



U.S. DEPARTMENT OF COMMERCE

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

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NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE

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August 1999 NUMBER 660 - Part II

Solar-Geophysical Data comprehensive reports

Data for February 1999

International Standard Serial Number: 0038-0911

Library of Congress Catalog Number: 79-640375 //r81

NATIONAL GEOPHYSICAL DATA CENTER

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Boulder, Colorado

Subscription information is on the inside back cover.

SOLAR-GEOPHYSICAL DATA

Number 660

(Issued in Two Parts)

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H α SOLAR FLARES

FEBRUARY 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
								Region	Day							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0001		01	0836	08373	0846	N18	W74	8446	01	26.8	10	SF						68	
	LEAR	01	0836	0837	0843	N18	W76	8446	01	26.7	7	SF		3	E			68	
	KANZ	01	0836	0840	0848	N18	W73	8446	01	26.9	12	SF		2	C				
		01	1113		1139	No Flare Patrol													
		01	1152		1245	No Flare Patrol													
		01	1306		1715	No Flare Patrol													
		01	1741		1846	No Flare Patrol													
		02	1136		1232	No Flare Patrol													
		02	1357		1413	No Flare Patrol													
0002	RAMY	02	1855	1855	1859	S26	E47	8453	02	6.4	4	SF		3	E			22	
0003	HOLL	02	2134	2135	2142	S25	E46	8453	02	6.5	8	SF		3	E			17	
		03	1115		1120	No Flare Patrol													
		04	0653		0705	No Flare Patrol													
		04	0816		0826	No Flare Patrol													
		04	0836		0842	No Flare Patrol													
		04	1109		1124	No Flare Patrol													
		04	1130		1222	No Flare Patrol													
		04	1726		1748	No Flare Patrol													
		04	1831		1845	No Flare Patrol													
		04	1902		1904	No Flare Patrol													
		04	1957		2008	No Flare Patrol													
		04	2013		2041	No Flare Patrol													
		04	2112		2131	No Flare Patrol													
		04	2145		2215	No Flare Patrol													
		04	2248		2353	No Flare Patrol													
		05	1824		1842	No Flare Patrol													
		05	1922		1935	No Flare Patrol													
		05	2212		2400	No Flare Patrol													
		06	0000		0028	No Flare Patrol													
0004	KANZ	06	0936	0936	0940	S27	E02	8453	02	6.5	4	SF		2	C				
0005		07	18521	18582	1918	N22	E18		02	9.2	26	SF						61	F
	RAMY	07	1852	1858	1923	N21	E18		02	9.2	31	SF		3	E			70	
	HOLL	07	1853	1900	1912	N22	E18		02	9.2	19	SF		3	E			52	F
0006	HOLL	07	2220	2221	2227	N22	E75	8456	02	13.7	7	SF		3	E			18	
0007	LEAR	08	0116	0117	0127	S27	W19	8453	02	6.6	11	SF		3	E			36	
		08	0724		0727	No Flare Patrol													
0008	LEAR	08	0731	0731	0734	S28	W23	8453	02	6.5	3	SF		3	E			15	E
		08	0748		0828	No Flare Patrol													
0009	URUM	08	0850	0854	0906	S24	W26	8453	02	6.3	16	SF			C			96	1.2 E
0010		08	11001	11045	1113	N22	E66	8456	02	13.5	13	SF						16	
	KANZ	08	1100	1104	1112	N22	E66	8456	02	13.5	12	SF		2	C				
	SVTO	08	1101	1109	1114	N22	E65	8456	02	13.4	13	SF		3	E			16	
0011		08	11363	11447	1200	S30	W22	8453	02	6.7	24	SF						33	F
	KANZ	08	1136	1144	1156	S30	W22	8453	02	6.7	20	SF		2	C				
	SVTO	08	1139	1151	1203	S30	W22	8453	02	6.7	24	SF		3	E			33	F
		08	1303		1311	No Flare Patrol													
0012		08	15558	1612	1641	N22	E62	8456	02	13.4	46	SF						24	
	HOLL	08	1555	1612	1644	N23	E63	8456	02	13.5	49	SF		3	E			26	
	RAMY	08	1603	1612	1638	N22	E60	8456	02	13.3	35	SF		3	E			21	
0013		08	1650	1653	1705	N22	E60	8456	02	13.3	15	SF						21	
	RAMY	08	1650	1653	1658	N22	E59	8456	02	13.2	8	SF		3	E			16	
	HOLL	08	1650	1653	1712	N23	E62	8456	02	13.5	22	SF		3	E			26	

H α SOLAR FLARES

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Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	NOAA/ USAF			CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See Type	Area Measurement			Remarks
					Lat	CMD	Region					Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0014		08 19419	1952	2006	N22	E60	8456	02 13.4	25	SF			12		
	HOLL	08 1941	1947U	2005	N23	E61	8456	02 13.5	24	SF	2	E	11		
	RAMY	08 1950	1952	2007	N22	E58	8456	02 13.3	17	SF	3	E	12		
		08 2056		2106	No Flare Patrol										
0015	RAMY	08 2108	2118	2121D	N22	E55	8456	02 13.1	13D	SF	3	E	10		
		08 2122		2159	No Flare Patrol										
		08 2213		2242	No Flare Patrol										
0016	HOLL	09 0012	0013	0030D	N23	E56	8456	02 13.3	18D	SF	3	E	16		
0017		09 04566	05064	0529	S28	W36	8453	02 6.4	33	SN			74	1.1	E
	LEAR	09 0456	0506	0524	S29	W36	8453	02 6.4	28	SF	3	E	67		
	URUM	09 0502	0510	0534	S26	W35	8453	02 6.5	32	SN		C	80	1.1	E
		09 0736		0812	No Flare Patrol										
		09 0820		0900	No Flare Patrol										
		09 1033		1109	No Flare Patrol										
0018		09 16476	1653	1700	N22	E48	8456	02 13.4	13	SF			13		
	RAMY	09 1647	1653	1701	N22	E47	8456	02 13.3	14	SF	3	E	16		
	HOLL	09 1653	1653	1658	N23	E49	8456	02 13.5	5	SF	3	E	10		
0019	LEAR	10 0607	0616	0653	S27	E63	8458	02 15.2	46	SF	3	E	42		
		10 0913		0948	No Flare Patrol										
		10 1046		1253	No Flare Patrol										
0020	RAMY	10 1337	1343	1400	S26	E58	8458	02 15.1	23	SF	3	E	14		
0021	RAMY	10 1345	1347	1357	N13	E54	8457	02 14.6	12	SF	3	E	28		
		10 1349		1355	No Flare Patrol										
0022	HOLL	10 1520	1524	1536	N12	E56	8457	02 14.8	16	SF	3	E	14		
0023	RAMY	10 1524	1524	1532	S22	E56	8458	02 14.9	8	SF	3	E	26		
0024	RAMY	10 1541	1551	1607	S22	E56	8458	02 14.9	26	SF	3	E	24		
0025		10 1613*	1613*	1634	S30	E62	8458	02 15.5	21	SF			38		
	RAMY	10 1613	1613	1638	S29	E62	8458	02 15.5	25	SF	3	E	59		
	HOLL	10 1625	1625	1631	S30	E63	8458	02 15.6	6	SF	3	E	17		
0026	HOLL	10 1657	1700	1712	S26	W57	8453	02 6.3	15	SF	3	E	53		F
0027	HOLL	10 1659	1700	1703	N13	E54	8457	02 14.8	4	SF	3	E	17		
0028	RAMY	10 1806	1806	1812	S34	E58	8458	02 15.4	6	SF	3	E	11		
0029	RAMY	10 1858	1916	1943	S34	E53	8458	02 15.0	45	SF	3	E	15		
		10 2235		2334	No Flare Patrol										
		11 0034		0111	No Flare Patrol										
0030	URUM	11 0400	0404	0432	N20	E26	8456	02 13.1	32	SF		C	32	0.4	D
0031	LEAR	11 0610	0614	0636	N20	E25	8456	02 13.2	26	SF	4	E	29		
		11 0715		0803	No Flare Patrol										
		11 0838		0915	No Flare Patrol										
		11 1039		1129	No Flare Patrol										
		11 1335		1342	No Flare Patrol										
0032		11 1514	15324	1552	N18	E20	8456	02 13.1	38	SF			15		
	RAMY	11 1514	1532	1557	N18	E21	8456	02 13.2	43	SF	3	E	16		
	HOLL	11 1514	1536	1547	N19	E20	8456	02 13.2	33	SF	3	E	14		

H α SOLAR FLARES

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Feb 99

FEBRUARY 1999

Grp #	Sta	Start Day (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)		
0057	13	03277	0335*	0350	N22	W01	8456	02	13.1	23	SN		88	1.9	DF	
	URUM	13	0327	0335	0350	N22	E00	8456	02	13.1	23	SB		161	1.9	D
	LEAR	13	0334	0345	0351	N22	W02	8456	02	13.0	17	SF	4	E	15	F
		13	0519		0729	No Flare Patrol										
0058	13	09042	09072	0912	N22	W04	8456	02	13.1	8	SN		56	1.0	D	
	URUM	13	0904	0909	0912	N23	W05	8456	02	13.0	8	SB		80	1.0	D
	LEAR	13	0906	0907	0913	N21	W04	8456	02	13.1	7	SF	2	E	31	
		13	1031		1134	No Flare Patrol										
0059	RAMY	13	1214	1215	1258	N19	E27	8462	02	15.6	44	SF	3	E	34	
0060	RAMY	13	1301	1301	1308	N20	E29	8462	02	15.8	7	SF	3	E	11	
0061	RAMY	13	1327	1331	1336	N20	E28	8462	02	15.7	9	SF	3	E	19	
0062	RAMY	13	1408	1409	1427	N20	E27	8462	02	15.6	19	SF	3	E	10	
0063	13	15016	1521*	1602	S26	E16	8458	02	14.9	61	SF		40			
	RAMY	13	1501	1521	1557	S26	E16	8458	02	14.9	56	SF	3	E	26	
	HOLL	13	1507	1536	1606	S27	E15	8458	02	14.8	59	SF	3	E	53	
0064	13	15172	1521	1526	N21	W08	8456	02	13.0	9	SF		18			
	RAMY	13	1517	1521	1527	N21	W08	8456	02	13.0	10	SF	3	E	21	
	HOLL	13	1519	1521	1525	N21	W07	8456	02	13.1	6	SF	3	E	15	
0065	13	1609	16113	1647	N20	E24	8462	02	15.5	38	1N		95			
	RAMY	13	1609	1611	1647	N19	E24	8462	02	15.5	38	SN	3	E	82	
	HOLL	13	1609	1614	1647	N20	E24	8462	02	15.5	38	1F	3	E	108	
0066	RAMY	13	1613	1617	1646	S32	W57		02	9.2	33	SF	3	E	20	
0067	HOLL	13	1615	1622	1641	N17	E16	8457	02	14.9	26	SF	3	E	19	
0068	RAMY	13	1621	1623	1626	N21	W09	8456	02	13.0	5	SF	3	E	17	
0069	RAMY	13	1708	1708	1717	N24	W07	8456	02	13.2	9	SF	3	E	42	
0070	RAMY	13	1813	1814	1824	N20	E25	8462	02	15.7	11	SF	3	E	16	
0071	HOLL	13	1905	1906	1914	N19	E26	8462	02	15.8	9	SF	3	E	15	
0072	13	1919	19216	1935	S24	E18	8458	02	15.2	16	SF		38			
	RAMY	13	1919	1921	1936	S22	E17	8458	02	15.1	17	SF	3	E	43	
	HOLL	13	1919	1927	1934	S26	E19	8458	02	15.3	15	SF	3	E	33	
0073	13	1924	1925	1930	N20	E22	8462	02	15.5	6	SF		42			
	HOLL	13	1924	1925	1929	N20	E22	8462	02	15.5	5	SF	3	E	20	
	RAMY	13	1924	1925	1931	N20	E23	8462	02	15.6	7	SF	3	E	65	
0074	RAMY	13	1929	1930	1939	N15	E12	8457	02	14.7	10	SF	3	E	21	
0075	13	19502	19521	2022	N19	E24	8462	02	15.6	32	SF		30			
	RAMY	13	1950	1952	2041	N19	E23	8462	02	15.6	51	SF	3	E	40	
	HOLL	13	1952	1953	2004	N19	E24	8462	02	15.6	12	SF	4	E	19	
0076	HOLL	13	2011	2016	2025	N18	E24	8462	02	15.7	14	SF	4	E	28	F
0077	HOLL	13	2052	2053	2103	N20	E24	8462	02	15.7	11	SF	3	E	20	F
			14	0124		0132	No Flare Patrol									
0078	LEAR	14	0206	0207	0212	S26	E17	8458	02	15.4	6	SF	4	E	19	F
0079	LEAR	14	0239	0239	0254D	N11	E66	8462	02	19.1	15D	SF	2	E	46	EF
			14	0255		0304	No Flare Patrol									

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H α SOLAR FLARES

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Type	Area Measurement			Remarks	
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0080	URUM	14	0305	0311	0334	N19	E19	8462	02	15.6	29	SN				C	113	1.4	E	
0081	URUM	14	0440	0456	0515	N25	W11	8456	02	13.3	35	SB				C	161	2.0	E	
0082	LEAR	14	0654	0656	0659	N21	W15	8456	02	13.1	5	SF		3		E	25			
0083	URUM	14	0716	0720	0731	N19	E16	8462	02	15.5	15	SN				C	80	1.0	E	
			14 0858		0950	No Flare Patrol														
0084	LEAR	14	1008	1034U	1039D	N17	E05	8457	02	14.8	31D	SF		2		E	77		E	
			14 1037		1112	No Flare Patrol														
0085	RAMY	14	1113E	1114U	1136D	N16	E09	8457	02	15.2	23D	SF		2		E	55		F	
			14 1120		1129	No Flare Patrol														
			14 1137		1203	No Flare Patrol														
			14 1210		1257	No Flare Patrol														
			14 1354		1406	No Flare Patrol														
0086		14	1450	1450	1616	S25	E05	8458	02	15.0	86	SF					90			
	HOLL	14	1444E	1444U	1616	S23	E06	8458	02	15.1	92D	SF		3		E	89			
	RAMY	14	1450	1450	1616	S27	E04	8458	02	14.9	86	SF		3		E	92			
0087	RAMY	14	1624	1627	1633	S27	E02	8458	02	14.8	9	SF		3		E	28			
0088	HOLL	14	1705	1708	1722	N17	E10	8462	02	15.5	17	SF		3		E	69			
0089	HOLL	14	2252	2252	2255	N20	E08	8462	02	15.6	3	SF		3		E	25			
0090	LEAR	14	2338	2340	2410	N13	W06	8457	02	14.5	32	SF		3		E	26			
0091	LEAR	14	2338	2339	2344	S21	E06	8458	02	15.4	6	SF		3		E	21			
0092	LEAR	14	2355	2356	2412	N22	W22	8456	02	13.3	17	SF		3		E	13			
			15 0018		0154	No Flare Patrol														
			15 0202		0252	No Flare Patrol														
0093	LEAR	15	0444	0447	0451	N17	W05	8457	02	14.8	7	SF		3		E	13			
0094	LEAR	15	0624	0626	0639	N16	E61		02	19.9	15	SF		3		E	66			
0095		15	0921	0929	1008	N19	E02	8462	02	15.5	47	1N					119			
	LEAR	15	0921	0929	0955D	N20	E03	8462	02	15.6	34D	1N		2		E	119			
	KANZ	15	0932E	0932U	1008	N18	E02	8462	02	15.5	36D	1F		2		C				
			15 0922		0927	No Flare Patrol														
0096		15	09441	09479	1040	N23	W28	8456	02	13.2	56	1F					37			
	KANZ	15	0944	0956	1040	N23	W27	8456	02	13.3	56	1F		2		C				
	LEAR	15	0945	0947	1020D	N23	W28	8456	02	13.2	35D	SF		2		E	37			
0097		15	13162	13171	1318	N16	W08	8457	02	14.9	2	SF					33			
	RAMY	15	1316	1317	1319	N15	W08	8457	02	14.9	3	SF		3		E	33			
	KANZ	15	1318	1318	1318	N16	W08	8457	02	14.9	3	SF		2		C				
0098	RAMY	15	1321	1321	1327	N18	W07	8457	02	15.0	6	SF		3		E	20			
0099	RAMY	15	1535	1535	1539	N18	W06	8457	02	15.2	4	SF		3		E	14			
0100	RAMY	15	1614	1614	1617	N19	W02	8462	02	15.5	3	SF		3		E	26			
0101		15	1621	16361	1722	N20	W02	8462	02	15.5	61	1F					105		EF	
	RAMY	15	1621	1636	1738	N20	W01	8462	02	15.6	77	1F		3		E	100		FE	
	HOLL	15	1621	1637	1706	N20	W02	8462	02	15.5	45	1F		3		E	110		F	
0102	RAMY	15	1632	1634	1654	N14	W13	8457	02	14.7	22	SF		3		E	10			

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Type	Area Measurement			Remarks		
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)			
0125		17	0525	0529	0537	N19	W18	8462	02	15.8	12	SN					38	0.8	E		
	URUM	17	0525	0529	0537	N19	W18	8462	02	15.8	12	SN			C		64	0.8	E		
	LEAR	17	0531E	0532U	0537	N19	W18	8462	02	15.8	6D	SF	4		E		12				
0126	URUM	17	0824	0828	0832	N22	W19	8462	02	15.9	8	SN			C		48	0.6	E		
0127	KANZ	17	1033	1041	1045	S08	E63		02	22.2	12	SF	2		C						
0128	RAMY	17	1222	1222	1227	N20	W24	8462	02	15.7	5	SF	3		E		17				
0129	RAMY	17	1237	1238	1247	S21	W33	8458	02	15.0	10	SF	3		E		16				
0130	RAMY	17	1243	1244	1247	N20	W20	8462	02	16.0	4	SF	3		E		20				
0131	RAMY	17	1311	1321	1328	N20	W23	8462	02	15.8	17	SF	3		E		17				
		17	1333		1349	No Flare Patrol															
		17	1355		1401	No Flare Patrol															
0132	RAMY	17	1520	1520	1528	N20	W23	8462	02	15.9	8	SF	3		E		15				
0133	RAMY	17	1531	1531	1532	N20	W23	8462	02	15.9	1	SF	3		E		17				
0134	RAMY	17	1548	1552	1603	N20	W24	8462	02	15.8	15	SF	3		E		13				
0135	RAMY	17	1736	1743	1753	N20	W24	8462	02	15.9	17	SF	3		E		29				
0136	RAMY	17	1902	1905	1942	S29	W68	8459	02	12.5	40	SF	3		E		39				
		18	0046		0149	No Flare Patrol															
		18	0326		0446	No Flare Patrol															
		18	0603		0647	No Flare Patrol															
		18	0659		0745	No Flare Patrol															
0137	LEAR	18	0829	0829	0843D	N21	W34	8462	02	15.7	14D	SF	2		E		26				
		18	0831		0841	No Flare Patrol															
		18	1037		1109	No Flare Patrol															
0138	RAMY	18	1209	1209	1213	N20	W34	8462	02	15.9	4	SF	3		E		12				
0139	RAMY	18	1229	1230	1232	N20	W34	8462	02	15.9	3	SF	3		E		14				
0140	RAMY	18	1235	1239	1241	N20	W34	8462	02	15.9	6	SF	3		E		33				
0141		18	13213	1325	1329	S22	W46	8458	02	15.0	8	SF					14				
	KANZ	18	1321	1325	1329	S22	W46	8458	02	15.0	8	SF	2		C						
	RAMY	18	1324	1325	1329	S21	W47	8458	02	14.9	5	SF	3		E		14				
0142	RAMY	18	1414	1414	1418	N20	W39	8462	02	15.6	4	SF	3		E		16				
0143	RAMY	18	1418	1420	1424	S27	W82	8459	02	12.2	6	SF	3		E		17				
0144	RAMY	18	1603	1604	1610	S29	W80	8459	02	12.4	7	SF	3		E		46				
0145	HOLL	18	1746	1748	1756	N20	W42	8462	02	15.5	10	SF	3		E		16				
0146		18	1838*	1852	1904	S20	W48	8458	02	15.1	26	SF					54				
	RAMY	18	1838	1852	1905	S21	W50	8458	02	14.9	27	SF	3		E		58				
	HOLL	18	1850	1852	1902	S19	W47	8458	02	15.2	12	SF	3		E		51				
0147	RAMY	18	1921	1921	1925	S28	W86	8459	02	12.1	4	SF	3		E		13				
0148		18	19281	19282	1936	S28	W86	8459	02	12.1	8	SF					16				
	HOLL	18	1928	1928	1933	S28	W84	8459	02	12.2	5	SF	3		E		14				
	RAMY	18	1929	1930	1938	S28	W87	8459	02	12.0	9	SF	3		E		18				
0149	RAMY	18	1936	1936	1938	N14	W55	8457	02	14.7	2	SF	3		E		13				

