JUNE 2001 NUMBER 682 - Part II

Solar-Geophysical Data comprehensive reports

Data for December 2000 and Miscellaneous
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JUNE 2001 NUMBER 682 - Part II

Solar-Geophysical Data comprehensive reports

Data for December 2000 and Late Data

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SOLAR-GEOPHYSICAL DATA

Number 682

(Issued in Two Parts)

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DATA FOR **DECEMBER 2000**

Hα SOLAR FLARES

DECEMBER 2000

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0001	LEAR	01	0042	0042	0050	N08	W36	9240	11	28.4	8	SF		3	E		76		FH
0002	LEAR	01	0156	0158	0222	S13	E18	9246	12	2.4	26	SF		3	E		18		
0003	LEAR	01	0311	0314	0322	S12	E15	9246	12	2.3	11	SF		3	E		32		F
0004		01	07241	07282	0746	S12	E14	9246	12	2.4	22	SF					80	0.9	E
	URUM	01	0724	0730	0741	S12	E13	9246	12	2.3	17	SF			C		80	0.9	E
	KANZ	01	0725	0728	0750	S13	E14	9246	12	2.4	25	SF		2	E				
0005		01	0855	09012	0922	N18	W20	9242	11	29.9	27	1F					107	2.2	EF
	KANZ	01	0855	0902	0923	N18	W20	9242	11	29.9	28	1F		2	E				
	URUM	01	0855	0903	0930	N18	W20	9242	11	29.9	35	1N			C		193	2.2	E
	LEAR	01	0900E	0901	0922	N19	W21	9242	11	29.9	22D	1F		2	E		103		F
	SVTO	01	0902E	0909U	0914	N19	W20	9242	11	29.9	12D	SF		3	E		26		F
		01	2112		2227	No Flare Patrol													
0006	LEAR	02	0018	0019	0023	S13	E06	9246	12	2.5	5	SF		3	E		13		
0007	URUM	02	0708	0714	0719	S04	W35	9243	11	29.8	11	SN			C		161	2.0	E
0008		02	0724	0729	0741	S05	W32	9243	11	30.0	17	SF					64	0.8	E
	URUM	02	0724	0729	0740	S06	W34	9243	11	29.9	16	SF			C		64	0.8	E
	KANZ	02	0725E	0726U	0742	S04	W31	9243	11	30.0	17D	SF		2	E				
0009	KANZ	02	0833E	0833U	0840	N08	W50	9240	11	28.7	7D	SF		2	E				
		02	1514		1554	No Flare Patrol													
		02	1619		1635	No Flare Patrol													
		02	1754		1801	No Flare Patrol													
		02	1817		1824	No Flare Patrol													
		02	2058		2400	No Flare Patrol													
		03	0000		0125	No Flare Patrol													
0010	LEAR	03	0212	0217	0238	N19	W41	9242	11	30.0	26	SF		2	E		14		
		03	0338		0343	No Flare Patrol													
		03	0912		0929	No Flare Patrol													
		03	1009		1016	No Flare Patrol													
		03	1020		1035	No Flare Patrol													
		03	1051		1119	No Flare Patrol													
		03	1423		1503	No Flare Patrol													
0011	LEAR	04	0016	0018	0022	S08	W87		11	27.6	6	SF		3	E		18		
0012	LEAR	04	0025	0025	0034	N20	W54	9242	11	30.0	9	SF		3	E		11		
		04	0135		0151	No Flare Patrol													
		04	0641		0659	No Flare Patrol													
0013	KANZ	04	1100	1102	1107	N19	W54	9242	11	30.3	7	SF		2	E				
0014	LEAR	05	0442	0446	0500	N05	W74	9248	11	29.8	18	SF		3	E		64		F
		05	0641		0701	No Flare Patrol													
		05	0837		0841	No Flare Patrol													
		05	1928		1949	No Flare Patrol													
		05	2009		2036	No Flare Patrol													
0015		06	09311	09331	0940	S13	W62	9246	12	1.7	9	SF					49		
	KANZ	06	0931	0933	0940	S16	W61	9246	12	1.8	9	SF		2	E				
	LEAR	06	0932	0934	0940	S10	W64	9246	12	1.6	8	SF		3	E		49		
0016	KANZ	06	1248	1248	1258	S15	W60	9246	12	2.0	10	SF		2	E				
0017	RAMY	06	1814	1815	1821	S09	W68	9246	12	1.6	7	SF		3	E		17		H
0018	HOLL	06	2223	2233	2247	S10	W66	9246	12	2.0	24	SF		3	E		70		F

DECEMBER 2000

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Opt	Imp Xray	See	Obs Type	Area Measurement Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
		06	2347		2400	No Flare Patrol													
		07	0000		0050	No Flare Patrol													
0019	LEAR	07	0049E	0050U	0135D	S10	W63	9246	12	2.3	46D	SF		3	E		42		
0020		07	03369	0339*	0356	S09	W70	9246	12	1.9	20	1N					112		E
	LEAR	07	0336	0339	0445D	S09	W69	9246	12	2.0	69D	1F		2	E		145		
	URUM	07	0345	0349	0356	S09	W71	9246	12	1.8	11	1N			C		80		E
0021	URUM	07	0539	0542	0606	S08	W70	9246	12	2.0	27	1B			C		96		D
0022	LEAR	07	0602	0703	0723	S10	W65	9246	12	2.4	81	SF		3	E		57		
		07	0832		0854	No Flare Patrol													
		07	1124		1125	No Flare Patrol													
		07	1652		1711	No Flare Patrol													
		07	2101		2110	No Flare Patrol													
		07	2327		2400	No Flare Patrol													
		08	0000		0039	No Flare Patrol													
		08	0835		0836	No Flare Patrol													
		08	0921		0933	No Flare Patrol													
		08	1002		1122	No Flare Patrol													
		08	1135		1143	No Flare Patrol													
		08	2104		2108	No Flare Patrol													
		08	2154		2202	No Flare Patrol													
		08	2208		2233	No Flare Patrol													
		08	2320		2342	No Flare Patrol													
0023	LEAR	09	0420	0423	0427	N11	E61	9262	12	13.8	7	SF		3	E		12		
		09	1012		1117	No Flare Patrol													
0024	RAMY	09	1722	1723	1727	N10	W15	9254	12	8.6	5	SF		3	E		17		
		09	2208		2312	No Flare Patrol													
		10	0000		0013	No Flare Patrol													
0025	LEAR	10	0452	0453	0500	N13	E56	9262	12	14.4	8	SF		3	E		15		F
		10	1337		1404	No Flare Patrol													
		10	1756		2211	No Flare Patrol													
		10	2306		2315	No Flare Patrol													
		10	2355		2400	No Flare Patrol													
		11	0000		0012	No Flare Patrol													
0026	KANZ	11	0814	0822	0831	N24	W02	9266	12	11.2	17	SF		2	E				
0027	KANZ	11	0903	0905	0908	N16	E16	9258	12	12.6	5	SF		2	E				
0028	KANZ	11	0932	0933	0940	N23	W02	9266	12	11.2	8	SF		2	E				
0029	KANZ	11	0954	0957	1002	N24	W02	9266	12	11.2	8	SF		2	E				
0030		11	1504*	15135	1542	N08	E42	9267	12	14.8	38	SF					60		F
	HOLL	11	1504	1513	1541	N07	E42	9267	12	14.8	37	SF		3	E		52		F
	RAMY	11	1517	1518	1542	N08	E41	9267	12	14.7	25	SF		3	E		69		
		11	2115		2306	No Flare Patrol													
0031	LEAR	12	0453	0458	0511	N07	E32	9267	12	14.6	18	SF		3	E		74		
		12	0647		0659	No Flare Patrol													
		12	0837		0844	No Flare Patrol													
		12	0916		0941	No Flare Patrol													
		12	0950		1021	No Flare Patrol													
		12	1123		1133	No Flare Patrol													
0032	KANZ	12	1156	1158	1200	N08	E30	9267	12	14.7	4	SF		2	E				

Hα SOLAR FLARES

DECEMBER 2000

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP	Mo	Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0033	KANZ	12	1228	1240	1258	N12	E28	9262		12	14.6	30	SF			2	E				
0034		12	1444	1444	1543	N08	E25	9267		12	14.5	59	1F						161		FH
	SVTO	12	1442E	1451U	1503D	N07	E25	9267		12	14.5	21D	SF			2	E		81		FH
	RAMY	12	1444	1444	1543	N08	E25	9267		12	14.5	59	1F			3	E		241		FH
		12	1516		1530	No Flare Patrol															
		12	1535		1546	No Flare Patrol															
0035	URUM	13	0320	0324	0335	N10	E22	9267		12	14.8	15	SF				C		32	0.4	D
0036	URUM	13	0600	0603	0603D	N10	E20	9267		12	14.7	3D	1F				P		402	4.5	E
0037		13	0819	08203	0834	N08	E18	9267		12	14.7	15	1N						113	2.2	D
	LEAR	13	0819	0820	0837	N08	E17	9267		12	14.6	18	SF			3	E		33		
	URUM	13	0823E	0823	0831	N09	E20	9267		12	14.8	8D	1B				P		193	2.2	D
0038	SVTO	13	1105	1109	1118	S23	E33	9264		12	16.0	13	SF			3	E		12		H
0039	SVTO	13	1119	1125	1142	S25	E32	9264		12	15.9	23	SF			3	E		12		H
0040	HOLL	13	2158	2201	2227	N10	E07	9267		12	14.4	29	1F			3	E		169		FU
0041	HOLL	13	2240	2242	2250	N16	E61	9269		12	18.6	10	SF			3	E		14		F
		13	2333		2400	No Flare Patrol															
		14	0000		0004	No Flare Patrol															
		14	0017		0129	No Flare Patrol															
		14	0149		0157	No Flare Patrol															
		14	0330		0424	No Flare Patrol															
		14	0439		0450	No Flare Patrol															
0042	LEAR	14	0502E	0503U	0516D	N19	W67	9255		12	9.1	14D	SF			3	E		28		
		14	0835		0905	No Flare Patrol															
0043	LEAR	14	0915	0917	0930	N04	E03	9267		12	14.6	15	SF			3	E		51		
0044	LEAR	14	0930	0958	1012D	S24	E22	9264		12	16.1	42D	SF			2	E		38		
0045	LEAR	14	0934	0935	0944	N04	E02	9267		12	14.5	10	SF			3	E		19		
		14	1013		1107	No Flare Patrol															
		14	1118		1125	No Flare Patrol															
0046	RAMY	14	1246	1247	1257	N07	E00	9267		12	14.5	11	SF			3	E		24		F
0047	RAMY	14	1319	1319	1322	N13	W06	9262		12	14.1	3	SF			3	E		12		H
		14	1353		1404	No Flare Patrol															
0048	HOLL	14	1520	1523	1532	N08	E02	9267		12	14.8	12	SF			3	E		93		F
		14	1613		1632	No Flare Patrol															
		14	1652		1734	No Flare Patrol															
		14	1902		1940	No Flare Patrol															
		14	2012		2024	No Flare Patrol															
		14	2048		2148	No Flare Patrol															
0049	LEAR	15	0639	0640	0647	N20	W55	9266		12	11.1	8	SF			3	E		27		
0050	LEAR	15	0926	0927	0929	N24	W54	9266		12	11.2	3	SF			3	E		25		
0051	SVTO	15	0930	0932	0938	N21	W10	9262		12	14.6	8	SF			3	E		11		H
0052	LEAR	15	0930	0933	0941	N11	W22	9262		12	13.7	11	SF			3	E		16		F
0053	SVTO	15	1115	1116	1127	N10	W12	9267		12	14.6	12	SF			3	E		18		FH
		15	1607		1639	No Flare Patrol															

DECEMBER 2000

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Opt	Imp Xray	See	Obs Type	Area Measurement Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
		15	1728		1748	No Flare Patrol													
		15	1840		1846	No Flare Patrol													
0054	RAMY	15	1855E	1856U	1909	N14	E40	9269	12	18.8	14D	SF		3	E		15		
0055		15	19424	19527	2020	N18	W16	9262	12	14.6	38	SF					60		F
	HOLL	15	1942	1959	2015	N19	W16	9262	12	14.6	33	SF		3	E		48		F
	RAMY	15	1946	1952	2024	N18	W16	9262	12	14.6	38	SF		3	E		73		F
0056	HOLL	15	2126	2128	2137	S26	E13	9264	12	16.9	11	SF		3	E		48		F
0057	LEAR	15	2328	2337	2351	N15	E34	9269	12	18.5	23	SF		3	E		13		F
0058	LEAR	16	0011	0013	0028	N20	W19	9275	12	14.5	17	SF		3	E		97		F
0059	LEAR	16	0507	0510	0512	N23	W66	9266	12	11.1	5	SF		3	E		28		
0060	LEAR	16	0912	0914	0921	N21	W67	9266	12	11.2	9	SF		3	E		18		
0061	RAMY	16	1919	1927	1951	S20	W54	9271	12	12.7	32	SF		3	E		41		
0062	HOLL	16	2252	2255	2304	S14	W62	9276	12	12.3	12	SF		3	E		17		F
0063	HOLL	16	2318	2322	2326	S13	W59	9276	12	12.5	8	SF		3	E		18		F
0064	LEAR	17	0003	0005	0016	S13	W61	9276	12	12.4	13	SF		3	E		37		
0065	LEAR	17	0059	0104	0115	S19	W57	9271	12	12.7	16	SF		3	E		22		F
0066	LEAR	17	0126	0127	0137	S13	W59	9276	12	12.6	11	SF		3	E		34		H
0067	LEAR	17	0149	0150	0155	S13	W62	9276	12	12.4	6	SF		3	E		33		
0068	LEAR	17	0246	0248	0303	S13	W60	9276	12	12.6	17	SF		3	E		16		H
0069		17	0345	03469	0403	S12	W62	9276	12	12.5	18	1N					80	2.7	E
	LEAR	17	0345	0346	0357	S13	W63	9276	12	12.4	12	SF		3	E		31		
	URUM	17	0355E	0355	0409	S12	W61	9276	12	12.6	14D	1N			P		129	2.7	E
0070	LEAR	17	0451	0452	0459	N08	E81	9281	12	23.3	8	SF		3	E		61		
0071	LEAR	17	0522	0526	0533	N25	W78	9266	12	11.2	11	SF		3	E		15		
0072	LEAR	17	0700	0701	0707	N07	W39	9267	12	14.4	7	SF		3	E		17		
0073	LEAR	17	0735	0735	0741	N17	E15	9269	12	18.4	6	SF		3	E		10		F
0074	SVTO	17	0757	0759	0802	S13	W64	9276	12	12.5	5	SF		3	E		15		
0075		17	08372	08422	0850	S14	W64	9276	12	12.5	13	SF					27		H
	LEAR	17	0837	0844	0851	S14	W64	9276	12	12.5	14	SF		3	E		27		H
	KANZ	17	0839	0842	0850	S14	W63	9276	12	12.6	11	SF		2	E				
0076		17	08561	0902	0918	S14	W64	9276	12	12.5	22	SF					54		
	KANZ	17	0856	0900U	0917	S14	W63	9276	12	12.6	21	SF		2	E				
	LEAR	17	0857	0902	0918	S13	W64	9276	12	12.5	21	SF		3	E		54		
0077		17	09161	0921	0940	N08	W38	9267	12	14.5	24	SF					17		
	LEAR	17	0916	0921	0941	N08	W37	9267	12	14.6	25	SF		3	E		17		
	KANZ	17	0917	0921	0940	N07	W38	9267	12	14.5	23	SF		2	E				
0078	KANZ	17	1041	1043	1051	S14	W64	9276	12	12.6	10	SF		2	E				
0079		17	1201	1204	1218	S14	W65	9271	12	12.6	17	SF					97		
	KANZ	17	1201	1204	1211	S14	W64	9271	12	12.7	10	SF		2	E				
	RAMY	17	1203E	1203U	1224	S14	W66	9271	12	12.5	21D	SF		3	E		97		
		17	1304		1325	No Flare Patrol													

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP	Mo	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
0080	RAMY	17	1451	1452	1456	N18	W37	9275	12	14	8	5	SF		3	E		31		
0081		17	1622	16232	1634	S14	W70	9271	12	12	4	12	SF					62		
	RAMY	17	1622	1623	1636	S14	W70	9271	12	12	4	14	SF		3	E		72		
	HOLL	17	1622	1625	1631	S15	W71	9271	12	12	3	9	SF		3	E		51		
0082		17	16562	16581	1703	S15	W71	9271	12	12	3	7	SF					30		
	RAMY	17	1656	1659	1704	S15	W71	9271	12	12	3	8	SF		3	E		35		
	HOLL	17	1658	1658	1702	S15	W71	9271	12	12	3	4	SF		3	E		24		
0083	RAMY	17	1706	1710	1722	S14	W70	9271	12	12	4	16	SF		3	E		28		
0084		17	17461	1747	1750	S14	W72	9271	12	12	3	4	SF					18		
	RAMY	17	1746	1747	1751	S14	W72	9271	12	12	3	5	SF		3	E		20		
	HOLL	17	1747	1747	1750	S14	W72	9271	12	12	3	3	SF		3	E		16		
0085		17	1801*	1839	1906	S14	W72	9276	12	12	3	65	SF					60		
	RAMY	17	1801	1839	1923	S14	W72	9276	12	12	3	82	SF		3	E		98		
	HOLL	17	1839	1839	1848	S14	W72	9276	12	12	3	9	SF		3	E		23		
0086	RAMY	17	2009	2010	2017	S14	W73	9276	12	12	3	8	SF		3	E		30		
		17	2327		2347	No Flare Patrol														
		18	0006		0044	No Flare Patrol														
0087	LEAR	18	0045	0046	0052	N04	W48	9267	12	14	4	7	SF		3	E		17		
0088	LEAR	18	0118	0121	0133	N17	W61	9277	12	13	4	15	SF		3	E		71		F
0089	LEAR	18	0240	0249	0303	N08	E65	9278	12	23	0	23	SF		3	E		63		
0090	KANZ	18	0832	0832	0839	N04	W50	9267	12	14	6	7	SF		2	E				
0091	LEAR	18	0856	0903	0907	S14	W76	9276	12	12	6	11	SF		3	E		30		
0092		18	0915*	09189	0930	N04	W52	9267	12	14	5	15	SF					14		F
	KANZ	18	0915	0918	0930	N05	W51	9267	12	14	6	15	SF		2	E				
	LEAR	18	0926	0927	0930	N04	W52	9267	12	14	5	4	SF		3	E		14		F
0093	KANZ	18	0928	0928	0933	N18	W47	9263	12	14	8	5	SF		2	E				
0094		18	1102	1114	1158	N15	E01	9269	12	18	5	56	1F					121		FU
	KANZ	18	1102	1114	1152	N15	E01	9269	12	18	5	50	1F		2	E				U
	RAMY	18	1113E	1113U	1203	N15	E00	9269	12	18	5	50D	1F		2	E		182		F
	SVTO	18	1119E	1119U	1213D	N15	E01	9269	12	18	5	54D	SF		3	E		60		U
0095	RAMY	18	1238	1241	1246	N07	W50	9267	12	14	8	8	SF		3	E		16		F
0096	RAMY	18	1331	1331	1333	S15	W90	9276	12	11	7	2	SF		3	E		33		
0097		18	15551	1559	1604	N08	E57	9278	12	22	9	9	SF					18		F
	HOLL	18	1555	1559	1603	N08	E58	9278	12	23	0	8	SF		3	E		17		
	RAMY	18	1556	1559	1605	N08	E56	9278	12	22	9	9	SF		3	E		18		F
0098		18	1809	18102	1816	N16	W70	9277	12	13	4	7	SF					38		
	RAMY	18	1809	1810	1816	N17	W71	9277	12	13	4	7	SF		3	E		51		
	HOLL	18	1809	1812	1816	N16	W69	9277	12	13	5	7	SF		3	E		26		
0099	RAMY	18	1905	1909	1914	N09	E55	9278	12	22	9	9	SF		3	E		13		F
0100		18	19571	1959	2003	N08	E51	9278	12	22	6	6	SF					34		F
	RAMY	18	1957	1959	2005	N08	E50	9278	12	22	6	8	SF		3	E		40		
	HOLL	18	1958	1959	2001	N08	E52	9278	12	22	7	3	SF		3	E		28		F
0101	HOLL	18	2204	2205	2209	N05	E51	9278	12	22	7	5	SF		3	E		30		
0102		18	23043	2307	2316	S12	E72	9279	12	24	4	12	1F					82		F
	HOLL	18	2304	2307	2316	S13	E73	9279	12	24	5	12	1F		3	E		110		F
	LEAR	18	2307	2307	2317	S10	E70	9279	12	24	2	10	SF		2	E		55		

