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Number 656

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Hα SOLAR FLARES

OCTOBER 1998

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0001	SVTO	01	0830	0830	0835	S26	E35	8349	10	4.1	5	SF		2	E		16		
0002	HOLL	01	1711	1716	1735	S27	E35	8349	10	4.4	24	SF		3	E		65		
		01	1752		1832	No Flare Patrol													
		01	1837		1856	No Flare Patrol													
		01	1932		2042	No Flare Patrol													
		01	2103		2119	No Flare Patrol													
		01	2215		2220	No Flare Patrol													
		02	0547		0622	No Flare Patrol													
0003	URUM	02	0825E	0825	0841	S26	W58	8346	09	27.9	16D	SN			P		48		D
0004	KANZ	02	1409	1409	1413	N19	E73	8350	10	8.2	4	SF		2	C				
0005	HOLL	03	0015	0015	0024	N20	E65	8350	10	8.0	9	SF		3	E		16		
0006	KANZ	03	0734E	0734U	0742	N20	E66	8350	10	8.4	8D	SF		2	C				
		03	1120		1148	No Flare Patrol													
		03	1155		1319	No Flare Patrol													
0007	HOLL	03	2302	2302	2307	N16	E51	8350	10	7.8	5	SF		3	E		11		
0008	RAMY	04	1200	1208	1227	N18	E43	8350	10	7.8	27	SF		3	E		28		
0009	RAMY	04	1229	1229	1240	N17	E42	8350	10	7.7	11	SF		3	E		12		
0010		04	1448	14481	1456	N16	E42	8350	10	7.8	8	SF					28		F
	RAMY	04	1448	1448	1500	N17	E42	8350	10	7.8	12	SF		3	E		27		F
	HOLL	04	1448	1449	1453	N16	E41	8350	10	7.7	5	SF		3	E		30		
		04	2236		2240	No Flare Patrol													
		04	2321		2330	No Flare Patrol													
		04	2343		2400	No Flare Patrol													
		05	0000		0041	No Flare Patrol													
0011	URUM	05	0308	0312	0320	N17	E35	8350	10	7.8	12	SF			C		161	2.1	E
		05	1149		1157	No Flare Patrol													
0012	HOLL	05	1722	1723	1738	N21	E30	8350	10	8.0	16	SF		3	E		15		
		05	1812		1947	No Flare Patrol													
		05	2013		2021	No Flare Patrol													
		06	0849		0901	No Flare Patrol													
		07	0038		0052	No Flare Patrol													
		07	0837		0931	No Flare Patrol													
		07	0938		0939	No Flare Patrol													
		07	0957		1017	No Flare Patrol													
0013	RAMY	07	1157	1159	1202	S21	E69	8355	10	12.8	5	SF		3	E		23		
0014	RAMY	07	1245	1250	1349	S22	E68	8355	10	12.7	64	1N		3	E		154		F
0015	RAMY	07	1318	1321	1337	N18	E01	8350	10	7.6	19	SF		3	E		28		
0016	HOLL	07	1514	1519	1528	S20	E67	8355	10	12.7	14	SF		3	E		54		H
0017		07	1517*	15392	1714	S21	E68	8355	10	12.8	117	1N					154		FH
	RAMY	07	1517	1539	1815	S21	E68	8355	10	12.8	178	1N		3	E		132		FH
	HOLL	07	1538	1541	1613	S21	E68	8355	10	12.9	35	1N		3	E		176		
0018	RAMY	07	1519	1519	1531	N19	W01	8350	10	7.6	12	SF		3	E		11		F
0019	HOLL	07	1614	1618	1630	S22	E68	8355	10	12.9	16	SF		3	E		44		
0020	HOLL	07	1709	1715	1729	S20	E65	8355	10	12.7	20	SF		3	E		70		

Hα SOLAR FLARES

OCTOBER 1998

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0021	HOLL	07	1734	1741	1813	S22	E67	8355	10	12.9	39	SF		3	E		27		
0022	HOLL	07	1924	1925	1930	S22	E67	8355	10	12.9	6	SF		3	E		27		
0023	HOLL	07	1944	1948	2006	S21	E66	8355	10	12.9	22	SF		3	E		93		F
0024	HOLL	07	2016	2018	2027	N20	W04	8350	10	7.5	11	SF		3	E		25		F
0025	HOLL	07	2020	2020	2028	S22	E66	8355	10	12.9	8	SF		3	E		48		
0026	HOLL	07	2031	2034	2045	S20	E65	8355	10	12.8	14	SF		3	E		41		
0027	HOLL	07	2042	2053	2106	N21	W08	8350	10	7.2	24	SF		3	E		36		F
0028	HOLL	07	2104	2112	2155	S22	E66	8355	10	12.9	51	SF		3	E		33		
0029	HOLL	07	2215	2220	2244	S21	E65	8355	10	12.9	29	SF		3	E		53		F
0030	HOLL	07	2314	2321	2342	S21	E66	8355	10	13.0	28	SF		3	E		37		
0031	HOLL	07	2351	2355	2359	S22	E64	8355	10	12.9	8	SF		3	E		33		F
0032	URUM	08	0238	0242	0249	N19	W01	8350	10	8.0	11	SN			C		161	1.7	E
		08	0623		0712	No Flare Patrol													
		08	0944		1034	No Flare Patrol													
0033	RAMY	08	1042E	1042U	1051D	S22	E56	8355	10	12.7	9D	SF		3	E		18		
0034	RAMY	08	1248	1249	1258	S22	E57	8355	10	12.9	10	SF		3	E		57		
0035		08	1335	1336	1355	S22	E55	8355	10	12.8	20	SF					28		
	SVTO	08	1335	1336U	1351D	S21	E53	8355	10	12.6	16D	SF		1	E		32		
	RAMY	08	1335	1336	1355	S22	E57	8355	10	12.9	20	SF		3	E		25		
0036	RAMY	08	1407	1418	1441	S23	E57	8355	10	13.0	34	SF		3	E		25		
0037	RAMY	08	1527	1528	1532	N22	E03	8356	10	8.9	5	SF		3	E		13		
0038	RAMY	08	1621	1621	1625	N22	E03	8357	10	8.9	4	SF		3	E		13		
0039	RAMY	08	1656	1659	1710	S23	E56	8355	10	13.0	14	SN		3	E		67		
0040	RAMY	08	1723	1724	1734	S23	E54	8355	10	12.9	11	SF		3	E		25		
		08	1938		2004	No Flare Patrol													
0041	HOLL	08	2146	2147	2205	S22	E54	8355	10	13.0	19	SF		3	E		13		
		08	2219		2224	No Flare Patrol													
0042	HOLL	08	2233	2233	2246	S21	E53	8355	10	13.0	13	SF		3	E		13		
0043	HOLL	08	2305	2307	2336	S22	E53	8355	10	13.0	31	SF		3	E		26		
0044	LEAR	09	0048	0049	0101	N19	W12	8350	10	8.1	13	SF		3	E		14		
0045		09	07444	07522	0801	N20	W08	8356	10	8.7	17	SF					31		E
	KANZ	09	0744	0752	0812D	N20	W08	8356	10	8.7	28D	SF		2	C				
	LEAR	09	0748	0754	0801	N20	W07	8356	10	8.8	13	SF		3	E		31		E
0046	KANZ	09	0904	0908	0924	S23	W32	8354	10	6.9	20	SF		2	C				
0047	KANZ	09	1004	1004	1012	S20	E42	8355	10	12.6	8	SF		2	C				
0048	RAMY	09	1143	1144	1148	S24	W73	8349	10	3.8	5	SF		3	E		37		
0049		09	13201	1331	1335	S20	E40	8355	10	12.6	15	SF					22		H
	KANZ	09	1320	1330U	1330D	S21	E40	8355	10	12.6	10D	SF		2	C				
	RAMY	09	1321	1331	1335	S19	E40	8355	10	12.6	14	SF		3	E		22		H

Hα S O L A R F L A R E S

OCTOBER 1998

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Opt	Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0050	RAMY	09	1545	1546	1556	S24	W76	8349	10	3.8	11	SF			3	E		12		
0051		09	16018	16101	1616	S26	W76	8349	10	3.8	15	SF						30		
	RAMY	09	1601	1610	1618	S25	W76	8349	10	3.8	17	SF			4	E		40		
	HOLL	09	1609	1611	1615	S26	W76	8349	10	3.8	6	SF			3	E		19		
0052	RAMY	09	1645	1648	1702	S25	W77	8349	10	3.7	17	SF			3	E		12		
0053	RAMY	09	1709	1710	1712	S25	W77	8349	10	3.7	3	SF			4	E		14		
0054	HOLL	09	2326	2327	2337	S23	E40	8355	10	13.0	11	SF			3	E		12		
		10	0033		0603	No Flare Patrol														
		10	0618		0813	No Flare Patrol														
0055	KANZ	10	0854	0858	0914	N18	W29	8350	10	8.2	20	SF			2	C				
		10	1019		1025	No Flare Patrol														
		10	1115		1118	No Flare Patrol														
0056	LEAR	11	0104	0106	0108	N20	W29	8356	10	8.8	4	SF			3	E		10		
0057	KANZ	11	0905	0905	0909	N20	W33	8356	10	8.8	4	SF			2	C				
0058	KANZ	11	0909	0917	0929	S21	E66		10	16.4	20	SF			2	C				
0059	KANZ	11	1001	1005	1017	N21	W33	8356	10	8.9	16	SF			2	C				
0060	KANZ	11	1041	1041	1049	N21	W34	8356	10	8.8	8	SF			2	C				
0061		11	11441	11472	1216	N21	W35	8356	10	8.8	32	SF						57		FH
	RAMY	11	1144	1147	1220	N21	W35	8356	10	8.8	36	SF			4	E		57		FH
	KANZ	11	1145	1149	1213	N21	W35	8356	10	8.8	28	SF			2	C				
0062	RAMY	11	1825E	1828U	1830D	S23	E15	8355	10	12.9	5D	SF			3	E		27		
		12	1008		1201	No Flare Patrol														
0063		12	13598	14018	1417	S20	W62	8354	10	7.8	18	SF						17		
	RAMY	12	1359	1401	1422	S19	W61	8354	10	7.9	23	SF			3	E		15		
	HOLL	12	1407	1409	1414	S21	W63	8354	10	7.7	7	SF			3	E		18		
	SVTO	12	1409E	1409U	1416	S20	W62	8354	10	7.8	7D	SF			3	E		17		
0064		12	19421	19441	1956	S21	E03	8355	10	13.0	14	SF						42		
	RAMY	12	1942	1944	1956	S21	E03	8355	10	13.0	14	SF			3	E		40		
	HOLL	12	1943	1945	1955	S21	E03	8355	10	13.0	12	SF			3	E		45		
0065	LEAR	13	0057	0101	0110	N22	W54	8356	10	8.9	13	SF			3	E		18		
0066	KANZ	13	0853E	0853U	0916	N15	E14	8358	10	14.4	23D	SF			2	C				
0067	KANZ	13	1012E	1012U	1013D	N15	E12	8358	10	14.3	1D	SF			2	C				
		13	1014		1022	No Flare Patrol														
		13	1032		1036	No Flare Patrol														
0068	RAMY	13	1051E	1056U	1115D	N20	W58	8356	10	9.0	24D	SF			2	E		30		FH
0069	HOLL	13	1703	1704	1711	N20	W67	8350	10	8.6	8	SF			3	E		14		
0070	HOLL	13	1842	1843	1853	N23	W44	8359	10	10.4	11	SF			3	E		38		
0071	HOLL	13	1944	1949	2014	N16	E03	8358	10	14.0	30	SF			3	E		23		F
		13	2220		2229	No Flare Patrol														
		14	0028		0159	No Flare Patrol														
0072	URUM	14	0514	0518	0529D	N16	W02	8358	10	14.1	15D	SF				P		80	0.8	D

Hα SOLAR FLARES

OCTOBER 1998

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0073	LEAR	14	0536	0544	0546	S20	W02	8360	10	14.1	10	SF		3	E		17		
0074	LEAR	14	0611	0611	0621	S20	W02	8360	10	14.1	10	SF		3	E		18		
0075	LEAR	14	0742	0742	0746	S20	W03	8360	10	14.1	4	SF		3	E		15		
0076	SVTO	14	0756E	0757U	0825	S20	W02	8360	10	14.2	29D	SF		3	E		28		
0077	SVTO	14	0820	0827U	0843D	N15	W03	8358	10	14.1	23D	SF		3	E		13		
0078	SVTO	14	0918E	0919U	0942D	S20	W06	8360	10	13.9	24D	SF		3	E		12		
0079	SVTO	14	1123	1124U	1130D	S21	W04	8360	10	14.2	7D	SF		3	E		20		
0080		14	1407*	1420	1433	S22	W22	8355	10	12.9	26	SF					36		
	RAMY	14	1407	1420	1439	S21	W22	8355	10	12.9	32	SF		3	E		45		
	SVTO	14	1414E	1420U	1504D	S23	W23	8355	10	12.8	50D	SF		3	E		49		
	HOLL	14	1418	1420	1427	S23	W22	8355	10	12.9	9	SF		3	E		14		
0081		14	1447	1447I	1451	S19	W08	8360	10	14.0	4	SF					16		
	HOLL	14	1447	1447	1451	S19	W09	8360	10	13.9	4	SF		3	E		17		
	RAMY	14	1447	1448	1451	S19	W08	8360	10	14.0	4	SF		3	E		14		
0082	HOLL	14	1714	1715	1727	S20	W09	8360	10	14.0	13	SF		3	E		55		F
0083	HOLL	14	1816	1818	1826	S20	W10	8360	10	14.0	10	SF		3	E		20		F
		14	2100		2106	No Flare Patrol													
		14	2122		2133	No Flare Patrol													
0084	LEAR	15	0044	0048	0059	N26	W63	8359	10	10.1	15	SF		3	E		65		
		15	1948		2116	No Flare Patrol													
0085	HOLL	15	2129	2144	2147D	S20	W23	8360	10	14.1	18D	SF		3	E		75		
		15	2138		2240	No Flare Patrol													
0086	URUM	16	0231	0235	0250	S20	W23	8360	10	14.3	19	SB			C		32	0.4	D
0087		16	0503*	0511B	0526	N16	W32	8358	10	13.8	23	SN					32	0.6	D
	URUM	16	0503	0511	0525	N16	W32	8358	10	13.8	22	SN			C		48	0.6	D
	LEAR	16	0519	0519	0526	N15	W32	8358	10	13.8	7	SF		3	E		15		
0088	URUM	16	0511E	0511U	0511D	N14	W16	8361	10	15.0	7D	SB			P		32	0.3	D
0089	LEAR	16	0519	0520	0535	S19	W30	8360	10	13.9	16	SF		3	E		15		
0090		16	0607*	0640	0709	S19	W31	8360	10	13.9	62	SF					45		F
	SVTO	16	0607	0640	0718	S19	W31	8360	10	13.9	71	SF		3	E		45		F
	KANZ	16	0640	0640	0700	S19	W31	8360	10	13.9	20	SF		2	C				
0091	KANZ	16	0640	0656	0708	S19	W26	8360	10	14.3	28	SF		2	C				
0092	KANZ	16	0640	0640	0648	S21	E70		10	21.6	8	SF		2	C				
0093		16	07081	07111	0729	N17	W26	8358	10	14.3	21	SF					28		F
	KANZ	16	0708	0712	0740	N17	W25	8358	10	14.4	32	SF		2	C				
	SVTO	16	0709	0711	0723	N16	W29	8358	10	14.1	14	SF		3	E		26		F
	LEAR	16	0709	0711	0723	N18	W24	8358	10	14.5	14	SF		3	E		30		
0094	SVTO	16	1359	1412	1420	N15	W35	8358	10	13.9	21	SF		3	E		15		
0095		16	1452	14523	1502	S20	W33	8360	10	14.1	10	SF					18		
	RAMY	16	1452	1452	1500	S19	W34	8360	10	14.0	8	SF		3	E		18		
	SVTO	16	1452	1455	1505	S20	W32	8360	10	14.2	13	SF		1	E		18		
0096	HOLL	16	2126	2131	2150	N15	W38	8358	10	14.0	24	SF		3	E		36		
		17	0023		0137	No Flare Patrol													

