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NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE
Thomas N. Pyke, Jr., Assistant Administrator

JULY 1990 NUMBER 551 - Part II

Solar-Geophysical Data comprehensive reports

Data for January 1990

International Standard Serial Number: 0038-0911
Library of Congress Catalog Number: 79-640375 //r81

NATIONAL GEOPHYSICAL DATA CENTER
Michael A. Chinnery, Director
Boulder, Colorado

Subscription information is on the inside back cover.

S O L A R - G E O P H Y S I C A L D A T A

NUMBER 551

(Issued in Two Parts)

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JANUARY 1990

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
0001	PALE	01	0002	0002	0021	N18	E46	5864	01	4.5	19	SF		3	E		15		F
0002	YUNN	01	0131E	0131U	0140	S20	W12	5858	12	31.1	9D	SN			P	0131	63	0.7	
0003	KANZ	01	0814	0818	0830	N14	E40	5864	01	4.4	16	SF			C				
0004		01	08451	08484	0858	N23	W48	5854	12	28.8	13	SF					30		
	KANZ	01	0845	0852	0856	N23	W48	5854	12	28.8	11	SF			V				
	LEAR	01	0846	0848	0859	N23	W49	5854	12	28.7	13	SF		3	E		30		
0005		01	08472	0849	0856	S18	W19	5858	12	31.0	9	SF					13		
	LEAR	01	0847	0849	0855	S19	W19	5858	12	31.0	8	SF		3	E		13		
	KANZ	01	0849	0849	0856	S18	W19	5858	12	31.0	7	SF			V				
0006	KANZ	01	0943	0943	0955	N21	W49	5854	12	28.7	12	SF			V				
0007		01	10023	10062	1042	N25	W54	5854	12	28.3	40	SF	C 3.6				38		
	KANZ	01	1002	1006	1056	N24	W54	5854	12	28.3	54	SF			V				
	LEAR	01	1005	1008	1028	N26	W54	5854	12	28.3	23	SF	C 3.6	2	E		38		
0008	KANZ	01	1125	1129	1136	N22	W51	5854	12	28.6	11	SF			V				
0009	KANZ	01	1303	1311	1339	S24	W63	5852	12	27.8	36	SF			V				
0010	HOLL	01	1513	1517	1529	N22	W52	5854	12	28.7	16	1F	C 4.0	2	E		108		H
0011	HOLL	01	1528	1533	1540	S24	W64	5852	12	27.8	12	SF		3	E		17		
0012	HOLL	01	1613	1613	1619	N26	W52	5854	12	28.7	6	SF		4	E		12		
0013	HOLL	01	1626	1631	1658	S08	W47	5853	12	29.3	32	SF		4	E		49		F
0014	HOLL	01	1848	1851	1856	N22	W55	5854	12	28.6	8	SF		3	E		11		
0015	HOLL	01	1856	1857	1912	N23	E10	5867A	01	2.5	16	SF		4	E		60		F
0016		01	2012	20181	2057	N15	E41	5864	01	4.9	45	SF	C 4.5				64		F
	HOLL	01	2012	2018	2110	N13	E40	5864	01	4.8	58	SF	C 4.5	4	E		81		F
	PALE	01	2012	2019	2044	N17	E42	5864	01	5.0	32	SF		3	E		47		F
0017	HOLL	01	2042	2042	2056	N14	E12	5862	01	2.8	14	SF		4	E		13		
0018		01	20445	20511	2100	S08	W42	5853	12	29.8	16	SF					61		F
	HOLL	01	2044	2051	2104	S07	W44	5853	12	29.7	20	SF		4	E		48		
	PALE	01	2049	2052	2057	S09	W41	5853	12	29.9	8	SF		3	E		74		F
0019	PALE	01	2102	2106	2115	N21	W55	5854	12	28.7	13	SF		3	E		21		F
0020		01	2118*	2120*	2203	N22	W52	5854	12	29.0	45	1N	M 2.1				134		EFK
	PALE	01	2118	2122	2424D	N23	W52	5854	12	29.0	186D	1F		3	E		233		
	HOLL	01	2119	2120	2149	N20	W54	5854	12	28.8	30	1N			E		125		K
	HOLL	01	2119	2128	2149	N20	W54	5854	12	28.8	30	1N	M 2.1	4	E		139		FE
	HOLL	01	2221	2222	2230	N25	W49	5854	12	29.2	9	SF		4	E		40		
0021	HOLL	01	2126	2126	2146	N14	E13	5862	01	2.9	20	SF		4	E		47		F
0022	HOLL	01	2240	2241	2253	S10	W44	5853	12	29.7	13	SF		4	E		70		
0023	HOLL	01	2256	2257	2311	S18	W29	5858	12	30.8	15	SF		4	E		28		F
0024	HOLL	01	2307	2311	2321	N14	E31	5864	01	4.3	14	SF		4	E		11		
0025		02	02204	02253	0244	N20	W56	5854	12	28.9	24	1N	C 5.9				128	3.2	EF
	PEKG	02	0220	0226	0242	N21	W57	5854	12	28.8	22	1B			C	0225	126	2.6	E
	MITK	02	0223	0225	0248	N20	W57	5854	12	28.8	25	1B			C	0225	140	3.0	E
	PALE	02	0224	0225	0248	N18	W56	5854	12	28.9	24	SF	C 5.9	3	E		63		F
	PURP	02	0226E	0228	0239	N22	W56	5854	12	28.9	13D	1N			C	0228	185	3.9	

JANUARY 1990

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0026		02	0235*	03062	0336	N25	W61	5854	12	28.5	61	1N	C 5.7				96	2.8	E
	YUNN	02	0235	0307	0348	N25	W58	5854	12	28.7	73	1N			C		94	2.2	
	MITK	02	0300	0307	0347	N26	W66	5854	12	28.1	47	1N			C	0307	100		E
	PALE	02	0304	0306	0324	N25	W62	5854	12	28.4	20	SF	C 5.7	3	E		33		
	PURP	02	0304	0308	0324	N23	W57	5854	12	28.8	20	1N			C	0308	159	3.4	
0027		02	02491	02549	0318	S18	W29	5858	12	31.0	29	SN	C 4.0				70	1.0	EF
	YUNN	02	0249	0303	0323	S16	W30	5858	12	30.9	34	SN			C		79	1.0	
	PALE	02	0250	0254	0317	S19	W28	5858	12	31.0	27	SF	C 4.0	3	E		62		F
	MITK	02	0250	0256	0315	S18	W30	5858	12	30.9	25	SN			C	0256			E
0028	YUNN	02	0409E	0409U	0414D	N15	E28	5864	01	4.3	5D	SN			P	0409	47	0.6	E
0029		02	0732	0736	0746	N22	W62	5854	12	28.6	14	SF					17		H
	LEAR	02	0732	0736	0743	N23	W63	5854	12	28.5	11	SF		3	E		17		H
	KANZ	02	0738E	0738U	0750	N22	W61	5854	12	28.7	12D	SF			C				
0030		02	1010*	10461	1114	S18	W33	5858	12	31.0	64	SN					120	1.5	
	HTPR	02	1010	1046	1125	S18	W32	5858	12	31.0	75	SN			C	1046	120	1.5	
	KANZ	02	1043	1047	1103	S18	W34	5858	12	30.9	20	SF			V				
0031	HTPR	02	1139	1153	1200	S18	W32	5858	12	31.0	21	SF			C	1153	70	0.9	U
0032		02	1157*	1158*	1233	N22	W62	5854	12	28.8	36	SF	C 3.0				25	0.6	AE
	HTPR	02	1157	1158	1205	N23	W55	5854	12	29.4	8	SF			C	1158	30	0.6	E
	KANZ	02	1158	1202	1214	N21	W63	5854	12	28.8	16	SF			V				
	HTPR	02	1200	1203	1255	N20	W65	5854	12	28.6	55	SN			C				A
	RAMY	02	1201	1202	1255	N21	W61	5854	12	28.9	54	SF	C 3.0	3	E		30		
	SVTO	02	1212E	1212U	1215	N23	W61	5854	12	28.9	3D	SF		2	E		16		
	KANZ	02	1236	1247	1253	N23	W65	5854	12	28.6	17	SF			V				
0033		02	12382	1240	1246	N23	E00	5867A	01	2.5	8	SF					90	0.9	U
	HTPR	02	1238	1240	1246	N23	E01	5867A	01	2.6	8	SF			C	1244	90	0.9	U
	KANZ	02	1240	1240	1247	N23	W01	5867A	01	2.4	7	SF			V				
0034		02	13572	1414	1448	S18	W35	5858	12	31.0	51	SF	C 4.4				70		F
	KANZ	02	1357	1415U	1417D	S18	W36	5858	12	30.9	20D	SF			V				
	RAMY	02	1359	1414	1448	S18	W35	5858	12	31.0	49	SF	C 4.4	3	E		73		
	HOLL	02	1422E	1423U	1447	S19	W35	5858	12	31.0	25D	SF		2	E		68		F
0035		02	1427	1439	1452	N13	E34	5864	01	5.2	25	SF					59	1.5	F
	RAMY	02	1427	1439	1454	N11	E34	5864	01	5.2	27	SF		3	E		29		
	HOLL	02	1435E	1440U	1451	N14	E33	5864	01	5.1	16D	SF		2	E		27		F
	HTPR	02	1438E		1501D	N14	E35	5864	01	5.2	23D	SN			C	1438	120	1.5	
0036	HOLL	02	1814	1814	1824	N24	E05	5867A	01	3.1	10	SF		3	E		20		
0037	HOLL	02	1836	1837	1853	N23	W57	5854	12	29.5	17	SF		3	E		26		F
0038		02	1859	1913	1924	N21	W65	5854	12	28.9	25	2N	C 6.9				212		EF
	HOLL	02	1859	1913	1924	N23	W62	5854	12	29.1	25	2N	C 6.9	3	E		301		FE
	PALE	02	1915E	1916U	1917D	N19	W68	5854	12	28.7	2D	1F		3	E		123		
		02	1933		1937	No Flare Patrol													
0039	HOLL	02	1953E	1953U	2005	S28	W81	5852	12	27.6	12D	SF		3	E		94		
0040	HOLL	02	2030	2032	2040D	N20	W67	5854	12	28.8	10D	SF		3	E		63		FH
		02	2041		2045	No Flare Patrol													
0041	HOLL	02	2208	2208	2224	S18	W40	5858	12	31.0	16	SF		3	E		20		F
0042		03	00538	01039	0122	N14	E24	5864	01	4.8	29	SN					81	1.2	EHS
	MITK	03	0053	0103	0130	N14	E25	5864	01	4.9	37	SN			C	0103			EHS
	VORO	03	0058	0106	0112	N14	E25	5864	01	4.9	14	SF		2	C	0106	125	1.5	EH
	LEAR	03	0101	0112	0128	N13	E25	5864	01	4.9	27	SF		3	E		53		
	PURP	03	0103E	0105	0117	N13	E20	5864	01	4.5	14D	SN			C	0105	66	0.8	

Hα SOLAR FLARES

JANUARY 1990

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0043	LEAR	03	0428	0428	0442	N16	W69	5854	12	29.0	14	SF	C 2.7	3	E		30		
0044		03	0620	0625	0632	N21	W77	5854	12	28.5	12	SN	M 1.3				72		D
	PEKG	03	0617E	0617U	0630	N21	W73	5854	12	28.8	13D	1N			P	0622	63		D
	PURP	03	0620	0625	0632	N22	W77	5854	12	28.4	12	SB			C	0625	66		
	LEAR	03	0620	0625	0634	N21	W80	5854	12	28.2	14	SF	M 1.3	3	E		86		
0045	LEAR	03	0625	0627	0643	S06	W65	5853	12	29.5	18	SF		3	E		89		
0046		03	0818	08214	0843	S24	W62	5867	12	29.6	25	SF					41		
	LEAR	03	0818	0821	0838	S24	W64	5867	12	29.5	20	SF		3	E		41		
	KANZ	03	0818	0825	0848	S23	W61	5867	12	29.7	30	SF			C				
0047		03	0957	10011	1018	S26	W64	5867	12	29.5	21	SF					30	0.6	E
	KANZ	03	0957	1001	1017	S25	W64	5867	12	29.5	20	SF			V				
	HTPR	03	0957	1002	1020	S27	W65	5867	12	29.4	23	SF			C	1002	30	0.6	E
0048	KANZ	03	1153	1153	1157	N17	W75	5854	12	28.9	4	SF			V				
0049		03	15231	1529	1619	S22	W67	5867	12	29.6	56	SF	C 3.0				76		F
	RAMY	03	1523	1529	1619	S23	W67	5867	12	29.6	56	SF	C 3.0	3	E		72		F
	HOLL	03	1524	1540U	1616D	S22	W67	5867	12	29.6	52D	SF		3	E		79		F
0050		03	1719	1737	1756	S26	W69	5867	12	29.5	37	SF	C 2.9				40		F
	RAMY	03	1719	1737	1756	S25	W69	5867	12	29.5	37	SF	C 2.9	3	E		18		F
	HOLL	03	1721E	1727U	1740D	S26	W69	5867	12	29.5	19D	SF		3	E		61		
0051		03	2002	20103	2024	S22	W70	5867	12	29.5	22	SF	C 2.6				54		F
	RAMY	03	2002	2010	2021	S21	W69	5867	12	29.6	19	SF		3	E		43		F
	HOLL	03	2002	2013	2028	S22	W70	5867	12	29.5	26	SF	C 2.6	3	E		65		F
0052	HOLL	03	2036	2043	2045	N25	W73	5854	12	29.3	9	SF		3	E		15		
0053		03	20481	20481	2053	N20	W86	5854	12	28.4	5	SF					23		
	RAMY	03	2048	2048	2100D	N20	W84	5854	12	28.5	12D	SF		3	E		24		
	HOLL	03	2049	2049	2053	N19	W89	5854	12	28.2	4	SF		3	E		22		
0054	HOLL	03	2134	2135	2138	S24	W69	5867	12	29.7	4	SF		3	E		19		
		03	2149		2152	No Flare Patrol													
0055	VORO	04	0101	0103	0122	N12	W17	5862	01	2.8	21	SF		1	C	0103	108	1.2	E
0056	KHAR	04	0845E		0900	S22	W90	5852	12	28.5	15D	SF			P	0847			D
0057		04	0905*	0915	0940	S16	E60	5876A	01	8.9	35	SF					30	0.6	DEGL
	HTPR	04	0905	0915	0940	S15	E60	5876A	01	8.9	35	SF			C	0915	30	0.6	EG
	KHAR	04	0915		0932U	S16	E60	5876A	01	8.9	17U	SF			V	0920			DL
0058		04	10181	10191	1028	S20	W80	5867	12	29.4	10	SN					52		EH
	SVTO	04	1018	1019	1025	S21	W81	5867	12	29.3	7	SF		3	E		52		
	KHAR	04	1019	1020	1032	S19	W80	5867	12	29.4	13	SN			P	1020			EH
0059	KHAR	04	1019		1025	S05	W82	5853	12	29.4	6	SF			V				DL
0060	KANZ	04	1203	1203	1207	N24	E27	5873	01	6.6	4	SF			V				
		04	1501		2204	No Flare Patrol													
0061	HOLL	04	1611	1611	1615	N14	W05	5864	01	4.3	4	SF	C 4.9	3	E		17		F
0062	PEKG	05	0338	0340	0347	N13	W12	5864	01	4.2	9	1F			C	0340	189	2.1	D
0063	SVTO	05	0726	0745	0810	S14	E67	5874	01	10.4	44	SF		3	E		29		
0064		05	08137	0824*	0916	S12	E66	5874	01	10.3	63	SF					82		EF
	SVTO	05	0813	0845	0932	S13	E67	5874	01	10.4	79	SF		3	E		44		F
	HTPR	05	0815	0824	0900	S10	E63	5874	01	10.1	45	SN			C	0824	120		E
	KANZ	05	0820	0844	0852D	S14	E69	5874	01	10.6	32D	SF			C				

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0065		05	09208	09302	0942	S22	E46	5871	01	8.9	22	SF					60	0.8	D
	HTPR	05	0920	0930	0945	S22	E45	5871	01	8.8	25	SF			C	0930	60	0.8	D
	KHAR	05	0928	0932	0938	S23	E46	5871	01	8.9	10	SF			V	0932			D
0066	HTPR	05	1005	1008	1020	N12	W18	5864	01	4.1	15	SF			C	1008	130	1.4	
0067		05	10431	10441	1100	S14	E67	5874	01	10.5	17	SN					58		DH
	SVTO	05	1043	1045	1100	S12	E68	5874	01	10.6	17	SF		3	E		36		
	HTPR	05	1043	1045	1100	S13	E65	5874	01	10.3	17	SB			C	1045	80		DH
	KANZ	05	1044	1044	1052D	S16	E68	5874	01	10.6	8D	SF			C				
0068		05	11534	1200	1212	S26	W90	5867	12	29.6	19	SN	M 2.0				14		H
	HTPR	05	1153		1215	S25	W90	5867	12	29.6	22	SN			C				
	SVTO	05	1157	1200	1209	S26	W89	5867	12	29.7	12	SF	M 2.0	3	E		14		H
0069		05	1353	1355	1435	N14	W18	5864	01	4.2	42	SN					80	1.4	EF
	HTPR	05	1353	1355	1435	N15	W18	5864	01	4.2	42	SN			C	1355	125	1.4	E
	RAMY	05	1354E	1355U	1359D	N14	W17	5864	01	4.3	5D	SF		2	E		34		F
0070	RAMY	05	1635	1636	1643	N13	W18	5864	01	4.3	8	SF		3	E		20		
0071		05	17383	17471	1756	N13	W19	5864	01	4.3	18	SF					23		F
	RAMY	05	1738	1747	1757	N13	W19	5864	01	4.3	19	SF		3	E		22		
	HOLL	05	1741	1748	1754	N13	W19	5864	01	4.3	13	SF		3	E		24		F
0072		05	20064	2023	2106	S12	E66	5874	01	10.8	60	SF	C 6.0				74		F
	HOLL	05	2006	2023	2104	S12	E65	5874	01	10.7	58	SF	C 6.0	3	E		99		F
	RAMY	05	2010	2024U	2107	S12	E66	5874	01	10.8	57	SF		3	E		48		F
0073	HOLL	05	2259	2300	2318	S14	E59	5874	01	10.4	19	SF		3	E		18		F
0074	MITK	06	0122	0127	0154	S13	E53	5874	01	10.0	32	1N			C	0127	130	2.2	E
0075		06	0226	0228	0240	N12	W22	5864	01	4.4	14	SN					24	0.3	F
	YUNN	06	0223E	0236U	0242	N14	W22	5864	01	4.4	19D	SN			P	0236	24	0.3	
	PALE	06	0226	0228	0237	N11	W22	5864	01	4.4	11	SF		3	E		23		F
0076		06	02565	0309	0328	S12	E56	5874	01	10.3	32	SN	C 2.5				42	1.5	F
	YUNN	06	0256	0323U	0400D	S12	E56	5874	01	10.3	64D	SB			P	0323	79	1.5	
	PALE	06	0300	0309	0338	S10	E57	5874	01	10.4	38	SF	C 2.5	3	E		30		F
	LEAR	06	0301	0309	0318	S14	E56	5874	01	10.3	17	SF		3	E		16		
0077	PEKG	06	0522	0525	0528	N12	W28	5864	01	4.1	6	SF			C	0525	105	1.3	D
0078		06	0733	0819*	0941	S13	E55	5874	01	10.5	128	SF	C 2.4				54		FK
	SVTO	06	0733	0820	1011	S13	E55	5874	01	10.5	158	SF	C 2.4	4	E		54		F
	SVTO	06	0733	0854	1011	S13	E55	5874	01	10.5	158	SN			E		55		K
	KANZ	06	0756E	0819	0841	S14	E54	5874	01	10.4	45D	SF			V				
0079		06	09041	09081	0930	N12	W27	5864	01	4.3	26	SN					130	1.5	E
	HTPR	06	0904	0908	0930	N13	W28	5864	01	4.3	26	SN			C	0908	130	1.5	E
	KANZ	06	0905	0909	0923D	N12	W26	5864	01	4.4	18D	SF			V				
0080		06	09327	09403	1004	N15	W28	5864	01	4.3	32	1N					170	2.1	E
	HTPR	06	0932	0940	1010	N16	W30	5864	01	4.1	38	1B			C	0940	170	2.1	E
	KANZ	06	0939	0943	0959	N14	W26	5864	01	4.4	20	SF			V				
0081	HTPR	06	1018	1025	1035	S09	E90	5877	01	13.2	17	SN			C				
0082	SVTO	06	1043	1045	1100	S12	E68		01	11.6	17	SF		3	E		36		
0083	KANZ	06	1143	1146	1150	N13	W34	5864	01	3.9	7	SF			V				
0084		06	12023	12082	1215	S10	E84	5877	01	12.8	13	SF					22		H
	SVTO	06	1202	1208	1210	S09	E84	5877	01	12.8	8	SF		4	E		10		
	RAMY	06	1205	1210	1220	S11	E84	5877	01	12.8	15	SF		3	E		35		H

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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	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0085		06	12263	12281	1235	S10	E82	5877	01	12.7	9	SF					30		Y
	SVTO	06	1226	1228	1234	S10	E78	5877	01	12.4	8	SF		3	E		36		Y
	RAMY	06	1227	1228	1235	S11	E84	5877	01	12.8	8	SF		3	E		24		
	KANZ	06	1229	1229	1236	S10	E84	5877	01	12.8	7	SF			V				
0086		06	12363	1240	1250	N12	W30	5864	01	4.3	14	SF					14		
	KANZ	06	1236	1240	1246	N11	W31	5864	01	4.2	10	SF			V				
	RAMY	06	1239	1240	1255	N13	W28	5864	01	4.4	16	SF		3	E		14		
0087		06	1300	13041	1332	S13	E54	5874	01	10.6	32	SN					40	0.7	D
	KANZ	06	1300	1304	1332	S13	E54	5874	01	10.6	32	SF			V				
	HTPR	06	1300	1305	1335D	S13	E55	5874	01	10.7	35D	SN			C	1335	40	0.7	D
0088	KANZ	06	1310	1310	1314	N13	W35	5864	01	3.9	4	SF			V				
0089	HOLL	06	1836	1836	1848	S15	E49	5874	01	10.5	12	SF		3	E		18		F
0090	HOLL	06	1910	1911	1922	S11	E84	5877	01	13.1	12	SF		3	E		19		
0091	PALE	06	1912	1914	1919	N12	W38	5864	01	3.9	7	SF		4	E		18		
0092		06	19512	20031	2049	S11	E80	5877	01	12.8	58	SF					36		
	HOLL	06	1951	2003	2050	S11	E82	5877	01	13.0	59	SF		3	E		38		
	RAMY	06	1953	2004	2048	S11	E78	5877	01	12.7	55	SF		3	E		35		
0093	HOLL	06	1956	1957	2005	N14	W31	5864	01	4.5	9	SF		3	E		27		
0094	HOLL	06	2007	2008	2023	S13	E48	5874	01	10.4	16	SF		3	E		13		
0095	HOLL	06	2009	2010	2020	N14	W35	5864	01	4.2	11	SF		3	E		24		
0096	HOLL	06	2124	2150	2211	S10	E79	5877	01	12.8	47	SF		3	E		32		
0097		06	2246*	2315*	2421	S13	E46	5874	01	10.4	95	1F	C 3.7				84		FK
	PALE	06	2246	2318	2447	S11	E48	5874	01	10.5	121	1F	C 3.7	4	E		116		F
	PALE	06	2246	2350	2447	S11	E48	5874	01	10.5	121	1F			E		94		K
	HOLL	06	2247	2316	2355D	S14	E45	5874	01	10.3	68D	1N		3	E		135		F
	LEAR	06	2304	2315	2330	S14	E45	5874	01	10.4	26	SF		3	E		41		
	LEAR	06	2338	2350	2350D	S15	E44	5874	01	10.3	12D	SF		3	E		32		
0098		07	0150*	02101	0232	S13	E43	5874	01	10.3	42	1F					111	2.3	EIJ
	VORO	07	0150	0211	0232	S13	E42	5874	01	10.2	42	1F		2	C	0211	170	2.3	EIJ
	PALE	07	0205	0210	0219D	S13	E44	5874	01	10.4	14D	SF		4	E		52		
0099		07	0335	0336	0345	S13	E44	5874	01	10.5	10	1N					31	0.5	E
	PEKG	07	0335	0336	0345	S14	E43	5874	01	10.4	10	1N			V				E
	YUNN	07	0337E	0341U	0351D	S12	E46	5874	01	10.6	14D	SN			P	0341	31	0.5	
0100	KANZ	07	1044	1044	1052	S10	E77	5877	01	13.2	8	SF			V				
0101		07	12002	12071	1220	S10	E76	5877	01	13.2	20	SF					18		
	KANZ	07	1200	1207	1218	S10	E77	5877	01	13.3	18	SF			V				
	SVTO	07	1202	1208	1221	S09	E75	5877	01	13.1	19	SF		3	E		18		
0102	SVTO	07	1235E	1237U	1240	S10	E68	5877	01	12.6	5D	SF		2	E		57		
0103	HOLL	07	1538	1539	1545	S23	E10	5871	01	8.4	7	SF		3	E		11		
0104		07	1638	16382	1654	S14	E42	5874	01	10.9	16	SF					16		F
	RAMY	07	1638	1638	1658	S14	E41	5874	01	10.8	20	SF		3	E		16		F
	HOLL	07	1638	1640	1649	S14	E42	5874	01	10.9	11	SF		3	E		16		F
0105	HOLL	07	1652	1656	1705	N22	W51	5864	01	3.8	13	SF		3	E		28		F
0106		07	17132	1717	1725	S23	E10	5871	01	8.5	12	SF					15		F
	HOLL	07	1713	1717	1729	S23	E10	5871	01	8.5	16	SF		3	E		17		
	RAMY	07	1715	1717	1721	S23	E10	5871	01	8.5	6	SF		3	E		13		F
0107	HOLL	07	1736	1737	1742	S24	E10	5871	01	8.5	6	SF		3	E		11		

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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	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0108		07	20353	20391	2058	S38	W11	5865	01	7.0	23	SF	C 1.7				26		F
	HOLL	07	2035	2039	2101	S38	W12	5865	01	6.9	26	SF	C 1.7	3	E		39		F
	RAMY	07	2038	2040	2056	S38	W13	5865	01	6.8	18	SF		3	E		28		F
	PALE	07	2039E	2043U	2056D	S39	W09	5865	01	7.1	17D	SF		3	E		12		F
0109		07	22472	22502	2302	S38	W14	5865	01	6.8	15	SF					22		
	HOLL	07	2247	2250	2306	S38	W15	5865	01	6.7	19	SF		3	E		32		
	PALE	07	2249	2252	2257	S38	W12	5865	01	7.0	8	SF		3	E		13		
0110	VORO	08	0151	0153	0158	S15	E30	5874	01	10.3	7	SF		2	C	0153	72	0.8	DI
0111		08	02233	02271	0233	N11	W58	5864	01	3.7	10	1F					63	2.1	DHIJ
	VORO	08	0223	0227	0234	N12	W59	5864	01	3.6	11	1F		2	C	0227	108	2.1	DHIJ
	PALE	08	0226	0228	0232	N10	W57	5864	01	3.8	6	SF		3	E		18		
0112	VORO	08	0230	0231	0249	N22	W61	5862	01	3.4	19	SF		2	C	0231	63	1.5	EH
0113		08	0317	03181	0330	N12	W51	5864	01	4.3	13	SF					34	0.5	EF
	YUNN	08	0315E	0326U	0337	N12	W52	5864	01	4.2	22D	SN			P	0326	31	0.5	E
	LEAR	08	0317	0318	0324	N13	W50	5864	01	4.4	7	SF		3	E		31		
	PALE	08	0317	0319	0328	N11	W52	5864	01	4.2	11	SF		3	E		39		F
0114		08	11167	11231	1137	S14	E25	5874	01	10.3	21	SF	C 1.2				26		
	SVTO	08	1116	1124	1150	S14	E26	5874	01	10.4	34	SF	C 1.2	3	E		29		
	RAMY	08	1120	1124	1131	S13	E24	5874	01	10.3	11	SF	C 1.2	3	E		22		
	KANZ	08	1123	1123	1131	S14	E26	5874	01	10.4	8	SF			V				
0115		08	11552	1159*	1552	S15	E25	5874	01	10.4	237	1N	M 1.6				190		FKTU
	RAMY	08	1155	1219	1601	S16	E25	5874	01	10.4	246	1N			E		193		KT
	RAMY	08	1155	1415	1601	S16	E25	5874	01	10.4	246	1N	M 1.6	3	E		200		UF
	SVTO	08	1156	1159	1314D	S14	E25	5874	01	10.4	78D	1N			E		157		K
	SVTO	08	1156E	1214	1514D	S14	E25	5874	01	10.4	198D	2N			E		191		K
	SVTO	08	1156	1237	1314D	S14	E25	5874	01	10.4	78D	2N			E		195		K
	SVTO	08	1156E	1314	1514D	S14	E25	5874	01	10.4	198D	2N		3	E		327		UF
	KANZ	08	1157	1242U	1417D	S16	E26	5874	01	10.5	140D	1F			V				F
	HOLL	08	1426E	1428U	1534	S14	E24	5874	01	10.4	68D	SF		1	E		66		F
		08	1359		1416	No Flare Patrol													
		08	1418		2209	No Flare Patrol													
0116	RAMY	08	1525	1537	1601	S23	W02	5871	01	8.5	36	SF		3	E		23		F
0117		08	1712	1713	1717	S12	E15	5874	01	9.8	5	SF	C 2.7				32		H
	HOLL	08	1712	1713	1717	S12	E15	5874	01	9.8	5	SF	C 2.7	3	E		32		H
	RAMY	08	1712	1713	1717	S13	E15	5874	01	9.8	5	SF	C 2.7	3	E		31		
0118	HOLL	08	1830	1834	1837	S15	E18	5874	01	10.1	7	SF		3	E		10		F
0119		08	2107	2107	2110	S12	E12	5874	01	9.8	3	SF					23		
	RAMY	08	2107	2107	2110	S13	E12	5874	01	9.8	3	SF		3	E		15		
	HOLL	08	2107E	2107U	2111	S12	E13	5874	01	9.8	4D	SF		3	E		31		
0120	HOLL	08	2156	2158	2232	S16	E18	5874	01	10.3	36	SF	C 1.4	3	E		32		F
		09	0016		0043	No Flare Patrol													
		09	0050		0108	No Flare Patrol													
0121	YUNN	09	0122	0126	0127D	S12	E24	5874	01	10.9	5D	1B			P		236	2.7	F
		09	0128		0141	No Flare Patrol													
		09	0234		0256	No Flare Patrol													
0122	YUNN	09	0618E	0620U	0620D	S24	W13	5871	01	8.2	2D	SN			P	0620	157	1.8	
0123		09	0700	0704	0712	S24	W14	5871	01	8.2	12	1N					112	0.4	D
	URUM	09	0700	0704	0710	S24	W15	5871	01	8.1	10	1N			C		193		D
	YUNN	09	0706E	0706U	0713	S24	W13	5871	01	8.3	7D	SN			P	0706	31	0.4	
0124	KAND	09	0825	0827	0830	S16	E14	5874	01	10.4	5	SF			P	0827	42	0.4	D

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0125	KANZ	09	1007	1011	1022	S25	W16	5871	01	8.2	15	SF			V				
0126		09	11452	11483	1157	S23	W17	5871	01	8.2	12	SN					155	1.8	F
	ATHN	09	1145	1148	1151	S20	W17	5871	01	8.2	6	1N		3	V	1148	206	2.4	
	KAND	09	1147	1150	1200	S24	W18	5871	01	8.1	13	SB			P	1150	104	1.2	F
	KANZ	09	1147	1151	1201	S25	W17	5871	01	8.2	14	SN			V				
0127	KANZ	09	1259	1303	1313	S17	E09	5874	01	10.2	14	SF			V				
0128	KANZ	09	1346	1346	1350	S16	E09	5874	01	10.2	4	SF			V				
		09	1403		1416	No Flare Patrol													
		09	1418		1420	No Flare Patrol													
0129		09	14501	14531	1522	S25	W18	5871	01	8.2	32	1B M 2.5					84		FH
	HOLL	09	1450	1454	1506	S25	W18	5871	01	8.2	16	SB		2	E		65		H
	RAMY	09	1451	1453	1537	S25	W19	5871	01	8.1	46	1B M 2.5		2	E		104		FH
0130	HOLL	09	1646	1655	1659	S15	E12	5874	01	10.6	13	SF		3	E		15		F
0131	HOLL	09	1654	1655	1659	S23	W20	5871	01	8.2	5	SF		3	E		17		H
0132	HOLL	09	1715	1716	1721	S23	W20	5871	01	8.2	6	SF		3	E		10		H
0133		09	1728*	1731*	1753	S15	E10	5874	01	10.5	25	SF					19		F
	RAMY	09	1728	1731	1755	S15	E10	5874	01	10.5	27	SF		3	E		18		
	HOLL	09	1730	1731	1739	S15	E11	5874	01	10.6	9	SF		3	E		25		F
	HOLL	09	1742	1742	1804	S15	E10	5874	01	10.5	22	SF		3	E		13		F
0134	HOLL	09	1807	1810	1814	S23	W21	5871	01	8.1	7	SF		3	E		11		
0135	HOLL	09	1945	1946	1950	S23	W20	5871	01	8.3	5	SF		3	E		11		
0136		09	2005*	2008*	2030	S24	W22	5871	01	8.1	25	SF					30		FHK
	HOLL	09	2005	2008	2031	S24	W22	5871	01	8.1	26	SF			E		29		K
	HOLL	09	2005	2019	2031	S24	W22	5871	01	8.1	26	SF		3	E		52		FH
	RAMY	09	2007	2023	2032	S24	W23	5871	01	8.1	25	SF		3	E		23		F
	PALE	09	2020	2022	2026	S26	W19	5871	01	8.4	6	SF		3	E		16		
0137		09	20401	20413	2100	S25	W22	5871	01	8.1	20	1N M 1.2					99		EFHU
	HOLL	09	2040	2041	2104	S25	W22	5871	01	8.1	24	1B M 1.2		3	E		137		UH
	RAMY	09	2040	2042	2103	S24	W23	5871	01	8.1	23	1N M 1.2		3	E		104		FE
	PALE	09	2041	2044	2054	S25	W20	5871	01	8.3	13	SF		2	E		56		F
0138		09	22541	22583	2310	S15	E08	5874	01	10.5	16	SF					20		F
	HOLL	09	2254	2258	2310	S15	E08	5874	01	10.5	16	SF		3	E		26		
	PALE	09	2255	2301	2309	S15	E07	5874	01	10.5	14	SF		3	E		13		F
0139	PALE	10	0030	0034	0056	S26	W23	5871	01	8.2	26	SF	C 1.2	3	E		14		F
0140	PALE	10	0124	0125	0130	N24	W46	5873	01	6.5	6	SF		3	E		13		F
0141		10	0223	0224	0242	S15	E06	5874	01	10.5	19	SF					32		F
	LEAR	10	0223E		0246	S15	E06	5874	01	10.5	23D	SF		3	E		45		
	PALE	10	0223	0224	0239	S15	E05	5874	01	10.5	16	SF		3	E		18		F
0142	LEAR	10	0224	0229	0254	N26	W45	5873	01	6.6	30	SF		3	E		63		
0143		10	02403	02442	0312	S25	W25	5871	01	8.2	32	1B M 2.2					255	3.6	DFZ
	LEAR	10	0240	0244	0321	S26	W25	5871	01	8.2	41	2B M 2.2		3	E		275		ZF
	PALE	10	0241	0244	0312	S26	W24	5871	01	8.2	31	1B M 2.2		3	E		217		
	YUNN	10	0243E	0243U	0309	S22	W25	5871	01	8.2	26D	1B			P	0243	314	3.7	
	PEKG	10	0243	0246	0307	S25	W25	5871	01	8.2	24	1B			P	0246	294	3.6	D
	URUM	10	0255E	0255U	0309	S25	W26	5871	01	8.1	14D	1F			C		177		D
0144		10	07381	07393	0749	S23	W29	5871	01	8.1	11	SF	C 3.0				13		
	LEAR	10	0738	0742	0747	S22	W30	5871	01	8.0	9	SF	C 3.0	4	E		13		
	KANZ	10	0739	0739	0751	S24	W28	5871	01	8.1	12	SF			C				

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0145		10	12582	13002	1310	S23	W33	5871	01	8.0	12	SN	C 4.6				120	2.1	EH
	HTPR	10	1258	1302	1310	S23	W30	5871	01	8.2	12	1B			C	1302	160	2.1	H
	KANZ	10	1300	1300	1310	S23	W34	5871	01	7.9	10	SF			V				
	RAMY	10	1300	1302	1310	S22	W34	5871	01	7.9	10	SF	C 4.6	2	E		81		EH
0146		10	1304	13061	1314	S13	W11	5874	01	9.7	10	SN					80	0.8	
	HTPR	10	1304	1306	1315	S14	W09	5874	01	9.9	11	SN			C	1306	80	0.8	
	KANZ	10	1304	1307	1313	S12	W13	5874	01	9.6	9	SF			V				
0147		10	13161	1317	1346	S14	W26	5870	01	8.6	30	SF					15		
	RAMY	10	1316	1317	1357	S13	W24	5870	01	8.7	41	SF		3	E		15		
	KANZ	10	1317	1317	1336	S14	W29	5870	01	8.4	19	SF			V				
0148	HOLL	10	1447E	1450U	1455	N24	W49	5873	01	6.8	8D	SF		3	E		22		
0149	HTPR	10	1510	1516	1520	S14	W10	5874	01	9.9	10	SN			C	1516	70	0.7	
0150	HOLL	10	1512	1516	1525	N26	W51	5873	01	6.7	13	SF		3	E		23		
0151		10	1526*	1538*	1555	N26	W51	5873	01	6.7	29	SF					24		
	RAMY	10	1526	1538	1556	N26	W51	5873	01	6.7	30	SF		3	E		26		
	HOLL	10	1547	1552	1554	N25	W51	5873	01	6.7	7	SF		3	E		23		
		10	1625		1628	No Flare Patrol													
0152		10	1727*	17363	1804	S14	W06	5874	01	10.3	37	SN					50		
	HOLL	10	1727	1736	1822	S13	W06	5874	01	10.3	55	SN		3	E		79		
	HOLL	10	1738	1739	1746	S14	W06	5874	01	10.3	8	SF		3	E		20		
0153	HOLL	10	1729	1738	1755	N26	W53	5873	01	6.6	26	SF		3	E		30		
0154		10	2017	2020	2057	S24	W34	5871	01	8.2	40	1N	M 2.0				150		F
	HOLL	10	2017	2020	2057	S25	W35	5871	01	8.1	40	2B	M 2.0	3	E		255		F
	PALE	10	2028E	2028U	2100D	S24	W34	5871	01	8.2	32D	SF		3	E		45		
0155	HOLL	10	2106	2107	2110	N25	W54	5873	01	6.7	4	SF		3	E		14		F
0156	VORO	11	0102	0103	0111	N37	W55		01	6.6	9	SF		2	C	0103	81	1.6	D
0157	VORO	11	0113	0117	0154	N37	W55		01	6.6	41	1F		2	C	0117	116	2.8	D
0158	LEAR	11	0345	0346	0351	N25	W59	5873	01	6.6	6	SF		3	E		14		
0159	LEAR	11	0417	0418	0424	S25	W38	5871	01	8.2	7	SF		3	E		21		
0160	ISTA	11	0932	0954	1001	S13	W39	5870	01	8.4	29	SB			V				DJM
0161	ISTA	11	0944	0944	0949	S29	E85	5881	01	18.1	5	1F			V				D
0162	ISTA	11	1001	1001	1008	N26	W61	5873	01	6.7	7	SN			V				E
0163		11	14064	14102	1430	S22	W45	5871	01	8.1	24	SN					52	1.2	E
	HTPR	11	1406	1410	1430	S18	W45	5871	01	8.2	24	SN			C	1410	80	1.2	E
	RAMY	11	1410	1412	1431	S25	W45	5871	01	8.1	21	SF		3	E		24		
0164	HTPR	11	1408	1412	1415	S05	W10	5785	01	10.8	7	SF			C	1412	30	0.3	D
0165	HOLL	11	1802	1803	1814	S11	E19	5877	01	13.2	12	SF		4	E		18		F
0166		11	20441	2050	2108	S24	W49	5871	01	8.1	24	SF	C 2.4				50		F
	HOLL	11	2044	2050	2116	S25	W49	5871	01	8.1	32	SF	C 2.4	3	E		62		F
	RAMY	11	2045	2050	2100	S23	W49	5871	01	8.1	15	SF	C 2.4	3	E		38		
0167		12	0045*	0056*	0125	S25	W50	5871	01	8.1	40	SF	M 1.1				140	4.8	EJ
	LEAR	12	0045	0056	0120	S25	W50	5871	01	8.1	35	SF	M 1.1	3	E		88		
	VORO	12	0058E	0059	0121	S24	W50	5871	01	8.2	23D	1N		1	C	0059	287	4.8	EJ
	PALE	12	0108	0109	0134	S27	W50	5871	01	8.1	26	SF		3	E		44		

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0168		12	07392	0741	0748	N23	E76	5882	01	18.2	9	1N	C 8.4				52		D
	ABST	12	0739	0741	0750	N24	E80	5882	01	18.5	11	1N			C	0741	87		D
	LEAR	12	0741	0741	0747	N22	E73	5882	01	17.9	6	SF	C 8.4	3	E		17		
0169		12	0802		0814	N22	E75	5882	01	18.1	12	1N					250		FH
	HTPR	12	0800E		0820	N25	E75	5882	01	18.1	20D	1N			C	0804	250		H
	ISTA	12	0802		0808	N20	E75	5882	01	18.1	6	1N			V				F
0170	HTPR	12	1000		1050	N24	E72	5882	01	18.0	50	SF			C	1035	100		
0171	KANZ	12	1135	1135	1138	S25	E48	5878A	01	16.2	3	SF			V				
0172	RAMY	12	1358	1407	1418	N26	W77	5873	01	6.6	20	SF		3	E		43		
0173	HOLL	12	1852	1914	1926	N21	E68	5882	01	18.0	34	SF		3	E		30		
0174	HOLL	12	2053	2057	2100	N20	E65	5882	01	17.8	7	SF		3	E		14		
		12	2104		2147	No Flare Patrol													
0175	HOLL	12	2116E	2118U	2200D	N21	E65	5882	01	17.9	44D	SN	M 3.5	3	E		80		EH
		12	2152		2202	No Flare Patrol													
		12	2216		2226	No Flare Patrol													
		12	2230		2243	No Flare Patrol													
0176	LEAR	13	0056	0057	0100	N21	E64	5882	01	17.9	4	SF	C 1.2	3	E		19		
0177	VORO	13	0121	0122	0125	N26	W88	5873	01	6.2	4	SF		1	C	0122	27		DH
0178	YUNN	13	0559E	0610	0634	N25	W88	5873	01	6.4	35D				P				A
0179		13	08041	08061	0813	S09	W02	5877	01	13.2	9	1N	C 1.9				88	1.8	F
	SVTO	13	0804	0806	0817	S09	W02	5877	01	13.2	13	SF	C 1.9	3	E		67		F
	KANZ	13	0804	0807	0815	S10	W02	5877	01	13.2	11	SF			V				
	LEAR	13	0805	0806	0810	S09	W03	5877	01	13.1	5	SF	C 1.9	3	E		24		F
	ISTA	13	0805	0807	0809	S08	W01	5877	01	13.3	4	2B			V				F
	YUNN	13	0805E	0808U	0812	S11	W04	5877	01	13.0	7D	SB			P	0808	173	1.8	
0180		13	08095	08151	0818	N33	E56	5884	01	17.8	9	SF					15		
	KANZ	13	0809	0815	0819	N33	E56	5884	01	17.8	10	SF			V				
	LEAR	13	0814	0816	0818	N33	E56	5884	01	17.8	4	SF		3	E		15		
0181	HTPR	13	0902	0910	0919	N25	E85	5887	01	20.0	17	SN			C	0910	10		A
0182		13	0938	0939*	1035	N26	E85	5887	01	20.0	57	SN					13		AK
	HTPR	13	0938	0939	1035	N26	E85	5887	01	20.0	57	SN			C	0939	10		AK
	HTPR	13	0938	0953	1035	N26	E85	5887	01	20.0	57	SN			C	0953	20		AK
	HTPR	13	0938	1028	1035	N26	E85	5887	01	20.0	57	SN			C	1028	10		AK
0183	HTPR	13	0958	1001	1005	N35	E54	5884	01	17.7	7	SF			C	1001	70	1.5	
0184	HTPR	13	1115	1117	1145	S17	E80		01	19.5	30	SN			C	1117	10		D
0185	HTPR	13	1151	1157	1201	S09	W10	5877	01	12.7	10	SF			C	1157	20	0.2	E
0186	HTPR	13	1154	1154	1205	N22	E65	5882	01	18.5	11	SF			C	1154	30	0.9	D
0187	HTPR	13	1202	1205	1212	S35	E29	5879	01	15.8	10	SN			C	1205	10	0.1	D
0188	HTPR	13	1209	1212	1240	N16	E59	5882	01	18.0	31	SF			C	1212	10	0.2	D
0189	HTPR	13	1529	1530	1536	N32	E48	5884	01	17.4	7	SF			C	1530	40	0.7	D
0190	RAMY	13	1609	1616	1634	S25	W74	5871	01	7.9	25	SF		3	E		42		
0191	RAMY	13	1612	1613	1618	N26	W88	5873	01	6.8	6	SN	C 3.4	3	E		46		