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Grp #	Sta	Start Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/	CMP	Dur	Imp	Obs	Area Measurement			Remarks	
								USAF Region					Mo	Day	(Min)		Opt
0173	LEAR	21	0857	0858	0909	N19	W45	8464	02	17.9	12	SF	3	E		13	
			21 1040		1313			No Flare Patrol									
			21 1317		1321			No Flare Patrol									
0174	RAMY	21	1322E	1326	1338	N24	W81	8462	02	15.3	16D	SF	3	E		40	
			21 1343		1359			No Flare Patrol									
0175	HOLL	21	1637	1637	1639	N21	W79	8462	02	15.6	2	SF	3	E		24	
0176	HOLL	21	1700	1700	1704	N21	W81	8462	02	15.5	4	SF	3	E		14	
			21 2249		2254			No Flare Patrol									
			22 1049		1100			No Flare Patrol									
			22 1226		1329			No Flare Patrol									
			22 1344		1437			No Flare Patrol									
			22 1927		2019			No Flare Patrol									
			22 2032		2208			No Flare Patrol									
0177	HOLL	22	2338	2339	2342	N19	W68	8462	02	17.8	4	SF	3	E		28	
			23 1030		1036			No Flare Patrol									
			23 1038		1338			No Flare Patrol									
			23 2254		2256			No Flare Patrol									
			24 0050		0245			No Flare Patrol									
			24 0521		0649			No Flare Patrol									
			24 1125		1131			No Flare Patrol									
			24 1306		1430			No Flare Patrol									
0178	RAMY	24	1657	1658	1701	N18	W29	8467	02	22.5	4	SF	3	E		66	
0179	RAMY	24	1726	1726	1729	N17	W28	8467	02	22.6	3	SF	3	E		52	
			24 2136		2203			No Flare Patrol									
			24 2300		2303			No Flare Patrol									
0180	KANZ	25	0740	0740	0752	S23	E43	8470	02	28.6	12	SF	2	C			
0181	KANZ	25	0812	0816	0820	N28	E38	8471	02	28.3	8	SF	2	C			
0182	KANZ	25	1047	1047	1059D	S28	W81		02	19.1	12D	SF	2	C			
			25 1100		1106			No Flare Patrol									
0183		25	12392	12421	1250	N28	E36	8471	02	28.3	11	SF				11	
	KANZ	25	1239	1243	1247	N28	E36	8471	02	28.3	8	SF	2	C			
	RAMY	25	1241	1242	1254	N29	E37	8471	02	28.4	13	SF	3	E		11	
0184	KANZ	25	1308	1308	1315	N31	E72	8475	03	3.2	7	SF	2	C			
0185	KANZ	25	1335	1335	1339	N31	E72	8475	03	3.2	4	SF	2	C			
0186		25	15191	15212	1524	N32	E52	8472	03	1.7	5	SF				24	F
	KANZ	25	1519	1523	1524D	N32	E51	8472	03	1.7	5D	SF	2	C			
	RAMY	25	1520	1521	1524	N32	E54	8472	03	1.9	4	SF	4	E		24	F
0187		25	1751	1757	1812	S24	E36	8470	02	28.5	21	SF				58	FH
	RAMY	25	1751	1757	1812	S24	E36	8470	02	28.5	21	SF	3	E		61	FH
	HOLL	25	1752E	1756U	1842D	S24	E37	8470	02	28.6	50D	SF	3	E		54	
			25 1914		2203			No Flare Patrol									
0188		26	0748	07482	0756	S22	E28	8470	02	28.5	8	SF				32	
	KANZ	26	0748	0748	0756	S23	E28	8470	02	28.5	8	SF	2	C			
	LEAR	26	0748	0750	0755	S22	E29	8470	02	28.5	7	SF	3	E		32	
0189	KANZ	26	0806	0806	0814	S24	E29	8470	02	28.6	8	SF	2	C			

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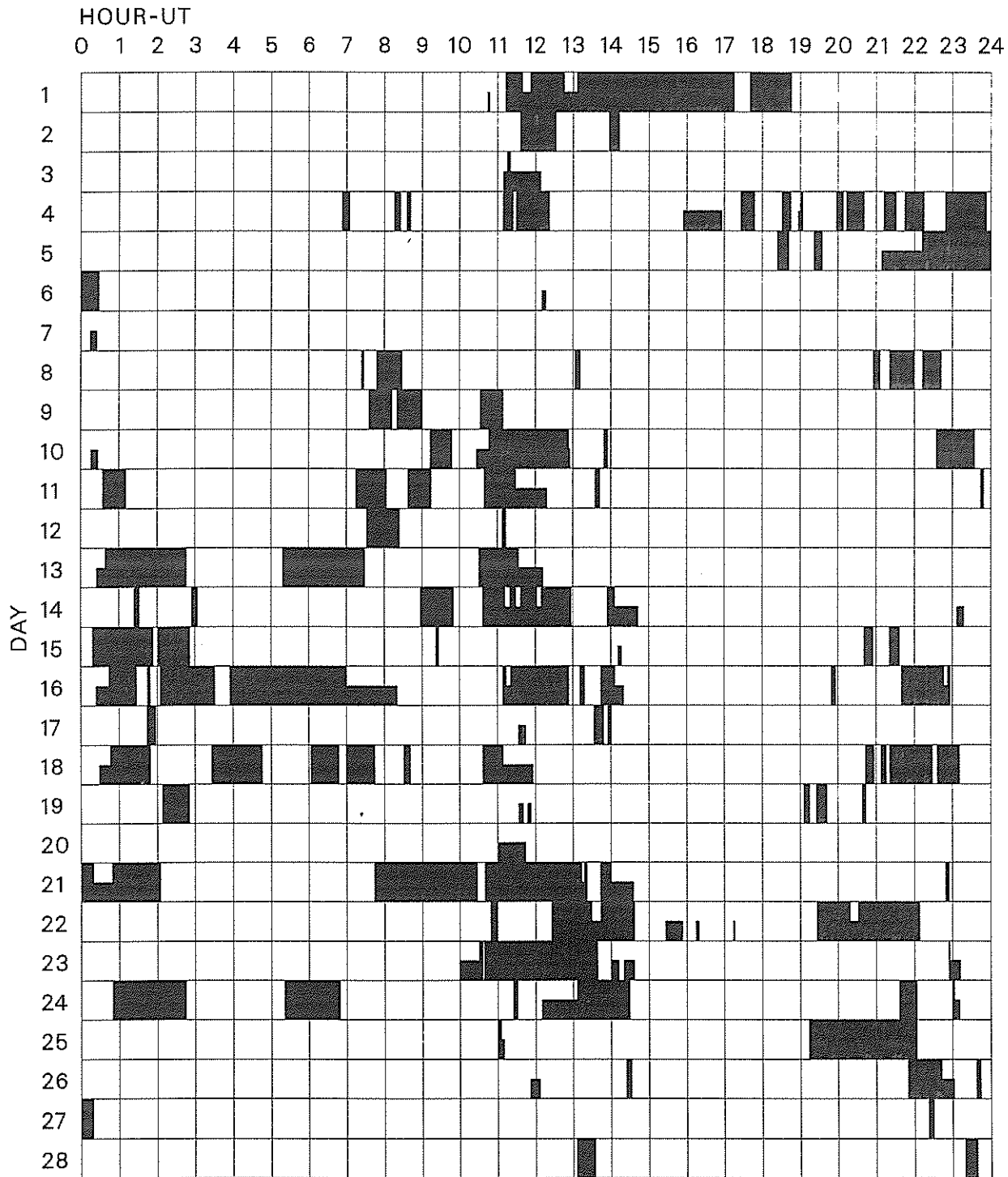
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Grp #	Sta	Start Day	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks	
														Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0190	KANZ	26	0830	0830	N31	E62	8475	03	3.2	4	SF	2	C					
0191	KANZ	26	0910	0910	N31	E62	8475	03	3.3	8	SF	2	C					
0192	KANZ	26	0950	0954	N31	E62	8475	03	3.3	16	SF	2	C					
0193	RAMY	26	1156E	1156U	1200	N31	E62	8475	03	3.4	4D	SF	3	E		16		
0194	KANZ	26	1226	1234	1318	N27	E25	8471	02	28.5	52	SF	2	C				
0195	KANZ	26	1346	1350U	1350D	N31	E60	8475	03	3.3	4D	SF	2	C				
		26	1424		1432	No Flare Patrol												
0196	HOLL	26	1903	1905	1914	N30	E18	8471	02	28.2	11	SF	3	E		26	F	
0197	HOLL	26	2019	2021	2034	N30	E19	8471	02	28.3	15	SF	3	E		48	F	
		26	2150		2243	No Flare Patrol												
		26	2337		2344	No Flare Patrol												
		26	2400		2400	No Flare Patrol												
		27	0000		0018	No Flare Patrol												
0198	URUM	27	0332	0337	0347	N29	E14	8471	02	28.2	15	SN		C		80	1.1	E
0199		27	0853Z	0856Z	0905	N29	E09	8471	02	28.1	12	SF				42		F
	KANZ	27	0853	0858	0906	N28	E09	8471	02	28.1	13	SF	2	C				
	LEAR	27	0855	0856	0904	N30	E09	8471	02	28.1	9	SF	3	E		42		F
0200		27	1203Z	1208Z	1232	N27	E08	8471	02	28.1	29	SF				61		F
	RAMY	27	1203	1208	1233	N27	E09	8471	02	28.2	30	SF	3	E		61		F
	KANZ	27	1206	1210	1230	N27	E07	8471	02	28.0	24	SF	2	C				
0201	HOLL	27	1912	1913	1922	N28	E04	8471	02	28.1	10	SF	3	E		17		
		27	2222		2230	No Flare Patrol												
0202	LEAR	28	0657	0701	0711	N27	W06	8471	02	27.8	14	SF	3	E		15		F
		28	1305		1334	No Flare Patrol												
0203	RAMY	28	1402	1402	1406	N28	W10	8471	02	27.8	4	SF	4	E		23		
0204	RAMY	28	1523	1524	1534	N28	W10	8471	02	27.8	11	SF	4	E		16		F
0205	RAMY	28	1618	1619	1621	N28	W06	6732	02	28.2	3	SF	3	E		12		
0206		28	1635	1638Z	1754	N28	W08	8471	02	28.1	79	2B				280		FU
	RAMY	28	1635	1638	1745	N28	W06	8471	02	28.2	70	2B	3	E		304		UF
	HOLL	28	1635	1642	1802	N28	W09	8471	02	28.0	87	2B	3	E		257		F
0207		28	1917Z	1931	1956	N28	W10	8471	02	28.0	39	SF				58		
	HOLL	28	1917	1931	1950	N28	W09	8471	02	28.1	33	SF	3	E		45		
	RAMY	28	1923	1931	2001	N28	W11	8471	02	27.9	38	SF	3	E		70		
0208	RAMY	28	2049	2059	2104	N31	E31	8475	03	3.3	15	1F	3	E		109		
0209	RAMY	28	2049	2059	2104	N18	E22	8476	03	2.5	15	SF	3	E		30		
0210	RAMY	28	2049	2103	2111	N28	W10	8471	02	28.1	22	2F	3	E		340		EF
0211	HOLL	28	2116	2118	2121	N29	W12	8471	02	27.9	5	SF	3	E		14		
0212	HOLL	28	2135	2138	2219	N28	W14	8471	02	27.8	44	SF	3	E		67		
		28	2319		2338	No Flare Patrol												

INTERVALS OF NO FLARE PATROL OBSERVATION FOR PRECEDING SOLAR FLARE TABLE

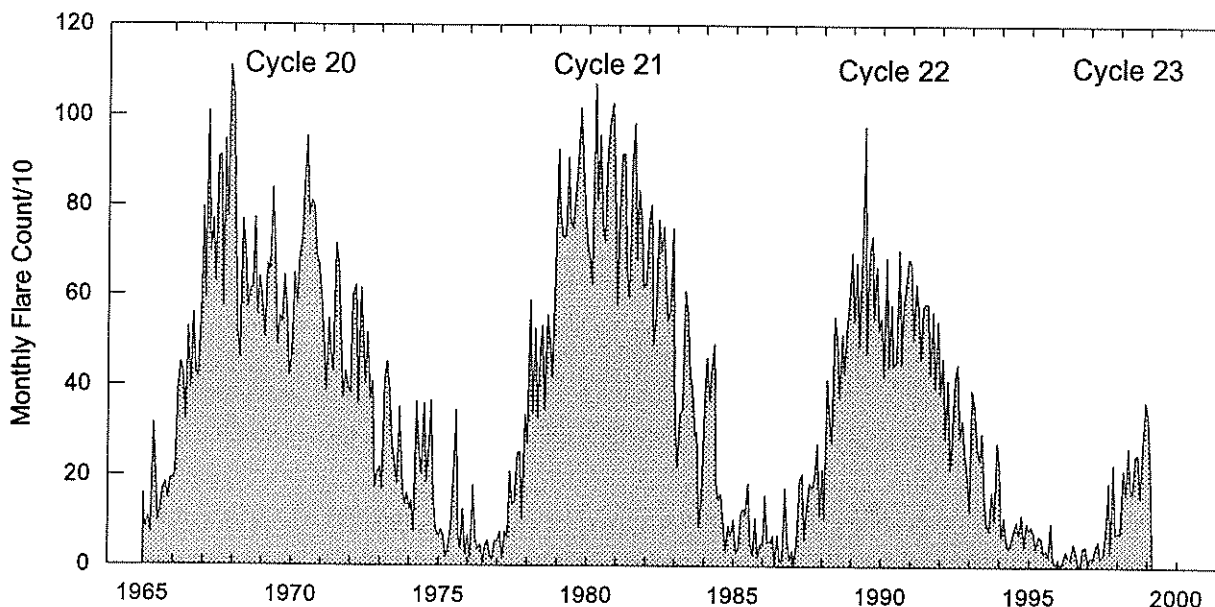
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Times of no flare patrol, shown here as shades areas, combine reports from the stations listed below. Portions of a panel completely shaded mark dates and times of no patrol of any kind (neither visual or cinematographic): portions of a panel with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

- | | | | |
|-------------|-----------|----------|--------|
| Holloman | Learmonth | Ramey | Urumqi |
| Kanzelhoehe | Mitaka | San Vito | |

Monthly Counts of Grouped Solar Flares Jan 1965 - Feb 1999



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1965	158	85	110	74	315	231	99	127	173	184	150	193	1899
1966	194	205	390	449	429	323	528	391	558	432	417	543	4859
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	551	502	375	513	429	518	587	4816
1989	695	544	672	488	691	977	474	699	733	547	665	526	7711
1990	550	424	684	442	580	445	454	703	449	574	623	682	6610
1991	672	503	625	570	458	574	582	581	425	565	396	544	6495
1992	380	462	287	412	214	271	413	447	287	325	248	206	3952
1993	123	392	357	262	237	296	154	92	82	167	104	275	2541
1994	217	67	111	60	40	56	81	101	72	117	45	99	1066
1995	82	95	77	42	69	66	29	37	23	99	14	6	639
1996	14	3	15	34	21	16	54	31	3	0	44	45	280
1997	8	22	18	43	59	18	26	75	188	31	228	74	790
1998	78	76	216	161	264	177	164	248	249	155	268	367	2423
1999	330	212											542

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

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

FEBRUARY 1999

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
01	5730	IRKU	1 S	0432.2	0438.5	17.3	2.0		U	
	9100	GORK	28 PRE	0833.0	0836.5	3.5	19.2			
	2840	PEKG	5 S	0835.0	0837.0	5.0	17.4			
	1415	LEAR	8 S	0836.0	0836.0	1.0	28.0			QL=4 ST=2 TYP=3
	4995	LEAR	8 S	0836.0	0836.0	1.0	53.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0836.0	0837.0	1.0	56.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0836.0	0836.0	2.0	78.0			QL=4 ST=2 TYP=3
	4995	SVTO	8 S	0836.0	0836.0	1.0	54.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	0836.0	0836.0	2.0	94.0			QL=4 ST=2 TYP=3
	1415	SVTO	8 S	0836.0	0837.0	1.0	31.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	0836.0	0836.0	1.0	66.0			QL=4 ST=2 TYP=3
	2950	GORK	45 C	0836.1	0836.9	1.7	94.6			
	3000	IZMI	45 C	0836.2	0836.8	19.6	89.0			
	9100	GORK	45 C	0836.5	0836.7	1.0	58.0			
	9100	GORK	29 PBI	0837.5	0837.5	2.6	38.5			
	2950	GORK	29 PBI	0837.8	0837.8	2.6	40.0			
2800	PENT	1 S	1702.0	1702.0	1.0	7.0				
2800	PENT	3 S	1828.0	1830.0	3.0	4.0				
02	127	TORN	47 GB	1115.0	1116.5	4.0	230.0	90.0		
04	600	GORK	4 S/F	0928.8	0929.2	0.7	16.0			
	900	GORK	2 S/F	0929.0	0929.2	0.4	3.0			
	204	IZMI	42 SER	1147.5	1147.5	0.5	24.0			
05	280	CUBA	44 NS	1300.0E		530.0D		16.0		
	235	CUBA	44 NS	1300.0E		530.0D		6.0		
06	235	CUBA	44 NS	1300.0E		530.0D		8.0		
	280	CUBA	44 NS	1320.0E		510.0D		21.0		
	245	SGMR	8 S	1500.0	1501.0	1.0	58.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1501.0	1501.0	U	55.0			QL=4 ST=2 TYP=3
	245	SGMR	4 S/F	1603.0	1603.0	3.0	130.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1623.0	1623.0	U	59.0			QL=4 ST=2 TYP=3
245	SGMR	8 S	2015.0	2016.0	2.0	50.0			QL=4 ST=2 TYP=3	
07	204	IZMI	43 NS	0700.0		300.0D		5.0		
	245	SVTO	43 NS	0730.0	0837.0	205.0	170.0			QL=4 ST=2 TYP=1
	245	LEAR	43 NS	0824.0	0827.0	936.0	180.0			QL=4 ST=3 TYP=1
	245	SVTO	43 NS	1102.0	1102.0	123.0	280.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1213.0	1225.0U	23.0	210.0			QL=4 ST=2 TYP=1
	280	CUBA	44 NS	1320.0E		450.0D		21.0		
	235	CUBA	44 NS	1325.0E		455.0D		8.0		
	245	SGMR	43 NS	1607.0	1616.0	10.0	88.0			QL=4 ST=2 TYP=1
	245	LEAR	8 S	0305.0	0305.0	U	53.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0700.0	0700.0	1.0	54.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0730.0	0730.0	U	78.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0741.0	0741.0	U	69.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1059.0	1100.0	1.0	220.0			QL=2 ST=2 TYP=3
	245	SVTO	8 S	1158.0	1159.0	2.0	290.0			QL=2 ST=2 TYP=3
	245	SVTO	8 S	1449.0	1450.0	1.0	49.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1450.0	1450.0	U	110.0			QL=4 ST=2 TYP=3
245	SGMR	8 S	1653.0	1653.0	1.0	100.0			QL=4 ST=2 TYP=3	
08	245	LEAR	43 NS	0526.0	0526.0	1114.0	150.0			QL=4 ST=2 TYP=1
	245	LEAR	43 NS	0526.0	0557.0	1114.0	170.0			QL=4 ST=3 TYP=1
	245	SVTO	43 NS	0615.0	0618.0	1065.0	93.0			QL=4 ST=1 TYP=1
	410	SVTO	43 NS	0645.0	1130.0	416.0	240.0			QL=4 ST=2 TYP=1
	245	SVTO	43 NS	0645.0	0712.0	416.0	490.0			QL=4 ST=2 TYP=1
	204	IZMI	44 NS	0700.0E		300.0D		175.0		
	127	TORN	44 NS	0700.0E		480.0D		30.0		V=2
	245	SGMR	43 NS	1212.0	1337.0	170.0	210.0			QL=4 ST=2 TYP=1
	235	CUBA	44 NS	1325.0E		505.0D		33.0		
	280	CUBA	44 NS	1325.0E		505.0D		49.0		
	245	SGMR	43 NS	1602.0	1735.0	305.0	220.0			QL=4 ST=2 TYP=1
	245	PALE	43 NS	1724.0	1741.0	284.0	89.0			QL=4 ST=2 TYP=1
	5730	IRKU	1 S	0507.7	0508.2	5.3	3.0			U
200	HIRA	24 R	0652.0	0715.0	35.0D	70.0			0	
500	HIRA	27 RF	0652.0	0708.0	40.0D	40.0			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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FEBRUARY 1999