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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
0103		18	2314	2315	2318	S15	W86	9276	12	12.4	4	SF					32		
	HOLL	18	2314	2315	2318	S12	W90	9276	12	12.2	4	SF		3	E		36		
	LEAR	18	2314	2315	2319	S18	W82	9276	12	12.7	5	SF		2	E		28		
0104	LEAR	18	2326	2330	2338	S13	E68	9279	12	24.1	12	SF		2	E		18		
0105	LEAR	18	2359	2401	2403	S18	W83	9276	12	12.7	4	SF		3	E		29		
0106	LEAR	19	0025	0027	0029	N04	W59	9267	12	14.6	4	SF		3	E		19		
0107	LEAR	19	0158	0158	0204	S18	W84	9276	12	12.7	6	SF		3	E		65		
0108	LEAR	19	0325	0328	0332	N17	W73	9277	12	13.6	7	SF		3	E		19		
0109	LEAR	19	0348	0351	0357	S12	E61	9279	12	23.7	9	SF		3	E		15		
0110	LEAR	19	0456	0458	0508	N04	W63	9267	12	14.5	12	SF		3	E		55		F
0111	URUM	19	0457E	0457	0500D	S06	W61		12	14.6	3D	1F			P		129	2.7	E
0112		19	0611	06113	0618	N18	W78	9277	12	13.3	7	SN					23		A
	URUM	19	0611E	0611	0619	N18	W81	9277	12	13.1	8D	SN			P		32		A
	LEAR	19	0611	0614	0616	N17	W76	9277	12	13.5	5	SF		3	E		14		
0113	LEAR	19	0739	0740	0742	N09	E46	9278	12	22.8	3	SF		3	E		24		
0114		19	08041	08052	0809	S10	E60	9279	12	23.8	5	SF					28		
	LEAR	19	0804	0805	0809	S10	E60	9279	12	23.8	5	SF		3	E		28		
	KANZ	19	0805	0807	0809	S10	E59	9279	12	23.8	4	SF		2	E				
0115	LEAR	19	1019E	1023U	1030D	N09	E49	9278	12	23.1	11D	SF		1	E		15		F
0116		19	10194	10222	1033	N07	E41	9278	12	22.5	14	SF					26		
	KANZ	19	1019	1022	1034	N07	E41	9278	12	22.5	15	SF		2	E				
	SVTO	19	1023	1024	1032	N07	E41	9278	12	22.5	9	SF		3	E		26		
0117	RAMY	19	1414	1414	1424	N15	W12	9269	12	18.7	10	SF		3	E		25		F
0118	RAMY	19	1622	1624	1630	N07	E38	9278	12	22.5	8	SF		3	E		19		F
0119	HOLL	19	1858	1859	1907	N06	E38	9278	12	22.6	9	SF		3	E		55		
0120	HOLL	19	2138	2148	2151	N07	E38	9278	12	22.7	13	SF		3	E		14		F
0121	LEAR	20	0207	0207	0215	N07	E34	9278	12	22.6	8	SF		3	E		11		F
0122		20	0512	0515	0522	N08	E33	9278	12	22.7	10	1F					137	2.0	EF
	LEAR	20	0512	0515	0522	N07	E33	9278	12	22.7	10	1F		3	E		113		F
	URUM	20	0515E	0515	0515D	N08	E33	9278	12	22.7	10D	SF			P		161	2.0	E
0123	URUM	20	0605E	0605	0621	N14	E30	9278	12	22.5	16D	1N			P		402	5.0	E
		20	1001		1058	No Flare Patrol													
0124	HOLL	20	1548	1548	1603	S13	E48	9279	12	24.3	15	SF		3	E		40		F
		20	1726		1744	No Flare Patrol													
0125	HOLL	20	1935	1936	1943	N14	W60	9272	12	16.3	8	SF		3	E		13		F
0126	HOLL	20	2038	2045	2057	S10	E48	9279	12	24.5	19	SF		3	E		52		F
		20	2138		2145	No Flare Patrol													
		20	2200		2233	No Flare Patrol													
0127	LEAR	20	2302	2303	2309	N09	E64	9280	12	25.8	7	SF		3	E		44		
0128	LEAR	20	2337	2340	2348	N06	E61	9280	12	25.5	11	SF		3	E		40		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP	Mo	Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0129	LEAR	21	0058	0059	0104	N10	E63	9280		12	25.8	6	SF			3	E		14		
0130	LEAR	21	0113	0113	0117	N09	E62	9280		12	25.7	4	SF			3	E		15		
0131	LEAR	21	0148	0149	0207	N12	E61	9280		12	25.7	19	SF			3	E		35		F
0132	LEAR	21	0213	0216	0228	N06	E62	9280		12	25.7	15	SF			3	E		20		F
0133	LEAR	21	0242	0245	0251	N06	E61	9280		12	25.7	9	SF			3	E		26		
0134	LEAR	21	0258	0311	0410	N16	W29	9269		12	18.9	72	SF			3	E		70		F
0135	URUM	21	0332E	0332	0407	N15	W29	9269		12	18.9	35D	SF				P		161	2.0	E
0136	LEAR	21	0428	0435	0444	N06	E63	9280		12	25.9	16	SF			3	E		23		F
0137	LEAR	21	0526	0533	0545	N09	E60	9280		12	25.7	19	SF			3	E		38		F
0138	LEAR	21	0730	0730	0738	N09	E59	9280		12	25.7	8	SF			3	E		27		F
		21	1037		1115	No Flare Patrol															
		21	1155		1211	No Flare Patrol															
0139	HOLL	21	1833	1837	1843	S13	E34	9279		12	24.3	10	SF			3	E		31		F
		21	2145		2156	No Flare Patrol															
0140	LEAR	22	0247	0249	0253	N15	W47	9269		12	18.5	6	SF			3	E		18		F
0141	LEAR	22	0302	0302	0305	N07	E50	9280		12	25.9	3	SF			3	E		11		F
0142	LEAR	22	0314	0315	0318	N07	E50	9280		12	25.9	4	SF			3	E		14		
0143	LEAR	22	0606	0606	0609	S12	E19	9279		12	23.7	3	SF			3	E		27		
		22	1035		1135	No Flare Patrol															
0144	KANZ	22	1322	1326	1339	N12	E41	9280		12	25.6	17	SF			2	E				
0145	HOLL	22	1933	1934	1941	N08	E36	9280		12	25.5	8	SF			3	E		57		F
0146		22	1942	1944	1952	N07	E36	9280		12	25.5	10	SF						20		F
	RAMY	22	1942	1944	1951	N07	E36	9280		12	25.5	9	SF			3	E		26		F
	HOLL	22	1942	1944	1952	N07	E36	9280		12	25.5	10	SF			3	E		15		F
0147	LEAR	22	2319	2321	2323	S15	E80	9283		12	29.0	4	SF			3	E		12		
0148	LEAR	22	2342	2423	2429	S14	E80	9283		12	29.0	47	SF			3	E		23		F
0149	LEAR	23	0200	0201	0218	N12	E35	9280		12	25.7	18	SF			3	E		25		F
0150	LEAR	23	0217	0222	0225	S12	E78	9283		12	29.0	8	SF			4	E		26		
0151	LEAR	23	0226	0227	0242	S12	E78	9283		12	29.0	16	SF			3	E		31		H
0152	LEAR	23	0253	0253	0302	S13	E78	9283		12	29.0	9	SF			3	E		33		
0153	LEAR	23	0336	0344	0348	S12	E77	9283		12	28.9	12	SF			3	E		38		F
0154	URUM	23	0356	0400	0404	N06	E36	9280		12	25.8	8	SF				C		64	0.8	E
0155	LEAR	23	0451	0455	0505	S12	E76	9283		12	28.9	14	SF			3	E		20		
0156	LEAR	23	0523	0529	0532	S12	E76	9283		12	28.9	9	SF			3	E		21		
0157		23	0804*	08221	0847	S12	E74	9283		12	28.9	43	SF						93		EF
	KANZ	23	0804	0822	0855	S12	E72	9283		12	28.8	51	SF			2	E				
	LEAR	23	0804	0823	0856	S13	E75	9283		12	29.0	52	1N			3	E		113		EF
	SVTO	23	0820	0823	0829	S12	E76	9283		12	29.1	9	SF			3	E		73		

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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
0158	KANZ	23	1023	1023	1025	N08	E26	9280	12	25.4	2	SF		2	E				
0159		23	11113	11161	1126	S10	E72	9283	12	28.9	15	SF					30		
	KANZ	23	1111	1116	1133	S10	E71	9283	12	28.8	22	SF		2	E				
	SVTO	23	1114	1117	1118	S09	E74	9283	12	29.0	4	SF		3	E		30		
		23	1400		1401	No Flare Patrol													
0160	HOLL	23	1442	1443	1446	S12	E69	9283	12	28.8	4	SF		3	E		42		
0161	RAMY	23	1520	1520	1525	S14	E72	9283	12	29.1	5	SF		3	E		11		
0162	HOLL	23	1647	1651	1657	S12	E69	9283	12	28.9	10	SF		3	E		28		
0163	HOLL	23	1722	1723	1727	S13	E69	9283	12	28.9	5	SF		3	E		15		
		23	1945		2009	No Flare Patrol													
0164	HOLL	23	2130	2131	2135	S13	E67	9283	12	28.9	5	SF		3	E		41		
0165	HOLL	23	2137	2144	2147	S13	E67	9283	12	28.9	10	SF		3	E		14		
0166	HOLL	23	2206	2208	2209	S13	E67	9283	12	29.0	3	SF		3	E		31		
0167	HOLL	23	2218	2220	2223	N05	E73	9285	12	29.4	5	SF		3	E		25		
0168	HOLL	23	2226	2231	2233	S13	E66	9283	12	28.9	7	SF		3	E		13		
0169	HOLL	23	2234	2236	2252	S13	E66	9283	12	28.9	18	SF		3	E		94		
0170	HOLL	23	2259	2259	2304	S15	E65	9283	12	28.9	5	SF		3	E		15		
0171	HOLL	23	2248	2252	2302	N06	E75	9285	12	29.6	14	SF		3	E		49		
0172	LEAR	23	2354	2357	2402	S12	E65	9283	12	28.9	8	SF		3	E		24		
0173	LEAR	24	0009	0011	0016	S13	E66	9283	12	29.0	7	SF		3	E		24		
0174	LEAR	24	0032	0032	0036	N05	E72	9285	12	29.4	4	SF		3	E		25		
0175	LEAR	24	0042	0044	0046	S13	E66	9283	12	29.0	4	SF		3	E		34		
0176	LEAR	24	0105	0107	0117	S15	E66	9283	12	29.0	12	SF		3	E		46		
0177	LEAR	24	0230	0232	0239	S15	E65	9283	12	29.0	9	SF		4	E		27		
0178	LEAR	24	0249	0249	0255	N06	E70	9285	12	29.3	6	SF		4	E		11		
0179	LEAR	24	0519	0520	0529	N06	E69	9285	12	29.4	10	SF		3	E		41		
0180	LEAR	24	0645	0649	0709	S13	E64	9283	12	29.1	24	SF		3	E		32		
0181	LEAR	24	0713	0726	0742	N05	E69	9285	12	29.5	29	SF		3	E		14		F
0182		24	1111	1115	1128	S15	E62	9283	12	29.1	17	SF					81		FH
	SVTO	24	1111	1115	1126	S16	E63	9283	12	29.2	15	SF		3	E		81		FH
	KANZ	24	1113E	1115	1129	S14	E60	9283	12	29.0	16D	SF		2	E				
0183		24	13314	1336	1348	S14	E59	9283	12	29.0	17	SF					31		F
	KANZ	24	1331	1336	1347	S13	E58	9283	12	28.9	16	SF		2	E				
	SVTO	24	1335	1336	1350	S14	E60	9283	12	29.1	15	SF		3	E		31		F
		24	1445		1501	No Flare Patrol													
		24	1511		2103	No Flare Patrol													
		24	2129		2320	No Flare Patrol													
		24	2344		2400	No Flare Patrol													
		25	0000		0008	No Flare Patrol													
0184	LEAR	25	0358	0358	0402	S15	E48	9283	12	28.8	4	SF		3	E		13		

Hα SOLAR FLARES

DECEMBER 2000

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
0185	LEAR	25	0559	0602	0613	S13	E50	9283	12	29.0	14	SF			3	E		21		
0186	LEAR	25	0633	0634	0640	N12	E06	9280	12	25.7	7	SF			3	E		43		F
0187	LEAR	25	0845	0845	0850	S12	E46	9283	12	28.8	5	SF			3	E		10		
		25	1038		1144	No Flare Patrol														
		25	1204		1205	No Flare Patrol														
0188	RAMY	25	1216	1223	1243	S11	E48	9283	12	29.1	27	SF			3	E		37		F
0189	RAMY	25	1405	1422	1425	S13	E43	9283	12	28.8	20	SF			3	E		47		
0190	RAMY	25	1557	1605	1615	S12	E42	9283	12	28.8	18	SF			3	E		65		F
0191	RAMY	25	1632	1635	1651	S10	E43	9283	12	28.9	19	SF			3	E		77		F
0192	RAMY	25	1632	1635	1651	S21	E43	9283	12	29.0	19	SF			3	E		77		F
		25	1833		1910	No Flare Patrol														
		25	2023		2157	No Flare Patrol														
		25	2253		2257	No Flare Patrol														
		25	2344		2400	No Flare Patrol														
		26	0654		0733	No Flare Patrol														
		26	1044		1124	No Flare Patrol														
0193	RAMY	26	1606	1606	1618	S09	E90	9289	01	2.4	12	SF			3	E		45		
0194	RAMY	26	1614	1615	1624	S09	E27	9283	12	28.7	10	SF			3	E		27		F
		26	2007		2125	No Flare Patrol														
		26	2208		2257	No Flare Patrol														
0195	LEAR	27	0156	0201	0213	S08	E81	9289	01	2.1	17	SF			3	E		96		F
0196	LEAR	27	0227	0228	0230	S08	E19	9283	12	28.5	3	SF			3	E		22		
0197	LEAR	27	0303	0309	0320	S08	E80	9289	01	2.1	17	1F			3	E		102		F
0198	LEAR	27	0355	0405	0419	S07	E17	9283	12	28.4	24	SF			3	E		32		F
0199	LEAR	27	0423	0425	0437	S08	E20	9283	12	28.7	14	SF			3	E		36		F
0200	LEAR	27	0443	0446	0449	S08	E79	9289	01	2.1	6	SF			2	E		22		
0201	URUM	27	0444E	0444	0457	S08	E20		12	28.7	13D	1F				P		193	2.1	E
0202	LEAR	27	0529	0529	0534	S15	E24	9283	12	29.0	5	SF			3	E		23		
0203	LEAR	27	0812	0817	0824	S08	E79	9289	01	2.3	12	SF			3	E		21		
		27	1016		1134	No Flare Patrol														
0204	RAMY	27	1213	1215	1230	S14	E21	9283	12	29.1	17	SF			3	E		28		
0205		27	15351	15418	1610	S08	E74	9289	01	2.2	35	1F						105		F
	RAMY	27	1535	1541	1609	S08	E74	9289	01	2.2	34	SF			3	E		98		
	HOLL	27	1536	1549	1612	S07	E73	9289	01	2.1	36	1F			3	E		112		F
0206	RAMY	27	1556	1557	1602	S10	E17	9283	12	28.9	6	SF			3	E		18		F
0207		27	1738	17381	1745	S12	E14	9283	12	28.8	7	SF						15		
	RAMY	27	1738	1738	1745	S10	E11	9283	12	28.6	7	SF			3	E		20		
	HOLL	27	1738	1739	1745	S15	E17	9283	12	29.0	7	SF			3	E		10		
0208	RAMY	27	1819	1820	1826	S08	E72	9289	01	2.2	7	SF			3	E		12		
0209	HOLL	27	1900	1900	1909	S07	E71	9289	01	2.1	9	SF			3	E		14		