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0097	URUM	17	0439	0443	0459	N15	W42	8358	10	14.0	20	SN			C		80	1.1	E
0098	LEAR	17	0622	0627	0630	N16	W41	8358	10	14.1	8	SF		3	E		15		
0099	SVTO	17	0913	0915	0922	N19	E34	8364	10	20.0	9	SF		3	E		19		F
0100	RAMY	17	1118	1125	1138	N17	W46	8358	10	14.0	20	SF		3	E		13		F
0101		17	14301	14321	1502	N16	W48	8358	10	14.0	32	SF					28		
	RAMY	17	1430	1432	1509	N16	W49	8358	10	13.9	39	SF		4	E		27		
	HOLL	17	1430	1433	1513	N16	W49	8358	10	13.9	43	SF		3	E		31		
	SVTO	17	1431	1432	1443	N16	W46	8358	10	14.1	12	SF		3	E		27		
0102	HOLL	17	1841	1848	1913	N14	W51	8358	10	13.9	32	1F		3	E		134		
0103	HOLL	17	2137	2141	2151	N15	W53	8358	10	13.9	14	SF		3	E		24		
0104	HOLL	17	2222	2226	2244	N14	W54	8358	10	13.8	22	SF		3	E		26		
0105	LEAR	17	2354	2407	2430	N16	W51	8358	10	14.1	36	SN		3	E		65		FH
0106		18	0142	01443	0202	N16	W53	8358	10	14.0	20	2B					259	5.6	EFH
	LEAR	18	0142	0144	0208	N16	W52	8358	10	14.1	26	1N		3	E		197		FH
	URUM	18	0145E	0147	0157	N15	W54	8358	10	14.0	12D	2B			P		321	5.6	E
0107	LEAR	18	0537	0537	0548	N16	W57	8358	10	13.9	11	1F		3	E		107		EF
0108	URUM	18	0755	0803	0807	N12	W55	8358	10	14.2	12	SB			C		48	0.9	D
0109	HOLL	18	2327	2332	2338	N13	W53	8361	10	15.0	11	SF		2	E		21		
0110	LEAR	19	0649	0653	0656	N14	W60	8361	10	14.7	7	SF		3	E		19		
		19	1027		1039	No Flare Patrol													
0111	SVTO	19	1127	1128U	1139D	N13	W59	8361	10	15.0	12D	SF		3	E		27		F
0112	RAMY	19	1151	1154	1204	N14	W59	8361	10	15.0	13	SF		3	E		13		
0113		19	1221	1232	1309	N14	W60	8361	10	15.0	48	1N					90		E
	RAMY	19	1221	1232	1309	N14	W59	8361	10	15.0	48	1N		4	E		118		E
	SVTO	19	1223E	1227U	1250D	N14	W61	8361	10	14.9	27D	SF		3	E		62		
0114	RAMY	19	1354	1354	1402	N21	E08	8364	10	20.2	8	SF		4	E		11		
0115	RAMY	19	1426	1426	1438	N14	W60	8361	10	15.1	12	SF		3	E		14		
0116	RAMY	19	1527	1530	1542	N16	W62	8361	10	14.9	15	SF		3	E		78		FH
0117	RAMY	19	1618	1618	1621	N14	W62	8361	10	15.0	3	SF		3	E		15		
0118	RAMY	19	1716	1718	1726	N14	W63	8361	10	14.9	10	SF		3	E		10		
		19	1936		2041	No Flare Patrol													
		19	2046		2228	No Flare Patrol													
0119	LEAR	19	2356	2359	2403	N15	W63	8361	10	15.2	7	SF		3	E		18		
0120	LEAR	20	0249	0250	0253	N14	W68	8361	10	15.0	4	SF		3	E		16		
0121	LEAR	20	0342	0343	0346	N14	W69	8361	10	14.9	4	SF		3	E		28		
0122	LEAR	20	0342	0343	0349	N16	W80	8358	10	14.1	7	SF		3	E		32		
0123	LEAR	20	0343	0358	0407	S29	W04	8365	10	19.8	24	SF		3	E		14		
0124	LEAR	20	0519	0522	0527	N16	W80	8358	10	14.1	8	SF		3	E		43		
0125	LEAR	20	0622	0632	0638	N16	W81	8358	10	14.1	16	SF		3	E		31		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0126	LEAR	20	0629	0630	0634	N14	W72	8361	10	14.8	5	SF		3	E		13		
		20	1011		1155	No Flare Patrol													
		20	1629		2224	No Flare Patrol													
0127	SVTO	21	1124	1127	1130	S26	W26	8365	10	19.4	6	SF		3	E		13		
0128	SVTO	21	1457E	1457	1507	S27	W20	8365	10	20.1	10D	SF		3	E		11		
0129	RAMY	21	1502	1502	1510	S27	W29	8365	10	19.4	8	SF		3	E		67		
		21	1610		1741	No Flare Patrol													
		21	1755		2235	No Flare Patrol													
0130	LEAR	22	0144	0144	0148	S27	W35	8365	10	19.3	4	SF		3	E		15		
0131	LEAR	22	0509	0515	0522	S27	W37	8365	10	19.3	13	SF		3	E		26		
0132	KANZ	22	0657	0701	0705	N22	W27	8364	10	20.2	8	SF		2	C				
0133		22	07241	07251	0744	S26	W38	8365	10	19.3	20	SF					23		
	SVTO	22	0724	0726	0743	S26	W38	8365	10	19.3	19	SF		3	E		23		
	KANZ	22	0725	0725	0745	S27	W37	8365	10	19.4	20	SF		2	C				
0134		22	09352	09352	0940	S26	W37	8365	10	19.5	5	SF					11		
	SVTO	22	0935	0935	0939	S26	W39	8365	10	19.4	4	SF		3	E		11		
	KANZ	22	0937	0937	0941	S27	W35	8365	10	19.7	4	SF		2	C				
0135		22	09472	09491	0958	S26	W38	8365	10	19.4	11	SF					27		
	SVTO	22	0947	0950	0958	S26	W39	8365	10	19.4	11	SF		3	E		27		
	KANZ	22	0949	0949	0957	S27	W38	8365	10	19.4	8	SF		2	C				
0136	KANZ	22	1133	1137	1141	S27	W39	8365	10	19.4	8	SF		2	C				
0137		22	1201	1201	1208	S27	W42	8365	10	19.2	7	SF					15		
	SVTO	22	1201	1201	1208	S26	W42	8365	10	19.2	7	SF		3	E		15		
	KANZ	22	1201	1201	1209	S28	W41	8365	10	19.3	8	SF		2	C				
0138	KANZ	22	1321	1321	1325	S30	W34	8365	10	19.9	4	SF		2	C				
		22	1555		2231	No Flare Patrol													
0139	LEAR	23	0147	0151	0156	S27	W48	8365	10	19.3	9	SF		3	E		20		
0140	KANZ	23	0645	0653	0705	S31	W54	8365	10	19.0	20	SF		2	C				
0141	KANZ	23	0657	0657	0709	N21	W25	8362	10	21.4	12	SF		2	C				
0142	KANZ	23	0857	0857	0905	S26	W54	8365	10	19.2	8	SF		2	C				
		23	1018		1024	No Flare Patrol													
		23	1026		1057	No Flare Patrol													
		23	1418		1457	No Flare Patrol													
		23	1539		1614	No Flare Patrol													
		23	1647		1811	No Flare Patrol													
		23	1851		2400	No Flare Patrol													
		24	0000		0046	No Flare Patrol													
		24	0157		0219	No Flare Patrol													
		24	0311		0313	No Flare Patrol													
0143	LEAR	24	0448	0451	0457	S27	W62	8365	10	19.4	9	SF		3	E		28		
0144	LEAR	24	0458	0503	0508	S27	W63	8365	10	19.3	10	SF		3	E		21		
		24	1001		1107	No Flare Patrol													
		24	1147		1239	No Flare Patrol													
		24	1256		1402	No Flare Patrol													
		24	1422		1444	No Flare Patrol													
		24	1506		1520	No Flare Patrol													
		24	1538		1553	No Flare Patrol													

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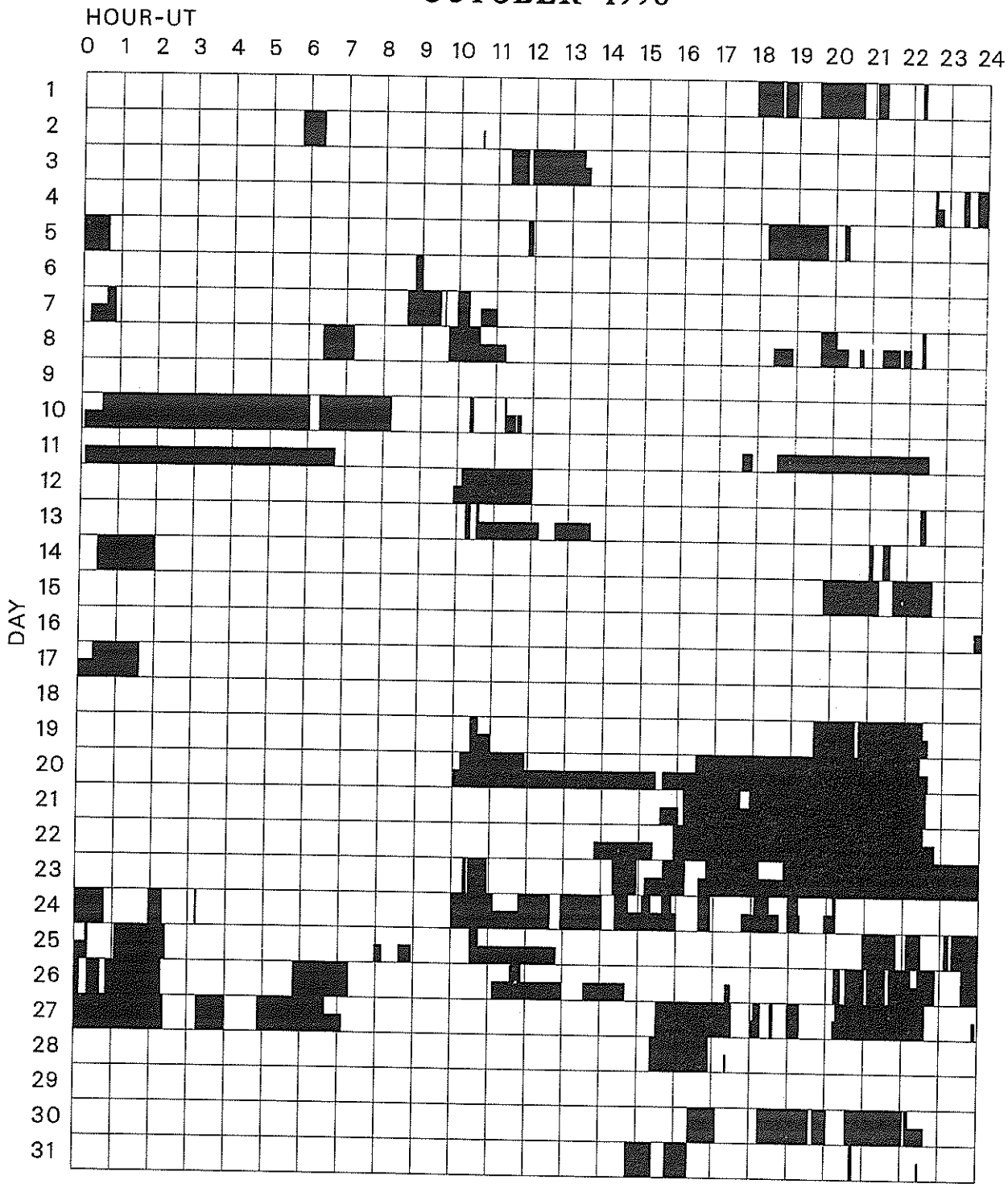
Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Opt	Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		24	1636		1655	No Flare Patrol														
		24	1805		1828	No Flare Patrol														
		24	1858		1915	No Flare Patrol														
		24	2009		2014	No Flare Patrol														
		25	0017		0021	No Flare Patrol														
		25	0103		0224	No Flare Patrol														
		25	1030		1044	No Flare Patrol														
0145	RAMY	25	1325	1325	1332	N18	E66	8369	10	30.6	7	SF			3	E		25		
0146	KANZ	25	1402E	1402U	1415D	S12	W52	8366	10	21.7	13D	SF			2	C				
0147	KANZ	25	1406	1406	1406	S30	W70	8370	10	20.1	13	SF			2	C				
0148	RAMY	25	1511	1511	1518D	N18	E68	8369	10	30.8	7D	SF			3	E		10		
		25	2057		2150	No Flare Patrol														
		25	2206		2229	No Flare Patrol														
		25	2306		2313	No Flare Patrol														
		25	2318		2400	No Flare Patrol														
		26	0000		0008	No Flare Patrol														
		26	0020		0041	No Flare Patrol														
		26	0050		0218	No Flare Patrol														
		26	0548		0717	No Flare Patrol														
		26	1135		1153	No Flare Patrol														
0149	RAMY	26	1830	1830	1838	N17	E49	8369	10	30.5	8	SF			3	E		15		
		26	2012		2022	No Flare Patrol														
		26	2030		2059	No Flare Patrol														
		26	2105		2134	No Flare Patrol														
		26	2139		2214	No Flare Patrol														
		26	2224		2252	No Flare Patrol														
		26	2333		2400	No Flare Patrol														
		27	0000		0222	No Flare Patrol														
		27	0314		0358	No Flare Patrol														
		27	0452		0639	No Flare Patrol														
		27	1530		1730	No Flare Patrol														
		27	1805		1816	No Flare Patrol														
		27	1831		1836	No Flare Patrol														
		27	1859		1918	No Flare Patrol														
		27	2015		2236	No Flare Patrol														
0150	LEAR	28	0211	0216	0232	N17	E30	8369	10	30.4	21	SF			3	E		32		
0151	URUM	28	0215E	0216	0235	N19	E39	8372	10	31.1	20D	SB				P		96	1.3	E
0152	LEAR	28	0301	0302	0304	N17	E30	8369	10	30.4	3	SF			3	E		20		
		28	1521		1654	No Flare Patrol														
0153	URUM	29	0622E	0622	0622D	N02	W76		10	23.6	3D	2B				P		241		A
0154	KANZ	29	0723E		0735	S27	W06		10	28.8	12D	SF			2	C				
		30	1623		1707	No Flare Patrol														
		30	1814		1935	No Flare Patrol														
		30	1941		2003	No Flare Patrol														
		30	2033		2203	No Flare Patrol														
		30	2207		2212	No Flare Patrol														
0155	URUM	31	0927E	0927	0927D	N25	E34		11	3.0	12D	1N				P		161	2.1	D
		31	1444		1526	No Flare Patrol														
		31	1547		1623	No Flare Patrol														
		31	2040		2045	No Flare Patrol														