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0192		13	18274	18284	1841	S14	W72	5870	01	8.3	14	SF	C 1.8				36		F
	HOLL	13	1827	1828	1841	S14	W72	5870	01	8.3	14	SF	C 1.8	3	E		49		F
	RAMY	13	1827	1829	1840	S13	W73	5870	01	8.3	13	SF	C 1.8	3	E		39		
	PALE	13	1831	1832	1841	S16	W70	5870	01	8.5	10	SF		3	E		19		
0193	PALE	13	2134	2136	2142	S36	E31	5879	01	16.4	8	SF		3	E		11		
0194		13	23311	2333	2343	N16	E54	5882	01	18.1	12	SF					28		
	PALE	13	2331	2333	2346	N18	E55	5882	01	18.2	15	SF		3	E		22		
	HOLL	13	2332	2333	2340	N13	E52	5882	01	17.9	8	SF		3	E		33		
0195	LEAR	14	0051	0052	0056	S12	W69	5870	01	8.8	5	SF	C 1.3	3	E		17		
0196	YUNN	14	0105E	0107U	0134	N20	E44	5882	01	17.4	29D	SN			P	0107	110	1.8	
0197		14	1005	10064	1035	N21	E48	5882	01	18.1	30	1N	M 2.8				244	7.1	EF
	LEAR	14	1005	1006	1018	N22	E46	5882	01	17.9	13	1F	M 2.8	3	E		105		FE
	KANZ	14	1005	1009	1052	N20	E47	5882	01	18.0	47	1F			V				
	ATHN	14	1005	1010	1020D	N20	E50	5882	01	18.2	15D	2B		3	V	1010	382	7.1	
0198		14	12091	1217	1222	N32	E38	5884	01	17.5	13	SF					36		
	RAMY	14	1209	1217	1223	N31	E38	5884	01	17.5	14	SF		3	E		36		
	KANZ	14	1210	1217	1221	N33	E38	5884	01	17.5	11	SF			V				
0199	RAMY	14	1309	1326	1342	N31	E38	5884	01	17.5	33	SF		3	E		20		
0200		14	1317	1321	1326	S24	E71		01	20.0	9	SF					18		
	KANZ	14	1317	1321	1324	S23	E71		01	20.0	7	SF			V				
	RAMY	14	1322E	1322U	1327	S24	E71		01	20.0	5D	SF		3	E		18		
0201		14	16112	16151	1622	N17	E44	5882	01	18.0	11	SF					16		
	HOLL	14	1611	1616	1626	N20	E43	5882	01	18.0	15	SF		3	E		21		
	RAMY	14	1613	1615	1619	N14	E44	5882	01	18.0	6	SF		3	E		12		
0202	HOLL	14	2243	2246	2304	N24	E79	5887	01	21.0	21	SF		4	E		24		
0203		15	06434	06501	0713	N20	E43	5882	01	18.6	30	1N	C 7.5				235	6.1	F
	YUNN	15	0643	0650	0700D	N20	E42	5882	01	18.5	17D	2N			P		393	6.1	F
	LEAR	15	0647	0651	0713	N20	E44	5882	01	18.6	26	SF	C 7.5	3	E		77		F
0204	YUNN	15	0830E	0841U	0901	S35	E11	5879	01	16.2	31D	SB			P	0841	47	0.6	
0205	RAMY	15	1546	1548	1554	N20	E29	5882	01	17.9	8	SF		3	E		12		
0206	RAMY	15	1603	1608	1623	N20	E32	5882	01	18.1	20	SF	C 4.7	3	E		30		F
0207		15	1955*	2019	2022	N21	E28	5882	01	18.0	27	SF					20		F
	RAMY	15	1955	2019	2022	N21	E30	5882	01	18.1	27	SF		3	E		29		F
	HOLL	15	2016	2019	2023	N21	E26	5882	01	17.8	7	SF		3	E		11		
0208	RAMY	15	2103	2111	2118	S16	W70	5874	01	10.6	15	SF		3	E		19		
		15	2156		2323	No Flare Patrol													
		16	0008		0009	No Flare Patrol													
0209	VORO	16	0016E		0041	S26	W73	5875	01	10.3	25D	1F		2	C	0017	99		E
0210	YUNN	16	0611	0619	0648	N15	E21	5891	01	17.8	37	SN			C		79	0.9	
0211	YUNN	16	0717E	0717U	0734	S35	W05	5879	01	15.9	17D	SN			P	0717	47	0.6	E
0212	YUNN	16	0740	0755	0820	S20	E88	5892A	01	23.0	40				C				A
0213		16	0940	0948*	1015	S27	W02		01	16.2	35	SF					20	0.2	GK
	HTPR	16	0940	0948	1015	S27	W02		01	16.2	35	SF			C	0948	20	0.2	GK
	HTPR	16	0940	0959	1015	S27	W02		01	16.2	35	SF			C	0959	20	0.2	GK

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Opt	Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0214		16	10113	10141	1023	S17	W81	5874	01	10.3	12	SF						36		
	HTPR	16	1011	1014	1020	S17	W80	5874	01	10.3	9	SN				C	1014	40		
	KANZ	16	1014	1014	1025	S17	W77	5874	01	10.6	11	SF				V				
	SVTO	16	1014	1015	1023	S16	W85	5874	01	10.0	9	SF			4	E		32		
0215		16	1015	1036*	1154	S10	E85	5890	01	22.8	99	SF						40		AK
	HTPR	16	1015	1036	1154	S10	E85	5890	01	22.8	99	SF				C	1036	30		AK
	HTPR	16	1015	1055	1154	S10	E85	5890	01	22.8	99	SF				C	1055	40		AK
	HTPR	16	1015	1129	1154	S10	E85	5890	01	22.8	99	SF				C	1129	50		AK
0216		16	1042*	10521	1059	N21	E20	5882	01	18.0	17	SF						52	1.1	
	HTPR	16	1042	1052	1105	N22	E22	5882	01	18.1	23	SF				C	1052	90	1.1	
	SVTO	16	1052	1053	1056	N21	E18	5882	01	17.8	4	SF			3	E		15		
	KANZ	16	1053	1053	1056	N20	E20	5882	01	18.0	3	SF				V				
0217	HTPR	16	1117	1118	1130	N20	E22	5882	01	18.1	13	SF				C	1118	40	0.5	
0218	HTPR	16	1158	1204	1255	S11	E85	5890	01	22.9	57	SF				C	1204	30		
0219	HTPR	16	1234	1234	1258	N21	E17	5882	01	17.8	24	SF				C	1234	20	0.2	D
0220		16	1440*	1505	1513	S14	W82	5874	01	10.4	33	1F						71		A
	HTPR	16	1440	1505	1550D	S13	W80	5874	01	10.6	70D	1F				C	1505	110		A
	RAMY	16	1501	1505	1513	S14	W83	5874	01	10.3	12	SF			3	E		32		
0221	RAMY	16	1805	1829	1839	N20	E18	5882	01	18.1	34	SF			3	E		28		F
0222	RAMY	16	1923	1924	1933	N21	E16	5882	01	18.0	10	SF			3	E		14		FH
		16	2056		2102	No Flare Patrol														
		16	2109		2314	No Flare Patrol														
		16	2326		2400	No Flare Patrol														
		17	0000		0034	No Flare Patrol														
0223		17	07167	07185	0728	S12	E78	5890	01	23.2	12	SN	C	7.2				87		H
	LEAR	17	0716	0718	0726	S13	E78	5890	01	23.2	10	SB	C	7.2	3	E		37		
	SVTO	17	0717E	0720U	0730	S11	E79	5890	01	23.2	13D	1F	C	7.2	2	E		192		H
	YUNN	17	0722E	0724U	0729	S10	E79	5890	01	23.2	7D	SB				P	0724	31		
	KANZ	17	0723	0723	0727	S13	E76	5890	01	23.0	4	SF				C				
0224	ISTA	17	0738	0738	0745	S29	E06	5881	01	17.8	7	SB				V				D
0225	KANZ	17	0747	0747	0754	N32	E04	5884	01	17.6	7	SF				C				
0226	HTPR	17	0835	0846	0850	S07	E63	5889	01	22.1	15	SF				C	0846	20	0.4	D
0227		17	08375	08411	0856	N21	E11	5882	01	18.2	19	SN						70	0.8	EF
	ISTA	17	0837	0841	0857	N21	E13	5882	01	18.3	20	SB				V				F
	HTPR	17	0837	0841	0900	N22	E11	5882	01	18.2	23	SN				C	0841	60	0.7	
	KANZ	17	0842	0842	0850	N20	E10	5882	01	18.1	8	SF				V				
	YUNN	17	0842E	0843U	0843D	N21	E09	5882	01	18.0	1D	SN				P	0843	79	0.9	E
0228		17	08464	0857	0914	N12	W24	5878	01	15.5	28	SF						30	0.3	E
	HTPR	17	0846	0857	0907	N12	W23	5878	01	15.6	21	SF				C	0857	30	0.3	
	ISTA	17	0850		0920	N11	W24	5878	01	15.6	30	SF				V				E
0229		17	08572	08595	0913	S12	E77	5890	01	23.2	16	1N	C	5.6				172		EFHMU
	BUCA	17	0855E		0900D	S09	E78	5890	01	23.2	5D	2B				P	0900	214		E
	KANZ	17	0857	0901	0912	S14	E76	5890	01	23.1	15	1N				V				U
	HTPR	17	0857	0902	0914	S14	E80	5890	01	23.4	17	1N				C	0902	90		H
	LEAR	17	0857	0903	0912	S14	E77	5890	01	23.2	15	SF			3	E		49		
	SVTO	17	0857	0904	0920	S12	E74	5890	01	22.9	23	2N	C	5.6	3	E		337		
	ISTA	17	0859	0859	0909	S12	E76	5890	01	23.1	10	2B				V				MUF
0230		17	10032	10063	1018	N21	E10	5882	01	18.2	15	SF	C	1.9				45	0.9	
	HTPR	17	1003	1006	1017	N22	E10	5882	01	18.2	14	SF				C	1006	80	0.9	
	KANZ	17	1004	1007	1018	N21	E10	5882	01	18.2	14	SF				V				
	SVTO	17	1005	1009	1019	N21	E10	5882	01	18.2	14	SF	C	1.9	3	E		10		

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0231		17	10036	10101	1014	S07	E62	5889	01	22.1	11	SF					28	0.6	
	HTPR	17	1003	1010	1013	S07	E62	5889	01	22.1	10	SF			C	1010	30	0.6	
	KANZ	17	1007	1011	1015	S08	E62	5889	01	22.1	8	SF			V				
	SVTO	17	1009	1011	1015	S06	E62	5889	01	22.1	6	SF		3	E		26		
0232		17	1005	1016*	1105	S12	E78	5890	01	23.3	60	SF					33		DK
	HTPR	17	1005	1016	1105	S12	E78	5890	01	23.3	60	SF			C	1016	10		DK
	HTPR	17	1005	1042	1105	S13	E78	5890	01	23.3	60	SF			C	1042	40		K
	HTPR	17	1005	1058	1105	S12	E78	5890	01	23.3	60	SF			C	1058	50		K
0233	HTPR	17	1009	1009	1025	S12	E26	5888	01	19.4	16	SN			C	1009	10	0.1	D
0234		17	10092	10096	1018	N10	W24	5878	01	15.6	9	SF					10		
	SVTO	17	1009	1009	1019	N11	W25	5878	01	15.5	10	SF		3	E		10		
	KANZ	17	1011	1015	1018	N10	W24	5878	01	15.6	7	SF			V				
0235	HTPR	17	1057	1102	1120	S29	E03	5881	01	17.7	23	SN			C	1102	20	0.2	H
0236	HTPR	17	1112	1113	1115	S22	E08	5883	01	18.1	3	SF			C	1113	10	0.1	
0237	HTPR	17	1113	1117	1125	S07	E62	5889	01	22.1	12	SF			C	1117	20	0.4	
0238		17	1135	1146*	1220	S08	E62	5889	01	22.1	45	SF					50	1.0	DK
	HTPR	17	1135	1146	1220	S08	E62	5889	01	22.1	45	SF			C	1146	50	1.0	DK
	HTPR	17	1135	1207	1220	S08	E62	5889	01	22.1	45	SF			C	1207	50	1.0	DK
0239		17	1136	11518	1211	S13	E76	5890	01	23.2	35	SF					36		H
	KANZ	17	1136	1151	1210	S14	E76	5890	01	23.2	34	SF			V				
	SVTO	17	1136	1154	1207	S12	E74	5890	01	23.0	31	SF		3	E		18		
	HTPR	17	1136	1154	1215	S13	E77	5890	01	23.3	39	SN			C	1154	40		
	RAMY	17	1152E	1159	1215D	S14	E75	5890	01	23.2	23D	SF		3	E		50		H
0240		17	1215*	12282	1254	N19	E11	5882	01	18.3	39	SF					71	1.3	FIU
	HTPR	17	1215	1228	1255	N20	E11	5882	01	18.3	40	SN			C	1228	120	1.3	IU
	RAMY	17	1221	1228	1254	N20	E10	5882	01	18.3	33	SF		3	E		22		F
	KANZ	17	1226	1230	1253	N18	E12	5882	01	18.4	27	SF			V				
0241	HTPR	17	1222	1223	1230	S13	E78	5890	01	23.4	8	SF			C	1223	20		
0242		17	12292	12302	1242	S08	E61	5889	01	22.1	13	SF					31	1.0	
	HTPR	17	1229	1231	1249	S08	E62	5889	01	22.2	20	SF			C	1231	50	1.0	
	KANZ	17	1230	1230	1238	S07	E61	5889	01	22.1	8	SF			V				
	RAMY	17	1231	1232	1239	S08	E61	5889	01	22.1	8	SF		3	E		12		
0243	HTPR	17	1353	1358	1410	S35	W18	5879	01	16.1	17	SF			C	1358	30	0.4	G
0244		17	14031	1407	1410	S14	E74	5890	01	23.2	7	SF	C 2.1				20		
	RAMY	17	1403	1407	1410	S14	E73	5890	01	23.1	7	SF	C 2.1	3	E		20		
	KANZ	17	1404	1404U	1414D	S13	E74	5890	01	23.2	10D	SF			V				
0245	HTPR	17	1425	1427	1435	S13	E75	5890	01	23.2	10	SF			C	1427	30		
0246	HTPR	17	1502	1508	1548D	S17	W90	5874	01	10.8	46D	SF			C	1508	40		A
0247	HTPR	17	1509	1516	1520	S13	E75	5890	01	23.3	11	SF			C	1516	30		D
0248	HOLL	17	1637	1639	1651	S29	E13	5894	01	18.7	14	SF		3	E		18		
0249		17	19388	19521	2012	N21	E06	5882	01	18.3	34	SF	C 2.9				65		F
	RAMY	17	1938	1952	2014	N21	E06	5882	01	18.3	36	SF	C 2.9	3	E		42		F
	HOLL	17	1946	1953	2011	N21	E05	5882	01	18.2	25	SF	C 2.9	3	E		88		F
0250		17	1948	1949	2000	N10	W30	5878	01	15.6	12	SF					25		F
	HOLL	17	1948	1949	1957	N11	W30	5878	01	15.6	9	SF		3	E		31		F
	RAMY	17	1948	1949	2002	N10	W29	5878	01	15.6	14	SF		3	E		19		
		17	2149		2352	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)	Opt	Imp	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0251		18	02212	0225	0229	S12	E65	5890	01	23.0	8	SN	M	1.7				84	1.8	
	YUNN	18	0221	0225	0229	S11	E63	5890	01	22.8	8	SN				C		79	1.8	
	LEAR	18	0223	0223U	0235D	S14	E67	5890	01	23.2	12D	SF	M	1.7	2	E		88		
0252	ISTA	18	0815	0823	0841	N21	W07	5882	01	17.8	26	SN				V				D
0253	ISTA	18	0815	0815	0823	S12	E63	5890	01	23.1	8	SN				V				D
0254	ISTA	18	0831	0831	0837	S07	W82		01	12.2	6	SN				V				F
0255	ISTA	18	0839		0843	S29	E06	5894	01	18.8	4	SF				V				D
0256	ISTA	18	0940	0942	0946	N21	W07	5882	01	17.9	6	SF				V				D
0257		18	11132	11161	1123	S10	E48	5889	01	22.1	10	SF						46	0.6	E
	HTPR	18	1113	1116	1121	S11	E49	5889	01	22.1	8	SF				C	1116	30	0.4	
	KAND	18	1115	1117	1125	S10	E48	5889	01	22.1	10	SF				P	1117	62	0.9	E
0258	HTPR	18	1123	1127	1145	S09	E90	5897	01	25.2	22	SF				C	1127	30		A
0259	HTPR	18	1156	1205	1216D	N17	W06	5891	01	18.0	20D	SF				C	1205	30	0.3	E
		18	1321		1509	No Flare Patrol														
		18	1553		1720	No Flare Patrol														
		18	1754		1854	No Flare Patrol														
		18	1904		1920	No Flare Patrol														
		18	1936		2002	No Flare Patrol														
0260	HOLL	18	2002E	2005U	2008	S13	E57	5890	01	23.1	6D	SF			2	E		44		
		18	2030		2215	No Flare Patrol														
		18	2230		2252	No Flare Patrol														
		18	2326		2355	No Flare Patrol														
0261	VORO	19	0124	0130	0137	S33	E71	5892	01	24.7	13	1F			2	C	0130	108		D
0262	KODA	19	0430		0430D	N21	W21	5882	01	17.6	13D	1N				P	0430	452	4.7	
0263		19	08441	08462	0941	S12	E49	5890	01	23.0	57	SF	C	5.6				62	1.7	
	KANZ	19	0844	0848	0947	S12	E50	5890	01	23.1	63	SF				V				
	LEAR	19	0845	0846	0917	S12	E48	5890	01	23.0	32	SF	C	5.6	3	E		23		
	HTPR	19	0846E	0848	1000	S12	E50	5890	01	23.1	74D	SN				C	0848	100	1.7	
0264	HTPR	19	0846E	0846	0905	N22	W17	5882	01	18.0	19D	SF				C	0846	30	0.3	E
0265	HTPR	19	0848	0849	0857	S32	E65	5892	01	24.5	9	SF				C	0849	40	1.0	
0266	HTPR	19	0848	0905	0915	S10	E85	5897	01	25.7	27	SF				C	0905	40		A
0267	HTPR	19	0900	0907	0940	S35	W40		01	16.2	40	SF				C	0907	40	0.6	E
0268		19	09085	09136	0935	N22	W23	5882	01	17.6	27	SF						57	0.6	DE
	HTPR	19	0908	0913	0945	N22	W23	5882	01	17.6	37	SN				C	0913	50	0.6	E
	KANZ	19	0911	0919	0931	N21	W22	5882	01	17.7	20	SF				V				
	URUM	19	0913	0915	0930	N22	W25	5882	01	17.5	17	SF				C		64		D
0269		19	0926*	0937*	1106	S10	E85	5897	01	25.8	100	SF						47		AK
	HTPR	19	0926	0937	1120	S10	E85	5897	01	25.8	114	SF				C	0937	40		AK
	HTPR	19	0926	1010	1120	S10	E85	5897	01	25.8	114	1N				C	1010	60		AK
	HTPR	19	0926	1043	1120	S10	E85	5897	01	25.8	114	SF				C	1043	40		AK
	KANZ	19	1007	1010	1023	S10	E85	5897	01	25.8	16	SF				V				
0270		19	09505	09554	1009	N22	E58	5893	01	23.9	19	SF						90	1.8	
	HTPR	19	0950	0955	1015	N22	E58	5893	01	23.9	25	SF				C	0955	90	1.8	
	KANZ	19	0955	0959	1003	N23	E59	5893	01	23.9	8	SF				V				
0271		19	10491	10501	1101	S33	E65	5892	01	24.6	12	SN						40	1.0	
	HTPR	19	1049	1051	1102	S32	E65	5892	01	24.6	13	SN				C	1051	40	1.0	
	KANZ	19	1050	1050	1100	S34	E65	5892	01	24.6	10	SF				V				

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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
0272	KANZ	19	1115	1115	1119	S12	E52	5890	01	23.4	4	SF			V				
0273	HTPR	19	1140	1157	1255	S10	E85	5897	01	25.9	75	SF			C	1157	40		T
0274		19	11469	11575	1219	N22	W25	5882	01	17.6	33	SF	C 5.6				125	2.1	F
	RAMY	19	1146	1200	1246D	N22	W24	5882	01	17.6	60D	SF	C 5.6	2	E		80		F
	HTPR	19	1150	1157	1220	N22	W26	5882	01	17.5	30	1N			C	1157	170	2.1	
	KANZ	19	1155	1202	1218	N21	W25	5882	01	17.6	23	SF			V				
0275	HTPR	19	1325	1325	1327	S13	E47	5890	01	23.1	2	SF			C	1325	60	0.8	
0276	RAMY	19	1436	1441	1445	S11	E78	5897	01	25.5	9	SF		3	E		16		F
0277	HTPR	19	1500	1520	1552	S10	E80	5897	01	25.6	52	SF			C	1520	50		
0278		19	15181	15203	1537	N20	W21	5882	01	18.0	19	SF					36	0.4	
	RAMY	19	1518	1523	1554D	N21	W20	5882	01	18.1	36D	SF		3	E		43		
	HTPR	19	1519	1520	1537	N20	W22	5882	01	17.9	18	SF			C	1520	30	0.4	
0279		19	15244	1532*	1616	S12	E45	5890	01	23.0	52	SN	M 2.0				126	2.9	FKU
	HTPR	19	1524	1537	1552D	S12	E45	5890	01	23.0	28D	1B			C	1537	210	2.9	
	RAMY	19	1528	1532	1616	S12	E45	5890	01	23.0	48	SN			E		83		K
	RAMY	19	1528	1600	1616	S12	E45	5890	01	23.0	48	SN	M 2.0	3	E		84		UF
0280	RAMY	19	1616	1616	1642	S12	E44	5890	01	23.0	26	SF		3	E		53		F
		19	1658		1703	No Flare Patrol													
		19	1732		1749	No Flare Patrol													
		19	1805		1822	No Flare Patrol													
0281		19	1929*	1932*	1958	S12	E40	5890	01	22.8	29	SF					40		F
	RAMY	19	1929	1932	1938	S11	E40	5890	01	22.8	9	SF		3	E		19		F
	RAMY	19	1939	2000	2017	S12	E40	5890	01	22.8	38	SF		3	E		61		F
0282	RAMY	19	2004	2015	2035	S30	W16	5894	01	18.6	31	SF		3	E		32		
0283	RAMY	19	2018	2030	2041	S12	E40	5890	01	22.8	23	SF		3	E		42		F
		19	2018		2032	No Flare Patrol													
		19	2054		2121	No Flare Patrol													
		19	2133		2212	No Flare Patrol													
		19	2216		2222	No Flare Patrol													
		19	2337		2344	No Flare Patrol													
		19	2359		2400	No Flare Patrol													
		20	0000		0001	No Flare Patrol													
0284	LEAR	20	0119	0123	0130	S10	E76	5897	01	25.8	11	SF		3	E		20		
0285		20	01194	01243	0155	N18	W24	5882	01	18.2	36	1N					184	2.8	EFI
	VORO	20	0119	0124	0230	N19	W25	5882	01	18.1	71	1F		2	C	0126	260	3.1	EI
	YUNN	20	0121E	0128U	0144D	N18	W25	5882	01	18.1	23D	1B			P	0128	189	2.3	
	LEAR	20	0122	0127	0150	N19	W23	5882	01	18.3	28	SF		3	E		35		F
	PEKG	20	0123	0124	0125	N17	W25	5882	01	18.1	2	1F			P	0123	252	3.1	E
0286		20	01271	01291	0139	S32	E55	5892	01	24.4	12	SF					38	1.0	D
	VORO	20	0127	0130	0139	S33	E55	5892	01	24.4	12	SF		2	C	0130	72	1.4	D
	YUNN	20	0128E	0128U	0144	S31	E55	5892	01	24.4	16D	SN			P	0128	31	0.6	
	LEAR	20	0128	0129	0134	S33	E56	5892	01	24.5	6	SF		3	E		12		
0287	LEAR	20	0140	0147	0155	S11	E76	5897	01	25.8	15	SF		3	E		17		
0288	LEAR	20	0323	0323	0331	S28	E60	5892	01	24.8	8	SF		3	E		10		
0289	LEAR	20	0331	0333	0341	S10	E76	5897	01	25.8	10	SF	C 4.0	3	E		22		
0290	LEAR	20	0703	0707	0713	S11	E70	5897	01	25.6	10	SF		3	E		11		
0291	SVTO	20	0729	0828	0839	S11	E70	5897	01	25.6	70	SF		3	E		83		

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0292	SVTO	20	0831	0832	0839	S22	W25	5883	01	18.4	8	SF		3	E		16		F
0293		20	0916	09181	1001	S12	E35	5890	01	23.0	45	SN					47	0.5	
	HTPR	20	0916	0918	0940	S12	E37	5890	01	23.2	24	SN			C	0918	40	0.5	
	SVTO	20	0919E	0919	1022	S12	E33	5890	01	22.9	63D	SF		3	E		54		
0294	HTPR	20	0953	0954	1005	S11	E70	5897	01	25.7	12	SF			C	0954	30		
0295	HTPR	20	1039	1040	1047	S08	E28	5889	01	22.5	8	SF			C	1040	30	0.3	
0296		20	10591	11031	1119	S12	E36	5890	01	23.2	20	SN					20	0.2	E
	HTPR	20	1059	1103	1120	S12	E35	5890	01	23.1	21	SN			C	1103	20	0.2	E
	KANZ	20	1100	1104	1118	S12	E36	5890	01	23.2	18	SF			V				
0297		20	11373	11463	1250	N22	W32	5882	01	18.0	73	1N	M 1.7				217	3.0	
	HTPR	20	1137	1146	1240	N23	W32	5882	01	18.0	63	1N			C	1146	220	3.0	
	SVTO	20	1140	1149	1259	N22	W33	5882	01	17.9	79	1N	M 1.7	3	E		214		
	KANZ	20	1149E	1149U	1220D	N21	W32	5882	01	18.0	31D	1N			V				
0298	SVTO	20	1142	1146	1153	S10	E67	5897	01	25.5	11	SF		3	E		24		
0299		20	1145	1147	1152	S14	E30	5890	01	22.7	7	SN					30	0.3	E
	HTPR	20	1145	1147	1152	S13	E30	5890	01	22.7	7	SN			C	1147	30	0.3	E
	KANZ	20	1149E	1149U	1152	S14	E30	5890	01	22.7	3D	SF			V				
0300		20	1209*	1214*	1340	S11	E30	5890	01	22.8	91	1B	M 4.2				172	1.9	KV
	HTPR	20	1209	1214	1227	S11	E31	5890	01	22.8	18	SN			C	1214	90	1.0	
	SVTO	20	1210	1254	1454	S11	E29	5890	01	22.7	164	1B	M 4.2	3	E		168		
	HTPR	20	1229	1243	1403D	S11	E31	5890	01	22.8	94D	1B			C	1243	210	2.3	K
	HTPR	20	1229	1327	1403D	S11	E31	5890	01	22.8	94D	1B			C	1327	220	2.4	KV
0301	SVTO	20	1231	1247	1310	S10	E20	5889	01	22.0	39	SF		3	E		18		
0302	HOLL	20	1544	1547	1552	N21	W35	5882	01	18.0	8	SF		2	E		55		F
0303	HOLL	20	1619	1619	1632	N21	W35	5882	01	18.0	13	SF		4	E		37		F
0304		20	17201	17242	1738	S32	W38	5881	01	17.7	18	SF					28		EF
	HOLL	20	1720	1724	1738	S32	W38	5881	01	17.7	18	SF		4	E		38		E
	RAMY	20	1721	1726	1744D	S32	W38	5881	01	17.7	23D	SF		3	E		19		F
0305	HOLL	20	1722E	1722	1728	N21	W36	5882	01	18.0	6D	SF		3	E		24		F
0306	HOLL	20	1737	1740	1754D	N21	W37	5882	01	17.9	17D	SF	C 9.3	3	E		61		
0307	RAMY	20	1803E	1821U	1827	N21	W37	5882	01	17.9	24D	SF		3	E		47		F
0308	RAMY	20	1808	1814U	1825D	S26	E44	5892	01	24.2	17D	SF		3	E		15		
0309	RAMY	20	1831E	1834U	1851D	N21	W37	5882	01	17.9	20D	SF		3	E		27		F
0310	HOLL	20	1902	1903	1909	S11	E63	5897	01	25.5	7	SF		3	E		26		
0311		20	2113	2116	2142	N20	W36	5882	01	18.1	29	1N	C 9.0				128		FH
	RAMY	20	2113	2116	2134	N20	W36	5882	01	18.1	21	1N	C 9.0	3	E		125		FH
	HOLL	20	2113	2116	2149	N20	W35	5882	01	18.2	36	1N	C 9.0	3	E		131		F
0312	HOLL	20	2143	2146	2151	S10	E62	5897	01	25.6	8	SF		3	E		24		
0313	HOLL	20	2233	2257	2337D	N21	W39	5882	01	17.9	64D	1N		3	E		119		F
		20	2237		2244	No Flare Patrol													
0314	HOLL	20	2246	2252	2300	S10	E61	5897	01	25.5	14	SF	C 6.7	3	E		30		
		20	2338		2356	No Flare Patrol													
0315	VORO	21	0147	0154	0208	S32	W44	5881	01	17.6	21	1F		2	C	0149	161	2.5	EH

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0316		21	02429	02502	0308	S12	E23	5890	01	22.8	26	1N					218	2.8	EFIJ
	VORO	21	0242		0250D	S11	E23	5890	01	22.8	8D	1F		2	C	0249	251	2.8	EIJ
	LEAR	21	0244	0250	0308	S11	E23	5890	01	22.8	24	SF		4	E		86		F
	MITK	21	0244	0252	0316	S11	E23	5890	01	22.8	32	SN			C	0252			E
	PURP	21	0245E	0250	0301	S12	E24	5890	01	22.9	16D	SB			C	0250	132	1.5	
	PEKG	21	0245	0250	0305	S12	E24	5890	01	22.9	20	1N			V				E
	KODA	21	0251		0251D	S12	E22	5890	01	22.8	20D	1N			P	0251	404	4.2	
0317	LEAR	21	0303	0306	0310	N21	W41	5882	01	18.0	7	SF	C 8.8	4	E		20		F
0318		21	0429*	04447	0536	S12	E22	5890	01	22.8	67	2B	M 6.9				481	5.9	EFZ
	LEAR	21	0429	0444	0538	S11	E22	5890	01	22.8	69	1N	M 6.9	4	E		219		ZF
	MITK	21	0430	0449	0548	S11	E23	5890	01	22.9	78	1B			C	0449	270	3.0	E
	PEKG	21	0430	0450	0509	S12	E23	5890	01	22.9	39	2B			C	0450	631	7.0	E
	YUNN	21	0440E	0440U	0603	S12	E20	5890	01	22.7	83D	2B			P	0440	472	5.2	F
	KODA	21	0445	0451	0522	S12	E23	5890	01	22.9	37	2B			P	0457	814	8.4	
0319		21	04351	0436	0442	N20	W40	5882	01	18.1	7	SF					37		DF
	PEKG	21	0435	0436	0439	N19	W42	5882	01	18.0	4	SF			V				D
	LEAR	21	0436	0436	0444	N21	W38	5882	01	18.3	8	SF		4	E		37		F
0320	KODA	21	0513			N20	W42	5882	01	18.0		1F			P	0513	420	4.3	
0321	LEAR	21	0752	0754	0759	S12	E53	5897	01	25.3	7	SF		3	E		14		
0322	SVTO	21	0912	0922	0946	S09	E10	5889	01	22.1	34	SF		3	E		26		
0323	SVTO	21	0913	0914	0927	N20	W43	5882	01	18.1	14	SF	C 3.3	3	E		34		
0324	SVTO	21	1015	1015	1020	S10	E54	5897	01	25.5	5	SF		3	E		36		
0325	RAMY	21	1324	1325	1329	S08	E08	5889	01	22.1	5	SF		3	E		13		
0326	RAMY	21	1418	1425	1434	N21	W47	5882	01	18.0	16	SF		3	E		37		F
		21	1429		1437	No Flare Patrol													
0327	RAMY	21	1459	1459	1503	S13	E53	5897	01	25.6	4	SF		3	E		13		
0328	RAMY	21	1500	1501	1516	S12	E18	5890	01	23.0	16	SF		3	E		39		F
0329		21	1518*	1524*	1544	N21	W49	5882	01	17.9	26	SF					12		K
	RAMY	21	1518	1524	1548	N21	W50	5882	01	17.8	30	SF			E		14		K
	RAMY	21	1518	1534	1548	N21	W50	5882	01	17.8	30	SF		3	E		10		
	HOLL	21	1534	1534	1536	N21	W48	5882	01	18.0	2	SF		3	E		12		
0330	RAMY	21	1604	1623	1719D	S28	E39	5892	01	24.7	75D	1N	M 1.6	3	E		235		F
		21	1609		1739	No Flare Patrol													
0331	RAMY	21	1610	1615	1633	S13	E18	5890	01	23.0	23	SF		3	E		19		
0332	RAMY	21	1657	1718	1728	S13	E52	5897	01	25.6	31	SF		3	E		18		
0333	RAMY	21	1701	1702	1714	S15	E39	5895	01	24.7	13	SF		3	E		75		F
0334	RAMY	21	1731	1732	1744	S13	E52	5897	01	25.6	13	SF		3	E		13		
0335	HOLL	21	1740E	1740U	1824D	S27	E38	5892	01	24.7	44D	SF		3	E		64		FU
0336	HOLL	21	1828E	1845U	1848	N21	W50	5882	01	17.9	20D	SF		2	E		19		
0337		21	1829*	1853*	1959	S12	E16	5890	01	23.0	90	SF	C 7.5				78		F
	HOLL	21	1829	1853	1925	S12	E16	5890	01	23.0	56	SF	C 7.5	3	E		91		F
	RAMY	21	1910	1949	2016	S12	E16	5890	01	23.0	66	SN		3	E		70		F
	HOLL	21	1944	1955	2017	S12	E16	5890	01	23.0	33	SF		3	E		74		F
		21	1838		1842	No Flare Patrol													

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0338	RAMY	21	1928	1929	1934	S10	E78	5900	01	27.7	6	SF		3	E		20		
0339	RAMY	21	1940	1945	1952	N19	W49	5882	01	18.1	12	SF	C 5.9	3	E		26		
0340	HOLL	21	2028	2029	2045	N21	W51	5882	01	17.9	17	SF		3	E		11		F
0341	HOLL	21	2035	2035	2056	S12	E15	5890	01	23.0	21	SF		3	E		27		F
0342	HOLL	21	2040	2042	2046	S04	E70	5900	01	27.1	6	SF		3	E		13		
0343		21	20425	20471	2058	S13	E48	5897	01	25.5	16	SF					26		F
	HOLL	21	2042	2048	2101	S13	E48	5897	01	25.5	19	SF		3	E		34		F
	RAMY	21	2047	2047	2055	S13	E49	5897	01	25.6	8	SF		3	E		18		
0344	HOLL	21	2124	2124	2134	S08	E03	5889	01	22.1	10	SF		3	E		13		F
0345	HOLL	21	2130	2135	2152	S12	E14	5890	01	22.9	22	SF		3	E		39		F
0346	HOLL	21	2255	2305	2324	S11	E09	5890	01	22.6	29	SF		3	E		41		F
0347	HOLL	21	2318	2319	2322	N24	E31	5893	01	24.4	4	SF		3	E		13		F
0348		22	0017	00183	0036	S10	E76	5900	01	27.7	19	SF	C 6.8				76		E
	LEAR	22	0017	0018	0036	S10	E76	5900	01	27.7	19	SF	C 6.8	4	E		89		
	VORO	22	0017	0021	0036	S09	E75	5900	01	27.6	19	SF		2	C	0021	63		E
0349		22	00301	00323	0042	S12	E52	5897	01	25.9	12	SF					74	1.7	DFH
	VORO	22	0030	0035	0044	S12	E51	5897	01	25.9	14	SF		2	C	0035	108	1.7	DH
	LEAR	22	0031	0032	0040	S13	E52	5897	01	25.9	9	SF		4	E		41		F
0350		22	02354	02402	0306	S11	E09	5890	01	22.8	31	SF					139	1.8	EI
	PEKG	22	0235	0240	0300	S12	E12	5890	01	23.0	25	SN			P	0240	168	1.8	E
	LEAR	22	0236	0242	0312	S11	E09	5890	01	22.8	36	SF		4	E		79		
	VORO	22	0239	0240	0300D	S11	E07	5890	01	22.6	21D	SF		2	C	0240	170	1.8	EI
0351	LEAR	22	0258	0301	0308	S10	E76	5900	01	27.8	10	SF		4	E		48		
0352	LEAR	22	0421	0422	0432	S09	E69	5900	01	27.3	11	SF	C 4.8	3	E		29		
0353		22	05201	05221	0542	S29	E34	5892	01	24.9	22	SF	C 3.8				69	1.4	EF
	PEKG	22	0520	0523	0540	S29	E34	5892	01	24.9	20	SF			P	0523	105	1.4	E
	LEAR	22	0521	0522	0545	S29	E33	5892	01	24.8	24	SF	C 3.8	3	E		33		F
0354		22	0536*	05496	0639	S12	E10	5890	01	23.0	63	1N	M 1.2				316	3.5	EF
	LEAR	22	0536	0555	0641	S12	E09	5890	01	22.9	65	1N	M 1.2	3	E		219		FE
	PEKG	22	0545	0550	0645	S12	E10	5890	01	23.0	60	1N			C	0550	463	4.8	E
	URUM	22	0545	0555	0630	S12	E10	5890	01	23.0	45	1N			C		370		E
	MITK	22	0549	0549	0615D	S11	E10	5890	01	23.0	26D	1N			C	0549	210	2.2	E
0355	SVTO	22	0710E	0735U	0750	S11	E07	5890	01	22.8	40D	SF		2	E		40		F
0356	SVTO	22	0714	0715	0735	S32	E27	5892	01	24.4	21	SF		2	E		29		F
0357	SVTO	22	0724	0726	0750	N20	W56	5882	01	18.0	26	SF		2	E		28		F
0358		22	07281	07302	0745	S08	E68	5900	01	27.4	17	SF					30		
	KANZ	22	0728	0732	0743	S09	E71	5900	01	27.6	15	SF			C				
	SVTO	22	0729	0730	0747	S07	E66	5900	01	27.2	18	SF		2	E		30		
0359		22	07452	0747	0754	S12	E45	5897	01	25.7	9	SF					52		F
	SVTO	22	0745	0747	0755	S13	E44	5897	01	25.6	10	SF		2	E		52		F
	KANZ	22	0747	0747	0754	S12	E46	5897	01	25.8	7	SF			C				
0360	KANZ	22	0802	0802	0813	S09	E73	5900	01	27.8	11	SF			C				
0361	KANZ	22	0825	0829	0849	S09	E73	5900	01	27.8	24	SF			V				
0362		22	0900	0900	0903	S12	E07	5890	01	22.9	3	SF					15		F
	SVTO	22	0859E	0901U	0911D	S12	E08	5890	01	23.0	12D	SF		2	E		15		F
	KANZ	22	0900	0900	0903	S12	E06	5890	01	22.8	3	SF			V				

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0363		22	10002	10011	1006	S09	E70	5900	01	27.7	6	SF						22		
	LEAR	22	1000	1001	1008	S09	E69	5900	01	27.6	8	SF			3	E		22		
	KANZ	22	1002	1002	1005	S09	E71	5900	01	27.7	3	SF				V				
0364	KANZ	22	1044	1102	1138	S09	E71	5900	01	27.8	54	SF				V				
0365		22	11469	12031	1310	S28	E29	5892	01	24.7	84	1N	M	1.5				182		FU
	KANZ	22	1146	1203	1259	S29	E30	5892	01	24.8	73	1F				V				U
	SVTO	22	1150E	1226U	1324D	S28	E29	5892	01	24.7	94D	1N			2	E		161		UF
	RAMY	22	1155	1204	1322	S26	E29	5892	01	24.7	87	1N	M	1.5	3	E		202		F
0366		22	1149*	1153*	1410	S09	E70	5900	01	27.7	141	SF						75		DFKT
	KANZ	22	1149	1153	1236	S09	E71	5900	01	27.8	47	1F				V				
	SVTO	22	1154E	1154U	1324D	S08	E71	5900	01	27.8	90D	1F			2	E		113		FT
	RAMY	22	1155	1155	1306	S10	E70	5900	01	27.7	71	1N			3	E		206		
	RAMY	22	1309	1314	1543	S11	E68	5900	01	27.7	154	SF			3	E		34		
	RAMY	22	1309	1343	1543	S11	E68	5900	01	27.7	154	SF				E		46		K
	HTPR	22	1312	1314	1335	S09	E70	5900	01	27.8	23	SF				C	1314	20		D
	HTPR	22	1342	1343	1420	S09	E70	5900	01	27.8	38	SF				C	1343	30		
0367	HTPR	22	1401	1403	1420	S11	E11	5890	01	23.4	19	SF				C	1403	60	0.6	
0368		22	14063	14122	1458	N21	W60	5882	01	18.0	52	SN	C	5.0				59	1.9	F
	RAMY	22	1406	1412	1458	N21	W60	5882	01	18.0	52	SN	C	5.0	3	E		54		F
	KANZ	22	1409	1412	1426D	N21	W61	5882	01	17.9	17D	SF				V				
	HTPR	22	1409	1414	1431D	N22	W58	5882	01	18.1	22D	SN				C	1414	80	1.9	
	SVTO	22	1411E	1421U	1440D	N19	W60	5882	01	18.0	29D	SF			1	E		42		F
0369	RAMY	22	1425	1429	1445	S13	W07	5889	01	22.1	20	SF			3	E		16		
0370	HTPR	22	1435E		1500	N23	W66	5882	01	17.5	25D	SF				C				E
0371	HTPR	22	1519	1521	1535	S08	E70	5900	01	27.9	16	SN				C	1521	60		D
0372		22	15222	15251	1558	S11	E04	5890	01	22.9	36	SN	C	3.3				86	1.2	F
	HTPR	22	1522	1526	1545D	S10	E03	5890	01	22.9	23D	SN				C	1526	120	1.2	
	RAMY	22	1524	1525	1558	S12	E04	5890	01	22.9	34	SF	C	3.3	3	E		52		F
0373	HTPR	22	1548		1555D	S12	E40	5897	01	25.7	7D	SF				C	1554	110	1.3	E
0374	RAMY	22	1620	1621	1645	S12	W02	5890	01	22.5	25	SF	C	2.9	3	E		78		F
0375	RAMY	22	1630	1633	1648	S27	E17	5892	01	24.0	18	SF			3	E		20		
0376	RAMY	22	1630	1636	1707	N20	W69	5882	01	17.4	37	SF			3	E		51		
0377	RAMY	22	1721	1736	1831	N21	W61	5882	01	18.0	70	SF			3	E		80		
0378	RAMY	22	1737	1740	1751	S27	E17	5892	01	24.0	14	SF	C	4.8	3	E		20		F
		22	2016		2023	No Flare Patrol														
0379	RAMY	22	2024	2024	2031D	S14	E62	5901	01	27.5	7D	SF			3	E		13		
		22	2032		2223	No Flare Patrol														
		22	2240		2300	No Flare Patrol														
0380	LEAR	22	2302	2303	2318	S10	W02	5890	01	22.8	16	SF			3	E		20		
0381	LEAR	23	0216	0217	0224	N22	W69	5882	01	17.8	8	SF			3	E		19		F
0382		23	0503	05041	0526	S10	E58	5900	01	27.6	23	1B	M	2.3				134	3.3	E
	LEAR	23	0503	0504	0535	S10	E56	5900	01	27.4	32	1N	M	2.3	3	E		100		
	PEKG	23	0503	0505	0518	S09	E60	5900	01	27.7	15	1B				C	0505	168	3.3	E
0383		23	08164	08201	0830	S09	E58	5900	01	27.7	14	SF						86	1.6	
	HTPR	23	0816	0821	0830	S09	E57	5900	01	27.6	14	SF				C	0821	86	1.6	
	KANZ	23	0820	0820	0824D	S09	E58	5900	01	27.7	4D	SF				V				