DECEMBER 2000

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
0210	HOLL	27	1909	1911	1919	S07	E70	9289	01	2.0	10	SF		3	E		11		
0211	HOLL	27	2014	2015	2020	S08	E71	9289	01	2.2	6	SF		3	E		24		F
0212	HOLL	27	2036	2038	2040	S08	E60	9289	01	1.3	4	SF		3	E		18		
0213	HOLL	27	2043	2043	2049	S07	E71	9289	01	2.2	6	SF		3	E		43		
0214	HOLL	27	2211	2218	2245	S14	E16	9283	12	29.1	34	SF		3	E		69		FU
0215	LEAR	27	2218E	2222U	2245	S15	E25	9283	12	29.8	27D	SF		2	E		16		
0216	HOLL	27	2303	2311	2324	S07	E68	9289	01	2.0	21	SF		3	E		68		F
0217	LEAR	27	2305E	2310U	2322D	S08	E60	9289	01	1.5	17D	SF		3	E		28		F
		27	2357		2400	No Flare Patrol													
		28	0000		0022	No Flare Patrol													
0218	LEAR	28	0207	0208	0213	N12	W38	9280	12	25.2	6	SF		2	E		36		
0219	LEAR	28	0217	0220	0225	S08	E66	9289	01	2.0	8	SF		2	E		60		
0220	LEAR	28	0246	0251	0258	S08	E67	9289	01	2.1	12	SF		3	E		74		F
0221	LEAR	28	0410	0416	0443	S08	E67	9289	01	2.2	33	1F		3	E		109		F
0222	LEAR	28	0422	0422	0425	N09	W32	9280	12	25.8	3	SF		3	E		20		
0223	LEAR	28	0527	0529	0534	S07	E65	9289	01	2.1	7	SF		3	E		19		
0224	LEAR	28	0729	0734	0740	S08	E66	9289	01	2.3	11	SF		3	E		23		
		28	1023		1147	No Flare Patrol													
0225		28	1321	1326	1405	S08	E61	9289	01	2.1	44	1F					63		
	RAMY	28	1321	1326	1405	S07	E60	9289	01	2.0	44	1F		3	E		113		
	SVTO	28	1330E	1332U	1335D	S08	E62	9289	01	2.2	5D	SF		2	E		13		
0226	RAMY	28	1424	1425	1432	S07	W74	9279	12	23.0	8	SF		3	E		20		
0227	RAMY	28	1627	1627	1636	S12	E05	9283	12	29.1	9	SF		3	E		11		
0228		28	18241	18266	1838	S15	E04	9283	12	29.1	14	SF					24		F
	RAMY	28	1824	1832	1838	S15	E04	9283	12	29.1	14	SF		3	E		31		F
	HOLL	28	1825	1826	1838	S15	E05	9283	12	29.1	13	SF		3	E		16		F
0229	LEAR	29	0120	0125	0127	S11	W03	9283	12	28.8	7	SF		3	E		16		U
0230	LEAR	29	0136	0235	0323	S09	W02	9283	12	28.9	107	1F		3	E		202		F
0231	LEAR	29	0211	0221	0244	S08	E55	9289	01	2.2	33	1F		3	E		102		F
0232	URUM	29	0301E	0301	0303	S07	W05	9283B	12	28.7	2D	1F			C		370	3.8	E
0233	LEAR	29	0414	0418	0423	S15	W02	9283	12	29.0	9	SF		3	E		15		F
		29	1044		1143	No Flare Patrol													
0234	SVTO	29	1101E	1101U	1121D	S08	E50	9289	01	2.2	20D	SF		2	E		34		
		29	1255		1402	No Flare Patrol													
0235	RAMY	29	1402	1402	1410	N30	E14	9290	12	30.7	8	SF		3	E		13		
0236	RAMY	29	1402	1402	1421	S13	E40	9291	01	1.6	19	SF		3	E		12		
0237	RAMY	29	1402	1413	1440	S15	W08	9283	12	29.0	38	SF		3	E		62		

Hα SOLAR FLARES

DECEMBER 2000

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
0238	RAMY	29	1712	1725	1802	S09	W66	9279	12	24.8	50	SF		3	E		43		
0239		29	18431	1849	1858	S08	E46	9289	01	2.2	15	1F					208		FH
	HOLL	29	1843	1849	1859	S08	E46	9289	01	2.2	16	1F		3	E		195		H
	RAMY	29	1844	1849	1858	S09	E45	9289	01	2.1	14	1F		3	E		221		FH
0240	HOLL	29	2217	2218	2220	S08	E37	9289	01	1.7	3	SF		3	E		15		
0241		30	10203	1025*	1106	S09	W23	9283	12	28.7	46	SF					34		FH
	LEAR	30	1020	1025	1036D	S08	W21	9283	12	28.8	16D	SF		2	E		39		FH
	SVTO	30	1023	1039	1101	S11	W23	9283	12	28.7	38	SF		3	E		28		FH
	KANZ	30	1026E	1038	1111	S07	W25	9283	12	28.6	45D	1F		2	E				
0242		30	1146*	1147*	1218	S08	E38	9289	01	2.3	32	SF					16		
	KANZ	30	1146	1147	1216	S08	E37	9289	01	2.3	30	SF		2	E				
	RAMY	30	1215	1217	1220	S09	E38	9289	01	2.4	5	SF		3	E		16		
0243		30	1451	14535	1510	S08	E36	9289	01	2.3	19	SF					26		
	RAMY	30	1451	1453	1509	S08	E36	9289	01	2.3	18	SF		3	E		20		
	HOLL	30	1451	1458	1511	S07	E35	9289	01	2.2	20	SF		3	E		31		
0244	RAMY	30	1914	1921	1925	S15	W23	9283	12	29.1	11	SF		3	E		11		
0245	LEAR	31	0649	0650	0656	N21	E67	9292	01	5.4	7	SF		3	E		47		
		31	1050		1055	No Flare Patrol													
		31	1104		1110	No Flare Patrol													
0246	KANZ	31	1222	1223	1227	S10	E13	9291	01	1.5	5	SF		2	E				

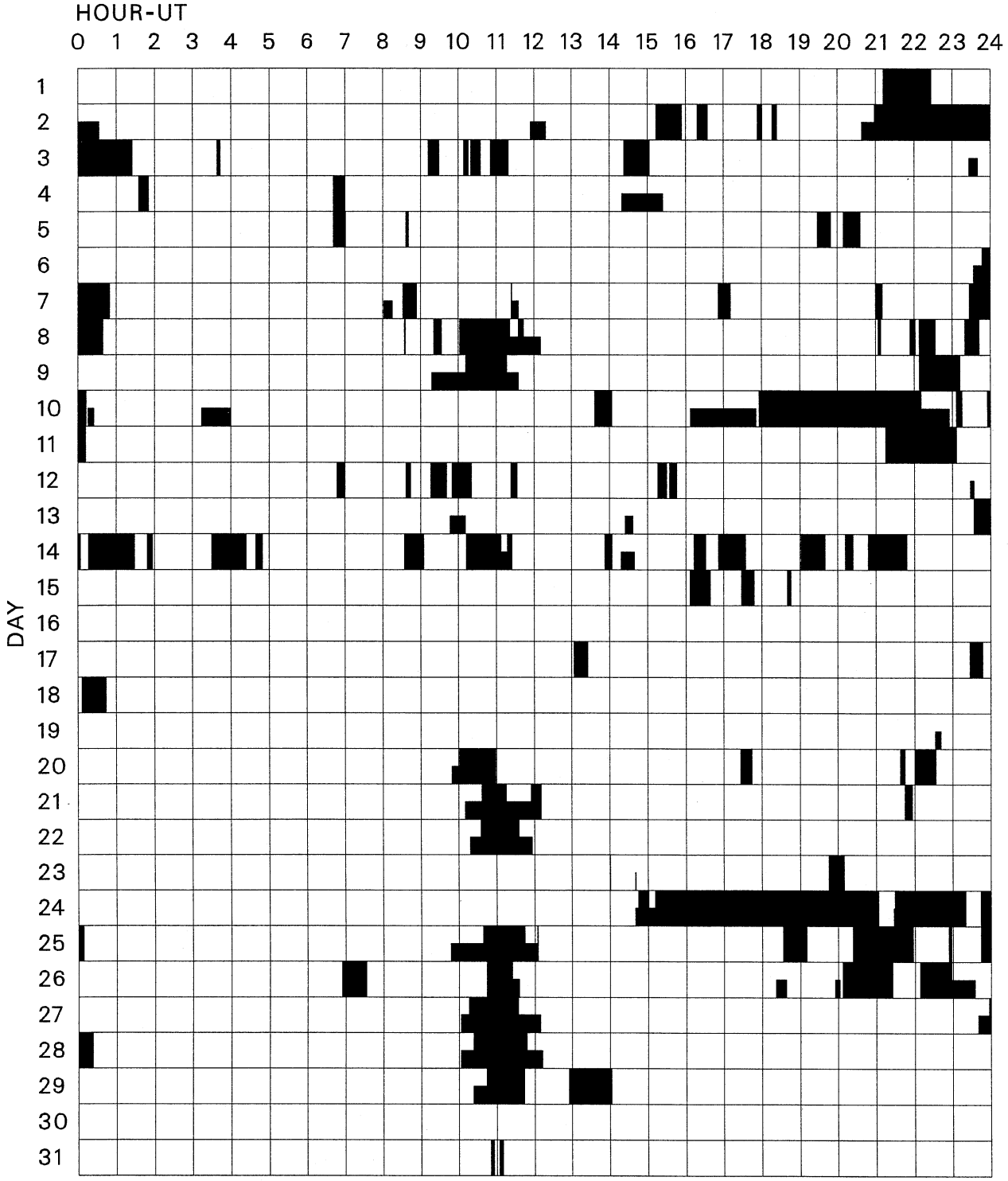
"Remarks"

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

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

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

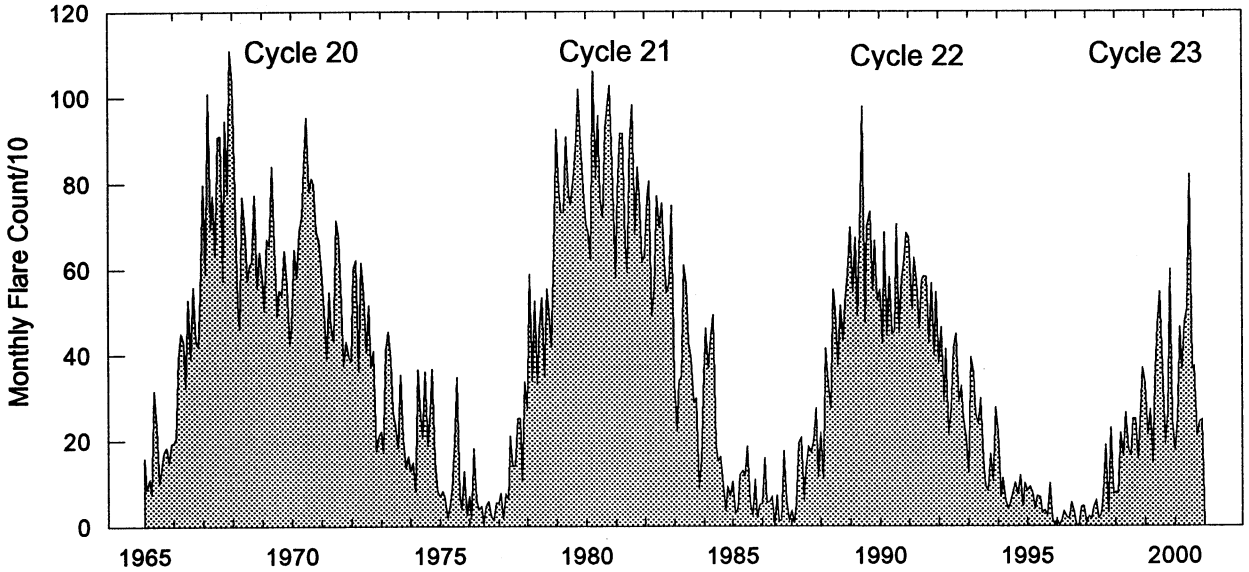
DECEMBER 2000



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 Urumqi Learmonth Ramey San Vito
Kanzelhoehe Mitaka

Monthly Counts of Grouped Solar Flares
Jan 1965 - Dec 2000



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1965	158	85	110	74	315	231	99	127	173	184	150	193	1899
1966	194	205	390	449	429	323	528	391	558	432	417	543	4859
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	172	198	273	114	1627
1988	217	109	413	328	274	551	502	375	513	429	518	587	4816
1989	695	544	672	488	691	977	474	699	733	547	665	526	7711
1990	550	424	684	442	580	445	454	703	449	574	623	682	6610
1991	672	503	625	570	458	574	582	581	425	565	396	544	6495
1992	380	462	287	412	214	271	413	447	287	325	248	206	3952
1993	123	392	357	262	237	296	154	92	82	167	104	275	2541
1994	217	67	111	60	40	56	81	101	72	117	45	99	1066
1995	82	95	77	42	69	66	29	37	23	99	14	6	639
1996	14	3	15	34	21	16	54	31	3	0	44	45	280
1997	8	22	18	43	59	18	26	75	188	31	228	74	790
1998	78	76	216	161	264	177	164	248	249	155	268	367	2423
1999	330	212	271	145	330	466	544	368	192	264	598	243	3963
2000	175	248	462	362	473	505	818	364	372	208	241	246	4474

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

SOLAR RADIO EMISSION
Outstanding Occurrences

DECEMBER 2000

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	SVTO	43	NS	0618.0	0742.0	204.0	210.0			QL=2 ST=2 TYP=1
	204	IZMI	44	NS	0700.0E		300.0D		65.0		
	127	TORN	44	NS	0700.0E		490.0D		20.0		V=2
	245	LEAR	43	NS	0702.0	0730.0	174.0	150.0			QL=4 ST=2 TYP=1
	245	SVTO	43	NS	1111.0	1225.0	227.0	180.0			QL=2 ST=2 TYP=1
	245	SGMR	43	NS	1217.0	1422.0	135.0	96.0			QL=4 ST=2 TYP=1
	280	CUBA	44	NS	1300.0E		450.0D		18.0		
	235	CUBA	44	NS	1300.0E		530.0D		7.0		
	245	SGMR	43	NS	1610.0	1623.0	73.0	110.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	2107.0	2137.0	173.0	240.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	2107.0	2107.0	173.0	100.0			QL=4 ST=1 TYP=1
	245	PALE	43	NS	2107.0	0027.0	173.0	440.0			QL=4 ST=1 TYP=1
	245	LEAR	43	NS	2216.0	0140.0	626.0	530.0			QL=4 ST=2 TYP=1
	410	LEAR	43	NS	2220.0	0131.0	377.0	160.0			QL=4 ST=2 TYP=1
	410	PALE	43	NS	2340.0	0051.0	20.0	180.0			QL=4 ST=1 TYP=1
	410	PALE	43	NS	2340.0	0006.0	20.0	90.0			QL=4 ST=1 TYP=1
	410	PALE	43	NS	2340.0	2340.0	20.0	50.0			QL=4 ST=1 TYP=1
	2840	PEKG	45	C	0038.0	0041.7	6.0	10.6			
	200	HIRA	8	S	0536.0	0536.0	1.0	40.0			0
	245	LEAR	8	S	0620.0	0621.0	2.0	96.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0625.0	0625.0	U	58.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0636.0	0637.0	2.0	63.0			QL=4 ST=2 TYP=3
	600	GORK	46	C	0638.4	0639.1		7.6			
	600	GORK	46	C	0638.4	0638.6	1.0	6.4			
	2950	GORK	1	S	0725.4	0725.6	1.8	7.4			
	600	GORK	4	S/F	0747.9	0748.5	0.9	13.0			
	204	IZMI	42	SER	0827.4	0828.2	11.0	1657.0	3.0		
	245	SVTO	8	S	0903.0	0904.0	1.0	370.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0909.0	0909.0	U	250.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0909.0	0909.0	U	250.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	0909.0	0909.0	U	100.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0918.0	0918.0	U	87.0			QL=4 ST=2 TYP=3
	600	GORK	41	F	0918.5	0931.0	14.8	9.3			
	410	SVTO	8	S	0921.0	0921.0	U	71.0			QL=4 ST=2 TYP=3
	900	GORK	41	F	1045.3	1049.3		30.0			
	900	GORK	41	F	1045.3	1046.7	8.2	22.0			
	600	GORK	4	S/F	1051.6	1052.3	1.3	19.0			
	9100	GORK	1	S	1059.2	1100.9U	3.3	11.0U			
	410	SVTO	8	S	1132.0	1132.0	U	86.0			QL=4 ST=2 TYP=3
	33	UPIC	45	C	1202.5	1203.0	1.5				
	33	UPIC	46	C	1408.0	1409.0U	4.5				
	245	SGMR	8	S	1521.0	1521.0	1.0	180.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1937.0	1939.0	7.0	74.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1958.0	1958.0	1.0	96.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	2337.0	2337.0	1.0	620.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	2337.0	2337.0	1.0	700.0			QL=4 ST=2 TYP=6
02	245	SVTO	43	NS	0647.0	0647.0U	26.0	72.0			QL=2 ST=2 TYP=1
	204	IZMI	44	NS	0700.0E		300.0D		25.0		
	127	TORN	44	NS	0700.0E		490.0D		3.0		V=1
	410	PALE	43	NS	2105.0	2107.0	122.0	110.0			QL=4 ST=2 TYP=1
	245	PALE	43	NS	2109.0	2329.0	267.0	430.0			QL=4 ST=2 TYP=1
	245	LEAR	43	NS	2220.0	2300.0U	182.0	630.0			QL=4 ST=2 TYP=1
	410	LEAR	8	S	0109.0	0109.0	1.0	270.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0109.0	0109.0	1.0	230.0			QL=4 ST=2 TYP=3
	600	GORK	8	S	0625.3	0625.5	0.6	27.0			
	600	GORK	3	S	0649.1	0649.2	0.3	6.7			
	600	GORK	46	C	0700.8	0704.2		19.0			
	600	GORK	46	C	0700.8	0702.7	7.5	40.0			
	900	GORK	46	C	0701.4	0704.3		11.0			
	900	GORK	46	C	0701.4	0703.3	4.9	14.0			
	2950	GORK	46	C	0702.5	0704.3		5.3			
	2950	GORK	46	C	0702.5	0703.9	2.1	4.9			
	204	IZMI	42	SER	0741.9	0742.8	1.2	208.0			
	3000	IZMI	22	GRF	0829.9	0830.4	10.5	16.0	6.0		
	2950	GORK	1	S	0830.0	0830.4	4.3	7.4			
	204	IZMI	41	F	0939.8	0939.9	0.4	98.0			
	245	LEAR	8	S	0946.0	0946.0	U	68.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1028.0	1028.0	1.0	54.0			QL=4 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
02	204	IZMI	42	SER	1033.9	1034.2	0.5	165.0			
	900	GORK	46	C	1043.8	1045.3		90.0			
	900	GORK	46	C	1043.8	1044.5	2.0	22.0			
	204	IZMI	42	SER	1045.8	1047.1	1.5	161.0			
	245	SGMR	8	S	1431.0	1432.0	1.0	63.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	2207.0	2207.0	U	2100.0			QL=4 ST=2 TYP=6
03	127	TORN	44	NS	0700.0E		350.0D		1.0		V=0
	204	IZMI	43	NS	1042.5		77.5D		30.0		
	204	IZMI	42	SER	0712.7	0733.5	29.8	40.0			
	204	IZMI	42	SER	1045.2	1110.2	25.0	70.0			
04	127	TORN	43	NS	0730.0	0841.7	81.7	60.0	1.0		V=1
	204	IZMI	7	C	0850.5	0850.6	0.5	77.0			
05	127	TORN	44	NS	0710.0E		430.0D		6.0		V=2
	204	IZMI	43	NS	0828.0		179.0U		15.0		
	500	HIRA	8	S	0443.0	0443.0	1.0	90.0			0
	245	LEAR	8	S	0447.0	0447.0	1.0	210.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0721.0	0721.0	U	88.0			QL=4 ST=2 TYP=3
	8800	LEAR	20	GRF	0845.0	0901.0	68.0	77.0			QL=4 ST=2 TYP=2
	245	SVTO	8	S	0900.0	0901.0	2.0	67.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0941.4	0941.4	0.2	93.0			
	204	IZMI	7	C	1040.1	1040.1	0.1	79.0			
	245	SVTO	48	C	1129.0	1136.0	7.0	77.0			QL=4 ST=2 TYP=8
06	204	IZMI	44	NS	0700.0E		300.0D		5.0		
	127	TORN	44	NS	0710.0E		430.0D		1.0		V=0
	280	CUBA	44	NS	1610.0E		340.0D		66.0		
	235	CUBA	44	NS	1610.0E		340.0D		12.0		
	9100	GORK	3	S	0803.4	0803.7	1.0	18.0			
	245	LEAR	8	S	0853.0	0853.0	U	83.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0853.0	0853.0	1.0	75.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0902.0	0902.0	1.0	76.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0902.0	0902.0	1.0	72.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1005.2	1007.8	6.6	80.0			
	245	SVTO	8	S	1020.0	1021.0	1.0	62.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1324.0	1324.0	U	55.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1324.0	1324.0	1.0	50.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1403.0	1403.0	U	56.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1403.0	1403.0	1.0	47.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1422.0	1422.0	U	96.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1422.0	1422.0	U	80.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1513.0	1513.0	1.0	54.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1550.0	1551.0	1.0	57.0			QL=4 ST=2 TYP=3
	500	HIRA	4	S/F	2222.0	2227.0	20.0	60.0			0
	410	PALE	4	S/F	2223.0	2225.0	8.0	36.0			QL=4 ST=2 TYP=3
	610	PALE	4	S/F	2223.0	2226.0	8.0	64.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	2223.0	2230.0	8.0	36.0			QL=4 ST=2 TYP=3
	4995	PALE	4	S/F	2223.0	2227.0	8.0	86.0			QL=4 ST=2 TYP=3
	8800	PALE	4	S/F	2223.0	2227.0	8.0	75.0			QL=4 ST=2 TYP=3
	15400	PALE	4	S/F	2223.0	2225.0	8.0	58.0			QL=4 ST=2 TYP=3
	410	LEAR	4	S/F	2225.0	2225.0	3.0	33.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	2225.0	2226.0	6.0	77.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	2226.0	2226.0	1.0	48.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	2226.0	2227.0	1.0	23.0			QL=4 ST=2 TYP=3
	200	HIRA	3	S	2226.0	2238.0	22.0	40.0			0
	410	LEAR	8	S	2233.0	2235.0	2.0	51.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	2233.0	2235.0	8.0	390.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	2234.0	2235.0	5.0	89.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	2234.0	2241.0	7.0	250.0			QL=4 ST=2 TYP=3
07	280	CUBA	44	NS	1450.0E		420.0D		61.0		
	235	CUBA	44	NS	1450.0E		420.0D		12.0		
	245	PALE	49	GB	0019.0	0021.0	2.0	2500.0			QL=2 ST=3 TYP=6
	245	LEAR	8	S	0020.0	0020.0	U	210.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0113.0	0115.5	5.0	4.7			
	245	LEAR	8	S	0232.0	0233.0	1.0	84.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0240.0	0241.0	1.0	190.0			0

