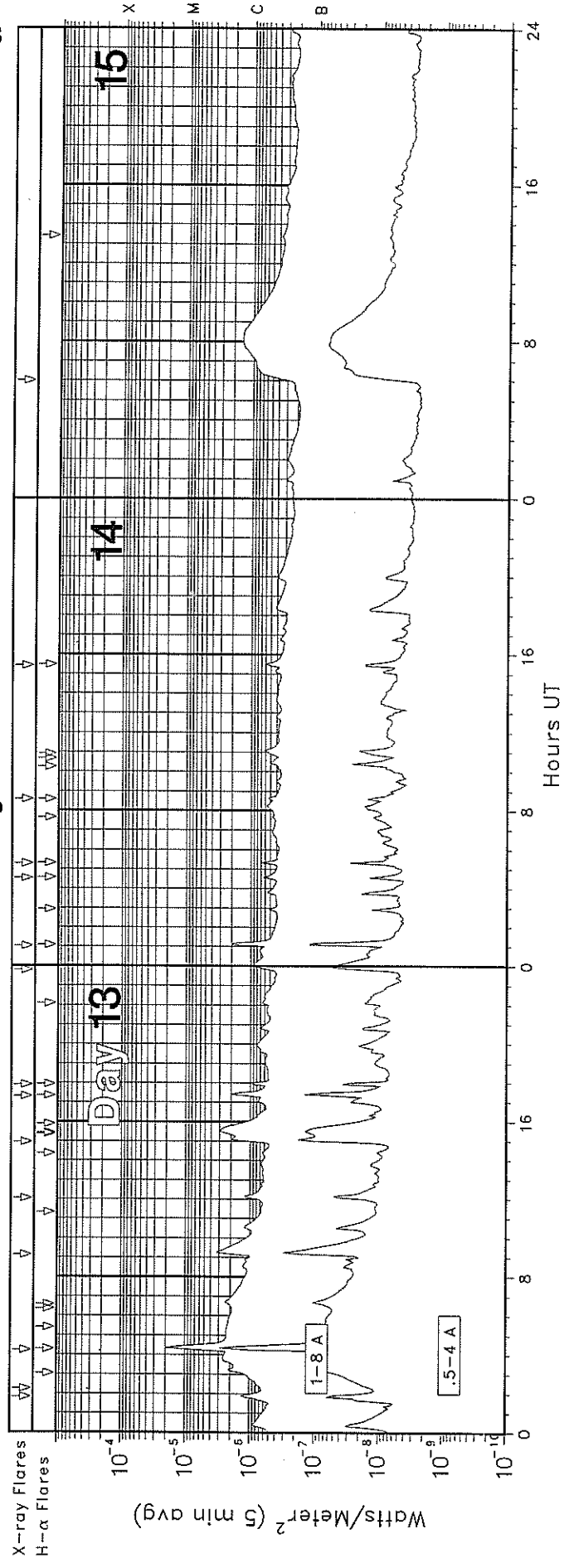


GOES X-RAY DETECTOR

June 1998

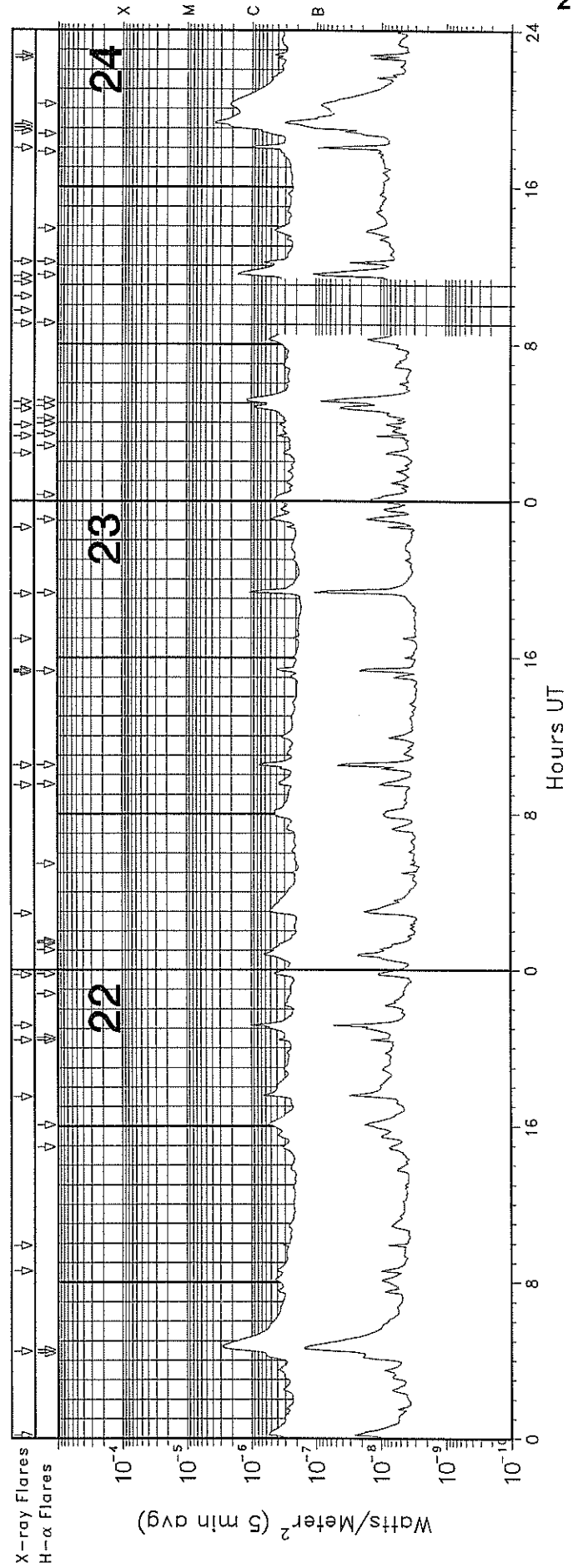
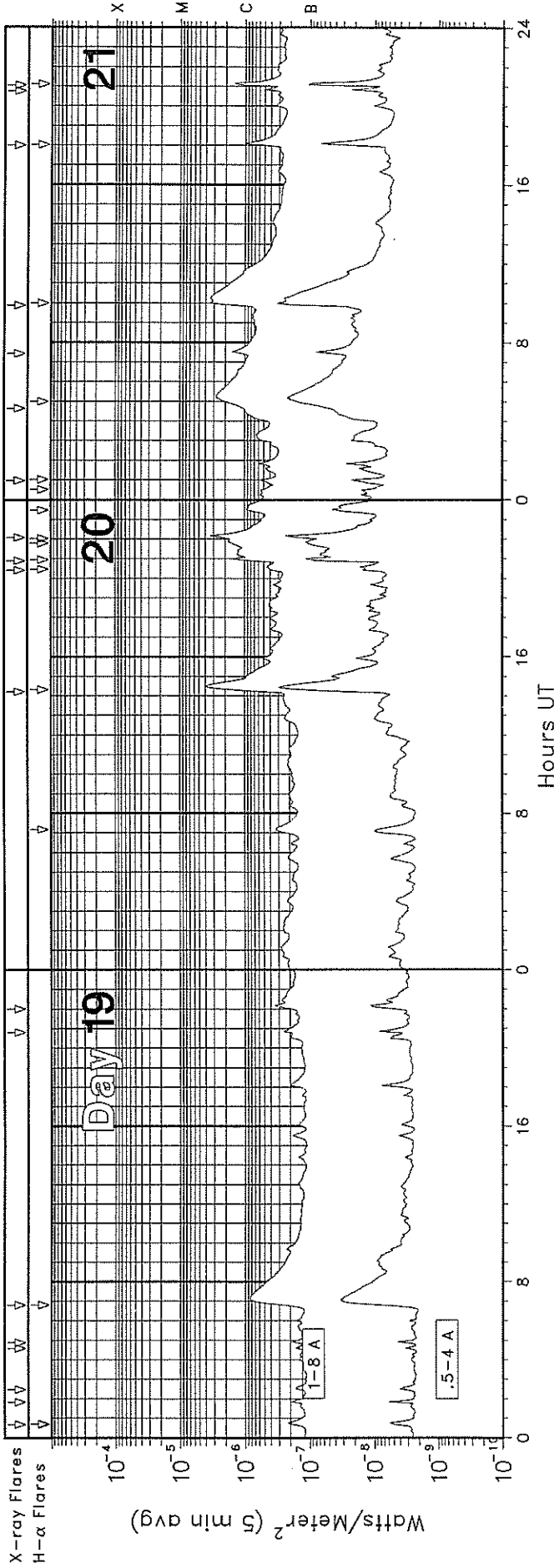