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

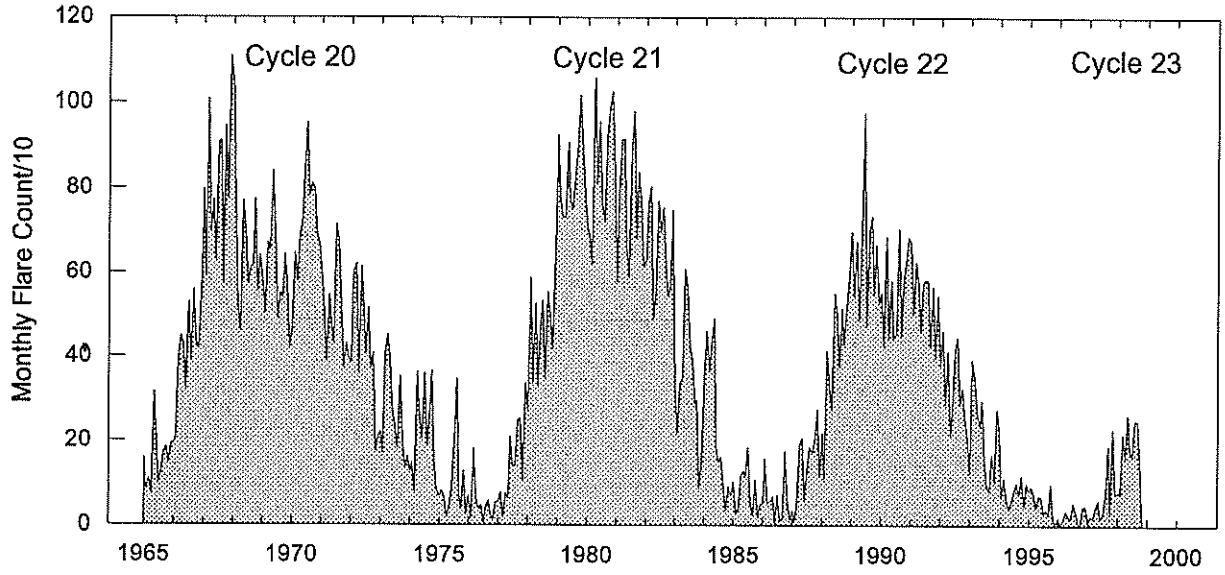
OCTOBER 1998



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

Holloman
Hurbanovo
Kanzelhoehe
Learmonth
Ramey
San Vito
Urumqi

Monthly Counts of Grouped Solar Flares
Jan 1965 - Oct 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	164	248	249	155			1788

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

SOLAR RADIO EMISSION
Outstanding Occurrences

OCTOBER 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 (10 -22 W/m 2 Hz)	Int	Remarks
01	245	SGMR	43	NS	1110.0	1116.0	28.0	140.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1300.0E		450.0D		9.0		
	280	CUBA	44	NS	1300.0E		450.0D		13.0		
	3000	IZMI	42	SER	1145.7	1146.0	8.5	3.6			
02	3000	IZMI	5	S	1015.4	1015.7	1.0	2.9			
	3000	IZMI	5	S	1040.3	1040.5	1.5	4.0			
04	33	UPIC	2	S/F	1106.0	1106.5	1.0				
05	5730	IRKU	1	S	0357.8	0358.0	2.2	1.0	U		
	5730	IRKU	4	S/F	0541.5	0541.9	2.0	2.0	U		
	33	UPIC	2	S/F	0613.0	0613.5	2.5				
	6700	CUBA	1	S	1715.0	1717.0	4.2	7.0	3.0		OOR
	6700	CUBA	23	GRF	1715.0	1736.0	103.0D	11.0			OOR 2018OFF
06	235	CUBA	44	NS	1300.0E		530.0D		10.0		
	280	CUBA	44	NS	1300.0E		530.0D		17.0		
	245	LEAR	8	S	0037.0	0037.0	U	50.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0037.0	0037.0	U	65.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0314.0	0315.0	2.0	60.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0315.0	0315.0	U	86.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0339.0	0339.0	1.0	250.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0339.0	0339.0	1.0	340.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0832.0	0833.0	1.0	57.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0833.0	0833.0	U	87.0			QL=2 ST=2 TYP=3
	2800	PENT	41	F	1813.0	1820.0	9.0	15.0			
	6700	CUBA	23	GRF	1814.0	1908.0	124.0D	11.0			OOR 2018OFF
07	204	IZMI	43	NS	0600.0		360.0D		5.0		
	235	CUBA	44	NS	1300.0E		405.0D		11.0		
	280	CUBA	44	NS	1300.0E		405.0D		16.0		
	5730	IRKU	1	S	0421.4	0427.6	22.6	4.0	U		
	5730	IRKU	1	S	0648.0	0648.7	2.0	3.0	U		
	410	LEAR	8	S	0704.0	0704.0	U	200.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0736.0	0736.0	U	100.0			QL=2 ST=2 TYP=3
	204	IZMI	42	SER	0739.0	0742.4	6.5	140.0			
	245	SVTO	48	C	0740.0	0749.0U	9.0	110.0			QL=2 ST=2 TYP=8
	5730	IRKU	4	S/F	0740.7	0742.6	4.6	5.0	U		
	204	IZMI	42	SER	0815.6	0822.0	8.5	350.0			
	5730	IRKU	45	C	0850.5	0917.4	36.5	12.0	U		
	204	IZMI	42	SER	0913.0	0917.0	11.0	1900.0			
	245	LEAR	8	S	0914.0	0914.0	1.0	160.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0916.0	0916.0	1.0	340.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0916.0	0917.0	1.0	940.0			QL=4 ST=2 TYP=6
	3000	IZMI	22	GRF	0918.5	0919.8	4.0	5.0			
	204	IZMI	41	F	1008.2	1009.0	1.7	120.0			
	4995	SGMR	4	S/F	1245.0	1246.0	3.0	190.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	1245.0	1246.0	5.0	390.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1245.0	1246.0	5.0	300.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1245.0	1246.0	3.0	180.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1245.0	1246.0	5.0	280.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1245.0	1246.0	5.0	410.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	1246.0	1246.0	2.0	52.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1246.0	1246.0	2.0	58.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1439.0	1440.0	1.0	38.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1439.0	1440.0	1.0	4400.0			QL=4 ST=2 TYP=6
	280	CUBA	6	S	1440.0	1440.2	0.8	204.0			
	235	CUBA	6	S	1440.0	1440.2	0.8	211.0			
	33	UPIC	3	S	1440.0	1440.5	1.2				
	2800	PENT	8	S	1519.0	1519.0	2.0	18.0			
	245	SGMR	8	S	1521.0	1521.0	1.0	55.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1808.0	1808.0	U	73.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2218.0	2218.0	1.0	67.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	2312.0	2312.0	U	26.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	2312.0	2312.0	U	520.0			QL=4 ST=2 TYP=6
	245	LEAR	8	S	2314.0	2314.0	1.0	99.0			QL=4 ST=2 TYP=3
	500	HIRA	42	SER	2314.5	2314.7	0.9	10.0			O
	410	PALE	8	S	2331.0	2333.0	2.0	160.0			QL=4 ST=2 TYP=3

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

OCTOBER 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 (10 -22 W/m 2 Hz)	Int	Remarks
07	245	PALE	49	GB	2332.0	2333.0	3.0	3000.0			QL=4 ST=2 TYP=6
	2800	PENT	1	S	2332.0	2334.0	5.0	6.0			
	410	LEAR	8	S	2333.0	2333.0	1.0	79.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	2333.0	2333.0	2.0	2200.0			QL=4 ST=2 TYP=6
	2840	BEIJ	2	S/F	2333.0	2334.5	10.0	4.3	3.5		
	500	HIRA	42	SER	2333.2	2333.7	1.7	20.0			WR
08	204	IZMI	44	NS	0600.0E		360.0D		5.0		
	235	CUBA	44	NS	1300.0E		530.0D		11.0		
	280	CUBA	44	NS	1300.0E		530.0D		17.0		
	2800	PENT	1	S	0002.0	0003.0	3.0	9.0			
	2840	BEIJ	45	C	0002.0	0002.9	6.0	9.1	7.5		
	5730	IRKU	1	S	0345.0	0346.0	6.5	5.0	U		
	5730	IRKU	1	S	0508.0	0509.4	5.3	2.0	U		
	5730	IRKU	1	S	0643.0	0643.9	2.5	2.0	U		
	5730	IRKU	21	GRF	0652.4	0739.6	76.6	7.0	U		
	245	SVTO	8	S	0709.0	0709.0	2.0	92.0			QL=2 ST=2 TYP=3
	3000	IZMI	40	F	0709.2		11.0		2.0		
	204	IZMI	42	SER	0709.5	0714.2	13.0	170.0			
	3000	IZMI	7	C	0724.5	0724.6	1.6	14.5			
	5730	IRKU	46	C	0809.0	0836.3	66.0	76.0	U		
	2840	BEIJ	45	C	0829.0	0833.0	9.0	96.6	79.0		
	3000	IZMI	45	C	0829.2	0832.8	15.0	61.0U			
	2950	GORK	28	PRE	0830.0	0832.3	2.3	4.9			
	2695	LEAR	8	S	0832.0	0833.0	1.0	89.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0832.0	0832.0	1.0	41.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0832.0	0832.0	1.0	34.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0832.0	0832.0	1.0	58.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0832.0	0832.0	1.0	43.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0832.0	0832.0	1.0	72.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0832.0	0833.0	1.0	97.0			QL=4 ST=2 TYP=3
	8800	SVTO	46	C	0832.0	0832.0	1.0	40.0			QL=4 ST=2 TYP=8
	9100	GORK	3	S	0832.1	0832.9	1.2	43.9			
	2950	GORK	4	S/F	0832.3	0833.1	1.1	84.7			
	9100	GORK	30	PBI	0833.3	0833.3	11.7	16.5			
	2950	GORK	30	PBI	0833.4	0833.5	19.1	14.1			
	2950	GORK	4	S/F	0833.7	0833.9	0.5	8.5			
	33	UPIC	48	C	0834.0	0836.0U	5.0				
	410	LEAR	8	S	0835.0	0836.0	2.0	71.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0835.0	0835.0	1.0	3000.0			QL=4 ST=2 TYP=6
	245	SVTO	49	GB	0835.0	0835.0	1.0	5100.0			QL=4 ST=2 TYP=6
	410	SVTO	8	S	0835.0	0835.0	2.0	140.0			QL=4 ST=2 TYP=3
	204	IZMI	45	C	0835.2	0835.7	5.0	940.0			
	2950	GORK	2	S/F	0835.4	0836.1	1.6	26.8			
	127	TORN	4	S/F	0835.4	0836.3	2.8	3500.0	1800.0		
	8800	LEAR	8	S	0836.0	0836.0	U	27.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0836.0	0836.0	U	35.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0836.0	0836.0	U	30.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0836.0	0836.0	U	34.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0836.0	0836.0	U	30.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0836.0	0836.0	U	38.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	0836.0	0836.0	U	35.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0836.0	0836.0	U	33.0			QL=4 ST=2 TYP=3
	9100	GORK	3	S	0836.0	0836.2	0.4	24.7			
	127	TORN	48	C	0840.8	0843.3	3.0	610.0	50.0		
	33	UPIC	46	C	1018.0	1020.5	17.0				
	204	IZMI	41	F	1058.2	1058.7	1.0	140.0			
	204	IZMI	8	S	1127.5	1127.6	0.6	370.0			
	245	SGMR	8	S	1159.0	1159.0	1.0	71.0			QL=4 ST=2 TYP=3
	33	UPIC	46	C	1200.5	1202.0	2.5				
	245	SGMR	8	S	1214.0	1214.0	1.0	230.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1214.0	1214.0	1.0	230.0			QL=4 ST=2 TYP=3
	6700	CUBA	1	S	1249.7	1250.6	1.8	11.0	5.0		10R
	245	SGMR	8	S	1453.0	1454.0	2.0	76.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1453.0	1453.0	2.0	140.0			QL=4 ST=2 TYP=3
	33	UPIC	46	C	1454.5	1455.5	2.0				
09	204	IZMI	44	NS	0600.0E		360.0D		5.0		
	280	CUBA	44	NS	1300.0E		530.0D		15.0		