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
08	410	LEAR	4 S/F	0654.0	0703.0	10.0	75.0			QL=4 ST=2 TYP=3
	410	LEAR	48 C	0654.0	0706.0	67.0	200.0			QL=4 ST=3 TYP=8
	5730	IRKU	20 GRF	0655.4	0725.8	76.7	10.0	U		
	245	LEAR	48 C	0657.0	0712.0	64.0	540.0			QL=4 ST=3 TYP=8
	610	LEAR	4 S/F	0706.0	0707.0	55.0	27.0			QL=4 ST=3 TYP=3
	33	UPIC	4 S/F	0754.5	0755.0	1.5				
	245	LEAR	8 S	0823.0	0823.0		200.0	U		QL=4 ST=2 TYP=3
	245	LEAR	48 C	0829.0	0947.0	82.0	500.0			QL=4 ST=2 TYP=8
	410	LEAR	8 S	0838.0	0839.0	2.0	64.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0946.0	0947.0	1.0	310.0			QL=2 ST=2 TYP=3
	410	LEAR	4 S/F	1004.0	1007.0	3.0	32.0			QL=4 ST=2 TYP=3
	245	LEAR	4 S/F	1004.0	1007.0	3.0	140.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1238.0	1238.0	1.0	91.0			QL=4 ST=2 TYP=3
	6700	CUBA	20 GRF	1919.0	2034.0	146.0	11.0	6.0		OOL
	9500	CUBA	20 GRF	1929.0	2028.0	177.0	30.0			SUNSET
09	245	PALE	43 NS	0226.0	0304.0	103.0	230.0			QL=4 ST=2 TYP=1
	245	SVTO	43 NS	0612.0	0711.0	207.0	260.0			QL=2 ST=2 TYP=1
	410	SVTO	43 NS	0651.0	0657.0	39.0	67.0			QL=2 ST=2 TYP=1
	204	IZMI	44 NS	0700.0E		300.0		15.0		
	235	CUBA	44 NS	1300.0E		530.0		12.0		
	280	CUBA	44 NS	1310.0E		520.0		26.0		
	245	SGMR	43 NS	1908.0	1915.0	34.0	210.0			QL=4 ST=3 TYP=1
	245	PALE	43 NS	1908.0	1915.0	76.0	210.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	2019.0	2023.0	18.0	140.0			QL=4 ST=2 TYP=1
	245	PALE	43 NS	2338.0	0035.0	261.0	350.0			QL=4 ST=2 TYP=1
	245	LEAR	8 S	0018.0	0018.0		80.0	U		QL=2 ST=2 TYP=3
	245	LEAR	8 S	0102.0	0103.0	1.0	66.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	0235.0	0237.0	2.0	100.0			QL=2 ST=2 TYP=3
	5730	IRKU	20 GRF	0455.6	0517.8	67.4	6.0	U		
	610	SVTO	4 S/F	0651.0	0658.0	13.0	58.0			QL=2 ST=2 TYP=3
	410	LEAR	20 GRF	0655.0	0657.0	4.0	60.0			QL=4 ST=2 TYP=2
	610	LEAR	20 GRF	0656.0	0656.0	1.0	24.0			QL=4 ST=2 TYP=2
	410	SVTO	8 S	1010.0	1010.0		92.0	U		QL=2 ST=2 TYP=3
	245	SVTO	4 S/F	1205.0	1207.0	7.0	100.0			QL=2 ST=2 TYP=3
	245	SVTO	48 C	1246.0	1246.0	5.0	120.0			QL=2 ST=3 TYP=8
	245	SGMR	8 S	1247.0	1247.0	1.0	95.0			QL=4 ST=2 TYP=3
	410	SGMR	4 S/F	1610.0	1611.0	3.0	44.0			QL=4 ST=2 TYP=3
	245	SGMR	4 S/F	1611.0	1612.0	6.0	230.0			QL=4 ST=2 TYP=3
	245	SGMR	4 S/F	1624.0	1627.0	6.0	55.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1720.0	1720.0		79.0	U		QL=4 ST=2 TYP=3
	410	PALE	4 S/F	1727.0	1729.0	3.0	83.0			QL=4 ST=2 TYP=3
	245	PALE	4 S/F	1727.0	1728.0	3.0	47.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1827.0	1828.0	1.0	170.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1827.0	1828.0	1.0	160.0			QL=4 ST=2 TYP=3
	245	SGMR	4 S/F	1841.0	1842.0	7.0	76.0			QL=4 ST=2 TYP=3
245	LEAR	8 S	2250.0	2250.0	1.0	96.0			QL=4 ST=3 TYP=3	
245	LEAR	8 S	2254.0	2254.0		61.0	U		QL=4 ST=3 TYP=3	
245	LEAR	8 S	2300.0	2301.0	2.0	190.0			QL=2 ST=2 TYP=3	
245	PALE	8 S	2328.0	2328.0	1.0	70.0			QL=4 ST=2 TYP=3	
500	HIRA	27 RF	2346.0	0025.0	100.0	60.0			0	
200	HIRA	27 RF	2353.0	0025.0	90.0	80.0			0	
410	PALE	8 S	2355.0	2357.0	2.0	54.0			QL=4 ST=2 TYP=3	
10	410	PALE	43 NS	0002.0	0023.0	43.0	120.0			QL=4 ST=1 TYP=1
	410	LEAR	43 NS	0006.0	0027.0	82.0	100.0			QL=4 ST=3 TYP=1
	245	LEAR	43 NS	0602.0	0609.0	276.0	240.0			QL=4 ST=2 TYP=1
	204	IZMI	44 NS	0700.0E		300.0		10.0		
	245	SGMR	43 NS	1218.0	2038.0	558.0	450.0			QL=4 ST=3 TYP=1
	235	CUBA	44 NS	1300.0E		530.0		45.0		
	280	CUBA	44 NS	1325.0E		505.0		61.0		
	245	PALE	43 NS	1722.0	1755.0	78.0	210.0			QL=4 ST=2 TYP=1
	410	SGMR	43 NS	1802.0	1802.0	17.0	89.0			QL=4 ST=2 TYP=1
	410	PALE	8 S	0115.0	0115.0		57.0	U		QL=4 ST=2 TYP=3
	5730	IRKU	20 GRF	0552.5	0618.8	59.3	13.0	U		
	5730	IRKU	1 S	0654.2	0654.8	1.3	4.0	U		
	3000	IZMI	5 S	0752.8	0752.9	0.2	7.0			
	5730	IRKU	1 S	0810.7	0811.0	4.3	4.0	U		
	410	SGMR	4 S/F	1626.0	1628.0	10.0	64.0			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

FEBRUARY 1999

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Flux Density Mean (W/m ² Hz)	Int	Remarks
10	410	SGMR	49 GB	1818.0	1819.0	1.0	970.0			QL=4 ST=2 TYP=6
11	245	LEAR	43 NS	0409.0	0409.0	80.0	100.0			QL=4 ST=2 TYP=1
	204	IZMI	44 NS	0700.0E		300.0D		5.0		
	245	SGMR	43 NS	1208.0	1223.0U	130.0	130.0			QL=4 ST=2 TYP=1
	235	CUBA	44 NS	1300.0E		530.0D		9.0		
	280	CUBA	44 NS	1300.0E		530.0D		28.0		
	245	SGMR	43 NS	1531.0	1606.0	61.0	70.0			QL=4 ST=2 TYP=1
	5730	IRKU	1 S	0532.0	0532.8	1.4	3.0		U	
	245	LEAR	8 S	0710.0	0710.0		72.0			QL=4 ST=2 TYP=3
	6700	CUBA	3 S	1302.0U	1302.0	8.0U	22.0			12L
	245	SGMR	4 S/F	2002.0	2008.0	8.0	73.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2108.0	2109.0	2.0	65.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	2109.0	2109.0	1.0	67.0			QL=4 ST=2 TYP=3
12	204	IZMI	44 NS	0700.0E		300.0D		10.0		
	127	TORN	44 NS	0700.0E		480.0D		9.0		V=1
	280	CUBA	44 NS	1400.0E		257.0D		25.0		
	235	CUBA	44 NS	1400.0E		437.0D		13.0		
	245	SGMR	43 NS	1418.0	1428.0	50.0	92.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	2016.0	2111.0	79.0	120.0			QL=4 ST=2 TYP=1
	245	LEAR	8 S	0152.0	0152.0	1.0	91.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0152.0	0152.0		87.0			QL=4 ST=2 TYP=3
	2840	PEKG	40 F	0303.0	0319.0	58.0	32.3			
	5730	IRKU	46 C	0306.3	0331.3	159.9	59.0		U	
	4995	PALE	48 C	0315.0	0339.0	38.0	70.0			QL=4 ST=2 TYP=8
	4995	LEAR	4 S/F	0317.0	0318.0	3.0	29.0			QL=4 ST=2 TYP=3
	610	LEAR	8 S	0317.0	0317.0		40.0			QL=4 ST=2 TYP=3
	410	LEAR	48 C	0317.0	0325.0	26.0	3400.0			QL=4 ST=2 TYP=8
	410	PALE	48 C	0317.0	0328.0	26.0	3300.0			QL=4 ST=2 TYP=8
	610	PALE	4 S/F	0317.0	0317.0	46.0	28.0			QL=4 ST=2 TYP=3
	500	HIRA	46 C	0317.0	0325.5	26.0	450.0			0
	2695	PALE	4 S/F	0318.0	0318.0	45.0	31.0			QL=4 ST=2 TYP=3
	1415	PALE	4 S/F	0318.0	0318.0	45.0	28.0			QL=4 ST=2 TYP=3
	610	LEAR	4 S/F	0319.0	0327.0	19.0	450.0			QL=4 ST=2 TYP=3
	245	LEAR	49 GB	0324.0	0335.0	32.0	3900.0			QL=4 ST=2 TYP=6
	200	HIRA	46 C	0324.5	0332.5	26.0	490.0			0
	245	PALE	49 GB	0325.0	0335.0	36.0	3400.0			QL=4 ST=2 TYP=6
	8800	PALE	46 C	0339.0	0342.0	5.0	48.0			QL=4 ST=2 TYP=8
	2840	PEKG	5 S	0401.0	0430.5	45.0	61.1			
	200	HIRA	5 S	0429.5	0432.5	10.0	60.0			0
	1415	LEAR	4 S/F	0430.0	0433.0	3.0	52.0			QL=4 ST=2 TYP=3
	2800	HIRA	5 S	0430.0	0431.5	6.0	40.0			ML
	500	HIRA	5 S	0430.0	0432.5	10.0	80.0			WL
	2700	PURP	4 S/F	0430.2E	0431.8	5.8D	45.4			
	2695	LEAR	8 S	0431.0	0432.0	2.0	28.0			QL=4 ST=2 TYP=3
	204	IZMI	41 F	0717.9	0718.3	0.4	68.6			
	2950	GORK	3 S	0852.2	0852.6	0.9	10.0			
	2950	GORK	29 PBI	0853.1	0853.1	30.9	4.6			
	2950	GORK	20 GRF	0940.5	1030.4	79.0D	8.7			
	600	GORK	21 GRF	1003.0E	1005.0	2.4D	4.0			
	900	GORK	20 GRF	1003.0E	1006.6	8.0D	4.0			
	2950	GORK	40 F	1004.5	1006.4	4.4	42.9			
	600	GORK	40 F	1005.6	1006.2	1.9	8.0			
	3000	IZMI	7 C	1005.6	1006.6	2.3	56.0			
	600	GORK	41 F	1013.3	1014.7	3.4	16.0			
	9100	GORK	8 S	1016.3	1016.4	0.2	89.3			
	204	IZMI	42 SER	1104.1	1104.2	0.6	28.5			
	245	SGMR	4 S/F	1256.0	1258.0	3.0	73.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1327.0	1327.0		70.0			QL=4 ST=2 TYP=3
	610	SGMR	4 S/F	1334.0	1336.0	5.0	36.0			QL=4 ST=2 TYP=3
	410	SGMR	4 S/F	1334.0	1336.0	5.0	160.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1358.0	1400.0	2.0	130.0			QL=4 ST=2 TYP=3
	4995	SGMR	8 S	1524.0	1524.0		38.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1524.0	1524.0		33.0			QL=4 ST=2 TYP=3
	15400	SGMR	8 S	1524.0	1524.0		30.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	1524.0	1524.0		32.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1656.0	1656.0	1.0	82.0			QL=4 ST=2 TYP=3
	245	PALE	4 S/F	1742.0	1743.0	3.0	72.0			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

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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
12	L	245 SGMR	8 S	1743.0	1745.0	2.0	96.0			QL=2 ST=2 TYP=3
		245 PALE	8 S	1815.0	1816.0	1.0	230.0			QL=4 ST=2 TYP=3
		245 SGMR	8 S	1815.0	1815.0	1.0	82.0			QL=4 ST=2 TYP=3
		2800 PENT	1 S	2202.0	2203.0	1.0	13.0			
		245 LEAR	8 S	2251.0	2251.0	U	93.0			QL=4 ST=2 TYP=3
13	L	245 LEAR	43 NS	0208.0	0540.0	519.0	230.0			QL=4 ST=3 TYP=1
		204 IZMI	44 NS	0700.0E		300.0D		45.0		
		127 TORN	44 NS	0700.0E		480.0D		20.0		V=2
		245 SGMR	43 NS	1205.0	1514.0	299.0	220.0			QL=4 ST=2 TYP=1
		235 CUBA	44 NS	1340.0E		248.0D		20.0		
		280 CUBA	44 NS	1340.0E		308.0D		34.0		
		245 LEAR	8 S	0132.0	0133.0	1.0	240.0			QL=4 ST=2 TYP=3
		2840 PEKG	1 S	0332.0	0335.0	4.0	10.0			
		410 LEAR	8 S	0333.0	0335.0	2.0	91.0			QL=4 ST=2 TYP=3
		245 LEAR	49 GB	0333.0	0335.0	2.0	540.0			QL=4 ST=3 TYP=6
		610 LEAR	8 S	0333.0	0333.0	2.0	17.0			QL=4 ST=2 TYP=3
		5730 IRKU	1 S	0352.5	0353.6	18.5	5.0			U
		5730 IRKU	1 S	0456.6	0457.2	1.4	6.0			U
		410 LEAR	48 C	0831.0	0832.0	1.0	160.0			
		9100 GORK	3 S	0852.2	0852.7	0.7	30.1			QL=4 ST=2 TYP=8
		9100 GORK	29 PBI	0852.9	0852.9	4.4	20.1			
		245 LEAR	49 GB	0903.0	0903.0	U	4700.0			QL=4 ST=3 TYP=6
		410 LEAR	8 S	0903.0	0903.0	U	250.0			QL=4 ST=3 TYP=3
		204 IZMI	45 C	0903.3	0903.5	0.3	1289.0			
		127 TORN	4 S/F	0936.0	0937.3	3.0	280.0		140.0	
		33 UPIC	45 C	1202.0	1202.5	1.5				
		245 SGMR	8 S	1413.0	1413.0	U	110.0			QL=4 ST=2 TYP=3
		410 SGMR	8 S	1413.0	1414.0	1.0	140.0			QL=4 ST=2 TYP=3
		33 UPIC	45 C	1417.0	1417.5	1.5				
		33 UPIC	45 C	1514.5	1515.0	1.7				
		410 SGMR	8 S	1516.0	1516.0	U	71.0			QL=4 ST=2 TYP=3
		245 SGMR	8 S	1516.0	1516.0	U	110.0			QL=4 ST=2 TYP=3
		410 SGMR	8 S	1519.0	1519.0	U	26.0			QL=4 ST=2 TYP=3
		245 SGMR	49 GB	1519.0	1519.0	1.0	1100.0			QL=4 ST=2 TYP=6
		2800 PENT	1 S	1609.0	1611.0	6.0	25.0			
		6700 CUBA	21 GRF	1609.0	1626.0	50.0U	17.0			6L RAIN
		8800 SGMR	4 S/F	1610.0	1611.0	3.0	39.0			QL=4 ST=2 TYP=3
2695 SGMR	4 S/F	1610.0	1611.0	3.0	34.0			QL=4 ST=2 TYP=3		
9500 CUBA	2 S/F	1610.1	1611.1	2.7	25.0		12.0			
6700 CUBA	2 S/F	1610.3	1611.1	2.4	43.0		21.0			
4995 SGMR	8 S	1611.0	1611.0	2.0	31.0			20R		
15400 SGMR	8 S	1611.0	1611.0	2.0	18.0			QL=4 ST=2 TYP=3		
2800 PENT	1 S	1707.0	1708.0	2.0	5.0			QL=4 ST=2 TYP=3		
245 PALE	8 S	1917.0	1919.0	2.0	66.0			QL=4 ST=2 TYP=3		
245 SGMR	8 S	1917.0	1917.0	2.0	71.0			QL=4 ST=2 TYP=3		
245 PALE	4 S/F	2042.0	2042.0	7.0	72.0			QL=4 ST=2 TYP=3		
245 SGMR	8 S	2042.0	2042.0	U	72.0			QL=4 ST=2 TYP=3		
14	L	245 LEAR	43 NS	0120.0	0231.0	442.0	210.0			QL=4 ST=2 TYP=1
		204 IZMI	44 NS	0700.0E		300.0D		55.0		
		127 TORN	44 NS	0700.0E		480.0D		60.0		V=2
		33 UPIC	43 NS	1002.5	1205.0	213.5				
		245 SGMR	43 NS	1239.0	1400.0U	612.0	590.0			QL=4 ST=2 TYP=1
		280 CUBA	44 NS	1310.0E		520.0D		108.0		
		235 CUBA	44 NS	1310.0E		520.0D		96.0		
		410 SGMR	43 NS	1323.0	1352.0	107.0	120.0			QL=4 ST=2 TYP=1
		245 PALE	43 NS	1715.0	1719.0	657.0	490.0			QL=4 ST=2 TYP=1
		245 LEAR	43 NS	2238.0	0042.0	717.0	250.0			QL=4 ST=2 TYP=1
		245 LEAR	8 S	0106.0	0107.0	2.0	84.0			QL=4 ST=2 TYP=3
		245 PALE	8 S	0107.0	0107.0	U	79.0			QL=4 ST=2 TYP=3
		245 PALE	8 S	0210.0	0210.0	1.0	79.0			QL=4 ST=2 TYP=3
		2700 PURP	40 F	0234.0	0239.2	6.2	12.3			QL=4 ST=2 TYP=3
		2840 PEKG	1 S	0434.0	0438.0	8.0	10.0			
		5730 IRKU	1 S	0731.8	0732.3	1.2	2.0			U
		204 IZMI	7 C	0802.3	0802.3	0.3	198.7			
		2950 GORK	1 S	0845.8	0846.1	1.2	1.7			
		33 UPIC	4 S/F	0846.0	0846.2	1.0				
245 LEAR	8 S	0956.0	0956.0	U	59.0			QL=4 ST=2 TYP=3		

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m ² Hz)	Mean		
14	600	GORK	28 PRE	1003.0	1047.2	44.2	79.0			
	2950	GORK	28 PRE	1003.0	1033.8	30.8	40.7			
	900	GORK	28 PRE	1006.0	1033.0	27.0	55.0			
	610	LEAR	8 S	1011.0	1011.0	1.0	140.0			QL=4 ST=2 TYP=3
	9100	GORK	28 PRE	1012.0	1035.0	23.0	56.0			
	3000	IZMI	45 C	1015.0	1036.8	55.0U	123.0			
	610	LEAR	4 S/F	1020.0E	1036.0	23.00D	240.0			QL=4 ST=3 TYP=3
	2695	LEAR	4 S/F	1023.0	1023.0	20.0	25.0			QL=4 ST=2 TYP=3
	4995	LEAR	4 S/F	1023.0	1024.0	20.0	26.0			QL=4 ST=2 TYP=3
	245	LEAR	4 S/F	1026.0	1027.0	17.0	45.0			QL=4 ST=3 TYP=3
	1415	LEAR	4 S/F	1028.0	1036.0	15.0	150.0			QL=4 ST=2 TYP=3
	410	LEAR	4 S/F	1030.0	1033.0	13.0	60.0			QL=4 ST=3 TYP=3
	204	IZMI	25 R	1030.1		90.0D		180.0		
	900	GORK	47 GB	1033.0	1058.0	150.0D	15923.0			
	2950	GORK	47 GB	1033.8	1036.7	22.8	142.8			
	8800	LEAR	4 S/F	1034.0	1036.0	9.0	85.0			QL=4 ST=2 TYP=3
	9100	GORK	47 GB	1035.0	1036.4	2.9	122.0			
	9100	GORK	29 PBI	1037.9	1037.9	3.1D	52.7			
	2695	LEAR	4 S/F	1043.0	1045.0	4.0	100.0			QL=4 ST=2 TYP=3
	4995	LEAR	4 S/F	1043.0	1044.0	4.0	110.0			QL=4 ST=2 TYP=3
	1415	LEAR	4 S/F	1043.0	1046.0	4.0	92.0			QL=4 ST=2 TYP=3
	600	GORK	47 GB	1047.2	1223.0E		169.0U			
	600	GORK	47 GB	1047.2	1057.1	13.6D	822.0			
	2950	GORK	30 PBI	1056.6	1056.6	12.6D	34.6			
	245	SGMR	48 C	1200.0	1215.0	720.0	680.0			QL=4 ST=1 TYP=8
	410	SGMR	48 C	1200.0	1215.0	720.0	4800.0			QL=4 ST=1 TYP=8
	245	SGMR	48 C	1203.0	1215.0U	36.0	680.0			QL=4 ST=2 TYP=8
	410	SGMR	48 C	1203.0	1215.0U	36.0	4800.0			QL=4 ST=2 TYP=8
	610	SGMR	48 C	1205.0	1216.0	715.0	6500.0			QL=4 ST=1 TYP=8
	610	SGMR	48 C	1207.0	1216.0	23.0	6500.0			QL=4 ST=2 TYP=8
	1415	SGMR	48 C	1208.0	1215.0	11.0	360.0			QL=4 ST=2 TYP=8
	2950	GORK	3 S	1214.5	1215.4	1.5	15.1			
	2695	SGMR	8 S	1215.0	1215.0	U	38.0			QL=4 ST=2 TYP=3
410	SGMR	4 S/F	1253.0	1254.0	13.0	67.0			QL=4 ST=2 TYP=3	
610	SGMR	4 S/F	1253.0	1254.0	10.0	140.0			QL=4 ST=2 TYP=3	
610	SGMR	4 S/F	1306.0	1309.0	5.0	140.0			QL=4 ST=2 TYP=3	
6700	CUBA	20 GRF	1352.0	1415.0	167.0	35.0	17.0		32R	
2695	SGMR	4 S/F	1408.0	1412.0	18.0	64.0			QL=4 ST=2 TYP=3	
1415	SGMR	20 GRF	1411.0	1417.0	9.0	39.0			QL=4 ST=2 TYP=2	
15	204	IZMI	44 NS	0700.0E		300.0D	40.0			
	127	TORN	44 NS	0700.0E		480.0D	70.0			V=2
	33	UPIC	43 NS	0800.0		386.0				
	235	CUBA	44 NS	1330.0E		500.0D	24.0			
	280	CUBA	44 NS	1330.0E		500.0D	29.0			
	245	PALE	43 NS	2346.0	2357.0	89.0	99.0			QL=4 ST=2 TYP=1
	245	LEAR	43 NS	2346.0	0006.0	656.0	330.0			QL=4 ST=2 TYP=1
	5730	IRKU	1 S	0211.0	0213.0	23.0	10.0		U	
	200	HIRA	8 S	0212.8	0212.9	0.2	320.0			0
	5730	IRKU	45 C	0443.6	0444.7	14.4	14.0		U	
	5730	IRKU	1 S	0505.5	0506.3	1.8	7.0		U	
	2840	PEKG	1 S	0622.0	0636.0	14.0	5.7			
	5730	IRKU	21 GRF	0622.5	0631.5	33.5	6.0		U	
	5730	IRKU	1 S	0715.6	0716.5	5.4	2.0		U	
	5730	IRKU	2 S/F	0723.0	0725.3	6.0	3.0		U	
	5730	IRKU	1 S	0737.0	0738.5	5.0	2.0		U	
	204	IZMI	7 C	0756.6	0756.7	0.3	353.0			
	2840	PEKG	1 S	0824.0	0828.0	8.0	8.7			
	3000	IZMI	21 GRF	0826.6	0827.9	4.0U	14.0			
	5730	IRKU	8 S	0828.0	0828.1	0.2	10.0		U	
	3000	IZMI	7 C	0828.0	0828.1	0.2	35.0			
	204	IZMI	45 C	1117.6	1117.7	0.5	919.0			
	245	SGMR	4 S/F	1252.0	1255.0	3.0	95.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1429.0	1430.0	1.0	29.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1430.0	1430.0	U	87.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1518.0	1518.0	U	110.0			QL=4 ST=2 TYP=3
	6700	CUBA	31 ABS	1610.5	1613.2	8.5	7.0	3.0		OOL
410	SGMR	4 S/F	1618.0	1619.0	5.0	33.0			QL=4 ST=2 TYP=3	
235	CUBA	7 C	1618.8	1619.0	2.4		2649.0			