GOES X-RAY DETECTOR June 1998



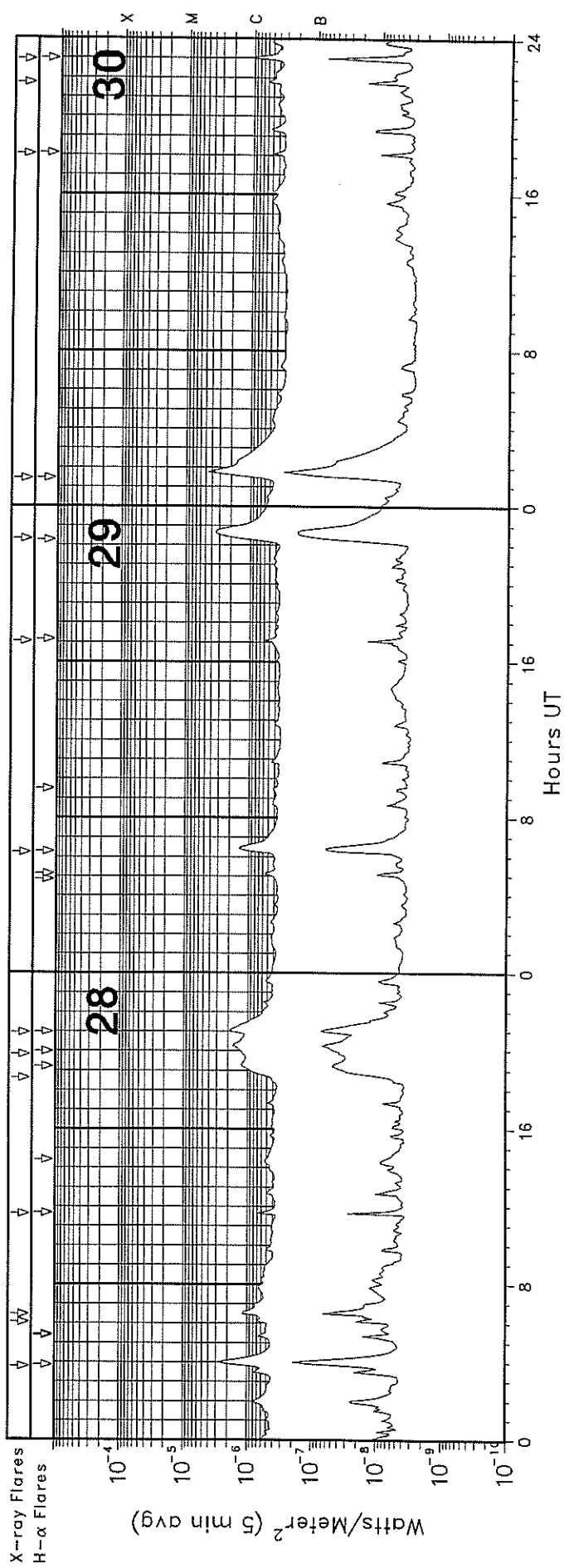
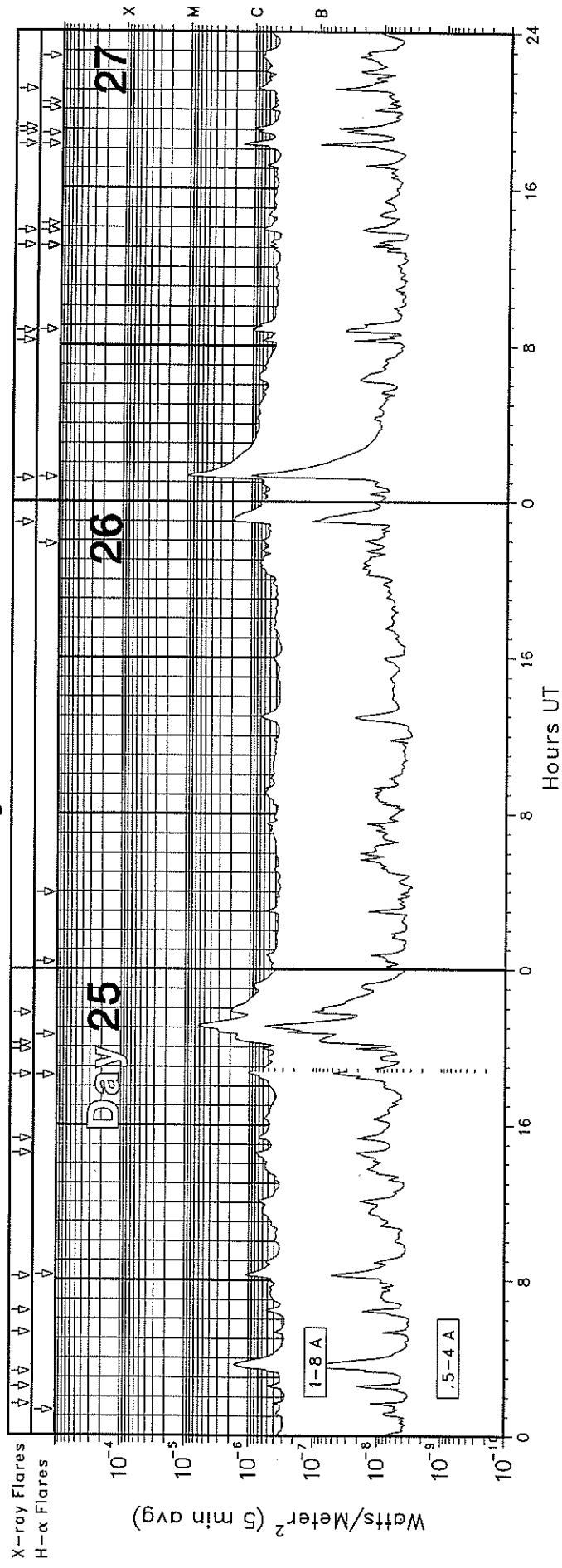
GOES X-RAY DETECTOR