S O L A R R A D I O E M I S S I O N
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
07	204	IZMI	7	C	0721.7	0721.8	0.2	48.0			
	245	LEAR	8	S	0801.0	0801.0	U	61.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0801.0	0801.0	U	64.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	0848.0	0848.0	0.1	13.0			
	245	SVTO	8	S	0955.0	0955.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1016.0	1016.0	1.0	120.0			QL=4 ST=2 TYP=3
08	235	CUBA	44	NS	1300.0E		530.0D		16.0		
	280	CUBA	44	NS	1450.0E		420.0D		61.0		
	410	SVTO	8	S	0814.0	0815.0	1.0	99.0			QL=4 ST=2 TYP=3
09	280	CUBA	44	NS	1300.0E		530.0D		63.0		
	235	CUBA	44	NS	1300.0E		530.0D		16.0		
	2950	GORK	1	S	0919.9	0920.2	1.1	5.6			
	3000	IZMI	5	S	0922.9	0923.2	0.5	8.0	4.0		
10	235	CUBA	44	NS	1420.0E		340.0D		14.0		
	280	CUBA	44	NS	1420.0E		340.0D		65.0		
11	127	TORN	44	NS	0700.0E		490.0D		4.0		V=0,DISTURBED
	280	CUBA	44	NS	1300.0E		240.0D		66.0		
	235	CUBA	44	NS	1300.0E		240.0D		12.0		
	410	LEAR	4	S/F	0129.0	0130.0	8.0	15.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0130.0	0130.0	7.0	100.0			QL=4 ST=2 TYP=3
12	127	TORN	44	NS	0720.0E		470.0D		2.0		V=0
	280	CUBA	44	NS	1300.0E		530.0D		74.0		
	235	CUBA	44	NS	1300.0E		530.0D		16.0		
	2840	PEKG	5	S	0444.0	0446.3	5.0	11.2			
	900	GORK	42	SER	0851.0	1003.0		17.0			
	600	GORK	42	SER	0851.0	0856.4	105.0	5.6			
	900	GORK	42	SER	0851.0	0905.5	91.5	15.0			
	600	GORK	42	SER	0851.0	0902.8		15.0			
	2950	GORK	22	GRF	0851.5	0902.4	36.1	8.3			
	204	IZMI	7	C	0902.2	0902.3	0.2	10.0			
	204	IZMI	7	C	0906.8	0906.9	0.2	10.0			
	204	IZMI	7	C	0908.5	0908.6	0.2	15.0			
	9500	CUBA	21	GRF	1440.0	1500.0	73.0	19.0	9.0		
	2695	SGMR	4	S/F	1441.0	1442.0	4.0	78.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1441.0	1442.9	3.5	19.0	9.0		
	4995	SGMR	4	S/F	1442.0	1442.0	3.0	69.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1442.0	1442.0	3.0	110.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1442.0	1442.0	1.0	55.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1442.0	1442.0	2.0	120.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1442.0	1442.0	2.0	59.0			QL=4 ST=2 TYP=3
13	127	TORN	44	NS	0720.0E		470.0D		16.0		V=1
	235	CUBA	44	NS	1300.0E		530.0D		20.0		
	280	CUBA	44	NS	1300.0E		530.0D		56.0		
	2840	PEKG	45	C	0215.0	0218.0	7.0	22.9			
	200	HIRA	8	S	0345.0	0345.0	1.0	40.0			WL
	3000	IZMI	22	GRF	0818.2	0819.7	7.1	10.0	4.0		
	600	GORK	4	S/F	0842.4	0842.6	1.0	26.0			
	900	GORK	40	F	0954.3	0954.6	2.0	20.0			
	33	UPIC	46	C	1101.0	1104.5	13.5				UNCERTN
	245	SGMR	8	S	1741.0	1742.0	2.0	74.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1741.0	1742.0	2.0	61.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1742.0	1742.0	U	81.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1742.0	1742.0	U	45.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1838.0	1838.0	U	400.0			QL=4 ST=3 TYP=3
	2695	PALE	8	S	2159.0	2200.0	2.0	39.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	2159.0	2200.0	1.0	23.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2200.0	2200.0	1.0	28.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2214.0	2214.0	U	160.0			QL=4 ST=2 TYP=3
14	127	TORN	44	NS	1110.0E		230.0D		20.0		V=0
	235	CUBA	44	NS	1400.0E		450.0D		22.0		
	280	CUBA	44	NS	1400.0E		450.0D		52.0		
	3000	IZMI	22	GRF	0910.7	0913.8	12.9	15.0	7.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
14	900	GORK	46	C	0924.2	0938.5		200.0			
	900	GORK	46	C	0924.2	0933.5	63.0	190.0			
	900	GORK	46	C	0924.2	0950.9		240.0			
	3000	IZMI	22	GRF	0925.6	0935.8	14.9	28.0	8.0		
	4995	SVTO	4	S/F	0930.0	0933.0	4.0	34.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0930.0	0930.0	2.0	130.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0930.0	0933.0	4.0	82.0			QL=4 ST=3 TYP=3
	1415	LEAR	4	S/F	0930.0	0930.0	11.0	150.0			QL=4 ST=2 TYP=3
	9100	GORK	20	GRF	0930.5	1000.0	90.0D	27.0			
	1415	SVTO	4	S/F	0935.0	0938.0	9.0	72.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0938.0	0938.0	1.0	47.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	0938.0	0938.0	6.0	81.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0942.8	0948.8	44.0	82.0			
	1415	LEAR	48	C	0945.0	0950.0	5.0	210.0			QL=4 ST=2 TYP=8
	1415	SVTO	4	S/F	0945.0	0950.0	6.0	180.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	0945.0	0950.0	6.0	34.0			QL=4 ST=2 TYP=3
	2950	GORK	21	GRF	0945.0E	1000.1	75.0D	16.0U			
	4995	SVTO	4	S/F	0946.0	0948.0	3.0	6.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	0949.0	0950.0	4.0	160.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	0950.0	0950.0	U	31.0			QL=4 ST=2 TYP=3
	3000	IZMI	45	C	0950.1	0950.2	0.3	941.0	145.0		
	600	GORK	46	C	0950.9	1009.3		55.0			
	600	GORK	46	C	0950.9	0957.5	43.9	70.0			
	600	GORK	46	C	0950.9	1004.7		50.0			
	410	LEAR	4	S/F	0954.0	0957.0	6.0	120.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0955.0	0957.0	2.0	61.0			QL=4 ST=2 TYP=3
	610	LEAR	4	S/F	0956.0	0957.0	4.0	53.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0956.0	0957.0	3.0	130.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0956.0	0957.0	2.0	57.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	0956.0	0957.0	2.0	110.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0956.0	0957.0	2.0	24.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1001.0	1002.0	1.0	120.0			QL=4 ST=2 TYP=3
	410	LEAR	4	S/F	1002.0E	1005.0	9.0D	97.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	1003.0E	1004.0	2.0D	53.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	1003.0	1004.0	2.0	71.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	1003.0	1005.0	3.0	64.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	1003.0	1009.0	7.0	76.0			QL=4 ST=2 TYP=3
	2695	SVTO	4	S/F	1004.0	1009.0	6.0	42.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1004.0	1011.0	8.0	62.0			QL=4 ST=3 TYP=3
	2950	GORK	46	C	1004.8	1008.0		4.9			
	2950	GORK	46	C	1004.8	1006.3	6.2	32.0			
	2950	GORK	46	C	1004.8	1009.4		4.9			
	245	LEAR	8	S	1007.0E	1009.0	2.0D	29.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	1008.0	1009.0	1.0	64.0			QL=4 ST=2 TYP=3
	3000	IZMI	7	C	1008.6	1009.2	1.6	35.0	12.0		
	204	IZMI	7	C	1053.4	1053.5	0.3	11.0			
	245	SVTO	8	S	1302.0	1302.0	U	72.0			QL=4 ST=2 TYP=3
	6700	CUBA	20	GRF	1517.0	1525.0	31.0	17.0	8.0		9L
	2800	PENT	29	PBI	2040.0	2048.0	21.0	12.0			
	6700	CUBA	21	GRF	2042.0	2053.0	27.0D	11.0	5.0		00L
	6700	CUBA	2	S/F	2047.2	2048.6	2.0	19.0	9.0		13R
	200	HIRA	8	S	2214.0	2214.0	1.0	240.0			0
	200	HIRA	8	S	2332.0	2333.0	1.0	70.0			0
	245	LEAR	8	S	2332.0	2332.0	1.0	100.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2332.0	2332.0	1.0	150.0			QL=4 ST=2 TYP=3
15	127	TORN	44	NS	1020.0E		280.0D		11.0		V=0
	235	CUBA	44	NS	1300.0E		430.0D		23.0		
	280	CUBA	44	NS	1300.0E		530.0D		51.0		
	245	SGMR	43	NS	1906.0	1918.0	294.0	170.0			QL=4 ST=1 TYP=1
	200	HIRA	8	S	0211.0	0212.0	1.0	30.0			0
	245	LEAR	8	S	0211.0	0211.0	1.0	87.0			QL=4 ST=2 TYP=3
	9100	GORK	41	F	0745.7	0802.4		9.1			
	9100	GORK	41	F	0745.7	0746.5	30.3	6.1			
	2950	GORK	41	F	0748.7	0807.1		4.9			
	2950	GORK	41	F	0748.7	0802.3	26.6	4.9			
	900	GORK	41	F	0756.5	0802.2		5.6			
	900	GORK	41	F	0756.5	0758.5	12.2	3.4			
	600	GORK	2	S/F	0904.4	0904.6	0.4	6.2			

SOLAR RADIO EMISSION
Outstanding Occurrences

DECEMBER 2000

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	600	GORK	8	S	0922.4	0922.5	0.4	28.0			
	900	GORK	1	S	0928.7	0929.6	3.3	6.7			
	600	GORK	1	S	0928.8	0929.5	2.4	3.4			
	2950	GORK	46	C	0928.9	0929.4	2.6	38.0			
	3000	IZMI	7	C	0928.9	0929.4	1.4	27.0	9.0		
	2950	GORK	46	C	0928.9	0929.7		30.0			
	9100	GORK	1	S	0929.3	0929.5	0.5	9.0			
	600	GORK	8	S	1042.8	1043.0	0.4	5.1			
	2950	GORK	2	S/F	1052.3	1055.6	5.5	7.4			
	900	GORK	41	F	1055.9	1056.1	1.1	120.0			
	900	GORK	41	F	1055.9	1056.4		37.0			
	2800	PENT	29	PBI	2117.0	2125.0	15.0U	11.0			
16	127	TORN	44	NS	0720.0E		470.0D		16.0		V=1
	235	CUBA	44	NS	1530.0E		270.0D		23.0		
	280	CUBA	44	NS	1530.0E		270.0D		51.0		
	900	GORK	40	F	0907.6	0907.8	1.4	9.0			
	2950	GORK	1	S	0910.6	0911.3	3.0	3.4			
	900	GORK	41	F	0922.2	0922.6	2.4	39.0			
	410	PALE	8	S	1751.0	1751.0	1.0	93.0			QL=4 ST=2 TYP=3
17	127	TORN	44	NS	0720.0E		230.0D		12.0		V=0
	280	CUBA	44	NS	1300.0E		240.0D		54.0		
	235	CUBA	44	NS	1300.0E		240.0D		28.0		
	610	LEAR	49	GB	0110.0	0111.0	1.0	680.0			QL=2 ST=2 TYP=6
	610	PALE	49	GB	0111.0	0111.0	U	860.0			QL=4 ST=2 TYP=6
	204	IZMI	7	C	0903.0	0903.1	0.3	9.0			
	245	SVTO	8	S	1141.0	1142.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1605.0	1605.0	1.0	91.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	2347.0	2348.0	2.0	92.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2347.0	2348.0	1.0	97.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	2357.0	2357.0	1.0	40.0			0
18	280	CUBA	44	NS	1330.0E		210.0D		81.0		
	235	CUBA	44	NS	1330.0E		210.0D		27.0		
	2840	PEKG	1	S	0044.0	0047.9	6.0	5.1			
	2840	PEKG	20	GRF	0237.0	0239.9	12.0	16.2			
	245	LEAR	4	S/F	0238.0	0239.0	7.0	90.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0239.0	0240.0	1.0	260.0			0
	245	PALE	8	S	0239.0	0239.0	1.0	98.0			QL=4 ST=2 TYP=3
	200	HIRA	47	GB	0452.0	0452.0	1.0	570.0			0
	610	LEAR	8	S	0452.0	0452.0	1.0	64.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0452.0	0452.0	1.0	2200.0			QL=4 ST=2 TYP=6
	500	HIRA	8	S	0453.0	0453.0	1.0	130.0			WR
	200	HIRA	8	S	0456.0	0456.0	1.0	30.0			0
	500	HIRA	8	S	0528.0	0528.0	1.0	230.0			0
	200	HIRA	8	S	0528.0	0528.0	1.0	50.0			0
	245	LEAR	49	GB	0528.0	0528.0	U	560.0			QL=4 ST=2 TYP=6
	410	LEAR	8	S	0528.0	0528.0	U	270.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0707.9	0708.1	0.3	148.0			
	204	IZMI	42	SER	0711.7	0712.2	1.3	66.0			
	600	GORK	46	C	0716.4	0717.0		36.0			
	600	GORK	46	C	0716.4	0716.7	0.9	5.2			
	600	GORK	42	SER	0732.3	0801.3	161.2	20.0			
	600	GORK	42	SER	0732.3	0831.4		45.0U			
	410	LEAR	8	S	0823.0	0824.0	1.0	55.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0823.0	0824.0	1.0	56.0			QL=4 ST=2 TYP=3
	900	GORK	42	SER	0825.1	0842.8	69.3	10.0			
	900	GORK	42	SER	0825.1	0933.9		11.0			
	610	LEAR	8	S	0831.0	0831.0	U	220.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0831.0	0831.0	U	110.0			QL=4 ST=2 TYP=3
	2950	GORK	2	S/F	0838.1	0838.7	2.6	14.0			
	3000	IZMI	20	GRF	0838.2	0839.0	1.7	15.0	8.0		
	410	LEAR	8	S	0841.0	0841.0	2.0	82.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0841.0	0842.0	1.0	460.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0842.0	0842.0	1.0	430.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0842.0	0842.0	2.0	61.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0842.7	0842.8	0.9	9.0			
	3000	IZMI	7	C	0855.2	0856.3	1.4	6.0	3.0		