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0384		23	0835*	0838*	0854	S06	E54	5900	01	27.4	19	SF					65	1.2	D
	HTPR	23	0835	0838	0845	S05	E53	5900	01	27.3	10	SF			C	0838	60	1.1	D
	KANZ	23	0838E	0838U	0841	S06	E53	5900	01	27.3	3D	SF			V				
	HTPR	23	0850	0902	0915	S08	E56	5900	01	27.6	25	SN			C	0902	70	1.3	
0385	HTPR	23	0844	0846	0900	S25	E10	5892	01	24.1	16	SF			C	0846	90	1.0	E
0386	HTPR	23	0849		0905	N15	E90	5904	01	30.2	16	SN			C				
0387		23	0920*	0926*	1100	S09	E56	5900	01	27.6	100	SN	C 3.4				86	1.6	EFK
	SVTO	23	0909E	0926	1115	S09	E56	5900	01	27.6	126D	SN	C 3.4	3	E		89		F
	KANZ	23	0909E	0927	1109	S09	E57	5900	01	27.6	120D	SF			V				
	SVTO	23	0909E	1038	1115	S09	E56	5900	01	27.6	126D	SN			E		85		K
	HTPR	23	0920	0926	1015	S08	E56	5900	01	27.6	55	SB			C	0926	70	1.3	E
	HTPR	23	1028	1042	1105	S08	E54	5900	01	27.5	37	SN			C	1042	100	1.8	E
0388		23	09524	1000	1023	S26	E10	5892	01	24.2	31	SF					40	0.5	E
	HTPR	23	0952	1000	1025	S25	E08	5892	01	24.0	33	SF			C	1000	40	0.5	E
	KANZ	23	0956	1000	1021	S27	E13	5892	01	24.4	25	SF			V				
0389		23	10281	1031	1035	N12	E86	5904	01	29.9	7	SN							A
	HTPR	23	1028	1031	1035	N15	E89	5904	01	30.2	7	SN			C				A
	KANZ	23	1029	1031	1035	N10	E82	5904	01	29.6	6	SF			V				
0390		23	11502	11595	1218	S10	W12	5890	01	22.6	28	SF					28		F
	RAMY	23	1150	1204	1222	S10	W12	5890	01	22.6	32	SF		3	E		28		F
	KANZ	23	1152	1159	1214	S09	W12	5890	01	22.6	22	SF			V				
0391	SVTO	23	1212	1213	1229	S09	E54	5900	01	27.6	17	SF		3	E		12		F
0392		23	12463	12482	1311	S10	W11	5890	01	22.7	25	SF					87	1.7	EF
	RAMY	23	1246	1248	1324	S11	W12	5890	01	22.6	38	SF		3	E		62		F
	HTPR	23	1246	1249	1305	S11	W10	5890	01	22.8	19	SF			C	1249	160	1.7	E
	SVTO	23	1247	1250	1304	S10	W11	5890	01	22.7	17	SF		3	E		38		
	KANZ	23	1249	1249	1311	S10	W12	5890	01	22.6	22	SF			V				
0393		23	12472	12494	1302	S10	E55	5900	01	27.7	15	SF					37	1.3	DH
	HTPR	23	1247	1253	1305	S08	E55	5900	01	27.6	18	SF			C	1253	70	1.3	D
	KANZ	23	1249	1249	1304	S10	E55	5900	01	27.7	15	SF			V				
	RAMY	23	1249	1250	1254	S12	E55	5900	01	27.7	5	SF		3	E		21		H
	SVTO	23	1249	1250	1303	S09	E54	5900	01	27.6	14	SF		3	E		19		
0394		23	14205	14291	1440	S10	E53	5900	01	27.6	20	SF					47	1.4	DF
	KANZ	23	1420	1427U	1440	S09	E54	5900	01	27.6	20	SF			V				
	RAMY	23	1423	1429	1435	S11	E52	5900	01	27.5	12	SF		3	E		14		F
	HTPR	23	1425	1430	1445	S09	E52	5900	01	27.5	20	SN			C	1430	80	1.4	D
0395		23	14221	1423	1441	S12	W12	5890	01	22.7	19	SF					29		
	RAMY	23	1422	1424U	1441	S13	W11	5890	01	22.8	19	SF		3	E		29		
	KANZ	23	1423	1423	1427D	S12	W12	5890	01	22.7	4D	SF			V				
0396		23	1424*	1431*	1514	N22	E02	5893	01	23.7	50	1F					197	5.1	FU
	HTPR	23	1424	1431	1505	N23	E04	5893	01	23.9	41	1N			C	1431	450	5.1	F
	SVTO	23	1427E	1433	1452D	N23	E01	5893	01	23.7	25D	SF		2	E		39		F
	KANZ	23	1427	1434U	1451D	N23	W00	5893	01	23.6	24D	1F			V				
	RAMY	23	1439	1446	1524	N21	E01	5893	01	23.7	45	1F		3	E		101		U
0397		23	1639	1657*	1800	S11	W13	5890	01	22.7	81	1F	C 2.9				101		FHK
	RAMY	23	1639	1657	1800	S11	W14	5890	01	22.6	81	1N	C 2.9	3	E		151		FH
	RAMY	23	1639	1720	1800	S11	W14	5890	01	22.6	81	1F			E		123		K
	HOLL	23	1718E	1720U	1809D	S11	W11	5890	01	22.9	51D	SF		2	E		30		F
0398	RAMY	23	1732	1749	1754	N17	W62	5882	01	19.0	22	SF		3	E		19		
0399	RAMY	23	1748	1749	1754	S07	E45	5900	01	27.1	6	SF		3	E		16		
0400		23	1801*	1827	1922	N20	W76	5882	01	17.9	81	1N	C 5.0				78		F
	RAMY	23	1801	1827	1922	N20	W78	5882	01	17.8	81	1N		3	E		110		
	HOLL	23	1822	1827U	1924D	N21	W75	5882	01	18.0	62D	SF	C 5.0	2	E		47		F

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0401	RAMY	23	1848	1851	1857	S07	E44	5900	01	27.1	9	SF		3	E		12		
0402		23	1918*	19371	1957	S06	E44	5900	01	27.1	39	SF	C 2.9				18		F
	RAMY	23	1918	1937	1957	S07	E44	5900	01	27.1	39	SF	C 2.9	3	E		21		F
	HOLL	23	1934	1938	2012D	S06	E45	5900	01	27.2	38D	SF		3	E		15		F
0403	RAMY	23	2043	2045	2100	S07	E43	5900	01	27.1	17	SF		3	E		21		
		23	2146		2234	No Flare Patrol													
		23	2245		2351	No Flare Patrol													
0404		24	0644*	07073	0717	S29	E07	5892	01	24.8	33	SN	C 3.2				125	1.8	EF
	PEKG	24	0644	0710	0720	S30	E06	5892	01	24.7	36	SN			P	0710	147	1.7	E
	SVTO	24	0704	0707	0715	S29	E07	5892	01	24.8	11	SF	C 3.2	2	E		72		F
	YUNN	24	0705E	0708U	0716	S28	E09	5892	01	25.0	11D	SB			P	0708	157	1.8	
0405	KAND	24	1005	1017	1030	S11	W25	5890	01	22.5	25	SN			P	1017	104	1.1	E
0406		24	1146*	12185	1316	S26	W06	5892	01	24.0	90	1N					120		F
	RAMY	24	1146	1218	1310	S26	W05	5892	01	24.1	84	1N		3	E		136		F
	SVTO	24	1201	1223	1323	S25	W07	5892	01	23.9	82	1N		3	E		105		F
0407	SVTO	24	1155	1157	1202	S16	W65	5902	01	19.6	7	SF		3	E		17		
0408		24	12223	1226	1235	S06	E34	5900	01	27.1	13	SF	C 6.5				32		
	RAMY	24	1222	1226	1235	S07	E35	5900	01	27.1	13	SF	C 6.5	3	E		27		
	SVTO	24	1225	1226	1235	S06	E33	5900	01	27.0	10	SF	C 6.5	3	E		38		
0409	RAMY	24	1230	1231	1236	S12	W23	5890	01	22.8	6	SF		3	E		13		
0410		24	12471	12482	1256	S04	E34	5900	01	27.1	9	SN					46	0.8	EF
	SVTO	24	1247	1248	1257	S06	E34	5900	01	27.1	10	SF		3	E		31		F
	KAND	24	1248	1250	1255	S01	E34	5900	01	27.1	7	SN			P	1250	62	0.8	E
0411	RAMY	24	1406	1406	1432	S12	E37	5900	01	27.4	26	SF		3	E		16		F
0412		24	14549	15031	1516	S11	E40	5900	01	27.6	22	SF					22		F
	RAMY	24	1454	1504	1517	S11	E39	5900	01	27.5	23	SF		3	E		24		
	HOLL	24	1503	1503	1514	S11	E42	5900	01	27.8	11	SF		3	E		21		F
0413		24	14567	15152	1541	S26	W07	5892	01	24.1	45	SF					21		F
	RAMY	24	1456	1515	1546	S26	W07	5892	01	24.1	50	SF		3	E		19		F
	HOLL	24	1503	1517	1536	S26	W07	5892	01	24.1	33	SF		3	E		23		F
0414	RAMY	24	1631	1632	1637	S11	W34	5889	01	22.1	6	SF		3	E		12		H
0415	RAMY	24	1718	1721	1735	S07	E31	5900	01	27.0	17	SF		3	E		25		F
0416	HOLL	24	1846	1846	1906	S16	W68	5902	01	19.6	20	SF		3	E		41		
0417	HOLL	24	1939	1945	1958D	S12	E38	5901A	01	27.7	19D	SF		3	E		33		
0418	HOLL	24	1944	1944	1951	S15	W68	5902	01	19.7	7	SF		3	E		14		
0419		24	2001	2015	2110	S28	W04	5892	01	24.5	69	2B	M 1.7				213		FU
	RAMY	24	2001	2015	2103	S28	W04	5892	01	24.5	62	2B	M 1.7	3	E		301		UF
	HOLL	24	2015E	2015U	2116	S27	W04	5892	01	24.5	61D	1B	M 1.7	3	E		125		UF
0420	HOLL	24	2135	2136	2143	S25	W13	5892	01	23.9	8	SF		3	E		30		
0421	HOLL	24	2203	2205	2219	N13	E20	5907	01	26.4	16	SF		3	E		24		
0422	HOLL	24	2209	2211	2219	S07	E27	5900	01	26.9	10	SF		3	E		15		
0423	HOLL	24	2237	2239	2247	S09	W31	5890	01	22.6	10	SF		3	E		18		
0424	HOLL	24	2242	2245	2307	S11	E36	5900	01	27.6	25	SF		3	E		18		
0425	HOLL	24	2311	2320	2336	S08	E27	5900	01	27.0	25	SF	C 4.7	3	E		98		

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0426	HOLL	24	2338	2338	2355	S26	W10	5892	01	24.2	17	SF		3	E		35		
0427	KAND	25	0936	0951	1005	S23	E05	5982B	01	25.8	29	SN			P	0951	83	0.9	EG
0428		25	1153*	12122	1230	S11	E32	5900	01	27.9	37	SN	C 3.1				60	0.7	E
	RAMY	25	1153	1214	1236	S12	E32	5900	01	27.9	43	SF	C 3.1	3	E		57		
	KAND	25	1204	1212	1225	S10	E31	5900	01	27.8	21	SN			P	1212	62	0.7	E
0429	KAND	25	1209	1210	1215	S26	W17	5982	01	24.2	6	SN			P	1210	83	0.9	E
0430	SVTO	25	1237	1251	1328	N24	E40	5909	01	28.6	51	SF		3	E		76		F
0431		25	13091	13141	1344	N12	E12	5907	01	26.4	35	1N	C 4.1				86		F
	RAMY	25	1309	1314	1345	N12	E13	5907	01	26.5	36	1F	C 4.1	3	E		100		F
	SVTO	25	1310	1315	1342	N13	E12	5907	01	26.4	32	SN		3	E		72		F
0432	RAMY	25	1424	1427	1436	N14	E11	5907	01	26.4	12	SF		3	E		27		F
0433	HOLL	25	1720	1724	1727	N12	E56	5904	01	29.9	7	SF		3	E		22		
0434	HOLL	25	1831	1834	1848	N22	E39	5909	01	28.8	17	SF		3	E		36		
0435	HOLL	25	1842	1844	1859	S12	E26	5900	01	27.7	17	SF		3	E		60		
0436	HOLL	25	2009	2012	2020	N14	E08	5907	01	26.4	11	SF		4	E		17		
0437	HOLL	25	2117	2122	2140	S13	W50	5889	01	22.1	23	SF		4	E		52		F
0438	HOLL	25	2136	2137	2149	N12	E53	5904	01	29.9	13	1N	C 3.9	4	E		186		EH
0439	HOLL	25	2136	2141	2217	S10	E24	5900	01	27.7	41	SF		4	E		26		
0440	HOLL	25	2141	2146	2157	S28	W18	5892	01	24.5	16	SF		4	E		24		
0441	HOLL	25	2253	2259	2307	N13	E07	5907	01	26.5	14	SF		4	E		40		F
0442	HOLL	25	2336	2340	2353	S12	W05	5897	01	25.6	17	SF		3	E		28		
		26	0119		0127	No Flare Patrol													
0443	ISTA	26	0823		0828	S27	W27	5892	01	24.2	5	SF			V				F
0444	KAND	26	0940	0950	1015	N14	E01	5907	01	26.5	35	SN			P	0950	83	0.9	EF
		26	1036		1054	No Flare Patrol													
0445		26	1208	1220*	1259	N11	E09	5906	01	27.2	51	SF					141	1.9	EF
	SVTO	26	1205E	1229U	1252	N11	E13	5906	01	27.5	47D	1F		1	E		167		F
	RAMY	26	1208	1230	1306	N10	E10	5906	01	27.2	58	SF		3	E		75		
	HTPR	26	1209E	1220	1237D	N13	E05	5906	01	26.9	28D	SN			C	1220	180	1.9	E
0446		26	1230	1232	1331D	N22	E24	5909	01	28.4	61D	1N					162	2.7	E
	SVTO	26	1220E	1232U	1331D	N21	E29	5909	01	28.7	71D	1N		1	E		113		
	HTPR	26	1230	1232	1237D	N23	E20	5909	01	28.1	7D	1N			C	1232	210	2.7	E
0447	RAMY	26	1259	1259	1314	S11	E15	5900	01	27.7	15	SF		3	E		18		
0448	RAMY	26	1259	1302	1306	N13	W03	5907	01	26.3	7	SF		3	E		12		
0449		26	1336	1339	1349	N22	E24	5909	01	28.4	13	SN					88	2.0	E
	HTPR	26	1336	1339	1345	N23	E20	5909	01	28.1	9	SN			C	1339	160	2.0	E
	RAMY	26	1336	1339	1353	N22	E27	5909	01	28.6	17	SF		3	E		16		
		26	1357		1402	No Flare Patrol													
0450	RAMY	26	1407	1410U	1426D	N14	W04	5907	01	26.3	19D	SF		3	E		15		
		26	1427		1530	No Flare Patrol													

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0451	HOLL	26	1532	1536	1550	S10	E13	5900	01	27.6	18	SF		2	E		48		
0452	HOLL	26	1545	1546	1551	N23	E25	5909	01	28.6	6	SF		3	E		42		
0453	HOLL	26	1616	1618	1630	N23	E24	5909	01	28.5	14	SN	C 3.3	3	E		70		
0454	HOLL	26	1624	1627	1632	S13	W62	5889	01	22.0	8	SF		3	E		13		
0455	HOLL	26	1632	1632	1654	N14	W05	5907	01	26.3	22	SF		3	E		15		
0456	HOLL	26	1829	1842	1855	S06	E01	5900	01	26.8	26	SF		3	E		30		
0457	HOLL	26	2227	2237	2251	N14	W07	5907	01	26.4	24	SF		3	E		34		F
0458	HOLL	26	2246	2255	2319	S10	E07	5900	01	27.5	33	SF		3	E		92		F
0459	HOLL	26	2251	2257	2307	N23	E22	5909	01	28.6	16	1F	C 5.6	3	E		112		F
0460	YUNN	27	0145E	0149U	0219	S13	W63	5890	01	22.3	34D	SB			P	0149	24	0.5	
0461	MITK	27	0231	0234	0305	N27	E17	5909	01	28.4	34	SB			C	0234			E
0462	SVTO	27	1037	1039	1052	N25	W51	5893	01	23.5	15	SF	C 2.1	3	E		61		
0463	SVTO	27	1146	1147	1152	N14	W15	5907	01	26.3	6	SF		3	E		31		
0464	RAMY	27	1238	1238	1253	N23	E15	5909	01	28.7	15	SF	C 1.8	3	E		32		F
0465	RAMY	27	1442	1445	1453	N15	E33	5904	01	30.1	11	SF		3	E		12		
0466		27	1502	1510	1520	N11	E34	5904	01	30.2	18	SF					24		F
	RAMY	27	1502E	1502U	1529D	N10	E34	5904	01	30.2	27D	SF		3	E		25		F
	SVTO	27	1502	1510	1520	N12	E33	5904	01	30.1	18	SF		3	E		22		
		27	1627		1631	No Flare Patrol													
		27	1638		1706	No Flare Patrol													
		27	1717		1759	No Flare Patrol													
		27	1823		2215	No Flare Patrol													
		27	2252		2339	No Flare Patrol													
0467	MITK	27	2340E		2423	S25	W22		01	26.3	43D	SN			C	2343			EG
0468		28	0002E	0003U	0024	S11	W73	5890	01	22.5	22D	1F					56		EFI
	VORO	28	0002E		0024	S10	W75	5890	01	22.4	22D	1F		1	C	0004	81		EI
	HOLL	28	0003E	0003U	0020D	S12	W71	5890	01	22.6	17D	SF		2	E		30		F
0469		28	0019*	00412	0120	N32	W60	5890A	01	23.3	61	1F					215		EF
	MITK	28	0019	0043	0143	N31	W60	5890A	01	23.3	84	2F			C	0043	340		F
	VORO	28	0040	0041	0058	N33	W61	5890A	01	23.2	18	SF		1	C	0041	90		E
0470	VORO	28	0157	0158	0202	N19	E27	5904	01	30.1	5	SF		1	C	0158	99	1.2	D
0471	SVTO	28	0923E	0938	1050	S11	W05	5900	01	28.0	87D	SF	C 2.6	3	E		50		F
0472	SVTO	28	1111E	1114	1124	S11	W06	5900	01	28.0	13D	SF		2	E		25		F
		28	1252		1416	No Flare Patrol													
0473		28	14457	14541	1520	S11	W07	5900	01	28.1	35	SF	C 2.5				44		F
	RAMY	28	1445	1455	1516	S11	W07	5900	01	28.1	31	SF	C 2.5	3	E		62		F
	HOLL	28	1452	1454	1525	S11	W07	5900	01	28.1	33	SF		2	E		25		F
0474	HOLL	28	1616	1619	1641	S11	W09	5900	01	28.0	25	SF		3	E		22		
0475		28	17091	1710	1731	S11	W09	5900	01	28.0	22	SF	C 1.9				24		F
	HOLL	28	1709	1710	1736	S11	W09	5900	01	28.0	27	SF	C 1.9	4	E		26		F
	RAMY	28	1710		1726	S11	W09	5900	01	28.0	16	SF		2	E		22		F
0476	RAMY	28	1835	1838	1850	S11	W09	5900	01	28.1	15	SF		3	E		25		

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0477	RAMY	28	1902	1903	1907	S29	W52	5892	01	24.7	5	SF		3	E		16		F
0478	HOLL	28	2115	2116	2129	S10	W11	5900	01	28.0	14	SF		3	E		21		
0479	HOLL	28	2218	2218	2235	S27	W56	5892	01	24.6	17	SF	C 2.2	2	E		23		
		29	0021		0149	No Flare Patrol													
0480		29	06314	06386	0652	S32	W56	5892	01	24.8	21	SN	C 2.2				43	1.3	
	YUNN	29	0631	0638	0645	S31	W58	5892	01	24.7	14	SB			C		63	1.3	
	LEAR	29	0635	0644	0700	S32	W54	5892	01	25.0	25	SF	C 2.2	2	E		23		
		29	0751		0839	No Flare Patrol													
		29	1051		1133	No Flare Patrol													
0481	RAMY	29	1228	1248	1253	N15	E13	5913	01	30.5	25	SF		3	E		23		
0482	RAMY	29	1235	1235	1239	N27	E32	5911	02	1.0	4	SF		3	E		14		
0483		29	14546	14547	1502	S12	W20	5900	01	28.1	8	SF					17		F
	RAMY	29	1454	1454	1500	S12	W20	5900	01	28.1	6	SF		3	E		16		F
	HOLL	29	1500	1501	1504	S11	W21	5900	01	28.0	4	SF		3	E		18		F
0484		29	14591	1501	1510	N14	E12	5913	01	30.5	11	SF					19		F
	RAMY	29	1459	1501	1514	N13	E13	5913	01	30.6	15	SF		3	E		18		F
	HOLL	29	1500	1501	1506	N14	E12	5913	01	30.5	6	SF		3	E		20		F
0485		29	1653	1657	1710	N22	E46	5914	02	2.2	17	SF	C 2.5				70		
	HOLL	29	1653	1657	1708	N24	E46	5914	02	2.2	15	SF	C 2.5	3	E		76		
	RAMY	29	1653	1657	1713	N21	E45	5914	02	2.1	20	SF	C 2.5	3	E		65		
0486	RAMY	29	2012	2015	2036	S32	W73	5892	01	24.1	24	SF		3	E		22		
0487	RAMY	29	2022	2022	2041	S16	E77	5918	02	4.7	19	SF		3	E		14		
0488		29	2046*	21068	2329	S26	W74	5892	01	24.1	163	1F	M 1.5				134		FU
	HOLL	29	2046	2106	2329	S23	W76	5892	01	24.0	163	1F	M 1.5	4	E		133		UF
	PALE	29	2101E	2126U	2314D	S26	W73	5892	01	24.2	133D	2F		3	E		250		F
	RAMY	29	2102	2114	2129D	S31	W74	5892	01	24.0	27D	1F		3	E		137		
	PALE	29	2317E	2318U	2348D	S26	W74	5892	01	24.2	31D	SF		3	E		15		
0489		29	2108	21123	2124	N24	E45	5914	02	2.3	16	SF					34		
	HOLL	29	2108	2112	2124	N24	E44	5914	02	2.3	16	SF		4	E		30		
	RAMY	29	2108	2115	2124	N24	E46	5914	02	2.4	16	SF		3	E		37		
		29	2214		2253	No Flare Patrol													
0490		29	2334	2340	2404	N14	E15	5913	01	31.1	30	SF	C 6.1				70		F
	HOLL	29	2334	2340	2404	N13	E15	5913	01	31.1	30	SF		2	E		93		F
	PALE	29	2342E	2342U	2404	N16	E15	5913	01	31.1	22D	SF	C 6.1	3	E		47		F
0491	PALE	30	0103	0107	0123	S12	W25	5917	01	28.2	20	SF		3	E		20		F
0492	LEAR	30	0321	0321	0325	N22	E41	5914	02	2.3	4	SF		3	E		28		
0493		30	09461	09482	1001	S11	W32	5900	01	28.0	15	SF					19		F
	KANZ	30	0946	0950	1002	S11	W32	5900	01	28.0	16	SF			V				
	LEAR	30	0947	0948	1000	S11	W32	5900	01	28.0	13	SF		3	E		19		F
0494	HTPR	30	1050	1053	1100	N24	E36	5914	02	2.2	10	SF			C	1053	50	0.8	
0495	HTPR	30	1135	1139	1150	N24	E36	5914	02	2.3	15	SF			C	1139	60	0.9	E
0496	RAMY	30	1255	1257	1304	N25	E38	5914	02	2.5	9	SF		3	E		11		H
0497	HTPR	30	1255		1320	S15	W90	5903	01	23.7	25	SF			C				

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0498		30	1240*	1343*	1421	S07	W42	5900	01	27.4	101	SF	C 1.7				60	0.8	EFK
	RAMY	30	1240	1343	1427	S09	W40	5900	01	27.5	107	SF	C 1.7	3	E		51		F
	RAMY	30	1240	1400	1427	S09	W40	5900	01	27.5	107	SF			E		69		K
	HTPR	30	1355	1358	1415	S05	W45	5900	01	27.2	20	SN			C	1358	60	0.8	E
	KANZ	30	1356	1359	1415	S06	W44	5900	01	27.3	19	SF			C				
0499		30	13102	13132	1330	N24	E35	5914	02	2.2	20	SF					76	1.8	ET
	HTPR	30	1310	1313	1325	N24	E35	5914	02	2.2	15	SF			C	1313	120	1.8	ET
	RAMY	30	1312	1315	1336	N23	E35	5914	02	2.2	24	SF		3	E		31		
0500	RAMY	30	1337	1338	1350	N24	E35	5914	02	2.3	13	SF		3	E		16		
0501	RAMY	30	1359	1400	1408	N14	W01	5913	01	30.5	9	SF		3	E		15		F
0502		30	14299	1429*	1459	S11	W35	5900	01	28.0	30	SF					68	1.1	EF
	RAMY	30	1429	1429	1509	S11	W34	5900	01	28.0	40	SF		3	E		39		
	HTPR	30	1430E	1430	1445	S10	W35	5900	01	28.0	15D	SF			C	1430	90	1.1	E
	KANZ	30	1431	1431	1458	S11	W36	5900	01	27.9	27	SF			C				
	HOLL	30	1438	1439	1505	S11	W36	5900	01	27.9	27	SF		3	E		76		F
0503	HTPR	30	1421		1450	S15	W90	5903	01	23.8	29	SF			C				
0504		30	1442	1442*	1450	S09	W40	5900	01	27.6	8	SF					21		F
	SVTO	30	1427E	1458	1515D	S10	W36	5900	01	27.9	48D	SF		2	E		21		F
	KANZ	30	1442	1442	1450	S08	W43	5900	01	27.4	8	SF			C				
0505		30	1517*	1519*	1538	N09	W05	5904	01	30.3	21	SF					44	1.1	EFH
	HTPR	30	1517	1530	1550	N10	W05	5904	01	30.3	33	SN			C	1530	100	1.1	EH
	RAMY	30	1519	1519	1523	N10	W05	5904	01	30.3	4	SF		3	E		13		
	HOLL	30	1529	1532	1542	N08	W04	5904	01	30.3	13	SF		3	E		19		F
0506		30	1528*	1532*	1548	N24	E34	5914	02	2.3	20	SF					40	1.2	EH
	HOLL	30	1528	1533	1542	N24	E34	5914	02	2.3	14	SF		3	E		18		
	HTPR	30	1530	1532	1551	N24	E34	5914	02	2.3	21	SN			C	1532	80	1.2	EH
	HOLL	30	1543	1544	1551	N24	E34	5914	02	2.3	8	SF		3	E		21		
0507		30	1824	18261	1836	N24	E30	5914	02	2.1	12	SF					16		F
	RAMY	30	1824	1826	1831	N24	E31	5914	02	2.2	7	SF		3	E		21		F
	HOLL	30	1824	1827	1840	N24	E30	5914	02	2.1	16	SF		3	E		10		F
0508	RAMY	30	1832	1832	1842	N08	E52	5919	02	3.7	10	SF		3	E		15		
0509	RAMY	30	1841	1843	1901	N24	W27	5909	01	28.7	20	SF		3	E		12		
0510		30	1847	18482	1856	S14	W36	5917	01	28.1	9	SF					16		H
	RAMY	30	1847	1848	1857	S14	W36	5917	01	28.1	10	SF		3	E		20		H
	HOLL	30	1847	1850	1854	S13	W35	5917	01	28.1	7	SF		3	E		11		
0511	RAMY	30	2001	2004	2013	N23	E31	5914	02	2.2	12	SF		3	E		18		
0512	HOLL	30	2025E	2025U	2030	S10	W37	5900	01	28.1	5D	SF		2	E		18		F
0513	HOLL	30	2207	2208	2213	N26	E30	5914	02	2.2	6	SF		3	E		39		
0514	LEAR	31	0024	0033	0050	S10	W41	5900	01	27.9	26	SF		3	E		29		
0515	VORO	31	0119		0124D	N48	W69		01	25.2	5D	1F		2	C	0120	90		D
0516	LEAR	31	0217	0227	0233	N11	W53	5906	01	27.1	16	SF		4	E		11		
0517	LEAR	31	0338	0338	0344	N14	W06	5913	01	30.7	6	SF		3	E		12		
0518	LEAR	31	0419	0420	0427	S13	W41	5917	01	28.1	8	SF		4	E		46		
0519	LEAR	31	0559	0602	0615	N26	E28	5914	02	2.4	16	SF		3	E		44		F
0520		31	0945	0948	1006	N26	E24	5914	02	2.3	21	1F	C 3.4				133		F
	LEAR	31	0945	0948	1006	N26	E24	5914	02	2.3	21	1F	C 3.4	3	E		131		F
	SVTO	31	0958E	0958U	1050D	N26	E24	5914	02	2.3	52D	1F		2	E		135		

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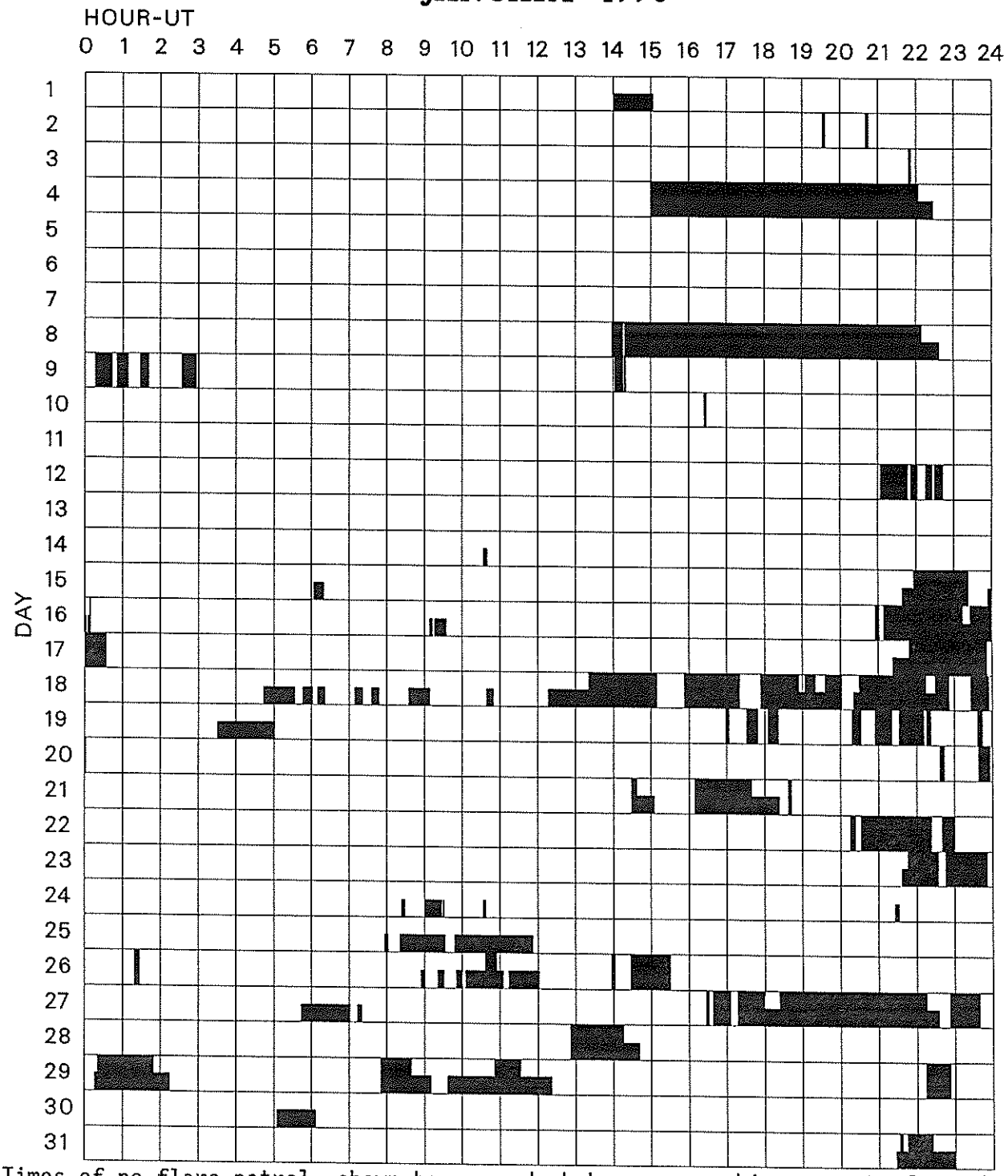
Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0521	LEAR	31	0946	1000	1019	S10	W52	5900	01	27.5	33	SF		3	E		25		F
0522		31	10244	10311	1048	S10	W44	5900	01	28.1	24	SN	C 6.0				76		F
	LEAR	31	1024	1031	1045	S09	W45	5900	01	28.0	21	SN	C 6.0	3	E		76		F
	KANZ	31	1028	1032	1051	S10	W44	5900	01	28.1	23	SF			V				
0523	SVTO	31	1053E	1141U	1215	N08	E43	5919	02	3.7	82D	SF	C 4.6	3	E		57		
0524	KANZ	31	1111	1118	1130	N11	W56	5906	01	27.2	19	SF			V				
0525		31	1130	1130	1154	S12	W45	5917	01	28.1	24	SF					18		FH
	RAMY	31	1125E	1136U	1154	S12	W45	5917	01	28.1	29D	SF		3	E		18		FH
	KANZ	31	1130	1130	1153	S12	W45	5917	01	28.1	23	SF			V				
0526		31	11353	11401	1148	N12	W57	5906	01	27.2	13	SF					42		
	RAMY	31	1135	1140	1144	N11	W58	5906	01	27.1	9	SF		3	E		42		
	KANZ	31	1138	1141	1153	N12	W56	5906	01	27.3	15	SF			V				
0527		31	1227*	1257*	1331	S12	W46	5917	01	28.0	64	SN	C 4.4				74		FK
	RAMY	31	1227	1257	1342	S11	W47	5917	01	28.0	75	SN	C 4.4	3	E		96		F
	RAMY	31	1227	1321	1342	S11	W47	5917	01	28.0	75	SN			E		48		K
	SVTO	31	1231	1258	1335	S12	W47	5917	01	28.0	64	SN	C 4.4	3	E		77		
	KANZ	31	1253	1301	1305	S12	W45	5917	01	28.1	12	SF			V				
0528	RAMY	31	1321	1323	1339	N24	W33	5909	01	29.0	18	SF		3	E		12		H
0529	KANZ	31	1328	1332	1340D	N11	W58	5906	01	27.2	12D	SF			V				
0530		31	1430	14301	1434	N08	E39	5919	02	3.5	4	SN					42		
	KANZ	31	1430	1430	1434	N09	E39	5919	02	3.5	4	SF			V				
	RAMY	31	1430	1431	1434	N07	E39	5919	02	3.5	4	SN		3	E		42		
0531	RAMY	31	1443	1454	1505	S10	W52	5900	01	27.7	22	SF		3	E		38		
0532	RAMY	31	1511	1516	1530	S11	W48	5900	01	28.0	19	SF		3	E		31		
0533	RAMY	31	1624	1632	1657	S16	W30	5908	01	29.4	33	SF		3	E		28		
0534	RAMY	31	1646	1656	1706	N11	W61	5906	01	27.1	20	SF		3	E		24		
0535	RAMY	31	1737	1738	1749	N23	E26	5914	02	2.7	12	SF	C 1.8	3	E		23		H
0536	RAMY	31	1813	1813	1829	S11	W50	5900	01	28.0	16	SF		3	E		16		F
		31	2133		2137	No Flare Patrol													
		31	2145		2224	No Flare Patrol													

"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.

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE

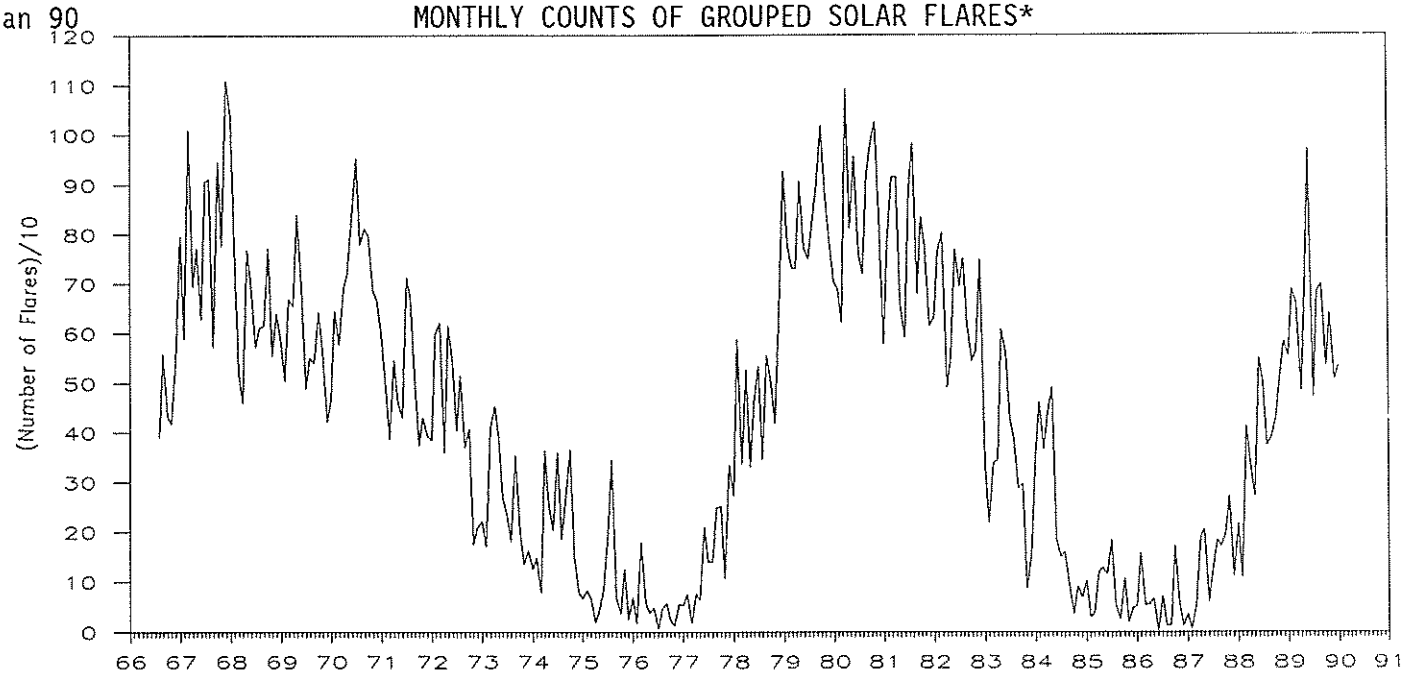
JANUARY 1990



Times of no flare patrol, shown here as shaded areas, combine reports from the observatories listed below. Portions of a panel completely shaded mark dates and times of no patrol of any kind, that is, of neither visual nor cinematographic; portions of a panel with only the bottom half shaded mark times of strictly visual patrol.

Abastumani
Athens
Bucharest
Haute Provence
Holloman
Istanbul
Kandilli
Kanzelhoehe
Kharkov
Kodaikanal
Learmonth
Mitaka
Palehua
Peking
Purple Mt.
Ramey
San Vito
Tashkent
Urumqi
Voroshilov
Yunnan

MONTHLY COUNTS OF GROUPED SOLAR FLARES*



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1966								391	558	432	417	543	2341
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	390	429	508	584	4680
1989	689	539	658	485	686	971	473	684	699	535	640	507	7566
1990	536												536

*Flare counts are preliminary from July 1982 to present. In particular, the monthly totals for the last 6 months may change significantly, as more sites submit their reports. The term "grouped" means that observations of the same event by different stations have been lumped together and counted as one.