June 1998



GOES X-RAY DETECTOR

June 1998



GOES SOLAR X-RAY FLARES
 Preliminary Listing

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 Jun 98

June 1998

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
02	1418	1423	1428				B7.7		3.6E-04
03	0234	0303	0357				C1.4		5.0E-03
03	1307	1310	1314	N27	E65	SF	B5.3	8233	1.8E-04
03	1424	1428	1432				B4.7	8233	2.0E-04
03	1617	1621	1625				B4.0	8233	1.7E-04
03	2301	2308	2313				C1.6		7.8E-04
04	1120	1124	1127	S23	E49	SF	B7.0	8232	2.1E-04
04	2034	2039	2046	S27	E51	SF	C1.0	8232	6.1E-04
04	2128	2143	2149	S25	E49	SF	C1.0	8232	1.2E-03
05	0302	0308	0313				B6.7		4.0E-04
05	0439	0445	0451	S26	E43	SF	C1.4	8232	6.8E-04
05	0643	0648	0654	S25	E45	SF	B9.0	8232	5.2E-04
05	0947	0953	0957	S23	E43	SF	C1.2	8232	5.5E-04
05	1415	1420	1423	S24	E41	SF	C1.1	8232	3.5E-04
05	1503	1508	1514				B6.8		3.6E-04
07	1107	1112	1117	N21	W16	SF	B5.2	8236	2.5E-04
07	1443	1454	1516	S23	E12	1F	C3.2	8232	4.3E-03
08	0335	0340	0349				B4.1		3.1E-04
08	0639	0651	0806				B9.1		3.4E-03
08	0945	0957	1031				B9.0		1.8E-03
08	1349	1353	1358				B4.3		2.1E-04
08	1556	1607	1614	S18	W03	2N	C5.2	8232	3.4E-03
08	1945	2009	2056	S30	W08	SF	C1.0		3.7E-03
09	0425	0432	0441				B6.1		5.6E-04
09	0835	0839	0846				B4.0		2.4E-04
09	1610	1613	1615				B4.3		1.1E-04
10	0224	0232	0244				C1.3		1.2E-03
10	0402	0408	0413				C1.2		6.3E-04
10	0700	0707	0717				B7.2		6.1E-04
10	2311	0014	0120				C1.1		6.9E-03
11	0957	1027	1118				M1.4		5.0E-02
12	0023	0027	0031				B6.7		2.9E-04
12	0032	0202	0248				C1.1		6.7E-03
12	0249	0252	0254	S19	W70	SF	C1.2	8240	3.2E-04
12	0452	0456	0459	N18	E11	SF	B9.3	8238	3.2E-04
12	0537	0540	0542	S22	W74	SF	C1.4	8240	3.4E-04
12	0613	0617	0621				C1.0		4.2E-04
12	0820	0827	0831				C1.1		5.5E-04
12	0914	0919	0921	S22	W77	1F	C3.1	8240	6.9E-04
12	2106	2113	2129	S25	E54	SF	C2.1	8242	2.1E-03
12	2247	2250	2253				B9.0		2.8E-04
12	2311	2318	2327	S24	E53		C1.8	8242	1.4E-03
13	0149	0155	0200				C1.4		8.2E-04
13	0215	0357	0621				C2.6		
13	0415	0420	0428	S27	E54	1N	M1.9	8242	1.1E-02
13	0909	0917	0932				C3.4		3.6E-03
13	1203	1210	1215				C1.3		8.1E-04
13	1458	1532	1554				C2.9	8237	7.1E-03
13	1719	1728	1732	S23	E43	SF	C2.4	8242	1.2E-03
13	1755	1759	1802	S20	E45	SF	C1.3	8242	4.3E-04
13	2349	0003	0020				B9.4		
14	0103	0109	0113				C3.0		1.1E-03
14	0432	0436	0442	S31	E12	SF	B6.5	8245	3.5E-04

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
14	0517	0521	0524	S22	E35	SF	B8.1	8242	2.7E-04
14	0836	0839	0842	N15	E62	SF	B6.6	8243	2.1E-04
14	1525	1529	1536	N14	E59	SF	B6.5	8243	3.7E-04
15	0600	0750	0937				C1.4	8232	1.4E-02
16	1803	1842	1928				M1.0		3.7E-02
17	1912	1920	1933	N18	E20	SF	B5.5	8243	5.4E-04
18	1147	1151	1155				B2.4		1.0E-04
18	1225	1228	1232				B2.4		9.2E-05
18	1436	1440	1444				B1.8		7.8E-05
18	1502	1508	1513				B1.9		1.1E-04
18	1716	1721	1729				B4.2		2.4E-04
18	1906	1915	1922	N20	E07	SF	B2.3	8243	1.9E-04
18	1924	1928	1932	N21	E06	SF	B2.9	8243	1.2E-04
18	2203	2219	2228				B9.1		9.8E-04
19	0041	0045	0050	N15	E02	SF	B2.3	8243	1.2E-04
19	0149	0153	0157				B2.2		9.1E-05
19	0229	0230	0241				B1.6		1.2E-04
19	0435	0436	0440				B1.7		5.0E-05
19	0453	0457	0459				B2.2		6.7E-05
19	0648	0711	0753	S32	E36	SF	B8.5	8249	2.6E-03
19	2048	2051	2054				B2.8		8.7E-05
19	2201	2210	2217				B3.8		2.8E-04
20	1412	1430	1444	N13	W23	1N	C4.0	8243	4.9E-03
20	2025	2038	2044	N16	W21	SF	B5.0	8243	4.8E-04
20	2054	2100	2104	N16	W21	1F	C1.9	8243	7.4E-04
20	2205	2210	2214	N17	W23		C3.9	8243	1.6E-03
21	0058	0102	0104	N17	W23	SF	B6.8	8243	2.0E-04
21	0439	0512	0551	N17	W25	SF	C2.7	8243	9.0E-03
21	0726	0733	0739				C1.6		1.1E-03
21	0953	1002	1047				C3.4		9.1E-03
21	1800	1808	1813	N16	W38	SF	C1.2	8243	6.4E-04
21	2046	2051	2055				B5.4		2.3E-04
21	2103	2109	2113	N16	W39	SF	C2.1	8243	8.0E-04
22	0008	0014	0025				B5.8		5.2E-04
22	0427	0443	0501	N16	W46	SF	C2.9	8243	4.5E-03
22	0834	0837	0843				B4.0		1.9E-04
22	0953	0956	0958				B4.0		9.7E-05
22	1731	1735	1743				B6.8		3.9E-04
22	2024	2027	2030	N17	E80	SF	B4.2	8253	1.3E-04
22	2110	2113	2115				C1.4		3.2E-04
22	2345	2350	2355	S26	W18	SF	B4.7	8249	2.6E-04
23	0254	0304	0324				B5.2		8.3E-04
23	0928	0935	0946	N17	E73	SF	B3.9	8253	3.8E-04
23	1030	1033	1037	N16	E72	SF	C1.3	8253	3.6E-04
23	1516	1519	1521	N14	E70	SF	B3.0	8253	7.2E-05
23	1521	1524	1527				B7.1	8253	1.7E-04
23	1657	1700	1702				B2.6		6.8E-05
23	1915	1923	1927	N15	E68	SF	C1.9	8253	5.9E-04
23	2239	2242	2245				B2.5		8.5E-05
24	0225	0228	0232				B3.7		1.3E-04
24	0318	0321	0324				B4.9		1.4E-04
24	0352	0355	0357				B4.8		1.2E-04
24	0441	0451	0454	N16	E60	SF	C1.0	8253	6.5E-04
24	0502	0508	0518				C1.2		1.0E-03