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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		
15	280	CUBA	7 C	1618.8	1619.0	2.4	5674.0			
	245	SGMR	49 GB	1619.0	1619.0	3.0	15000.0			
	6700	CUBA	2 S/F	1619.0	1619.4	2.6	8.0	4.0		QL=4 ST=2 TYP=6
	9500	CUBA	2 S/F	1619.1	1619.3	3.7	23.0	11.0		00L
	9500	CUBA	1 S	1716.0	1716.2	0.4	40.0	20.0		
	2800	PENT	1 S	1831.0	1833.0	4.0	12.0			
	2800	PENT	40 F	1901.0	1903.0	4.0	8.0			
	245	SGMR	8 S	1942.0	1943.0	1.0	170.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	2023.0	2023.0	1.0	150.0			QL=4 ST=2 TYP=3
	9500	CUBA	1 S	2041.2	2041.6	0.9	18.0	9.0		
	6700	CUBA	1 S	2041.4	2041.8	0.9	22.0	11.0		2R
	245	SGMR	8 S	2103.0	2104.0	2.0	54.0			QL=4 ST=2 TYP=3
	6700	CUBA	21 GRF	2107.0	2137.0	65.0	15.0	7.0		5R
	6700	CUBA	1 S	2131.6	2131.8	0.6	9.0	4.0		44R
	2800	PENT	40 F	2356.0	0002.0	11.0	20.0			
16	410	LEAR	43 NS	0342.0	0350.0	198.0	70.0			QL=4 ST=2 TYP=1
	245	PALE	43 NS	0343.0	0401.0	30.0	180.0			QL=4 ST=2 TYP=1
	410	PALE	43 NS	0343.0	0401.0	30.0	65.0			QL=4 ST=2 TYP=1
	204	IZMI	44 NS	0700.0E		300.00		45.0		
	127	TORN	44 NS	0700.0E		480.00		40.0		V=2
	33	UPIC	43 NS	0910.5	0911.0	370.0				
	245	SGMR	43 NS	1255.0	1912.0	517.0	620.0			QL=4 ST=2 TYP=1
	280	CUBA	44 NS	1300.0E		530.00		76.0		
	235	CUBA	44 NS	1330.0E		500.00		47.0		
	245	PALE	43 NS	1719.0	1920.0	654.0	400.0			QL=2 ST=2 TYP=1
	410	PALE	43 NS	2149.0	2151.0	28.0	65.0			QL=4 ST=2 TYP=1
	245	LEAR	43 NS	2243.0	0444.0	715.0	660.0			QL=4 ST=2 TYP=1
	410	PALE	43 NS	2335.0	2339.0	178.0	110.0			QL=2 ST=2 TYP=1
	4995	PALE	4 S/F	0000.0	0001.0	4.0	110.0			QL=4 ST=2 TYP=3
	8800	PALE	4 S/F	0000.0	0001.0	5.0	210.0			QL=4 ST=2 TYP=3
	15400	LEAR	8 S	0001.0	0001.0	U	91.0			QL=4 ST=2 TYP=3
	15400	PALE	8 S	0001.0	0001.0	1.0	120.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0027.0	0027.0	U	50.0			QL=4 ST=2 TYP=3
	2840	PEKG	45 C	0201.0	0206.7	14.0	49.5			
	2700	PURP	3 S	0213.4	0216.8	11.6	46.8			
	5730	IRKU	46 C	0215.7	0216.6	17.3	82.0		U	
	2840	PEKG	47 GB	0235.0	0256.3	161.0	584.0			
	2700	PURP	47 GB	0245.0	0256.4	32.4	770.4			
	5730	IRKU	49 GB	0248.0	0256.5	372.0U	2032.0		U	
	410	LEAR	4 S/F	0252.0	0255.0	50.0	340.0			QL=4 ST=2 TYP=3
	1415	LEAR	49 GB	0252.0	0328.0	50.0	1700.0			QL=4 ST=2 TYP=6
	2695	LEAR	49 GB	0252.0	0256.0	50.0	560.0			QL=4 ST=2 TYP=6
	610	LEAR	4 S/F	0252.0	0255.0	50.0	200.0			QL=4 ST=2 TYP=3
	4995	LEAR	49 GB	0252.0	0256.0	50.0	1000.0			QL=4 ST=2 TYP=6
	8800	LEAR	49 GB	0253.0	0258.0	49.0	560.0			QL=4 ST=2 TYP=6
	15400	LEAR	4 S/F	0254.0	0258.0	48.0	330.0			QL=4 ST=2 TYP=3
	245	LEAR	49 GB	0255.0	0257.0	47.0	710.0			QL=4 ST=2 TYP=6
	2700	PURP	30 PBI	0317.4		61.6				
	610	LEAR	8 S	0406.0	0406.0	U	53.0			QL=4 ST=2 TYP=3
	2840	PEKG	3 S	0616.0	0630.0	21.0	9.2			
	33	UPIC	45 C	0739.0	0739.5	1.5				
	900	GORK	3 S	0739.0	0739.7	2.0	29.0			
	600	GORK	42 SER	0739.0	0739.9	8.3	11.0			
	3000	IZMI	5 S	0739.8	0740.3	1.4	9.0			
	204	IZMI	42 SER	0909.4	0910.6	2.2	608.0			
	33	UPIC	46 C	0910.5	0911.0	3.7				
	204	IZMI	41 F	1033.1	1033.5	0.7	579.0			
	204	IZMI	42 SER	1115.8	1116.0	0.8	183.0			
	3000	IZMI	5 S	1141.9	1143.5	2.3	7.0			
	204	IZMI	42 SER	1147.2	1148.3	1.3	237.0			
245	SGMR	8 S	1231.0	1231.0	1.0	120.0			QL=4 ST=2 TYP=3	
245	SGMR	4 S/F	1237.0	1239.0	5.0	280.0			QL=4 ST=2 TYP=3	
410	SGMR	8 S	1239.0	1239.0	U	120.0			QL=4 ST=2 TYP=3	
245	SGMR	4 S/F	1250.0	1251.0	3.0	160.0			QL=4 ST=2 TYP=3	
410	SGMR	8 S	1318.0	1319.0	2.0	490.0			QL=4 ST=2 TYP=3	
245	SGMR	49 GB	1318.0	1318.0	2.0	6400.0			QL=4 ST=2 TYP=6	
245	SGMR	49 GB	1351.0	1351.0	1.0	1700.0			QL=4 ST=2 TYP=6	
245	SGMR	8 S	1423.0	1423.0	U	300.0			QL=4 ST=2 TYP=3	

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FEBRUARY 1999

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
16	410	SGMR	8 S	1423.0	1423.0	U	60.0			QL=4 ST=2 TYP=3	
	245	SGMR	49 GB	1458.0	1459.0	2.0	7000.0			QL=4 ST=2 TYP=6	
	610	SGMR	8 S	1459.0	1500.0	2.0	200.0			QL=4 ST=2 TYP=3	
	410	SGMR	8 S	1459.0	1459.0	2.0	230.0			QL=4 ST=2 TYP=3	
	410	SGMR	8 S	1502.0	1502.0	2.0	230.0			QL=4 ST=2 TYP=3	
	610	SGMR	8 S	1502.0	1502.0	2.0	72.0			QL=4 ST=2 TYP=3	
	245	SGMR	49 GB	1518.0	1519.0	2.0	910.0			QL=4 ST=2 TYP=6	
	245	SGMR	49 GB	1608.0	1608.0	U	730.0			QL=4 ST=2 TYP=6	
	410	SGMR	8 S	1609.0	1609.0	1.0	90.0			QL=4 ST=2 TYP=3	
	245	SGMR	49 GB	1615.0	1616.0	1.0	660.0			QL=4 ST=2 TYP=6	
	245	SGMR	49 GB	1713.0	1713.0	2.0	1300.0			QL=4 ST=2 TYP=6	
	9500	CUBA	23 GRF	1734.0	1744.0	70.0U	17.0				
	610	SGMR	4 S/F	1817.0	1820.0	4.0	190.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1818.0	1818.0	1.0	450.0				QL=4 ST=2 TYP=3
	410	PALE	8 S	1819.0	1820.0	1.0	150.0				QL=4 ST=2 TYP=3
	245	PALE	8 S	1819.0	1820.0	1.0	190.0				QL=4 ST=2 TYP=3
	610	PALE	8 S	1819.0	1820.0	1.0	170.0				QL=4 ST=2 TYP=3
	410	SGMR	8 S	1820.0	1820.0	1.0	130.0				QL=4 ST=2 TYP=3
	410	PALE	8 S	1844.0	1844.0	U	28.0				QL=4 ST=2 TYP=3
	245	PALE	49 GB	1844.0	1844.0	1.0	510.0				QL=4 ST=2 TYP=6
	245	SGMR	49 GB	1844.0	1844.0	2.0	720.0				QL=4 ST=2 TYP=6
	9500	CUBA	1 S	1911.9	1912.1	0.9	13.0	6.0			
	245	SGMR	49 GB	1931.0	1932.0	1.0	890.0				QL=4 ST=2 TYP=6
	410	PALE	49 GB	2118.0	2119.0	3.0	2500.0				QL=4 ST=2 TYP=6
	610	PALE	8 S	2119.0	2119.0	2.0	320.0				QL=4 ST=2 TYP=3
	1415	PALE	8 S	2119.0	2120.0	2.0	170.0				QL=4 ST=2 TYP=3
	245	PALE	49 GB	2119.0	2119.0	1.0	15000.0				QL=4 ST=2 TYP=6
	610	SGMR	8 S	2119.0	2119.0	2.0	150.0				QL=4 ST=2 TYP=3
	410	SGMR	49 GB	2119.0	2119.0	2.0	2200.0				QL=4 ST=2 TYP=6
	245	SGMR	49 GB	2119.0	2119.0	2.0	15000.0				QL=4 ST=2 TYP=6
	2800	PENT	4 S/F	2119.0	2120.0	13.0U	78.0				
	9500	CUBA	2 S/F	2119.2	2120.4	2.6	55.0	27.0			
	6700	CUBA	2 S/F	2119.4	2120.4	2.6	65.0	32.0			14L
	8800	PALE	8 S	2120.0	2120.0	U	68.0				QL=4 ST=2 TYP=3
2695	PALE	8 S	2120.0	2120.0	1.0	65.0				QL=4 ST=2 TYP=3	
4995	PALE	8 S	2120.0	2120.0	U	73.0				QL=4 ST=2 TYP=3	
1415	SGMR	8 S	2120.0	2120.0	1.0	150.0				QL=4 ST=2 TYP=3	
2695	SGMR	8 S	2120.0	2120.0	1.0	79.0				QL=4 ST=2 TYP=3	
2800	PENT	1 S	2321.0	2322.0	2.0	13.0					
8800	PALE	8 S	2322.0	2322.0	U	95.0				QL=4 ST=2 TYP=3	
245	PALE	49 GB	2322.0	2322.0	U	2400.0				QL=2 ST=2 TYP=6	
610	PALE	8 S	2322.0	2322.0	U	40.0				QL=4 ST=2 TYP=3	
4995	PALE	8 S	2322.0	2322.0	U	57.0				QL=4 ST=2 TYP=3	
410	PALE	8 S	2322.0	2322.0	1.0	97.0				QL=2 ST=2 TYP=3	
500	HIRA	8 S	2322.0	2322.2	0.8	40.0				WR	
200	HIRA	47 GB	2322.0	2322.2	1.0	850.0				0	
410	PALE	8 S	2331.0	2332.0	1.0	64.0				QL=2 ST=2 TYP=3	
17	410	PALE	43 NS	0041.0	0045.0	1399.0	160.0			QL=2 ST=1 TYP=1	
	410	LEAR	43 NS	0525.0	0608.0	222.0	140.0			QL=4 ST=2 TYP=1	
	204	IZMI	44 NS	0700.0E		300.0U		65.0			
	127	TORN	43 NS	0900.0		300.0		6.0		V=1	
	245	SGMR	43 NS	1159.0	1720.0U	721.0	1800.0			QL=4 ST=3 TYP=1	
	410	SGMR	43 NS	1240.0	1245.0	27.0	110.0			QL=4 ST=2 TYP=1	
	280	CUBA	44 NS	1300.0E		530.0U		75.0			
	235	CUBA	44 NS	1300.0E		530.0U		36.0			
	410	SGMR	43 NS	1450.0	1621.0	183.0	190.0				QL=4 ST=2 TYP=1
	245	PALE	43 NS	1718.0	1720.0	656.0	1300.0				QL=2 ST=2 TYP=1
	245	LEAR	43 NS	2242.0	0532.0	715.0	610.0				QL=4 ST=2 TYP=1
	2840	PEKG	3 S	0054.0	0059.2	10.0	35.7				
	410	PALE	49 GB	0057.0	0058.0	2.0	550.0				QL=2 ST=2 TYP=6
	200	HIRA	47 GB	0057.8	0058.0	2.2	500.0				0
	1415	PALE	8 S	0058.0	0059.0	2.0	91.0				QL=4 ST=2 TYP=3
	610	PALE	8 S	0058.0	0059.0	2.0	340.0				QL=4 ST=2 TYP=3
	4995	PALE	8 S	0058.0	0059.0	1.0	40.0				QL=4 ST=2 TYP=3
	500	HIRA	4 S/F	0058.8	0059.0	2.0	310.0				ML
245	PALE	49 GB	0059.0	0059.0	1.0	1400.0				QL=2 ST=2 TYP=6	
2695	PALE	8 S	0059.0	0059.0	U	36.0				QL=4 ST=2 TYP=3	
2800	HIRA	3 S	0059.2	0059.4	1.6	30.0				WR	

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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			
17	245	PALE	49 GB	0111.0	0111.0		2000.0			QL=2 ST=2 TYP=6	
	410	LEAR	8 S	0431.0	0432.0	1.0	130.0			QL=4 ST=2 TYP=3	
	410	LEAR	49 GB	0608.0	0608.0	1.0	940.0			QL=4 ST=2 TYP=6	
	245	LEAR	49 GB	0617.0	0617.0		4800.0			QL=4 ST=2 TYP=6	
	245	LEAR	49 GB	0624.0	0624.0	1.0	750.0			QL=4 ST=2 TYP=6	
	245	LEAR	49 GB	0637.0	0637.0	1.0	1300.0			QL=4 ST=2 TYP=6	
	245	LEAR	49 GB	0650.0	0650.0	1.0	760.0			QL=4 ST=2 TYP=6	
	245	LEAR	49 GB	0718.0	0718.0	1.0	1100.0			QL=4 ST=2 TYP=6	
	245	LEAR	49 GB	0758.0	0758.0		1400.0			QL=4 ST=2 TYP=6	
	204	IZMI	7 C	0801.2	0801.7	0.7	122.0				
	5730	IRKU	1 S	0823.5	0824.1	5.5	5.0		U		
	2950	GORK	1 S	0824.1	0824.2	0.3	2.5				
	204	IZMI	7 C	0836.6	0836.7	0.2	124.0				
	204	IZMI	41 F	0848.5	0848.8	0.5	271.0				
	245	LEAR	49 GB	0855.0	0855.0	1.0	980.0				QL=4 ST=2 TYP=6
	204	IZMI	45 C	0859.4	0859.9	0.6	472.0				
	33	UPIC	4 S/F	0859.5	0900.0	1.0					
	2950	GORK	42 SER	0951.2	0955.1	4.1	4.7				
	600	GORK	42 SER	0952.0	0952.3	4.0	22.0				
	2950	GORK	1 S	1019.6	1020.0	1.4	5.4				
	204	IZMI	41 F	1158.6	1159.0	1.0	257.0				
	410	SGMR	8 S	1418.0	1419.0	1.0	79.0				QL=4 ST=2 TYP=3
	9500	CUBA	1 S	1520.0	1520.4	1.3	12.0	6.0			
	6700	CUBA	1 S	1520.0	1520.5	1.4	9.0	4.0			13R
	410	SGMR	49 GB	1526.0	1526.0		1600.0				QL=4 ST=2 TYP=6
	9500	CUBA	1 S	1526.0	1526.6	1.7	19.0	9.0			
	6700	CUBA	1 S	1526.2	1526.4	1.4	17.0	8.0			22R
	6700	CUBA	21 GRF	1621.0	1640.0	64.0	10.0	5.0			00L
	2800	PENT	40 F	1623.0	1630.0	15.0	8.0				
	410	SGMR	8 S	1630.0	1630.0		250.0				QL=4 ST=2 TYP=3
	15400	SGMR	8 S	1630.0	1630.0		45.0				QL=4 ST=2 TYP=3
	245	SGMR	49 GB	1630.0	1630.0		1200.0				QL=4 ST=2 TYP=6
	610	SGMR	8 S	1630.0	1631.0	2.0	73.0				QL=4 ST=2 TYP=3
	9500	CUBA	2 S/F	1630.0	1630.2	1.0	36.0	18.0			
	6700	CUBA	2 S/F	1630.1	1630.3	1.0	21.0	10.0			6R
	410	PALE	8 S	1732.0	1733.0	1.0	90.0				QL=2 ST=2 TYP=3
	6700	CUBA	23 GRF	1736.0	1822.0	75.0	12.0	6.0			00L
	410	PALE	8 S	1751.0	1751.0	2.0	97.0				QL=2 ST=2 TYP=3
	6700	CUBA	20 GRF	2019.0	2026.0	24.0	12.0	6.0			15R
	2800	PENT	3 S	2111.0	2123.0	21.0	6.0				
245	SGMR	49 GB	2115.0	2116.0	3.0	1900.0				QL=4 ST=2 TYP=6	
245	PALE	49 GB	2123.0	2123.0	1.0	2800.0				QL=2 ST=3 TYP=6	
245	SGMR	49 GB	2123.0	2123.0	1.0	2700.0				QL=4 ST=2 TYP=6	
245	SGMR	49 GB	2126.0	2126.0	1.0	2000.0				QL=4 ST=2 TYP=6	
410	PALE	8 S	2143.0	2143.0	1.0	250.0				QL=2 ST=2 TYP=3	
245	LEAR	49 GB	2332.0	2332.0	1.0	870.0				QL=4 ST=2 TYP=6	
410	LEAR	8 S	2348.0	2348.0	2.0	100.0				QL=4 ST=2 TYP=3	
18	410	PALE	43 NS	0041.0	0045.0	154.0	160.0			QL=2 ST=2 TYP=1	
	204	IZMI	44 NS	0700.0E		300.0		20.0			
	245	SGMR	43 NS	1157.0	1524.0	493.0	740.0			QL=4 ST=2 TYP=1	
	235	CUBA	44 NS	1300.0E		530.0		28.0			
	280	CUBA	44 NS	1300.0E		530.0		46.0			
	245	PALE	43 NS	1717.0	1729.0	90.0	820.0				QL=2 ST=2 TYP=1
	245	PALE	43 NS	1908.0	1927.0	197.0	220.0				QL=2 ST=2 TYP=1
	610	PALE	8 S	0031.0	0032.0	1.0	81.0				QL=4 ST=2 TYP=3
	610	LEAR	8 S	0032.0	0032.0		97.0				QL=4 ST=2 TYP=3
	410	PALE	8 S	0032.0	0032.0		33.0				QL=2 ST=2 TYP=3
	245	LEAR	49 GB	0110.0	0110.0	1.0	1400.0				QL=4 ST=2 TYP=6
	410	LEAR	8 S	0112.0	0112.0		93.0				QL=4 ST=2 TYP=3
	5730	IRKU	1 S	0247.5	0247.7	2.3	5.0		U		
	245	LEAR	48 C	0314.0	0316.0	3.0	1300.0				QL=4 ST=2 TYP=8
	2840	PEKG	5 S	0316.0	0331.0	23.0	10.4				
	5730	IRKU	45 C	0316.8	0331.4	27.9	24.0		U		
	1415	PALE	8 S	0329.0	0330.0	1.0	110.0				QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0330.0	0330.0		93.0				QL=4 ST=2 TYP=3
	245	LEAR	49 GB	0336.0	0336.0	1.0	820.0				QL=4 ST=2 TYP=6
	5730	IRKU	2 S/F	0452.2	0453.6	3.8	2.0		U		
5730	IRKU	2 S/F	0456.6	0459.6	4.9	8.0		U			