SOLAR RADIO EMISSION
Outstanding Occurrences

JANUARY 1990

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	200	HIRA	43	NS	0453.0	0623.0	158.0D	4.0	1.0		WR
	245	LEAR	43	NS	0613.0	0613.0	79.0	200.0			QL=4 ST=2 TYP=1
	200	GORK	44	NS	0630.0E		270.0D		5.0		
	204	IZMI	43	NS	0700.0		300.0	40.0			
	245	SVTO	43	NS	0920.0	1106.0	280.0	130.0			QL=4 ST=2 TYP=1
	600	HUMN	43	NS	1102.0	1359.0	240.0D	33.0			
	245	LEAR	8	S	0207.0E	0207.0	U	120.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0207.0E	0207.0	U	130.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0344.0E	0344.0	1.0D	90.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0606.0E	0606.0	1.0D	180.0			QL=4 ST=2 TYP=3
	5900	KISV	42	SER	0609.1	0612.4		15.0			
	5900	KISV	42	SER	0609.1	0621.5		15.0			
	5900	KISV	42	SER	0609.1	0610.9	18.0	13.0			
	245	LEAR	8	S	0611.0E	0611.0	U	74.0			QL=4 ST=2 TYP=3
	200	GORK	41	F	0630.0	0713.1	60.0	20.0			
	200	GORK	41	F	0630.0	0717.4		25.0			
	200	GORK	41	F	0630.0	0722.9		20.0			
	650	GORK	22	GRF	0633.0E	0720.6	141.0D	8.0			
	950	GORK	20	GRF	0637.7	0721.7	116.9	8.0			
	5900	KISV	2	S/F	0651.0	0651.5	2.2	9.0			
	100	GORK	4	S/F	0732.9	0733.4	0.7	30.0			
	9100	GORK	23	GRF	0743.9	0850.8	196.7	26.0			
	245	LEAR	8	S	0747.0E	0747.0	1.0D	150.0			QL=4 ST=2 TYP=3
	234	POTS	8	S	0755.2	0755.6	0.8	400.0			
	5900	KISV	45	C	0807.3	0812.0	28.7	25.0			
	5900	KISV	45	C	0807.3	0809.4		19.0			
	15000	KISV	45	C	0807.5	0809.5		20.0			
	15000	KISV	45	C	0807.5	0811.8	22.5	29.0			
	9100	GORK	46	C	0807.7	0809.2	5.5	24.0			
	9100	GORK	46	C	0807.7	0811.9		29.0			
	245	LEAR	8	S	0818.0E	0819.0	1.0D	160.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0837.0E	0837.0	1.0D	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0838.0E	0838.0	U	81.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0912.0E	0912.0	1.0D	85.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0919.0E	0919.0	2.0D	61.0			QL=4 ST=2 TYP=3
	200	GORK	8	S	0919.6	0919.7	0.2	20.0			
	5900	KISV	2	S/F	0920.0	0923.6	5.2	6.0			
	200	GORK	4	S/F	0921.0	0921.9	1.5	50.0			
	200	GORK	8	S	0927.1	0927.2	0.2	1100.0			
	245	LEAR	4	S/F	0928.0E	0929.0	3.0D	99.0			QL=4 ST=2 TYP=3
	100	GORK	41	F	0948.0	1009.2		900.0			
	100	GORK	41	F	0948.0	1003.3		580.0			
	100	GORK	41	F	0948.0	0953.9	24.0	50.0			
	650	GORK	22	GRF	0950.3	1001.9	20.4	4.0			
	245	LEAR	8	S	0955.0E	0955.0	1.0D	57.0			QL=4 ST=2 TYP=3
	950	GORK	2	S/F	0959.2	1001.7	9.5	15.0			
	5900	KISV	23	GRF	0959.4	1017.8	45.2	21.0			
	3000	POTS	4	S/F	1000.0	1002.4	10.0	31.0			
	1470	POTS	4	S/F	1000.0	1002.4	10.0	45.0			
	3200	BERN	46	C	1000.6	1002.6	60.0	26.0			
	5200	BERN	46	C	1000.6	1002.6	60.0	27.0			
	8400	BERN	46	C	1000.6	1002.6	60.0	49.0			
	11800	BERN	46	C	1000.6	1002.6	60.0	47.0			
	2950	GORK	45	C	1000.7	1004.3		22.0			
	2950	GORK	45	C	1000.7	1002.3	5.1	29.0			
	9500	POTS	4	S/F	1001.0	1004.7	9.0	49.0			
	5900	KISV	46	C	1001.4	1004.2		47.0			
	5900	KISV	46	C	1001.4	1003.2		32.0			
	5900	KISV	46	C	1001.4	1004.7	8.6	55.0			
	9100	GORK	46	C	1001.8	1003.1	3.9	34.0			
	9100	GORK	46	C	1001.8	1004.7		52.0			
	100	GORK	5	S	1002.0	1003.0	1.5	2200.0			
	245	LEAR	49	GB	1002.0E	1003.0	10.0D	530.0			QL=4 ST=2 TYP=6
	15000	KISV	45	C	1002.0	1005.2		21.0			
	15000	KISV	45	C	1002.0	1004.2		36.0			
	15000	KISV	45	C	1002.0	1003.3		40.0			
	15000	KISV	45	C	1002.0	1004.9	4.8	42.0			
	113	POTS	4	S/F	1002.2	1003.1	4.4	1000.0			
	40	POTS	4	S/F	1003.0	1003.6U	3.5U	2600.0D			

SOLAR RADIO EMISSION
Outstanding Occurrences

JANUARY 1990

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	234	POTS	4	S/F	1003.2	1003.4	0.9	2500.0			
	204	IZMI	5	S	1003.2	1003.5	0.6	200.0	100.0		
	200	GORK	4	S/F	1008.6	1009.3	1.0	1500.0			
	15000	KISV	20	GRF	1010.2	1018.8	19.8	13.0			
	245	LEAR	8	S	1017.0E	1017.0	2.0D	68.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1017.0E	1017.0	1.0D	150.0			QL=2 ST=2 TYP=3
	245	LEAR	4	S/F	1029.0E	1034.0	5.0D	79.0			QL=4 ST=3 TYP=5
	245	LEAR	4	S/F	1044.0E	1052.0	8.0D	100.0			QL=4 ST=2 TYP=5
	200	GORK	46	C	1127.0	1129.4		190.0			
	200	GORK	46	C	1127.0	1127.6	3.0	20.0			
	234	POTS	4	S/F	1127.7	1128.3	1.2	550.0			
	113	POTS	4	S/F	1127.9	1128.2	2.1	2200.0			
	100	GORK	4	S/F	1127.9	1128.4	1.8	240.0			
	245	SVTO	8	S	1128.0E	1128.0	1.0D	330.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1128.0E	1128.0	1.0D	150.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1128.0E	1128.0	1.0D	130.0			QL=2 ST=2 TYP=3
	650	GORK	4	S/F	1128.0	1128.3	0.7	90.0			
	40	POTS	4	S/F	1128.1	1128.3	1.6	34000.0			
	204	IZMI	41	F	1128.2	1128.5	0.8	420.0			
	245	SGMR	49	GB	1511.0E	1511.0	2.0D	1200.0			QL=4 ST=2 TYP=6
	245	SGMR	49	GB	1514.0E	1515.0	1.0D	630.0			QL=4 ST=2 TYP=6
	245	SGMR	8	S	1518.0E	1518.0	2.0D	340.0			QL=4 ST=2 TYP=3
	245	SGMR	49	GB	1702.0E	1702.0	U	740.0			QL=4 ST=2 TYP=6
	245	PALE	8	S	1936.0E	1936.0	1.0D	120.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	1936.0E	1936.0	U	52.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2119.0E	2119.0	1.0D	240.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2125.0E	2125.0	1.0D	210.0			QL=4 ST=2 TYP=3
02	100	GORK	43	NS	0842.0		108.0		5.0		
	200	GORK	43	NS	0920.0		100.0D		5.0		
	245	LEAR	8	S	0009.0E	0009.0	U	130.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0107.0E	0108.0	1.0D	110.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0107.0E	0108.0	2.0D	120.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0116.0E	0116.0	1.0D	55.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	0209.0E	0209.0	1.0D	1100.0			QL=4 ST=2 TYP=6
	245	LEAR	8	S	0215.0E	0215.0	U	170.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0215.0E	0215.0	U	180.0			QL=4 ST=2 TYP=3
	410	LEAR	4	S/F	0222.0E	0224.0	5.0D	120.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0222.0E	0224.0	5.0D	18.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0223.0E	0226.0	3.0D	340.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0224.0E	0224.0	1.0D	330.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0226.0E	0226.0	U	370.0			QL=4 ST=2 TYP=3
	2840	PEKG	3	S	0300.0	0306.5	11.0	22.0			
	200	HIRA	27	RF	0340.0	0500.0	185.0	7.0	3.0		O
	245	LEAR	8	S	0516.0E	0517.0	1.0D	65.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0607.0E	0607.0	U	130.0			QL=4 ST=3 TYP=3
	245	LEAR	49	GB	0607.0E	0607.0	U	3600.0			QL=4 ST=3 TYP=6
	200	GORK	8	S	0607.1	0607.2	0.4	550.0			
	100	GORK	4	S/F	0607.1	0607.2	0.4	5000.0			
	245	LEAR	8	S	0615.0E	0615.0	1.0D	110.0			QL=4 ST=3 TYP=3
	245	LEAR	8	S	0632.0E	0632.0	2.0D	58.0			QL=4 ST=2 TYP=3
	5900	KISV	2	S/F	0644.9	0645.6	1.7	8.0			
	200	GORK	4	S/F	0645.0	0645.4	1.6	370.0			
	100	GORK	46	C	0645.1	0645.4	1.1	1100.0			
	100	GORK	46	C	0645.1	0645.8		1500.0			
	200	GORK	8	S	0648.1	0648.2	0.4	1300.0			
	245	LEAR	8	S	0652.0E	0652.0	1.0D	91.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0710.0E	0710.0	1.0D	81.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0721.6	0721.8	0.5	300.0			
	245	LEAR	8	S	0731.0E	0732.0	2.0D	97.0			QL=4 ST=2 TYP=3
	15000	KISV	45	C	0734.9	0737.5		5.0			
	15000	KISV	45	C	0734.9	0735.7	3.3	8.0			
	245	LEAR	8	S	0749.0E	0749.0	U	99.0			QL=4 ST=2 TYP=3
	5900	KISV	46	C	0804.8	0805.3	1.2	6.0			
	5900	KISV	46	C	0804.8	0805.8		4.0			
	5900	KISV	46	C	0804.8	0804.9		4.0			
	245	LEAR	8	S	0807.0E	0808.0	2.0D	120.0			QL=4 ST=2 TYP=3
	2950	GORK	22	GRF	0817.4	0918.0	183.6	10.0			
	9100	GORK	20	GRF	0817.4	1000.7	149.1	15.0			

SOLAR RADIO EMISSION
Outstanding Occurrences

JANUARY 1990

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	245	LEAR	4	S/F	0826.0E	0827.0	3.0D	110.0			QL=4 ST=2 TYP=3
	950	GORK	2	S/F	0848.5	0848.9	1.3	2.0			
	204	IZMI	5	S	0850.0	0850.1	0.5	17.0	8.0		
	260	ONDR	42	SER	0900.0		240.0				
	245	LEAR	8	S	0906.0E	0906.0	U	81.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0925.0E	0925.0	U	86.0			QL=4 ST=2 TYP=3
	2850	CRIM	20	GRF	0945.0	1000.0	32.0	5.0	2.0		
	204	IZMI	41	F	1156.9	1157.1	0.5	1500.0			
	3000	POTS	1	S	1203.5	1204.5	1.5	5.0			
	9500	POTS	3	S	1204.0	1204.3	2.5	15.0			
	234	POTS	4	S/F	1417.1	1417.6	1.0	275.0			
	245	SGMR	8	S	2011.0E	2012.0	1.0D	150.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	2103.0E	2103.0	1.0D	900.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	2242.0E	2242.0	U	2300.0			QL=2 ST=2 TYP=6
	245	LEAR	49	GB	2244.0E	2244.0	U	2300.0			QL=4 ST=2 TYP=6
	245	PALE	49	GB	2244.0E	2244.0	U	2300.0			QL=2 ST=3 TYP=6
	245	LEAR	8	S	2337.0E	2337.0	U	150.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2337.0E	2337.0	U	140.0			QL=2 ST=2 TYP=3
03	410	LEAR	8	S	0323.0E	0323.0	U	300.0			QL=4 ST=2 TYP=3
	200	HIRA	42	SER	0417.4	0418.5	10.6	220.0			O
	100	HIRA	41	F	0417.6	0418.5	4.2	250.0			
	245	LEAR	4	S/F	0619.0E	0620.0	4.0D	410.0			QL=4 ST=2 TYP=3
	200	HIRA	42	SER	0619.1	0620.7	7.9	170.0			O
	410	LEAR	8	S	0620.0E	0620.0	1.0D	29.0			QL=4 ST=2 TYP=3
	2950	GORK	1	S	0620.4	0620.7	1.0	8.0			
	9100	GORK	3	S	0620.6	0620.8	1.2	41.0			
	5900	KISV	4	S/F	0620.7	0620.8	1.1	49.0			
	15000	KISV	1	S	0620.7	0620.8	1.4	26.0			
	100	GORK	8	S	0817.1	0817.2	0.4	13.0			
	200	GORK	8	S	0817.1	0817.2	0.3	20.0			
	260	ONDR	42	SER	0900.0	1142.2	270.0	127.0			
	100	GORK	8	S	1007.5	1007.6	0.2	230.0			
	1470	POTS	3	S	1122.0	1122.7	3.0	15.0			
	245	SGMR	8	S	1427.0E	1427.0	U	210.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1432.0E	1432.0	U	150.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1810.0E	1810.0	2.0D	63.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1842.0E	1842.0	1.0D	110.0			QL=4 ST=2 TYP=3
04	200	GORK	43	NS	0642.0		63.0		5.0		
	260	ONDR	43	NS	0900.0		270.0				
	100	GORK	43	NS	0912.0		93.0		5.0		
	200	GORK	43	NS	1048.0		57.0D		5.0		
	204	IZMI	43	NS	1100.0		60.0	40.0			
	245	SVTO	44	NS	1132.0E	1134.0	748.0D	200.0			QL=4 ST=1 TYP=1
	245	SGMR	44	NS	1326.0E	1326.0	139.0D	77.0			QL=2 ST=2 TYP=1
	204	IZMI	5	S	0730.2	0731.1	2.0	10.0	5.0		
	100	GORK	46	C	0731.0	0741.2		350.0			
	100	GORK	46	C	0731.0	0740.3	14.0	230.0			
	950	GORK	1	S	0758.9	0759.1	0.8	4.0			
	2950	GORK	1	S	0759.2	0759.3	0.4	2.0			
	430	KRAK	42	SER	1043.3	1119.0	95.0	150.0			
	234	POTS	27	RF	1045.0	1129.0	122.0	40.0			
	600	HUMN	27	RF	1049.0	1145.0	129.0	58.0	4.0		
	536	ONDR	41	F	1100.0	1123.4	80.0	18.0			
	204	IZMI	5	S	1122.0	1122.5	1.4	380.0	200.0		
	245	SGMR	8	S	1305.0E	1305.0	U	65.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1551.0E	1552.0	1.0D	76.0			QL=4 ST=2 TYP=3
	2800	OTTA	22	GRF	1605.0	1613.0	150.0	9.3	4.0		
	245	SGMR	8	S	1657.0E	1657.0	U	99.0			QL=4 ST=2 TYP=3
05	500	HIRA	42	SER	0453.0	0455.8	18.5	75.0			MR
	245	SVTO	8	S	0811.0E	0811.0	U	210.0			QL=2 ST=2 TYP=3
	204	IZMI	5	S	0845.5	0845.7	0.8	65.0	30.0		
	536	ONDR	41	F	0913.0	1008.8	68.0	16.0			
	260	ONDR	42	SER	1128.0	1240.0	120.0	93.0			
	3000	POTS	4	S/F	1149.0	1151.0U	8.0	27.0			
	3200	BERN	46	C	1149.0	1152.5	80.0	21.0			
	5200	BERN	46	C	1149.0	1152.5	80.0	31.0			

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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
05	8400	BERN	46	C	1149.0	1152.5	80.0	60.0			
	11800	BERN	46	C	1149.0	1152.5	80.0	73.0			
	35000	BERN	46	C	1149.0	1152.5	80.0	40.0			
	19600	BERN	46	C	1149.0	1152.5	80.0	67.0			
	2850	CRIM	46	C	1149.2	1151.1	6.0	67.0	10.0		
	2850	CRIM	46	C	1149.2	1152.5		30.0			
	5900	KISV	45	C	1149.3	1152.6	10.7	62.0			
	5900	KISV	45	C	1149.3	1150.9		46.0			
	9500	POTS	4	S/F	1149.5	1152.5	10.5	76.0			
	1470	POTS	4	S/F	1149.5	1152.7	10.5	29.0			
	15000	KISV	45	C	1149.8	1152.6	12.2	73.0			
	15000	KISV	45	C	1149.8	1150.9		40.0			
	4995	SVTO	8	S	1151.0E	1153.0	2.0D	31.0			QL=4 ST=2 TYP=3
	8800	SVTO	49	GB	1151.0E	1154.0	4.0D	1900.0			QL=2 ST=2 TYP=6
	15400	SVTO	4	S/F	1151.0E	1153.0	3.0D	110.0			QL=4 ST=2 TYP=3
	2695	SVTO	8	S	1152.0E	1152.0	1.0D	27.0			QL=4 ST=2 TYP=3
	808	ONDR	2	S/F	1152.4	1153.6	3.0	3.0			
	808	ONDR	6	S	1232.3	1232.5	3.5	4.0			
	3000	POTS	4	S/F	1352.0	1353.7	5.5	11.0			
	9500	POTS	4	S/F	1352.0	1353.8	5.5	21.0			
	245	PALE	8	S	1746.0E	1746.0	1.0D	250.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1746.0E	1746.0	1.0D	230.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	2203.0E	2203.0	U	66.0			QL=4 ST=2 TYP=3
	410	PALE	4	S/F	2205.0E	2208.0	3.0D	62.0			QL=4 ST=2 TYP=5
	245	PALE	8	S	2212.0E	2212.0	1.0D	75.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	2345.0E	2345.0	U	54.0			QL=4 ST=2 TYP=3
06	200	HIRA	43	NS	0218.0	0225.0	284.0	10.0	2.0		0
	245	LEAR	44	NS	0232.0E	0235.0	36.0D	72.0			QL=4 ST=2 TYP=1
	200	GORK	44	NS	0600.0E		300.0D		5.0		
	245	LEAR	44	NS	0642.0E	0806.0	128.0D	180.0			QL=4 ST=3 TYP=1
	245	SVTO	44	NS	0645.0E	0704.0	35.0D	150.0			QL=4 ST=2 TYP=1
	260	ONDR	44	NS	0900.0E	1127.3	270.0D	144.0			
	245	LEAR	8	S	0016.0E	0016.0	1.0D	67.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0016.0E	0016.0	U	73.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0019.0E	0019.0	1.0D	53.0			QL=4 ST=2 TYP=3
	500	HIRA	20	GRF	0136.0	0225.0	84.0	11.0	5.0		0
	410	LEAR	8	S	0144.0E	0144.0	U	140.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0144.0E	0144.0	U	150.0			QL=4 ST=3 TYP=3
	410	PALE	8	S	0224.0E	0224.0	U	62.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0228.0E	0230.0	2.0D	70.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0228.0E	0230.0	2.0D	130.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0235.0E	0235.0	U	90.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0330.0E	0330.0	1.0D	150.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0339.0E	0340.0	2.0D	110.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0409.0E	0411.0	2.0D	59.0			QL=4 ST=3 TYP=3
	245	LEAR	8	S	0631.0E	0631.0	U	77.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0635.0E	0638.0	4.0D	330.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0639.0E	0639.0	U	240.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0651.0E	0651.0	2.0D	110.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0651.0E	0652.0	1.0D	110.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0754.0E	0754.0	1.0D	110.0			QL=4 ST=2 TYP=3
	430	KRAK	42	SER	0820.7	0948.2	204.8	122.0			
	536	ONDR	41	F	0900.0	1308.2	270.0	141.0			
	5900	KISV	2	S/F	0905.0	0906.8	2.9	3.0			
	2950	GORK	21	GRF	0925.7	0942.0	33.3	6.0			
	204	IZMI	41	F	0934.5	0935.0	1.5	11.0			
	2950	GORK	45	C	0937.1	0940.0		3.0			
	2950	GORK	45	C	0937.1	0937.9	3.7	3.0			
	5900	KISV	46	C	0939.3	0940.3		5.0			
	5900	KISV	46	C	0939.3	0939.5		3.0			
	5900	KISV	46	C	0939.3	0939.9	1.7	6.0			
	5900	KISV	2	S/F	0954.5	0954.8	1.3	4.0			
	600	HUMN	27	RF	1108.0	1125.5	33.0	52.0	2.0		
	234	POTS	42	SER	1133.0	1140.4	9.2	110.0			
	245	SVTO	8	S	1136.0E	1136.0	U	130.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1139.0E	1140.0	2.0D	90.0			QL=4 ST=2 TYP=3
	600	HUMN	41	F	1250.0	1308.5	42.0	48.0			
	430	KRAK	42	SER	1254.3	1315.0	26.2	340.0D			

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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
06	430	KRAK	42	SER	1254.3	1319.8		340.0D			
	410	SGMR	8	S	1308.0E	1308.0	U	120.0			QL=4 ST=2 TYP=3
	610	SGMR	8	S	1308.0E	1308.0	U	410.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	1308.0E	1308.0	1.0D	170.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1308.0E	1308.0	1.0D	98.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1314.0E	1314.0	1.0D	140.0			QL=2 ST=2 TYP=3
	410	SVTO	8	S	1315.0E	1315.0	U	150.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1319.0E	1319.0	U	320.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1320.0E	1320.0	U	97.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1954.0E	1954.0	1.0D	65.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	2013.0E	2013.0	1.0D	340.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2013.0E	2013.0	1.0D	340.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	2149.0E	2149.0	U	91.0			QL=4 ST=2 TYP=3
07	200	GORK	43	NS	0600.0		39.0		5.0		
	100	GORK	43	NS	0903.0		97.0		5.0		
	410	LEAR	8	S	0119.0E	0120.0	2.0D	92.0			QL=4 ST=2 TYP=3
	650	GORK	20	GRF	0836.0	0843.3	16.8	5.0			
	950	GORK	20	GRF	0837.1	0843.6	15.8	2.0			
	430	KRAK	46	C	0840.5	0848.2	15.0	82.0	16.0		
	245	LEAR	8	S	0847.0E	0848.0	2.0D	60.0			QL=4 ST=2 TYP=3
	260	ONDR	41	F	0900.0	1029.0	240.0	12.0			
	204	IZMI	41	F	1028.0	1029.8	2.2	23.0			
08	127	TORN	43	NS	1010.0		120.0D		2.0		V=1
	100	GORK	41	F	0851.0	0856.1U	21.0	30.0D			
	100	GORK	41	F	0851.0	0910.4U		30.0D			
	260	ONDR	41	F	0900.0	1302.4	270.0	94.0			
	200	GORK	41	F	0908.0	0910.4		13.0			
	200	GORK	41	F	0908.0	0909.6	4.0	20.0D			
	3000	POTS	21	GRF	1000.0	1323.0	240.0	83.0			
	204	IZMI	41	F	1051.0	1051.5	5.0	18.0			
	100	GORK	41	F	1109.0	1111.2		1400.0			
	200	GORK	41	F	1109.0	1111.3		2200.0			
	200	GORK	41	F	1109.0	1109.6	3.0	2300.0			
	100	GORK	41	F	1109.0	1109.6	3.7	1800.0			
	9500	POTS	20	GRF	1210.0	1323.0	110.0	30.0			
	1470	POTS	22	GRF	1210.0	1317.4	110.0	19.0			
	536	ONDR	41	F	1211.5	1211.9	7.5	23.0			
	430	KRAK	42	SER	1253.1	1253.3	1.2	73.0			
	536	ONDR	45	C	1301.0	1306.2	10.0	83.0			
	810	KRAK	42	SER	1301.5	1308.0		260.0			
	810	KRAK	42	SER	1301.5	1305.5	6.7	36.0	12.0		
	430	KRAK	4	S/F	1301.5	1305.7	8.3	62.0	14.0		
	808	ONDR	41	F	1301.7	1308.7	8.0	18.0			
	600	HUMN	41	F	1302.0	1306.5	9.0	120.0			
	3000	POTS	3	S	1303.0U	1304.0U	2.0U	83.0			
	610	SGMR	8	S	1304.0E	1306.0	2.0D	130.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1305.0E	1306.0	1.0D	62.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1537.0E	1537.0	U	140.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1537.0E	1537.0	U	170.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	1906.0E	1906.0	U	68.0			QL=4 ST=2 TYP=3
09	200	HIRA	43	NS	0153.0	0233.0	145.0	11.0	5.0		O
	200	GORK	44	NS	0615.0E		285.0D		8.0		
	204	IZMI	43	NS	0700.0		300.0	35.0			
	245	LEAR	44	NS	0822.0E	0823.0	47.0D	68.0			QL=2 ST=2 TYP=1
	100	GORK	43	NS	0854.0		126.0		5.0		
	127	TORN	43	NS	0854.0		326.0		7.0		V=1,DISTURBED
	260	ONDR	44	NS	0900.0E		270.0D				
	245	PALE	44	NS	1835.0E	2014.0	201.0D	160.0			QL=4 ST=2 TYP=1
	245	SGMR	44	NS	1838.0E	1843.0	83.0D	100.0			QL=4 ST=2 TYP=1
	200	HIRA	43	NS	2342.0		440.0		13.0		WL
	500	HIRA	27	RF	0003.0	0032.0	62.0	21.0	5.0		WL
	200	HIRA	46	C	0142.2	0142.9	3.3	390.0			O
	245	LEAR	8	S	0159.0E	0159.0	U	51.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0230.0E	0231.0	4.0D	88.0			QL=4 ST=3 TYP=3
	245	PALE	4	S/F	0230.0E	0231.0	3.0D	79.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0232.0E	0232.0	U	270.0			QL=4 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	610	PALE	8	S	0232.0E	0232.0	U	270.0			QL=4 ST=3 TYP=3
	245	LEAR	8	S	0450.0E	0450.0	U	220.0			QL=4 ST=2 TYP=3
	500	HIRA	41	F	0600.0	0700.5	80.0D	58.0			WL SUNSET
	2840	PEKG	1	S	0658.0	0700.5	10.0	50.7			
	2950	GORK	3	S	0659.5	0700.7	4.6	42.0			
	5900	KISV	4	S/F	0659.7	0700.9	6.8	60.0			
	2850	CRIM	3	S	0659.8	0700.8	1.7	44.0	15.0		
	1415	LEAR	8	S	0700.0E	0700.0	1.0D	60.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	0700.0E	0700.0	1.0D	43.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	0700.0E	0704.0	4.0D	460.0			QL=2 ST=3 TYP=5
	1415	SVTO	8	S	0700.0E	0701.0	2.0D	50.0			QL=2 ST=3 TYP=3
	610	SVTO	8	S	0700.0E	0701.0	1.0D	70.0			QL=2 ST=3 TYP=3
	245	LEAR	4	S/F	0700.0E	0703.0	10.0D	430.0			QL=4 ST=2 TYP=5
	100	GORK	46	C	0700.0	0702.3		280.0			
	200	HIRA	46	C	0700.0	0702.4	30.0D	605.0	46.0U		O SUNSET
	100	GORK	46	C	0700.0	0700.6	4.3	1000.0			
	9100	GORK	2	S/F	0700.0	0700.8	5.4	18.0			
	200	GORK	41	F	0700.0	0700.8	5.1	380.0			
	200	GORK	41	F	0700.0	0702.9		460.0			
	950	GORK	4	S/F	0700.1	0701.0	1.9	85.0			
	650	GORK	4	S/F	0700.1	0700.8	1.7	46.0			
	3013	IZMI	5	S	0700.2	0700.6	1.1	56.0	25.0		
	204	IZMI	41	F	0700.3	0700.7	4.0	700.0			
	15000	KISV	2	S/F	0700.6	0701.0	5.5	10.0			
	100	HIRA	41	F	0700.7E		40.0D	1000.0D			
	5900	KISV	4	S/F	0730.4	0731.5	2.9	39.0			
	3013	IZMI	1	S	0730.5	0731.0	3.3	5.0	3.0		
	9100	GORK	1	S	0730.8	0731.4	1.9	10.0			
	2950	GORK	1	S	0730.9	0731.4	2.1	3.0			
	100	GORK	46	C	0803.0E	0805.0	6.0D	930.0			
	200	GORK	46	C	0803.0E	0805.1	5.0D	100.0			
	127	TORN	7	C	0803.0	0804.7	3.0	220.0	110.0		
	650	GORK	2	S/F	0803.9	0804.5	1.1	13.0			
	950	GORK	2	S/F	0804.1	0804.6	0.9	4.0			
	650	GORK	20	GRF	1002.3	1008.0	25.9	3.0			
	950	GORK	20	GRF	1002.3	1011.6	25.7	3.0			
	113	POTS	4	S/F	1002.7	1003.9	4.9	850.0			
	5900	KISV	20	GRF	1003.0	1005.0	14.2	4.0			
	40	POTS	4	S/F	1003.4	1004.0	3.3	2600.0			
	100	GORK	46	C	1003.7	1004.0	3.1	900.0			
	100	GORK	46	C	1003.7	1004.3		390.0			
	5900	KISV	2	S/F	1034.3	1034.7	1.3	4.0			
	100	GORK	41	F	1045.6	1117.1		1300.0			
	100	GORK	41	F	1045.6	1055.1	36.9	390.0			
	100	GORK	41	F	1045.6	1120.6		400.0			
	100	GORK	41	F	1045.6	1058.6		390.0			
	2850	CRIM	4	S/F	1045.6	1045.8	0.7	31.0	10.0		
	200	GORK	41	F	1051.6	1055.0	28.4	580.0			
	200	GORK	41	F	1051.6	1103.2		580.0			
	200	GORK	41	F	1051.6	1117.3		80.0			
	200	GORK	41	F	1051.6	1058.6		290.0			
	234	POTS	42	SER	1057.2	1058.6	7.8	140.0			
	5900	KISV	2	S/F	1058.0	1058.5	6.9	5.0			
	40	POTS	42	SER	1058.4	1059.0	6.6	1100.0			
	113	POTS	42	SER	1058.4	1102.7	6.6	140.0			
	1470	POTS	8	S	1103.4	1103.6	1.1	72.0			
	5900	KISV	2	S/F	1116.6	1117.3	3.0	5.0			
	40	POTS	42	SER	1140.0	1147.4	16.0	15000.0			
	113	POTS	42	SER	1140.0	1147.4	20.0	3200.0D			
	234	POTS	4	S/F	1142.0	1147.3	19.0	4400.0			
	204	IZMI	45	C	1145.0	1147.5	3.0	3500.0			
	536	ONDR	42	SER	1145.2	1146.5	44.0	46.0			
	3013	IZMI	7	C	1145.8	1146.6	4.0	26.0	15.0		
	1470	POTS	4	S/F	1146.0	1147.0	3.0	17.0			
	5900	KISV	45	C	1146.0	1148.1		69.0			
	3000	POTS	4	S/F	1146.0	1146.1	5.5	46.0			
	2850	CRIM	4	S/F	1146.0	1146.2	3.0	73.0	24.0		
	5900	KISV	45	C	1146.0	1147.5	8.4	86.0			
	9500	POTS	4	S/F	1146.0	1147.5	14.0	76.0			

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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
09	127	TORN	47	GB	1146.3	1147.5	5.0	11500.0	1300.0		
	600	HUMN	1	S	1146.5	1147.3	2.8	7.0	2.0		
	15000	KISV	45	C	1146.7	1148.1		6.0			
	15000	KISV	45	C	1146.7	1147.5	7.8	111.0			
	15400	SVTO	8	S	1147.0E	1148.0	1.0D	68.0			QL=2 ST=2 TYP=3
	8800	SVTO	8	S	1147.0E	1147.0	1.0D	81.0			QL=2 ST=2 TYP=3
	245	SVTO	49	GB	1147.0E	1147.0	1.0D	1600.0			QL=2 ST=2 TYP=6
	808	ONDR	3	S	1147.0	1147.7	4.0	3.0			
	113	POTS	4	S/F	1348.3	1348.9	2.9	2300.0			
	127	TORN	47	GB	1348.7	1349.3	2.0	1600.0	800.0		
	40	POTS	4	S/F	1348.7	1348.9	3.0	15000.0			
	234	POTS	4	S/F	1348.9	1349.1	2.2	80.0			
	40	POTS	42	SER	1413.2	1418.4	8.5	34000.0			
	113	POTS	42	SER	1413.2	1418.8	7.4	3200.0			
	245	SGMR	4	S/F	1450.0E	1452.0	9.0D	460.0			QL=4 ST=2 TYP=3
	600	HUMN	4	S/F	1450.4	1452.5	5.6	105.0	12.0		
	2800	OTTA	4	S/F	1451.0	1452.2	11.0	170.3	34.0		
	4995	SGMR	4	S/F	1451.0E	1453.0	4.0D	74.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1451.0E	1452.0	1.0D	160.0			QL=4 ST=2 TYP=3
	1415	SGMR	8	S	1451.0E	1452.0	2.0D	110.0			QL=4 ST=2 TYP=3
	4995	SVTO	8	S	1451.0E	1453.0	2.0D	55.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	1451.0E	1452.0	2.0D	150.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1452.0E	1453.0	3.0D	65.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1452.0E	1452.0	1.0D	410.0			QL=2 ST=3 TYP=3
	610	SVTO	8	S	1452.0E	1452.0	1.0D	200.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1452.0E	1452.0	1.0D	120.0			QL=4 ST=2 TYP=3
	1415	SVTO	8	S	1452.0E	1452.0	1.0D	100.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1635.0E	1635.0	U	51.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1635.0E	1636.0	1.0D	80.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1652.0E	1652.0	2.0D	150.0			QL=4 ST=3 TYP=3
	2800	OTTA	4	S/F	2039.5	2041.2	7.0	203.7	41.0		
	1415	PALE	8	S	2040.0E	2041.0	2.0D	120.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	2040.0E	2041.0	2.0D	190.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	2041.0E	2041.0	1.0D	81.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	2041.0E	2041.0	1.0D	68.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	2041.0E	2041.0	1.0D	88.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2041.0E	2041.0	2.0D	400.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2124.0E	2125.0	1.0D	190.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2142.0E	2142.0	U	110.0			QL=4 ST=2 TYP=3
	410	LEAR	4	S/F	2246.0E	2246.0	6.0D	91.0			QL=4 ST=2 TYP=3
10	245	LEAR	44	NS	0154.0E	0156.0	29.0D	91.0			QL=4 ST=2 TYP=1
	100	GORK	44	NS	0600.0E		300.0D		5.0		
	200	GORK	44	NS	0600.0E		330.0D	390.0	5.0		
	204	IZMI	43	NS	0700.0		130.0	20.0			
	245	LEAR	44	NS	0746.0E	0746.0	51.0D	67.0			QL=4 ST=2 TYP=1
	127	TORN	43	NS	1146.0		194.0		3.0		V=1
	200	HIRA	44	NS	2150.0E	2332.0	130.0D	9.0	3.0		WL
	100	HIRA	42	SER	0022.0	0123.0	94.0	570.0			
	245	LEAR	4	S/F	0036.0E	0038.0	3.0D	63.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0037.0E	0038.0	2.0D	90.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	0121.9	0123.0	3.2	400.0			O
	245	LEAR	8	S	0122.0E	0123.0	1.0D	76.0			QL=4 ST=2 TYP=3
	2840	PEKG	45	C	0237.0E	0242.9	13.0D	225.1			
	4995	LEAR	4	S/F	0240.0E	0243.0	10.0D	320.0			QL=4 ST=2 TYP=3
	100	HIRA	48	C	0240.9	0310.0		260.0			
	100	HIRA	48	C	0240.9	0244.2	92.0	11700.0	175.0		WL
	200	HIRA	7	C	0241.7	0300.0		30.0			ML
	200	HIRA	7	C	0241.7	0242.6	46.9	885.0	27.0		WL
	1415	LEAR	4	S/F	0242.0E	0243.0	3.0D	110.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	0242.0E	0243.0	8.0D	450.0			QL=4 ST=2 TYP=3
	2695	LEAR	4	S/F	0242.0E	0243.0	8.0D	180.0			QL=4 ST=2 TYP=3
	15400	LEAR	4	S/F	0242.0E	0243.0	7.0D	470.0			QL=4 ST=2 TYP=3
	410	LEAR	4	S/F	0242.0E	0244.0	5.0D	130.0			QL=4 ST=2 TYP=3
	245	LEAR	49	GB	0242.0E	0242.0	7.0D	780.0			QL=2 ST=2 TYP=6
	15400	PALE	8	S	0242.0E	0243.0	2.0D	470.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0242.0E	0243.0	2.0D	440.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0242.0E	0243.0	2.0D	160.0			QL=4 ST=2 TYP=3
	1415	PALE	8	S	0242.0E	0243.0	2.0D	110.0			QL=4 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	245	PALE	49	GB	0242.0E	0242.0	3.0D	990.0			QL=4 ST=2 TYP=6
	4995	PALE	8	S	0242.0E	0243.0	2.0D	300.0			QL=4 ST=2 TYP=3
	35000	NOBE	7	C	0242.3	0243.4	3.0	168.0			3R,80GHz:NO OBS
	17000	NOBE	7	C	0242.3	0243.4	10.0	410.0			18R
	500	HIRA	46	C	0242.5	0246.0	10.0	47.0			WL
	610	LEAR	8	S	0243.0E	0243.0	2.0D	39.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0243.0E	0244.0	1.0D	200.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0247.0E	0247.0	1.0D	55.0			QL=4 ST=2 TYP=3
	8800	PALE	8	S	0247.0E	0247.0	1.0D	49.0			QL=4 ST=2 TYP=3
	4995	PALE	8	S	0247.0E	0247.0	1.0D	52.0			QL=4 ST=2 TYP=3
	2695	PALE	8	S	0247.0E	0247.0	1.0D	30.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0327.0E	0327.0	1.0D	230.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0327.0E	0327.0	1.0D	23.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	0346.0E	0346.0	1.0D	96.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0501.0E	0501.0	1.0D	110.0			QL=4 ST=2 TYP=3
	100	HIRA	46	C	0547.9	0548.8	2.6	520.0			
	200	HIRA	27	RF	0552.0	0628.0	77.0	49.0	6.0		0
	950	GORK	2	S/F	0638.3	0638.5	0.5	7.0			
	650	GORK	1	S	0638.4	0638.5	0.5	7.0			
	650	GORK	4	S/F	0707.0	0707.4	0.8	24.0			
	5900	KISV	2	S/F	0729.1	0730.2	3.3	3.0			
	204	IZMI	42	SER	0733.5	0740.1	8.5	350.0			
	113	POTS	41	F	0735.2	0740.3	7.2	375.0			
	100	GORK	41	F	0736.9	0744.0		2950.0			
	100	GORK	41	F	0736.9	0737.5	7.2	240.0			
	410	LEAR	8	S	0738.0E	0738.0	1.0D	110.0			QL=4 ST=2 TYP=3
	650	GORK	41	F	0738.3	0740.3		70.0			
	650	GORK	41	F	0738.3	0738.4		94.0			
	650	GORK	41	F	0738.3	0738.4	2.6	13.0			
	234	POTS	41	F	0739.0	0740.3	4.5	750.0			
	40	POTS	41	F	0739.5	0740.3	3.3	21000.0			
	200	GORK	8	S	0739.9	0740.3	1.1	300.0			
	950	GORK	2	S/F	0739.9	0740.6	1.1	4.0			
	610	LEAR	8	S	0740.0E	0740.0	U	68.0			QL=4 ST=3 TYP=3
	245	LEAR	8	S	0740.0E	0740.0	U	170.0			QL=4 ST=2 TYP=3
	610	SVTO	8	S	0740.0E	0740.0	1.0D	80.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0740.0E	0740.0	1.0D	50.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0740.0E	0740.0	1.0D	130.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0854.0E	0855.0	1.0D	82.0			QL=2 ST=2 TYP=3
	260	ONDR	41	F	0900.0E	1201.6	270.0D	17.0			
	245	LEAR	8	S	0912.0E	0912.0	1.0D	54.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1229.0E	1229.0	U	100.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1259.0E	1259.0	2.0D	350.0			QL=2 ST=2 TYP=3
	536	ONDR	42	SER	1259.6	1301.1	3.0	71.0			
	2800	OTTA	4	S/F	2017.0	2022.0	9.0	46.6	14.0		
	4995	SGMR	4	S/F	2017.0E	2021.0	5.0D	74.0			QL=4 ST=2 TYP=3
	2695	PALE	4	S/F	2018.0E	2021.0	6.0D	54.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	2018.0E	2022.0	4.0D	89.0			QL=4 ST=2 TYP=5
	4995	PALE	4	S/F	2019.0E	2021.0	3.0D	54.0			QL=4 ST=2 TYP=3
	410	PALE	8	S	2019.0E	2019.0	1.0D	61.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	2019.0E	2021.0	3.0D	53.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2021.0E	2022.0	1.0D	210.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2021.0E	2022.0	1.0D	180.0			QL=4 ST=3 TYP=3
	2800	OTTA	29	PBI	2026.0	2026.0	60.0	5.9	3.0		
	410	LEAR	8	S	2313.0E	2313.0	U	140.0			QL=4 ST=2 TYP=3
11	100	GORK	44	NS	1045.0E		45.0D		5.0		
	245	LEAR	8	S	0242.0E	0242.0	U	290.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0242.0E	0242.0	U	360.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0247.0E	0247.0	U	74.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0247.0E	0247.0	U	93.0			QL=4 ST=2 TYP=3
	2840	PEKG	45	C	0347.0	0348.0	3.0	28.1			
	100	GORK	8	S	0634.7	0635.0	0.9	30.0			
	200	GORK	8	S	0634.8	0635.0	0.6	25.0			
	9100	GORK	22	GRF	0837.0	0920.6	93.0	7.0			
	5900	KISV	45	C	0848.3	0850.1	3.0	9.0			
	5900	KISV	45	C	0848.3	0848.6		8.0			
	260	ONDR	41	F	0900.0	1036.8	270.0	28.0			
	204	IZMI	41	F	1036.7	1036.8	2.2	59.0			

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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
11	536	ONDR	8	S	1158.1	1158.5	0.8	13.0			
	536	ONDR	1	S	1256.2	1256.5	1.5	5.0			
	245	SGMR	8	S	1316.0E	1316.0	U	140.0			QL=4 ST=2 TYP=3
┌	245	PALE	49	GB	1854.0E	1854.0	U	560.0			QL=4 ST=2 TYP=6
└	245	SGMR	49	GB	1854.0E	1854.0	U	500.0			QL=4 ST=2 TYP=6
┌	245	SGMR	49	GB	2043.0E	2044.0	2.0D	510.0			QL=4 ST=3 TYP=6
└	245	PALE	49	GB	2044.0E	2044.0	U	640.0			QL=4 ST=2 TYP=6
┌	245	LEAR	4	S/F	2325.0E	2325.0	4.0D	59.0			QL=2 ST=2 TYP=3
└	245	PALE	8	S	2325.0E	2325.0	1.0D	60.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2335.0E	2335.0	1.0D	79.0			QL=4 ST=2 TYP=3
12	200	GORK	43	NS	0630.0		225.0		5.0		
	200	HIRA	27	RF	0003.0	0036.0	80.0	6.0	4.0		O
┌	200	HIRA	42	SER	0027.0	0052.8	33.0	85.0			O
├	500	HIRA	46	C	0051.8	0054.0		74.0			O
├	500	HIRA	46	C	0051.8	0058.7	10.5	354.0	40.0		O
├	245	LEAR	4	S/F	0053.0E	0054.0	6.0D	180.0			QL=2 ST=2 TYP=3
├	410	LEAR	8	S	0053.0E	0054.0	1.0D	84.0			QL=4 ST=2 TYP=3
├	4995	LEAR	4	S/F	0053.0E	0054.0	7.0D	74.0			QL=4 ST=2 TYP=3
├	2695	LEAR	4	S/F	0053.0E	0058.0	6.0D	43.0			QL=4 ST=2 TYP=5
├	610	LEAR	4	S/F	0053.0E	0058.0	6.0D	180.0			QL=4 ST=2 TYP=5
├	245	PALE	4	S/F	0053.0E	0054.0	6.0D	230.0			QL=4 ST=2 TYP=5
├	4995	PALE	8	S	0053.0E	0054.0	2.0D	65.0			QL=4 ST=2 TYP=3
├	17000	NOBE	7	C	0053.0	0055.0	18.0	40.0			7R,80,35GHz:NO
├	410	PALE	4	S/F	0054.0E	0058.0	6.0D	140.0			QL=4 ST=2 TYP=3
└	1415	PALE	8	S	0058.0E	0058.0	1.0D	61.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0103.0E	0103.0	U	57.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0256.0E	0257.0	2.0D	51.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0407.0E	0407.0	1.0D	57.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0440.0E	0440.0	U	62.0			QL=2 ST=2 TYP=3
	2840	PEKG	45	C	0514.0	0516.4	18.0	70.7			
	245	LEAR	8	S	0605.0E	0605.0	U	58.0			QL=4 ST=2 TYP=3
┌	245	LEAR	8	S	0653.0E	0653.0	1.0D	60.0			QL=4 ST=2 TYP=3
└	245	SVTO	8	S	0654.0E	0654.0	U	67.0			QL=4 ST=2 TYP=3
	9100	GORK	20	GRF	0735.8	0803.0	225.7	15.0			
	2950	GORK	20	GRF	0749.9	0841.0	217.1	8.0			
	650	GORK	2	S/F	0751.7	0751.9	0.8	3.0			
	260	ONDR	41	F	0900.0	1018.4	270.0	26.0			
	204	IZMI	41	F	1056.2	1056.4	1.0	75.0			
	536	ONDR	8	S	1154.5	1154.8	1.0	16.0			
13	245	LEAR	8	S	0632.0E	0632.0	1.0D	110.0			QL=4 ST=2 TYP=3
	2950	GORK	21	GRF	0745.5	0833.0	129.2	7.0			
	9100	GORK	20	GRF	0802.2	0839.2	132.6	9.0			
┌	5900	KISV	22	GRF	0803.5	0805.6	21.3	9.0			
└	2950	GORK	2	S/F	0804.7	0805.3	1.5	4.0			
	260	ONDR	41	F	0900.0	1211.6	270.0	31.0			
┌	200	GORK	46	C	1117.0	1118.3	2.1	20.0D			
├	200	GORK	46	C	1117.0	1117.8		8.0			
├	100	GORK	46	C	1117.1	1118.0		17.0			
└	100	GORK	46	C	1117.1	1117.3	17.0	11.0			
	600	HUMN	1	S	1148.5	1149.0	1.0	6.0	3.0		
	245	PALE	8	S	1905.0E	1905.0	1.0D	100.0			QL=4 ST=3 TYP=3
	245	PALE	8	S	2157.0E	2158.0	1.0D	190.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2315.0E	2315.0	U	230.0			QL=4 ST=2 TYP=3
┌	245	PALE	8	S	2321.0E	2323.0	2.0D	340.0			QL=4 ST=2 TYP=5
└	245	LEAR	8	S	2323.0E	2323.0	U	190.0			QL=4 ST=2 TYP=3
┌	245	LEAR	49	GB	2329.0E	2330.0	1.0D	1600.0			QL=4 ST=2 TYP=6
└	245	PALE	49	GB	2329.0E	2330.0	1.0D	1800.0			QL=4 ST=2 TYP=6
┌	200	HIRA	8	S	2329.1	2329.7	0.6	1500.0			O
├	500	HIRA	8	S	2329.9	2330.0	0.7	19.0			WR
└	410	LEAR	8	S	2330.0E	2330.0	U	24.0			QL=4 ST=2 TYP=3
┌	245	LEAR	8	S	2332.0E	2333.0	1.0D	53.0			QL=4 ST=2 TYP=3
└	245	PALE	8	S	2332.0E	2333.0	1.0D	80.0			QL=4 ST=2 TYP=3
14	┌ 245	LEAR	8	S	0101.0E	0101.0	1.0D	91.0			QL=4 ST=2 TYP=3
	└ 245	PALE	8	S	0101.0E	0101.0	1.0D	110.0			QL=4 ST=2 TYP=3
	┌ 245	LEAR	4	S/F	0315.0E	0317.0	8.0D	100.0			QL=4 ST=2 TYP=3
	└ 245	PALE	8	S	0317.0E	0318.0	1.0D	120.0			QL=4 ST=2 TYP=3