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

OCTOBER 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 (10 -22 W/m 2 Hz)	Int	Remarks
09	235	CUBA	44	NS	1300.0E		530.0D		9.0		
	2840	BEIJ	1	S	0045.0	0048.0	5.0	14.0	11.6		
	5730	IRKU	1	S	0047.8	0048.2	1.2	2.0	U		
	5730	IRKU	4	S/F	0425.6	0426.9	1.4	2.0	U		
	5730	IRKU	1	S	0526.0	0526.8	2.0	1.0	U		
	204	IZMI	41	F	1004.0	1004.5	1.5	120.0			
	3000	IZMI	7	C	1004.0	1004.7	4.0	6.6			
	245	SGMR	8	S	1320.0	1321.0	2.0	75.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1320.0	1320.0	2.0	21.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1320.0	1320.0	U	34.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1320.0	1321.0	2.0	77.0			QL=2 ST=3 TYP=3
	410	SVTO	8	S	1327.0	1328.0	2.0	31.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1328.0	1328.0	1.0	620.0			QL=4 ST=2 TYP=6
	410	SGMR	8	S	1328.0	1328.0	1.0	21.0			QL=4 ST=2 TYP=3
	245	SVTO	49	GB	1328.0	1328.0	1.0	550.0			QL=2 ST=3 TYP=6
	235	CUBA	7	C	1329.0	1329.4	2.1	346.0			
	280	CUBA	7	C	1329.0	1329.4	2.0	365.0			
10	5730	IRKU	1	S	0901.6	0901.9	10.7	12.0	U		
13	280	CUBA	44	NS	1300.0E		530.0D		16.0		
	235	CUBA	44	NS	1300.0E		530.0D		9.0		
	204	IZMI	41	F	0956.4	0956.8	0.6	87.0			
	1415	LEAR	8	S	1004.0	1004.0	2.0	60.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	1120.2	1120.4	0.3	76.0			
	410	SGMR	8	S	1156.0	1156.0	1.0	16.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1156.0	1156.0	U	13.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1156.0	1156.0	1.0	170.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1156.0	1156.0	1.0	22.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1156.0	1156.0	1.0	190.0			QL=4 ST=2 TYP=3
	204	IZMI	45	C	1156.4	1156.7	0.7	253.0			
	33	UPIC	45	C	1156.5	1157.0	1.0				
14	204	IZMI	43	NS	0600.0		360.0D		10.0		
	127	TORN	43	NS	1100.0		240.0		3.0		V=1
	245	SVTO	43	NS	1235.0	1241.0	685.0	73.0			QL=2 ST=1 TYP=1
	280	CUBA	44	NS	1300.0E		530.0D		30.0		
	235	CUBA	44	NS	1300.0E		530.0D		22.0		
	245	SGMR	43	NS	1346.0	1346.0	45.0	54.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1824.0	1826.0	33.0	64.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	2003.0	2053.0	469.0	220.0			QL=2 ST=2 TYP=1
	245	SGMR	43	NS	2010.0	2053.0	63.0	190.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2209.0	0620.0	720.0	160.0			QL=2 ST=2 TYP=1
	5730	IRKU	1	S	0405.5	0406.0	1.5	3.0	U		
	3000	IZMI	7	C	0744.3	0744.3	0.3	70.6			
	6700	CUBA	20	GRF	1537.0	1551.0	56.0U	5.0			OOL
	410	SGMR	49	GB	1638.0	1638.0	U	510.0			QL=4 ST=2 TYP=6
	245	SGMR	8	S	1638.0	1638.0	U	300.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1826.0	1826.0	1.0	53.0			QL=4 ST=2 TYP=3
15	410	PALE	43	NS	0002.0	0043.0	42.0	91.0			QL=2 ST=2 TYP=1
	410	PALE	43	NS	0158.0	0318.0	85.0	110.0			QL=2 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		80.0		
	127	TORN	44	NS	0620.0E		520.0D		20.0		V=2
	245	SVTO	43	NS	0706.0	1228.0	327.0	200.0			QL=2 ST=2 TYP=1
	410	SVTO	43	NS	0708.0	0716.0	318.0	120.0			QL=2 ST=2 TYP=1
	245	SGMR	43	NS	1117.0	1619.0	601.0	230.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1300.0E		530.0D		49.0		
	280	CUBA	44	NS	1300.0E		530.0D		64.0		
	410	SGMR	43	NS	1615.0	1621.0	465.0	63.0			QL=4 ST=1 TYP=1
	410	PALE	43	NS	1645.0	1727.0	241.0	110.0			QL=2 ST=2 TYP=1
	245	PALE	43	NS	1645.0	1649.0	411.0	230.0			QL=2 ST=2 TYP=1
	245	LEAR	43	NS	2208.0	2230.0U	87.0	65.0			QL=2 ST=3 TYP=1
	2840	BEIJ	1	S	0041.0	0044.0	7.0	5.5	4.7		
	1415	LEAR	8	S	0043.0	0044.0	1.0	51.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0043.0	0044.0	1.0	48.0			QL=4 ST=2 TYP=3
	5730	IRKU	1	S	0321.2	0323.6	11.3	3.0	U		
	5730	IRKU	1	S	0613.3	0614.2	1.1	3.0	U		
	245	PALE	8	S	1730.0	1730.0	U	390.0			QL=2 ST=3 TYP=3

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OCTOBER 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 (10 -22 W/m 2 Hz)	Int	Remarks
15	245	SGMR	8	S	1730.0	1730.0	1.0	300.0			QL=4 ST=2 TYP=3
16	245	LEAR	43	NS	0514.0	0705.0	297.0	110.0			QL=2 ST=2 TYP=1
	245	SVTO	43	NS	0521.0	0528.0	626.0	270.0			QL=4 ST=2 TYP=1
	410	SVTO	43	NS	0526.0	0526.0	23.0	150.0			QL=4 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		70.0		
	127	TORN	44	NS	0620.0E		520.0D		4.0		V=1
	245	SGMR	43	NS	1214.0	1700.0	549.0	210.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1300.0E		510.0D		30.0		
	280	CUBA	44	NS	1300.0E		530.0D		47.0		
	245	PALE	43	NS	1645.0	1736.0	498.0	110.0			QL=2 ST=2 TYP=1
	245	PALE	4	S/F	0141.0	0142.0	4.0	120.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0142.0	0142.0	U	130.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0223.0	0224.0	1.0	55.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0247.0	0248.0	1.0	74.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0334.0	0335.0	1.0	74.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0340.0	0340.0	U	56.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0358.0	0358.0	1.0	58.0			QL=2 ST=2 TYP=3
	2840	BEIJ	3	S	0639.0	0639.5	10.0	25.6	20.3		
	5730	IRKU	1	S	0639.5	0639.8	21.5	6.0	U		
	245	SGMR	4	S/F	1200.0	1204.0	4.0	76.0			QL=4 ST=2 TYP=3
	6700	CUBA	20	GRF	1547.0	1625.0	72.0	9.0	4.0		OOR
	2800	PENT	1	S	2125.0	2127.0	9.0	12.0			
17	245	LEAR	43	NS	0438.0	0524.0	176.0	62.0			QL=4 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		10.0		
	245	SVTO	43	NS	0723.0	0907.0	217.0	290.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1142.0	1213.0	48.0	73.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1142.0	1230.0	53.0	68.0			QL=4 ST=2 TYP=1
	280	CUBA	44	NS	1300.0E		530.0D		21.0		
	235	CUBA	44	NS	1300.0E		530.0D		12.0		
	245	SGMR	43	NS	1922.0	1931.0	61.0	84.0			QL=4 ST=2 TYP=1
	245	LEAR	4	S/F	0420.0	0421.0	3.0	75.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0800.0	0802.0	2.0	220.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	0800.0	0802.0	2.0	51.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1353.0	1354.0	1.0	62.0			QL=4 ST=2 TYP=3
	2800	PENT	40	F	1842.0E	1843.0	50.0U	9.0			
	6700	CUBA	21	GRF	1842.0	1852.0	162.0D	12.0			OOR 2124 OFF
	6700	CUBA	2	S/F	1842.2	1843.3	6.1	29.0	14.0		6R
	610	SGMR	4	S/F	1845.0	1849.0	6.0	58.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1849.0	1849.0	U	50.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	1849.0	1849.0	U	31.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2009.0	2009.0	U	51.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	2219.0	2220.0	1.0	95.0			QL=2 ST=2 TYP=3
18	245	LEAR	43	NS	0028.0	0056.0	187.0	200.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	0037.0	0037.0	192.0	190.0			QL=2 ST=2 TYP=1
	410	PALE	43	NS	0110.0	0110.0	2.0	61.0			QL=2 ST=2 TYP=1
	245	SVTO	43	NS	0524.0	0533.0	37.0	110.0			QL=2 ST=2 TYP=1
	204	IZMI	44	NS	0600.0E		360.0D		20.0		
	245	SVTO	43	NS	0707.0	0758.0	106.0	230.0			QL=2 ST=2 TYP=1
	245	LEAR	43	NS	0718.0	0758.0	52.0	120.0			QL=2 ST=2 TYP=1
	235	CUBA	44	NS	1300.0E		360.0D		8.0		
	280	CUBA	44	NS	1300.0E		360.0D		14.0		
	410	PALE	4	S/F	0242.0	0243.0	5.0	55.0			QL=2 ST=2 TYP=3
	5730	IRKU	1	S	0536.1	0537.0	8.9	5.0	U		
	410	LEAR	8	S	0640.0	0640.0	U	51.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0717.0	0717.0	U	72.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0725.0	0725.0	U	170.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	0725.0	0725.0	U	74.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	2110.0	2110.0	1.0	56.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	2110.0	2110.0	U	51.0			QL=4 ST=2 TYP=3
19	204	IZMI	44	NS	0600.0E		360.0D		5.0		
	127	TORN	44	NS	0925.0E		90.0D		12.0		V=2
	235	CUBA	44	NS	1300.0E		530.0D		10.0		
	280	CUBA	44	NS	1300.0E		530.0D		14.0		
	245	SGMR	43	NS	1551.0	1619.0	33.0	71.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1737.0	1737.0	28.0	65.0			QL=4 ST=2 TYP=1

SOLAR RADIO EMISSION
Outstanding Occurrences

OCTOBER 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 (10 -22 W/m 2 Hz)	Int	Remarks
19	245	SGMR	43	NS	2016.0	2016.0	28.0	81.0			QL=4 ST=2 TYP=1
	5730	IRKU	1	S	0510.5	0510.7	1.1	5.0	U		
	5730	IRKU	1	S	0524.7	0525.0	2.2	6.0	U		
	5730	IRKU	1	S	0545.2	0545.4	1.8	3.0	U		
	5730	IRKU	1	S	0629.0	0629.3	2.2	2.0	U		
	5730	IRKU	21	GRF	0641.0	0721.0	94.0	4.0	U		
	245	SVTO	8	S	1016.0	1016.0	U	140.0			QL=2 ST=2 TYP=3
	204	IZMI	7	C	1016.4	1016.5	0.5	137.0			
	4995	SVTO	4	S/F	1223.0	1227.0	7.0	43.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1224.0	1227.0	4.0	33.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1226.0	1227.0	1.0	26.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	2033.0	2034.0	3.0	5.0			
20	204	IZMI	44	NS	0600.0E		360.0D		15.0		
	235	CUBA	44	NS	1300.0E		480.0D		10.0		
	280	CUBA	44	NS	1300.0E		480.0D		15.0		
	245	SGMR	43	NS	2029.0	2029.0	1435.0	130.0			QL=4 ST=2 TYP=1
	2840	BEIJ	1	S	0144.0	0146.5	6.0	2.7	2.3		
	5730	IRKU	1	S	0753.5	0754.5	3.5	4.0	U		
	410	SGMR	8	S	1422.0	1423.0	2.0	16.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1422.0	1423.0	2.0	52.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1422.0	1423.0	2.0	9.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1422.0	1423.0	2.0	24.0			QL=4 ST=2 TYP=3
	6700	CUBA	1	S	1422.5	1423.9	2.7	10.0	5.0		5L
	2800	PENT	46	C	2028.0E	2100.0	124.0U	79.0			
	8800	SGMR	4	S/F	2046.0	2053.0	8.0	20.0			QL=2 ST=2 TYP=3
	1415	SGMR	4	S/F	2046.0	2054.0	8.0	33.0			QL=2 ST=2 TYP=3
	2695	SGMR	4	S/F	2046.0	2052.0	8.0	54.0			QL=2 ST=2 TYP=3
	4995	SGMR	4	S/F	2046.0	2055.0	10.0	45.0			QL=2 ST=2 TYP=3
	4995	PALE	4	S/F	2047.0	2101.0	18.0	77.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	2047.0	2100.0	18.0	80.0			QL=4 ST=2 TYP=3
	1415	PALE	48	C	2047.0	2102.0	18.0	110.0			QL=4 ST=2 TYP=8
	15400	PALE	4	S/F	2051.0	2101.0	14.0	57.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2056.0	2102.0	9.0	48.0			QL=4 ST=2 TYP=3
21	235	CUBA	44	NS	1300.0E		530.0D		11.0		
	280	CUBA	44	NS	1300.0E		530.0D		15.0		
	204	IZMI	42	SER	0835.6	0835.7	0.4	180.0			
	204	IZMI	25	R	1112.6	1125.2	47.4D	22.0			
22	280	CUBA	44	NS	1300.0E		530.0D		15.0		
	235	CUBA	44	NS	1300.0E		530.0D		8.0		
	245	SVTO	8	S	0749.0	0750.0	1.0	54.0			QL=2 ST=2 TYP=3
23	235	CUBA	44	NS	1300.0E		480.0D		9.0		
	280	CUBA	44	NS	1300.0E		480.0D		13.0		
	245	LEAR	8	S	0131.0	0131.0	1.0	150.0			QL=2 ST=2 TYP=3
	5730	IRKU	1	S	0643.0	0645.2	5.0	2.0	U		
	5730	IRKU	1	S	0654.2	0656.0	3.4	1.0	U		
24	280	CUBA	44	NS	1300.0E		530.0D		15.0		
	235	CUBA	44	NS	1300.0E		530.0D		9.0		
	245	LEAR	8	S	0112.0	0112.0	1.0	52.0			QL=2 ST=2 TYP=3
	2700	PURP	46	C	0151.8	0156.4	13.2	60.0	48.1		
	5730	IRKU	1	S	0445.5	0447.6	4.5	2.0	U		
	245	LEAR	8	S	2328.0	2328.0	2.0	78.0			QL=2 ST=2 TYP=3
	245	PALE	4	S/F	2328.0	2328.0	8.0	79.0			QL=4 ST=2 TYP=3
25	204	IZMI	43	NS	1000.0		120.0D		5.0		
	280	CUBA	44	NS	1300.0E		530.0D		17.0		
	5730	IRKU	1	S	0730.4	0731.0	1.6	2.0	U		
	245	LEAR	8	S	0940.0	0940.0	U	50.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	1000.0	1000.0	U	62.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	1000.0	1000.0	U	72.0			QL=4 ST=2 TYP=3
	33	UPIC	46	C	1219.5	1220.5	2.5				
	245	SGMR	49	GB	1354.0	1355.0	4.0	3100.0			QL=4 ST=2 TYP=6
	410	SGMR	49	GB	1354.0	1354.0	1.0	2600.0			QL=4 ST=2 TYP=6
	410	SVTO	49	GB	1354.0	1354.0	1.0	8600.0			QL=4 ST=2 TYP=6
	245	SVTO	48	C	1354.0	1355.0	2.0	4900.0			QL=4 ST=2 TYP=8