GOES SOLAR X-RAY FLARES
Preliminary Listing

June 1998

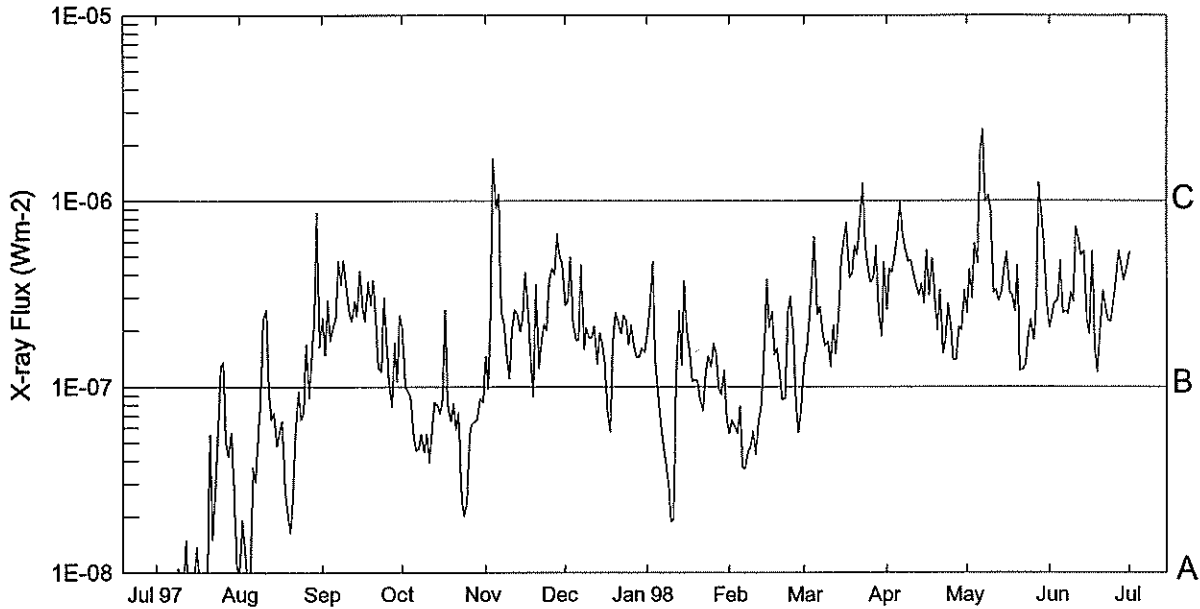
Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
24	0902	0906	0908	N16	E58	SF	C1.3 8253	2.2E-04
24	0942	0946	0950				B4.3	1.8E-04
24	1025	1033	1039				B7.6	5.3E-04
24	1108	1113	1117				B4.1	2.0E-04
24	1128	1138	1147	N15	E62	SF	C1.6 8253	1.4E-03
24	1211	1214	1216	N19	E61	SF	B8.3 8253	2.1E-04
24	1758	1803	1806	N19	E57		C1.6	5.0E-04
24	1850	1854	1856	N19	E56		B9.7 8253	2.8E-04
24	1901	1904	1910				C2.7	1.1E-03
24	1911	1918	1928				C3.8	3.4E-03
24	2234	2238	2240				B4.7	1.4E-04
24	2243	2247	2249				B5.3	1.5E-04
25	0137	0140	0143				B4.6	1.4E-04
25	0231	0237	0240				B5.8	2.5E-04
25	0318	0340	0354				C1.6	2.3E-03
25	0519	0522	0526				B4.0	1.6E-04
25	0625	0630	0633				B5.2	2.3E-04
25	0810	0817	0827				C1.1	9.6E-04
25	1432	1435	1438				B9.5	3.0E-04
25	1517	1522	1533				B7.2	6.3E-04
25	1836	1839	1849	N18	E42		C1.0 8253	6.9E-04
25	1953	1956	2000				B6.8	2.5E-04
25	2010	2107	2119	N16	E41	SF	C6.5 8253	1.2E-02
25	2145	2151	2209				C2.0	2.6E-03
26	2255	2302	2327				C2.1	3.1E-03

Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
27	0112	0121	0131	N18	E26	1N	M1.0	7.7E-03
27	0814	0817	0821				B8.7	3.0E-04
27	0844	0848	0857	N18	E24	SF	C1.1 8253	7.3E-04
27	1304	1307	1309	N16	E18		B6.8 8253	1.7E-04
27	1350	1355	1405	N16	E18		B7.6	5.8E-04
27	1813	1818	1822	N20	E18	SF	C1.7	7.4E-04
27	1849	1857	1900	N18	E19		B9.2 8253	4.8E-04
27	1904	1907	1910				C1.1	3.6E-04
27	2102	2108	2118				C1.0	7.9E-04
28	0347	0401	0410	N18	E12	1F	C2.9 8253	2.6E-03
28	0604	0608	0617				B7.2	5.0E-04
28	0628	0633	0640				C1.2	7.8E-04
28	1138	1142	1145	N16	E06	SF	B8.8 8253	2.6E-04
28	1837	1913	1935	N18	E03	SF	C1.2 8253	3.2E-03
28	1949	2015	2029	N18	E02	SF	C1.6 8253	3.4E-03
28	2056	2100	2114	N19	E02	SF	C1.8 8253	1.9E-03
29	0614	0627	0640	N19	W03	SF	C1.4 8253	1.8E-03
29	1703	1706	1710	S14	E26	SF	B6.2 8258	2.3E-04
29	2220	2241	2256	S23	E21		C3.4	6.1E-03
30	0126	0148	0158	N16	W15	1F	C5.0 8253	5.1E-03
30	1803	1806	1810	N19	W22	SF	B5.2 8253	1.9E-04
30	2144	2149	2155				B6.6	3.8E-04
30	2255	2301	2307	N19	W26	SF	C1.3 8253	6.7E-04

*****EDITOR'S NOTE: Only GOES X-ray times now appear in this table, beginning with the July 1997 data. These data are from the NOAA Space Environment Center on-line archives (see <http://www.sec.noaa.gov>).