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JANUARY 1990

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	2950	GORK	1	S	0846.3	0847.2	3.0	2.0			
	5900	KISV	2	S/F	0846.4	0846.9	4.6	6.0			
	260	ONDR	42	SER	0947.0	1152.0	233.0	108.0			
	5900	KISV	29	PBI	1002.1	1015.0	69.0	66.0			
	5900	KISV	47	GB	1002.1	1005.8	12.9	896.0			
	9500	POTS	45	C	1003.0	1005.8	17.0	455.0			
	9100	GORK	47	GB	1003.1	1005.7	8.5	666.0			
	3013	IZMI	45	C	1003.5	1006.0	12.5	342.0	150.0		
	2950	GORK	5	S	1003.7	1006.2	8.3	350.0			
	15000	KISV	29	PBI	1003.7	1010.2	43.8	68.0			
	15000	KISV	4	S/F	1003.7	1005.8	6.5	446.0			
	2850	CRIM	3	S	1003.8	1006.3	5.0	400.0	133.0		
	2850	CRIM	29	PBI	1003.8	1008.8	50.0	77.0	26.0		
	2695	LEAR	4	S/F	1004.0E	1006.0	8.0D	360.0			QL=4 ST=2 TYP=3
	4995	LEAR	49	GB	1004.0E	1005.0	8.0D	520.0			QL=4 ST=2 TYP=6
	15400	LEAR	4	S/F	1004.0E	1005.0	9.0D	370.0			QL=4 ST=2 TYP=3
	8800	LEAR	49	GB	1004.0E	1005.0	7.0D	520.0			QL=4 ST=2 TYP=6
	4995	SVTO	49	GB	1004.0E	1006.0	15.0D	560.0			QL=2 ST=2 TYP=6
	8800	SVTO	49	GB	1004.0E	1006.0	11.0D	560.0			QL=2 ST=2 TYP=6
	3000	POTS	45	C	1004.0	1006.5	31.0	1020.0			
	1470	POTS	45	C	1004.3	1006.5	10.7	55.0			
	3200	BERN	47	GB	1004.5	1005.6	60.0	394.0			
	11800	BERN	47	GB	1004.5	1005.6	60.0	557.0			
	5200	BERN	47	GB	1004.5	1005.6	60.0	571.0			
	19600	BERN	47	GB	1004.5	1005.6	60.0	163.0			
	8400	BERN	47	GB	1004.5	1005.6	60.0	693.0			
	50000	BERN	47	GB	1004.5	1005.6	60.0	95.0			
	35000	BERN	47	GB	1004.5	1005.6	60.0	122.0			
	950	GORK	2	S/F	1004.8	1005.3	1.7	19.0			
	1415	LEAR	4	S/F	1005.0E	1006.0	5.0D	41.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1005.0E	1006.0	5.0D	370.0			QL=2 ST=2 TYP=3
	2695	SVTO	4	S/F	1005.0E	1006.0	7.0D	320.0			QL=4 ST=2 TYP=3
	650	GORK	4	S/F	1006.0	1006.1	1.2	12.0			
	950	GORK	29	PBI	1006.5	1006.5	7.1	6.0			
	33	UPIC	32	ABS	1007.0	1009.5	7.0				
	9100	GORK	29	PBI	1011.6	1011.6	65.1	33.0			
	2950	GORK	29	PBI	1012.0	1012.0	57.0	20.0			
	204	IZMI	5	S	1151.7	1151.8	0.6	100.0	50.0		
15	200	GORK	43	NS	0730.0		270.0D		5.0		
	200	HIRA	44	NS	2150.0E	0107.0	250.0D	4.0	2.0		O
	410	PALE	8	S	0346.0E	0347.0	1.0D	62.0			QL=4 ST=2 TYP=3
	200	HIRA	42	SER	0542.0	0609.0	75.0	48.0			O
	5900	KISV	25	R	0640.9	0655.3	41.1	22.0			
	2840	PEKG	20	GRF	0642.0	0654.2	34.0	15.9			
	950	GORK	22	GRF	0642.0	0654.5	30.9	6.0			
	2950	GORK	22	GRF	0643.8	0654.1	17.9	23.0			
	650	GORK	22	GRF	0644.9	0700.2	30.3	4.0			
	5900	KISV	2	S/F	0648.0	0648.6	1.4	5.0			
	2850	CRIM	1	S	0653.6	0654.4	2.2	13.0	4.0		
	9100	GORK	20	GRF	0654.0	0705.7	17.0	4.0			
	245	LEAR	8	S	0827.0E	0827.0	U	71.0			QL=4 ST=2 TYP=3
	260	ONDR	41	F	0900.0	1225.5	280.0	43.0			
	650	GORK	2	S/F	0917.6	0918.0	0.9	6.0			
	950	GORK	1	S	0947.6	0948.2	0.9	2.0			
	5900	KISV	2	S/F	1131.8	1132.4	3.1	3.0			
	810	KRAK	42	SER	1305.9	1324.0	18.5D	148.0			
	245	PALE	8	S	1801.0E	1802.0	1.0D	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1801.0E	1802.0	1.0D	120.0			QL=4 ST=2 TYP=3
	245	PALE	4	S/F	1812.0E	1814.0	3.0D	99.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1813.0E	1814.0	1.0D	91.0			QL=4 ST=2 TYP=3
16	200	GORK	43	NS	0730.0		270.0D		5.0		
	245	PALE	8	S	0139.0E	0140.0	2.0D	50.0			QL=4 ST=2 TYP=3
	100	HIRA	42	SER	0139.2	0139.6	2.0	600.0			
	200	HIRA	42	SER	0139.6	0139.8	2.6	97.0			O
	200	HIRA	46	C	0458.1	0501.0	5.3	60.0			O
	200	HIRA	46	C	0555.8	0556.4	1.9	64.0			O
	100	HIRA	41	F	0556.1	0556.5	2.1	820.0			

SOLAR RADIO EMISSION
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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
16	2850	CRIM	24	R	0734.0	0805.0		9.0			
	5900	KISV	2	S/F	0741.6	0741.9	1.0	8.0			
	9100	GORK	20	GRF	0808.4	0857.8	122.5	9.0			
	260	ONDR	41	F	0900.0	1209.8	290.0	119.0			
	204	IZMI	41	F	1039.5	1040.2	2.0	45.0			
	5900	KISV	1	S	1051.7	1052.0	0.9	7.0			
	536	ONDR	8	S	1107.5	1108.4	2.5	16.0			
	536	ONDR	8	S	1141.2	1141.4	1.5	7.0			
17	200	GORK	43	NS	0615.0		345.0D		5.0		
	500	HIRA	41	F	0221.0	0221.5	5.5	15.0			O
	245	LEAR	4	S/F	0232.0E	0233.0	7.0D	51.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	0543.0E	0544.0	1.0D	120.0			QL=4 ST=2 TYP=3
	2840	PEKG	1	S	0543.0	0544.5	5.0	8.3			
	500	HIRA	41	F	0543.5	0544.8	9.0	26.0			WR
	2840	PEKG	21	GRF	0624.0	0637.6	86.0	17.7			
	5900	KISV	2	S/F	0707.3	0708.0	2.0	5.0			
	2950	GORK	2	S/F	0719.0	0721.3	5.0	13.0			
	9100	GORK	2	S/F	0719.6	0721.8	6.8	9.0			
	245	SVTO	49	GB	0720.0E	0720.0	1.0D	840.0			QL=4 ST=2 TYP=6
	2840	PEKG	1	S	0720.0	0721.6	9.0	16.1			
	650	GORK	4	S/F	0720.1	0721.0	2.3	20.0			
	950	GORK	2	S/F	0720.2	0721.5	2.1	5.0			
	204	IZMI	5	S	0720.3	0720.5	0.6	1600.0	800.0		
	2850	CRIM	1	S	0720.8	0721.4	0.9	17.0	4.0		
	15000	KISV	2	S/F	0721.7	0721.9	1.6	7.0			
	5900	KISV	45	C	0742.9	0744.3	4.1	8.0			
	5900	KISV	45	C	0742.9	0743.5		6.0			
	2950	GORK	22	GRF	0836.0	0839.3	12.5	3.0			
	5900	KISV	23	GRF	0837.5	0841.1	13.1	10.0			
	5900	KISV	23	GRF	0837.5	0839.4		8.0			
	9100	GORK	1	S	0838.6	0842.0	7.5	3.0			
	260	ONDR	41	F	0900.0	1141.1	290.0	27.0			
	5900	KISV	2	S/F	0944.4	0945.3	5.0	14.0			
	2850	CRIM	1	S	0951.0	0951.1	0.8	5.0	1.0		
	3013	IZMI	5	S	1020.5	1021.4	5.0	17.0	8.0		
	536	ONDR	8	S	1224.7	1225.1	0.8	89.0			
	2695	SGMR	8	S	1246.0E	1246.0	U	100.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1426.0E	1426.0	U	52.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1750.0E	1750.0	1.0D	220.0			QL=2 ST=2 TYP=3
18	245	SGMR	44	NS	1407.0E	1407.0	24.0D	74.0			QL=2 ST=2 TYP=1
	2840	PEKG	45	C	0212.0	0215.5	10.0	39.1			
	410	LEAR	49	GB	0222.0E	0224.0	3.0D	570.0			QL=2 ST=2 TYP=6
	245	LEAR	8	S	0224.0E	0224.0	1.0D	180.0			QL=2 ST=2 TYP=3
	610	LEAR	8	S	0224.0E	0225.0	1.0D	66.0			QL=2 ST=2 TYP=3
	500	HIRA	46	C	0224.5	0225.0	3.0	49.0			O
	17000	NOBE	1	S	0224.6	0225.2	1.5	22.0			80,35GHz:NO OBS
	100	HIRA	46	C	0425.7	0430.7	7.3	440.0			
	260	ONDR	41	F	0840.0	1239.2	320.0	156.0			
	234	POTS	27	RF	1321.0	1408.0	70.0D	30.0			
	410	SGMR	8	S	1410.0E	1410.0	U	56.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2306.0E	2306.0	U	55.0			QL=2 ST=3 TYP=3
19	2840	PEKG	45	C	0420.0	0426.8	26.0	45.8			
	4995	LEAR	8	S	0426.0E	0426.0	1.0D	54.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	0428.0E	0429.0	2.0D	38.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0429.0E	0430.0	1.0D	32.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0542.0E	0542.0	1.0D	51.0			QL=2 ST=2 TYP=3
	245	LEAR	4	S/F	0638.0E	0639.0	3.0D	190.0			QL=2 ST=2 TYP=3
	410	LEAR	4	S/F	0638.0E	0639.0	3.0D	55.0			QL=2 ST=2 TYP=3
	200	GORK	41	F	0638.6	0643.2		30.0D			
	100	GORK	41	F	0638.6	0643.4		510.0			
	200	GORK	41	F	0638.6	0651.5		30.0D			
	100	GORK	41	F	0638.6	0639.6	6.1	1280.0			
	200	GORK	41	F	0638.6	0638.8	13.6	380.0			
	245	SVTO	8	S	0639.0E	0639.0	1.0D	190.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	0639.0E	0639.0	U	53.0			QL=4 ST=2 TYP=3
	204	IZMI	4	S/F	0712.2	0712.5	0.5	34.0			

SOLAR RADIO EMISSION
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 (10 -22 W/m 2 Hz)	Int	Remarks
19	5900	KISV	2	S/F	0740.6	0740.9	2.4	6.0			
	950	GORK	1	S	0740.7	0741.0	0.6	2.0			
	650	GORK	4	S/F	0740.7	0740.9	0.6	32.0			
	2850	CRIM	1	S	0740.8	0741.0	0.7	24.0	8.0		
	9100	GORK	1	S	0740.8	0741.0	0.6	5.0			
	2950	GORK	3	S	0740.9	0741.0	0.5	10.0			
	260	ONDR	41	F	0830.0	1220.0	330.0	40.0			
	5900	KISV	23	GRF	0838.6	0846.1	17.7	17.0			
	9100	GORK	20	GRF	0843.6	0845.6	196.4D	18.0			
	15000	KISV	2	S/F	0843.7	0845.7	5.6	18.0			
	204	IZMI	41	F	0847.5	0847.7	1.0	25.0			
	100	GORK	46	C	0847.6	0848.3		260.0			
	100	GORK	46	C	0847.6	0847.8	1.9	390.0			
	2950	GORK	21	GRF	0903.5	1037.4	158.5U	11.0			
	2850	CRIM	1	S	0911.9	0913.3	2.0	16.0	5.0		
	5900	KISV	2	S/F	0912.1	0913.0	2.0	9.0			
	2950	GORK	1	S	0912.4	0913.1	1.7	7.0			
	5900	KISV	2	S/F	0918.0	0920.9	8.2	6.0			
	100	GORK	41	F	0935.5	0941.0		1670.0			
	100	GORK	41	F	0935.5	0946.1		3340.0			
	100	GORK	41	F	0935.5	0936.1	12.2	390.0			
	113	POTS	42	SER	0935.6	0946.2	12.0	525.0			
	40	POTS	42	SER	0935.6	0946.5U	12.5	20000.0			
	204	IZMI	5	S	0945.5	0946.0	1.0	46.0	25.0		
	200	GORK	46	C	0945.7	0946.1	1.5	380.0			
	5900	KISV	2	S/F	0954.8	0956.3	5.0	4.0			
	410	LEAR	8	S	1020.0E	1021.0	1.0D	11.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	1020.0E	1021.0	1.0D	160.0			QL=2 ST=2 TYP=3
	600	HUMN	1	S	1024.0	1024.5	1.0	18.0	8.0		
	600	HUMN	1	S	1026.0	1026.3	0.7	9.0	3.0		
	5900	KISV	2	S/F	1106.4	1106.8	2.4	6.0			
	5900	KISV	2	S/F	1120.6	1121.8	6.8	5.0			
	1470	POTS	8	S	1133.0	1133.3	0.8	21.0			
	200	GORK	46	C	1133.8	1134.3	2.5	20.0			
	100	GORK	41	F	1134.0	1138.7		130.0			
	100	GORK	41	F	1134.0	1134.9	6.0	260.0			
	808	ONDR	3	S	1146.0	1146.1	2.0	6.0			
	430	KRAK	8	S	1151.5	1152.0	1.0	240.0			
	9500	POTS	21	GRF	1153.0	1204.5	57.0	11.0			
	3000	POTS	21	GRF	1155.0U	1204.5	65.0U	11.0			
	536	ONDR	41	F	1200.0	1210.1	25.5	19.0			
	113	POTS	4	S/F	1210.0	1210.9	4.0	350.0			
	40	POTS	4	S/F	1210.1	1210.6	4.1	20000.0			
	610	SGMR	8	S	1554.0E	1555.0	2.0D	62.0			QL=4 ST=2 TYP=3
	2800	OTTA	4	S/F	1554.6	1555.1	4.0	43.7	9.0		
	2800	OTTA	22	GRF	1950.0	2000.0	90.0	6.1	3.0		
20	245	LEAR	44	NS	0042.0E	0046.0	28.0D	120.0			QL=2 ST=2 TYP=1
	245	PALE	8	S	0046.0E	0046.0	1.0D	190.0			QL=2 ST=2 TYP=3
	200	HIRA	41	F	0047.5	0102.0	31.7	14.0			WL
	245	PALE	8	S	0313.0E	0313.0	1.0D	67.0			QL=4 ST=2 TYP=3
	500	HIRA	41	F	0323.0	0323.3	4.0	29.0			O
	2950	GORK	21	GRF	0713.1	1149.1	284.9D	20.0			
	5900	KISV	20	GRF	0713.4	0732.3	27.0	10.0			
	5900	KISV	2	S/F	0800.2	0800.7	2.4	4.0			
	9100	GORK	21	GRF	0800.3	1150.4	237.7D	28.0			
	9100	GORK	2	S/F	0800.3	0800.6	0.9	8.0			
	260	ONDR	41	F	0840.0	1253.5	320.0	175.0			
	5900	KISV	22	GRF	0915.4	0918.3	14.6	8.0			
	5900	KISV	2	S/F	0937.8	0938.3	3.1	3.0			
	536	ONDR	41	F	1032.0	1054.4	30.0	37.0			
	650	GORK	20	GRF	1035.1	1045.6	17.5	3.0			
	245	LEAR	8	S	1038.0E	1039.0	1.0D	80.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	1038.0E	1039.0	1.0D	80.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	1038.3	1039.3	1.0	410.0			
	600	HUMN	41	F	1054.0	1054.5	3.0	14.0			
	5900	KISV	22	GRF	1058.8	1100.0	16.0	8.0			
	9100	GORK	1	S	1059.3	1059.9	1.7	10.0			
	3000	POTS	20	GRF	1135.0	1144.8	50.0	21.0			

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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
20	5900	KISV	23	GRF	1135.3	1148.6	41.7	54.0			
	2950	GORK	45	C	1141.9	1144.8		9.0			
	2950	GORK	45	C	1141.9	1142.9	6.8	9.0			
	9100	GORK	4	S/F	1142.0	1144.7	7.8	58.0			
	9500	POTS	29	PBI	1142.0	1144.7	43.0	43.0			
	5900	KISV	4	S/F	1142.0	1144.8	5.6	169.0			
	15000	KISV	23	GRF	1142.5	1149.5	26.1	19.0			
	4995	SVTO	4	S/F	1143.0E	1145.0	6.0D	110.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1143.0E	1145.0	2.0D	63.0			QL=4 ST=2 TYP=3
	15000	KISV	2	S/F	1144.1	1144.8	1.8	15.0			
	3200	BERN	46	C	1235.0	1248.0	150.0	72.0			
	19600	BERN	46	C	1235.0	1248.0	150.0	144.0			
	8400	BERN	46	C	1235.0	1248.0	150.0	247.0			
	5200	BERN	46	C	1235.0	1248.0	150.0	148.0			
	11800	BERN	46	C	1235.0	1248.0	150.0	225.0			
	3000	POTS	45	C	1235.0	1248.3	40.0	124.0			
	9500	POTS	45	C	1235.0	1248.4	40.0	221.0			
	1470	POTS	46	C	1238.0	1249.2	32.0	218.0			
	810	KRAK	45	C	1238.4	1249.7	19.0	220.0	45.0		
	600	HUMN	2	S/F	1238.5	1240.5	2.7	12.0	3.0		
	536	ONDR	47	GB	1239.0		65.0				
	2695	SVTO	4	S/F	1239.0E	1248.0	13.0D	140.0			QL=4 ST=2 TYP=5
	808	ONDR	47	GB	1239.5		60.0				
	1415	SVTO	4	S/F	1240.0E	1249.0	12.0D	220.0			QL=4 ST=2 TYP=3
	4995	SVTO	4	S/F	1240.0E	1248.0	11.0D	190.0			QL=4 ST=2 TYP=5
	2695	SGMR	4	S/F	1241.0E	1248.0	10.0D	120.0			QL=2 ST=2 TYP=5
	600	HUMN	4	S/F	1241.4	1248.3	16.1	126.0	20.0		
	8800	SVTO	4	S/F	1242.0E	1248.0	10.0D	270.0			QL=4 ST=2 TYP=5
	15400	SVTO	4	S/F	1242.0E	1249.0	11.0D	200.0			QL=4 ST=2 TYP=5
	1415	SGMR	4	S/F	1244.0E	1249.0	8.0D	200.0			QL=2 ST=2 TYP=3
	4995	SGMR	4	S/F	1244.0E	1248.0	10.0D	200.0			QL=2 ST=2 TYP=3
	430	KRAK	45	C	1244.5U	1249.5U	10.0U	320.0D	90.0D		
	610	SGMR	4	S/F	1246.0E	1249.0	4.0D	180.0			QL=2 ST=2 TYP=3
	410	SGMR	4	S/F	1247.0E	1249.0	7.0D	380.0			QL=2 ST=2 TYP=3
	8800	SGMR	4	S/F	1247.0E	1248.0	5.0D	270.0			QL=2 ST=2 TYP=3
	410	SVTO	4	S/F	1247.0E	1249.0	8.0D	260.0			QL=4 ST=2 TYP=3
	15400	SGMR	4	S/F	1248.0E	1248.0	3.0D	150.0			QL=2 ST=2 TYP=3
	245	SGMR	4	S/F	1252.0E	1254.0	5.0D	73.0			QL=2 ST=2 TYP=3
	245	SVTO	4	S/F	1253.0E	1254.0	4.0D	71.0			QL=4 ST=2 TYP=3
	234	POTS	4	S/F	1322.6	1324.8	11.8	360.0U			
	1415	SGMR	49	GB	1323.0E	1325.0	4.0D	2600.0			QL=4 ST=2 TYP=6
	1470	POTS	46	C	1323.0	1325.8	17.0	3300.0			
	9500	POTS	45	C	1323.0	1325.9	12.0	163.0			
	810	KRAK	45	C	1323.5		12.8	250.0D	110.0D		
	810	KRAK	45	C	1323.5	1331.5		240.0			
	430	KRAK	45	C	1323.8U	1325.0	11.0U	310.0D	80.0D		
	430	KRAK	45	C	1323.8U	1331.5		190.0			
	15400	SGMR	4	S/F	1324.0E	1325.0	6.0D	190.0			QL=4 ST=2 TYP=3
	245	SGMR	4	S/F	1324.0E	1325.0	3.0D	430.0			QL=4 ST=2 TYP=3
	8800	SGMR	4	S/F	1324.0E	1325.0	6.0D	210.0			QL=4 ST=2 TYP=3
	4995	SGMR	4	S/F	1324.0E	1325.0	3.0D	220.0			QL=4 ST=2 TYP=3
	2695	SGMR	4	S/F	1324.0E	1325.0	3.0D	150.0			QL=4 ST=2 TYP=3
	410	SGMR	49	GB	1324.0E	1325.0	4.0D	1300.0			QL=4 ST=2 TYP=6
	610	SGMR	49	GB	1324.0E	1325.0	8.0D	1900.0			QL=4 ST=2 TYP=6
	610	SVTO	49	GB	1324.0E	1326.0	4.0D	2300.0			QL=4 ST=2 TYP=6
	410	SVTO	49	GB	1324.0E	1325.0	4.0D	1500.0			QL=4 ST=2 TYP=6
	1415	SVTO	49	GB	1324.0E	1325.0	4.0D	2500.0			QL=4 ST=2 TYP=6
	4995	SVTO	4	S/F	1324.0E	1325.0	3.0D	200.0			QL=4 ST=2 TYP=3
	8800	SVTO	4	S/F	1324.0E	1326.0	3.0D	200.0			QL=4 ST=2 TYP=3
	15400	SVTO	4	S/F	1324.0E	1326.0	3.0D	190.0			QL=4 ST=2 TYP=3
	245	SVTO	4	S/F	1324.0E	1325.0	11.0D	420.0			QL=4 ST=2 TYP=3
	8400	BERN	4	S/F	1324.0	1325.5	100.0	163.0			
	3200	BERN	4	S/F	1324.0	1325.5	100.0	88.0			
	5200	BERN	4	S/F	1324.0	1325.5	100.0	147.0			
	19600	BERN	4	S/F	1324.0	1325.5	100.0	119.0			
	11800	BERN	4	S/F	1324.0	1325.5	100.0	184.0			
	3000	POTS	45	C	1324.0	1325.9	18.5	121.0			
	113	POTS	42	SER	1324.1	1325.4	13.5	50.0			
	600	HUMN	47	GB	1324.3	1326.1	11.5	538.0	98.0		

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

JANUARY 1990

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
20	127	TORN	47	GB	1324.5	1325.3	4.0	440.0	50.0		
	2695	SVTO	4	S/F	1325.0E	1326.0	3.0D	150.0			QL=4 ST=2 TYP=3
	40	POTS	42	SER	1325.4	1325.5	13.0	600.0			
	4995	PALE	4	S/F	2113.0E	2114.0	4.0D	100.0			QL=2 ST=2 TYP=3
	2800	OTTA	4	S/F	2113.0	2114.4	35.0	30.7	9.0		
	245	PALE	8	S	2236.0E	2236.0	U	100.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2356.0E	2356.0	U	58.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2356.0E	2356.0	U	77.0			QL=4 ST=2 TYP=3
21	200	HIRA	43	NS	0450.0	0520.0	170.0	10.0	4.0		WR
	100	GORK	43	NS	0600.0		75.0		5.0		
	204	IZMI	43	NS	0700.0		50.0	10.0			
	100	HIRA	46	C	0146.2	0146.7	2.0	800.0	270.0		O
	2840	PEKG	45	C	0147.0	0148.2	10.0	7.6			
	2840	PEKG	21	GRF	0230.0	0303.4	63.0	6.2			
	2840	PEKG	5	S	0243.0	0249.6	14.0	15.6			
	2840	PEKG	46	C	0419.0	0448.4	64.0	44.1			
	4995	LEAR	4	S/F	0430.0E	0444.0	56.0D	85.0			QL=4 ST=2 TYP=5
	8800	LEAR	4	S/F	0435.0E	0444.0	44.0D	130.0			QL=4 ST=2 TYP=5
	15400	LEAR	4	S/F	0435.0E	0444.0	49.0D	110.0			QL=4 ST=2 TYP=5
	2695	LEAR	20	GRF	0435.0E	0448.0	50.0D	31.0			QL=4 ST=2 TYP=2
	80000	NOBE	20	GRF	0439.7	0448.1	25.0	27.0			
	35000	NOBE	7	C	0439.7	0444.2	28.0	56.0			O
	17000	NOBE	7	C	0439.7	0444.2	28.0	78.0			
	610	LEAR	4	S/F	0445.0E	0446.0	24.0D	290.0			QL=2 ST=2 TYP=3
	410	LEAR	4	S/F	0446.0E	0457.0	38.0D	65.0			QL=2 ST=2 TYP=5
	200	HIRA	48	C	0446.9	0448.2	2.6	3500.0	860.0		O
	100	HIRA	46	C	0446.9	0447.9	1.2	1200.0	630.0		WR
	245	LEAR	8	S	0447.0E	0447.0	1.0D	48.0			QL=4 ST=2 TYP=3
	1415	LEAR	4	S/F	0447.0E	0448.0	10.0D	34.0			QL=4 ST=2 TYP=3
	100	HIRA	48	C	0451.5	0452.8	7.5	4300.0	770.0		WR
	200	HIRA	46	C	0612.5	0614.0	2.7	125.0			O
	650	GORK	22	GRF	0624.0E	0911.6	189.0D	5.0			
	5900	KISV	22	GRF	0732.2	0740.4	27.1	25.0			
	2950	GORK	21	GRF	0803.0	0912.8	226.5	14.0			
	5900	KISV	2	S/F	0803.9	0804.2	1.6	4.0			
	5900	KISV	2	S/F	0812.4	0813.0	1.5	6.0			
	5900	KISV	2	S/F	0817.4	0818.2	2.1	4.0			
	260	ONDR	41	F	0830.0	1309.2	330.0	59.0			
	245	LEAR	8	S	0833.0E	0833.0	1.0D	74.0			QL=4 ST=2 TYP=3
	200	GORK	41	F	0833.7	0836.7		30.0D			
	100	GORK	41	F	0833.7	0836.7		40.0D			
	100	GORK	41	F	0833.7	0833.8	3.8	40.0D			
	200	GORK	41	F	0833.7	0833.8	3.7	30.0D			
	245	SVTO	8	S	0834.0E	0834.0	U	90.0			QL=4 ST=2 TYP=3
	204	IZMI	42	SER	0834.0	0834.4	3.5	310.0			
	9100	GORK	20	GRF	0851.2	0912.8	143.1	12.0			
	5900	KISV	2	S/F	0855.7	0856.6	6.0	4.0			
	5900	KISV	4	S/F	0910.6	0912.9	7.8	22.0			
	5900	KISV	20	GRF	0929.5	0931.9	12.2	7.0			
	204	IZMI	5	S	0946.6	0946.7	0.3	22.0			
	2850	CRIM	21	GRF	1011.0	1015.0	18.0	4.0	1.0		
	5900	KISV	2	S/F	1012.9	1014.0	2.9	14.0			
	3000	POTS	3	S	1013.5	1014.0U	1.0U	17.0			
	810	KRAK	8	S	1013.7	1014.0	0.4	87.0			
	2950	GORK	1	S	1013.8	1013.9	0.8	10.0			
	808	ONDR	3	S	1014.0E	1014.0	2.0D	4.0			
	2800	OTTA	22	GRF	1603.0	1618.0	120.0	10.9	5.0		
	610	SGMR	8	S	1617.0E	1617.0	1.0D	170.0			QL=4 ST=3 TYP=3
	410	SGMR	8	S	1617.0E	1617.0	U	55.0			QL=4 ST=3 TYP=3
	245	SGMR	8	S	1715.0E	1715.0	1.0D	150.0			QL=4 ST=2 TYP=3
	2695	PENT	4	S/F	2147.2	2148.2	5.0	124.0	25.0		
	2695	PALE	8	S	2148.0E	2148.0	U	80.0			QL=4 ST=2 TYP=3
22	8800	LEAR	4	S/F	0016.0E	0017.0	7.0D	130.0			QL=4 ST=2 TYP=3
	35000	NOBE	7	C	0016.7	0017.1	2.0	40.0			0,80GHz:0
	17000	NOBE	7	C	0016.7	0017.5	2.5	149.0			
	4995	LEAR	8	S	0017.0E	0017.0	2.0D	36.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0017.0E	0017.0	1.0D	120.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JANUARY 1990

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
22	8800	PALE	8	S	0017.0E	0017.0	1.0D	99.0			QL=4 ST=2 TYP=3
	15400	PALE	8	S	0017.0E	0017.0	1.0D	120.0			QL=4 ST=2 TYP=3
	2840	PEKG	21	GRF	0024.0	0121.0	72.0	5.4			
	2840	PEKG	46	C	0029.0	0033.4	6.0	43.4			
	100	HIRA	46	C	0029.7	0031.7	4.0	1600.0			WR
	200	HIRA	46	C	0030.7	0032.3	4.8	340.0	75.0		WL
	500	HIRA	46	C	0030.9	0032.5	5.5	33.0			WL
	610	LEAR	4	S/F	0031.0E	0033.0	5.0D	68.0			QL=2 ST=2 TYP=3
	2695	LEAR	8	S	0031.0E	0032.0	2.0D	19.0			QL=4 ST=2 TYP=3
	4995	LEAR	4	S/F	0031.0E	0032.0	5.0D	17.0			QL=4 ST=2 TYP=3
	1415	LEAR	8	S	0031.0E	0033.0	2.0D	21.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0032.0E	0033.0	3.0D	73.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0032.0E	0033.0	2.0D	17.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0032.0E	0033.0	2.0D	95.0			QL=4 ST=2 TYP=3
	610	PALE	8	S	0032.0E	0033.0	1.0D	73.0			QL=4 ST=2 TYP=3
	500	HIRA	27	RF	0100.0	0105.0	37.5	13.0	3.0		O
	17000	NOBE	7	C	0101.0	0121.0	30.0	35.0			0,80,35GHz:0
	2840	PEKG	45	C	0112.0	0121.0	24.0	25.2			
	17000	NOBE	1	S	0418.7	0419.2	1.0	20.0			30R,80,35GHz:0
	950	GORK	21	GRF	0631.3	0640.5	12.9	4.0			
	650	GORK	21	GRF	0633.0	0640.5	11.2	4.0			
	950	GORK	2	S/F	0641.3	0642.3	2.0	20.0			
	650	GORK	45	C	0641.4	0642.3		8.0			
	650	GORK	45	C	0641.4	0641.6	2.0	7.0			
	9100	GORK	21	GRF	0718.7	0913.0	176.3	14.0			
	5900	KISV	2	S/F	0721.1	0722.3	6.6	8.0			
	200	GORK	46	C	0741.0	0742.0		30.0D			
	200	GORK	46	C	0741.0	0741.5	1.8	30.0D			
	100	GORK	46	C	0741.2	0741.4	1.8	30.0			
	100	GORK	46	C	0741.2	0741.6		20.0			
	234	POTS	41	F	0741.2	0741.6	5.2	200.0			
	113	POTS	42	SER	0741.3	0744.1	4.2	20.0			
	40	POTS	42	SER	0741.3	0744.9	4.4	180.0			
	100	GORK	46	C	0743.0	0744.4	2.9	30.0			
	100	GORK	46	C	0743.0	0744.7		35.0			
	200	GORK	46	C	0743.1	0744.1		190.0			
	200	GORK	46	C	0743.1	0743.8	3.8	20.0			
	245	LEAR	8	S	0744.0E	0744.0	U	55.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0744.0E	0744.0	1.0D	56.0			QL=4 ST=2 TYP=3
	650	GORK	20	GRF	0746.0	0946.5	227.0D	6.0			
	9100	GORK	1	S	0826.2	0826.8	2.4	9.0			
	260	ONDR	41	F	0900.0	1223.0	300.0	114.0			
	5900	KISV	2	S/F	0911.3	0913.9	6.7	8.0			
	3000	POTS	20	GRF	1056.5	1059.0	18.5	8.0			
	9500	POTS	20	GRF	1057.0	1100.0	33.0	11.0			
	5900	KISV	22	GRF	1057.2	1108.6	19.6	10.0			
	9100	GORK	20	GRF	1057.6	1100.0	16.2	10.0			
	3000	POTS	20	GRF	1143.0	1149.0U	77.0	25.0			
	1470	POTS	22	GRF	1143.0	1208.3	67.0	15.0			
	5900	KISV	45	C	1143.2	1154.5	32.5	60.0			
	5900	KISV	45	C	1143.2	1149.7		35.0			
	2950	GORK	23	GRF	1143.6	1149.7	17.0D	12.0			
	3013	IZMI	40	F	1144.0		13.0	6.0			
	15000	KISV	22	GRF	1146.8	1149.7	13.6	15.0			
	9500	POTS	20	GRF	1147.0	1151.5	73.0	21.0			
	9100	GORK	21	GRF	1147.0	1154.7	13.9D	15.0			
	9100	GORK	45	C	1149.4	1151.5		10.0			
	9100	GORK	45	C	1149.4	1149.6	3.1	14.0			
	2950	GORK	45	C	1154.0	1154.7	2.8	8.0			
	2950	GORK	45	C	1154.0	1155.9		5.0			
	2800	OTTA	20	GRF	1522.0	1525.0	15.0	3.0	1.0		
	2800	OTTA	20	GRF	1620.0	1621.0	4.0	5.5	2.0		
	2800	OTTA	20	GRF	1635.0	1638.0	10.0	4.5	2.0		
	2800	OTTA	20	GRF	1730.0	1734.0	25.0	8.6	3.0		
23	245	SGMR	44	NS	2029.0E	2030.0	51.0D	120.0			QL=2 ST=3 TYP=1
	200	HIRA	44	NS	2145.0E	0000.0	610.0D	9.0	5.0		O
	2840	PEKG	1	S	0502.0	0503.3	4.0	9.4			
	4995	LEAR	8	S	0503.0E	0503.0	1.0D	78.0			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

JANUARY 1990

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	8800	LEAR	8	S	0503.0E	0503.0	1.0D	160.0			QL=4 ST=2 TYP=3
	15400	LEAR	8	S	0503.0E	0503.0	1.0D	160.0			QL=4 ST=2 TYP=3
	17000	NOBE	7	C	0503.0	0503.4	8.0	130.0			16R,80,35GHz:0
	950	GORK	21	GRF	0620.0	0634.8	31.5	5.0			
	5900	KISV	1	S	0633.5	0634.2	1.5	6.0			
	650	GORK	2	S/F	0633.8	0634.1	0.7	8.0			
	15000	KISV	1	S	0633.9	0634.1	0.8	6.0			
	950	GORK	2	S/F	0634.0	0634.2	0.7	16.0			
	9100	GORK	20	GRF	0740.6	1041.1	259.4D	28.0			
	950	GORK	2	S/F	0748.0	0749.1	4.8	5.0			
	650	GORK	2	S/F	0748.4	0749.2	4.8	4.0			
	5900	KISV	2	S/F	0748.5	0749.3	7.9	4.0			
	15000	KISV	2	S/F	0748.6	0749.0	8.2	6.0			
	5900	KISV	2	S/F	0806.3	0806.8	1.6	3.0			
	260	ONDR	41	F	0830.0	1320.0	330.0	26.0			
	2850	CRIM	2	S/F	0918.8	0919.8	1.4	24.0	6.0		
	3013	IZMI	5	S	0918.8	0919.8	1.5	9.0	5.0		
	2950	GORK	1	S	0919.0	0919.8	1.0	12.0			
	650	GORK	1	S	1030.0	1030.8	5.3	2.0			
	950	GORK	1	S	1030.0	1030.8	4.4	2.0			
	5900	KISV	23	GRF	1036.2	1041.3	12.3	9.0			
	2800	OTTA	22	GRF	1649.0	1712.5	85.0	27.6	6.0		
	245	PALE	8	S	1939.0E	1939.0	1.0D	80.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2029.0E	2029.0	2.0D	240.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2057.0E	2057.0	U	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2057.0E	2057.0	1.0D	85.0			QL=4 ST=2 TYP=3
24	200	GORK	44	NS	0600.0E		360.0D		5.0		
	200	HIRA	44	NS	2144.0E	0400.0	610.0D	9.0	6.0		0
	17000	NOBE	1	S	0254.7	0255.4	1.5	22.0			11R,80,35GHz:0
	2840	PEKG	45	C	0356.0	0406.7	21.0	7.8			
	950	GORK	21	GRF	0621.0	0638.4	24.0	4.0			
	9100	GORK	1	S	0628.5	0630.5	4.1	7.0			
	2840	PEKG	1	S	0629.0	0630.5	4.0	5.1			
	950	GORK	46	C	0629.2	0631.0		12.0			
	950	GORK	46	C	0629.2	0630.0	2.0	6.0			
	650	GORK	2	S/F	0629.3	0630.2	1.9	3.0			
	2950	GORK	1	S	0630.1	0630.5	2.9	4.0			
	5900	KISV	2	S/F	0642.4	0644.8	5.8	20.0			
	200	GORK	46	C	0654.7	0655.1		20.0			
	200	GORK	46	C	0654.7	0654.9	1.3	20.0			
	100	GORK	46	C	0654.8	0655.0	1.1	30.0			
	100	GORK	46	C	0654.8	0655.2		30.0			
	5900	KISV	22	GRF	0703.6	0704.3	14.0	11.0			
	9100	GORK	20	GRF	0704.5	1025.8	295.5D	28.0			
	5900	KISV	2	S/F	0754.7	0755.2	2.4	6.0			
	2850	CRIM	2	S/F	0816.7	0817.6	3.0	15.0	5.0		
	2950	GORK	1	S	0817.2	0817.6	1.9	9.0			
	260	ONDR	41	F	0830.0	1327.2	330.0	100.0			
	810	KRAK	8	S	0910.5	0911.0	1.0	165.0			
	2950	GORK	1	S	0910.7	0911.1	0.8	3.0			
	5900	KISV	2	S/F	0940.6	0941.3	2.9	3.0			
	15000	KISV	2	S/F	0940.8	0941.3	1.4	6.0			
	204	IZMI	5	S	0946.0	0946.2	0.2	61.0	40.0		
	5900	KISV	45	C	0947.4	0948.7	4.4	5.0			
	5900	KISV	45	C	0947.4	0947.9		3.0			
	950	GORK	2	S/F	0947.6	0947.7	0.5	10.0			
	204	IZMI	41	F	1149.2	1149.5	0.8	31.0			
	8800	SGMR	8	S	1430.0E	1430.0	U	420.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1457.0E	1457.0	U	53.0			QL=4 ST=2 TYP=3
	410	SGMR	8	S	1707.0E	1707.0	U	75.0			QL=4 ST=2 TYP=3
	2800	OTTA	4	S/F	1709.0	1711.5	11.0	28.4	8.0		
	2800	OTTA	4	S/F	2002.0	2007.5	70.0	55.9	17.0		
	2695	SGMR	4	S/F	2005.0E	2007.0	6.0D	52.0			QL=4 ST=2 TYP=3
	2695	SGMR	8	S	2012.0E	2013.0	2.0D	58.0			QL=4 ST=2 TYP=3
	610	SGMR	4	S/F	2013.0E	2014.0	5.0D	71.0			QL=2 ST=2 TYP=3
	4995	LEAR	8	S	2318.0E	2319.0	2.0D	23.0			QL=4 ST=2 TYP=3
	8800	LEAR	4	S/F	2318.0E	2319.0	4.0D	31.0			QL=4 ST=2 TYP=3
	500	HIRA	41	F	2318.3	2318.8	3.5	37.0			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
24	17000	NOBE	7	C	2318.7	2319.6	3.0	22.0			38R,80,35GHz:0
	610	LEAR	8	S	2319.0E	2319.0	U	85.0			QL=2 ST=2 TYP=3
	1415	LEAR	8	S	2319.0E	2319.0	1.0D	25.0			QL=4 ST=2 TYP=3
25	200	GORK	44	NS	0600.0E		360.0D		5.0		
	127	TORN	43	NS	1202.0		138.0		3.0		V=1
	200	HIRA	44	NS	2144.0E	0000.0	370.0D	15.0	9.0		WR
	245	LEAR	44	NS	2217.0E	2252.0	257.0D	82.0			QL=2 ST=2 TYP=1
	5900	KISV	2	S/F	0716.4	0717.8	3.4	5.0			
	5900	KISV	2	S/F	0720.6	0721.3	2.0	7.0			
	2850	CRIM	7	C	0720.8	0721.2	2.0	10.0	4.0		
	950	GORK	4	S/F	0720.8	0721.3	1.2	24.0			
	2850	CRIM	7	C	0720.8	0721.8		11.0			
	650	GORK	4	S/F	0721.0	0721.3	1.1	19.0			
	2950	GORK	1	S	0721.0	0721.5	1.4	5.0			
	5900	KISV	2	S/F	0736.8	0737.8	3.3	4.0			
	9100	GORK	21	GRF	0800.0	0950.0	228.9	15.0			
	100	GORK	41	F	0803.0	0807.0		130.0			
	100	GORK	41	F	0803.0	0805.2		380.0			
	100	GORK	41	F	0803.0	0805.2		130.0			
	100	GORK	41	F	0803.0	0804.9	4.5	250.0			
	200	GORK	41	F	0804.2	0807.0		20.0			
	200	GORK	41	F	0804.2	0806.5		20.0			
	200	GORK	41	F	0804.2	0804.7	3.3	20.0			
	260	ONDR	41	F	0840.0	1313.7	320.0	82.0			
	200	GORK	46	C	0906.7	0909.2		10.0			
	200	GORK	46	C	0906.7	0908.5	3.8	5.0			
	100	GORK	46	C	0906.9	0909.3		7.0			
	100	GORK	46	C	0906.9	0908.9	3.7	7.0			
	9100	GORK	1	S	0909.0	0909.3	3.1	9.0			
	950	GORK	1	S	0933.5	0936.9	5.0	3.0			
	650	GORK	1	S	0934.4	0936.5	4.0	3.0			
	536	ONDR	3	S	1022.7	1022.9	2.0	13.0			
	9100	GORK	1	S	1023.8	1024.1	1.4	11.0			
	5900	KISV	2	S/F	1043.6	1044.1	1.3	4.0			
	5900	KISV	2	S/F	1104.2	1104.5	2.0	4.0			
	204	IZMI	5	S	1129.5	1130.0	1.0	29.0	15.0		
	204	IZMI	5	S	1137.0	1137.4	0.8	20.0	10.0		
	127	TORN	47	GB	1309.0	1313.0	10.0	1800.0	210.0		
	245	SGMR	4	S/F	1311.0E	1313.0	6.0D	120.0			QL=2 ST=2 TYP=3
	245	SVTO	4	S/F	1311.0E	1314.0	7.0D	120.0			QL=4 ST=2 TYP=3
	600	HUMN	2	S/F	1502.5	1503.0	1.5	21.0	8.0		
	245	PALE	8	S	1812.0E	1813.0	1.0D	97.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2132.0E	2132.0	U	130.0			QL=4 ST=2 TYP=3
	2695	PENT	3	S	2135.7	2136.9	4.1	26.9	8.0		
	245	PALE	49	GB	2136.0E	2136.0	1.0D	600.0			QL=4 ST=2 TYP=6
	410	PALE	8	S	2137.0E	2137.0	U	51.0			QL=4 ST=2 TYP=3
	200	HIRA	46	C	2247.5	2255.4	16.5	140.0			MR
26	245	LEAR	44	NS	0412.0E	0412.0	27.0D	120.0			QL=4 ST=2 TYP=1
	200	GORK	43	NS	0839.0		99.0		5.0		
	100	GORK	43	NS	0845.0		123.0		5.0		
	127	TORN	43	NS	0936.0		284.0		5.0		V=1
	500	HIRA	22	GRF	0000.0E	0125.0	195.0D	41.0	15.0		MR
	200	HIRA	41	F	0102.6	0109.2	54.0	85.0			MR
	2840	PEKG	45	C	0115.0	0127.7	17.0	7.8			
	100	HIRA	41	F	0125.5	0127.0	3.0	590.0			
	100	HIRA	46	C	0228.3	0233.0	6.6	730.0	240.0		SR
	200	HIRA	46	C	0228.7	0232.7	5.9	550.0			SR
	245	LEAR	4	S/F	0231.0E	0233.0	3.0D	220.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	0233.0E	0233.0	1.0D	260.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	0356.0E	0356.0	1.0D	100.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0404.0E	0405.0	5.0D	120.0			QL=2 ST=2 TYP=3
	5900	KISV	23	GRF	0620.8	0629.4	34.2	9.0			
	15000	KISV	2	S/F	0620.9	0622.6	4.4	18.0			
	5900	KISV	2	S/F	0621.0	0622.7	4.4	19.0			
	9100	GORK	2	S/F	0621.3	0622.6	3.1	13.0			
	650	GORK	4	S/F	0621.3	0622.6	7.2	19.0			
	950	GORK	4	S/F	0621.3	0622.6	2.7	44.0			