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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
18	245	LEAR	49 GB	0514.0	0514.0	1.0	1600.0			QL=4 ST=2 TYP=6
	5730	IRKU	3 S	0514.0	0517.4	11.0	10.0		U	
	245	LEAR	49 GB	0543.0	0544.0	1.0	1200.0			QL=4 ST=2 TYP=6
	245	LEAR	49 GB	0549.0	0549.0	2.0	1600.0			QL=4 ST=3 TYP=6
	245	LEAR	49 GB	0603.0	0603.0	1.0	1300.0			QL=4 ST=3 TYP=6
	245	LEAR	49 GB	0618.0	0618.0	U	650.0			QL=4 ST=2 TYP=6
	204	IZMI	41 F	0716.1	0716.4	0.4	412.0			
	410	LEAR	8 S	0731.0	0731.0	1.0	80.0			QL=4 ST=2 TYP=3
	5730	IRKU	1 S	0736.9	0737.5	1.1	2.0		U	
	33	UPIC	46 C	0805.0	0806.0	2.5				
	2950	GORK	28 PRE	0818.0	0821.3	3.3	2.8			
	2840	PEKG	5 S	0819.0	0820.0	12.0	10.4			
	5730	IRKU	3 S	0821.0	0822.0	21.0	8.0		U	
	600	GORK	4 S/F	0821.0	0821.8	3.2	142.0			
	2950	GORK	4 S/F	0821.3	0822.0	1.1	15.5			
	900	GORK	4 S/F	0821.4	0821.9	3.0	81.0			
	3000	IZMI	5 S	0821.6	0822.1	0.7	9.0			
	2950	GORK	30 PBI	0822.4	0822.4	24.3	6.9			
	204	IZMI	42 SER	0824.9	0825.2	3.2	716.0			
	2950	GORK	1 S	0827.9	0828.3	0.7	3.5			
	3000	IZMI	5 S	0828.2	0828.4	0.3	5.0			
	5730	IRKU	1 S	0848.3	0848.5	1.0	2.0		U	
	204	IZMI	41 F	0914.7	0915.0	0.6	510.0			
	600	GORK	4 S/F	1009.0	1010.0	1.7	146.0			
	900	GORK	4 S/F	1009.3	1010.0	2.9	43.0			
	33	UPIC	46 C	1009.5	1010.5	2.0				
	2950	GORK	42 SER	1009.9	1013.0	3.8	5.3			
	204	IZMI	41 F	1010.1	1010.2	0.2	8.9			
	4995	LEAR	8 S	1025.0	1025.0	U	62.0			QL=4 ST=2 TYP=3
	410	LEAR	49 GB	1025.0	1025.0	U	1100.0			QL=4 ST=2 TYP=6
	2950	GORK	42 SER	1025.0	1025.6	5.4	40.5			
	3000	IZMI	7 C	1025.1	1025.6	1.0	35.0			
	9100	GORK	3 S	1025.3	1025.4	0.5	85.1			
	1415	LEAR	8 S	1028.0	1029.0	2.0	45.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	1028.0	1028.0	U	260.0			QL=4 ST=2 TYP=3
	3000	IZMI	7 C	1028.3	1029.3	2.0	35.0			
	204	IZMI	45 C	1108.5	1109.3	1.0	422.0			
	3000	IZMI	1 S	1113.9	1114.0	0.2	17.0			
	204	IZMI	41 F	1115.5	1115.6	0.5	53.0			
	245	SGMR	49 GB	1215.0	1215.0	2.0	930.0			QL=4 ST=2 TYP=6
	245	SGMR	49 GB	1237.0	1237.0	2.0	530.0			QL=4 ST=2 TYP=6
	410	SGMR	8 S	1237.0	1238.0	2.0	260.0			QL=4 ST=2 TYP=3
	610	SGMR	8 S	1244.0	1244.0	2.0	91.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1244.0	1244.0	2.0	430.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1244.0	1244.0	2.0	55.0			QL=4 ST=2 TYP=3
	1415	SGMR	8 S	1244.0	1245.0	2.0	38.0			QL=4 ST=2 TYP=3
	245	SGMR	49 GB	1312.0	1312.0	1.0	640.0			QL=4 ST=2 TYP=6
	245	SGMR	49 GB	1325.0	1325.0	2.0	660.0			QL=4 ST=2 TYP=6
	245	SGMR	49 GB	1351.0	1351.0	1.0	8100.0			QL=4 ST=2 TYP=6
	9500	CUBA	1 S	1355.4	1356.0	2.0	8.0		4.0	
610	SGMR	4 S/F	1402.0	1404.0	3.0	88.0			QL=4 ST=2 TYP=3	
245	SGMR	4 S/F	1402.0	1404.0	3.0	190.0			QL=4 ST=2 TYP=3	
410	SGMR	4 S/F	1402.0	1403.0	3.0	41.0			QL=4 ST=2 TYP=3	
127	TORN	4 S/F	1407.7	1409.7	3.5	770.0		100.0		
245	SGMR	49 GB	1408.0	1409.0	2.0	1700.0			QL=4 ST=2 TYP=6	
410	SGMR	4 S/F	1408.0	1409.0	3.0	280.0			QL=4 ST=2 TYP=3	
610	SGMR	4 S/F	1408.0	1409.0	3.0	320.0			QL=4 ST=2 TYP=3	
33	UPIC	46 C	1408.5	1409.5	1.7					
245	SGMR	49 GB	1434.0	1434.0	U	14000.0			QL=4 ST=2 TYP=6	
9500	CUBA	1 S	1434.0	1434.5	0.9	16.0		8.0		
6700	CUBA	1 S	1434.1	1434.5	0.9	9.0		4.0	11R	
245	SGMR	49 GB	1514.0	1514.0	U	720.0			QL=4 ST=2 TYP=6	
245	SGMR	49 GB	1522.0	1522.0	1.0	680.0			QL=4 ST=2 TYP=6	
245	SGMR	49 GB	1659.0	1700.0	3.0	830.0			QL=4 ST=2 TYP=6	
610	SGMR	8 S	1700.0	1701.0	2.0	28.0			QL=4 ST=2 TYP=3	
410	SGMR	8 S	1700.0	1700.0	2.0	66.0			QL=4 ST=2 TYP=3	
2800	PENT	1 S	1715.0	1716.0	3.0	3.0				
610	PALE	8 S	1801.0	1801.0	U	81.0			QL=4 ST=2 TYP=3	
2800	PENT	20 GRF	2244.0	2247.0	4.0	5.0				

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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			
18	410	LEAR	8 S	2357.0	2357.0			60.0		QL=4 ST=2 TYP=3	
		245	LEAR	4 S/F	2357.0	2357.0	8.0		420.0		QL=4 ST=2 TYP=3
19	245	PALE	43 NS	0117.0	0239.0	178.0		400.0		QL=2 ST=2 TYP=1	
	204	IZMI	44 NS	0700.0E		300.0D			5.0		
		CUBA	44 NS	1540.0E		240.0D			19.0		
		235	CUBA	44 NS	1540.0E		370.0D		29.0		
	245	PALE	43 NS	2100.0	2213.0	135.0		240.0		QL=2 ST=2 TYP=1	
	245	LEAR	43 NS	2231.0	2247.0	43.0		150.0		QL=4 ST=2 TYP=1	
	204	IZMI	7 C	0741.4	0741.9	0.9		257.0			
	245	LEAR	8 S	0803.0	0803.0		U	340.0		QL=4 ST=2 TYP=3	
	204	IZMI	45 C	0949.8	0950.0	0.3		291.0			
	33	UPIC	45 C	1025.0	1026.0	2.5					
		204	IZMI	7 C	1025.5	1025.8	0.6		18.0		
	204	IZMI	7 C	1031.6	1031.8	0.3		23.0			
	900	GORK	42 SER	1045.0	1047.7	9.0		4.0			
	600	GORK	23 GRF	1045.5	1047.8	8.5		4.0			
	600	GORK	1 S	1052.3	1052.5	0.5		4.0			
	204	IZMI	7 C	1132.3	1132.5	0.4		21.0			
	33	UPIC	46 C	1137.0	1137.5	2.0					
		204	IZMI	7 C	1137.2	1137.6	0.8		22.0		
	33	UPIC	46 C	1434.0	1435.0	3.5					
	245	SGMR	49 GB	1435.0	1440.0	7.0		620.0		QL=4 ST=2 TYP=6	
	6700	CUBA	1 S	1439.6	1440.0	1.0		9.0	4.0		00L
	9500	CUBA	1 S	1440.2	1440.4	0.6		10.0	5.0		
	245	SGMR	8 S	1502.0	1503.0	1.0		66.0		QL=4 ST=2 TYP=3	
	6700	CUBA	21 GRF	1616.0	1645.0	42.0		11.0	5.0		00L
	9500	CUBA	2 S/F	1617.4	1619.1	2.5		11.0	5.0		
	6700	CUBA	2 S/F	1618.2	1619.3	1.8		16.0	8.0		8R
	245	SGMR	4 S/F	1626.0	1627.0	3.0		420.0		QL=4 ST=2 TYP=3	
	410	SGMR	8 S	1818.0	1818.0		U	94.0		QL=4 ST=2 TYP=3	
	245	SGMR	49 GB	1900.0	1900.0		U	860.0		QL=4 ST=2 TYP=6	
	245	PALE	8 S	2038.0	2040.0	2.0		52.0		QL=2 ST=2 TYP=3	
	245	SGMR	8 S	2038.0	2040.0	2.0		94.0		QL=4 ST=2 TYP=3	
	245	SGMR	48 C	2042.0	2046.0	4.0		120.0		QL=4 ST=2 TYP=8	
245	PALE	8 S	2046.0	2046.0		U	110.0		QL=2 ST=2 TYP=3		
245	SGMR	8 S	2046.0	2046.0		U	160.0		QL=4 ST=2 TYP=3		
245	PALE	8 S	2052.0	2053.0	2.0		220.0		QL=2 ST=2 TYP=3		
245	SGMR	4 S/F	2052.0	2053.0	4.0		260.0		QL=4 ST=2 TYP=3		
245	SGMR	8 S	2113.0	2114.0	2.0		200.0		QL=4 ST=2 TYP=3		
6700	CUBA	20 GRF	2115.0	2125.0	42.0		8.0	4.0		00L	
245	SGMR	8 S	2136.0	2136.0	1.0		98.0		QL=4 ST=2 TYP=3		
20	245	PALE	43 NS	0117.0	0126.0	1363.0		310.0		QL=2 ST=1 TYP=1	
	245	LEAR	43 NS	0120.0	0126.0	472.0		410.0		QL=4 ST=2 TYP=1	
	204	IZMI	44 NS	0700.0E		300.0D		40.0			
	245	SGMR	43 NS	1154.0	1252.0U			410.0		QL=4 ST=2 TYP=1	
	280	CUBA	44 NS	1330.0E		500.0D		25.0			
	235	CUBA	44 NS	1330.0E		500.0D		11.0			
	245	SGMR	43 NS	1951.0	1955.0	75.0		270.0		QL=4 ST=2 TYP=1	
	5730	IRKU	45 C	0400.0	0404.5	26.0		40.0	U		
	8800	LEAR	8 S	0404.0	0404.0	1.0		65.0		QL=4 ST=2 TYP=3	
	4995	LEAR	8 S	0404.0	0404.0		U	26.0		QL=4 ST=2 TYP=3	
	245	LEAR	8 S	0404.0	0404.0	1.0		270.0		QL=4 ST=3 TYP=3	
	5730	IRKU	1 S	0555.1	0555.4	0.5		2.0	U		
	5730	IRKU	1 S	0600.5	0600.9	1.0		5.0	U		
	245	LEAR	49 GB	0617.0	0617.0		U	560.0		QL=4 ST=2 TYP=6	
	410	LEAR	4 S/F	0712.0	0713.0	3.0		63.0		QL=4 ST=3 TYP=3	
	245	LEAR	49 GB	0714.0	0714.0	1.0		2200.0		QL=4 ST=2 TYP=6	
	600	GORK	23 GRF	0736.1	0739.2	6.4		7.0			
	900	GORK	20 GRF	0736.7	0739.5	6.5		3.0			
	600	GORK	42 SER	0738.3	0738.5	1.8		12.0			
	5730	IRKU	1 S	0810.0	0810.3	0.6		5.0	U		
	5730	IRKU	4 S/F	0815.0	0816.3	7.0		11.0	U		
	5730	IRKU	1 S	0846.4	0847.2	1.6		4.0	U		
	5730	IRKU	1 S	0849.5	0850.0	2.1		8.0	U		
	33	UPIC	4 S/F	0932.0	0932.5	1.2					
	410	LEAR	8 S	0951.0	0952.0	1.0		160.0		QL=4 ST=3 TYP=3	
	600	GORK	42 SER	0951.3	0954.9	5.1		13.0			

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

FEBRUARY 1999

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean		
20	2950	GORK	42 SER	0951.6	0952.3	4.5	9.5			
	204	IZMI	45 C	0951.7	0952.2	1.4	698.0			
	900	GORK	42 SER	0951.8	0955.0	6.0	5.0			
	245	LEAR	8 S	0952.0	0952.0	U	440.0			QL=4 ST=3 TYP=3
	245	LEAR	8 S	0954.0	0954.0	1.0	380.0			QL=4 ST=2 TYP=3
	204	IZMI	45 C	0954.1	0954.8	1.4	754.0			
	2950	GORK	26 FAL	0956.1	1021.0	36.9	3.2			
	204	IZMI	42 SER	1037.1	1057.4	45.0	536.0			
	245	SGMR	49 GB	1411.0	1411.0	U	1700.0			QL=2 ST=3 TYP=6
	6700	CUBA	46 C	1512.6	1513.6	8.1	55.0	18.0		7R
	9500	CUBA	46 C	1512.8	1513.5	27.0	74.0	24.0		
	410	SGMR	8 S	1513.0	1513.0	U	58.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1513.0	1513.0	U	290.0			QL=2 ST=2 TYP=3
	2695	SGMR	8 S	1513.0	1513.0	U	33.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1513.0	1513.0	2.0	64.0			QL=4 ST=2 TYP=3
	15400	SGMR	8 S	1513.0	1513.0	U	40.0			QL=4 ST=2 TYP=3
	33	UPIC	46 C	1513.0	1513.5	4.0				
	9500	CUBA	29 PBI	1519.8		19.2	8.0	4.0		
	6700	CUBA	29 PBI	1520.7		20.3	8.0	4.0		17R
1415	SGMR	8 S	2015.0	2015.0	1.0	55.0			QL=4 ST=2 TYP=3	
21	245	LEAR	43 NS	0010.0	0011.0	4.0	120.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1551.0	1626.0	188.0	320.0			QL=4 ST=2 TYP=1
	245	SGMR	43 NS	1955.0	2113.0	114.0	14.0			QL=4 ST=2 TYP=1
	245	LEAR	4 S/F	0414.0	0416.0	3.0	140.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0506.0	0507.0	1.0	94.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0514.0	0515.0	2.0	83.0			QL=4 ST=2 TYP=3
	2950	GORK	28 PRE	0939.2	0941.2	2.0	9.3			
	3000	IZMI	22 GRF	0939.8	0946.9	15.5	16.0			
	245	LEAR	4 S/F	0940.0	0940.0	3.0	160.0			QL=4 ST=2 TYP=3
	900	GORK	41 F	0940.3	0942.9	10.3	74.0			
	600	GORK	45 C	0940.5	0942.4	9.0	71.0			
	610	LEAR	8 S	0941.0	0942.0	2.0	32.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0941.0	0942.0	2.0	110.0			QL=4 ST=2 TYP=3
	2950	GORK	45 C	0941.2	0948.7	7.9	22.4			
	33	UPIC	48 C	0942.0	0943.0	7.0				
	410	LEAR	8 S	0945.0	0946.0	2.0	93.0			QL=4 ST=2 TYP=3
	610	LEAR	8 S	0946.0	0946.0	1.0	37.0			QL=4 ST=2 TYP=3
	4995	LEAR	8 S	0946.0	0946.0	2.0	39.0			QL=4 ST=2 TYP=3
	2950	GORK	1 S	0946.7	0946.8	0.2	6.2			
	2950	GORK	30 PBI	0949.1	0949.1	20.7	12.4			
	2950	GORK	1 S	0949.4	0949.9	0.8	3.1			
	600	GORK	29 PBI	0949.5	0949.5	18.3	12.0			
	33	UPIC	46 C	1001.5	1002.0	4.5				
	204	IZMI	42 SER	1044.6	1050.6	18.0	135.0			
	245	SGMR	8 S	1311.0	1311.0	U	44.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1311.0	1311.0	2.0	110.0			QL=4 ST=2 TYP=3
410	SGMR	8 S	1315.0	1315.0	1.0	41.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1315.0	1315.0	1.0	120.0			QL=4 ST=2 TYP=3	
245	SGMR	4 S/F	1353.0	1355.0	3.0	150.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1539.0	1539.0	2.0	61.0			QL=4 ST=2 TYP=3	
245	SGMR	4 S/F	1605.0	1607.0	4.0	370.0			QL=4 ST=2 TYP=3	
245	LEAR	8 S	2245.0	2246.0	1.0	77.0			QL=4 ST=2 TYP=3	
22	280	CUBA	44 NS	1315.0E		515.0D		18.0		
	235	CUBA	44 NS	1315.0E		515.0D		8.0		
	245	LEAR	8 S	0358.0	0359.0	1.0	92.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0417.0	0419.0	2.0	55.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0418.0	0418.0	U	67.0			QL=4 ST=2 TYP=3
	2840	PEKG	1 S	0814.0	0816.0	4.0	4.9			
	2950	GORK	45 C	0815.3	0815.7	1.1	8.9			
	3000	IZMI	7 C	0815.3	0815.7	1.1	11.0			
	2950	GORK	29 PBI	0816.4	0816.4	3.3	3.6			
	33	UPIC	4 S/F	0914.5	0915.0	1.5				
23	235	CUBA	44 NS	1400.0E		470.0D		9.0		
	280	CUBA	44 NS	1400.0E		470.0D		18.0		
	204	IZMI	7 C	1012.9	1013.0	0.2	41.0			
	204	IZMI	42 SER	1016.1	1016.7	1.5	49.0			

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

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Feb 99

FEBRUARY 1999

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22 W/m ² Hz)	Mean		
23	33 UPIC	46 C	1016.5	1017.5	2.5				
	610 SGMR	8 S	1232.0	1233.0	1.0	69.0			QL=4 ST=2 TYP=3
	610 SGMR	8 S	1240.0	1240.0	U	55.0			QL=4 ST=2 TYP=3
	410 SGMR	8 S	1242.0	1242.0	U	38.0			QL=4 ST=2 TYP=3
	33 UPIC	3 S	1311.0	1311.5	1.0				
	33 UPIC	3 S	1403.0	1403.3	0.7				
24	280 CUBA	44 NS	1315.0E		515.0D		17.0		
	235 CUBA	44 NS	1315.0E		515.0D		8.0		
25	235 CUBA	44 NS	1300.0E		513.0D		8.0		
	280 CUBA	44 NS	1300.0E		513.0D		16.0		
	3000 IZMI	1 S	1023.3	1023.7	1.0	6.0			
26	235 CUBA	44 NS	1300.0E		530.0D		7.0		
	280 CUBA	44 NS	1300.0E		530.0D		15.0		
	245 LEAR	8 S	0817.0	0818.0	1.0	110.0			QL=4 ST=2 TYP=3
	204 IZMI	45 C	0817.8	0818.1	1.5	546.0			
	200 HIRA	8 S	0818.2	0818.4	0.6	270.0			WL
	204 IZMI	7 C	0824.6	0824.8	0.5	49.0			
	2800 PENT	20 GRF	1858.0	1907.0	12.0	4.0			
27	280 CUBA	44 NS	1300.0E		530.0D		15.0		
	235 CUBA	44 NS	1300.0E		530.0D		6.0		
	2950 GORK	28 PRE	0837.6	0854.4	16.8	4.2			
	2950 GORK	3 S	0854.4	0854.9	1.0	10.1			
	2950 GORK	29 PBI	0855.4	0855.4	48.7	6.8			
28	235 CUBA	44 NS	1300.0E		530.0D		7.0		
	280 CUBA	44 NS	1300.0E		530.0D		16.0		
	235 CUBA	44 NS	1637.9E	1639.5	78.0D	23.0			
	2800 PENT	40 F	1634.0	1636.0	58.0D	314.0			
	9500 CUBA	46 C	1634.8	1638.1	6.1	159.0	80.0		
	8800 SGMR	49 GB	1635.0	1638.0	6.0	520.0			QL=4 ST=2 TYP=6
	15400 SGMR	4 S/F	1635.0	1637.0	6.0	470.0			QL=4 ST=2 TYP=3
	2695 SGMR	4 S/F	1635.0	1636.0	6.0	310.0			QL=4 ST=2 TYP=3
	4995 SGMR	4 S/F	1635.0	1639.0	6.0	430.0			QL=4 ST=2 TYP=3
	1415 SGMR	4 S/F	1635.0	1638.0	6.0	220.0			QL=4 ST=2 TYP=3
	6700 CUBA	48 C	1635.0	1639.5	7.7	286.0D			OOL COMPLEX POL
	280 CUBA	41 F	1636.0	1639.3	79.0	30.0			
	610 SGMR	4 S/F	1637.0	1638.0	4.0	80.0			QL=4 ST=2 TYP=3
9500 CUBA	29 PBI	1640.9		27.3	58.0	25.0			
6700 CUBA	29 PBI	1642.7		80.3	21.0	10.0		OOL	

Reports are received routinely from the following observatories:

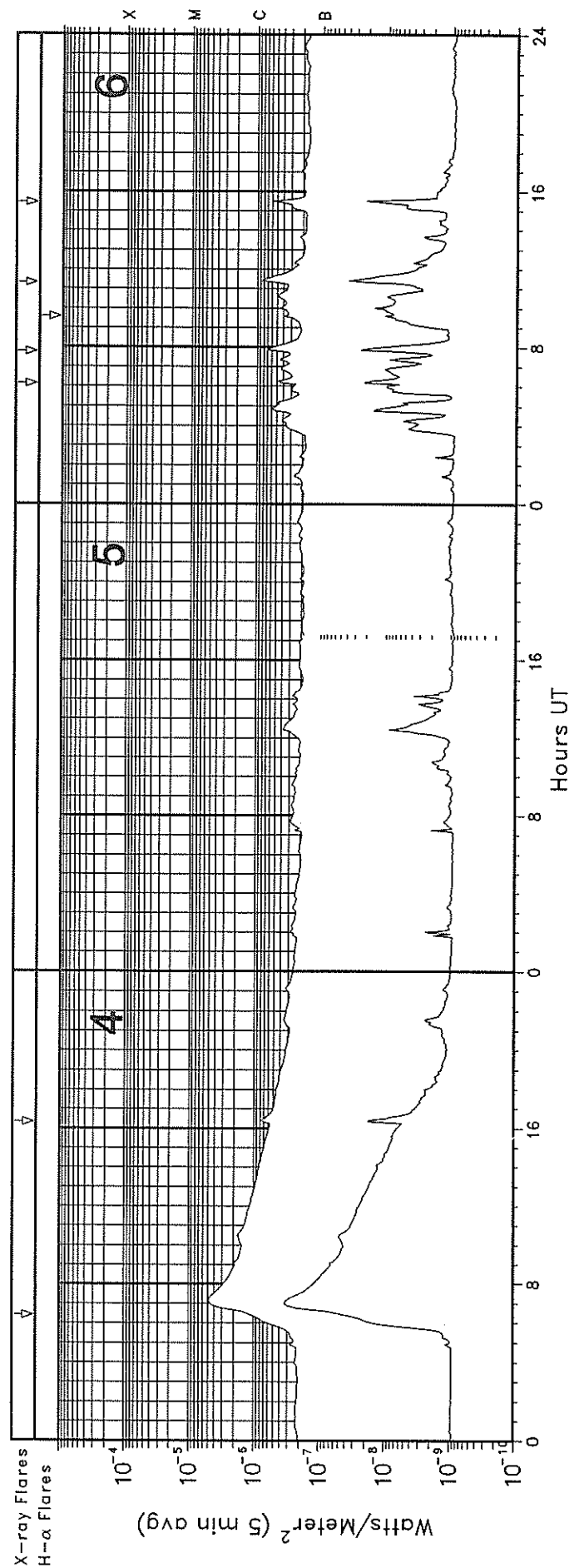
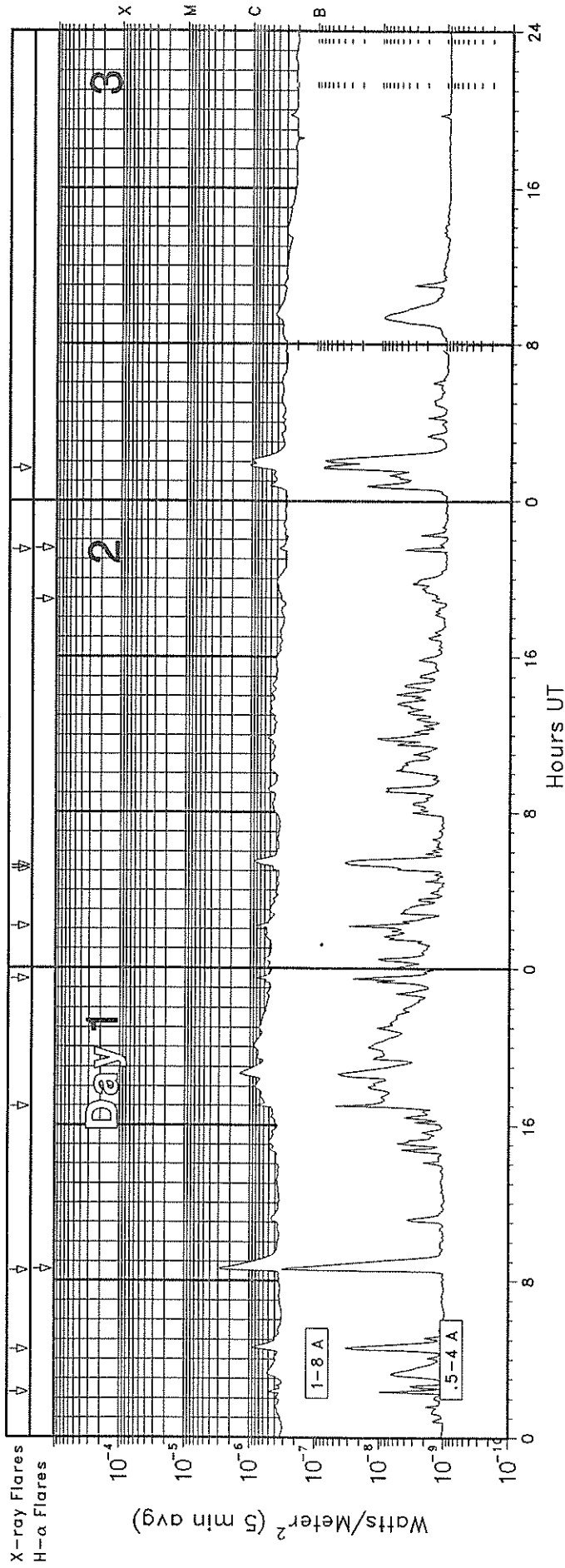
BERN = Berne	HUMN = Humain	ONDR = Ondrejov	SVTO = San Vito
CRIM = Crimea	IZMI = IZMIRAN	PEKG = Peking	TORN = Torun
CUBA = Havana	KISV = Kislovodsk	PALE = Palehua	TRST = Trieste
GORK = Gorky	KRAK = Krakow	PENT = Penticton	TYKW = Toyokawa
HIRA = Hiraïso	LEAR = Learmonth	POTS = Potsdam	UPIC = Upipe
HUAN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

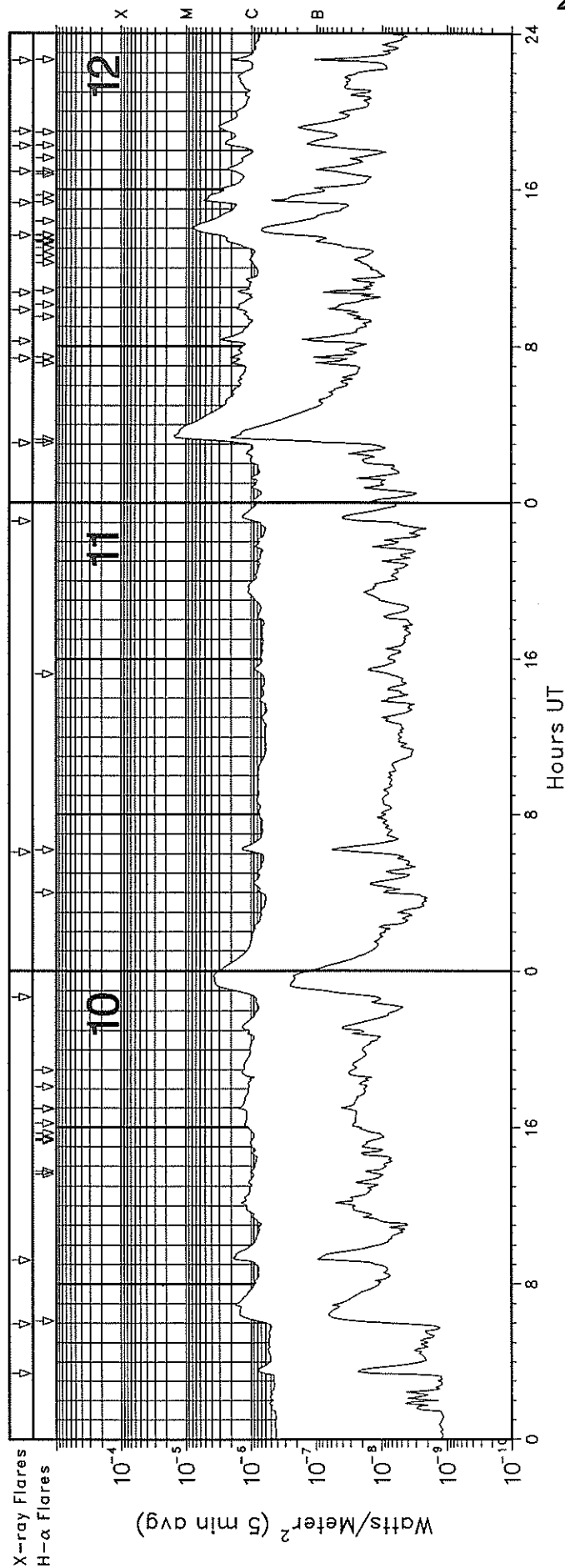
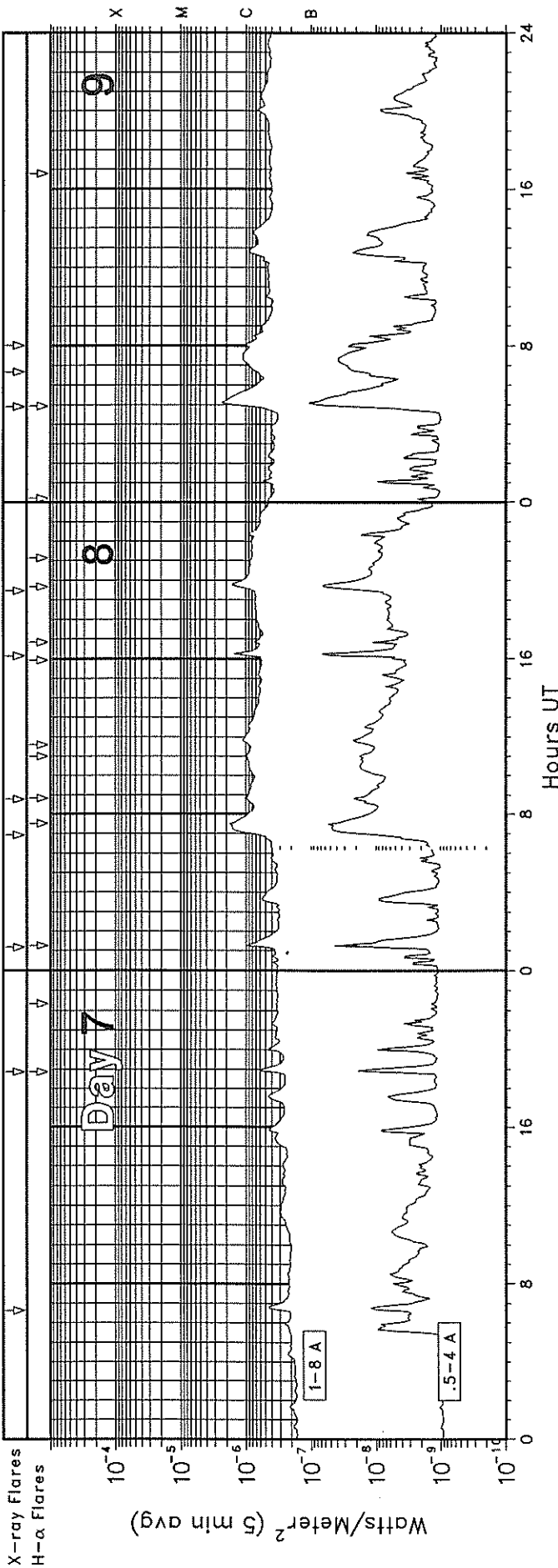
RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; and Hiraïso, Japan 500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

GOES X-RAY DETECTOR February 1999



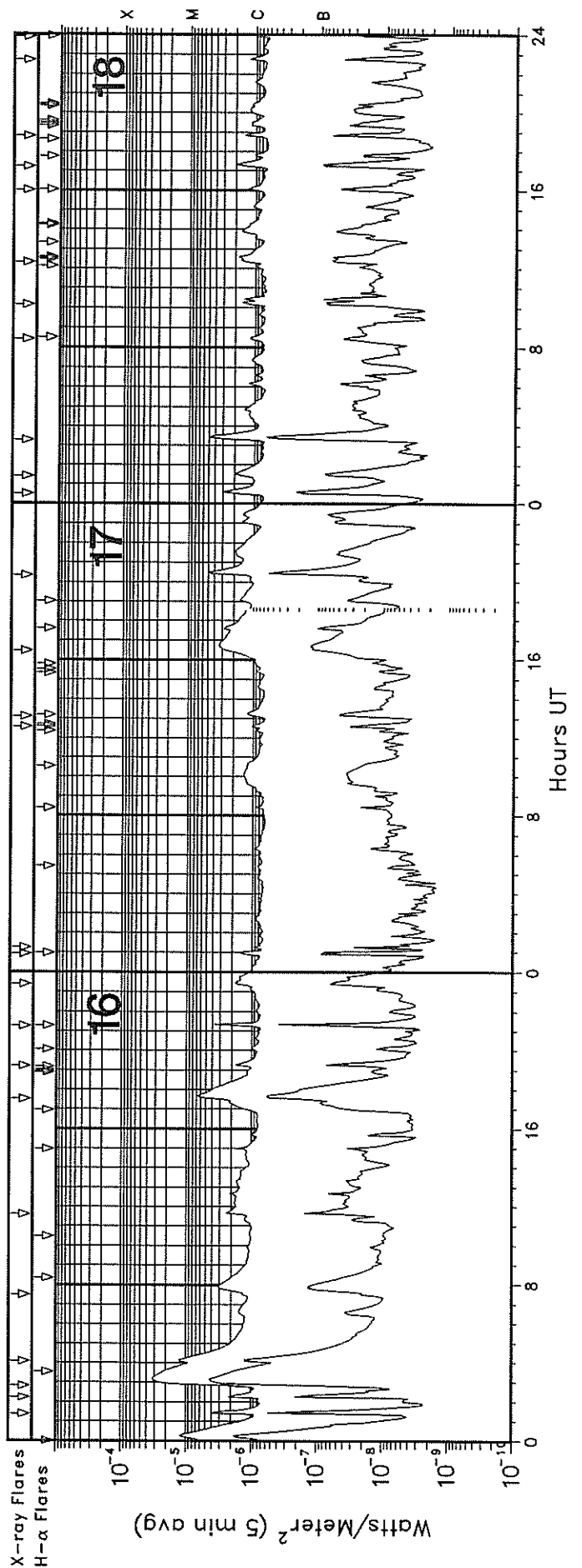
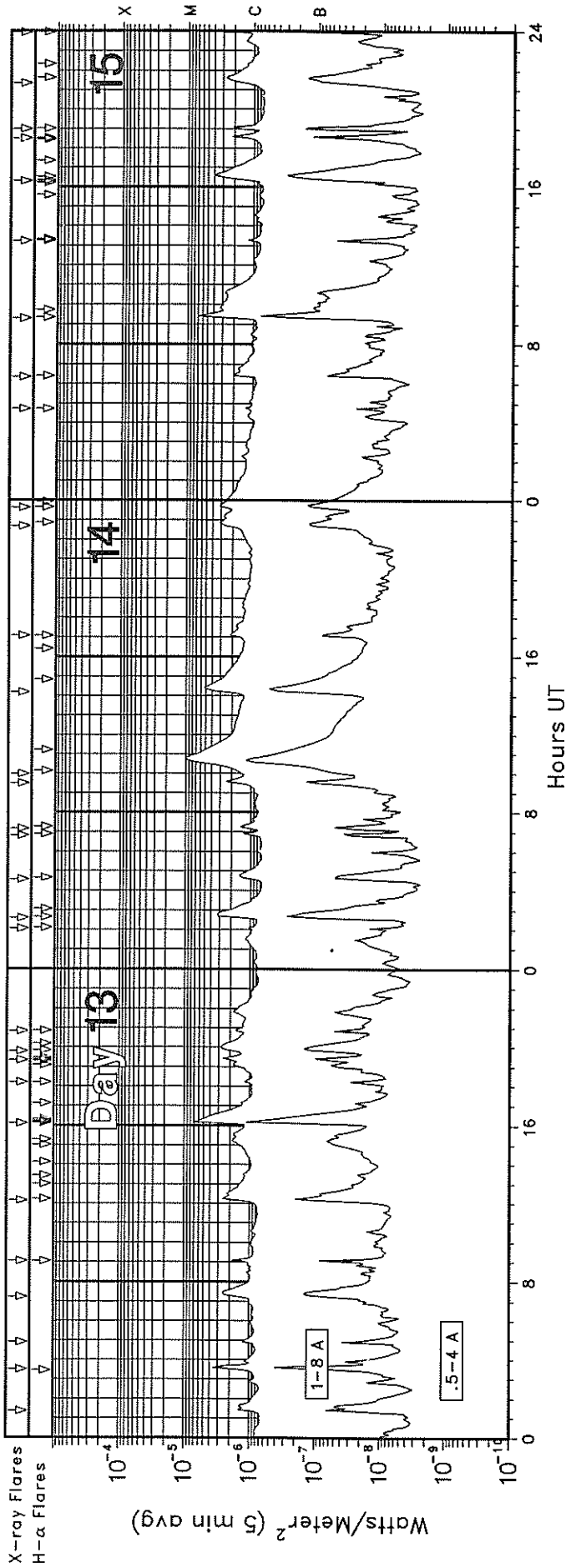
GOES X-RAY DETECTOR

February 1999



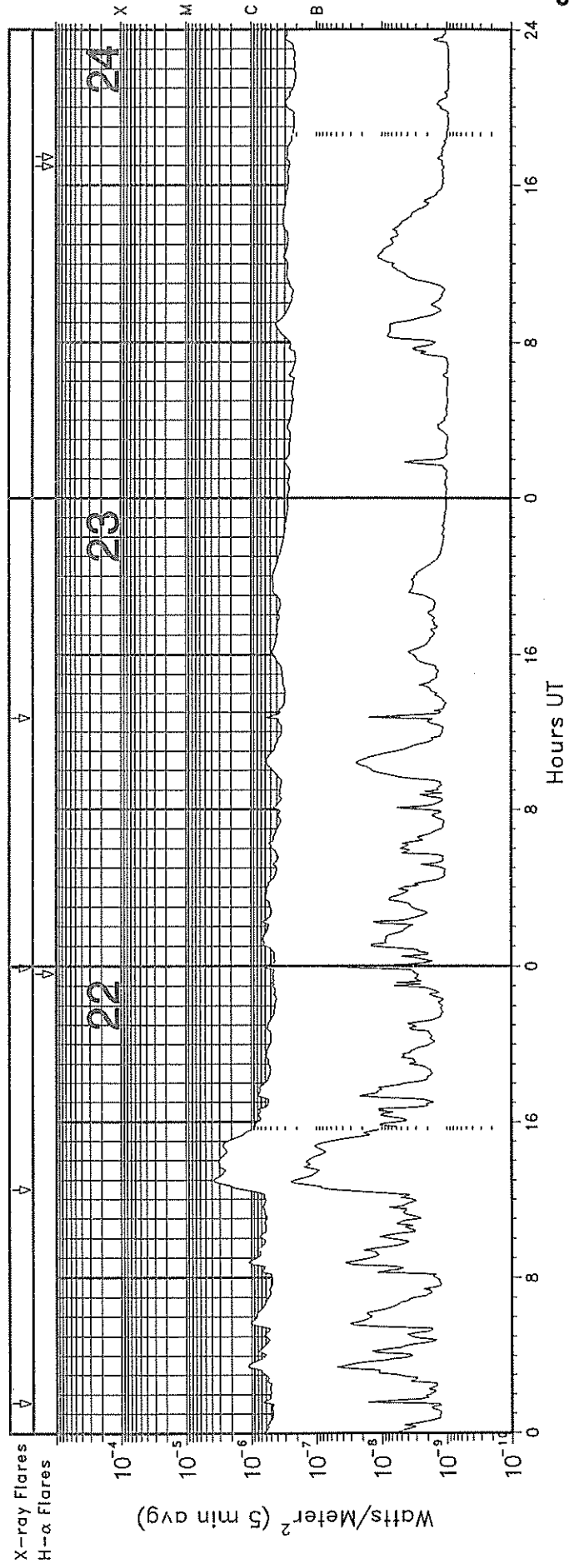
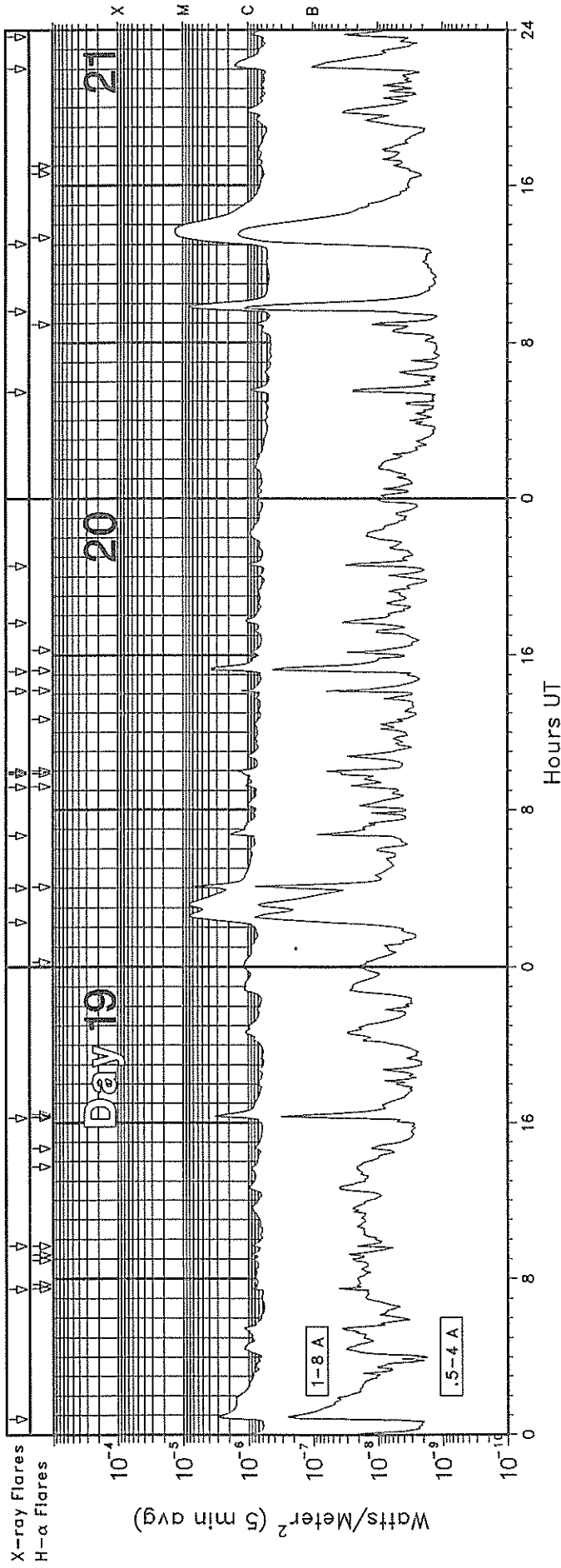
GOES X-RAY DETECTOR