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

OCTOBER 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 (10 -22 W/m 2 Hz)	Int	Remarks
25	280	CUBA	48	C	1354.5	1355.0U	3.5	403.3D			
	235	CUBA	48	C	1354.5	1356.2	3.5	1564.0			
	127	TORN	47	GB	1355.0	1357.1	4.0D	980.0	170.0		
	33	UPIC	46	C	1357.0	1357.5	1.3				
26	235	CUBA	44	NS	1300.0E		530.0D		8.0		
	280	CUBA	44	NS	1300.0E		530.0D		16.0		
	245	LEAR	8	S	0455.0	0455.0	U	91.0			QL=4 ST=2 TYP=3
	5730	IRKU	1	S	0514.0	0515.0	2.1	2.0	U		
	204	IZMI	41	F	0839.6	0839.8	0.4	87.0			
27	235	CUBA	44	NS	1300.0E		530.0D		7.0		
	280	CUBA	44	NS	1300.0E		530.0D		15.0		
28	280	CUBA	44	NS	1300.0E		530.0D		15.0		
	235	CUBA	44	NS	1300.0E		530.0D		8.0		
	245	PALE	8	S	0031.0	0031.0	1.0	150.0			QL=4 ST=2 TYP=3
	15400	SGMR	8	S	1315.0	1315.0	1.0	40.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1315.0	1315.0	1.0	190.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1315.0	1315.0	2.0	120.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1315.0	1315.0	1.0	140.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1315.0	1315.0	1.0	230.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1315.0	1315.0	1.0	51.0			QL=4 ST=2 TYP=3
	6700	CUBA	3	S	1315.0	1315.7	3.0	203.0	51.0		4L
	6700	CUBA	29	PBI	1317.0		4.0	12.0	6.0		OOL
	127	TORN	46	C	1348.2	1355.1	8.0	510.0	120.0		
	235	CUBA	6	S	1541.0	1541.8	1.7	49.0			
29	280	CUBA	44	NS	1300.0E		530.0D		14.0		
	235	CUBA	44	NS	1300.0E		530.0D		7.0		
	204	IZMI	42	SER	0711.1	0723.4	13.0	24.0			
30	204	IZMI	7	C	0932.7	0932.9	0.3	17.0			
	2800	PENT	1	S	1912.0	1913.0	4.0	5.0			
	2800	PENT	1	S	2132.0	2134.0	3.0	5.0			
31	235	CUBA	44	NS	1300.0E		530.0D		6.0		
	280	CUBA	44	NS	1300.0E		530.0D		13.0		
	2700	PURP	21	GRF	0721.8	0732.8	18.2	27.0	9.2		

Reports are received routinely from the following observatories:

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

Explanation of Type Code:

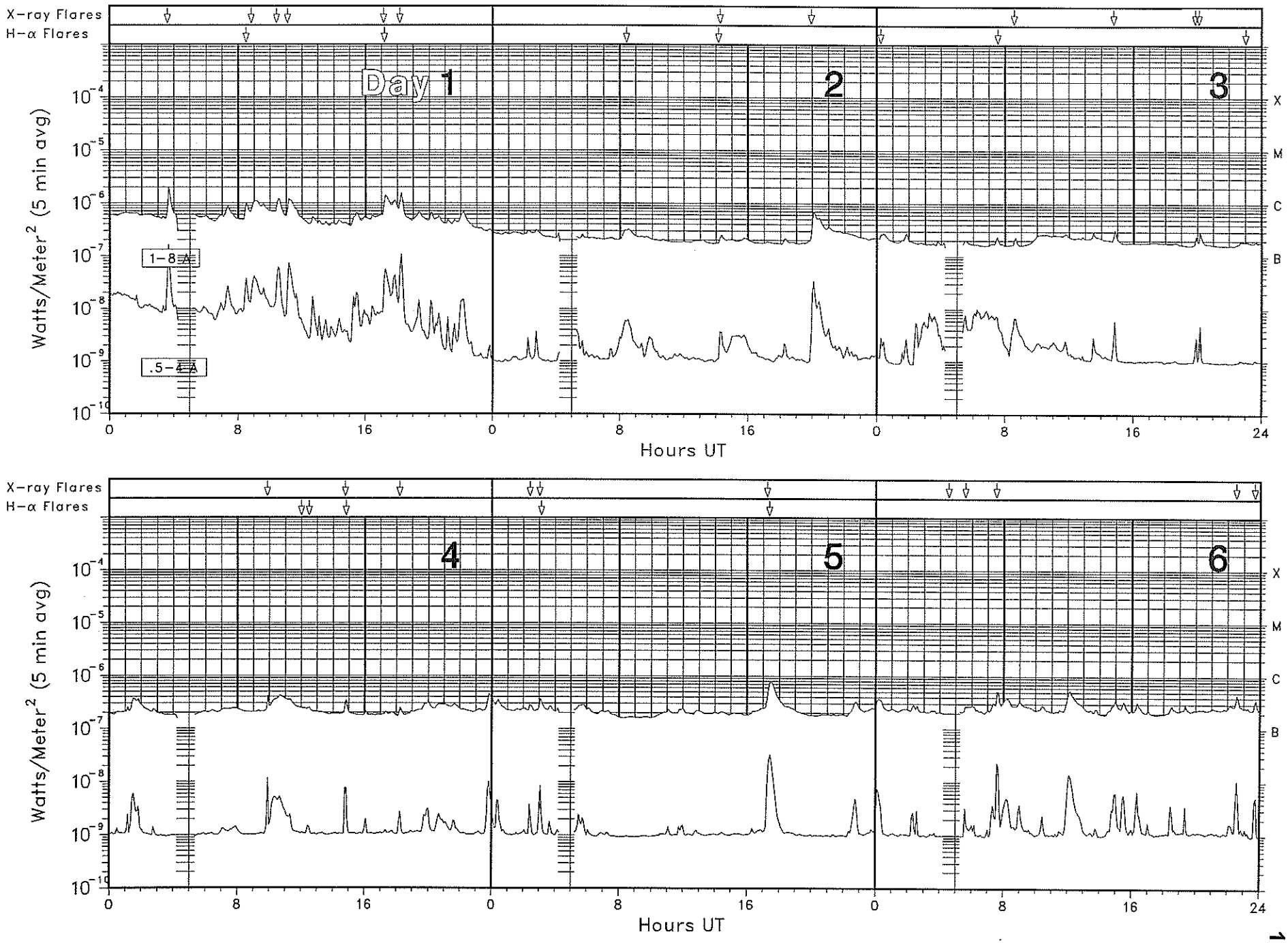
1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple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