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26	2850	CRIM	1	S	0621.5	0622.9	2.0	10.0	3.0		
	1415	LEAR	8	S	0622.0E	0622.0	1.0D	67.0			QL=4 ST=2 TYP=3
	204	IZMI	5	S	0745.0	0745.2	0.4	19.0	8.0		
	9100	GORK	23	GRF	0808.8	1027.8	234.2D	19.0			
	9100	GORK	1	S	0820.2	0820.5	1.3	8.0			
	5900	KISV	2	S/F	0820.3	0821.1	2.5	7.0			
	260	ONDR	41	F	0830.0	1005.3	330.0	63.0			
	650	GORK	1	S	0839.5	0840.3	3.5	3.0			
	9100	GORK	1	S	0839.9	0840.3	1.1	7.0			
	2950	GORK	2	S/F	0839.9	0840.3	0.8	20.0			
	3013	IZMI	5	S	0840.0	0840.3	0.8	12.0	6.0		
	204	IZMI	42	SER	0840.0	0852.5	48.0	65.0			
	950	GORK	1	S	0840.1	0840.5	0.7	2.0			
	100	GORK	46	C	0940.7	0942.5	4.3	40.0			
	100	GORK	46	C	0940.7	0943.7		220.0			
	204	IZMI	5	S	0941.0	0944.0	4.0	48.0	24.0		
	200	GORK	46	C	0941.2	0942.4	3.8	15.0			
	200	GORK	46	C	0941.2	0943.7		30.0D			
	127	TORN	45	C	0941.5	0943.9	3.0	240.0	30.0		
	204	IZMI	5	S	1005.0	1005.3	0.6	53.0	30.0		
	5900	KISV	20	GRF	1008.1	1009.8	8.0	5.0			
	536	ONDR	41	F	1040.0	1101.4	21.4	17.0			
	5900	KISV	45	C	1115.0	1118.0		6.0			
	5900	KISV	45	C	1115.0	1116.1	9.7	7.0			
	5900	KISV	2	S/F	1126.3	1127.5	6.4	5.0			
	2695	SGMR	8	S	1229.0E	1229.0	1.0D	66.0			QL=4 ST=2 TYP=3
	4995	SGMR	8	S	1229.0E	1229.0	1.0D	83.0			QL=4 ST=2 TYP=3
	8800	SGMR	8	S	1229.0E	1229.0	U	76.0			QL=4 ST=2 TYP=3
	9500	POTS	3	S	1230.0	1231.2	4.0	52.0			
	19600	BERN	3	S	1230.3	1231.3	25.0	30.0			
	5200	BERN	3	S	1230.3	1231.3	25.0	35.0			
	8400	BERN	3	S	1230.3	1231.3	25.0	58.0			
	11800	BERN	3	S	1230.3	1231.3	25.0	63.0			
	3200	BERN	3	S	1230.3	1231.3	25.0	2.0			
	8800	SVTO	8	S	1231.0E	1231.0	1.0D	54.0			QL=4 ST=2 TYP=3
	9500	POTS	1	S	1317.0	1318.0	2.0	8.0			
	2800	OTTA	22	GRF	1455.0	1516.0	105.0	11.5	5.0		
27	5900	KISV	2	S/F	0626.8	0628.6	4.9	8.0			
	3013	IZMI	5	S	0744.1	0745.0	1.0	11.0	5.0		
	2950	GORK	1	S	0744.3	0744.9	2.3	7.0			
	127	TORN	7	C	0800.0	0800.7	2.0	2300.0	1100.0		
	204	IZMI	4	S/F	0812.4	0812.6	1.0	11.0	5.0		
	260	ONDR	41	F	0830.0	0950.2	330.0	90.0			
	5900	KISV	2	S/F	0833.1	0833.6	2.6	6.0			
	5900	KISV	2	S/F	0910.6	0911.0	1.4	3.0			
	2950	GORK	1	S	0910.8	0910.9	0.6	3.0			
	200	GORK	46	C	0945.6	0953.4		6.0			
	200	GORK	46	C	0945.6	0952.5		20.0			
	200	GORK	46	C	0945.6	0950.8		30.0D			
	200	GORK	46	C	0945.6	0946.8	9.2	2.0			
	100	GORK	46	C	0945.7	0947.0	9.1	6.0			
	100	GORK	46	C	0945.7	0952.5		30.0			
	100	GORK	46	C	0945.7	0950.8U		40.0			
	100	GORK	46	C	0945.7	0953.9		30.0			
	204	IZMI	7	C	0946.0	0951.0	9.0	100.0	30.0		
	2850	CRIM	46	C	1035.0	1037.0	4.0	13.0	4.0		
	2850	CRIM	46	C	1035.0	1038.4		13.0			
	2950	GORK	1	S	1035.2	1038.2	5.7	10.0			
	536	ONDR	42	SER	1035.5	1035.9	4.0	35.0			
	600	HUMN	2	S/F	1036.0	1037.0	2.0	8.0	3.0		
	5900	KISV	2	S/F	1036.5	1038.3	4.4	9.0			
	9100	GORK	1	S	1037.7	1038.3	1.7	5.0			
	204	IZMI	41	F	1125.0	1126.2	4.0	22.0			
	5900	KISV	2	S/F	1132.2	1134.5	9.8	43.0			
	9500	POTS	1	S	1134.2	1134.5	0.8	8.0			
	3013	IZMI	5	S	1137.6	1138.3	1.4	7.0	3.0		
	5900	KISV	2	S/F	1142.4	1143.0	2.1	3.0			
	8400	BERN	3	S	1236.0	1238.3	70.0	19.0			

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27	3200	BERN	3	S	1236.0	1238.3	70.0	17.0			
	5200	BERN	3	S	1236.0	1238.3	70.0	25.0			
	3000	POTS	3	S	1236.0	1238.5	9.0	20.0			
	9500	POTS	3	S	1237.0	1238.5	3.0	11.0			
	245	SGMR	8	S	1742.0E	1742.0	1.0D	190.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1807.0E	1807.0	U	68.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	1937.0E	1937.0	1.0D	63.0			QL=4 ST=2 TYP=3
28	127	TORN	43	NS	1132.0	1249.9	170.0	40.0	2.0		V=1
	245	PALE	44	NS	2242.0E	2255.0	28.0D	150.0			QL=4 ST=2 TYP=1
	200	HIRA	42	SER	0150.2	0157.1	7.9	25.0			O
	500	HIRA	46	C	0155.5	0157.2	3.0	12.0			O
	5900	KISV	2	S/F	0630.3	0630.8	6.2	10.0			
	650	GORK	23	GRF	0757.0	0825.0	31.5	2.0			
	610	LEAR	49	GB	0758.0E	0800.0	3.0D	1000.0			QL=4 ST=2 TYP=6
	950	GORK	4	S/F	0758.5	0800.0	3.9	395.0			
	650	GORK	46	C	0758.5	0800.5	3.2	1970.0			
	650	GORK	46	C	0758.5	0800.9		1480.0			
	650	GORK	46	C	0758.6	0800.3	3.9	20.0			
	200	GORK	46	C	0758.6	0800.9		25.0D			
	600	HUMN	4	S/F	0759.5	0801.6	3.2	396.0	113.0		
	5900	KISV	4	S/F	0759.5	0800.9	7.4	59.0			
	810	KRAK	45	C	0800.0E		1.5D	290.0D			
	2695	LEAR	8	S	0800.0E	0800.0	1.0D	28.0			QL=2 ST=2 TYP=3
	410	LEAR	8	S	0800.0E	0801.0	1.0D	48.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0800.0E	0800.0	U	120.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	0800.0E	0800.0	1.0D	37.0			QL=2 ST=2 TYP=3
	245	SVTO	8	S	0800.0E	0800.0	2.0D	100.0			QL=4 ST=3 TYP=3
	610	SVTO	49	GB	0800.0E	0801.0	1.0D	970.0			QL=2 ST=2 TYP=6
	430	KRAK	4	S/F	0800.0E	0801.1	1.5D	79.0	36.0		
	100	GORK	46	C	0800.0	0801.2		330.0			
	204	IZMI	7	C	0800.0	0800.5	2.0	50.0	25.0		
	2850	CRIM	3	S	0800.0	0800.8	3.0	40.0	13.0		
	2950	GORK	3	S	0800.0	0800.8	4.0	28.0			
	3013	IZMI	5	S	0800.0	0800.8	3.0	22.0	11.0		
	100	GORK	46	C	0800.0	0800.9	3.0	330.0			
	113	POTS	4	S/F	0800.0	0800.9	2.1	175.0			
	9100	GORK	1	S	0800.2	0800.8	2.7	15.0			
	15000	KISV	2	S/F	0800.7	0801.0	3.0	7.0			
	40	POTS	4	S/F	0800.8	0800.9	1.1	700.0			
	4995	SVTO	8	S	0801.0E	0801.0	U	35.0			QL=2 ST=2 TYP=3
	2695	SVTO	8	S	0801.0E	0801.0	U	30.0			QL=2 ST=2 TYP=3
	100	GORK	41	F	0819.8	0823.2		30.0			
	100	GORK	41	F	0819.8	0820.3	4.2	30.0			
	260	ONDR	41	F	0820.0	0932.1	360.0	183.0			
	200	GORK	41	F	0822.0	0842.1U		25.0D			
	200	GORK	41	F	0822.0	0822.4	23.0	25.0			
	204	IZMI	41	F	0822.2	0822.5	0.8	75.0			
	5900	KISV	2	S/F	0825.1	0825.9	4.2	3.0			
	650	GORK	2	S/F	0833.4	0834.6	2.1	4.0			
	810	KRAK	45	C	0834.0		9.3	230.0D			
	950	GORK	1	S	0834.5	0834.6	0.5	2.0			
	430	KRAK	45	C	0834.7		8.0	50.0D			
	245	LEAR	8	S	0842.0E	0843.0	1.0D	260.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	0842.0E	0842.0	1.0D	110.0			QL=4 ST=2 TYP=3
	950	GORK	4	S/F	0842.4	0843.0	1.2	120.0			
	650	GORK	4	S/F	0842.4	0842.9	1.3	250.0			
	234	POTS	4	S/F	0842.6	0842.9	1.0	200.0			
	3013	IZMI	5	S	0842.7	0843.0	0.4	5.0	3.0		
	5900	KISV	1	S	0842.7	0843.0	1.7	15.0			
	100	GORK	46	C	0842.8	0843.0	2.2	2700.0			
	2950	GORK	1	S	0842.8	0843.0	0.7	7.0			
	100	GORK	46	C	0842.8	0843.3		870.0			
	113	POTS	4	S/F	0842.9	0843.1	2.3	650.0			
	245	SVTO	8	S	0843.0E	0843.0	U	230.0			QL=2 ST=2 TYP=3
	610	SVTO	8	S	0843.0E	0843.0	U	130.0			QL=2 ST=2 TYP=3
	40	POTS	4	S/F	0843.1	0843.2	0.8	375.0			
	650	GORK	21	GRF	0857.9	0945.7	77.1	6.0			
	810	KRAK	2	S/F	0915.0	0916.5	1.8	122.0	4.0		

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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
28	950	GORK	4	S/F	0915.0	0915.8	1.7	145.0			
	650	GORK	46	C	0915.1	0916.2		22.0			
	650	GORK	46	C	0915.1	0916.5		30.0			
	650	GORK	46	C	0915.1	0915.7	1.5	17.0			
	600	HUMN	2	S/F	0915.5	0917.0	2.0	12.0	5.0		
	3013	IZMI	40	F	0919.5		9.0	7.0	4.0		
	2950	GORK	20	GRF	0921.7	0927.0	14.3	8.0			
	950	GORK	46	C	0921.8	0927.0		80.0			
	950	GORK	46	C	0921.8	0926.1		180.0			
	950	GORK	46	C	0921.8	0924.6	14.6	150.0			
	650	GORK	46	C	0921.9	0928.1		190.0			
	650	GORK	46	C	0921.9	0926.2		190.0			
	650	GORK	46	C	0921.9	0924.6	9.2	480.0			
	200	GORK	41	F	0922.3	0933.2		25.0D			
	200	GORK	41	F	0922.3	0923.7	23.9	12.0			
	200	GORK	41	F	0922.3	0944.9		26.0D			
	100	GORK	41	F	0922.5	0931.1		110.0			
	100	GORK	41	F	0922.5	0933.4		220.0			
	810	KRAK	46	C	0922.5	0924.5U	9.5	230.0D	30.0		
	100	GORK	41	F	0922.5	0944.7		650.0			
	100	GORK	41	F	0922.5	0922.7	22.8	110.0			
	430	KRAK	42	SER	0922.5	0923.8	14.5	32.0			
	234	POTS	42	SER	0922.6	0933.1	22.9	200.0			
	113	POTS	42	SER	0922.7	0944.5	22.8	260.0			
	600	HUMN	41	F	0922.8	0925.7	12.3	84.0	8.0		
	204	IZMI	42	SER	0922.8	0944.7	23.0	144.0			
	40	POTS	42	SER	0922.8	0922.9	22.7	3800.0			
	610	LEAR	8	S	0924.0E	0924.0	2.0D	82.0			QL=4 ST=2 TYP=3
	5900	KISV	2	S/F	0924.2	0926.5	5.1	8.0			
	245	LEAR	8	S	0932.0E	0932.0	1.0D	240.0			QL=4 ST=2 TYP=3
	245	SVTO	8	S	0932.0E	0932.0	2.0D	220.0			QL=4 ST=3 TYP=3
	5900	KISV	2	S/F	0932.0	0933.2	1.9	9.0			
	9100	GORK	1	S	0932.1	0933.2	3.9	9.0			
	3000	POTS	1	S	0933.0	0933.2	1.0	6.0			
	9500	POTS	1	S	0933.0	0933.2	0.8	8.0			
	245	LEAR	8	S	0944.0E	0944.0	U	65.0			QL=4 ST=2 TYP=3
	200	GORK	41	F	1015.0	1016.0	30.0	20.0D			
	200	GORK	41	F	1015.0	1028.2		14.0			
	200	GORK	41	F	1015.0	1043.8		20.0D			
	204	IZMI	4	S/F	1016.0	1016.3	0.8	33.0	17.0		
	100	GORK	41	F	1027.9	1028.1	19.6	30.0			
	100	GORK	41	F	1027.9	1044.5		30.0			
	100	GORK	41	F	1027.9	1042.5		110.0			
	204	IZMI	41	F	1042.0	1044.0	3.0	20.0			
	9100	GORK	20	GRF	1106.7	1124.3	26.3D	8.0			
	245	SVTO	8	S	1118.0E	1118.0	U	110.0			QL=4 ST=2 TYP=3
	430	KRAK	8	S	1140.3	1140.3	0.1	79.0			
	5900	KISV	2	S/F	1148.5	1150.2	4.3	4.0			
	536	ONDR	3	S	1151.6	1152.0	1.0	11.0			
	808	ONDR	1	S	1213.7	1213.9	1.0	3.0			
	810	KRAK	8	S	1214.0	1214.2	0.3	30.0			
	808	ONDR	1	S	1233.4	1233.6	1.0	4.0			
	430	KRAK	8	S	1328.8	1328.8	0.1	11.0			
	245	SGMR	8	S	1413.0E	1413.0	1.0D	190.0			QL=2 ST=2 TYP=3
	2800	OTTA	20	GRF	1445.0	1452.0	19.0	5.6	2.0		
	245	SGMR	8	S	1452.0E	1452.0	U	57.0			QL=2 ST=3 TYP=3
	245	SGMR	8	S	1549.0E	1549.0	1.0D	200.0			QL=2 ST=2 TYP=3
	410	SGMR	8	S	1838.0E	1838.0	U	70.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	1928.0E	1929.0	2.0D	68.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	1929.0E	1929.0	U	75.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2016.0E	2016.0	1.0D	120.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2016.0E	2016.0	1.0D	140.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	2033.0E	2033.0	U	140.0			QL=4 ST=2 TYP=3
	245	PALE	8	S	2050.0E	2051.0	2.0D	110.0			QL=4 ST=2 TYP=3
	245	SGMR	8	S	2101.0E	2102.0	1.0D	110.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2240.0E	2240.0	1.0D	120.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2252.0E	2253.0	1.0D	50.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	2255.0E	2256.0	4.0D	85.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2337.0E	2337.0	U	81.0			QL=4 ST=2 TYP=3

SOLAR RADIO EMISSION
Outstanding Occurrences

JANUARY 1990

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
29	260	ONDR	43	NS	0820.0	1002.1	360.0	59.0			
	200	HIRA	44	NS	2140.0E	0038.0	200.0D	13.0	2.0		O
	245	LEAR	8	S	0118.0E	0118.0	1.0D	82.0			QL=4 ST=2 TYP=3
	245	LEAR	4	S/F	0452.0E	0453.0	3.0D	81.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0611.0E	0612.0	1.0D	59.0			QL=4 ST=2 TYP=3
	5900	KISV	2	S/F	0625.7	0626.7	1.6	4.0			
┌	5900	KISV	2	S/F	0702.3	0703.1	2.7	14.0			
├	9100	GORK	1	S	0702.7	0703.0	0.8	15.0			
└	15000	KISV	1	S	0702.8	0703.0	0.6	10.0			
	245	LEAR	8	S	0710.0E	0711.0	1.0D	110.0			QL=4 ST=2 TYP=3
	950	GORK	2	S/F	0718.5	0719.3	1.7	5.0			
	245	SVTO	4	S/F	0719.0E	0721.0	3.0D	110.0			QL=4 ST=2 TYP=3
	204	IZMI	41	F	0742.0	0742.4	0.8	230.0	80.0		
	245	LEAR	8	S	0823.0E	0823.0	1.0D	58.0			QL=4 ST=2 TYP=3
	9100	GORK	1	S	1003.0	1004.0	3.0	5.0			
	950	GORK	1	S	1045.4	1045.5	0.8	3.0			
┌	950	GORK	1	S	1055.5	1055.8	0.5	4.0			
├	808	ONDR	1	S	1055.5	1055.8	1.0	3.0			
└	810	KRAK	8	S	1055.7	1055.7	0.1	34.0			
	950	GORK	4	S/F	1152.5	1153.8	3.2	25.0			
	808	ONDR	8	S	1253.4	1254.0	2.0	14.0			
	245	SGMR	8	S	1448.0E	1449.0	1.0D	73.0			QL=4 ST=2 TYP=3
	2800	OTTA	3	S	1653.0	1653.4	2.0	10.0	3.0		
┌	2800	OTTA	22	GRF	2030.0	2115.0	115.0	76.0	15.0		
├	245	PALE	8	S	2111.0E	2111.0	U	58.0			QL=4 ST=2 TYP=3
├	1415	PALE	4	S/F	2113.0E	2114.0	7.0D	47.0			QL=4 ST=2 TYP=3
├	2695	PALE	4	S/F	2113.0E	2115.0	7.0D	64.0			QL=4 ST=2 TYP=3
└	4995	PALE	8	S	2115.0E	2115.0	U	21.0			QL=2 ST=2 TYP=3
	245	LEAR	8	S	2231.0E	2231.0	U	78.0			QL=4 ST=2 TYP=3
┌	245	LEAR	4	S/F	2322.0E	2322.0	3.0D	140.0			QL=4 ST=2 TYP=3
└	245	PALE	8	S	2322.0E	2322.0	U	120.0			QL=4 ST=2 TYP=3
30	410	LEAR	44	NS	0128.0E	0147.0	1352.0D	140.0			QL=4 ST=1 TYP=1
├	200	HIRA	43	NS	0300.0	0446.0	240.0	9.0	4.0		MR
├	245	LEAR	44	NS	0540.0E	0545.0	23.0D	130.0			QL=4 ST=2 TYP=1
└	204	IZMI	43	NS	0825.0		140.0	25.0			
	245	SGMR	44	NS	1537.0E	1555.0	25.0D	170.0			QL=2 ST=2 TYP=1
┌	245	SGMR	44	NS	1723.0E	1826.0	247.0D	430.0			QL=2 ST=2 TYP=1
├	245	PALE	44	NS	1727.0E	0231.0	636.0D	680.0			QL=2 ST=2 TYP=1
├	200	HIRA	44	NS	2140.0E	0500.0	610.0D	480.0	28.0		SR
├	500	HIRA	43	NS	2325.0	0228.0	330.0	18.0	6.0		WR
└	245	LEAR	44	NS	2328.0E	0155.0	685.0D	750.0			QL=4 ST=2 TYP=1
	245	LEAR	8	S	0215.0E	0215.0	U	55.0			QL=4 ST=2 TYP=3
┌	200	HIRA	41	F	0228.4	0229.0	3.3	190.0			O
└	245	LEAR	8	S	0229.0E	0229.0	1.0D	270.0			QL=4 ST=2 TYP=3
┌	245	LEAR	8	S	0329.0E	0329.0	1.0D	53.0			QL=4 ST=3 TYP=3
└	245	PALE	8	S	0329.0E	0329.0	1.0D	63.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0453.0E	0453.0	U	87.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0522.0E	0522.0	U	74.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0537.0E	0538.0	1.0D	73.0			QL=4 ST=2 TYP=3
	200	HIRA	42	SER	0638.3	0642.6	22.0	58.0			MR
	260	ONDR	41	F	0820.0	1218.9	360.0	90.0			
	5900	KISV	2	S/F	0830.8	0835.3	8.2	4.0			
┌	808	ONDR	45	C	0915.5	0916.4	13.0	61.0			
├	245	LEAR	8	S	0917.0E	0917.0	1.0D	58.0			QL=4 ST=2 TYP=3
└	245	SVTO	8	S	0918.0E	0918.0	U	75.0			QL=4 ST=2 TYP=3
	650	GORK	22	GRF	0925.9	0953.0	60.8	10.0			
┌	536	ONDR	41	F	0946.0	1017.2	40.0	42.0			
└	950	GORK	20	GRF	0946.0	1017.9	77.0	5.0			
	234	POTS	41	F	0950.7	0950.8	4.9	200.0			
┌	245	LEAR	8	S	0952.0E	0953.0	1.0D	180.0			QL=4 ST=2 TYP=3
└	245	SVTO	8	S	0952.0E	0953.0	2.0D	150.0			QL=4 ST=2 TYP=3
	650	GORK	22	GRF	1038.8	1046.6	20.4	6.0			
┌	9100	GORK	1	S	1131.5	1132.0	2.7	20.0			
├	9500	POTS	3	S	1131.5	1132.0	3.5	18.0			
├	5900	KISV	2	S/F	1131.7	1132.1	2.5	10.0			
└	15000	KISV	2	S/F	1131.7	1132.2	2.9	23.0			
	204	IZMI	4	S/F	1134.0	1134.2	1.0	67.0	35.0		
	204	IZMI	8	S	1151.0	1151.1	0.2	96.0	80.0		

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

JANUARY 1990

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
30	430	KRAK	8	S	1326.0	1326.4	0.6	13.0			
	245	SVTO	8	S	1420.0E	1420.0	U	51.0			QL=4 ST=2 TYP=3
	2800	OTTA	3	S	1428.0	1429.5	8.0	7.9	2.0		
	245	SGMR	4	S/F	1503.0E	1506.0	3.0D	110.0			QL=2 ST=2 TYP=3
	245	SGMR	4	S/F	1649.0E	1649.0	4.0D	73.0			QL=2 ST=2 TYP=3
	245	SGMR	8	S	1715.0E	1716.0	1.0D	90.0			QL=2 ST=2 TYP=3
	245	PALE	8	S	1747.0E	1747.0	1.0D	120.0			QL=2 ST=2 TYP=3
	410	PALE	8	S	1747.0E	1747.0	1.0D	120.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	2224.0E	2224.0	1.0D	92.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	2307.0E	2307.0	U	88.0			QL=4 ST=2 TYP=3
31	410	LEAR	43	NS	0128.0	0147.0	80.0D	140.0			QL=4 ST=2 TYP=1
	200	GORK	44	NS	0539.0E		381.0D		5.0		
	100	GORK	44	NS	0541.0E		379.0D		5.0		
	245	SVTO	44	NS	0621.0E	1000.0	561.0D	540.0			QL=4 ST=2 TYP=1
	204	IZMI	43	NS	0700.0		300.0	130.0			
	127	TORN	43	NS	0725.0		425.0		5.0		V=1
	260	ONDR	43	NS	0820.0		360.0				
	234	POTS	44	NS	0900.0E	1221.0	342.0D	100.0			
	245	SGMR	44	NS	1221.0E	1228.0	70.0D	720.0			QL=2 ST=2 TYP=1
	245	SGMR	44	NS	1942.0E	1944.0	109.0D	930.0			QL=2 ST=2 TYP=1
	200	HIRA	44	NS	2140.0E	0244.0	610.0D	75.0	25.0		SR
	245	LEAR	44	NS	2229.0E	2304.0	615.0D	330.0			QL=2 ST=2 TYP=1
	500	HIRA	42	SER	0025.2	0032.0	8.7	190.0			O
	100	HIRA	42	SER	0025.4	0026.4	7.6	700.0			WR
	245	LEAR	8	S	0026.0E	0026.0	1.0D	98.0			QL=4 ST=2 TYP=3
	610	LEAR	4	S/F	0030.0E	0031.0	3.0D	160.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0031.0E	0031.0	2.0D	41.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0032.0E	0032.0	2.0D	480.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	0050.0E	0050.0	U	55.0			QL=4 ST=2 TYP=3
	245	LEAR	8	S	0050.0E	0050.0	U	190.0			QL=4 ST=2 TYP=3
	245	PALE	49	GB	0221.0E	0222.0	6.0D	960.0			QL=2 ST=2 TYP=6
	5900	KISV	2	S/F	0702.7	0703.8	5.4	8.0			
	9100	GORK	1	S	0703.0	0703.7	1.2	5.0			
	5900	KISV	2	S/F	0750.1	0750.9	6.4	6.0			
	2950	GORK	21	GRF	0858.9	1030.0	119.5	11.0			
	3013	IZMI	5	S	0902.0	0904.0	4.0	10.0	5.0		
	2850	CRIM	3	S	0902.0	0903.9	5.0	22.0	7.0		
	5900	KISV	4	S/F	0902.2	0904.0	9.8	21.0			
	2950	GORK	3	S	0902.2	0903.9	4.1	16.0			
	9100	GORK	1	S	0902.4	0903.8	1.8	5.0			
	600	HUMN	1	S	0926.5	0926.9	0.8	30.0	12.0		
	9100	GORK	20	GRF	0936.6	0949.7	40.6	10.0			
	9100	GORK	21	GRF	1021.7	1030.5	42.2	20.0			
	5900	KISV	29	PBI	1022.5	1030.0	36.0	22.0			
	5900	KISV	46	C	1022.5	1024.6		35.0			
	5900	KISV	46	C	1022.5	1027.6	7.5	60.0			
	5900	KISV	46	C	1022.5	1025.8		23.0			
	8800	LEAR	8	S	1023.0E	1024.0	1.0D	38.0			QL=4 ST=2 TYP=3
	15000	KISV	4	S/F	1023.7	1024.3	2.3	61.0			
	9100	GORK	45	C	1023.8	1024.2	4.7	46.0			
	5200	BERN	4	S/F	1023.8	1024.2	70.0	26.0			
	3200	BERN	4	S/F	1023.8	1024.2	70.0	17.0			
	8400	BERN	4	S/F	1023.8	1024.2	70.0	42.0			
	11800	BERN	4	S/F	1023.8	1024.2	70.0	54.0			
	9100	GORK	45	C	1023.8	1027.5		22.0			
	810	KRAK	42	SER	1023.8	1029.6	15.0	43.0			
	950	GORK	23	GRF	1023.8	1024.8	19.5	4.0			
	410	LEAR	8	S	1024.0E	1024.0	U	150.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	1024.0E	1024.0	U	13.0			QL=4 ST=2 TYP=3
	4995	LEAR	8	S	1024.0E	1024.0	U	23.0			QL=4 ST=2 TYP=3
	15400	SVTO	8	S	1024.0E	1024.0	1.0D	50.0			QL=4 ST=2 TYP=3
	410	SVTO	8	S	1024.0E	1025.0	1.0D	79.0			QL=4 ST=2 TYP=3
	8800	SVTO	8	S	1024.0E	1024.0	1.0D	50.0			QL=4 ST=2 TYP=3
	2850	CRIM	29	PBI	1024.0	1030.0	12.0	10.0	3.0		
	2850	CRIM	45	C	1024.0	1024.2	6.0	26.0	12.0		
	9500	POTS	40	F	1024.0	1024.2	8.0	45.0			
	2950	GORK	45	C	1024.0	1024.4	5.5	16.0			
	2850	CRIM	45	C	1024.0	1027.5		44.0			

SOLAR RADIO EMISSION
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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
31	3013	IZMI	7	C	1024.0	1027.5	8.0	25.0	10.0		
	808	ONDR	41	F	1024.0	1027.5	20.0	7.0			
	536	ONDR	42	SER	1024.0	1024.5	35.0				
	2950	GORK	45	C	1024.0	1027.6		28.0			
	3000	POTS	40	F	1024.0	1027.7	9.0	33.0			
	1470	POTS	40	F	1024.0	1027.8	11.0	15.0			
	650	GORK	46	C	1024.2	1029.2		26.0			
	650	GORK	46	C	1024.2	1024.4	6.7	30.0			
	650	GORK	46	C	1024.2	1027.9		26.0			
	430	KRAK	42	SER	1024.5	1024.5	7.0	310.0D			
	600	HUMN	41	F	1024.5	1024.8	6.5	55.0			
	100	GORK	41	F	1024.6	1038.3		700.0			
	100	GORK	41	F	1024.6	1027.5		1720.0			
	100	GORK	41	F	1024.6	1025.9	16.3	2760.0			
	40	POTS	42	SER	1025.0	1026.0	8.5	2600.0			
	113	POTS	41	F	1025.0	1027.6	8.4	1000.0			
	4995	LEAR	8	S	1027.0E	1027.0	2.0D	45.0			QL=4 ST=2 TYP=3
	610	LEAR	8	S	1027.0E	1027.0	U	20.0			QL=4 ST=2 TYP=3
	2695	LEAR	8	S	1027.0E	1027.0	1.0D	38.0			QL=4 ST=2 TYP=3
	410	LEAR	8	S	1027.0E	1027.0	1.0D	54.0			QL=4 ST=2 TYP=3
	8800	LEAR	8	S	1027.0E	1027.0	2.0D	34.0			QL=4 ST=2 TYP=3
	15000	KISV	2	S/F	1027.2	1027.5	6.0	9.0			
	950	GORK	1	S	1027.2	1027.6	1.2	6.0			
	650	GORK	29	PBI	1030.9	1030.9	12.1	3.0			
	200	GORK	46	C	1034.0	1035.6	4.0	320.0			
	200	GORK	46	C	1034.0	1037.7		325.0			
	950	GORK	1	S	1035.4	1035.7	0.6	5.0			
	950	GORK	2	S/F	1037.6	1038.2	1.1	5.0			
	9500	POTS	20	GRF	1111.0	1128.2	34.0	11.0			
	9100	GORK	21	GRF	1117.6	1130.2	22.7	12.0			
	2950	GORK	20	GRF	1118.5	1130.7	17.1	5.0			
	9100	GORK	1	S	1128.0	1128.3	1.4	10.0			
	15000	KISV	2	S/F	1128.0	1128.3	3.6	13.0			
	5900	KISV	2	S/F	1128.0	1128.4	5.0	7.0			
	100	GORK	46	C	1157.5	1200.1		460.0			
	100	GORK	46	C	1157.5	1159.7	3.5	2760.0			
	650	GORK	46	C	1158.3	1200.8		27.0			
	650	GORK	46	C	1158.3	1159.9	3.2	33.0			
	808	ONDR	41	F	1158.5	1200.0	6.0	5.0			
	5900	KISV	4	S/F	1158.7	1159.8	5.6	43.0			
	1470	POTS	3	S	1159.0	1200.0	6.0	8.0			
	3200	BERN	3	S	1159.0	1159.8	30.0	18.0			
	5200	BERN	3	S	1159.0	1159.8	30.0	25.0			
	8400	BERN	3	S	1159.0	1159.8	30.0	27.0			
	11800	BERN	3	S	1159.0	1159.8	30.0	19.0			
	19600	BERN	3	S	1159.0	1159.8	30.0	12.0			
	3000	POTS	3	S	1159.0	1159.9	5.0	19.0			
	9500	POTS	3	S	1159.0	1159.9	4.5	23.0			
	9100	GORK	2	S/F	1159.1	1159.8	3.5	24.0			
	113	POTS	4	S/F	1159.4	1200.0	1.6	1100.0			
	40	POTS	4	S/F	1159.4	1159.8	1.6	2500.0			
	2950	GORK	3	S	1159.4	1159.9	3.3	19.0			
	430	KRAK	8	S	1159.5	1159.8	1.0	300.0D			
	950	GORK	2	S/F	1159.6	1200.0	1.5	6.0			
	410	SVTO	8	S	1200.0E	1200.0	U	120.0			QL=4 ST=2 TYP=3
	2850	CRIM	3	S	1209.0	1209.9	3.0	22.0	7.0		
	245	PALE	49	GB	1943.0E	1944.0	1.0D	640.0			QL=2 ST=2 TYP=6

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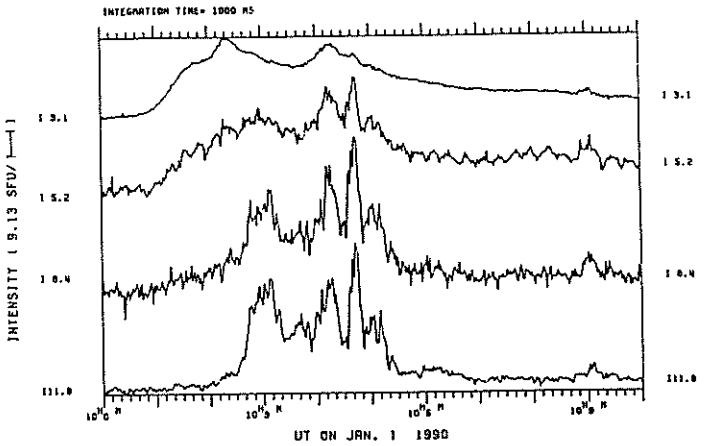
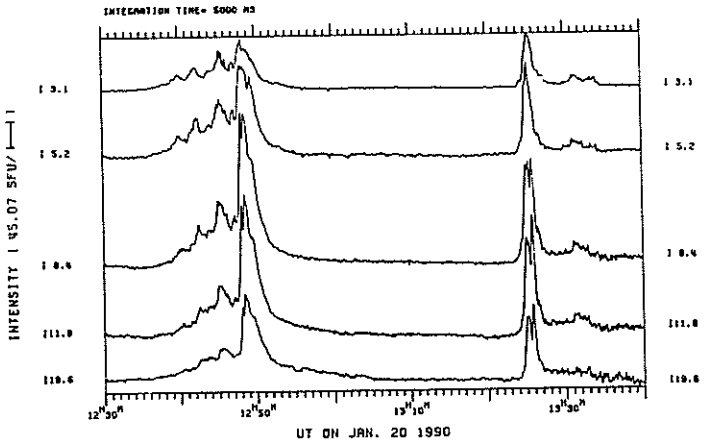
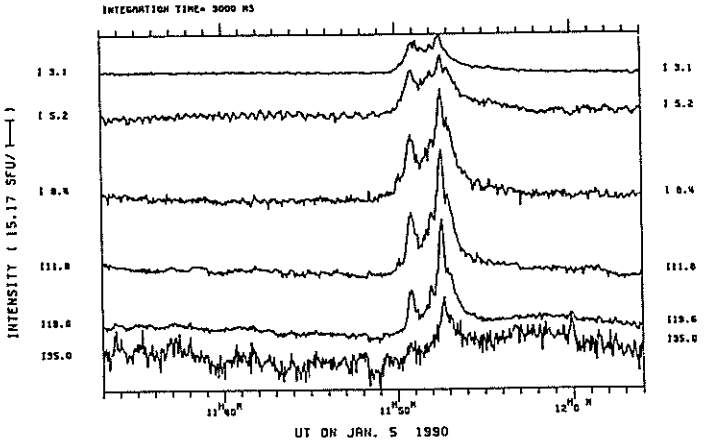
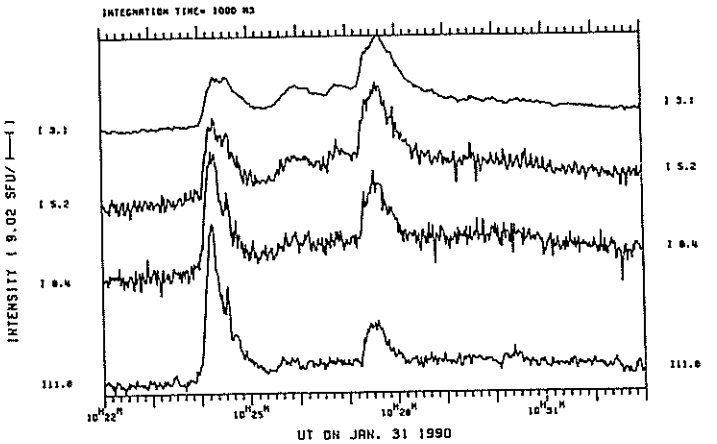
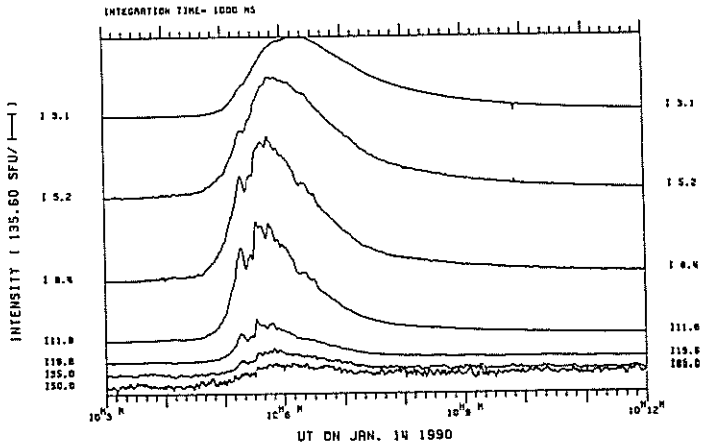
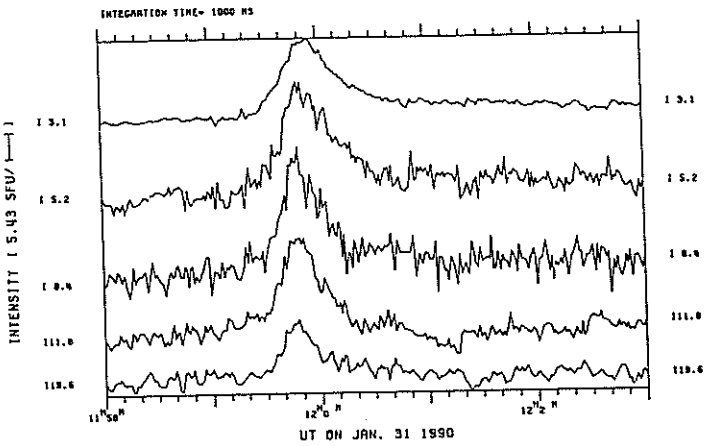