Preliminary GOES Satellite Daily X-Ray Background Jul 97 - Jun 98

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Jun 98



Day	Jul 97	Aug	Sep	Oct	Nov	Dec	Jan 98	Feb	Mar	Apr	May	Jun
1	<A1.0	<A1.0	B2.3	B2.0	B1.4	B2.7	B1.9	A5.6	B1.3	B2.6	B2.4	B2.0
2	<A1.0	A1.9	B1.4	B1.0	A9.7	B2.8	B2.6	A6.6	B1.5	B4.3	B4.2	B2.4
3	<A1.0	A1.3	B2.8	A9.4	B2.6	B4.9	B4.7	A6.1	B2.2	B4.1	B2.9	B2.8
4	<A1.0	<A1.0	B1.7	A8.9	C1.6	B2.2	B1.4	A5.5	B3.6	B5.2	B5.8	B2.8
5	<A1.0	<A1.0	B2.0	A5.3	B9.1	B1.7	A9.4	A7.9	B6.3	B6.6	B4.6	B4.7
6	<A1.0	A3.6	B2.3	A4.5	C1.0	B1.7	A6.5	A3.6	B2.4	C1.0	C1.8	B2.4
7	<A1.0	A3.0	B4.7	A4.6	B2.4	B4.4	A5.0	A3.5	B2.6	B6.6	C2.4	B2.5
8	<A1.0	A5.2	B3.5	A5.5	B2.2	B1.5	A3.8	A4.5	B1.9	B5.6	B9.9	B2.4
9	A1.0	A8.8	B4.8	A4.4	B1.4	B2.0	A2.9	A4.7	B1.6	B4.7	C1.0	B3.2
10	A1.0	B2.3	B3.3	A5.5	B1.1	B1.8	A1.8	A5.7	B1.7	B4.8	B8.7	B2.8
11	<A1.0	B2.5	B2.4	A3.9	B2.0	B1.8	A1.9	A4.3	B1.2	B4.1	B3.1	B7.2
12	A1.4	A9.5	B2.2	A5.8	B2.5	B2.1	B1.1	A6.6	B2.1	B3.5	B3.3	B6.0
13	<A1.0	A6.6	B2.8	A8.2	B2.4	B1.3	B2.5	A7.9	B1.4	B3.1	B2.8	B5.0
14	<A1.0	A7.2	B2.4	A7.9	B1.9	B1.9	B1.3	B1.4	B2.5	B3.6	B3.2	B5.3
15	<A1.0	A4.7	B4.1	A7.1	B2.3	B1.6	B3.6	B3.7	B4.8	B2.8	B4.4	B2.3
16	A1.3	A5.7	B2.6	A8.6	B4.1	B1.3	B2.0	B2.0	B6.1	B5.4	B5.3	B1.9
17	<A1.0	A6.5	B2.2	B2.5	B2.6	A7.5	B1.5	B2.5	B7.6	B3.1	B3.1	B5.3
18	<A1.0	A2.7	B3.6	A8.0	B1.3	A5.7	B1.0	B1.4	B3.8	B4.9	B3.0	B1.5
19	A1.0	A2.1	B2.7	A6.5	A8.9	B1.7	B1.0	B1.6	B4.0	B3.0	B2.5	B1.2
20	<A1.0	A1.6	B3.7	A8.1	B3.5	B2.4	B1.0	B1.1	B5.7	B2.0	B4.4	B1.9
21	A5.5	A2.4	B2.3	A5.8	B1.2	B2.2	A8.6	A8.6	B5.1	B3.3	B1.2	B3.2
22	A1.5	A5.5	B1.2	A7.2	B1.7	B1.9	A7.4	A8.6	B7.5	B1.5	B1.2	B2.6
23	A2.6	A9.5	B1.2	A2.4	B2.1	B2.4	B1.1	B2.4	C1.2	B1.8	B1.3	B2.2
24	A5.0	A6.6	B2.9	A2.0	B2.0	B2.2	B1.4	B3.0	B5.6	B2.8	B1.8	B2.2
25	B1.2	A7.2	B1.7	A2.3	B3.6	B1.6	B1.2	B1.8	B4.3	B2.0	B2.2	B2.7
26	B1.3	B1.6	B1.0	A5.5	B4.3	B2.1	B1.7	A8.0	B3.6	B1.4	B1.7	B3.8
27	A5.0	A8.7	A7.8	A6.3	B3.9	B1.6	B1.5	A5.6	B3.8	B1.4	B2.7	B5.3
28	A4.2	B1.4	B1.7	A6.5	B6.6	B1.4	A9.9	A7.5	B5.6	B2.1	C1.2	B4.4
29	A5.6	B2.3	B1.0	A6.7	B5.0	B1.4	A9.1		B2.5	B2.0	B8.8	B3.7
30	A2.7	B8.6	B2.4	A8.6	B4.6	B1.6	B1.2		B1.8	B3.3	B5.9	B4.4
31	A1.1	B1.6		A8.2		B1.5	A6.6		B4.6		B2.7	