SOLAR RADIO EMISSION
Outstanding Occurrences

DECEMBER 2000

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
18	204	IZMI	41	F	0936.6	0936.8	1.4	9.0			
	900	GORK	41	F	0942.8	0944.3		18.0			
	900	GORK	41	F	0942.8	0943.4	1.6	8.3			
	3000	IZMI	45	C	1105.6	1107.0	4.9	46.0	18.0		
	4995	SVTO	4	S/F	1106.0	1107.0	5.0	45.0			QL=4 ST=2 TYP=3
	1415	SVTO	49	GB	1106.0	1107.0	4.0	580.0			QL=4 ST=2 TYP=6
	2695	SVTO	4	S/F	1106.0	1107.0	7.0	54.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	1108.0	1109.0	8.0	96.0			QL=4 ST=2 TYP=3
	610	SVTO	4	S/F	1108.0	1115.0	8.0	150.0			QL=4 ST=2 TYP=3
	410	SVTO	4	S/F	1108.0	1115.0	8.0	57.0			QL=4 ST=2 TYP=3
	204	IZMI	46	C	1108.0	1111.1	9.7	103.0			
	33	UPIC	46	C	1114.0	1114.8	2.5				
	4995	LEAR	8	S	2303.0	2304.0	2.0	41.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	2303.0	2304.0	2.0	55.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	2303.0	2305.0	2.0	23.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2304.0	2304.0	1.0	57.0			QL=4 ST=2 TYP=3
19	280	CUBA	44	NS	1600.0E		350.0D		77.0		
	235	CUBA	44	NS	1600.0E		350.0D		26.0		
	2840	PEKG	45	C	0454.0	0456.6	6.0	33.3			
	2840	PEKG	5	S	0611.0	0613.2	8.0	24.7			
	600	GORK	40	F	0750.5	0828.4	58.5	40.0U			
	204	IZMI	42	SER	0752.5	0752.7	0.5	39.0			
	900	GORK	42	SER	0756.7	0820.0U	51.8	140.0U			
	900	GORK	42	SER	0756.7	0830.8		34.0			
	204	IZMI	42	SER	0803.4	0803.7	2.7	46.0			
	204	IZMI	7	C	0814.9	0815.0	0.2	29.0			
	600	GORK	42	SER	0851.3	0931.1		10.0			
	600	GORK	42	SER	0851.3	0851.8	48.5	11.0			
	900	GORK	40	F	0931.2	0931.8	2.0	25.0			
	9100	GORK	2	S/F	0943.5	0943.6	0.4	25.0			
	9100	GORK	4	S/F	0956.0	0956.3	1.6	80.0			
	900	GORK	41	F	0958.8	1006.0		5.2			
	900	GORK	41	F	0958.8	0959.2	7.4	14.0			
	600	GORK	40	F	0959.5	0959.8	2.3	24.0			
	9100	GORK	42	SER	1005.8	1006.3	14.4	8.1			
	9100	GORK	42	SER	1005.8	1018.5		20.0			
	9100	GORK	42	SER	1005.8	1014.6		9.7			
	3000	IZMI	45	C	1015.7	1023.3	12.5	46.0	7.0		
	2950	GORK	46	C	1018.2	1023.3		46.0			
	600	GORK	46	C	1018.2	1018.4	1.1	8.3			
	900	GORK	46	C	1018.2	1021.5	11.0	10.0			
	600	GORK	46	C	1018.2	1018.7		11.0			
	900	GORK	46	C	1018.2	1022.9		48.0			
	2950	GORK	46	C	1018.2	1018.9	10.1	12.0			
	204	IZMI	42	SER	1018.4	1018.5	0.2	24.0			
	8800	LEAR	8	S	1022.0	1023.0	2.0	130.0			QL=4 ST=3 TYP=3
	15400	LEAR	8	S	1022.0	1023.0	2.0	170.0			QL=4 ST=3 TYP=3
	4995	LEAR	8	S	1022.0	1023.0	2.0	72.0			QL=4 ST=3 TYP=3
	1415	LEAR	8	S	1022.0	1023.0	2.0	27.0			QL=4 ST=3 TYP=3
	9100	GORK	46	C	1022.2	1023.2	5.1	160.0			
	9100	GORK	46	C	1022.2	1024.2		100.0			
	600	GORK	46	C	1022.4	1023.1	8.1	16.0			
	600	GORK	46	C	1022.4	1023.7		28.0			
	204	IZMI	42	SER	1022.8	1023.7	3.4	13.0			
	2695	LEAR	8	S	1023.0	1023.0	1.0	54.0			QL=4 ST=3 TYP=3
	9100	GORK	2	S/F	1035.0	1035.2	9.5	13.0			
	600	GORK	46	C	1037.4	1038.0		17.0			
	600	GORK	46	C	1037.4	1037.7	1.2	19.0			
	204	IZMI	46	C	1128.9	1129.2	3.0	229.0			
	245	SVTO	8	S	1129.0	1129.0	1.0	81.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	1135.4	1135.4	0.6	11.0			
	204	IZMI	45	C	1138.4	1138.5	0.2	118.0			
	204	IZMI	7	C	1155.5	1155.6	0.4	9.0			
	245	SGMR	8	S	1257.0	1257.0	U	220.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1257.0	1257.0	1.0	240.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1413.0	1414.0	3.0	190.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1413.0	1415.0	3.0	210.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1413.0	1414.0	1.0	170.0			QL=4 ST=2 TYP=3

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

DECEMBER 2000

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	410	SVTO	8	S	1414.0	1415.0	1.0	270.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1416.0	1416.0	U	150.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1416.0	1416.0	U	150.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	1856.0	1858.0	5.0	9.0			
	245	SGMR	4	S/F	1930.0	1930.0	3.0	61.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2300.0	2300.0	1.0	45.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	2307.0	2307.0	U	36.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2307.0	2307.0	U	26.0			QL=4 ST=2 TYP=3
20	127	TORN	44	NS	1030.0E		210.0D		1.0		V=0
	280	CUBA	44	NS	1530.0E		330.0D		71.0		
	235	CUBA	44	NS	1530.0E		330.0D		30.0		
	200	HIRA	8	S	0321.0	0321.0	1.0	170.0			0
	2840	PEKG	45	C	0601.0	0603.7	8.0	44.5			
	4995	LEAR	8	S	0603.0	0603.0	1.0	71.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0603.0	0603.0	1.0	37.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0603.0	0603.0	1.0	320.0			QL=4 ST=2 TYP=3
	900	GORK	40	F	1044.5	1045.8	2.2	140.0			
	600	GORK	2	S/F	1047.7	1048.0	0.7	13.0			
	410	SVTO	8	S	1150.0	1151.0	1.0	140.0			QL=4 ST=2 TYP=3
	2800	PENT	20	GRF	2034.0	2040.0	12.0	3.0			
21	127	TORN	44	NS	0720.0E		470.0D		5.0		V=1
	280	CUBA	44	NS	1400.0E		470.0D		85.0		
	235	CUBA	44	NS	1400.0E		470.0D		23.0		
	200	HIRA	8	S	0147.0	0147.0	1.0	30.0			0
	33	UPIC	46	C	0701.0	0702.0	7.0				UNCERTN
	204	IZMI	42	SER	0733.2	0733.4	1.1	28.0			
	600	GORK	42	SER	0748.7	0749.2	9.5	7.9			
	600	GORK	42	SER	0748.7	0757.6		30.0			
	2950	GORK	23	GRF	0825.3	0859.0	135.0	8.6			
	2950	GORK	23	GRF	0825.3	0941.8		7.5			
	900	GORK	42	SER	0859.3	0941.0U		135.0U			
	900	GORK	42	SER	0859.3	1035.6		19.0			
	900	GORK	42	SER	0859.3	0859.7	97.7	22.0			
	600	GORK	2	S/F	0930.2	0930.5	0.5	18.0			
	9100	GORK	2	S/F	1029.0	1029.6	2.1	21.0			
	410	SVTO	8	S	1210.0	1211.0	2.0	130.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1211.0	1212.0	2.0	31.0			QL=4 ST=2 TYP=3
22	127	TORN	44	NS	0720.0E		230.0D		1.0		V=1
	235	CUBA	44	NS	1600.0E		330.0D		28.0		
	280	CUBA	44	NS	1600.0E		330.0D		77.0		
	410	LEAR	8	S	0605.0	0605.0	1.0	86.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0605.0	0605.0	1.0	67.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0606.0	0606.0	1.0	30.0			0
	600	GORK	2	S/F	1005.4	1005.5	0.3	3.6			
	9100	GORK	40	F	1005.8	1006.3	1.1	14.0			
	900	GORK	2	S/F	1006.8	1007.4	1.1	7.0			
	2950	GORK	2	S/F	1006.8	1009.5	5.1	8.6			
	600	GORK	46	C	1007.8	1009.2	4.0	17.0			
	600	GORK	46	C	1007.8	1009.9		16.0			
	3000	IZMI	5	S	1008.9	1009.5	1.0	10.0	5.0		
	6700	CUBA	1	S	1607.5	1607.7	0.7	9.0	4.0		00L
	245	SGMR	8	S	1659.0	1659.0	1.0	76.0			QL=4 ST=2 TYP=3
	6700	CUBA	2	S/F	1932.5	1933.0	3.3	12.0	6.0		21L
	410	PALE	8	S	2014.0	2014.0	U	44.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2014.0	2016.0	2.0	280.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2014.0	2014.0	U	130.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	2014.0	2014.0	U	36.0			QL=2 ST=2 TYP=3
	6700	CUBA	1	S	2014.2	2014.5	0.8	14.0	7.0		00L
	2800	PENT	29	PBI	2034.0	2037.0	11.0	10.0			
	245	PALE	8	S	2128.0	2128.0	U	110.0			QL=4 ST=2 TYP=3
23	127	TORN	44	NS	0720.0E		470.0D		10.0		V=1
	245	LEAR	8	S	0232.0	0233.0	1.0	110.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0251.0	0252.0	1.0	55.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0251.0	0251.0	1.0	48.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0254.0	0254.0	1.0	37.0			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

DECEMBER 2000

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
23	245	PALE	8	S	0254.0	0254.0	1.0	42.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0341.0	0342.0	1.0	42.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0455.0	0457.9	5.0	7.4			
	245	LEAR	8	S	0631.0	0631.0	U	73.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0717.7	0717.8	0.3	34.0			
	600	GORK	22	GRF	0853.3	0854.6	12.7	3.0			
	600	GORK	22	GRF	0853.3	0904.8		3.0			
	900	GORK	46	C	0854.9	0855.6U	1.3	130.0U			
	127	TORN	27	RF	1240.8	1256.8	67.0	100.0	30.0		
	245	SGMR	4	S/F	1242.0	1247.0	6.0	150.0			QL=4 ST=2 TYP=3
	245	SVTO	48	C	1242.0	1247.0	8.0	180.0			QL=4 ST=2 TYP=8
	245	SVTO	8	S	1254.0	1254.0	1.0	94.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1737.0	1737.0	1.0	61.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1817.0	1817.0	U	72.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1911.0	1911.0	U	58.0			QL=4 ST=2 TYP=3
	2800	PENT	1	S	2111.0	2114.0	6.0	5.0			
24	245	LEAR	43	NS	0608.0	0746.0	112.0	130.0			QL=4 ST=2 TYP=1
	127	TORN	44	NS	0720.0E		460.0D		2.0		V=1
	245	SVTO	43	NS	0732.0	0746.0	29.0	130.0			QL=4 ST=2 TYP=1
	2840	PEKG	45	C	0100.0	0102.4	11.0	24.0			
	200	HIRA	8	S	0101.0	0102.0	2.0	40.0			0
	500	HIRA	8	S	0101.0	0102.0	1.0	110.0			0
	4995	LEAR	8	S	0101.0	0102.0	1.0	32.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0101.0	0102.0	1.0	130.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0101.0	0102.0	1.0	20.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0101.0	0102.0	1.0	9.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0101.0	0102.0	1.0	180.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0102.0	0102.0	2.0	44.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0102.0	0102.0	U	140.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0102.0	0102.0	U	250.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0107.0	0108.0	2.0	40.0			0
	4995	LEAR	8	S	0107.0	0107.0	2.0	33.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0107.0	0107.0	2.0	31.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0107.0	0107.0	2.0	83.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0107.0	0107.0	1.0	100.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0107.0	0107.0	1.0	32.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0107.0	0108.0	1.0	33.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0246.0	0248.0	2.0	130.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0246.0	0248.0	2.0	180.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0608.0	0610.0	2.0	40.0			WR
	8800	SVTO	8	S	0648.0	0649.0	1.0	57.0			QL=2 ST=2 TYP=3
	15400	LEAR	8	S	0649.0	0649.0	U	53.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0649.0	0649.0	U	27.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0649.0	0649.0	U	46.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	0649.0	0649.0	U	24.0			QL=2 ST=2 TYP=3
	204	IZMI	25	R	0700.0E		18.0D		60.0		
	245	SVTO	8	S	0703.0	0705.0	2.0	140.0			QL=4 ST=2 TYP=3
	204	IZMI	25	R	0958.0E		132.0D		30.0		
	8800	SVTO	20	GRF	1105.0	1106.0	26.0	24.0			QL=4 ST=2 TYP=2
	4995	SVTO	20	GRF	1105.0	1111.0	31.0	18.0			QL=4 ST=2 TYP=2
	15400	SVTO	20	GRF	1105.0	1113.0	31.0	14.0			QL=4 ST=2 TYP=2
	245	SVTO	48	C	1108.0	1117.0	21.0	110.0			QL=4 ST=2 TYP=8
	2695	SVTO	4	S/F	1109.0	1110.0	3.0	24.0			QL=4 ST=2 TYP=3
	1415	SVTO	4	S/F	1109.0	1111.0	3.0	20.0			QL=4 ST=2 TYP=3
	204	IZMI	45	C	1112.9	1113.3	0.5	143.0			
	245	SVTO	8	S	1145.0	1146.0	2.0	73.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1256.0	1256.0	2.0	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1256.0	1256.0	U	100.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1402.0	1402.0	2.0	86.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1402.0	1402.0	1.0	69.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1502.0	1502.0	U	61.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1616.0	1616.0	U	62.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1936.0	1937.0	2.0	110.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1937.0	1937.0	1.0	150.0			QL=4 ST=2 TYP=3
25	500	HIRA	8	S	0157.0	0158.0	1.0	200.0			0
	900	GORK	4	S/F	1005.1	1006.0U	1.7	140.0U			
	9100	GORK	8	S	1010.6	1010.8	0.4	60.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

DECEMBER 2000

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
26	204	IZMI	43	NS	1012.0		103.0U		5.0		
	204	IZMI	7	C	0929.6	0929.8	0.3	8.0			
	204	IZMI	45	C	0944.5	0944.6	0.2	373.0			
	900	GORK	45	C	1014.6	1015.0	0.6	7.9			
	900	GORK	46	C	1019.1	1020.1		46.0			
	900	GORK	46	C	1019.1	1019.5	1.5	37.0			
	9100	GORK	1	S	1019.5	1019.9	1.0	9.5			
	900	GORK	8	S	1027.2	1027.3	0.8	100.0			
	2950	GORK	2	S/F	1030.0	1031.4	2.5	8.3			
	9100	GORK	1	S	1031.1	1031.5	0.7	8.2			
	9100	GORK	46	C	1042.0	1046.0		12.0			
	9100	GORK	46	C	1042.0	1043.5	6.3	11.0			
	2950	GORK	46	C	1043.3	1045.3		8.4			
	2950	GORK	46	C	1043.3	1043.6	5.7	6.3			
	900	GORK	41	F	1044.5	1050.1		10.0			
	900	GORK	41	F	1044.5	1047.5	6.0	38.0			
	2950	GORK	2	S/F	1052.7	1053.7	3.8	10.0			
	9100	GORK	1	S	1053.0	1053.8	4.1	14.0			
27	235	CUBA	44	NS	1300.0E		240.0D		22.0		
	280	CUBA	44	NS	1300.0E		240.0D		78.0		
	204	IZMI	42	SER	0719.8	0720.3	0.6	13.0			
	204	IZMI	41	F	0934.2	0934.3	0.6	9.0			
	204	IZMI	42	SER	1031.8	1032.2	0.6	44.0			
	204	IZMI	41	F	1144.8	1144.9	0.3	20.0			
	6700	CUBA	21	GRF	1530.0	1545.0	67.0	23.0	11.0		00R
	6700	CUBA	2	S/F	1532.0	1533.0	2.0	11.0	5.0		25R
	245	SGMR	4	S/F	1535.0	1539.0	7.0	58.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	1535.0	1540.0	14.0	380.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1538.0	1540.0	12.0	200.0			QL=4 ST=2 TYP=3
	9500	CUBA	46	C	1538.2	1540.2	5.0	179.0			
	4995	SGMR	4	S/F	1539.0	1540.0	11.0	110.0			QL=4 ST=2 TYP=3
	1415	SGMR	4	S/F	1539.0	1539.0	11.0	38.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1539.0	1540.0	11.0	48.0			QL=4 ST=2 TYP=3
	6700	CUBA	46	C	1539.0	1540.3	4.0	157.0			4R COMPLEX POL
	245	SGMR	8	S	1623.0	1624.0	1.0	82.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1735.0	1737.0	6.0	1600.0			QL=4 ST=2 TYP=6
	4995	SGMR	4	S/F	1735.0	1738.0	6.0	41.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	1736.0	1737.0	6.0	250.0			QL=4 ST=2 TYP=3
	410	SGMR	4	S/F	1736.0	1737.0	5.0	210.0			QL=4 ST=2 TYP=3
	9500	CUBA	45	C	1736.2	1737.0	1.1	52.0			
	245	PALE	49	GB	1737.0	1737.0	U	1400.0			QL=4 ST=2 TYP=6
	610	SGMR	4	S/F	1737.0	1738.0	4.0	26.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1737.0	1737.0	4.0	48.0			QL=4 ST=3 TYP=3
	15400	SGMR	4	S/F	1737.0	1737.0	4.0	35.0			QL=4 ST=3 TYP=3
	6700	CUBA	45	C	1737.3	1738.0	1.2	57.0			7R
	245	SGMR	8	S	1742.0	1743.0	1.0	75.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1743.0	1743.0	U	88.0			QL=4 ST=2 TYP=3
	9500	CUBA	1	S	1816.9	1817.3	1.6	47.0	23.0		
	6700	CUBA	1	S	1817.9	1818.4	1.3	14.0	7.0		32L
	15400	SGMR	8	S	1818.0	1818.0	U	95.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1818.0	1818.0	U	46.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1835.0	1835.0	U	200.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1835.0	1835.0	1.0	170.0			QL=4 ST=2 TYP=3
	6700	CUBA	21	GRF	1851.0	2123.0	207.0D	27.0	13.0		00R SUNSET
	2800	PENT	1	S	2128.0	2130.0	3.0	4.0			
28	280	CUBA	44	NS	1400.0E		470.0D		72.0		
	235	CUBA	44	NS	1400.0E		470.0D		21.0		
	2840	PEKG	5	S	0205.0	0206.0	4.0	13.1			
	15400	LEAR	8	S	0245.0	0246.0	1.0	66.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0246.0	0246.0	U	26.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0410.0	0413.9	7.0	23.5			
	15400	LEAR	8	S	0412.0	0412.0	2.0	64.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0412.0	0412.0	2.0	98.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0412.0	0413.0	2.0	58.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0421.0	0422.0	1.0	51.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0502.0	0502.0	1.0	65.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	1027.9	1027.9	0.3	40.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