February 1999



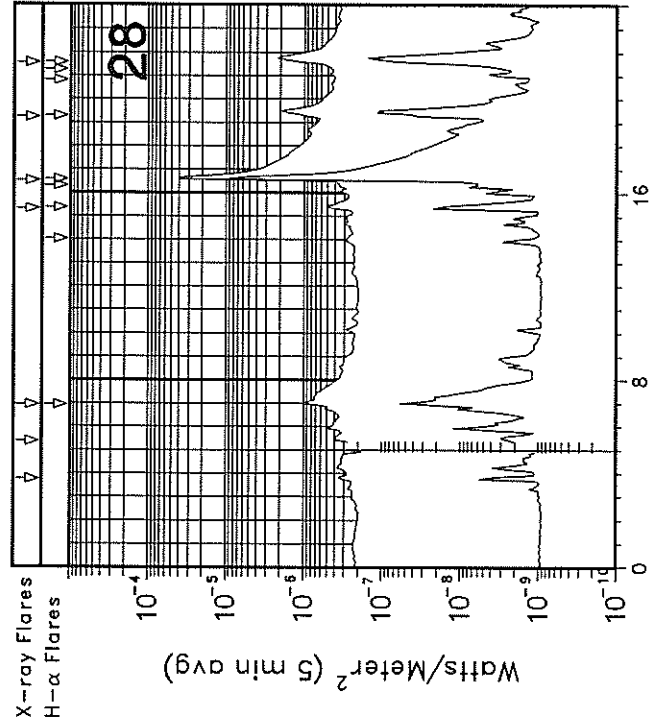
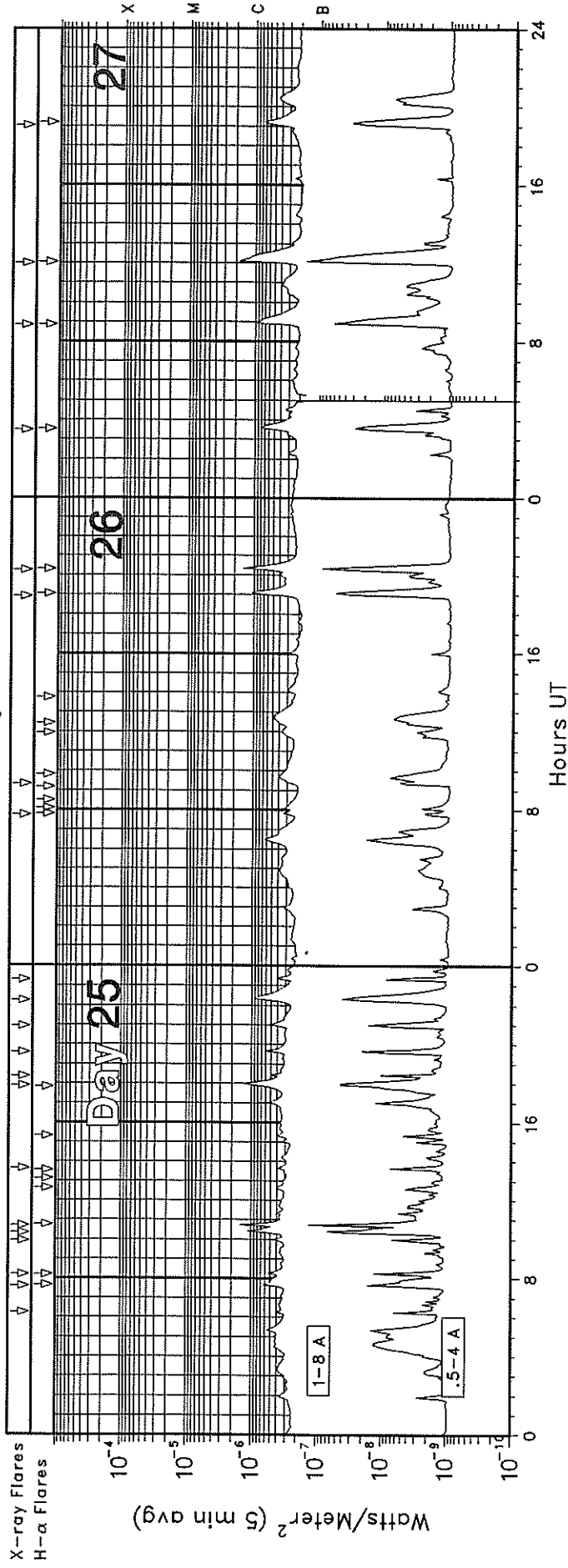
GOES X-RAY DETECTOR

February 1999



GOES X-RAY DETECTOR

February 1999



GOES SOLAR X-RAY FLARES
Preliminary Listing

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Feb 99

February 1999

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/	Flux
								USAF Region	
01	0218	0222	0226				B5.7	2.3E-04	
01	0429	0436	0446				B9.0	7.7E-04	
01	0832	0839	0844	N18	W76	SF	C3.8	8446	1.7E-03
01	1657	1701	1706				B9.4	4.1E-04	
01	2328	2331	2335				B8.5	3.1E-04	
02	0208	0212	0215				B9.8	3.3E-04	
02	0506	0509	0511				B5.5	1.5E-04	
02	0516	0531	0540				B9.2	1.1E-03	
02	2130	2134	2138	S25	E46	SF	B4.3	8453	1.8E-04
03	0139	0152	0159				C1.1	1.1E-03	
04	0624	0706	0758				C5.1	1.9E-02	
04	1620	1623	1627				B9.6	3.3E-04	
06	0609	0614	0621				B5.3	3.2E-04	
06	0746	0755	0805				B6.9	6.7E-04	
06	1120	1127	1138				B8.6	7.8E-04	
06	1527	1531	1534				B6.8	2.3E-04	
07	0637	0649	0659				B4.7	5.0E-04	
07	1851	1859	1905	N21	E18	SF	B6.6	4.5E-04	
08	0111	0117	0126	S27	W19	SF	C1.0	7.3E-04	
08	0655	0731	0804				C1.8	5.3E-03	
08	0846	0851	0916				C1.0	1.7E-03	
08	1609	1616	1621	N22	E60	SF	C1.6	8456	9.0E-04
08	1928	1949	2000	N22	E58	SF	C1.6	8456	2.4E-03
09	0454	0508	0531	S29	W36	SF	C2.3	8453	3.8E-03
09	0640	0728	0800				C1.1	4.6E-03	
09	0801	0805	0809				C1.0	4.9E-04	
10	0325	0339	0347				B7.6	9.2E-04	
10	0557	0658	0726	S27	E63	SF	C1.7	8458	6.8E-03
10	0913	0919	0939				C1.9	2.6E-03	
10	2241	2346	0020				C3.7	1.6E-02	
11	0604	0615	0626	N20	E25	SF	C1.4	8456	1.5E-03
11	2303	2315	2333				C1.3	2.1E-03	
12	0304	0325	0406	N18	E36	1N	M1.5	3.8E-02	
12	0723	0726	0732				C2.1	1.0E-03	
12	0816	0821	0828				C3.0	1.9E-03	
12	0952	0956	1013				C1.7	1.9E-03	
12	1044	1049	1053				C2.0	8.5E-04	
12	1340	1407	1422	N15	E33	SF	C7.7	8457	1.5E-02
12	1520	1527	1548	N12	E27	SF	C5.7	8456	7.4E-03
12	1656	1703	1710	N22	E05	SF	C2.4	8456	1.8E-03
12	1815	1824	1838				C2.5	8457	3.1E-03
12	1859	1914	1924	N17	E27	SF	C3.2	8457	4.2E-03
12	2237	2241	2246	N19	E35	SF	C2.3	8462	9.6E-04
13	0122	0127	0146				C1.5	1.9E-03	
13	0331	0339	0342	N22	W02	SF	C4.5	8456	1.9E-03
13	0454	0458	0501				C1.5	5.2E-04	
13	0714	0729	0740				C2.6	3.4E-03	
13	0904	0907	0909	N21	W04	SF	C2.4	8456	5.4E-04
13	1210	1216	1242	N19	E27	SF	C2.6	8462	4.1E-03
13	1607	1611	1622	N19	E24	SN	C9.4	8456	5.1E-03
13	1812	1816	1820	N20	E25	SF	C1.2	8462	5.4E-04
13	1921	1926	1930	N20	E22	SF	C2.6	8462	1.3E-03
13	1948	2002	2017	N19	E24	SF	C2.7	8462	4.3E-03
13	2050	2053	2058	N20	E24	SF	C1.8	8462	7.9E-04

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/	Flux
								USAF Region	
14	0204	0207	0208	S26	E17	SF	C1.1	8458	2.5E-04
14	0235	0244	0303	N11	E66	SF	C3.4	8462	4.5E-03
14	0435	0447	0458				C1.5	1.8E-03	
14	0650	0655	0657	N21	W15	SF	C1.7	8456	5.1E-04
14	0711	0717	0726				C1.4	1.1E-03	
14	0930	0936	0944				C2.4	1.7E-03	
14	0959	1045	1110	N17	E05	SF	M1.0	8457	2.2E-02
14	1411	1425	1444	S27	E04	SF	C5.3	8458	8.3E-03
14	1704	1708	1713	N17	E10	SF	C2.5	8462	1.1E-03
14	2240	2252	2303	N20	E08	SF	C3.3	8462	3.9E-03
14	2336	2340	2343	S21	E06	SF	C3.4	8458	1.2E-03
15	0444	0446	0447	N17	W05	SF	C1.3	8457	2.3E-04
15	0622	0629	0656	N16	E61	SF	C2.0	3.4E-03	
15	0918	0927	0934	N20	E03	1N	C7.3	8462	4.5E-03
15	1314	1317	1319	N15	W08	SF	C1.7	8457	3.6E-04
15	1618	1638	1655	N20	W02	1F	C4.0	8462	6.1E-03
15	1831	1837	1840				C2.4	8464	9.9E-04
15	1900	1904	1906	N16	W11	1N	C4.2	8457	8.3E-04
15	2121	2140	2151	N21	W01	SF	C2.7	8462	4.0E-03
15	2356	0003	0007	N20	E30	SF	C9.4	8464	3.4E-03
16	0123	0128	0131				C6.1	1.7E-03	
16	0213	0217	0222				C2.8	1.0E-03	
16	0249	0312	0345	S23	W14	SF	M3.2	8458	7.9E-02
16	0404	0408	0414				M1.5	7.5E-03	
16	0730	0753	0822				C3.1	7.2E-03	
16	1136	1144	1147				C2.8	1.4E-03	
16	1731	1742	1755	N20	W14		C6.8	8462	7.6E-03
16	1912	1916	1922	S28	W17	SF	C1.8	8458	9.2E-04
16	2116	2121	2123	N19	W12	1N	C5.3	8462	1.2E-03
16	2325	2329	2333				C1.9	8.6E-04	
17	0056	0059	0101	N18	W15	SF	C3.2	6.0E-04	
17	0115	0119	0121				C1.2	3.3E-04	
17	1234	1238	1240	S21	W33	SF	C1.2	8458	3.6E-04
17	1307	1317	1327	N20	W23	SF	C1.2	8462	1.3E-03
17	1627	1646	1708				C3.4	7.7E-03	
17	2021	2029	2037				C6.0	3.9E-03	
18	0029	0035	0042				C3.4	1.9E-03	
18	0124	0131	0141				C2.0	1.8E-03	
18	0316	0329	0336				C5.1	4.2E-03	
18	0825	0829	0831	N21	W34	SF	C1.4	8462	4.4E-04
18	1009	1014	1018				C2.1	7.6E-04	
18	1219	1236	1241	N20	W34	SF	C2.0	8462	2.1E-03
18	1601	1605	1612	S29	W80	SF	C1.4	8459	7.8E-04
18	1713	1720	1728				C2.0	1.5E-03	
18	1848	1853	1858	S21	W50	SF	C1.6	8458	8.1E-04
18	2242	2247	2252				C1.3	6.7E-04	
18	2353	0005	0007	N20	W11	SF	C1.1	8464	8.0E-04
19	0048	0054	0111				C3.2	8459	3.3E-03
19	0728	0733	0736	N20	W15	SF	C1.0	8464	4.1E-04
19	0940	0943	0946				B9.8	3.1E-04	
19	1615	1623	1628	N21	W52	SF	C3.8	8458	1.9E-03
20	0217	0310	0331				C8.2	2.7E-02	
20	0400	0406	0410	S21	W63	SF	C8.2	3.2E-03	
20	0642	0647	0655				C2.0	1.2E-03	
20	0911	0918	0924	N19	W61	SF	C1.1	8462	7.9E-04
20	0951	0954	0956	N18	W60	SF	C1.7	8462	4.1E-04
20	0958	1001	1004	N20	W61	SF	C1.7	8462	5.2E-04
20	1409	1412	1414	N20	W63	SF	C2.1	3.8E-04	
20	1511	1519	1528	S17	W71	SF	C4.2	8458	3.0E-03

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Feb 99

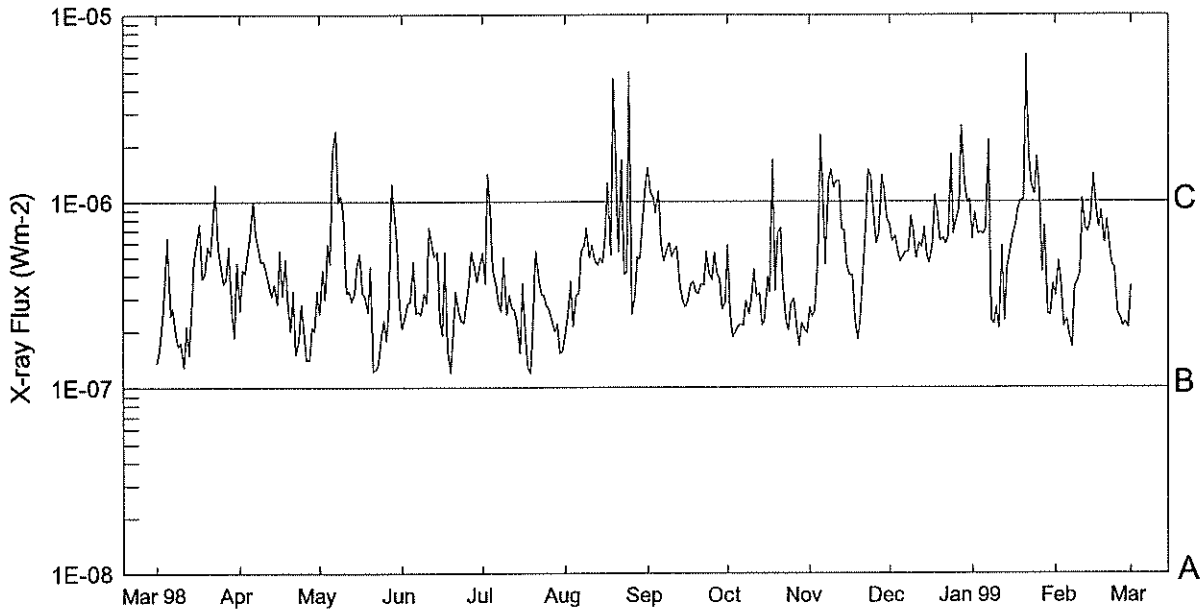
GOES SOLAR X-RAY FLARES
Preliminary Listing

February 1999

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
20	1739	1742	1754				C1.0	9.2E-04	
20	2034	2040	2045				C1.0	6.0E-04	
21	0528	0536	0543				B9.1	7.1E-04	
21	0938	0950	1001				C8.6	7.8E-03	
21	1303	1345	1408	N24	W81	SF	M1.3	8462	3.8E-02
21	2202	2210	2230				C1.6	2.3E-03	
21	2341	2347	2356				B9.0	7.2E-04	
22	0134	0138	0143				B7.4	3.5E-04	
22	1230	1301	1425				C3.8	1.9E-02	
22	2355	2359	0003				B7.8	3.2E-04	
23	1243	1246	1250				B6.1	2.3E-04	
25	0614	0617	0619				B4.8	1.2E-04	
25	0736	0741	0750				B6.7	4.6E-04	
25	0812	0816	0819				B5.9	2.1E-04	
25	0957	1000	1003				B4.8	1.5E-04	
25	1020	1027	1032				C1.1	6.5E-04	
25	1043	1048	1050				C2.4	5.2E-04	
25	1339	1342	1345				B4.2	1.4E-04	
25	1753	1800	1806	S24	E36	SF	C1.2	8.2E-04	

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
25	1823	1826	1828				B5.5		1.5E-04
25	1936	1940	1945				B6.7		2.8E-04
25	2056	2101	2103				B6.5		2.1E-04
25	2215	2223	2234				B9.1		8.8E-04
25	2318	2324	2328				B4.8		2.3E-04
26	0746	0750	0756	S22	E29	SF	B3.6	8470	1.9E-04
26	0921	0943	1045				B3.9		1.6E-03
26	1856	1909	1915	N30	E18	SF	C1.1	8471	9.2E-04
26	2015	2021	2027	N30	E19	SF	C1.5	8471	7.9E-04
27	0329	0337	0349				B7.8		7.7E-04
27	0851	0857	0917	N30	E09	SF	C1.0	8471	1.2E-03
27	1200	1208	1218	N27	E09	SF	C2.1		1.4E-03
27	1902	1914	1920	N28	E04	SF	B8.5	8471	6.5E-04
28	0346	0349	0352				B4.0		1.3E-04
28	0522	0555	0628				B5.4		1.5E-03
28	0657	0702	0707	N27	W06	SF	C1.0	8471	5.4E-04
28	1520	1524	1529	N28	W10	SF	B6.3	8471	2.6E-04
28	1631	1639	1643	N28	W06	2B	M6.6		2.2E-02
28	1914	1930	1938	N28	W09	SF	C2.0		2.0E-03
28	2134	2148	2157	N28	W14	SF	C2.2	8471	2.3E-03

Preliminary GOES Satellite Daily X-Ray Background Mar 98 - Feb 99



Day	Mar 98	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 99	Feb
1	B1.3	B2.6	B2.4	B2.0	B5.3	B1.9	C1.5	B5.8	B2.7	B7.5	B6.3	B3.0
2	B1.5	B4.3	B4.2	B2.4	B3.6	B2.4	C1.1	B2.4	B2.4	B6.0	B8.7	B4.7
3	B2.2	B4.1	B2.9	B2.8	C1.4	B3.7	C1.0	B1.8	B2.6	B6.5	B6.7	B3.5
4	B3.6	B5.2	B5.8	B2.8	B9.2	B2.1	B8.7	B2.0	B4.8	B5.4	B6.8	B2.1
5	B6.3	B6.6	B4.6	B4.7	B4.2	B3.1	C1.1	B2.1	C2.3	B4.7	B6.6	B2.3
6	B2.4	C1.0	C1.8	B2.4	B3.5	B3.1	B5.8	B2.1	C1.1	B5.0	B7.0	B1.9
7	B2.6	B6.6	C2.4	B2.5	B2.8	B5.4	B4.7	B2.1	B4.6	B5.3	C2.1	B1.6
8	B1.9	B5.6	B9.9	B2.4	B2.5	B5.8	B5.4	B2.9	C1.3	B5.3	B2.3	B3.4
9	B1.6	B4.7	C1.0	B3.2	B5.0	B7.2	B6.0	B2.4	C1.5	B8.3	B2.2	B3.6
10	B1.7	B4.8	B8.7	B2.8	B2.4	B4.9	B5.0	B3.0	C1.2	B6.8	B2.7	B4.1
11	B1.2	B4.1	B3.1	B7.2	B3.1	B5.8	B5.4	B4.2	C1.3	B4.9	B2.0	C1.0
12	B2.1	B3.5	B3.3	B6.0	B2.6	B4.8	B5.7	B3.0	C1.3	B6.0	B5.7	B7.1
13	B1.4	B3.1	B2.8	B5.0	B2.6	B4.5	B3.4	B3.2	B7.1	B5.6	B2.2	B6.8
14	B2.5	B3.6	B3.2	B5.3	B2.2	B4.9	B2.9	B2.1	B7.0	B7.2	B4.4	B7.8
15	B4.8	B2.8	B4.4	B2.3	B1.5	B4.6	B2.7	B2.3	B4.5	B5.1	B5.5	C1.4
16	B6.1	B5.4	B5.3	B1.9	B3.6	B6.5	B2.8	B3.9	B4.0	B4.6	B6.6	B9.2
17	B7.6	B3.1	B3.1	B5.3	B2.0	C1.2	B3.6	B3.2	B4.0	B5.8	B7.4	B7.2
18	B3.8	B4.9	B3.0	B1.5	B1.2	B5.1	B3.7	C1.6	B2.3	C1.0	B9.2	B8.9
19	B4.0	B3.0	B2.5	B1.2	B1.2	C4.5	B3.2	B3.3	B1.8	B8.7	C1.0	B6.0
20	B5.7	B2.0	B4.4	B1.9	B2.5	C1.6	B3.1	B6.7	B2.3	B6.1	C1.0	B7.9
21	B5.1	B3.3	B1.2	B3.2	B5.4	B5.3	B3.5	B7.2	B4.2	B6.3	C6.1	B5.9
22	B7.5	B1.5	B1.2	B2.6	B3.8	C1.6	B3.5	B3.7	B7.2	B5.9	C1.8	B4.6
23	C1.2	B1.8	B1.3	B2.2	B3.1	B4.0	B5.3	B2.3	C1.5	B6.5	C1.2	B4.4
24	B5.6	B2.8	B1.8	B2.2	B3.1	B4.1	B4.1	B2.0	C1.4	C1.8	C1.0	B2.4
25	B4.3	B2.0	B2.2	B2.7	B2.7	B4.9	B3.7	B2.8	B8.4	B6.7	C1.7	B2.3
26	B3.6	B1.4	B1.7	B3.8	B2.6	B2.4	B5.3	B3.0	B5.9	B8.0	C1.1	B2.1
27	B3.8	B1.4	B2.7	B5.3	B2.2	B3.0	B4.0	B2.1	B6.8	B9.2	B4.2	B2.2
28	B5.6	B2.1	C1.2	B4.4	B2.0	B5.0	B3.8	B1.6	C1.4	C2.5	B7.4	B2.0
29	B2.5	B2.0	B8.8	B3.7	B2.2	B4.8	B2.6	B2.2	C1.2	C1.2	B2.4	
30	B1.8	B3.3	B5.9	B4.4	B1.5	B7.3	B2.8	B2.0	B8.0	B9.9	B2.4	
31	B4.6		B2.7		B1.5	C1.2		B1.9		C1.0	B3.6	