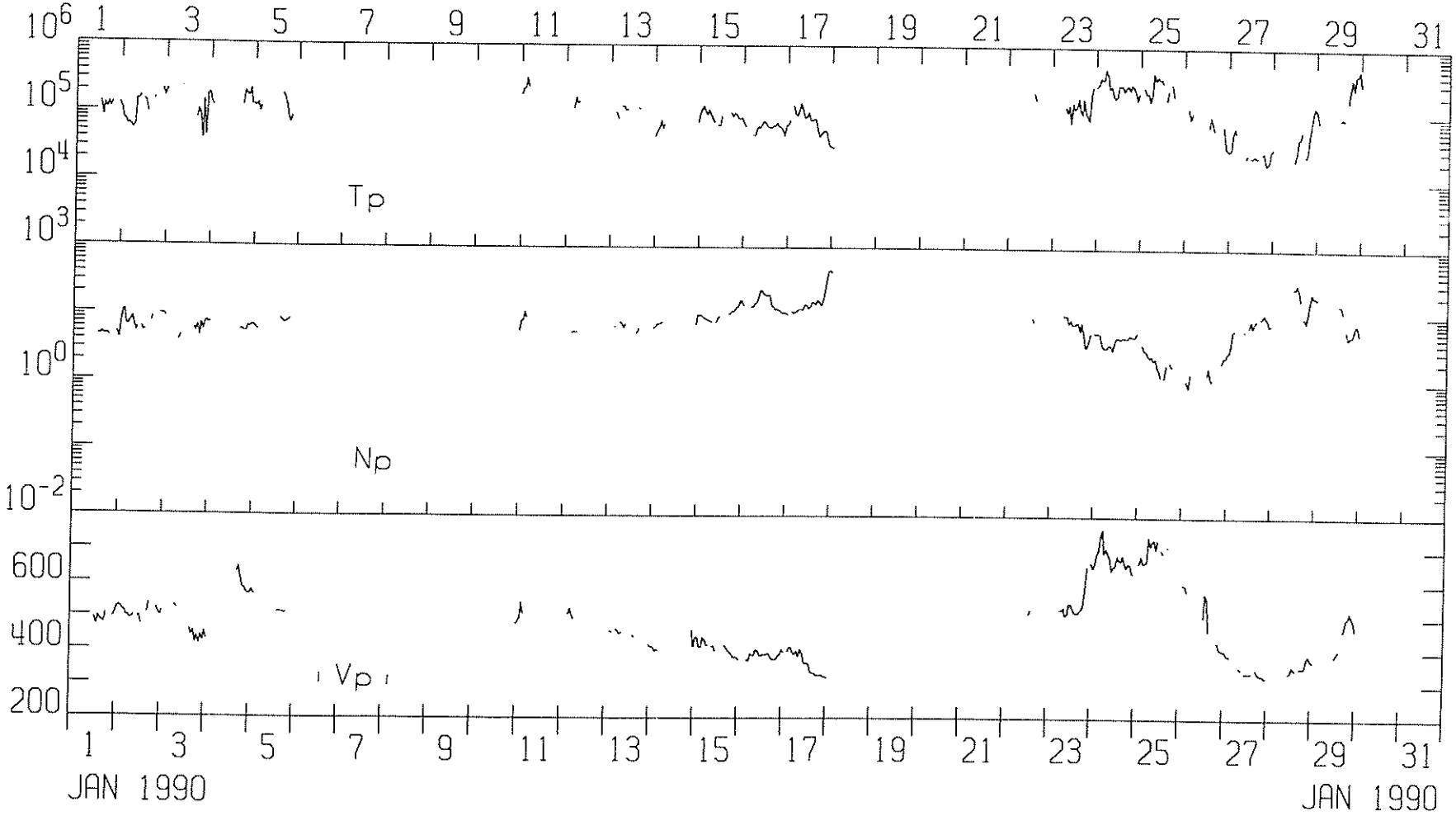








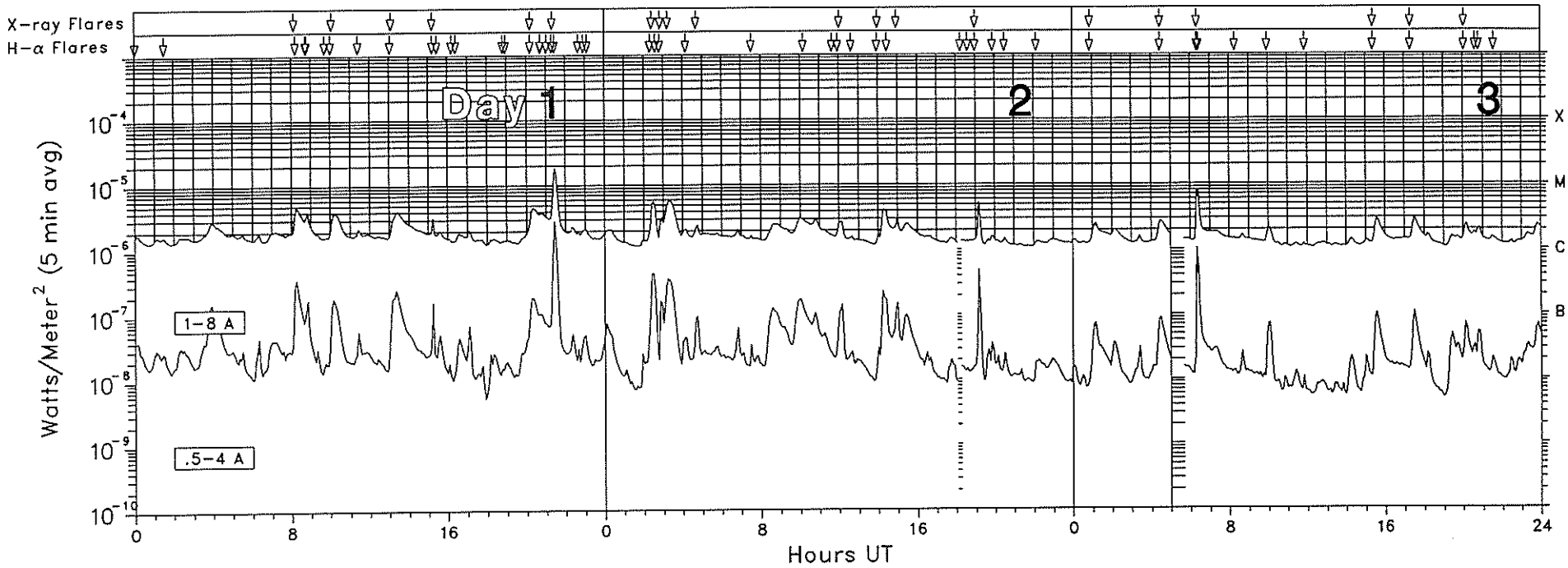
IMP 8 SOLAR WIND PLASMA
JANUARY 1990

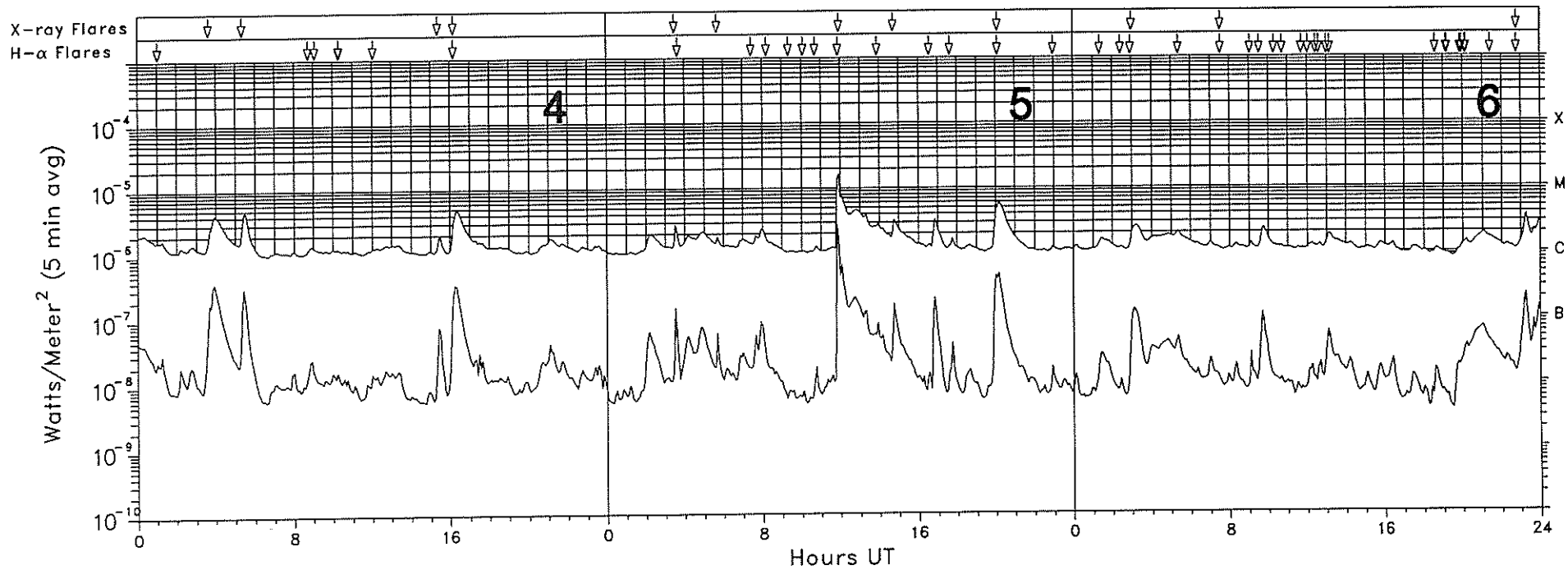


IMP 8 MIT PRELIMINARY ONE-HOUR AVERAGES

GOES-7 X-RAY DETECTOR

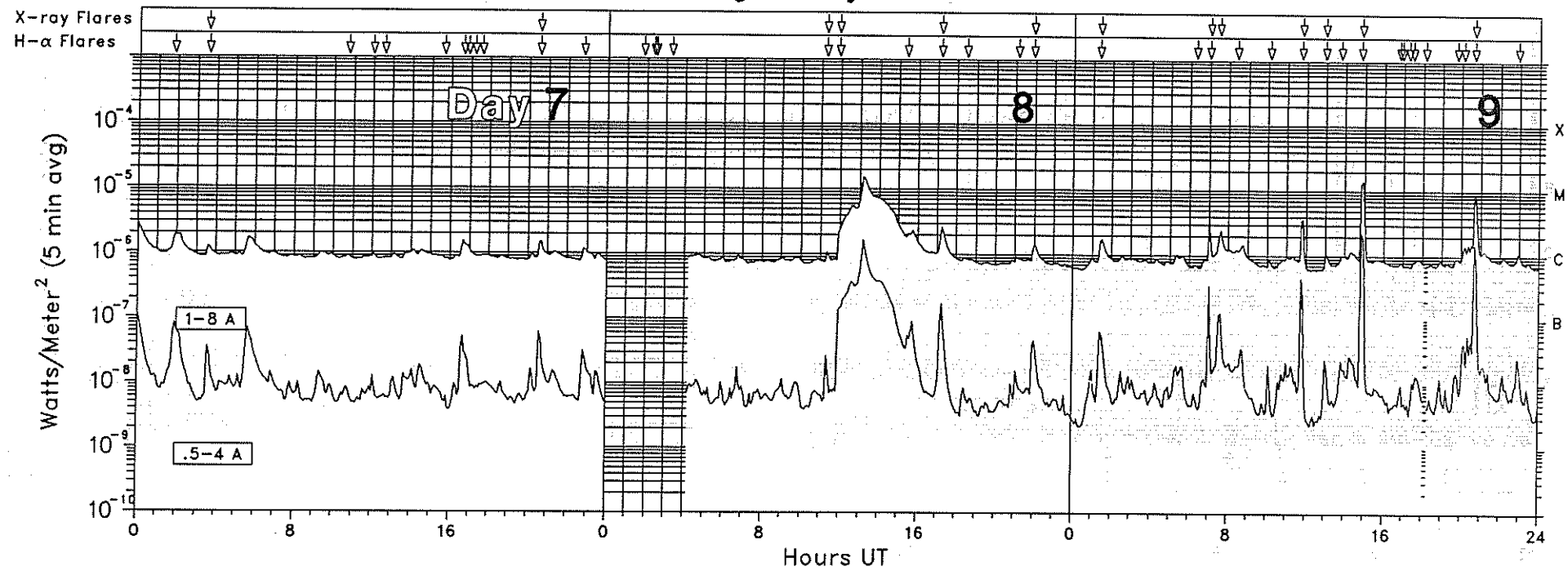
January 1990

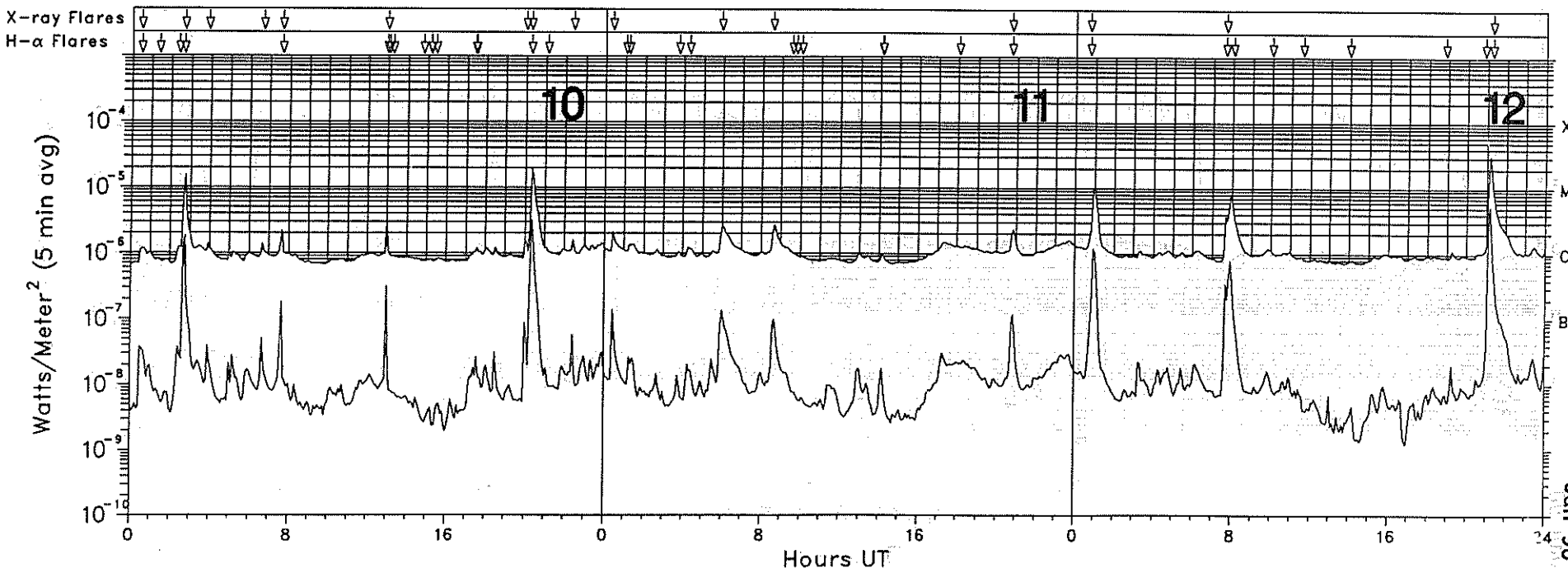




GOES-7 X-RAY DETECTOR

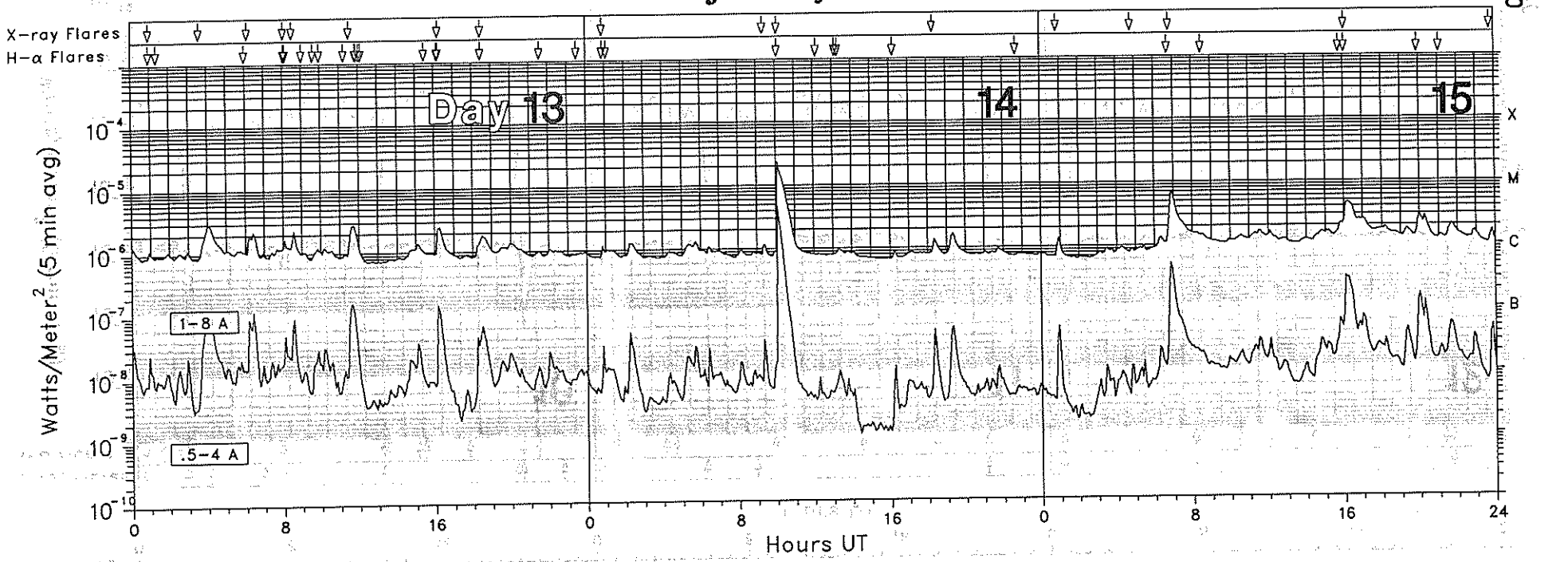
January 1990

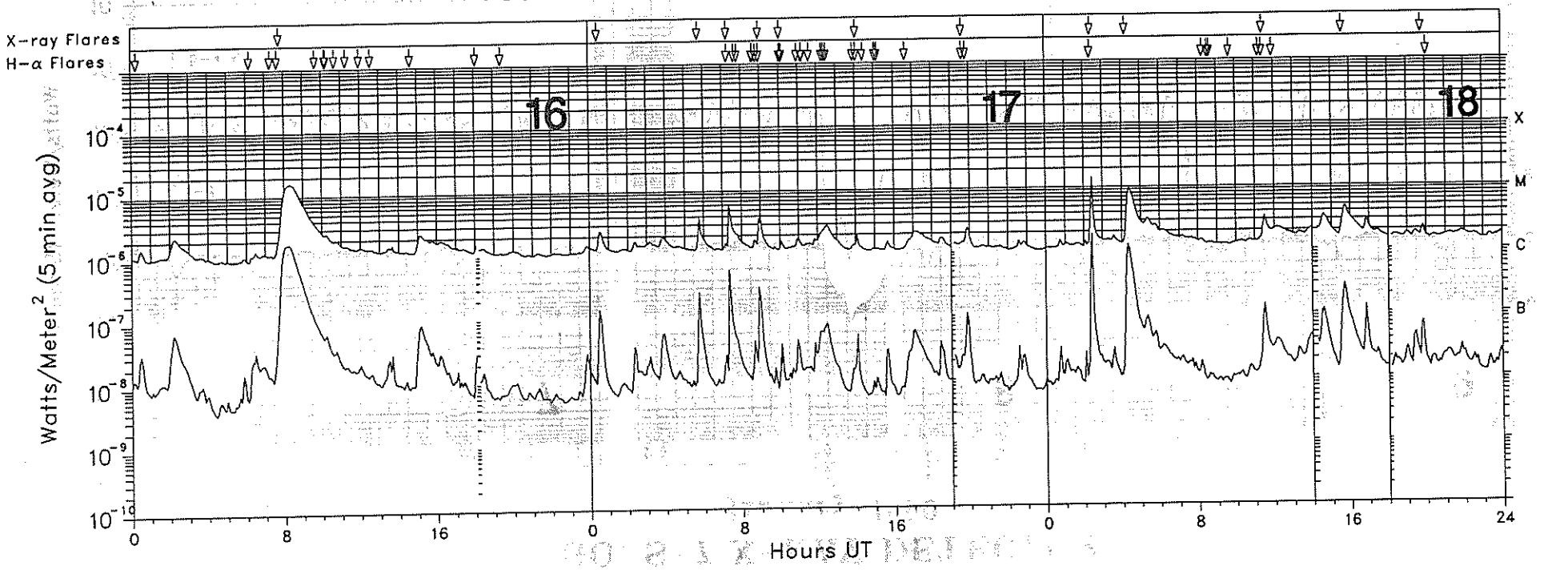




GOES-7 X-RAY DETECTOR

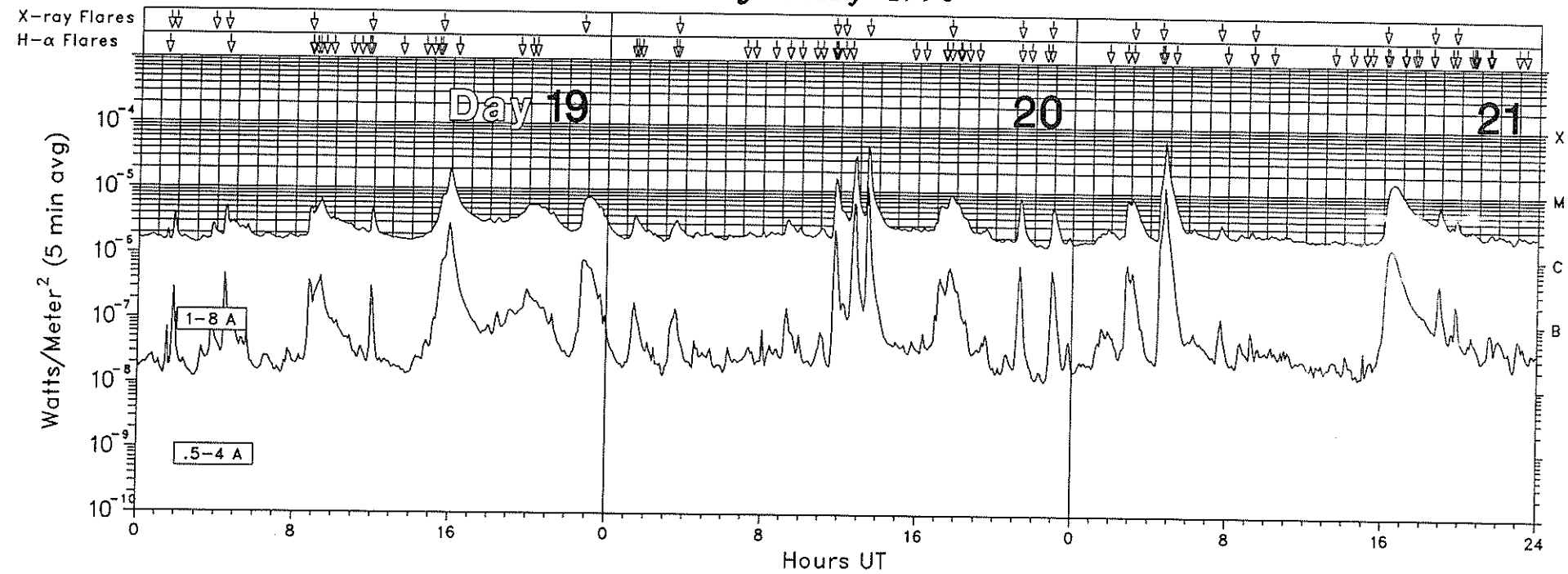
January 1990

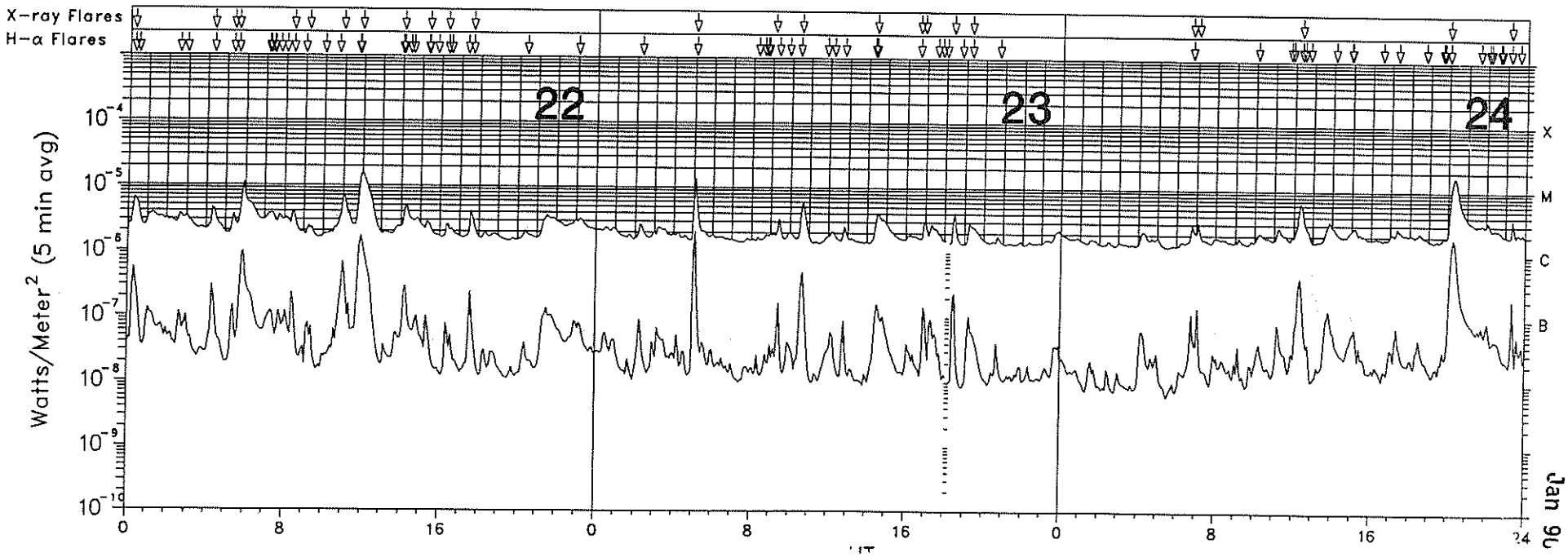




GOES-7 X-RAY DETECTOR

January 1990

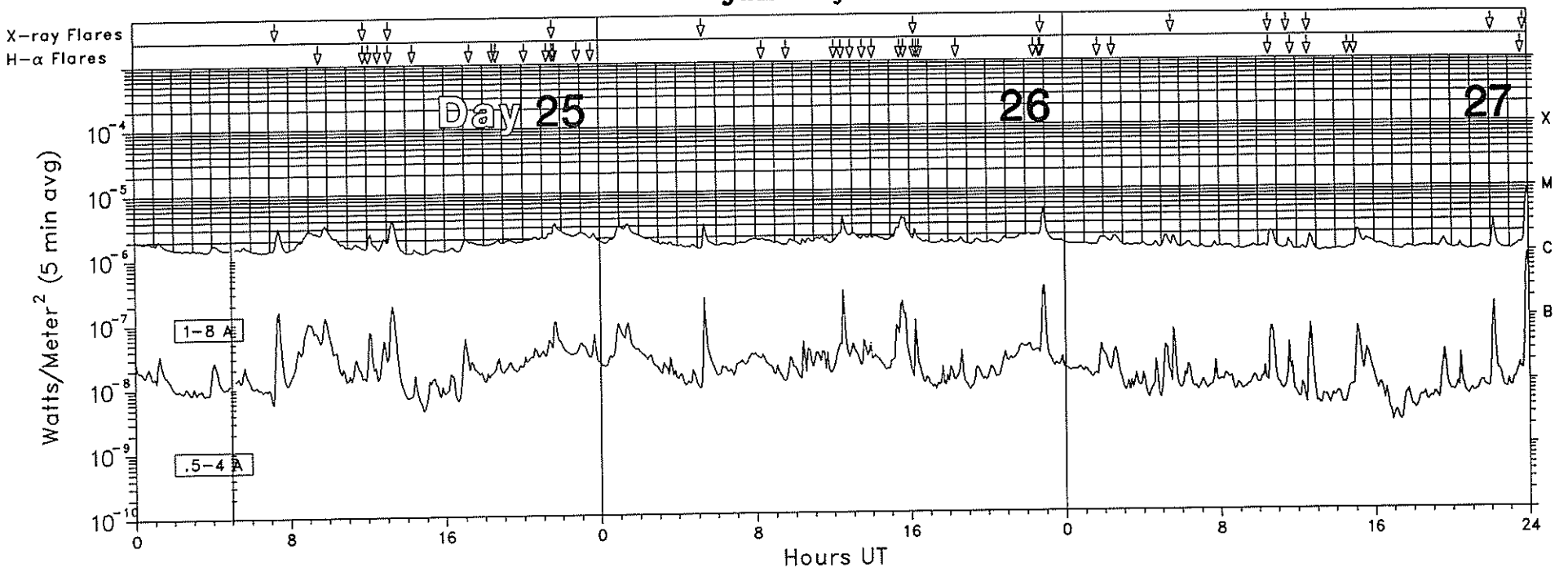


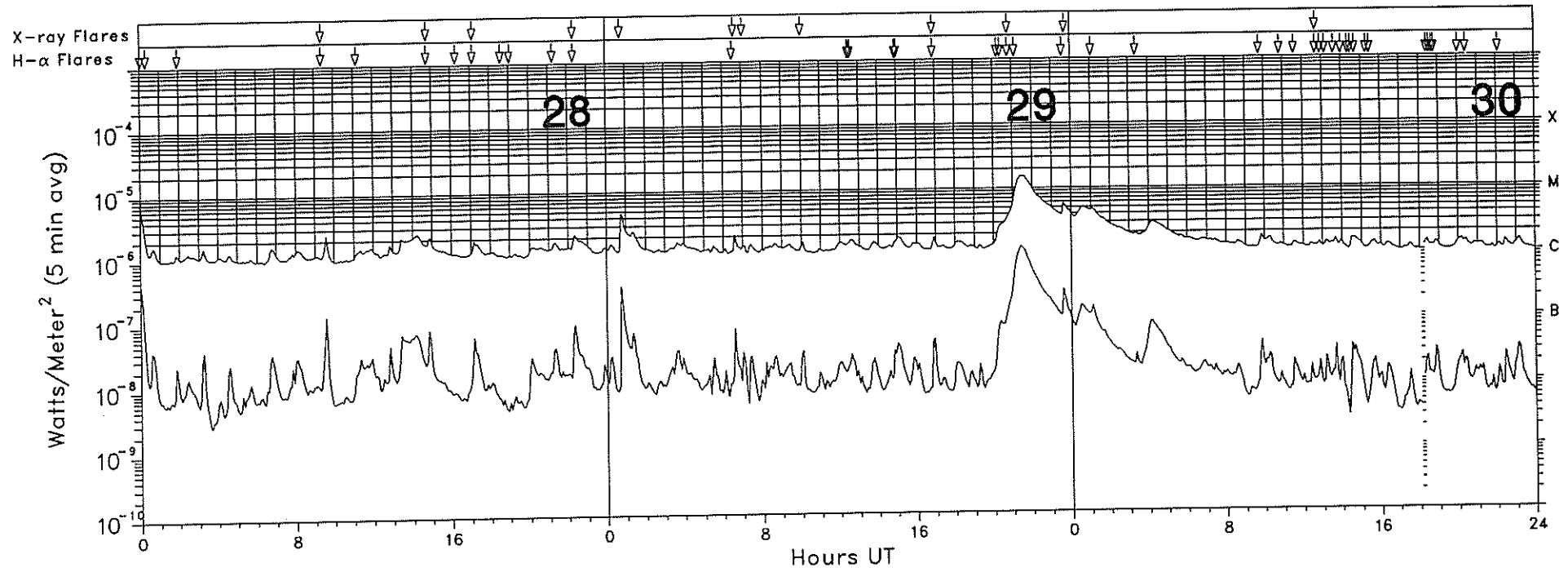


59
Jan 90

GOES-7 X-RAY DETECTOR

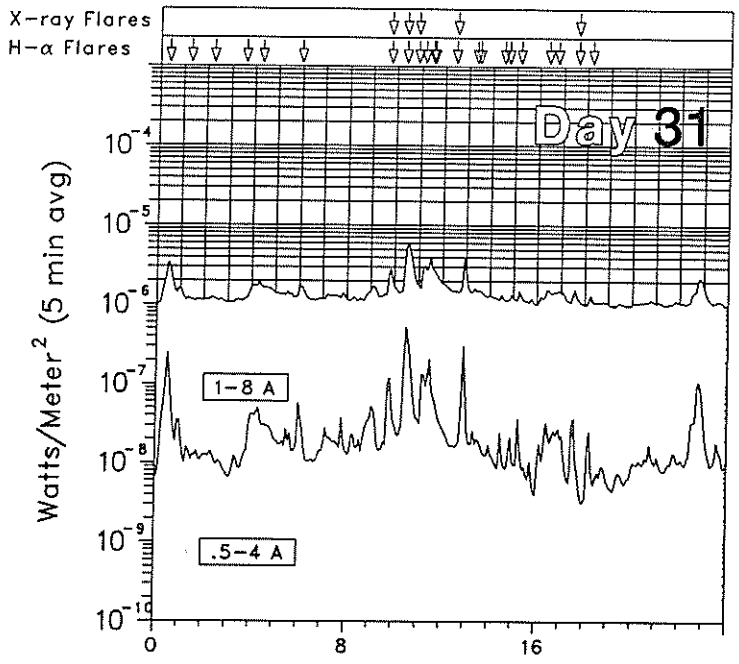
January 1990





GOES-7 X-RAY DETECTOR

January 1990



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

January 1990

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp	Opt	Xray	NOAA/ USAF Region
01	0809	0819	0836					C4.9	
01	1005E	1008	1028D	N26	W54		SF	C3.6	5854
01	1306	1325	1340					C4.0	
01	1513E	1517	1529D	N22	W52		1F	C4.0	5854
01	2012E	2018	2110D	N13	E40		SF	C4.5	5864
01	2119E	2128	2149D	N20	W54		1N	M2.1	5854
02	0224E	0225	0248D	N18	W56		SF	C5.9	5854
02	0250E	0254	0317D	S19	W28		SF	C4.0	5858
02	0313		0321D	N23	W60		1F	C5.7	5854
02	0441	0446	0449					C2.8	
02	1201E	1202	1255D	N21	W61		SF	C3.0	5854
02	1359E	1414	1448D	S18	W35		SF	C4.4	5858
02	1457	1501	1504					C3.5	
02	1859E	1913	1924D	N23	W62		2N	C6.9	5854
03	0053E	0103	0133D	N16	E15		1N	C2.8	5864
03	0428E	0428	0442D	N16	W69		SF	C2.7	5854
03	0620E	0625	0634D	N21	W80		SF	M1.3	5854
03	1523E	1529	1619D	S23	W67		SF	C3.0	5867
03	1719E	1737	1756D	S25	W69		SF	C2.9	5867
03	2002E	2013	2028D	S22	W70		SF	C2.6	5867
04	0338	0356	0423					C4.3	
04	0520	0530	0540					C4.9	
04	1523	1531	1536					C2.1	
04	1611E	1611	1615D	N14	W05		SF	C4.9	5864
05	0328	0333	0338					C3.0	
05	0540	0543	0546					C2.0	
05	1157E	1200	1209D	S26	W89		SF	M2.0	5867
05	1443	1449	1457					C3.4	
05	2006E	2023	2104D	S12	E65		SF	C6.0	5874
06	0300E	0309	0338D	S10	E57		SF	C2.5	5874
06	0733E	0820	1011D	S13	E55		SF	C2.4	5874
06	2246E	2318	0047D	S11	E48		1F	C3.7	5874
07	0334	0338	0346					C1.3	
07	2035E	2039	2101D	S38	W12		SF	C1.7	5865
08	1116E	1124	1150D	S14	E26		SF	C1.2	5874
08	1155E	1415	1601D	S16	E25		1N	M1.6	5874
08	1712E	1713	1717D	S12	E15		SF	C2.7	5874
08	2156E	2158	2232D	S16	E18		SF	C1.4	5874
09	0123	0129	0139					C1.8	
09	0701E	0703	0710D	S25	W18		SF	C5.1	5871
09	0730	0737	0743					C2.5	
09	1146	1150	1153					C6.7	
09	1258	1305	1314					C1.1	
09	1451E	1453	1537D	S25	W19		1B	M2.5	5871
09	2040E	2041	2104D	S25	W22		1B	M1.2	5871
10	0030E	0034	0056D	S26	W23		SF	C1.2	5871
10	0241E	0244	0312E	S26	W24		1B	M2.2	5871
10	0353	0357	0400					C1.5	
10	0640	0643	0645					C1.7	
10	0738E	0742	0747D	S22	W30		SF	C3.0	5871
10	1300E	1302	1310D	S22	W34		SF	C4.6	5871
10	2000	2004	2008					C2.0	
10	2017E	2020	2100	S25	W35		2B	M2.0	5871
10	2224	2227	2230					C1.8	
11	0023	0027	0033					C2.2	
11	0555	0604	0620					C2.7	
11	0833	0842	0851					C2.7	
11	2044E	2050	2116D	S25	W49		SF	C2.4	5871
12	0045E	0056	0134D	S25	W50		SF	M1.1	5871
12	0741E	0741	0747D	N22	E73		SF	C8.4	5882
12	2116	2118U	2200	N21	E65		SN	M3.5	5882
13	0056E	0057	0100D	N21	E64		SF	C1.2	5882
13	0336	0408	0423					C3.0	
13	0609E	0611	0628	N25	W90		1N	C2.4	5873
13	0804E	0806	0817D	S09	W02		SF	C1.9	5877
13	0831	0837	0842					C2.4	
13	1131	1145	1155					C3.0	
13	1612E	1613	1618D	N26	W88		SN	C3.4	5873
13	1827E	1829	1840D	S13	W73		SF	C1.8	5870
14	0051E	0052	0056D	S12	W69		SF	C1.3	5870
14	0920	0925	0930					C1.2	
14	1005E	1006	1018D	N22	E46		1F	M2.8	5882
14	1818	1824	1831					C1.3	
15	0050	0057	0103					C1.4	
15	0447	0450	0452					C1.4	
15	0647E	0651	0713D	N20	E44		SF	C7.5	5882
15	1603E	1608	1623D	N20	E32		SF	C4.7	5882
15	2346	2351	2356					C1.8	
16	0747	0824	0924					M1.5	
17	0027	0033	0044					C2.4	
17	0543	0546	0549					C4.7	
17	0716E	0718	0726D	S13	E78		SF	C7.2	5890
17	0857E	0904	0920D	S11	E74		2N	C5.6	5890
17	1003E	1009	1019D	N21	E10		SF	C1.9	5882
17	1403E	1407	1410D	S14	E73		SF	C2.1	5890
17	1938E	1952	2014D	N21	E06		SF	C2.9	5882
18	0223E	0223U	0235	S14	E67		SF	M1.7	5890
18	0413	0427	0442					C9.6	
18	1126	1132	1139					C3.4	
18	1536	1546	1555					C4.9	
18	1946	1950	1954					C2.6	
19	0129	0133	0135					C2.4	
19	0147	0153	0158					C4.3	
19	0345	0350	0355					C3.1	
19	0425	0430	0433					C7.9	
19	0845E	0846	0917D	S12	E48		SF	C5.6	5890
19	1146E	1200	1246	N22	W24		SF	C5.6	5882
19	1528E	1600	1616D	S12	E45		SN	M2.0	5890
19	2242	2310	2338					C7.8	
20	0331E	0333	0341D	S10	E76		SF	C4.0	5897
20	1140E	1149	1259D	N22	W33		1N	M1.7	5882
20	1210E	1254	1454D	S11	E29		1B	M4.2	5890
20	1323	1330	1405					M5.6	
20	1737E	1740	1827	N21	W37		SF	C9.3	5882
20	2113E	2116	2149D	N20	W35		1N	C9.0	5882
20	2246E	2252	2300D	S10	E61		SF	C6.7	5897
21	0303E	0306	0310D	N21	W41		SF	C8.8	5882

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

January 1990

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/ USAF Region
21	0429E	0444	0538D	S11	E22	1N	M6.9	5890
21	0731	0742	0748				C3.6	
21	0913E	0914	0927D	N20	W43	SF	C3.3	5882
21	1604E	1623	1819D	S28	E39	1N	M1.6	5892
21	1829E	1853	1925D	S12	E16	SF	C7.5	5890
21	1940E	1945	1952D	N19	W49	SF	C5.9	5882
22	0017E	0018	0036D	S10	E76	SF	C6.8	5900
22	0421E	0422	0432D	S09	E69	SF	C4.8	5900
22	0521E	0522	0545D	S29	E33	SF	C3.8	5892
22	0536E	0555	0641D	S12	E09	1N	M1.2	5890
22	0825	0830	0836				C5.0	
22	0912	0915	0919				C2.7	
22	1057	1104	1113				C7.3	
22	1155E	1204	1322D	S26	E19	1N	M1.5	5892
22	1406E	1412	1458D	N21	W60	SN	C5.0	5882
22	1524E	1525	1558D	S12	E04	SF	C3.3	5890
22	1620E	1621	1645D	S12	W02	SF	C2.9	5890
22	1737E	1740	1751D	S27	E17	SF	C4.8	5892
23	0503E	0504	0535D	S10	E56	1N	M2.3	5900
23	0909	0926	1115D	S09	E56	SN	C3.4	5900
23	1032	1042	1049				C6.4	
23	1425	1434	1500				C4.1	
23	1639E	1657	1800D	S11	W14	1N	C2.9	5890
23	1654	1659	1706				C3.5	
23	1822E	1827U	1924	N21	W75	SF	C5.0	5882
23	1918E	1937	1957D	S07	E44	SF	C2.9	5900
24	0644E	0649	0720D	S28	E03	SN	C3.0	
24	0704E	0707	0715D	S29	E07	SF	C3.2	5892
24	1222E	1226	1235D	S07	E35	SF	C6.5	5900
24	2001E	2015	2103D	S28	W04	2B	M1.7	5892
24	2311E	2320	2336D	S08	E27	SF	C4.7	5900
25	0721	0727	0733				C3.2	
25	1153E	1214	1236D	S12	E32	SF	C3.1	5900
25	1309E	1314	1345D	N12	E13	1F	C4.1	5907
25	2136E	2137	2149D	N12	E53	1N	C3.9	5904
26	0518	0523	0530				C3.3	
26	1616E	1618	1630D	N23	E24	SN	C3.3	5909
26	2251E	2257	2307D	N23	E22	1F	C5.6	5909
27	0535	0539	0545				C1.9	
27	1037E	1039	1052D	N25	W51	SF	C2.1	5893
27	1133	1137	1141				C1.6	
27	1238E	1238	1253D	N23	E15	SF	C1.8	5909
27	2206	2212	2216				C3.3	
27	2347	2359	0009				M1.0	
28	0923	0938	1050D	S11	W05	SF	C2.6	5900
28	1445E	1455	1516D	S11	W07	SF	C2.5	5900
28	1709E	1710	1736D	S11	W09	SF	C1.9	5900
28	2218E	2218	2235D	S27	W56	SF	C2.2	5892
29	0045E	0047	0052D	N15	E21	SF	C5.9	5913
29	0635E	0644	0700D	S32	W54	SF	C2.2	5892
29	0702	0705	0707				C1.8	
29	1002	1006	1008				C1.9	
29	1653E	1657	1713D	N21	E45	SF	C2.5	5914
29	2046E	2106	2329D	S23	W76	1F	M1.5	5892
29	2342	2342U	0004D	N16	E15	SF	C6.1	5913
30	1240E	1343	1427D	S09	W40	SF	C1.7	5900
31	0945E	0948	1006D	N26	E24	1F	C3.4	5914
31	1024E	1031	1045D	S09	W45	SN	C6.0	5900
31	1053	1141U	1215D	N08	E43	SF	C4.6	5919
31	1231E	1258	1335D	S12	W47	SN	C4.4	5900
31	1737E	1738	1749D	N23	E26	SF	C1.8	5914