DECEMBER 2000

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
28	410	SVTO	8	S	1211.0	1211.0	1.0	69.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2337.0	2337.0	1.0	240.0			QL=4 ST=2 TYP=3
29	204	IZMI	43	NS	0700.0		300.0D		5.0		
	127	TORN	44	NS	1240.0E		80.0D		4.0		V=0
	235	CUBA	44	NS	1300.0E		530.0D		22.0		
	280	CUBA	44	NS	1300.0E		530.0D		88.0		
	8800	LEAR	20	GRF	0204.0	0220.0	48.0	29.0			QL=4 ST=2 TYP=2
	15400	LEAR	20	GRF	0211.0	0219.0	40.0	26.0			QL=4 ST=2 TYP=2
	500	HIRA	7	C	0223.0	0228.0	9.0	40.0			
	245	PALE	8	S	0238.0	0240.0	2.0	75.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0239.0	0239.0	1.0	65.0			QL=4 ST=2 TYP=3
	204	IZMI	7	C	1155.9	1156.1	0.9	15.0			
	6700	CUBA	21	GRF	1839.0	1849.0	45.0	13.0	6.0		OOR
	2800	PENT	40	F	1842.0	1845.0	19.0	10.0			
	6700	CUBA	3	S	1844.0	1845.4	5.0	108.0	54.0		8R
	15400	SGMR	8	S	1845.0	1845.0	U	54.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1845.0	1845.0	1.0	110.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1845.0	1845.0	1.0	75.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2328.0	2329.0	1.0	60.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	2339.0	2340.0	2.0	60.0			0
30	204	IZMI	44	NS	0700.0E		300.0D		70.0		
	245	LEAR	43	NS	0704.0	0903.0	192.0	170.0			QL=4 ST=2 TYP=1
	127	TORN	44	NS	0720.0E		470.0D		7.0		V=2
	245	SVTO	43	NS	0733.0	0917.0	173.0	190.0			QL=4 ST=2 TYP=1
	245	SGMR	43	NS	1330.0	1337.0U	19.0	240.0			QL=4 ST=2 TYP=1
	235	CUBA	44	NS	1350.0E		320.0D		43.0		
	280	CUBA	44	NS	1350.0E		320.0D		117.0		
	245	LEAR	43	NS	2228.0	2235.0	30.0	81.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	0002.0	0002.0	U	130.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0209.0	0209.0	1.0	190.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0209.0	0209.0	U	310.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0449.0	0449.0	U	69.0			QL=4 ST=2 TYP=3
	2840	PEKG	5	S	0507.0	0509.0	5.0	19.1			
	200	HIRA	8	S	0510.0	0510.0	1.0	440.0			0
	245	LEAR	49	GB	0510.0	0510.0	U	550.0			QL=4 ST=2 TYP=6
	410	LEAR	8	S	0510.0	0510.0	U	61.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0545.0	0545.0	1.0	110.0			0
	245	LEAR	8	S	0545.0	0545.0	U	150.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0559.0	0559.0	1.0	63.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0601.0	0603.0	2.0	91.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0632.0	0634.0	2.0	29.0			QL=4 ST=2 TYP=3
	200	HIRA	8	S	0639.0	0639.0	1.0	60.0			0
	245	LEAR	48	C	0914.0	0917.0	7.0	250.0			QL=4 ST=2 TYP=8
	2950	GORK	20	GRF	1019.5	1026.9	25.5D	9.6			
	3000	IZMI	22	GRF	1022.7	1030.8	29.3U	17.0	10.0		
	9100	GORK	20	GRF	1024.0	1040.4	21.0D	14.6			
	410	SVTO	4	S/F	1100.0	1108.0	9.0	51.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1108.0	1108.0	1.0	51.0			QL=4 ST=3 TYP=3
	410	SVTO	8	S	1108.0	1108.0	1.0	49.0			QL=4 ST=3 TYP=3
	410	SVTO	8	S	1113.0	1113.0	U	50.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1220.0	1220.0	U	83.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1235.0	1235.0	1.0	97.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1248.0	1248.0	1.0	83.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1305.0	1305.0	1.0	72.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	1320.0	1322.0	4.0	54.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1335.0	1337.0	2.0	150.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1348.0	1349.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1436.0	1436.0	U	69.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1447.0	1447.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1447.0	1447.0	1.0	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1506.0	1507.0	1.0	120.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1535.0	1535.0	2.0	110.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1714.0	1714.0	U	290.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	1845.0	1845.0	U	51.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	1845.0	1845.0	U	44.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2235.0	2236.0	1.0	120.0			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

DECEMBER 2000

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
31	245	LEAR	43	NS	0325.0	0327.0	249.0	68.0			QL=4 ST=2 TYP=1
	204	IZMI	44	NS	0700.0E		300.0D		70.0		
	127	TORN	44	NS	0720.0E		470.0D		1.0		V=1
	245	LEAR	43	NS	0840.0	0840.0	34.0	270.0			QL=4 ST=2 TYP=1
	280	CUBA	44	NS	1340.0E		360.0D		91.0		
	235	CUBA	44	NS	1340.0E		360.0D		26.0		
	2840	PEKG	5	S	0432.0	0434.1	5.0	11.4			
	245	LEAR	8	S	0650.0	0650.0	U	100.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0820.0	0820.0	1.0	81.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1511.0	1511.0	U	81.0			QL=4 ST=2 TYP=3

Reports are received routinely from the following observatories:

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

Explanation of Type Code:

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

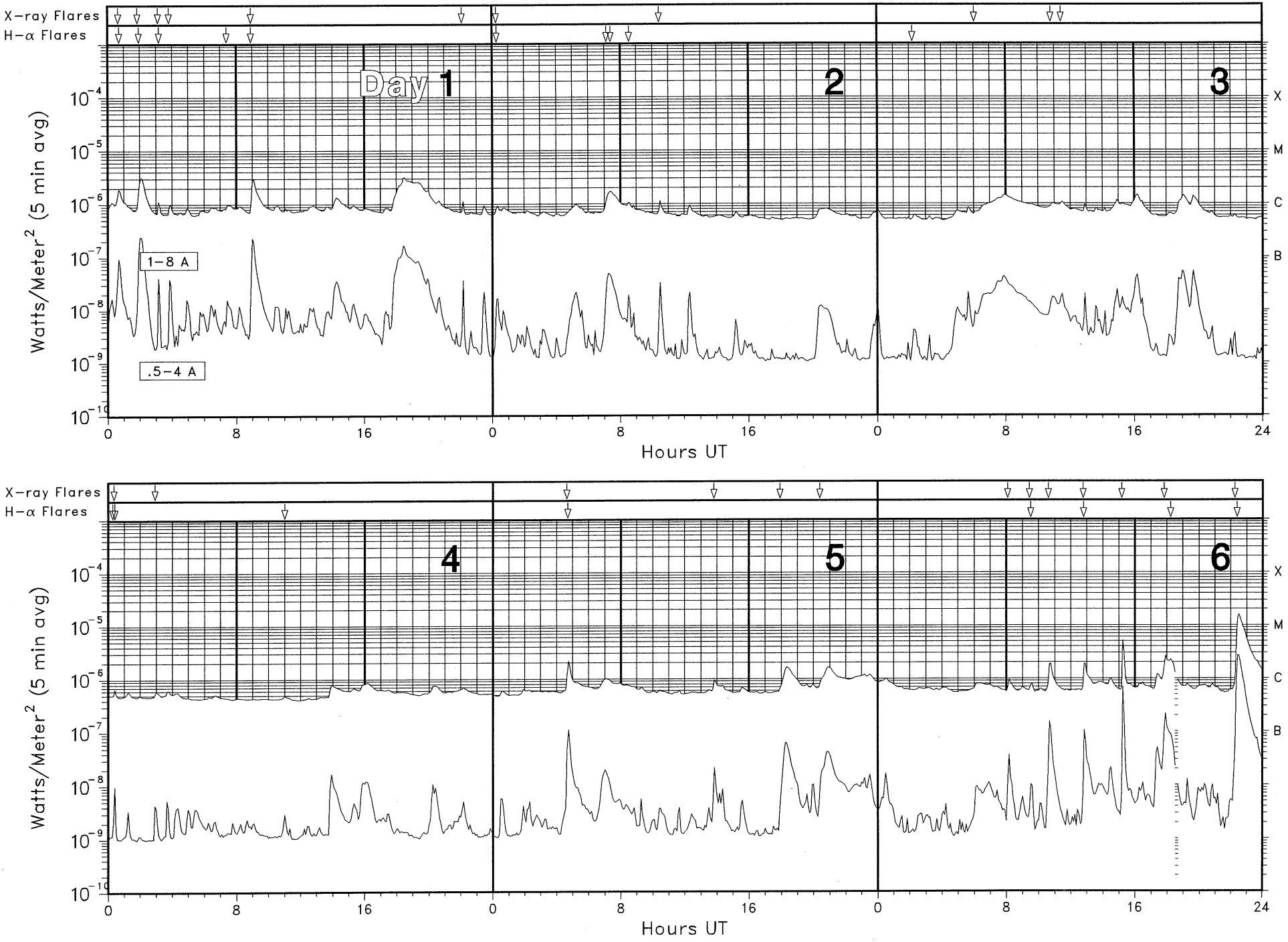
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F
3A Simple 2A	40 Rise Only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF	40F Rise Only F	260 Fall Only	31A Post Burst Decrease A
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A