ACTIVE PROMINENCES AND FILAMENTS

FEBRUARY 1999

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
03	EPL	1413	1547	N60	W90	01	26.8	3		6	6	E	RAMY		
03	EPL	1424E	1547	N61	W90	01	26.7	3		6	6	E	SVTO		
03	DSF	1759U	1147U	S19	W62	01	30.1	2	06	0	0	E	RAMY		
04	DSF	1334U	0702U	S27	W57	01	31.1	2	12	0	0	E	SVTO		
04	DSF	1920U	1301U	S23	E82	02	11.1		16	0	0	E	RAMY		
05	DSF	1357	1530	S62	E09	02	6.4	2	38	0	0	E	RAMY		
05	EPL	1936E	2046D	S50	W90	01	29.3	3		7	7	E	RAMY		
05	DSF	2244U	1843U	S20	E59	02	10.4	2	37	0	0	E	HOLL		
06	DSF	1219U	1540U	S54	W34	02	3.6	3	23	0	0	E	RAMY		
06	DSF	1248U	1540U	S30	W47	02	2.8		28	0	0	E	SVTO		
06	DSF	1914U	1444U	S32	W43	02	3.4	2	31	0	0	E	HOLL		
06	DSF	2135U	1143U	N15	W48	02	3.3		06	0	0	E	RAMY		
07	DSF	0012U	1522U	N15	W51	02	3.1	3	08	0	0	E	HOLL		
07	DSF	0810U	0149U	S30	W50	02	3.4		37	0	0	E	LEAR		
07	DSF	1007U	1149	N13	W61	02	2.8	2	09	0	0	E	SVTO		
13	DSF	2047U	1259U	N32	W63	02	8.9		28	0	0	E	RAMY		
14	DSF	1033U	2311U	N17	E10	02	15.2		13	0	0	E	LEAR		
15	DSF	2101U	1423U	S04	W16	02	14.7		12	0	0	E	RAMY		
17	DSF	1020U	2358U	S19	E31	02	19.8		08	0	0	E	LEAR		
17	DSF	1020U	2358U	S33	W15	02	16.2		12	0	0	E	LEAR		
17	DSF	1020U	2358U	S35	E03	02	17.7		06	0	0	E	LEAR		
18	DSF	1020U	2358U	S19	E31	02	20.8		08	0	0	E	LEAR		
18	DSF	1020U	2358U	S33	W15	02	17.2		12	0	0	E	LEAR		
18	DSF	1020U	2358U	S35	E03	02	18.7		06	0	0	E	LEAR		
19	DSF	1020U	2259U	S31	E65	02	24.5		12	0	0	E	LEAR		
19	DSF	1020U	2259U	S50	E11	02	20.4		11	0	0	E	LEAR		
23	DSF	0955U	2315U	S21	E24	02	25.2		10	0	0	E	LEAR		
24	DSF	2023U	1140U	S55	E19	02	26.5		07	0	0	E	RAMY		
24	DSF	2330U	1505U	S48	E03	02	25.2	2	16	0	0	E	HOLL		

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

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

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

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

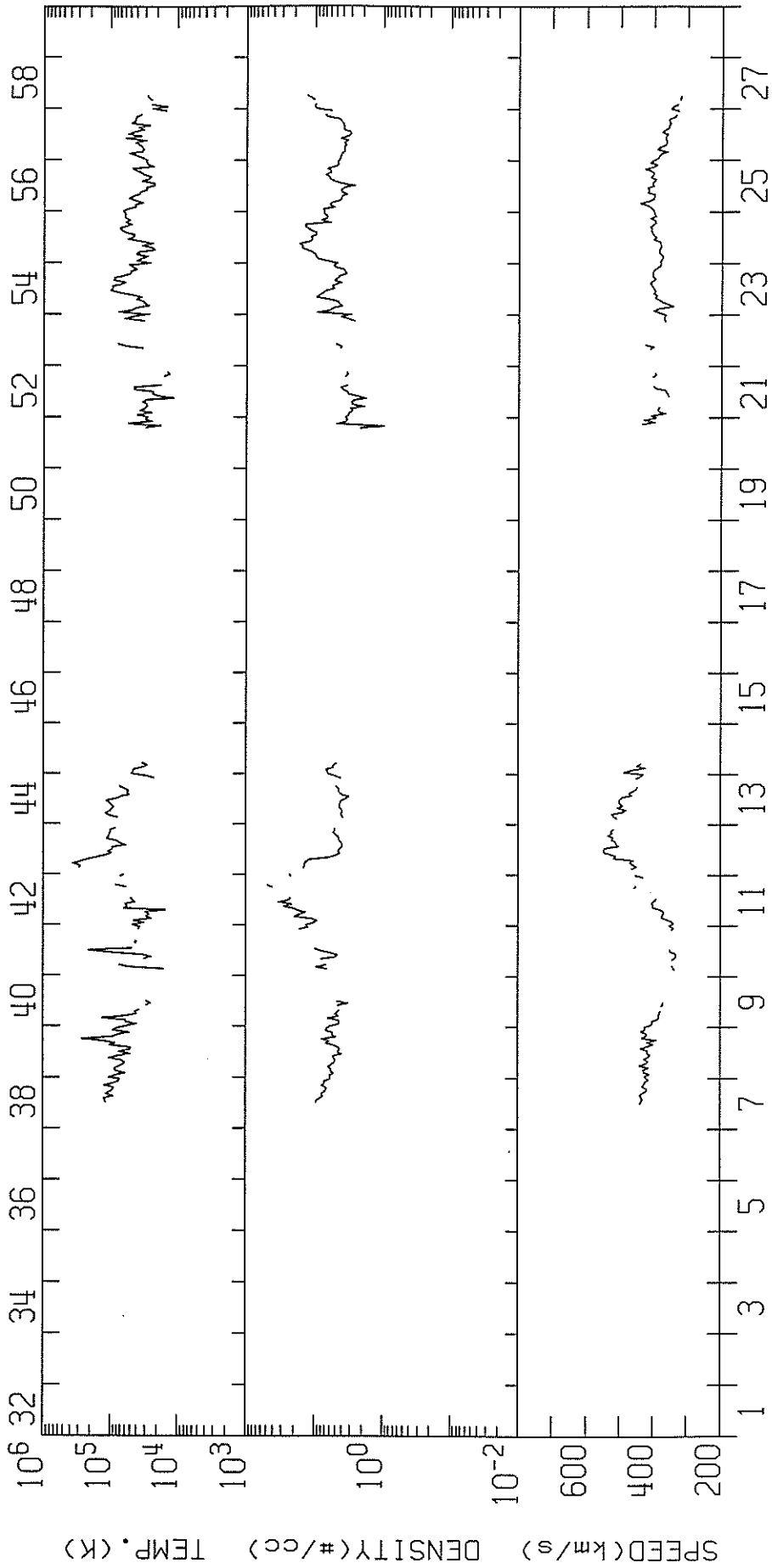
Observation Type: C= Cinematographic, E= Electronic, P= Photographic, V= Visual.

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

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

IMP 8 SOLAR WIND PLASMA
 FEBRUARY 1999

MIT/CSR IMP 8 PLASMA PARAMETERS



FEB 1999

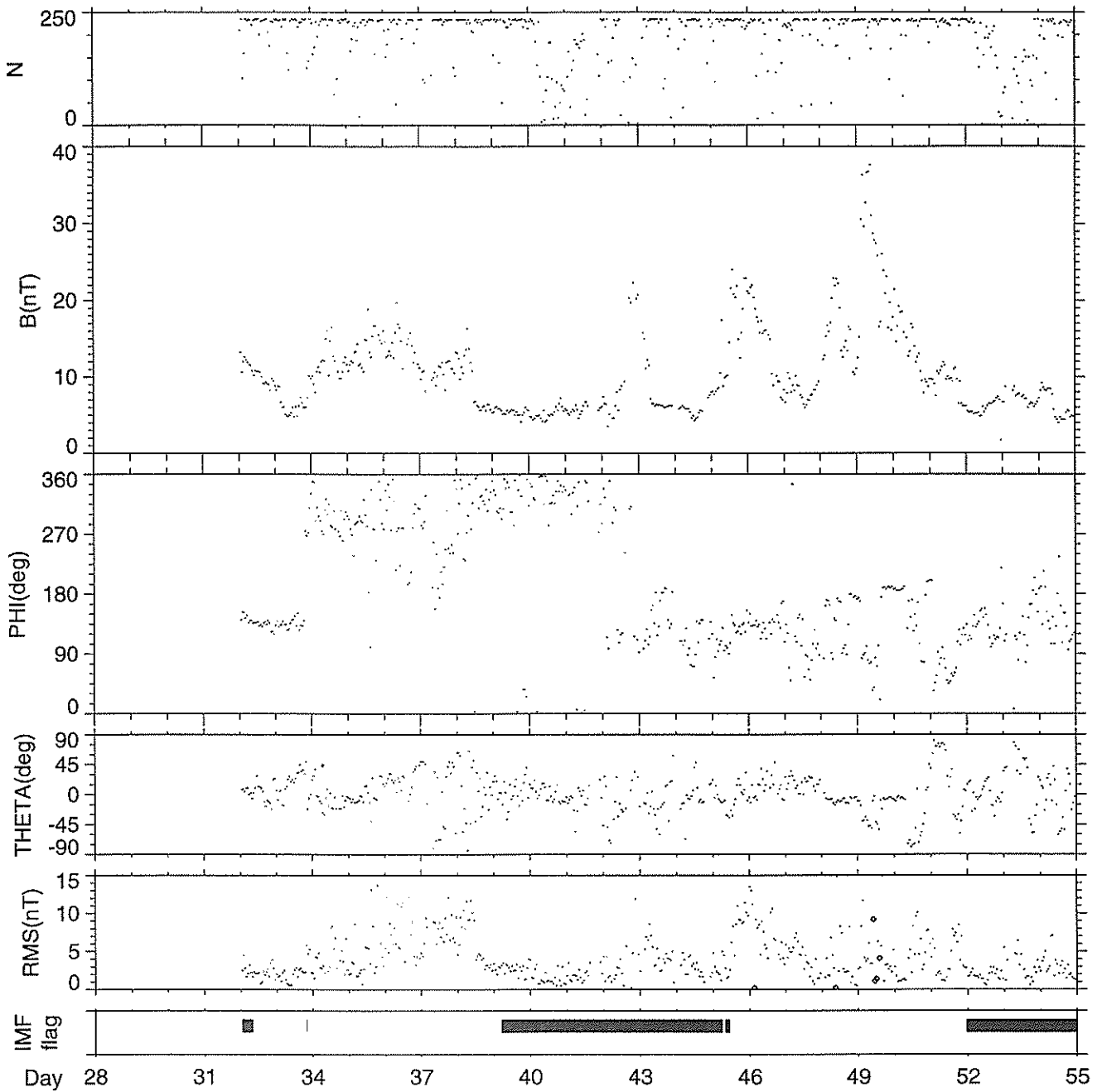
IMP 8 MIT ONE-HOUR AVERAGES

IMP-8 Magnetic Field Data in GSE Coordinates

1 Hour Averages

(c) DOY 32 - 55

February 1 1999 - February 24 1999

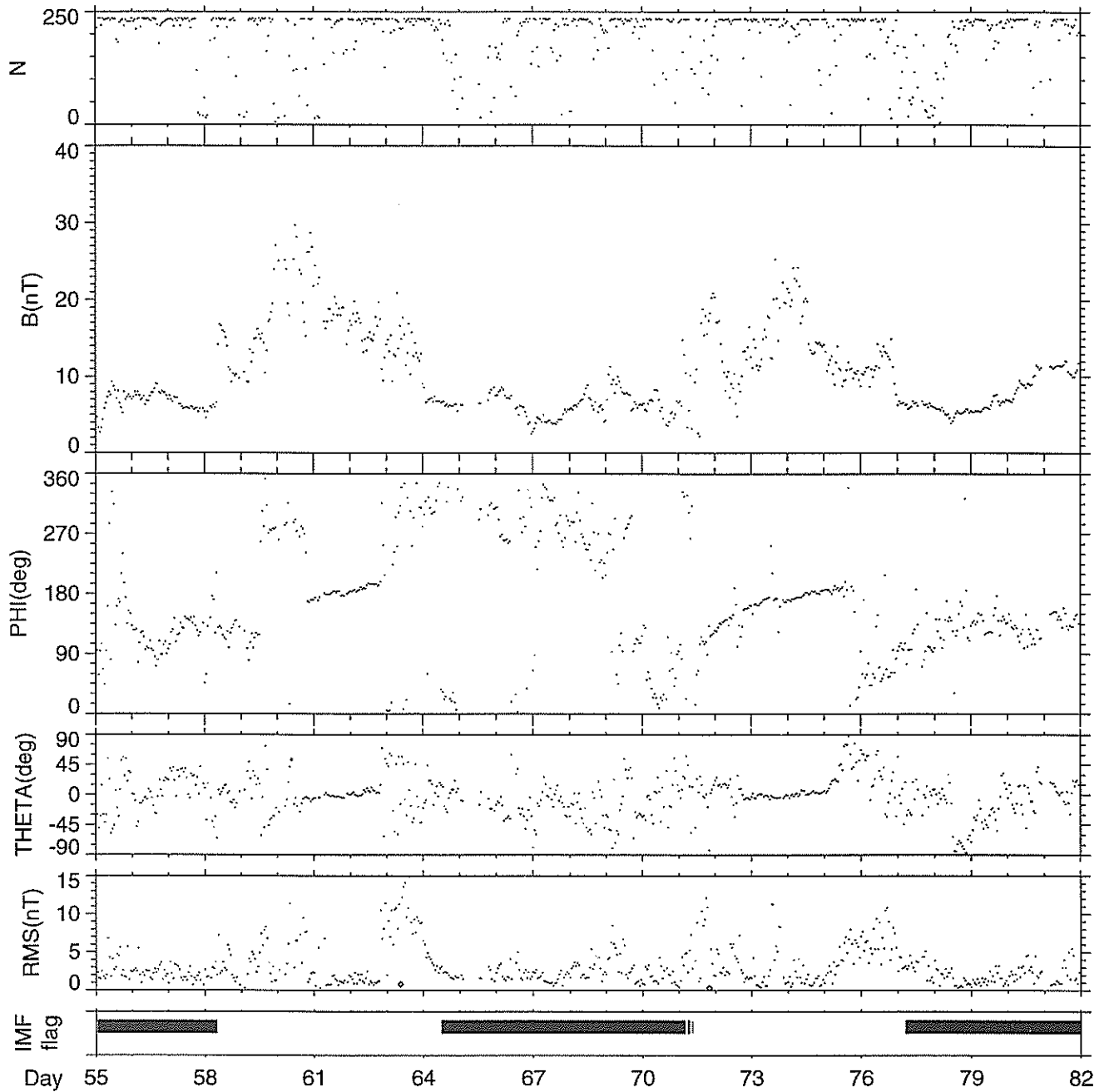


Generation Date : Thu Jun 10 15:45:14 1999

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

IMP-8 Magnetic Field Data in GSE Coordinates

1 Hour Averages (c) DOY 55 - 82 February 24 1999 - March 23 1999



Generation Date : Thu Jun 10 15:45:35 1999

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

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Comprehensive Reports

Number 660 Part II

MISCELLANEOUS or LATE DATA

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SOLAR RADIOHELIOGRAPH

164 and 327 MHz – Nancay May 1999..... 42-43



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Late
May 99

SOLAR RADIO NOISE STORM AT 164 MHZ
FROM NANCAY RADIOHELIOGRAPH
MAY 1999

DAY	HELIOGRAPHICS POSITIONS MEAN VALUES ¹		IMP ²	OBSERVING TIME ³	
	E-W	S-N		START(UT)	END(UT)
01/05/99	+0.78	+0.29	I	8H18 E	15H17 D
02/05/99	+1.02	+0.29	I	8H23 E	15H07 D
04/05/99	-0.02	+0.31	III	8H18 E	15H17 D
05/05/99	+0.17	+0.33	IV	8H35 E	15H10 D
06/05/99	+0.37	+0.36	I	9H16 E	15H17 D
06/05/99	+0.95	+0.37	III	9H16 E	15H17 D
07/05/99	+0.42	+0.60	I	8H46 E	15H17 D
07/05/99	+0.70	+0.45	I	8H46 E	15H17 D
08/05/99	-1.09	+0.65	II	10H50	15H17 D
08/05/99	+1.10	+0.39	I	8H18 E	15H17 D
09/05/99	-1.10	+0.23	III	8H18 E	15H17 D
09/05/99	-1.02	+0.74	III	8H18 E	15H17 D
10/05/99	-0.79	+0.37	II	8H18 E	15H17 D
10/05/99	-0.23	+0.39	II	8H18 E	15H17 D
10/05/99	+1.49	+0.37	I	8H18 E	15H17 D
12/05/99	-0.05	+0.16	III	8H24 E	15H17 D
13/05/99	+0.22	+0.36	IV	8H17 E	11H05 D
14/05/99	+0.65	+0.19	III	8H17 E	15H47 D
15/05/99	-1.01	-0.31	I	8H17 E	15H17 D
15/05/99	-0.65	+0.95	II	8H17 E	15H17 D
15/05/99	+0.81	+0.11	II	8H17 E	15H17 D
16/05/99	-0.48	+0.98	II	8H17 E	13H54 D
17/05/99	-0.65	-0.42	III	8H18 E	15H17 D
17/05/99	-0.22	+1.02	III	8H18 E	15H17 D
18/05/99	-0.25	+0.05	II	8H54 E	15H17 D
18/05/99	+0.05	+1.07	II	8H54 E	15H17 D
19/05/99	-0.14	+0.60	V	8H36 E	15H17 D
20/05/99	+0.15	+0.59	III	8H18 E	15H17 D
21/05/99	+1.12	+0.56	II	8H18 E	15H17 D
22/05/99	+0.29	-0.48	I	8H20 E	15H17 D
23/05/99	-0.47	-0.42	III	8H08 E	15H13 D
24/05/99	-0.45	-0.39	III	8H18 E	15H17 D
24/05/99	+0.95	-0.54	II	8H18 E	15H17 D
25/05/99	-0.09	-0.42	III	8H18 E	15H17 D
26/05/99	+0.23	-0.36	IV	9H00 E	15H17 D
26/05/99	+1.21	+0.81	III	9H00 E	15H17 D
27/05/99	-0.51	+0.26	II	8H21 E	14H55 D
28/05/99	-0.62	+0.17	II	8H36 E	15H17 D
28/05/99	-0.12	+0.34	III	8H36 E	15H17 D
29/05/99	-0.25	+0.08	I	8H19 E	15H18 D
29/05/99	+0.03	+0.37	I	8H19 E	15H18 D
30/05/99	-0.03	+0.22	III	8H19 E	15H18 D
31/05/99	+0.40	+0.31	III	8H30 E	15H18 D

¹ POSITIVE E-W AND S-N COORDINATES CORRESPOND TO THE N-W QUADRANT

² IMP1: FLUX < 5 SFU IMP2: 5 < FLUX < 20 SFU IMP3: 20 < FLUX < 100 SFU
IMP4: 100 < FLUX < 300 SFU IMP5 > 300 SFU

³ E NOISE STORM IN PROGRESS AT THE BEGINNING OF THE NANCAY OBSERVATIONS
D NOISE STORM IN PROGRESS AT THE END OF THE NANCAY OBSERVATIONS

SOLAR RADIO NOISE STORM AT 327 MHZ
FROM NANCA Y RADIOHELIOGRAPH
MAY 1999

DAY	HELIOGRAPHICS POSITIONS MEAN VALUES ¹		IMP ²	OBSERVING TIME ³	
	E-W	S-N		START(UT)	END(UT)
01/05/99	+0.76	+0.50	I	8H18 E	15H17 D
04/05/99	-0.06	+0.34	I	8H18 E	15H17 D
05/05/99	+0.11	+0.33	II	8H35 E	15H10 D
06/05/99	+0.95	+0.39	III	9H16 E	15H17 D
07/05/99	+0.62	+0.43	I	8H46 E	15H17 D
07/05/99	+1.05	+0.33	I	8H46 E	15H17 D
08/05/99	+1.02	+0.31	II	8H18 E	15H17 D
09/05/99	-0.98	+0.51	III	8H18 E	15H17 D
09/05/99	+1.19	+0.31	III	8H18 E	15H17 D
10/05/99	-0.79	+0.54	I	8H18 E	15H17 D
10/05/99	+1.35	+0.33	II	8H18 E	15H17 D
12/05/99	+0.14	+0.42	II	8H24 E	15H17 D
13/05/99	+0.36	+0.42	III	8H17 E	11H05 D
14/05/99	+0.51	+0.47	III	8H17 E	15H47 D
14/05/99	+0.65	+0.36	III	8H17 E	15H47 D
15/05/99	-0.90	-0.28	I	8H17 E	15H17 D
15/05/99	-0.88	-0.31	I	8H17 E	15H17 D
15/05/99	+0.70	+0.47	I	8H17 E	15H17 D
16/05/99	-0.79	-0.29	I	8H17 E	13H54 D
16/05/99	-0.50	+0.85	I	8H17 E	13H54 D
16/05/99	+0.87	+0.57	II	8H17 E	13H54 D
17/05/99	-0.59	-0.37	II	8H18 E	15H17 D
17/05/99	-0.53	+0.73	I	8H18 E	15H17 D
18/05/99	-0.40	-0.36	I	8H54 E	15H17 D
18/05/99	-0.23	+0.60	I	8H54 E	15H17 D
19/05/99	-0.12	+0.68	V	8H36 E	15H17 D
20/05/99	+0.17	-0.42	I	8H18 E	15H17 D
20/05/99	+0.17	+0.56	I	8H18 E	15H17 D
20/05/99	+0.95	+0.47	I	8H18 E	15H17 D
21/05/99	+0.42	-0.43	I	8H18 E	15H17 D
21/05/99	+1.05	+0.59	II	8H18 E	15H17 D
22/05/99	+0.33	-0.25	I	8H20 E	15H17 D
22/05/99	+0.56	-0.50	I	8H20 E	15H17 D
22/05/99	+1.09	+0.56	I	8H20 E	15H17 D
23/05/99	+0.76	-0.51	III	8H08 E	15H13 D
24/05/99	-0.26	-0.16	II	8H18 E	15H17 D
24/05/99	+0.84	-0.43	II	8H18 E	15H17 D
25/05/99	-0.08	-0.26	II	8H18 E	15H17 D
25/05/99	+0.90	-0.51	I	8H18 E	15H17 D
26/05/99	+0.19	-0.26	I	9H00 E	15H17 D
27/05/99	-0.50	+0.33	I	11H50	14H55 D
28/05/99	-0.14	+0.36	I	8H36 E	15H17 D
29/05/99	+0.00	+0.39	I	8H19 E	15H18 D
30/05/99	-0.02	+0.25	I	8H19 E	15H18 D
31/05/99	+0.31	+0.20	II	8H30 E	15H18 D
31/05/99	+0.42	+0.39	II	8H30 E	15H18 D

11 MAY 1999: NO DATA

OTHERS DAYS: NO DETECTABLE NOISE STORM



WORLD DATA CENTER A
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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."