ACTIVE PROMINENCES AND FILAMENTS

JUNE 1998

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
01	ASR	0908E	1007D	S29	E90	06	8.4		2			P	WROC		
01	ADF	1047	1105	N23	W10	05	31.7	1	03	9		V	KHAR		
01	ADF	1105	1200	N22	W06	06	1.0	1	04	9		V	KHAR		
03	ADF	0912	1040	S20	E17	06	4.7	1	03	9	9	V	KHAR		
03	BSL	0958	1025	N19	E90	06	10.2	1	02	9	9	V	KHAR		
03	ADF	1040	1200D	N30	E68	06	8.6	1	05	9	9	V	KHAR		
03	DSF	1712U	1023U	S28	W43	05	31.3	2	16	0	0	E	RAMY		
03	DSF	1712U	1023U	S34	E45	06	7.3	2	07	0	0	E	RAMY		
03	DSF	2130	2257	S40	E70	06	9.6	3	34	0	0	E	HOLL		
04	ADF	0915E	1020	S31	E60	06	8.9	1	10	9	9	V	KHAR		
04	ADF	0915E	1156	S22	E48	06	8.0	1	10	9	9	V	KHAR		
04	DSF	0927U	0100U	S45	W12	06	3.4	2	16	0	0	E	LEAR		
04	DSF	0927U	2340U	S11	E42	06	7.5	2	17	0	0	E	LEAR	8232	
04	ADF	0937	0948	S19	E51	06	8.3	1	05		9	V	KHAR		
04	DSD	0952	1040	S21	E50	06	8.2	1	03	9	9	V	KHAR		
04	ADF	1032	1043	S16	E68	06	9.6	1	01		9	V	KHAR		
04	APR	1113	1205	N28	E90	06	11.3	1	08	9	9	V	KHAR		
04	DSD	1120	1205D	S18	E47	06	8.0	2	13	9	9	V	KHAR		
04	BSL	1127E	1145D	S21	W90	05	28.7	1	3			P	WROC		
04	DSD	1154	1205D	S22	E46	06	8.0	1	05	9		V	KHAR		
04	DSF	2205U	1036U	S29	W11	06	4.0	2	20	0	0	E	RAMY		
04	DSF	2205U	1036U	S42	W19	06	3.4	2	15	0	0	E	RAMY		
04	DSF	2205U	1036U	S43	E49	06	8.9	2	05	0	0	E	RAMY		
05	DSF	0548U	0640U	S39	E05	06	5.6	2	21	0	0	E	SVTO		
05	DSF	0548U	0640U	S41	W18	06	3.8	2	14	0	0	E	SVTO		
05	CAP	0900E	1221D	S29	E90	06	12.4	1	3			P	WROC		
06	ADF	0900E	0930	S19	E29	06	8.6	1	08		9	V	KHAR		
06	ADF	0900E	1044	N19	W07	06	5.8	1	05	9	9	V	KHAR		
06	ADF	1053	1150	N18	W07	06	5.9	1	03	9	9	V	KHAR		
06	BSL	1135E	1145	S20	W90	05	30.7	1	3			P	WROC		
06	ADF	1150	1200D	S23	E25	06	8.4	1	05		9	V	KHAR		
06	ADF	1155	1200D	N19	W05	06	6.1	1	02	9	9	V	KHAR		
07	BSL	0943E	1016D	N30	W90	05	31.3	1	3			P	WROC		
07	DSF	1714U	1037U	N19	W63	06	2.9	2	16	0	0	E	RAMY		
07	DSF	2200U	0358U	S18	W18	06	6.5		30	0	0	E	BOUL		
08	DSF	0852U	0023U	N25	E58	06	12.9	2	18	0	0	E	LEAR		
08	DSF	1524U	0944U	S56	E43	06	12.4	2	26	0	0	E	SVTO		
08	DSF	2152U	1019U	S20	W37	06	6.1		07	0	0	E	RAMY		
08	DSF	2152U	1019U	S48	E23	06	10.8		47	0	0	E	RAMY		
09	DSF	0510	0615U	S47	E17	06	10.6	2	20	9	9	E	LEAR		
09	DSF	0852U	0023U	N25	E58	06	13.9	2	18	0	0	E	LEAR		
10	BSL	0824E	0854	S26	E90	06	17.3	1	8			P	WROC		
10	BSL	0920	0944	S26	E90	06	17.4	1	3			P	WROC		
10	BSL	1029E	1044	S26	E90	06	17.4	1	5			P	WROC		
10	BSL	1158	1223D	S26	E90	06	17.5	1	6			P	WROC		
10	BSL	1244E	1310	S26	E90	06	17.5	2	17			P	WROC		
11	ADF	0840E	0952D	S21	W41	06	8.3	1	01		9	V	KHAR		
11	ADF	0935U	0952D	S22	E25	06	13.3	1	01		9	V	KHAR		
13	BSL	0945U	1000D	S27	W90	06	6.6	1	03	9	9	V	KHAR		
13	BSL	1100U	1142	S26	W90	06	6.6	1	03	9	9	V	KHAR		
13	ADF	1150	1200D	S30	W64	06	8.6	1	10	9	9	V	KHAR		
13	BSL	1155U	1200D	S26	W90	06	6.7	1	03	9	9	V	KHAR		
13	DSF	1857U	1130U	S22	W67	06	8.6		06	0	0	E	RAMY	8232	
14	ADF	0930E	1010	N22	E60	06	18.9	1	02	9	9	V	KHAR		
14	ADF	0942U	1115	N30	E68	06	19.6	1	10	9	9	V	KHAR		
14	BSL	0945	1008	S27	W90	06	7.6	1	04	9	9	V	KHAR		
14	DSD	1005	1014	N22	E55	06	18.6	1	02		9	V	KHAR		
14	DSD	1120U	1130U	N21	E61	06	19.1	1	02	9	9	V	KHAR		
14	ADF	1135U	1158D	N27	E64	06	19.3	1	08	9	9	V	KHAR		

ACTIVE PROMINENCES AND FILAMENTS

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Jun 98

JUNE 1998

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
14	BSL	1148U	1158D	N27	W90	06	7.7	1	02	9	9	V	KHAR		
14	DSF	1720U	0357U	S51	W47	06	10.7		09	0	0	E	SVTO		
14	DSF	1813U	1015U	S46	W50	06	10.6		10	0	0	E	RAMY		
14	DSF	2354U	0318	S23	W11	06	14.1	1	04	6	7	E	LEAR	8239	
15	DSF	0134U	1314U	S47	W61	06	9.9	2	14	0	0	E	HOLL		
15	EPL	0600E	0757D	S18	W90	06	8.4	3		9	9	E	SVTO	8232	
15	EPL	0607	0740	S12	W90	06	8.5	3		9	9	E	LEAR	8232	
15	DSF	0842U	1157U	S50	W48	06	11.3	2	10	0	0	E	SVTO		
15	DSF	0904U	0116U	S80	E32	06	18.3	2	30	0	0	E	LEAR		
15	DSF	1109U	1124	S71	E01	06	15.5	3	09	9	9	E	RAMY		
15	DSF	1207U	1426U	S53	E18	06	17.0	3	33	0	0	E	RAMY		
15	DSF	1230U	1430	S82	E36	06	18.9	2	36	9	9	E	SVTO		
15	DSF	1314U	1420U	S44	E12	06	16.5	3	38	9	9	E	HOLL		
15	EPL	1655E	1756D	S30	E90	06	22.8	3		9	9	E	HOLL		
15	EPL	1655	1737	S18	E90	06	22.5	3		9	9	E	RAMY		
15	EPL	1655E	1758	S18	E90	06	22.5	3		9	9	E	SVTO	8249	
16	APR	0745E	0931D	S26	W90	06	9.3	2	9			P	WROC		
16	ADF	0915E	1000D	N28	E35	06	19.0	1	10	9	9	V	KHAR		
16	LPS	1956	2202	S17	W90	06	10.0			6	9	E	HOLL	8232	
17	APR	0743E	0954D	S09	E90	06	24.1	1	14			P	WROC		
19	DSF	2113U	1108U	S28	W31	06	17.5		05	0	0	E	RAMY	8242	
21	DSF	1734U	0400U	S50	W17	06	20.3		17	0	0	E	SVTO		
21	DSF	2358U	0345U	N04	W27	06	20.0	3	22	9	9	E	LEAR	8249	
22	DSF	0119U	1212U	S51	W24	06	20.0		20	0	0	E	HOLL		
22	DSF	0926U	2354U	S25	E21	06	24.0	2	09	0	0	E	LEAR		
22	DSF	0926U	2354U	S35	W11	06	21.5	2	08	0	0	E	LEAR	8249	
22	DSF	1703U	0425U	N30	W18	06	21.3		09	0	0	E	SVTO		
22	DSF	1703U	0425U	S26	E18	06	24.1		11	0	0	E	SVTO		
22	DSF	1705U	0437U	S36	W04	06	22.4		08	0	0	E	SVTO		
22	EPL	1904	1954	N32	W90	06	15.7	3		9	9	E	HOLL	8244	
28	DSF	2047U	1351U	N16	E04	06	29.2	2	06	0	0	E	RAMY	8253	