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

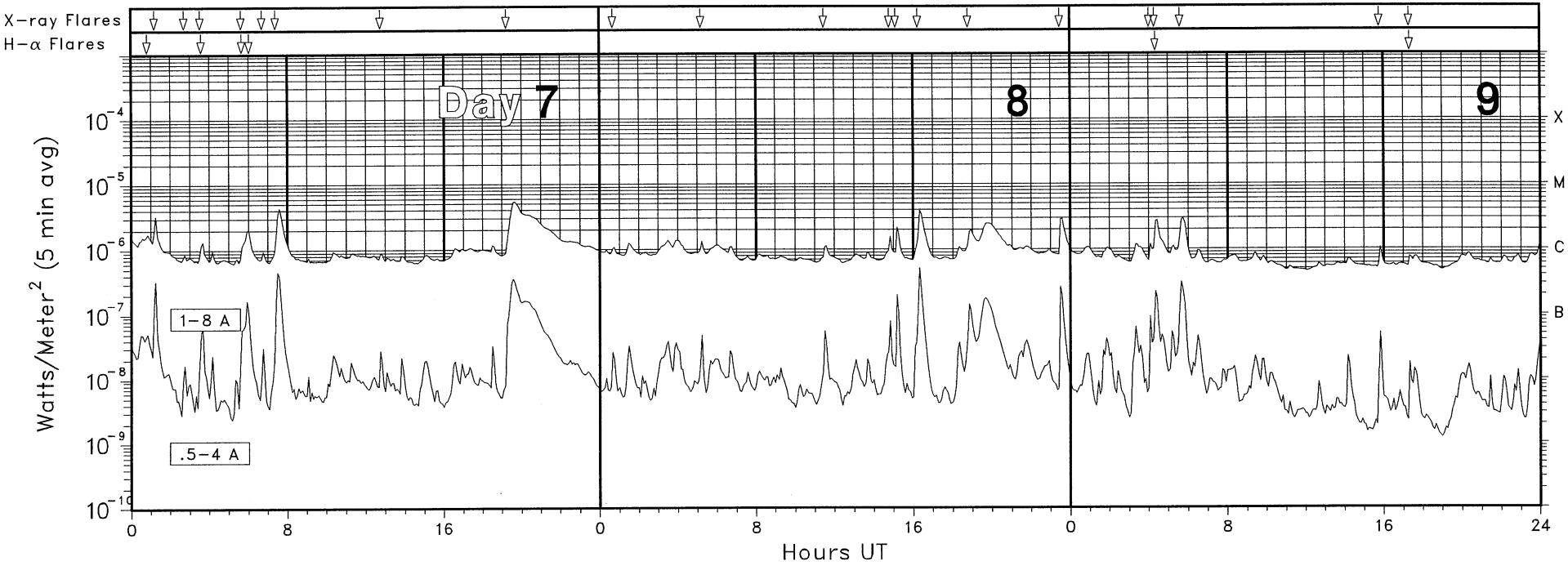
December 2000

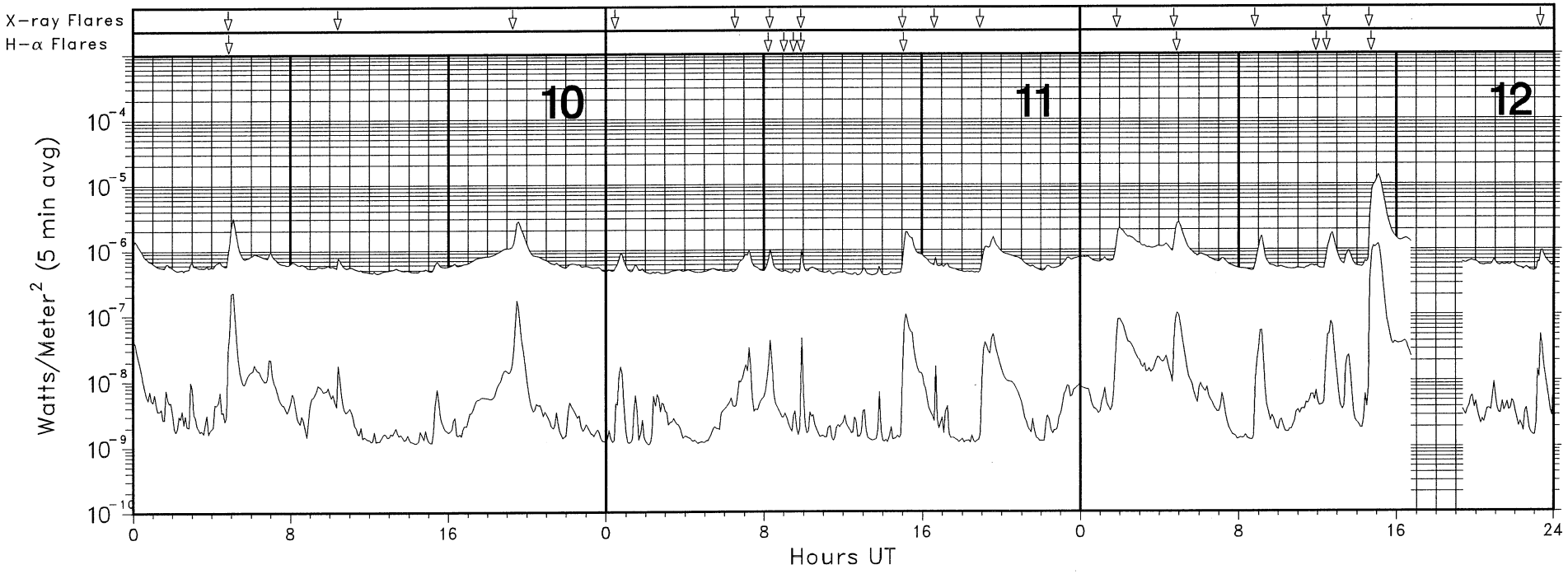
28 Dec 00



GOES X-RAY DETECTOR

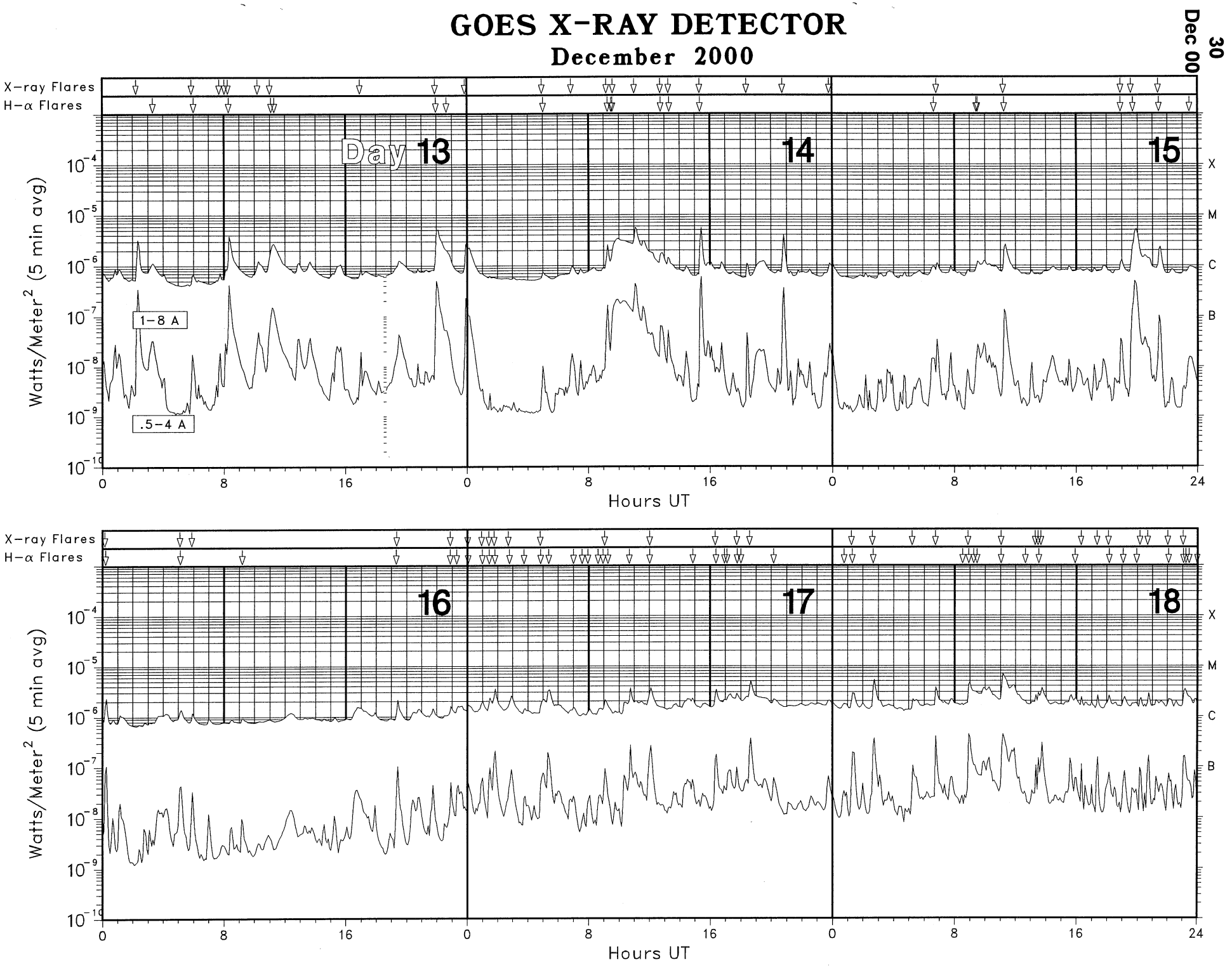
December 2000





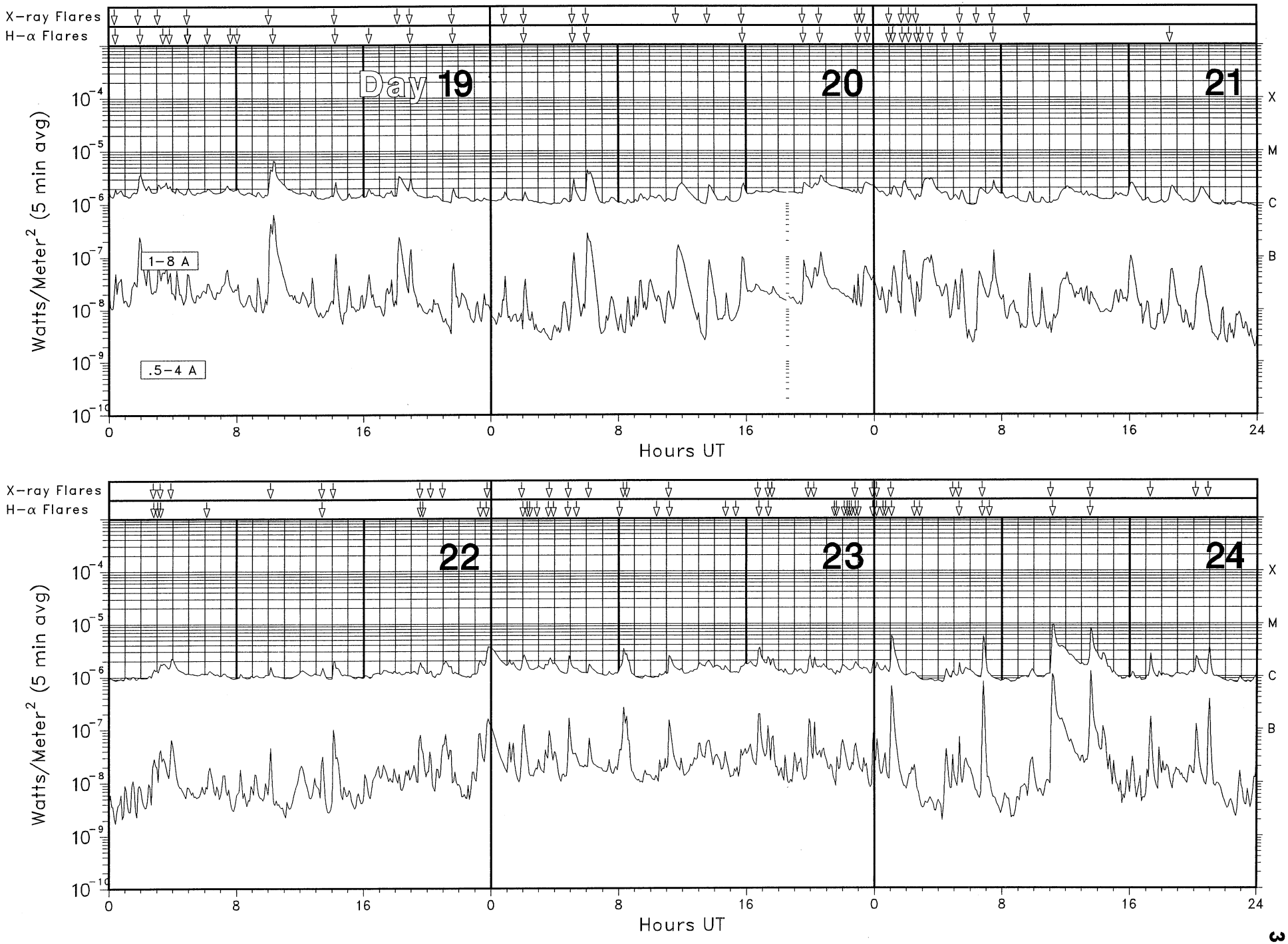
GOES X-RAY DETECTOR

December 2000



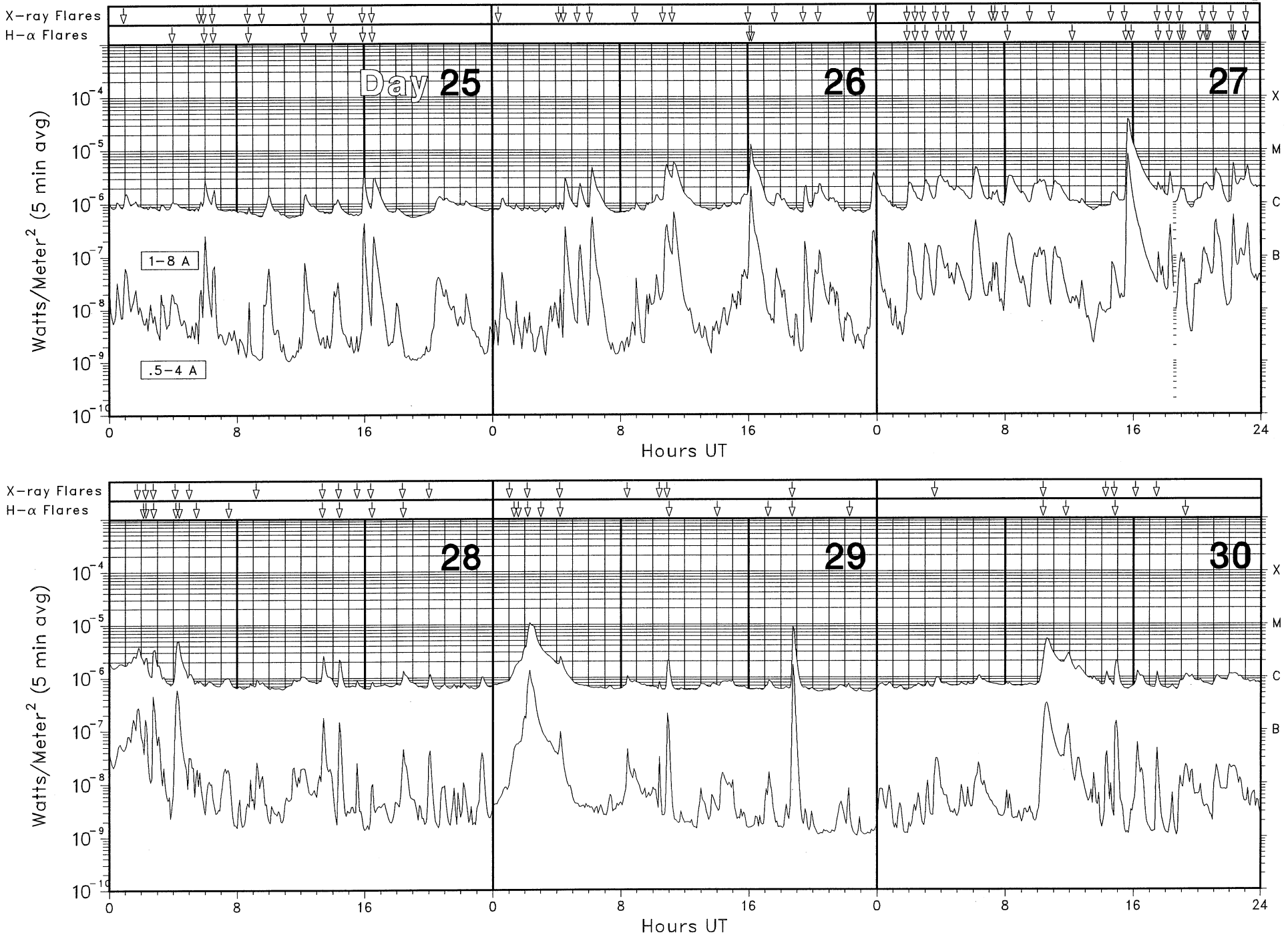
GOES X-RAY DETECTOR

December 2000



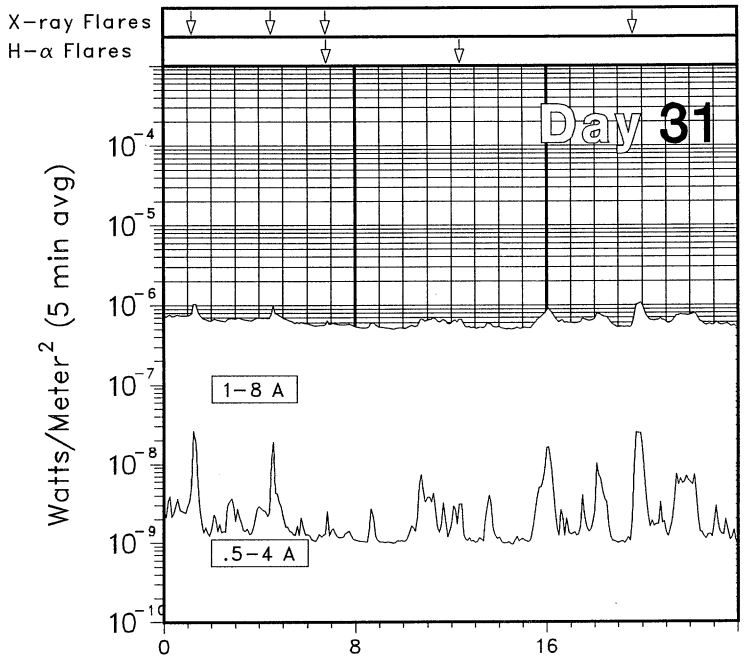
GOES X-RAY DETECTOR

December 2000



GOES X-RAY DETECTOR

December 2000



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

December 2000

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
01	0039	0043	0047	N08	W36	SF	C	2.3	9240	9.1E-04
01	0152	0209	0220	S13	E18	SF	C	3.1	9246	4.0E-03
01	0309	0313	0316	S12	E15	SF	C	1.3	9246	4.6E-04
01	0349	0353	0359				C	1.1		5.8E-04
01	0855	0905	0915	N19	W20	SF	C	3.1	9242	2.8E-03
01	2208	2212	2215				C	1.3		4.4E-04
02	0015	0019	0024	S13	E06	SF	C	1.0	9246	4.9E-04
02	1026	1030	1035				C	1.2		5.4E-04
03	0604	0758	0900				C	1.4		1.1E-02
03	1048	1055	1112				C	1.0		1.4E-03
03	1127	1129	1136				C	1.1		5.7E-04
04	0022	0026	0029	N20	W54	SF	B	6.9	9242	2.6E-04
04	0256	0259	0302				B	6.8		2.1E-04
05	0439	0447	0454	N05	W74	SF	C	2.2	9248	1.5E-03
05	1348	1353	1358				C	1.0		5.3E-04
05	1756	1823	1903				C	1.6		4.8E-03
05	2023	2058	2157				C	1.6		6.8E-03
06	0806	0810	0816				C	1.0		5.2E-04
06	0926	0934	0939	S10	W64	SF	B	8.5	9246	5.6E-04
06	1036	1044	1052				C	2.0		1.5E-03
06	1247	1254	1259				C	2.4		1.2E-03
06	1512	1518	1522				C	7.1		2.3E-03
06	1750	1755	1826	S09	W68	SF	C	2.7	9246	4.7E-03
06	2216	2230	2251	S10	W66	SF	M	1.6	9246	2.2E-02
07	0111	0115	0117	S10	W63	SF	C	5.4	9246	1.1E-03
07	0242	0245	0247				C	1.0		2.6E-04
07	0333	0340	0342	S09	W69	1F	C	1.7	9246	6.8E-04
07	0538	0600	0608	S10	W65	SF	C	2.1	9246	2.8E-03
07	0642	0645	0648				C	1.0	9246	3.3E-04
07	0724	0737	0746				C	4.6		4.2E-03
07	1245	1249	1251				C	1.1		3.4E-04
07	1914	1940	2036				C	5.4		1.8E-02
08	0041	0044	0046				C	1.3		3.4E-04
08	0513	0517	0519				C	1.4		4.6E-04
08	1129	1134	1141				C	1.1		7.7E-04
08	1448	1453	1455				C	1.9		6.0E-04
08	1508	1513	1515				C	3.4		8.3E-04
08	1615	1623	1630				C	4.3		2.8E-03
08	1848	1855	1905				C	2.0		1.8E-03
08	2328	2332	2342				C	3.5		2.2E-03
09	0402	0407	0412				C	1.3		6.2E-04
09	0417	0424	0431	N11	E61	SF	C	3.1		2.0E-03
09	0536	0548	0554				C	2.9		2.8E-03
09	1548	1552	1556				C	1.1		4.6E-04
09	1720	1723	1726	N10	W15	SF	B	9.7	9254	2.9E-04
10	0449	0505	0515	N13	E56	SF	C	3.3	9262	3.1E-03
10	1024	1028	1034				B	8.3		4.5E-04
10	1917	1935	1948				C	2.8		3.8E-03
11	0028	0050	0058				B	9.0		1.3E-03
11	0634	0718	0730				C	1.0		2.4E-03
11	0820	0823	0825				C	1.1		3.0E-04
11	0954	0958	1000				C	1.3		3.4E-04
11	1501	1514	1536	N07	E42	SF	C	1.9	9267	3.1E-03
11	1638	1641	1643				B	9.0		2.3E-04
11	1855	1936	2054				C	1.6		6.8E-03
12	0152	0202	0219				C	2.1		3.1E-03
12	0445	0500	0513	N07	E32	SF	C	2.6	9267	3.6E-03
12	0849	0911	0918				C	1.6		1.9E-03
12	1228	1245	1255				C	1.8		2.3E-03
12	1437	1507	1523	N08	E25	1F	M	1.3	9267	2.6E-02
12	2318	2324	2332				B	9.8		7.4E-04
13	0213	0223	0228				C	3.8		2.0E-03
13	0552	0556	0609				B	6.9		6.4E-04
13	0741	0745	0749				B	8.2		3.4E-04
13	0803	0808	0816				B	9.4	9267	6.3E-04
13	0816	0823	0828	N08	E17	SF	C	4.6	9267	2.1E-03
13	1012	1016	1022				C	1.2		7.0E-04
13	1100	1115	1131	S25	E32	SF	C	2.7	9264	4.3E-03
13	1658	1701	1703				C	1.1		2.7E-04
13	2155	2204	2216	N10	E07	1F	C	5.8	9267	4.9E-03
13	2351	2359	0014				C	3.2		3.1E-03
14	0457	0503	0510	N19	W67	SF	B	7.7	9255	5.4E-04
14	0652	0655	0707				B	9.9		8.1E-04
14	0910	0916	0921				C	2.7		1.3E-03
14	0936	0958	1100				C	3.4	9264	1.5E-02
14	1101	1108	1117				C	5.7		4.7E-03
14	1244	1247	1300	N07	E00	SF	C	1.8	9267	1.6E-03
14	1316	1319	1321	N13	W06	SF	C	2.4	9262	5.0E-04
14	1518	1526	1530	N08	E02	SF	C	6.4	9267	2.8E-03
14	1824	1828	1832				C	1.4		5.2E-04
14	2045	2051	2056				C	4.5		2.0E-03
14	2347	2350	2356				C	1.1		5.7E-04
15	0648	0651	0658	N20	W55	SF	C	1.1	9266	6.4E-04
15	1112	1119	1129	N10	W12	SF	C	2.7	9267	2.2E-03
15	1854	1859	1906	N14	E40	SF	C	1.3	9269	8.7E-04
15	1935	1956	2007	N19	W16	SF	C	5.3	9262	6.7E-03
15	2122	2129	2136	S26	E13	SF	C	2.5	9264	1.7E-03
16	0009	0016	0020	N20	W19	SF	C	2.5		1.3E-03
16	0505	0512	0518	N23	W66	SF	C	1.4	9266	1.0E-03
16	0552	0557	0604				C	1.2		8.0E-04
16	1921	1926	1931	S20	W54	SF	C	2.3	9271	1.1E-03
16	2253	2256	2301	S14	W62	SF	C	1.7	9276	7.3E-04
17	0002	0005	0019	S13	W61	SF	C	1.8		1.6E-03
17	0056	0100	0106	S19	W57	SF	C	2.1	9271	1.2E-03
17	0125	0132	0140	S13	W59	SF	C	2.4		1.8E-03
17	0146	0149	0153	S13	W62	SF	C	4.4		1.4E-03
17	0242	0256	0306	S13	W60	SF	C	2.6	9276	3.0E-03
17	0449	0524	0535				C	3.7	9266	6.4E-03
17	0902	0906	0914	S13	W64	SF	C	2.1	9276	1.4E-03
17	1201	1205	1212	S14	W66	SF	C	4.0	9276	2.2E-03
17	1619	1626	1630	S15	W71	SF	C	3.7	9276	1.9E-03
17	1744	1747	1750	S14	W72	SF	C	3.1	9276	1.0E-03
17	1835	1840	1846	S14	W72	SF	C	5.8	9276	2.9E-03
18	0115	0124	0130	N17	W61	SF	C	3.2	9277	2.3E-03
18	0237	0246	0252	N08	E65	SF	C	5.7	9278	3.6E-03
18	0512	0516	0541				C	2.2		3.5E-03
18	0643	0648	0652				C	4.4		1.8E-03
18	0852	0859	0909	S14	W76	SF	C	5.2	9276	4.0E-03
18	1103	1111	1129	N15	E01	SF	C	7.0	9269	8.5E-03
18	1318	1321	1323				C	3.0		7.6E-04
18	1328	1331	1336	S15	W90	SF	C	3.2	9276	1.3E-03
18	1340	1347	1353				C	3.8		2.5E-03
18	1618	1622	1625				C	2.6		9.3E-04
18	1722	1725	1728				C	3.3		8.9E-04