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

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

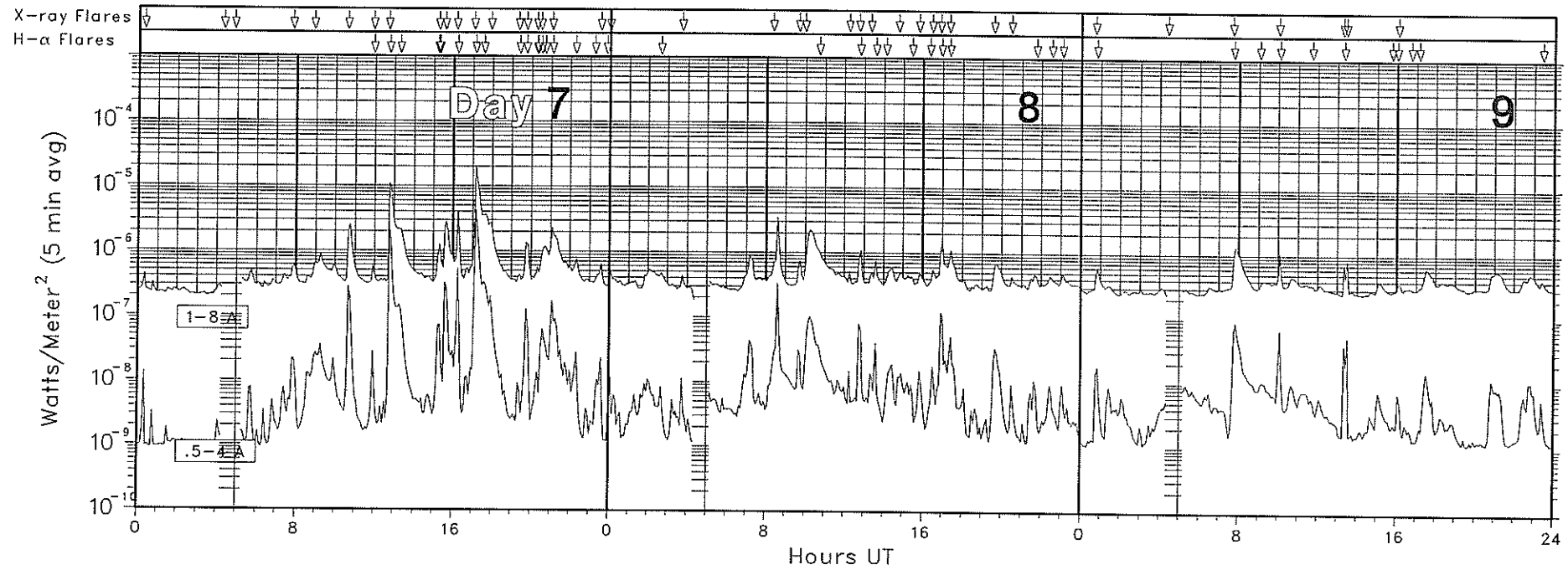
GOES X-RAY DETECTOR

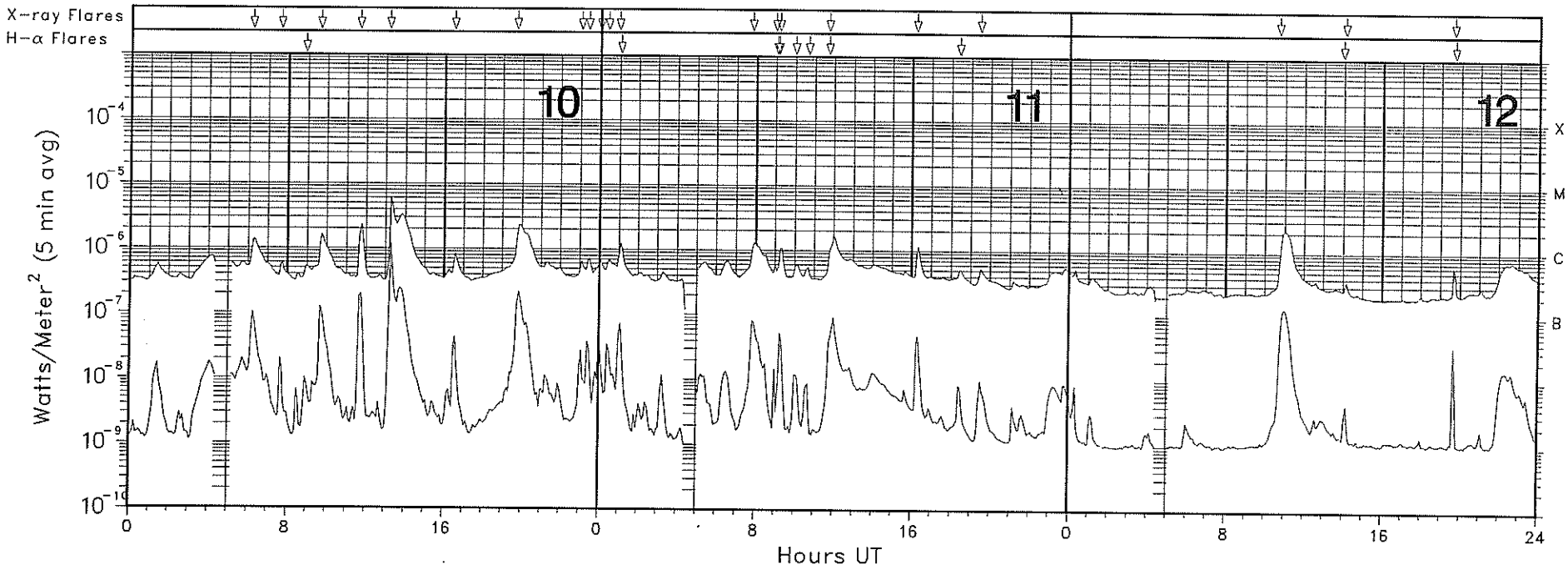
October 1998



GOES X-RAY DETECTOR

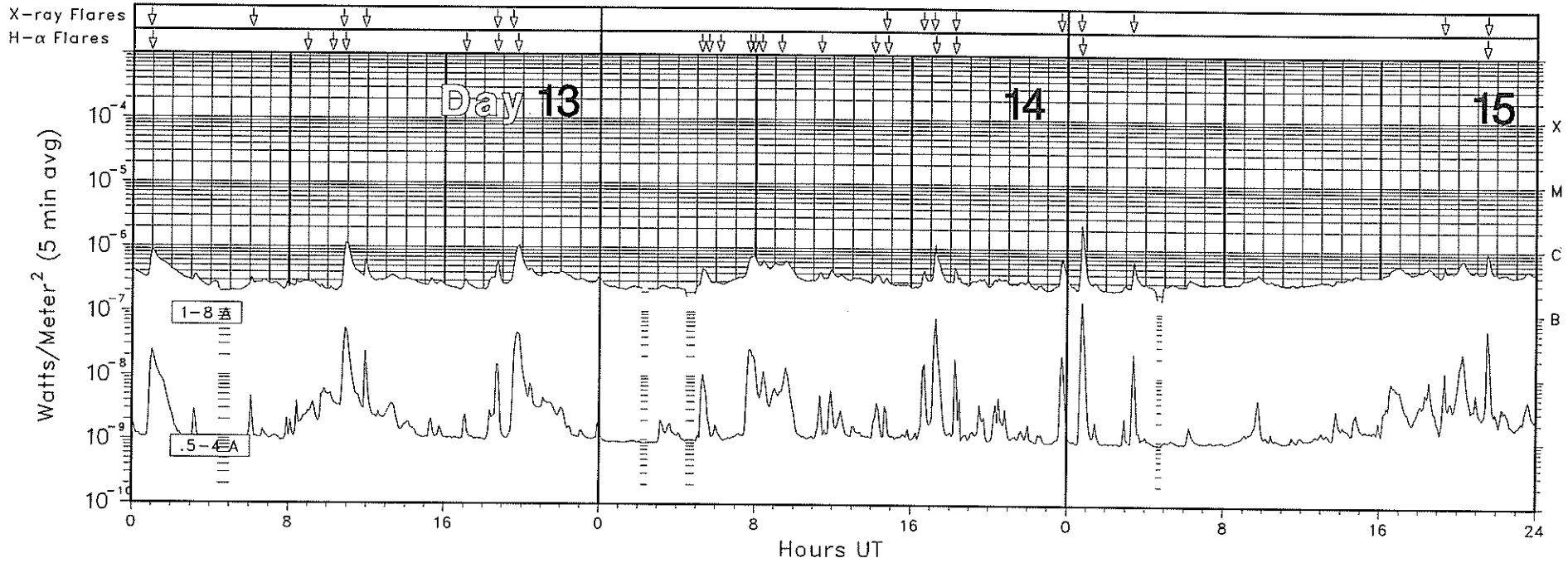
October 1998

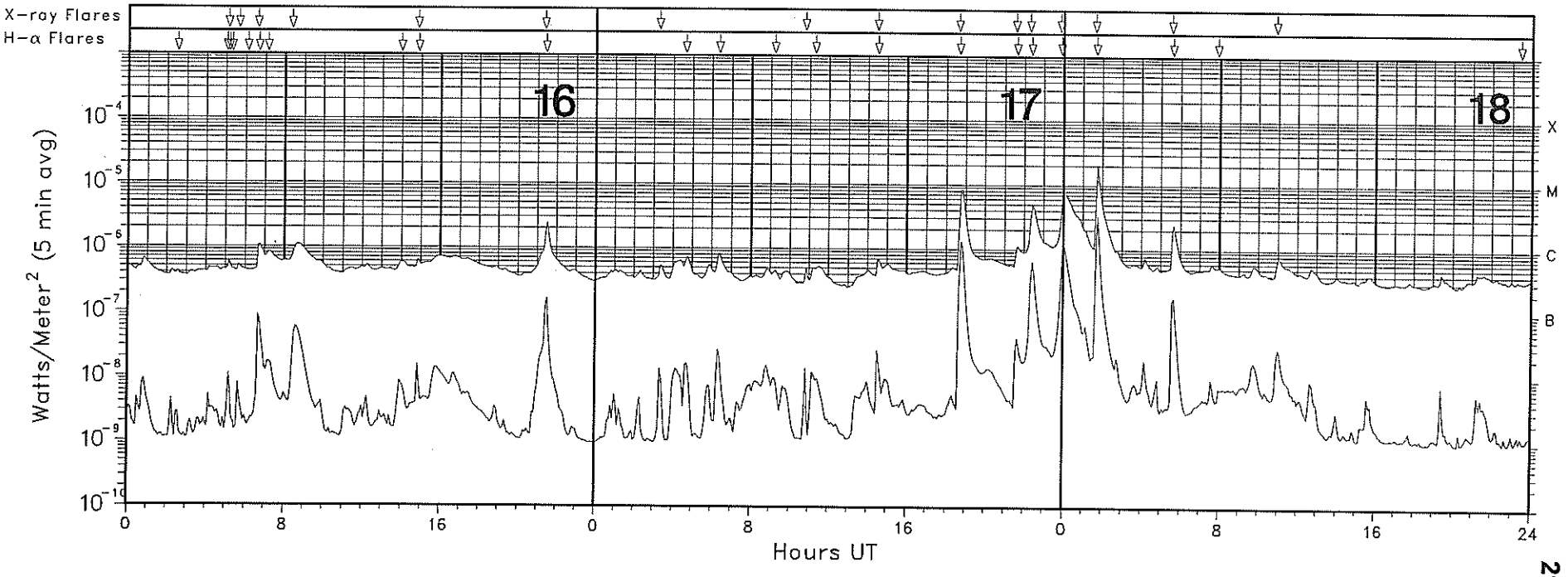




GOES X-RAY DETECTOR

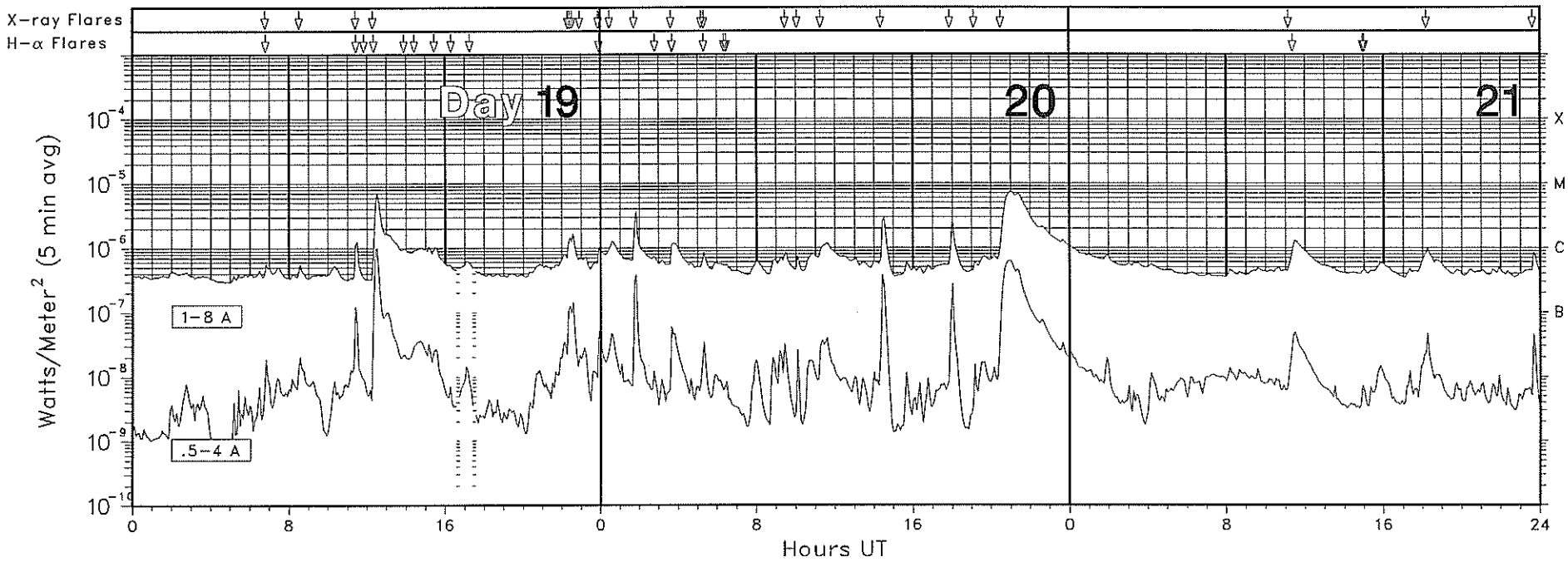
October 1998

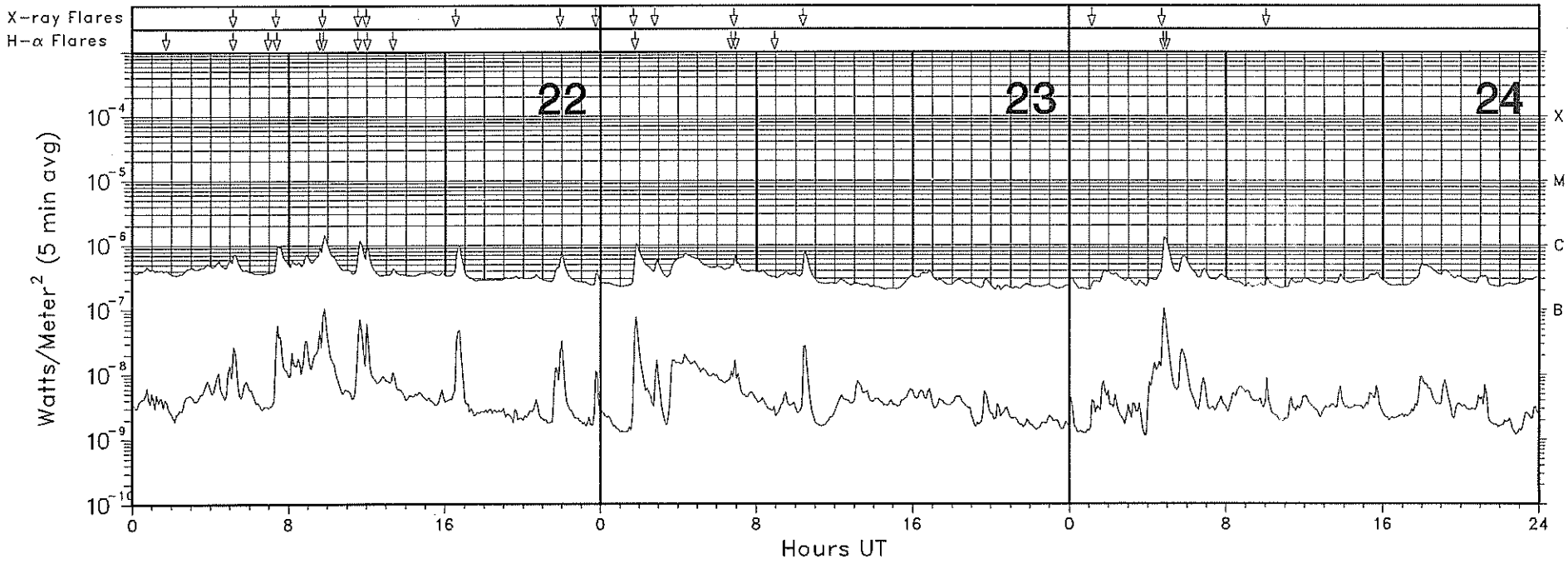




GOES X-RAY DETECTOR

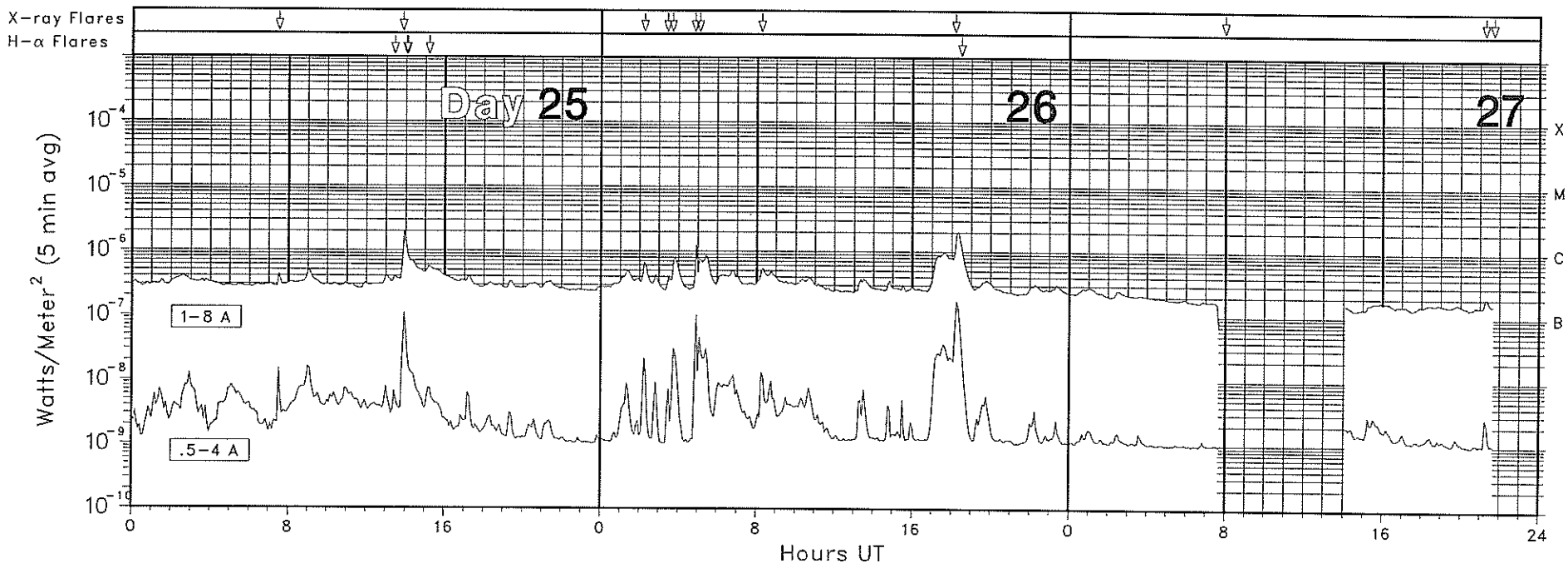
October 1998

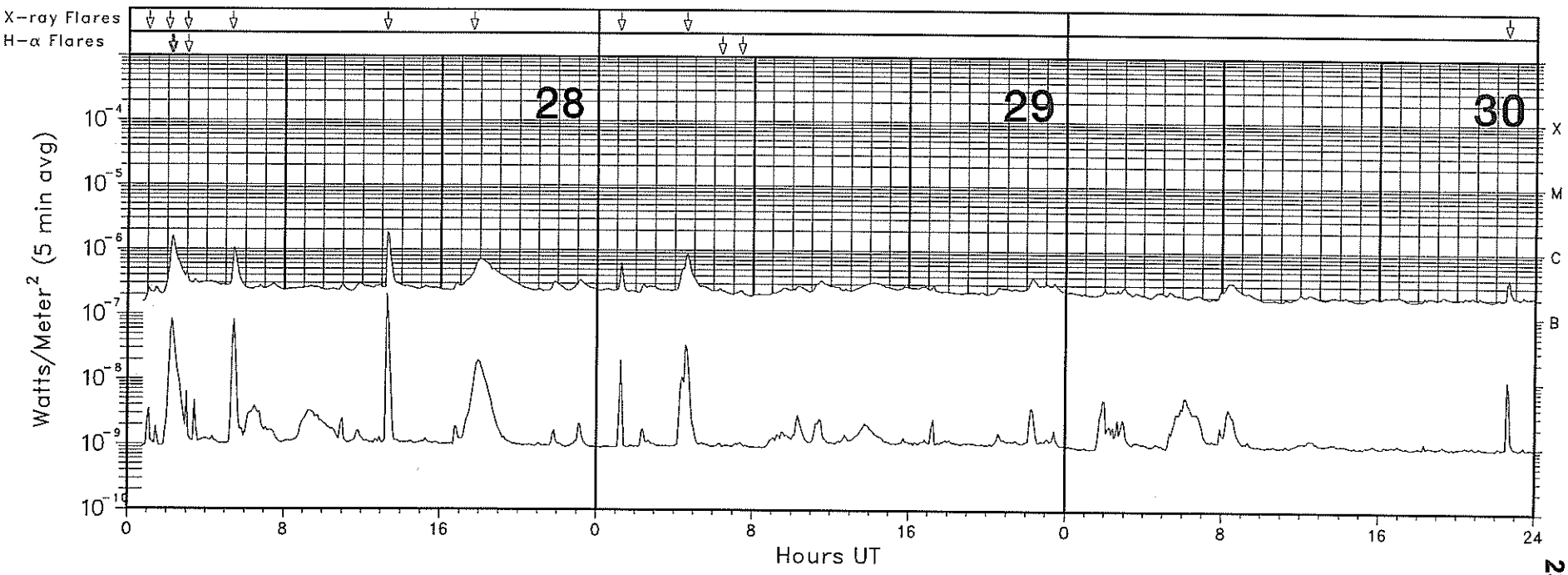




GOES X-RAY DETECTOR

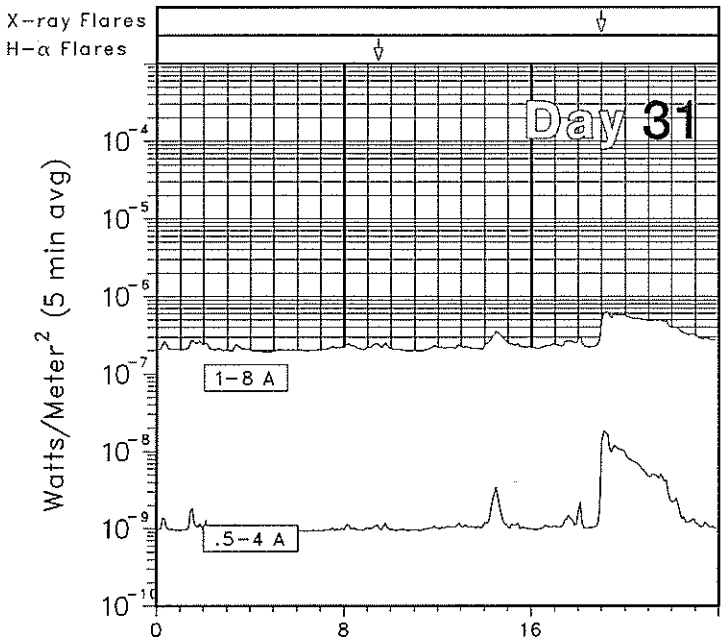
October 1998





GOES X-RAY DETECTOR

October 1998



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

October 1998

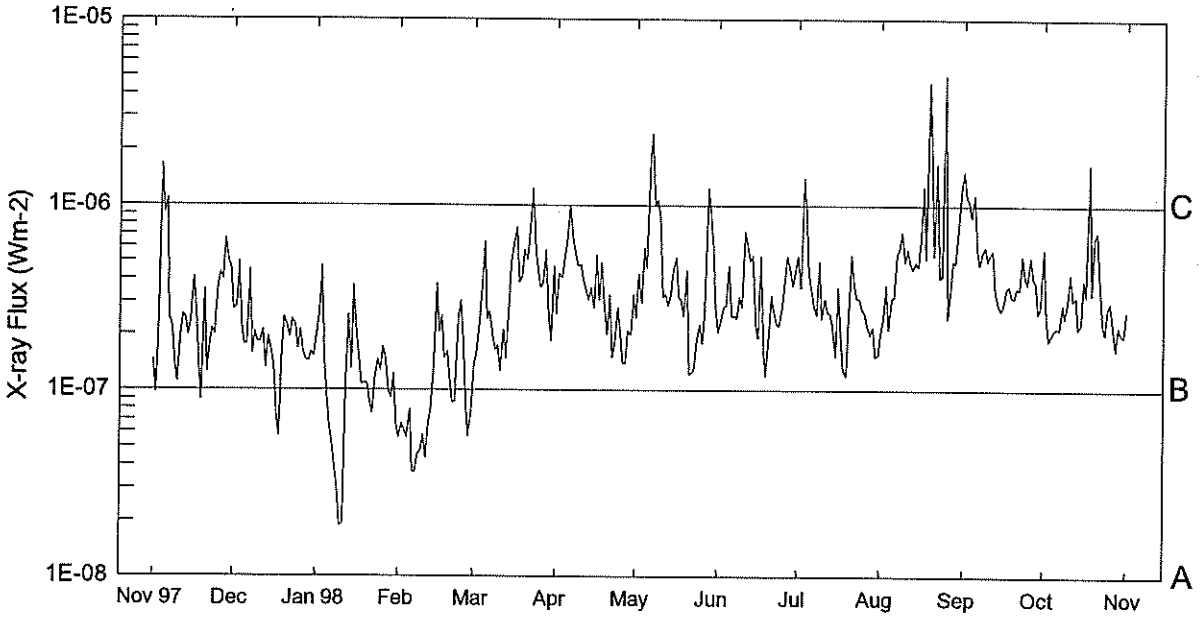
Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
01	0336	0342	0347				C2.1			1.0E-03
01	0849	0910	0926				C1.1			2.2E-03
01	1024	1036	1042				C1.3			1.2E-03
01	1106	1111	1129				C1.2			1.5E-03
01	1709	1716	1734	S27	E35	SF	C1.4		8349	1.8E-03
01	1810	1816	1821				C1.6			8.7E-04
02	1416	1419	1423				B3.1			1.1E-04
02	1956	2008	2034				B7.2			1.2E-03
03	0835	0839	0843				B2.7			1.1E-04
03	1447	1451	1456				B3.4			1.6E-04
03	1952	1955	2000				B2.6			1.1E-04
03	2007	2012	2016				B3.1			1.4E-04
04	0952	0957	0959				B5.0			1.5E-04
04	1445	1449	1453	N16	E41	SF	B4.2		8350	1.6E-04
04	1811	1815	1821				B2.6			1.4E-04
05	0225	0228	0232				B3.1			1.2E-04
05	0302	0307	0313				B3.8			2.2E-04
05	1714	1730	1746	N21	E30	SF	B8.2		8350	1.2E-03
06	0432	0436	0441				B5.5			2.2E-04
06	0535	0538	0540				B3.3			8.5E-05
06	0732	0740	0742				B7.2			3.0E-04
06	2232	2236	2242				B4.5			2.5E-04
06	2341	2345	2348				B4.2			1.5E-04
07	0018	0022	0024				B5.4			1.5E-04
07	0419	0430	0436				C1.7			1.1E-03
07	0452	0458	0503				B6.7			3.5E-04
07	0749	0757	0802				B6.1			4.3E-04
07	0853	0919	0923				B9.7			1.2E-03
07	1036	1044	1051				C3.2			1.6E-03
07	1155	1158	1200	S21	E69	SF	B7.8		8355	1.9E-04
07	1242	1247	1253	S22	E68	1N	M1.6		8355	5.9E-03
07	1516	1519	1522	S20	E67		C2.2		8355	4.7E-04
07	1536	1541	1548	S21	E68	1N	C3.1		8355	1.6E-03
07	1611	1616	1620	S22	E68	SF	C4.2		8355	1.5E-03
07	1704	1712	1717	S20	E65	SF	M2.3		8355	9.0E-03
07	1755	1758	1801	S22	E67		C3.5		8355	1.0E-03
07	1921	1924	1927	S22	E67	SF	B5.6		8355	1.7E-04
07	1944	1948	1952	S21	E66	SF	C2.0		8355	6.8E-04
07	2017	2020	2022	S22	E66	SF	B6.9		8355	1.7E-04
07	2030	2039	2103	S20	E65	SF	C1.2			1.9E-03
07	2103	2105	2124	S22	E66	SF	C2.4		8350	4.2E-03
07	2332	2335	2338				B8.0			2.3E-04
08	0002	0006	0009				B5.3			2.0E-04
08	0343	0347	0351				B4.8			1.9E-04
08	0821	0837	0841				C4.5			1.8E-03
08	0939	0944	0949				B9.1			4.1E-04