ADF = Active Dark Filament
AFS = Arch Filament System
APR = Active Prominence
ASR = Active Surge Region
BSD = Bright Surge on Disk

BSL = Bright Surge on Limb
CAP = CAP Prominence (Tandberg-Hanssen)
CRN = Coronal Rain
DSD = Dark Surge on Disk
DSF = Disappearing Solar Filament

EPL = Eruptive Prominence on Limb
LPS = Loops
MDP = Mound Prominence
SDF/DSF = Sudden Disappearing Filament
SPY = Spray
SSB = Solar Sector Boundary

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

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

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

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

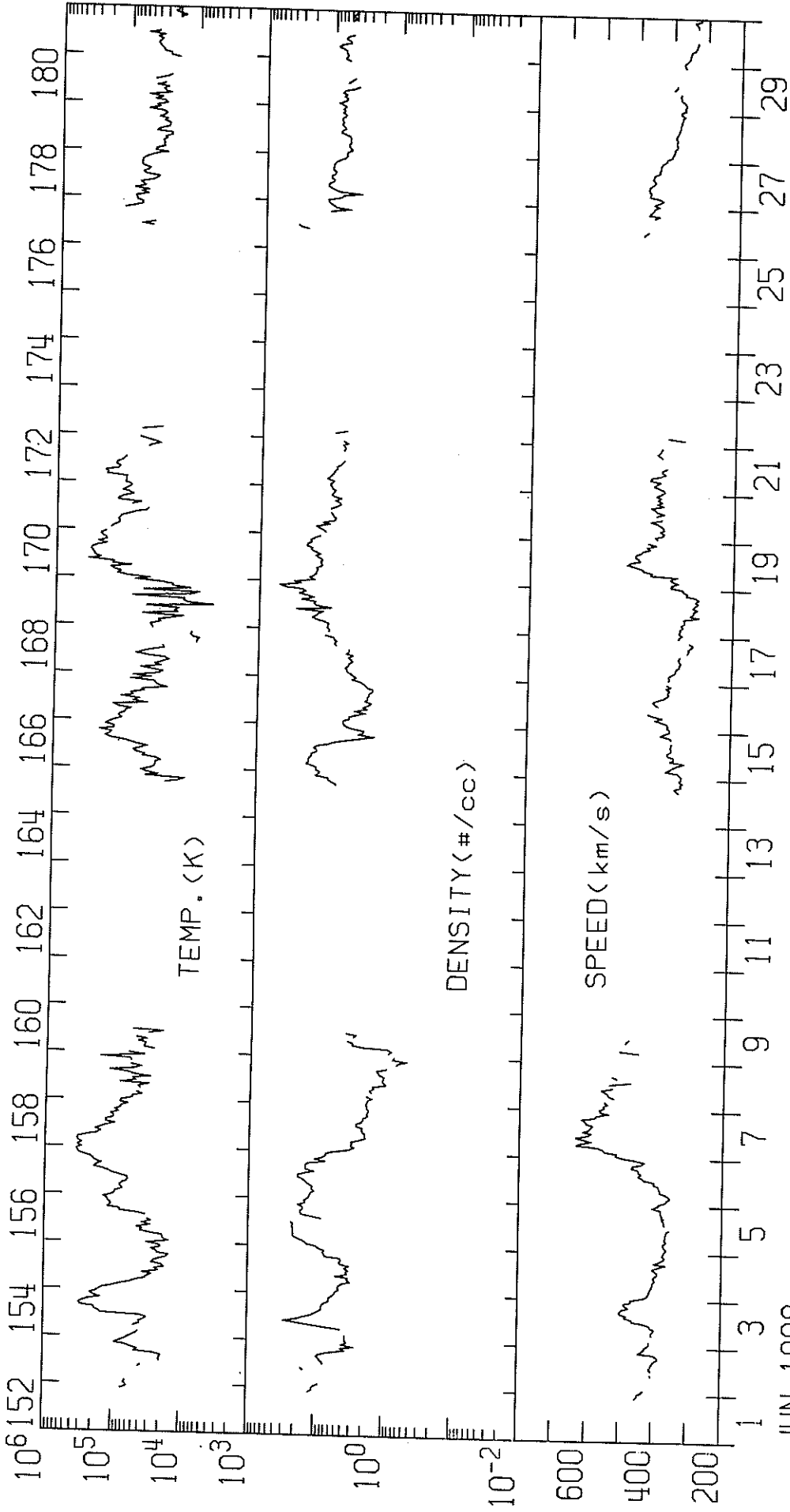
ABST = Abastumani
ATHN = Athens
BUCA = Bucharest
CATA = Catania

HOLL = Holloman
KHAR = Kharkov
LEAR = Learmonth
PALE = Palehua

RAMY = Ramey
SVTO = San Vito
VORO = Voroshilov
VALA = Valasske Mezirici
WROC = Wroclaw