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

Preliminary Listing

December 2000

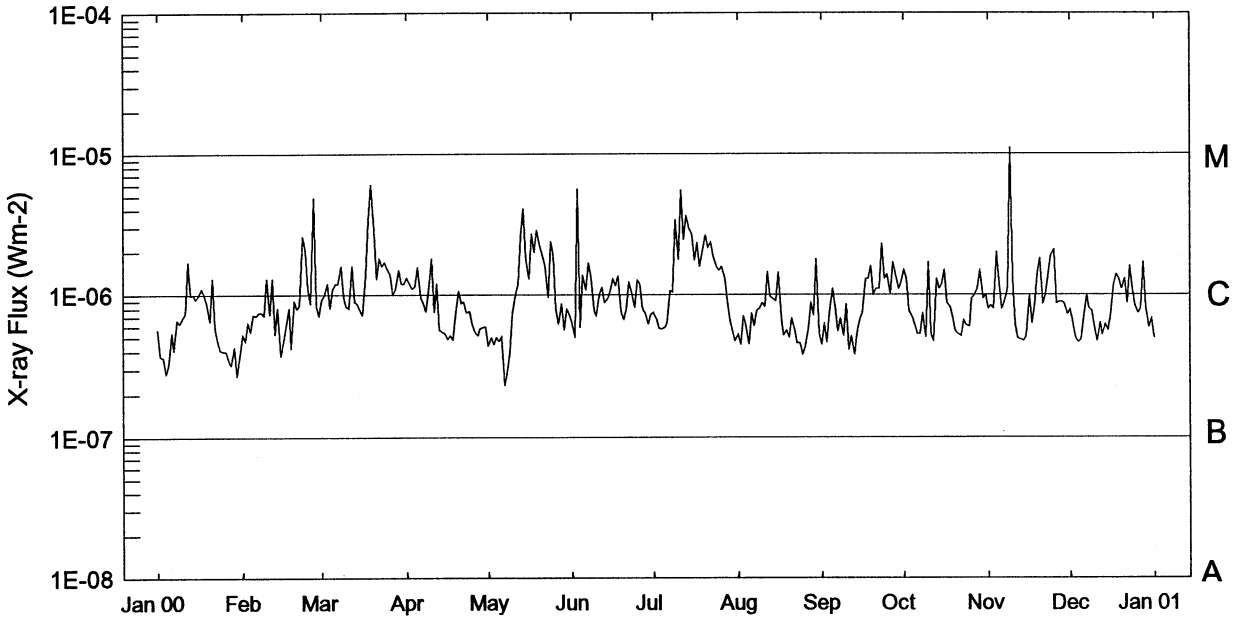
Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp	Xray	NOAA/ USAF Region	Flux
18	1807	1810	1815	N17	W71	SF	C2.9	9277		1.2E-03
18	2010	2014	2018				C2.7			1.1E-03
18	2041	2045	2050				C3.1			1.4E-03
18	2201	2210	2212	N05	E51	SF	C2.4	9278		1.4E-03
18	2302	2312	2323	S13	E73	1F	C3.5	9279		3.7E-03
19	0022	0025	0030	N04	W59	SF	C2.1	9267		8.9E-04
19	0150	0159	0207	S18	W84	SF	C4.0	9276		3.2E-03
19	0304	0307	0313				C2.5			1.3E-03
19	0455	0459	0505	N04	W63	SF	C2.2	9267		1.2E-03
19	1003	1024	1028	N07	E41	SF	C9.5	9278		7.3E-03
19	1411	1415	1419	N15	W12	SF	C3.0	9269		1.2E-03
19	1810	1819	1835				C3.3			4.3E-03
19	1856	1900	1903	N06	E38	SF	C4.1	9278		1.3E-03
19	2135	2140	2149	N07	E38	SF	C2.1	9278		1.5E-03
20	0053	0056	0100				C1.7			6.8E-04
20	0206	0210	0215	N07	E34	SF	C1.8	9278		8.8E-04
20	0510	0515	0520	N07	E33	1F	C3.3	9278		1.5E-03
20	0601	0606	0627				C4.7			5.5E-03
20	1138	1202	1223				C2.4			5.7E-03
20	1335	1343	1358				C2.3			2.7E-03
20	1545	1549	1554	S13	E48	SF	C2.7	9279		1.3E-03
20	1933	1938	1958	N14	W60	SF	C2.6	9272		3.4E-03
20	2035	2043	2051	S10	E48	SF	C3.5	9279		3.0E-03
20	2300	2303	2305	N09	E64	SF	C2.2	9280		5.9E-04
20	2317	2332	0005	N06	E61	SF	C2.5	9280		6.5E-03
21	0058	0115	0125	N09	E62	SF	C2.1	9280		2.9E-03
21	0145	0158	0207	N12	E61	SF	C2.7	9280		3.0E-03
21	0213	0214	0218	N06	E62	SF	C1.9	9280		5.6E-04
21	0240	0243	0249	N06	E61	SF	C1.6	9280		8.1E-04
21	0525	0533	0538	N09	E60	SF	C1.8	9280		1.3E-03
21	0628	0644	0710				C1.9			4.2E-03
21	0727	0733	0736	N09	E59	SF	C2.8	9280		1.3E-03
21	0938	0946	0953				C1.6			1.3E-03
22	0246	0250	0305	N15	W47	SF	C1.4	9269		1.5E-03
22	0311	0315	0339	N07	E50	SF	C1.8	9280		2.9E-03
22	0351	0358	0409				C2.3			2.2E-03
22	1007	1010	1014				C1.7			6.2E-04
22	1321	1326	1331				C1.5			8.4E-04
22	1403	1409	1414				C2.4			1.2E-03
22	1931	1934	1937	N08	E36	SF	C2.6	9280		7.0E-04
22	2011	2014	2016				C1.8			4.4E-04
22	2056	2111	2123				C2.0	9283		2.9E-03
22	2345	2352	0016	S14	E80	SF	C3.7	9283		6.3E-03
23	0155	0207	0215	N12	E35	SF	C2.7	9280		2.6E-03
23	0340	0344	0350	S12	E77	SF	C2.5	9283		1.3E-03
23	0452	0458	0501	S12	E76	SF	C3.4	9283		1.2E-03
23	0608	0611	0620				C1.9			1.2E-03
23	0817	0820	0825	S13	E75	1N	C3.7	9283		1.4E-03
23	0831	0834	0836				C3.4			8.0E-04
23	1108	1112	1120	S09	E74	SF	C3.0	9283		1.6E-03
23	1642	1649	1655	S12	E69	SF	C4.0	9283		2.4E-03
23	1720	1724	1726	S13	E69	SF	C2.8	9283		8.7E-04
23	1735	1739	1745				C2.4			1.2E-03
23	1952	2000	2005				C2.6			1.7E-03
23	2013	2016	2019				C2.7			7.7E-04
23	2246	2249	2259	N06	E75	SF	C1.9	9283		1.3E-03
23	2353	2357	2359	S12	E65	SF	C2.4	9283		6.5E-04
24	0008	0011	0013	S13	E66	SF	C2.0	9283		5.3E-04
24	0101	0108	0115	S15	E66	SF	C7.0	9283		3.8E-03
24	0454	0457	0501				C1.4			5.2E-04
24	0517	0521	0524	N06	E69	SF	C2.0	9285		6.7E-04
24	0646	0653	0658	S13	E64	SF	C6.6	9283		3.1E-03
24	1103	1115	1122	S16	E63	SF	M1.1	9283		7.7E-03
24	1332	1338	1344	S14	E60	SF	C9.4	9283		4.8E-03
24	1716	1720	1722				C3.8			8.5E-04
24	2007	2013	2019				C2.6			1.6E-03
24	2054	2101	2103				C5.4			1.6E-03
25	0056	0108	0116				C1.6			1.7E-03
25	0541	0545	0551				C1.2			6.3E-04
25	0556	0601	0608	S13	E50	SF	C2.9	9283		1.6E-03
25	0630	0635	0639	N12	E06	SF	C2.1	9280		9.1E-04
25	0843	0846	0849	S12	E46	SF	B9.5	9283		3.0E-04
25	0936	1002	1013				C1.4			2.2E-03
25	1214	1219	1224	S11	E48	SF	C1.8	9283		8.6E-04
25	1356	1422	1432	S13	E43	SF	C1.2	9283		2.1E-03
25	1555	1600	1605	S12	E42	SF	C5.4	9283		2.0E-03
25	1630	1639	1653	S10	E43	SF	C3.2	9283		3.3E-03
26	0025	0041	0049				C1.2			1.5E-03
26	0413	0416	0421				C1.1	9283		4.7E-04
26	0431	0438	0445				C3.4			2.0E-03
26	0523	0531	0539				C2.4	9283		1.8E-03
26	0609	0615	0626				C5.0			3.6E-03
26	0859	0902	0908				C1.1			5.5E-04
26	1043	1056	1111				C5.4	9283		6.5E-03
26	1118	1122	1132				C6.8			4.5E-03
26	1602	1613	1619	S09	E90	SF	M1.3	9289		8.0E-03
26	1741	1753	1803				C1.5	9283		1.8E-03
26	1928	1933	1939				C2.9			1.3E-03
26	2024	2028	2033				C2.5			1.2E-03
26	2340	2350	0004				C4.0			3.8E-03
27	0156	0204	0222	S08	E81	SF	C2.4	9289		3.1E-03
27	0227	0228	0229	S08	E19	SF	C1.7	9283		1.9E-04
27	0255	0305	0318	S08	E80	1F	C3.0	9289		3.1E-03
27	0344	0400	0418	S07	E17	SF	C3.2	9283		5.7E-03
27	0423	0425	0427	S08	E20	SF	C2.8	9283		6.3E-04
27	0558	0613	0627				C4.8			6.2E-03
27	0713	0717	0722				C1.6			7.9E-04
27	0725	0729	0734				C1.8			8.8E-04
27	0804	0817	0840	S08	E79	SF	C3.2	9289		5.8E-03
27	0934	1028	1036				C2.6			8.0E-03
27	1056	1108	1134				C2.5			4.9E-03
27	1439	1444	1503				C1.6			2.1E-03
27	1530	1544	1553	S07	E73	1F	M4.3	9289		3.1E-02
27	1735	1738	1740	S15	E17	SF	C3.3	9283		7.2E-04
27	1816	1821	1826	S08	E72	SF	C4.1	9289		1.9E-03
27	1857	1900	1905	S07	E71	SF	C2.0	9289		9.0E-04
27	2021	2036	2047	S08	E60	SF	C2.3	9289		3.3E-03
27	2103	2111	2127				C4.5			5.0E-03
27	2209	2218	2224	S14	E16	SF	C5.8	9283		3.6E-03
27	2306	2311	2316	S07	E68	SF	C5.2	9289		2.8E-03
28	0145	0151	0159				C3.8			2.9E-03
28	0215	0219	0222	S08	E66	SF	C3.5	9289		1.1E-03
28	0244	0249	0255	S08	E67	SF	C4.5	9289		2.1E-03
28	0406	0417	0429	S08	E67	1F	C5.1	9289		5.0E-03
28	0500	0503	0510				C1.3			7.3E-04
28	0912	0915	0926				B9.7			7.4E-04
28	1320	1326	1333	S07	E60	1F	C2.7	9289		1.6E-03
28	1421	1429	1436	S07	W74	SF	C2.3	9279		1.6E-03
28	1530	1533	1536				C1.0			3.4E-04
28	1622	1630	1635	S12	E05	SF	B8.7	9283		6.0E-04
28	1821	1826	1837	S15	E05	SF	C1.3	9283		1.1E-03
28	2001	2005	2010				C1.2			6.1E-04

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

December 2000

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/ USAF Region	Flux
29	0102	0210	0318				C4.0	9283	3.5E-02
29	0210	0223	0242	S08	E55	1F	M1.2	9289	1.7E-02
29	0412	0417	0422	S15	W02	SF	C2.5	9283	1.4E-03
29	0824	0828	0831				C1.2		4.4E-04
29	1025	1029	1031				C1.1		3.0E-04
29	1053	1059	1105	S08	E50	SF	C2.5	9289	1.4E-03
29	1842	1848	1853	S09	E45	1F	M1.2	9289	4.8E-03
30	0336	0354	0400				C1.0		1.3E-03
30	1021	1039	1053	S11	W23	SF	C5.4	9283	8.2E-03
30	1415	1420	1426				C1.3		7.5E-04
30	1448	1458	1506	S07	E35	SF	C2.1	9289	1.9E-03
30	1608	1617	1625				C1.3		1.1E-03
30	1726	1731	1736				C1.3		6.5E-04
31	0111	0119	0124				C1.1		7.5E-04
31	0431	0435	0438				C1.1		4.0E-04
31	0647	0653	0655	N21	E67	SF	B6.4		3.0E-04
31	1938	1957	2009				C1.1		1.7E-03

Preliminary GOES Satellite Daily X-Ray Background
Jan 2000 - Dec 2000



Day	Jan 00	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	B5.7	B5.2	B9.2	C1.3	B4.4	B6.4	B7.4	B5.2	B4.5	C1.5	B8.0	B8.0
2	B3.7	B4.7	B9.9	C1.2	B5.0	B5.0	B6.7	B4.4	B6.3	C1.3	B8.4	B8.4
3	B3.6	B6.4	C1.2	C1.0	B4.5	C5.6	B5.7	B7.0	B4.6	B7.7	B8.0	B8.0
4	B2.8	B5.5	B8.1	C1.1	B5.0	B5.9	B5.7	B6.0	B7.5	B7.0	C2.0	C2.0
5	B3.2	B7.2	C1.1	C1.5	B4.7	C1 3	B5.9	B4.4	C1.1	B6.1	C1.2	C1.2
6	B5.4	B7.1	C1.2	B9.6	B5.1	C1.0	B6.2	B7.4	B8.2	B5.3	B8.0	B8.0
7	B4.1	B7.5	C1.2	B8.7	B2.3	C1.6	C1.0	B6.0	B5.5	B5.3	B8.9	B8.9
8	B6.6	B7.5	C1.6	B7.6	B2.9	C1.3	C1.0	B7.7	B6.8	B7.4	C1.1	C1.1
9	B6.3	B7.1	B9.7	C1.0	B3.9	B7.7	C3.3	B7.9	B5.1	B5.0	M1.1	M1.1
10	B6.8	C1.3	B8.2	C1.8	B7.4	B7.1	C1.7	B8.7	B8.6	C1.7	C1.3	C1.3
11	B7.4	B7.3	B8.1	B7.6	C1.0	C1.0	C5.5	B8.2	B4.1	B5.3	B6.1	B6.1
12	C1.7	C1.3	C1.6	C1.1	C1.2	C1.1	C2.4	C1.4	B5.1	B4.7	B4.9	B4.9
13	B9.9	B5.3	B8.9	B5.6	C2.6	B8.8	C3.6	B9.7	B3.8	C1.3	B4.8	B4.8
14	C1.0	B8.1	B8.7	B5.4	C4.1	B9.4	C2.9	B9.3	B5.5	C1.1	B4.7	B4.7
15	B9.3	B3.7	B7.7	B5.3	C1.8	C1.0	C2.6	B9.0	B6.7	C1.2	B5.1	B5.1
16	C1.0	B4.6	B7.2	B4.8	C1.3	C1.2	C1.7	C1.4	B7.4	C1.5	B9.9	B9.9
17	C1.1	B5.9	C1.4	B5.1	C2.7	C1.1	C2.3	B6.7	C1.3	B8.8	B6.3	B6.3
18	C1.0	B8.1	C3.4	B4.7	C2.0	C1.3	C1.5	B5.1	C1.3	B8.2	B8.3	B8.3
19	B8.8	B4.2	C6.1	B7.2	C2.9	B7.4	C2.1	B5.5	C1.6	B6.8	C1.4	C1.4
20	B6.5	B9.0	C2.9	C1.0	C2.2	B6.7	C2.6	B5.0	C1.0	B5.5	C1.8	C1.8
21	C1.3	B8.0	C1.3	B8.7	C1.9	B7.9	C2.1	B6.8	C1.1	B5.3	B8.7	B8.7
22	B5.8	B8.4	C1.8	B8.9	C1.6	C1.2	C2.3	B5.5	C1.1	B5.1	C1.0	C1.0
23	B4.7	C2.6	C1.6	B7.4	B9.6	B9.9	C1.8	B4.5	C2.3	B6.6	C1.4	C1.4
24	B4.1	C2.1	C1.7	B7.6	C2.4	B8.1	C1.5	B4.5	C1.3	B6.1	C1.9	C1.9
25	B4.0	C1.1	C1.5	B6.2	C1.9	C1.2	C1.4	B3.8	C1.4	B6.0	C2.1	C2.1
26	B4.0	B8.7	C1.4	B5.5	B7.9	C1.1	C1.5	B4.3	C1.0	B9.4	B8.7	B8.7
27	B3.5	C4.9	C1.0	B5.1	B6.2	B7.9	C1.3	B5.8	C1.7	C1.0	B8.9	B8.9
28	B3.2	B8.4	C1.1	B5.7	B8.7	B7.3	B9.2	B8.8	C1.4	C1.1	B8.9	B8.9
29	B4.3		C1.5	B5.8	B5.7	B6.2	B6.6	B7.1	C1.1	C1.5	B8.7	B8.7
30	B2.7		C1.2	B6.0	B8.0	B8.0	B5.5	C1.7	C1.2	B9.4	B7.3	B7.3
31	B3.6		C1.2		B7.3		B4.6	B5.2		C1.0		

ACTIVE PROMINENCES AND FILAMENTS

DECEMBER 2000

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
07	LPS	1930E	2045D	N20	W90	11 30.9	3		9	9	E	HOLL		
10	DSF	0957U	2256U	N23	E62	12 15.2	2	25	0	0	E	LEAR		
14	DSF	1010U	2305U	N23	E58	12 18.9	2	13	0	0	E	LEAR	9269	
16	EPL	0840E	0922D	N33	W90	12 9.2	1		9	9	E	LEAR		
17	DSF	1135U	0716U	S14	E05	12 17.9	2	16	0	0	E	SVTO		
18	DSF	0949U	2253U	S52	E14	12 19.6	2	16	0	0	E	LEAR		
18	DSF	1441U	0718U	S55	E12	12 19.6	2	14	0	0	E	SVTO		
20	EPL	2048E	2125	N23	W90	12 13.9	3		9	9	E	HOLL		
21	DSF	0203	0431	N21	W31	12 18.7	3	11	0	0	E	LEAR	9269	
21	ASR	0457	0615	N19	E76	12 27.0			0	0	E	LEAR		
22	SPY	0310	0414	N24	E74	12 27.8			0	0	E	LEAR	9282	
22	LPS	2025E	0000	S09	E81	12 28.9	3		6	9	E	HOLL	9283	
25	DSF	0352	0432	S36	W45	12 21.5	2	20	0	0	E	LEAR		
26	DSF	2030U	1145U	S39	W77	12 20.6	2	30	0	0	E	RAMY		
27	EPL	0325	0830	S20	W90	12 20.2	3		0	0	E	LEAR		
27	DSF	0957U	2322U	N18	W43	12 24.1		09	0	0	E	LEAR		
28	DSF	0957U	2322U	N18	W43	12 25.1	2	09	0	0	E	LEAR		

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
DECEMBER 2000