08	0959	1018	1036				C2.2			3.6E-03
08	1213	1217	1219				B5.7			1.8E-04
08	1245	1249	1251	S22	E57	SF	C2.3		8355	4.2E-04
08	1320	1324	1327				B6.9			2.1E-04
08	1445	1455	1500				B5.7			4.3E-04
08	1548	1551	1600				B5.2			3.3E-04
08	1627	1633	1639				B5.9			3.6E-04
08	1654	1659	1701	S23	E56	SN	C3.3			5.7E-04
08	1720	1726	1730	S23	E54	SF	C1.2			5.8E-04
08	1935	1945	1959				B7.3			9.0E-04
08	2029	2032	2035				B5.2			1.6E-04
09	0044	0050	0058	N19	W12	SF	B6.6			4.4E-04
09	0424	0429	0435				B5.5			3.2E-04
09	0742	0753	0809	N20	W07	SF	C1.3			1.7E-03
09	1001	1005	1008				C1.6			3.9E-04
09	1318	1322	1325				B9.3		8355	2.5E-04
09	1327	1330	1332	S19	E40		C1.5			2.8E-04
09	1605	1608	1612	S25	W76		B4.4		8349	1.6E-04
10	0611	0619	0631				C1.4			1.4E-03
10	0739	0744	0750				B6.6			3.7E-04
10	0938	0944	0956				C1.8			1.5E-03
10	1139	1146	1153				C2.4			1.5E-03
10	1311	1318	1323				C7.9			3.2E-03
10	1630	1634	1643				B9.1			5.7E-04
10	1943	1954	2022				C2.4			4.4E-03
10	2302	2306	2312				B6.8			3.7E-04
10	2325	2330	2335				B7.8			4.2E-04
11	0001	0003	0009				B7.2			3.6E-04
11	0025	0030	0041				B7.3			6.3E-04
11	0059	0105	0113	N20	W29	SF	C1.3		8356	8.7E-04
11	0748	0758	0817				C1.3			2.0E-03
11	0900	0903	0905				B7.2			1.8E-04
11	0912	0919	0924				C1.2			7.1E-04
11	1143	1202	1211	N21	W35	SF	C1.8		8356	2.1E-03
11	1613	1620	1627				C1.2			7.8E-04
11	1927	1931	1939				B5.5			3.6E-04
12	1043	1105	1124				C2.2			4.1E-03
12	1406	1410	1416	S21	W63	SF	B3.8		8354	2.1E-04
12	1939	1944	1946	S21	E03	SF	C1.0		8355	2.6E-04
13	0053	0103	0119	N22	W54	SF	B8.9		8356	1.2E-03
13	0605	0608	0611				B4.0			1.2E-04
13	1045	1101	1112	N20	W58	SF	C1.2		8356	1.4E-03
13	1153	1157	1201				B7.9			2.9E-04
13	1839	1844	1850	N23	W44	SF	B6.8		8359	3.7E-04
13	1929	1949	2003	N16	E03	SF	C1.0		8358	1.6E-03
14	1441	1444	1447	S19	W09	SF	B4.2		8360	1.3E-04
14	1635	1639	1641				B5.8			1.6E-04
14	1710	1716	1718	S20	W09	SF	C1.6			4.5E-04
14	1814	1818	1820	S20	W10	SF	B7.1		8360	1.8E-04
14	2339	2348	2355				B7.3			5.7E-04
15	0040	0047	0052	N26	W63	SF	C2.6		8359	1.1E-03
15	0320	0326	0332				B7.1			3.9E-04
15	1917	1920	1925				B6.3			2.7E-04
15	2130	2134	2136	S20	W23		C1.9			4.1E-04
16	0507	0511	0513				B6.5			2.0E-04
16	0539	0542	0546				B5.8			2.2E-04
16	0637	0645	0700	S19	W31		C1.0		8360	1.3E-03
16	0822	0846	0926				C1.1			3.5E-03
16	1450	1453	1456	S19	W34	SF	B7.2			2.4E-04
16	2123	2131	2136	N15	W38	SF	C2.7		8358	1.5E-03
17	0317	0325	0333				B5.4			4.7E-04
17	1047	1050	1052				B6.3			1.4E-04
17	1428	1434	1442	N16	W49	SF	B7.9		8358	5.4E-04
17	1839	1851	1858	N14	W51	1F	C9.1		8358	6.9E-03
17	2134	2140	2201	N15	W53	SF	C1.2		8358	1.6E-03
17	2217	2228	2238	N14	W54	SF	C5.1		8358	4.7E-03
17	2351	2401	2427	N16	W51	SN	C8.1		8358	1.3E-02