IMP 8 SOLAR WIND PLASMA
JUNE 1998

MIT/CSR IMP 8 PLASMA PARAMETERS



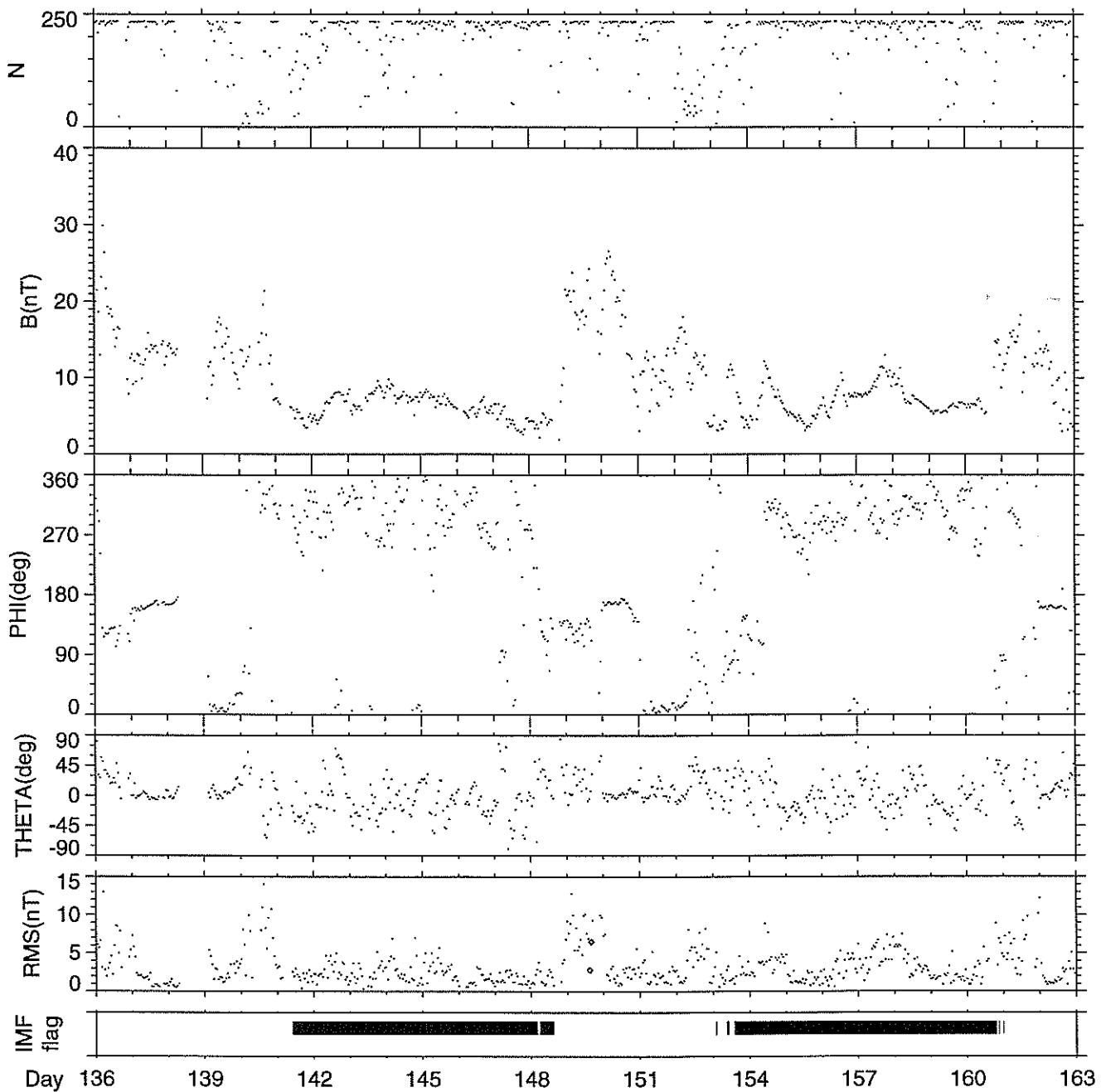
JUN 1998

IMP 8

MIT ONE-HOUR AVERAGES

IMP-8 Magnetic Field Data in GSE Coordinates

1 Hour Averages (c) DOY 136 - 163 May 16 1998 - June 12 1998



Generation Date : Wed Sep 16 09:56:31 1998

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.

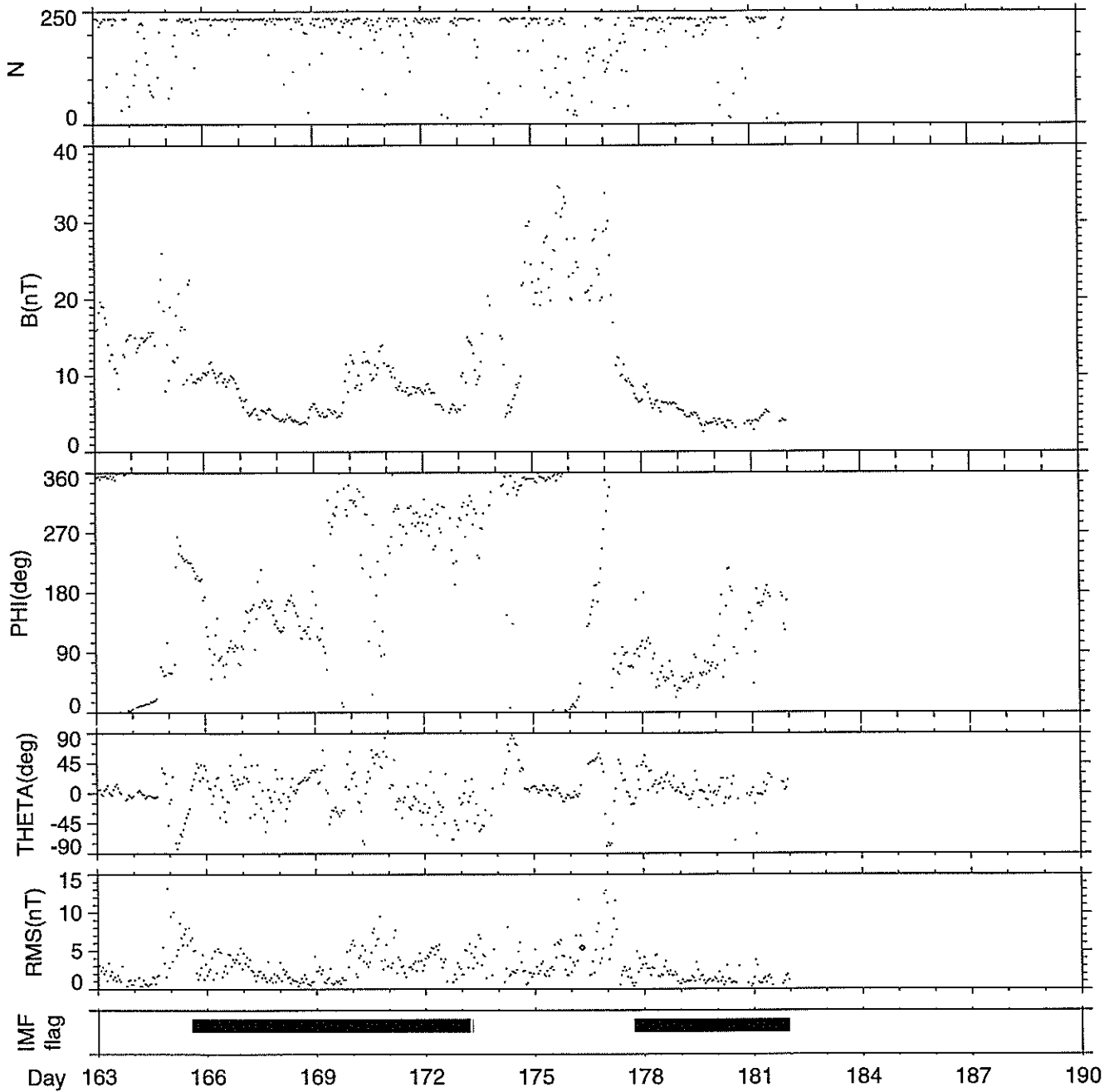
IMP-8 Magnetic Field Data in GSE Coordinates

1 Hour Averages

(c) DOY 163 - 181

June 12 1998 -

June 30 1998



Generation Date : Wed Sep 16 09:56:33 1998

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.



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SOLAR-TERRESTRIAL PHYSICS



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

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