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

October 1998

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
18	0138	0145	0152	N16	W52	1N	M2.4		8358	9.9E-03
18	0533	0538	0549	N16	W57	1F	C2.6		8358	1.8E-03
18	1055	1103	1118				B7.6			9.2E-04
19	0647	0651	0656	N14	W60	SF	B5.8		8361	2.8E-04
19	0831	0836	0841				B5.7			3.0E-04
19	1124	1129	1133	N13	W59	SF	C1.9			6.7E-04
19	1218	1231	1241	N14	W59	1N	C7.1		8361	5.8E-03
19	2219	2222	2224				C1.5			3.7E-04
19	2225	2228	2230				C1.9			4.5E-04
19	2232	2235	2237				C3.2			5.9E-04
19	2255	2258	2304				B7.6			3.8E-04
19	2353	2358	2412	N15	W63	SF	C1.0		8361	1.0E-03
20	0028	0041	0047				C1.3			1.3E-03
20	0144	0150	0153				C5.1			1.7E-03
20	0338	0343	0400	N14	W69	SF	C1.4		8365	1.5E-03
20	0512	0515	0517				B6.8			1.8E-04
20	0519	0522	0525	N16	W80	SF	B9.0		8358	3.0E-04
20	0926	0929	0932				C1.0			3.3E-04
20	1003	1007	1011				B8.4			3.3E-04
20	1116	1136	1149				C1.1			2.1E-03
20	1421	1429	1437				C3.3			2.2E-03
20	1753	1801	1805				C3.2			1.2E-03
20	1909	1913	1916				B6.5			2.5E-04
20	2030	2103	2148				C7.4			2.6E-02
21	1110	1132	1204	S26	W26	SF	C1.3			3.2E-03
21	1812	1815	1817				C1.2			2.9E-04
21	2338	2343	2348				C1.0			4.7E-04
22	0509	0515	0520	S27	W37	SF	B8.1		8365	4.8E-04
22	0720	0727	0744	S26	W38	SF	C1.0		8365	1.3E-03
22	0944	0949	0959	S26	W39	SF	C1.5		8365	1.2E-03
22	1133	1141	1150				C1.2			9.9E-04
22	1159	1202	1208	S26	W42	SF	C1.1			5.2E-04
22	1633	1644	1652				C1.0			9.5E-04
22	2155	2200	2205				B8.8			4.2E-04
22	2345	2349	2353				B5.2			2.0E-04
23	0142	0152	0209	S27	W48	SF	C1.0		8365	1.3E-03
23	0249	0256	0301				B6.2			3.8E-04
23	0653	0656	0659				B7.7			2.3E-04
23	1023	1030	1039				B8.1			6.6E-04
24	0110	0147	0238				B4.0			1.7E-03
24	0444	0454	0505	S27	W62	SF	C1.3		8365	1.4E-03
24	1003	1006	1012				B3.3			1.6E-04
25	0728	0732	0736				B4.9			1.9E-04
25	1351	1356	1404	S11	W53	SN	C2.2		8366	1.2E-03
26	0214	0219	0223				B7.4			3.5E-04
26	0326	0332	0338				B4.1			2.7E-04
26	0341	0349	0401				B7.8			8.0E-04
26	0450	0456	0458				C1.7			4.3E-04
26	0505	0508	0512				C1.0			3.5E-04
26	0815	0819	0825				B6.2			3.2E-04
26	1810	1820	1830	N17	E49	SF	C2.0			2.0E-03
27	0759	0803	0817				B2.7			2.7E-04
27	2116	2119	2123				B2.3			9.1E-05
27	2142	2148	2200				B4.1			3.7E-04
28	0102	0105	0108				B2.8			9.0E-05
28	0203	0217	0227	N17	E30	SF	C1.6		8369	1.5E-03
28	0259	0302	0304	N17	E30	SF	B5.2			1.3E-04
28	0517	0528	0535				C1.1			8.3E-04
28	1313	1319	1324				C2.3			1.1E-03
28	1737	1801	1833				B7.1			2.0E-03
29	0111	0115	0120				B7.3			2.9E-04
29	0434	0440	0445				C1.0			5.5E-04
30	2234	2239	2244				B5.0			2.3E-04
31	1859	1916	2141				B6.4			5.2E-03

Preliminary GOES Satellite Daily X-Ray Background
Nov 97 - Oct 98



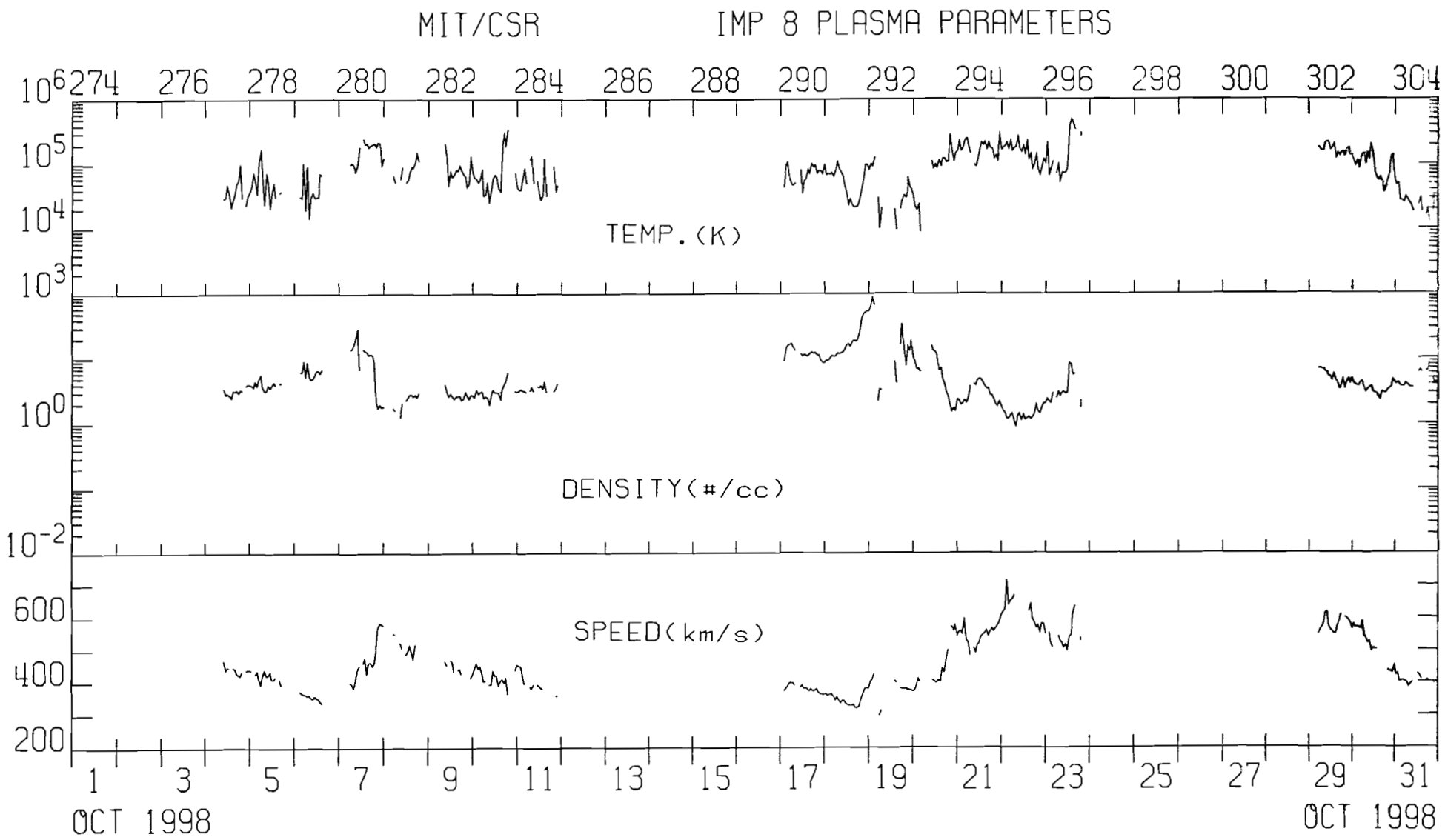
Day	Nov 97	Dec	Jan 98	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
1	B1.4	B2.7	B1.9	A5.6	B1.3	B2.6	B2.4	B2.0	B5.3	B1.9	C1.5	B5.8
2	A9.7	B2.8	B2.6	A6.6	B1.5	B4.3	B4.2	B2.4	B3.6	B2.4	C1.1	B2.4
3	B2.6	B4.9	B4.7	A6.1	B2.2	B4.1	B2.9	B2.8	C1.4	B3.7	C1.0	B1.8
4	C1.6	B2.2	B1.4	A5.5	B3.6	B5.2	B5.8	B2.8	B9.2	B2.1	B8.7	B2.0
5	B9.1	B1.7	A9.4	A7.9	B6.3	B6.6	B4.6	B4.7	B4.2	B3.1	C1.1	B2.1
6	C1.0	B1.7	A6.5	A3.6	B2.4	C1.0	C1.8	B2.4	B3.5	B3.1	B5.8	B2.1
7	B2.4	B4.4	A5.0	A3.5	B2.6	B6.6	C2.4	B2.5	B2.8	B5.4	B4.7	B2.1
8	B2.2	B1.5	A3.8	A4.5	B1.9	B5.6	B9.9	B2.4	B2.5	B5.8	B5.4	B2.9
9	B1.4	B2.0	A2.9	A4.7	B1.6	B4.7	C1.0	B3.2	B5.0	B7.2	B6.0	B2.4
10	B1.1	B1.8	A1.8	A5.7	B1.7	B4.8	B8.7	B2.8	B2.4	B4.9	B5.0	B3.0
11	B2.0	B1.8	A1.9	A4.3	B1.2	B4.1	B3.1	B7.2	B3.1	B5.8	B5.4	B4.2
12	B2.5	B2.1	B1.1	A6.6	B2.1	B3.5	B3.3	B6.0	B2.6	B4.8	B5.7	B3.0
13	B2.4	B1.3	B2.5	A7.9	B1.4	B3.1	B2.8	B5.0	B2.6	B4.5	B3.4	B3.2
14	B1.9	B1.9	B1.3	B1.4	B2.5	B3.6	B3.2	B5.3	B2.2	B4.9	B2.9	B2.1
15	B2.3	B1.6	B3.6	B3.7	B4.8	B2.8	B4.4	B2.3	B1.5	B4.6	B2.7	B2.3
16	B4.1	B1.3	B2.0	B2.0	B6.1	B5.4	B5.3	B1.9	B3.6	B6.5	B2.8	B3.9
17	B2.6	A7.5	B1.5	B2.5	B7.6	B3.1	B3.1	B5.3	B2.0	C1.2	B3.6	B3.2
18	B1.3	A5.7	B1.0	B1.4	B3.8	B4.9	B3.0	B1.5	B1.2	B5.1	B3.7	C1.6
19	A8.9	B1.7	B1.0	B1.6	B4.0	B3.0	B2.5	B1.2	B1.2	C4.5	B3.2	B3.3
20	B3.5	B2.4	B1.0	B1.1	B5.7	B2.0	B4.4	B1.9	B2.5	C1.6	B3.1	B6.7
21	B1.2	B2.2	A8.6	A8.6	B5.1	B3.3	B1.2	B3.2	B5.4	B5.3	B3.5	B7.2
22	B1.7	B1.9	A7.4	A8.6	B7.5	B1.5	B1.2	B2.6	B3.8	C1.6	B3.5	B3.7
23	B2.1	B2.4	B1.1	B2.4	C1.2	B1.8	B1.3	B2.2	B3.1	B4.0	B5.3	B2.3
24	B2.0	B2.2	B1.4	B3.0	B5.6	B2.8	B1.8	B2.2	B3.1	B4.1	B4.1	B2.0
25	B3.6	B1.6	B1.2	B1.8	B4.3	B2.0	B2.2	B2.7	B2.7	B4.9	B3.7	B2.8
26	B4.3	B2.1	B1.7	A8.0	B3.6	B1.4	B1.7	B3.8	B2.6	B2.4	B5.3	B3.0
27	B3.9	B1.6	B1.5	A5.6	B3.8	B1.4	B2.7	B5.3	B2.2	B3.0	B4.0	B2.1
28	B6.6	B1.4	A9.9	A7.5	B5.6	B2.1	C1.2	B4.4	B2.0	B5.0	B3.8	B1.6
29	B5.0	B1.4	A9.1		B2.5	B2.0	B8.8	B3.7	B2.2	B4.8	B2.6	B2.2
30	B4.6	B1.6	B1.2		B1.8	B3.3	B5.9	B4.4	B1.5	B7.3	B2.8	B2.0
31		B1.5	A6.6		B4.6		B2.7		B1.5	C1.2		B1.9

ACTIVE PROMINENCES AND FILAMENTS

OCTOBER 1998

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
01	DSF	1702U	1129U	S30	E18	10	3.1		13	0	0	E	RAMY		
03	DSF	1357U	0651U	S37	W09	10	2.8	2	07	5	6	E	SVTO		
03	DSF	1758U	1159U	S28	W11	10	2.9	2	13	0	0	E	RAMY		
04	DSF	1439U	0551U	S06	E18	10	5.9		04	0	0	E	SVTO		
04	DSF	1439U	0551U	S19	W12	10	3.7		06	0	0	E	SVTO		
04	DSF	1725U	1249U	S15	E22	10	6.4	2	11	0	0	E	RAMY		
06	DSF	1504U	1002U	S12	W13	10	5.6		06	0	0	E	SVTO		
06	DSF	2136U	1132U	S13	W26	10	4.9		11	0	0	E	RAMY		
08	DSF	2207U	1142U	S10	W38	10	6.1		04	0	0	E	RAMY		
12	DSF	2033U	1047U	S44	E32	10	15.5		29	0	0	E	RAMY		
13	DSF	1152U	1541U	S39	E26	10	15.6	2	12	0	0	E	RAMY		
13	DSF	1751U	1244U	S30	E36	10	16.6		08	0	0	E	RAMY		
14	DSF	0623	0941	S31	E27	10	16.4	2	05	0	0	E	SVTO		
14	DSF	1437U	0546U	N21	E14	10	15.7		22	0	0	E	SVTO		
14	DSF	1704U	1101U	N19	E10	10	15.5		27	0	0	E	RAMY		
16	DSF	1639U	1149U	N31	W03	10	16.4		10	0	0	E	RAMY		
17	DSF	1413U	0707U	S49	E25	10	19.7		10	0	0	E	SVTO		
18	DSF	1303U	0853U	N24	W18	10	17.1		12	0	0	E	SVTO		
18	DSF	2034U	1054U	N21	W26	10	16.9		08	0	0	E	RAMY		
19	DSF	0001U	1641U	N19	W28	10	16.9		15	0	0	E	HOLL		
19	EPL	1539	1639D	S39	E90	10	26.9	3		9	9	E	RAMY		
19	EPL	1936	2015D	S31	E90	10	26.9	3		0	0	E	RAMY		
19	EPL	1936	2015D	S31	E93	10	27.1	3		0	0	E	RAMY		
19	EPL	2229E	2257	N44	E90	10	27.4	3		6	9	E	LEAR		
21	LPS	2333	0220	S18	W90	10	15.1			9	9	E	LEAR	8360	
22	DSF	1521U	0747U	N17	W47	10	19.1		11	0	0	E	SVTO		
26	EPL	1710	1739	N23	W90	10	19.8	3		9	9	E	HOLL		
26	EPL	1711	1735D	N24	W90	10	19.8	3		9	9	E	RAMY		
27	BSL	1040	1115D	N29	W90	10	20.4			9	9	E	SVTO		
27	DSF	1951U	1450U	N28	W11	10	27.0		22	0	0	E	RAMY		
29	DSF	0956U	2233U	S33	W44	10	25.9		08	0	0	E	LEAR		
30	DSF	1408U	0913U	N38	E50	11	3.6		15	0	0	E	SVTO		
31	DSF	1413U	0630U	S37	E50	11	4.6		06	0	0	E	SVTO		

IMP 8 SOLAR WIND PLASMA
OCTOBER 1998



IMP 8 MIT ONE-HOUR AVERAGES

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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."