Preliminary GOES Satellite Data
Daily Average X-ray Background
February 1989 - January 1990

Day	1989 Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	1990 Jan
1	C1.2	C1.3	B9.2	C1.0	B8.2	B9.2	C1.0	C3.9	C1.3	C1.2	C1.6	C1.4
2	C1.2	C1.3	C1.0	C1.0	C1.5	B9.4	B9.2	C2.5	C1.5	C1.4	C1.2	C1.1
3	C1.6	B9.8	C1.1	B9.1	C1.4	C1.1	C1.0	C1.9	C1.6	C1.2	C1.1	C1.1
4	C2.0	B7.0	C1.0	C1.6	C1.6	C1.1	C1.1	C1.9	C1.6	C1.3	C1.5	C1.1
5	C1.6	C1.3	C1.0	C1.2	C1.5	B8.7	C1.8	C1.7	C1.3	C1.3	C1.1	C1.0
6	C1.9	C2.7	B8.6	C1.1	C1.9	B8.2	C1.5	C2.3	C1.2	C1.7	C1.0	C1.0
7	C1.9	C2.5	C1.0	C1.4	C1.9	B7.2	C1.5	C2.1	C1.2	C1.9	C1.5	---
8	C2.1	C1.9	C1.3	C1.3	C3.0	B7.2	C1.1	C2.5	C1.0	C2.5	C1.4	B7.3
9	C2.2	C2.1	B9.8	C1.3	C3.0	B7.0	C1.1	C2.3	C1.3	C2.9	C1.2	B6.2
10	C1.9	C2.5	B8.1	C1.3	C2.5	B6.5	C1.4	C2.7	C1.0	C2.3	B8.9	B6.9
11	C1.3	C2.8	C2.1	C1.0	C2.1	B6.8	C1.7	C2.3	C1.0	C1.7	B8.1	B7.3
12	C1.1	C2.3	C1.1	C1.0	C2.0	B6.2	C2.7	C3.8	---	C1.7	B7.2	B7.5
13	C1.3	C3.0	C1.2	B9.9	C2.3	B7.7	C2.0	C2.3	C2.7	C1.5	B7.3	B7.5
14	C2.0	C2.4	C1.2	B9.5	C2.7	B7.0	C2.7	C1.9	C1.4	C1.8	B7.4	B6.7
15	C1.5	C2.1	C1.1	B9.0	C3.3	B7.4	C4.3	C1.7	C1.4	C2.2	B6.3	B9.5
16	C1.7	C2.5	C1.1	B7.8	C4.1	B7.1	C7.9	C1.9	C1.1	C1.7	B6.2	C1.0
17	C1.4	C2.3	C1.4	B7.5	C2.7	B6.8	C3.5	C1.1	C1.2	C1.6	B6.8	C1.1
18	C1.3	C2.1	C1.1	B7.2	C2.5	B7.8	C1.3	C1.1	C2.0	C1.6	B8.8	C1.2
19	C1.5	C2.6	C1.0	B7.4	C2.5	B7.6	C1.0	C1.4	C3.2	C1.8	C1.1	C1.6
20	C1.4	C2.3	B9.5	C1.3	C2.3	B7.0	C1.1	B8.9	C1.7	C1.4	B9.6	C1.9
21	C1.7	*	B9.0	C1.3	C3.4	B8.6	C1.0	B8.3	C1.6	C1.5	C1.2	C1.9
22	C2.2	C1.8	C1.2	C1.7	C2.0	B7.6	C1.0	B8.9	---	C1.6	C1.5	C1.8
23	C1.5	C1.6	C1.4	C1.9	C1.7	B7.4	C1.5	B8.6	C2.4	C1.3	C1.2	C1.4
24	C1.4	C1.1	C1.4	C1.9	C1.1	B9.2	C1.5	B8.7	C1.8	C1.1	C1.4	C1.5
25	C1.5	C1.0	C1.0	C1.6	B8.3	B9.2	C1.0	C1.1	---	C1.2	C2.2	C1.2
26	C1.1	B8.9	B9.4	C1.2	B9.8	C1.0	B9.3	C1.5	C1.1	C1.3	C2.7	C1.4
27	B9.5	B9.9	B7.4	B7.5	C1.0	B9.5	B9.8	C1.6	C1.4	C1.3	C2.7	C1.0
28	C1.0	C1.1	B7.6	B7.9	C1.1	B8.8	B1.7	C1.8	C1.3	C1.1	C2.6	C1.0
29		C1.0	C1.0	B9.0	C1.2	C1.1	C2.7	C2.4	C1.4	C1.2	C2.7	C1.2
30		B8.8	B8.4	B9.2	C1.1	C1.0	C1.5	C1.3	C1.4	C1.8	C2.5	C1.1
31		B9.6		B9.7		C1.0	C1.6		C1.6		C1.8	C1.0

MASS EJECTIONS FROM THE SUN

JANUARY 1990

Site	Mo	Day	Observed UT Start	Observed UT Max	Observed UT End	Location RA°	Location R/Ro	Freq or Wavelength	Kind of Event
LEAR	Jan	02	0311.0		0315.0			Meter	II
KHAR	Jan	04	0922 E		0938 D	222	0.49	H-alpha	S
KHAR	Jan	04	0924 E		0936 D	044	0.66	H-alpha	S
KHAR	Jan	04	1023 E	1030 U	1042 D	250-252	1.00-1.03	H-alpha	S
KHAR	Jan	04	1023 E	1024 U	1048 D	253-254	1.00-1.02	H-alpha	S
KHAR	Jan	05	0850 E	0855 U	0912 D	116	0.91-0.93	H-alpha	S
KHAR	Jan	05	1022 E		1030 D	248	1.00-1.02	H-alpha	S
LEAR	Jan	10	0259.0		0303.0			Meter	II
LEAR	Jan	12	0107.0		0116.0			Meter	II
LEAR	Jan	21	0449.0		0512.0			Meter	II
LEAR	Jan	21	0522.0		0543.0			Meter	IV
VORO	Jan	22	0028	0030 U	0047	200	0.9	H-alpha	SP
SVTO	Jan	27	0949.0		0951.0			Meter	II
LEAR	Jan	28	0800.0		0802.0			Meter	II
LEAR	Jan	29	0055.0		0104.0			Meter	II
PALE	Jan	29	2131.0		2146.0			Meter	II

QUALIFIERS ON START, MAX AND END TIMES
- D = event ended after tabulated time
- E = event began before the tabulated time
- U = uncertain time

TYPE OF EVENT
- A = eruptive active region prominence
- CB = coronal cloud bubble
- D = coronal depletions
- E = coronal enhancement
- EL = coronal expanding loop
- II = Type II radio burst
- IVm = moving Type IV radio burst
- Q = eruptive quiescent prominence
- R = coronal ray or streamer
- S = flare-surge if there is a known flare association
- SP = flare-spray if there is a known flare association
- * = movement may be caused by ionospheric refraction

REPORTING STATIONS
- KHAR = Kharkov
- LEAR = Learmonth
- PALE = Palehua
- SVTO = San Vito
- VORO = Voroshilov

ACTIVE PROMINENCES AND FILAMENTS

JANUARY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
01	SSB	1308		136	W73	01	4.8			0	0	E	RAMY		
01	SSB	1311		430	W08	12	30.4			0	0	E	RAMY		118 W48
01	AFS	1400E	1547D	S24	W38	12	29.7		02	9	9	E	RAMY		
01	ADF	1420E	1755D	S24	W67	12	27.5	1	07	9	9	E	HOLL	5852	
01	DSD	1526	2359D	N23	W53	12	28.6		09	9	9	E	HOLL	5854	Flare Associated
01	ASR	1532E	2359D	S11	W90	12	26.0			9	8	E	HOLL		
01	ASR	1538E	1547D	S11	W90	12	26.0			8	8	E	RAMY		
01	DSD	1540E	1547D	N23	W53	12	28.7		08	9	9	E	RAMY	5854	
01	SSB	1550		456	W35	12	28.3			0	0	E	HOLL		119 W58 138 W77
01	SSB	1737		359	W62	12	27.6			0	0	E	PALE		
01	AFS	1816E	0324D	S20	W22	12	31.1		02	9	8	E	PALE	5858	
01	ADF	1816E	0324D	S28	W65	12	27.8	1	14	9	9	E	PALE	5854	
01	ASR	1816E	0324D	S31	W90	12	25.7			9	9	E	PALE	5852	
01	ADF	2218E	2359D	S02	W52	12	29.1	2	09	9	9	E	HOLL	5853	
02	AFS	0029E	1046D	S29	W09	01	1.3		03	9	9	E	LEAR		
02	SSB	0142		336	W80	12	29.8			0	0	E	PALE		
02	BSD	0739	1046D	N23	W63	12	28.6		27	9	9	E	LEAR	5854	Flare Associated
02	DSD	0753E	0800D	N25	W60	12	28.8	1				C	ABST		
02	BSL	0753E	0833D	S02	W90	12	26.7	1				C	ABST		
02	ASR	0923E	1046D	S24	W83	12	27.1			9	9	E	LEAR	5852	
02	SSB	1158		129	W79	01	5.2			0	0	E	RAMY		
02	BSD	1207	1252D	N22	W62	12	28.8		11	9	9	E	RAMY	5854	Flare Associated
02	BSL	1219E	1249D	N22	W66	12	28.5			9	9	E	SVTO	5854	Flare Associated
02	BSD	1249E	1326D	N22	W66	12	28.6		08	9	9	E	SVTO	5854	Flare Associated
02	AFS	1430E	1811D	S38	E52	01	6.8		02	6	5	E	RAMY	5865	
02	ASR	1515E	2359D	S25	W82	12	27.4			9	9	E	HOLL	5852	
02	AFS	1518E	2359D	S38	E51	01	6.8		03	9	9	E	HOLL	5865	
02	AFS	1520E	2359D	S29	W16	01	1.4		04	9	9	E	HOLL		
02	AFS	1523E	2359D	S20	W36	12	31.0		02	9	9	E	HOLL	5858	
02	DSD	1525E	2359D	N23	W65	12	28.7		05	9	9	E	HOLL	5854	
02	DSD	1527E	2359D	N11	E00	01	2.6		07	9	9	E	HOLL	5862	
02	ADF	1527E	2359D	N20	W01	01	2.6	2	10	9	9	E	HOLL	5862	
02	DSD	1529E	1900D	N14	E17	01	3.9		04	9	9	E	HOLL	5864	
02	SSB	1530		423	W14	12	31.9			0	0	E	HOLL		119 W74 139 W90
02	AFS	1615E	1811D	S29	W16	01	1.4		02	9	9	E	RAMY		
02	ADF	1618E	1811D	N19	W03	01	2.4	1	07	9	9	E	RAMY	5862	
02	ASR	1630E	1811D	S24	W86	12	27.1			9	9	E	RAMY	5852	
02	SDF	1701E	1702D	S33	W08	01	2.1		13	0	0	E	HOLL		
02	ASR	1827E	0350D	S27	W90	12	26.8			9	9	E	PALE	5852	
02	AFS	1831E	0350D	S20	W35	12	31.1		02	9	9	E	PALE	5858	
02	AFS	1834E	0030D	N13	E04	01	3.1		01	8	8	E	PALE	5862	
02	AFS	1838E	0030D	S35	E52	01	6.9		02	9	9	E	PALE	5865	
02	AFS	1841E	0350D	S29	W16	01	1.5		03	9	9	E	PALE		
02	SPY	1916	1929D	N23	W71	12	28.4			9	9	E	HOLL	5854	Flare Associated
02	BSL	1929E	2015D	N23	W71	12	28.4			9	9	E	HOLL	5854	Flare Associated
02	BSD	2033E	2135D	N19	W67	12	28.8		06	9	9	E	HOLL	5854	Flare Associated
03	ASR	0029E	1100D	S25	W90	12	27.1			9	9	E	LEAR	5852	
03	SDF	0032	0104	N18	E29	01	5.2	1				C	VORO		
03	APR	0037	0300D	N05	W90	12	27.4	1				C	VORO		
03	DSD	0100	0112	N18	E27	01	5.1	1				C	VORO		
03	ADF	0106	0300D	N12	E25	01	4.9	1				C	VORO		
03	APR	0141	0300D	S12	W90	12	27.4	1				C	VORO		
03	APR	0210	0300D	S22	W90	12	27.3	1				C	VORO		
03	DSD	0215E	0510D	N23	W76	12	28.3		03	9	9	E	LEAR	5854	
03	AFS	0228E	1100D	N29	W23	01	1.3		03	9	9	E	LEAR	5869	
03	BSL	0628	0706	N23	W88	12	27.6			9	9	E	LEAR	5854	Flare Associated
03	BSL	1218E	1307D	N17	W84	12	28.2			9	9	E	RAMY	5854	
03	AFS	1225E	1630D	N13	E08	01	4.1		02	8	8	E	RAMY	5864	
03	AFS	1226E	2139D	N11	W10	01	2.8		03	9	9	E	RAMY	5862	
03	ASR	1228E	2139D	S25	W90	12	27.6			9	9	E	RAMY	5852	
03	ADF	1243E	2139D	S20	W68	12	29.4	1	12	9	9	E	RAMY	5867	
03	ASR	1259E	2139D	S15	E88	01	10.2			9	9	E	RAMY		
03	ASR	1320E	2139D	N20	W88	12	27.9			9	9	E	RAMY	5854	
03	AFS	1445E	2139D	S28	W30	01	1.3		03	9	9	E	RAMY	5869	
03	SDF	1534E	1852D	N28	W29	01	1.4		07	0	0	E	HOLL		
03	AFS	1640E	2139D	S26	W10	01	2.9		02	9	8	E	RAMY	5872	
03	ADF	1716E	2340D	S22	W70	12	29.4	1	15	9	9	E	HOLL	5867	
03	SSB	1806		417	W23	01	2.4			0	0	E	HOLL		106 W72

ACTIVE PROMINENCES AND FILAMENTS

JANUARY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
03	AFS	1832E	0355D	N14	E04	01	4.1		02	8	8	E	PALE	5864	
03	AFS	1832E	0355D	N16	W11	01	2.9		03	9	9	E	PALE	5862	
03	AFS	1832E	0355D	S09	W64	12	30.1		01	9	9	E	PALE	5853	
03	AFS	1832E	0355D	S27	W63	12	30.0		02	9	9	E	PALE	5867	
03	AFS	1832E	0355D	S29	W28	01	1.6		01	8	8	E	PALE	5869	
03	AFS	2010E	0355D	N23	E37	01	6.7		04	9	9	E	PALE		
03	ASR	2345E	0045D	S25	W90	12	28.1			9	9	E	LEAR	5852	
03	AFS	2348E	1048D	S28	W34	01	1.3		02	9	9	E	LEAR	5869	
03	AFS	2349E	1048D	S24	W14	01	2.9		01	9	9	E	LEAR	5872	
04	BSL	0050	0112	N21	W90	12	28.2	1				C	VORO		
04	APR	0050	0300D	N26	W90	12	28.1	1				C	VORO		
04	APR	0112	0300D	N05	W90	12	28.4	1				C	VORO		
04	APR	0112	0300D	S42	W90	12	27.8	1				C	VORO		
04	BSL	0126	0156	S22	W90	12	28.2	1				C	VORO		
04	BSL	0136	0158	S18	W90	12	28.3	1				C	VORO		
04	ADF	0156E	0300D	S27	E46	01	7.7	1				C	VORO		
04	ADF	0206	0300D	N35	W05	01	3.7	1				C	VORO		
04	ASR	0415E	0840D	N28	W90	12	28.2			9	9	E	LEAR		
04	AFS	0741E	1414D	S27	W18	01	2.9		03	9	9	E	SVTO	5872	
04	AFS	0741E	1414D	S30	W37	01	1.4		02	9	9	E	SVTO	5869	
04	ASR	0805E	1414D	N18	W90	12	28.6			9	9	E	SVTO	5854	
04	ASR	0809E	0811	N20	W90	12	28.5			9	9	E	LEAR	5854	
04	BSL	0811	0845D	N20	W90	12	28.5			9	9	E	LEAR	5854	
04	BSL	0814E	0841D	N18	W90	12	28.6			9	9	E	SVTO	5854	
04	AFS	0835E	1414D	N25	E31	01	6.7		03	9	9	E	SVTO		
04	AFS	0840E	1048D	N24	E31	01	6.7		02	9	9	E	LEAR		
04	ADF	0845E	0955	S25	E48	01	8.1	1				V	KHAR		
04	AFS	0851E	1414D	N15	W02	01	4.2		04	9	9	E	SVTO	5864	
04	AFS	0854E	1048D	N14	W01	01	4.3		04	9	9	E	LEAR	5864	
04	ADF	0855E	1018	S05	W80	12	29.5	1				V	KHAR		
04	ADF	0859E	0915	N37	W42	01	1.0	1				V	KHAR		
04	DSD	0922E	0938	S25	W22	01	2.7	1				V	KHAR		
04	DSD	0924E	0936D	N26	E31	01	6.8	1				V	KHAR		
04	ADF	1002E	1055D	N16	W01	01	4.3	1				V	KHAR		
04	AFS	1022E	1414D	N15	W22	01	2.8		05	9	9	E	SVTO	5862	
04	BSL	1023E	1042	S18	W90	12	28.7	1				V	KHAR		
04	BSL	1024	1048D	S16	W90	12	28.7	1				V	KHAR		
04	SDF	1427E	2020D	S20	E33	01	7.1		08	0	0	E	RAMY		
04	APR	1551E	2120D	S18	W90	12	28.9	1		8	8	E	HOLL	5867	
04	ASR	1552E	2117D	S18	W90	12	28.9			8	8	E	HOLL	5867	
04	ASR	1619E	1940D	S18	W85	12	29.3			9	9	E	RAMY	5867	
04	APR	1842E	0326D	S06	W90	12	29.1			9	9	E	PALE	5853	
04	SSB	1944		110	W90	01	5.7			0	0	E	RAMY		
04	SSB	2001		424	W44	01	2.8			0	0	E	HOLL		110 W90
04	AFS	2240E	1029D	N13	W08	01	4.3		02	9	9	E	LEAR	5864	
04	ASR	2242E	1029D	N24	W90	12	29.1			9	9	E	LEAR	5854	
04	AFS	2250E	1029D	N24	E23	01	6.7		02	9	9	E	LEAR	5873	
05	BSL	0215	0322D	S04	W90	12	29.5	2N				V	KODA		
05	ASR	0736E	1439D	S25	W90	12	29.4			9	9	E	SVTO	5867	
05	ADF	0820E	1439D	N14	W12	01	4.4	2	05	8	9	E	SVTO	5864	
05	DSD	0850E	0912D	S16	E70	01	10.7	1				V	KHAR		
05	BSL	1022	1030	S23	W90	12	29.6	1				V	KHAR		
05	LPS	1215	1330D	S25	W90	12	29.6			9	9	E	SVTO	5867	Flare Associated
05	LPS	1229E	1508D	S23	W90	12	29.7			9	9	E	RAMY	5867	
05	APR	1236E	1439D	S18	W90	12	29.8	2		9	9	E	SVTO	5858	
05	APR	1237E	2148D	S17	W90	12	29.8	2		9	9	E	RAMY	5858	
05	AFS	1249E	2148D	S15	E64	01	10.4		03	9	9	E	RAMY	5874	
05	ASR	1438E	2148D	S24	W90	12	29.7			9	9	E	RAMY	5867	
05	ADF	1445E	2148D	S34	E11	01	6.5	1	07	9	9	E	RAMY	5865	
05	AFS	1510E	2148D	N14	W18	01	4.3		03	9	9	E	RAMY	5864	
05	SSB	1606		402	W33	01	5.5			0	0	E	HOLL		
05	APR	1612E	2128D	S10	W90	12	30.0	1		9	9	E	HOLL	5853	
05	APR	1620E	2128D	S19	W90	12	29.9	1		8	8	E	HOLL	5858	
05	ASR	1624E	0002D	S10	W90	12	30.0			8	8	E	HOLL	5853	
05	ASR	1638E	0002D	S25	W90	12	29.8			8	8	E	HOLL	5867	
05	SSB	1646		401	W33	01	5.6			0	0	E	RAMY		418 W50
05	ASR	1729E	2148D	S10	W90	12	30.1			9	9	E	RAMY	5853	
05	DSD	1810E	0356D	N22	E13	01	6.7		03	9	9	E	PALE	5873	

ACTIVE PROMINENCES AND FILAMENTS

JANUARY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
05	APR	1810E	0356D	S10	W90	12	30.1			9	6	E	PALE	5853	
05	ADF	1916E	0002D	N10	W15	01	4.7		07	9	9	E	HOLL	5864	
05	DSD	2301E	0050D	N14	W26	01	4.0		07	9	9	E	LEAR	5864	
06	AFS	0534E	1037D	N15	W27	01	4.2		03	9	9	E	LEAR	5864	
06	DSD	0755E	1037D	N11	W26	01	4.4		07	9	9	E	LEAR	5864	
06	DSD	0806E	0923D	N13	W32	01	3.9		05	9	9	E	SVTO	5864	
06	DSD	0806E	1151D	S26	W69	01	1.0		04	9	9	E	SVTO	5869	
06	AFS	0806E	1410D	N12	W25	01	4.4		03	9	9	E	SVTO	5864	
06	AFS	0806E	1418D	S12	W08	01	5.7		01	9	9	E	SVTO		
06	ADF	0806E	1508D	N11	W26	01	4.4	2	08	9	9	E	SVTO	5864	
06	ADF	1148E	2150D	S17	E52	01	10.4	1	07	9	9	E	RAMY	5874	
06	ASR	1148E	2150D	S17	W90	12	30.7			9	9	E	RAMY	5858	
06	BSD	1149E	1154	N13	W35	01	3.8		05	9	9	E	SVTO	5864	
06	DSD	1154E	1211D	N14	W35	01	3.8		12	9	9	E	SVTO	5864	
06	ASR	1210	2150D	S11	E89	01	13.2			9	9	E	RAMY		Flare Associated
06	LPS	1211E	1230D	S09	E89	01	13.2			9	9	E	SVTO		Flare Associated
06	AFS	1238E	2150D	N13	W27	01	4.5		03	9	9	E	RAMY	5864	
06	ASR	1426E	2150D	N20	W90	12	30.8			9	9	E	RAMY		
06	SSB	1430		418	W62	01	5.0			0	0	E	RAMY		
06	BSD	1451E	1819D	S10	E80	01	12.6		03	9	9	E	HOLL		
06	DSD	1458E	1821D	N28	E31	01	9.0		02	9	9	E	HOLL		
06	ADF	1505E	2355D	N10	W24	01	4.8		08	9	9	E	HOLL	5864	
06	ASR	1733E	0314D	S11	E88	01	13.3			9	9	E	PALE		
06	AFS	1902E	0314D	N12	W34	01	4.2		02	9	9	E	PALE	5864	
06	DSD	1902E	0314D	N12	W38	01	3.9		03	9	9	E	PALE	5864	
06	AFS	1902E	0314D	S12	E46	01	10.2		03	9	9	E	PALE	5874	
06	DSD	1959E	2150D	N15	W38	01	3.9		03	9	9	E	RAMY	5864	
06	ADF	2045E	2150D	N11	W24	01	5.0	1	08	9	9	E	RAMY	5864	
06	AFS	2323E	1013D	S15	E43	01	10.2		02	9	9	E	LEAR	5874	
06	AFS	2325E	1013D	N13	W42	01	3.8		02	9	9	E	LEAR	5864	
07	APR	0024	0300D	N19	W90	12	31.1	1				C	VORO		
07	BSL	0036	0056	N13	W90	12	31.2	1				C	VORO		
07	APR	0043	0300D	N43	E90	01	14.4	1				C	VORO		
07	ADF	0125	0300D	N10	W22	01	5.4	1				C	VORO		
07	APR	0205	0300D	S38	W90	12	30.9	1				C	VORO		
07	APR	0215	0300D	S47	W90	12	30.6	1				C	VORO		
07	APR	0235	0300D	S10	E90	01	13.9	1				C	VORO		
07	ADF	0815E	1509D	N10	W39	01	4.4	2	15	9	9	E	SVTO	5864	
07	AFS	0815E	1509D	S09	E77	01	13.1		02	9	9	E	SVTO	5877	
07	AFS	0815E	1509D	S23	E16	01	8.6		02	9	9	E	SVTO	5871	
07	ADF	1334E	2125D	N10	W31	01	5.2	1	12	9	9	E	RAMY	5864	
07	DSD	1334E	2129D	N13	W48	01	3.9		04	9	9	E	RAMY	5864	
07	AFS	1401E	2129D	S11	E73	01	13.1		02	9	9	E	RAMY	5877	
07	AFS	1402E	2129D	N26	E14	01	8.7		02	9	9	E	RAMY	5876	
07	AFS	1403E	2129D	S38	W09	01	6.8		03	9	9	E	RAMY	5865	
07	ADF	1404E	2129D	S20	E13	01	8.6	1	04	9	9	E	RAMY	5871	
07	AFS	1405E	2129D	S14	E33	01	10.1		02	9	9	E	RAMY	5874	
07	SSB	1504		405	W62	01	7.2			0	0	E	HOLL		
07	DSD	1512E	1705D	S36	W11	01	6.7		03	9	9	E	HOLL	5865	
07	AFS	1525E	0002D	S23	E11	01	8.5		01	9	9	E	HOLL	5871	
07	DSD	1525E	0002D	S24	E08	01	8.3		02	9	9	E	HOLL	5871	
07	AFS	1739E	0002D	N14	W45	01	4.3		02	9	9	E	HOLL	5864	
07	AFS	1833E	0002D	N27	E17	01	9.1		01	9	9	E	HOLL	5876	
07	SDF	1849E	1441D	N16	W33	01	5.3		06	0	0	E	HOLL		
07	DSD	1850E	0356D	S22	E11	01	8.6		03	9	9	E	PALE	5871	
07	DSD	2306E	0815D	S22	E08	01	8.6		02	9	9	E	LEAR	5871	
07	DSD	2312E	0822D	N15	W53	01	3.9		05	9	9	E	LEAR	5864	
07	SDF	2347E	1525D	N23	E48	01	11.7		12	0	0	E	HOLL		
08	BSL	0049	0126	N24	W90	01	1.1	1				C	VORO		
08	APR	0055	0300D	N17	W90	01	1.2	1				C	VORO		
08	AFS	0118E	0356D	S23	E09	01	8.7		02	9	9	E	PALE	5871	
08	APR	0126	0300D	S09	E90	01	14.8	1				C	VORO		
08	APR	0126	0300D	S37	W90	12	31.8	1				C	VORO		
08	ADF	0202	0300D	S30	E27	01	10.2	1				C	VORO		
08	AFS	0308E	0356D	S10	E67	01	13.2		02	9	9	E	PALE	5877	
08	AFS	0822E	1051D	S21	E03	01	8.6		02	9	9	E	LEAR	5871	
08	AFS	1038E	1514D	N27	E10	01	9.2		01	9	9	E	SVTO	5876	

ACTIVE PROMINENCES AND FILAMENTS

JANUARY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
08	AFS	1038E	1514D	S23	E02	01	8.6		03	9	9	E	SVTO	5871	
08	AFS	1155E	2145D	S16	E22	01	10.2		02	9	9	E	RAMY	5874	
08	AFS	1157E	2145D	S24	E00	01	8.5		03	9	9	E	RAMY	5871	
08	DSD	1157E	2145D	S24	W04	01	8.2		04	9	9	E	RAMY	5871	
08	DSD	1202E	1245D	N15	W60	01	3.9		04	9	9	E	RAMY	5864	
08	DSD	1450E	2145D	S24	E16	01	9.8		07	9	9	E	RAMY	5874	Flare Associated
08	ASR	1510	2145D	N10	E87	01	15.2			9	9	E	RAMY		
08	SSB	1529		336	W06	01	5.9			0	0	E	HOLL		367 W37
08	AFS	1532E	0003D	S15	E18	01	10.0		05	9	9	E	HOLL	5874	
08	DSD	1533E	0003D	S24	W06	01	8.2		04	9	9	E	HOLL	5871	
08	DSD	1537E	0003D	N14	W62	01	4.0		06	9	9	E	HOLL	5864	
08	DSD	1713E	0003D	S13	E14	01	9.8		06	9	9	E	HOLL	5874	Flare Associated
08	AFS	1750E	0003D	S23	W02	01	8.6		03	9	9	E	HOLL	5871	
08	AFS	1755E	2338D	N28	E03	01	9.0		02	9	9	E	PALE	5876	
08	AFS	1804E	2338D	S14	E24	01	10.6		02	9	9	E	PALE	5874	
08	AFS	2030E	0003D	S04	W19	01	7.4		01	8	8	E	HOLL		
08	ADF	2200E	0003D	S15	E21	01	10.5	2	08	9	9	E	HOLL	5874	
08	AFS	2256E	1045D	S23	W06	01	8.5		03	9	9	E	LEAR	5871	
09	BSL	0718E	0758D	S08	E90	01	16.0	1				C	ABST		
09	ADF	0905E	1045D	S13	E11	01	10.2	1	04	9	9	E	LEAR	5874	
09	ASR	0911E	1045D	S23	W90	01	2.4			9	9	E	LEAR	5872	
09	ASR	1332E	2135D	N18	W90	01	2.7			9	9	E	RAMY	5862	
09	ADF	1334E	2135D	S13	E15	01	10.7	1	07	9	9	E	RAMY	5874	
09	SDF	1429E	1544D	S27	W26	01	7.6		06	0	0	E	RAMY	5871	
09	AFS	1439E	1442D	S23	W16	01	8.4		02	9	9	E	SVTO	5871	
09	DSD	1439E	1442D	S23	W19	01	8.1		03	9	9	E	SVTO	5871	
09	DSD	1454E	0004D	S23	W19	01	8.1		40	9	9	E	HOLL	5871	Flare Associated
09	DSD	1536E	2124D	S23	W20	01	8.1		13	9	9	E	RAMY	5871	Flare Associated
09	ADF	1625E	1804D	S15	E12	01	10.6	2	05	9	9	E	HOLL	5874	
09	SDF	1655E	1532D	S27	W31	01	7.3	3	06	0	0	E	HOLL	5871	
09	AFS	1800E	0359D	S09	E46	01	13.2		01	9	9	E	PALE	5877	
09	ADF	1804E	2245D	S12	E14	01	10.8	2	06	9	9	E	HOLL	5874	
09	SSB	1809		328	W13	01	7.6			0	0	E	HOLL		376 W61
09	ASR	1901E	0004D	N12	W75	01	4.1			9	9	E	HOLL	5862	
09	AFS	1947E	0004D	S14	E10	01	10.6		02	7	7	E	HOLL	5874	
09	AFS	2150E	0004D	N26	W42	01	6.6		02	7	7	E	HOLL	5873	
09	AFS	2252E	0359D	N23	W44	01	6.6		02	9	9	E	PALE	5873	
09	DSD	2300E	1058D	S21	W25	01	8.0		03	9	9	E	LEAR	5871	
09	AFS	2301E	1058D	N27	W45	01	6.4		03	9	9	E	LEAR	5873	
09	APR	2302E	0004D	N06	W90	01	3.2	1		5	7	E	HOLL		
09	AFS	2311E	0359D	S14	E10	01	10.7		01	9	9	E	PALE	5874	
10	DSD	0340E	0850D	S14	W23	01	8.4		03	9	9	E	LEAR	5870	
10	APR	1100E	1200D	S05	E90	01	17.2					V	ATHN		
10	DSD	1301	1932D	S22	W34	01	7.9		07	9	9	E	RAMY	5871	Flare Associated
10	AFS	1301E	1932D	S13	W29	01	8.3		02	9	9	E	RAMY	5870	
10	ASR	1317E	1932D	N15	W86	01	4.0			9	9	E	RAMY	5864	
10	AFS	1330E	1932D	N27	W51	01	6.6		02	9	9	E	RAMY	5873	
10	DSD	1454E	0004D	S23	W19	01	9.1		40	9	9	E	HOLL	5871	Flare Associated
10	SSB	1545		304	W01	01	10.3			0	0	E	HOLL		330 W27
10	DSD	1558E	2135D	S22	W34	01	8.0	1	03	9	9	E	HOLL	5871	
10	AFS	1602E	2205D	S15	W01	01	10.6		02	5	5	E	HOLL	5874	
10	ASR	1604E	0006D	N15	W90	01	3.8			7	7	E	HOLL	5864	
10	AFS	1635E	0006D	S13	W30	01	8.4		02	9	9	E	HOLL	5870	
10	DSD	1635E	1833D	N25	W56	01	6.3		02	8	8	E	HOLL	5873	
10	ADF	1635E	2136D	S11	W30	01	8.4	1	02	8	8	E	HOLL	5870	
10	DSD	1657E	1932D	N25	W57	01	6.3		03	9	9	E	RAMY	5873	
10	DSD	1657E	1932D	N30	W50	01	6.8		03	9	9	E	RAMY	5873	
10	ASR	1829E	0400D	N16	W90	01	3.9			9	9	E	PALE	5864	
10	ASR	1901E	0004D	N12	W75	01	5.1			9	9	E	HOLL	5862	
10	AFS	1947E	0004D	S14	E10	01	11.6		02	7	7	E	HOLL	5874	
10	AFS	2150E	0004D	N26	W42	01	7.6		02	7	7	E	HOLL	5873	
10	APR	2302E	0004D	N06	W90	01	4.2	1		5	7	E	HOLL		
10	SDF	2337E	2231D	S30	W15	01	9.8		17	0	0	E	PALE		
11	BSL	0018	0048	N11	W90	01	4.2	1				C	VORO		
11	AFS	0020E	1057D	N26	W55	01	6.7		02	9	9	E	LEAR	5873	
11	AFS	0025E	1057D	S13	W34	01	8.4		02	9	9	E	LEAR	5870	
11	APR	0048	0300D	S39	W90	01	3.7	1				C	VORO		

ACTIVE PROMINENCES AND FILAMENTS

JANUARY 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
11	BSL	0244	0300D	N25	E90	01	18.1	1				C	VORO		
11	SSB	1808		329	W41	01	9.4			0	0	E	HOLL		
11	AFS	2112E	0317D	N22	W69	01	6.6		02	9	9	E	PALE	5873	
11	AFS	2112E	0317D	S17	W46	01	8.4		05	9	9	E	PALE	5870	
11	AFS	2206E	0317D	S10	E16	01	13.1		02	9	9	E	PALE	5877	
11	ADF	2206E	0317D	S15	W17	01	10.6		06	9	9	E	PALE	5874	
11	AFS	2213E	0317D	S31	E56	01	16.3		04	9	6	E	PALE	5879	
11	AFS	2350E	1051D	S10	E15	01	13.1		01	9	9	E	LEAR	5877	
11	AFS	2352E	1051D	S13	W48	01	8.4		02	9	9	E	LEAR	5870	
12	ADF	0059	0300D	S08	E40	01	15.0	1				C	VORO		
12	APR	0059	0300D	S10	E90	01	18.8	1				C	VORO		
12	BSL	0550E	0803D	N24	E90	01	19.2	1				C	ABST		
12	AFS	1142E	1934D	N21	E72	01	18.0		02	9	9	E	RAMY	5882	
12	AFS	1148E	1934D	S11	E09	01	13.2		02	9	9	E	RAMY	5877	
12	ADF	1150E	1934D	S15	W27	01	10.4	1	04	9	9	E	RAMY	5874	
12	ASR	1151E	1934D	N22	W87	01	5.8			9	9	E	RAMY	5873	
12	DSD	1151E	1934D	N26	W69	01	7.1		03	9	9	E	RAMY	5873	
12	AFS	1153E	1934D	S24	W52	01	8.5		02	9	9	E	RAMY	5871	
12	AFS	1205E	1934D	S14	W54	01	8.4		03	9	9	E	RAMY	5870	
12	AFS	1208E	1934D	S21	W73	01	6.9		02	9	9	E	RAMY		
12	ADF	1216E	1934D	N31	E63	01	17.5	1	12	9	9	E	RAMY	5884	
12	DSD	1216E	1934D	N32	E67	01	17.8		02	9	9	E	RAMY	5884	
12	ASR	1226E	1934D	S31	E89	01	19.5			9	9	E	RAMY	5881	
12	ADF	1445E	1934D	N33	E72	01	18.3	1	10	9	9	E	RAMY	5884	
12	ADF	1457E	1934D	N23	E53	01	16.7	1	11	9	9	E	RAMY		
12	AFS	1509E	2215D	S34	W35	01	9.8		02	6	6	E	HOLL	5880	
12	DSD	1519E	2215D	S26	E77	01	18.6		03	9	9	E	HOLL	5881	
12	AFS	1525E	2215D	S13	W55	01	8.5		02	8	9	E	HOLL	5870	
12	AFS	1533E	0006D	S14	W41	01	9.5		03	9	9	E	HOLL	5870	
12	DSD	1533E	0006D	S14	W45	01	9.2		03	9	9	E	HOLL	5870	
12	AFS	1535E	0006D	S10	E20	01	14.1		03	9	9	E	HOLL	5877	
12	DSD	1535E	0006D	S10	E21	01	14.2		02	9	9	E	HOLL	5877	
12	AFS	1536E	0006D	S34	E56	01	17.1		03	8	8	E	HOLL	5879	
12	ASR	1537E	0006D	S20	E90	01	19.5			9	9	E	HOLL		
12	AFS	2035E	0006D	S34	W26	01	10.8		02	4	7	E	HOLL		
12	DSD	2118E	2215D	N20	E63	01	17.7		09	9	9	E	HOLL	5882	Flare Associated
12	ADF	2229E	0006D	N24	E71	01	18.4	1	20	9	9	E	HOLL		
12	AFS	2307E	1100D	S11	E03	01	13.2		02	9	9	E	LEAR	5877	
12	AFS	2318E	1100D	S08	W20	01	11.5		02	9	9	E	LEAR		
13	ADF	0028	0300D	S08	E27	01	15.0	1				C	VORO		
13	ADF	0028	0300D	S42	E46	01	16.8	1				C	VORO		
13	BSL	0118	0149	N25	W90	01	6.1	1				C	VORO		
13	APR	0130	0300D	S17	E90	01	19.9	1				C	VORO		
13	ADF	0239E	0351D	S16	W36	01	10.4		03	9	9	E	PALE	5874	
13	ADF	0239E	0351D	S18	W57	01	8.8		05	9	8	E	PALE	5870	
13	DSD	0239E	0351D	S28	W66	01	7.9		05	9	9	E	PALE	5871	
13	ASR	0756E	1100D	N23	W90	01	6.4			9	9	E	LEAR	5873	
13	ASR	1135E	1906D	N25	W85	01	6.9			9	9	E	RAMY	5873	
13	AFS	1135E	1906D	S12	W04	01	13.2		02	8	6	E	RAMY	5877	
13	ADF	1135E	1906D	S22	E38	01	16.4	1	06	9	9	E	RAMY	5879	
13	ASR	1816E	1925D	N26	W89	01	6.8			9	9	E	PALE	5873	
13	AFS	2240E	0005D	N20	E54	01	18.1		02	9	9	E	HOLL	5882	
14	AFS	0220E	1056D	N23	E52	01	18.1		03	9	9	E	LEAR	5882	
14	AFS	1132E	2131D	N19	E48	01	18.1		03	9	9	E	RAMY	5882	
14	AFS	1139E	1830D	S21	E52	01	18.5		02	9	9	E	RAMY	5883	
14	ADF	1142E	2131D	N21	E56	01	18.8	1	07	9	9	E	RAMY	5882	
14	AFS	1155E	1830D	N39	E32	01	17.1		02	9	9	E	RAMY	5886	
14	AFS	1158E	1830D	S07	W40	01	11.5		02	9	9	E	RAMY	5885	
14	ASR	1200E	1830D	S13	W88	01	7.9			8	7	E	RAMY	5870	
14	ADF	1259E	1329D	N20	E48	01	18.2	1	10	9	9	E	SVTO	5882	
14	ASR	1539E	0009D	N25	E90	01	21.6			8	8	E	HOLL		
14	SDF	1622E	1642D	S70	E01	01	14.8	3	21	0	0	E	HOLL		
14	SSB	1720		265	W15	01	19.6			0	0	E	HOLL		278 W28
14	AFS	1900E	0009D	N34	E35	01	17.6		03	9	9	E	HOLL	5884	
14	ADF	1912E	2002D	N19	E34	01	17.4	1	07	9	9	E	HOLL		
14	AFS	2124E	0009D	N21	E42	01	18.1		02	8	8	E	HOLL	5882	

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
15	APR	0055	0300D	S28	E90	01	22.1	1				C	VORO		
15	ADF	0055	0300D	S40	E90	01	22.4	1				C	VORO		
15	APR	0102	0300D	N34	E90	01	22.2	1				C	VORO		
15	BSL	0120	0144	S15	W90	01	8.2	1				C	VORO		
15	APR	0120	0300D	N29	E90	01	22.1	1				C	VORO		
15	BSL	0134	0155	S08	E90	01	21.8	1				C	VORO		
15	BSL	0144	0203	N27	E90	01	22.1	1				C	VORO		
15	DSD	0327E	0840D	N33	E34	01	17.8		02	9	9	E	LEAR	5884	
15	AFS	0328E	0840D	N40	E25	01	17.2		03	9	9	E	LEAR	5886	
15	ASR	0329E	0840D	N25	E90	01	22.1			9	9	E	LEAR		
15	DSD	0510E	0840D	N11	E04	01	15.5		03	9	9	E	LEAR	5878	
15	EPL	0947	1056D	S23	W90	01	8.5	2B				V	KODA		
15	AFS	1330E	2155D	N10	E01	01	15.6		04	9	9	E	RAMY	5878	
15	AFS	1330E	2155D	N22	E34	01	18.2		02	9	9	E	RAMY	5882	
15	AFS	1330E	2155D	N32	E27	01	17.7		03	9	9	E	RAMY	5884	
15	ASR	1330E	2155D	N70	E58	01	20.8			9	9	E	RAMY		
15	ASR	1330E	2155D	S10	E90	01	22.3			9	9	E	RAMY		
15	ADF	1330E	2155D	S14	W64	01	10.7	1	04	9	9	E	RAMY	5874	
15	AFS	1353E	2155D	N39	E19	01	17.1		02	9	9	E	RAMY	5886	
15	AFS	1353E	2155D	N39	E19	01	17.1		02	9	9	E	RAMY	5886	
15	AFS	1420E	1448D	N21	E31	01	18.0		03	9	9	E	SVTO	5882	
15	AFS	1420E	1448D	N42	E19	01	17.1		02	9	9	E	SVTO	5886	
15	SDF	1423E	1945D	S23	W76	01	9.7		15	0	0	E	RAMY		
15	SSB	1846		252	W16	01	19.7			0	0	E	HOLL		
15	DSD	1941E	0007D	N31	E24	01	17.7		03	9	8	E	HOLL	5884	
15	AFS	1941E	2327D	N39	E16	01	17.1		03	8	7	E	HOLL	5886	
15	AFS	2018E	0007D	N22	E30	01	18.1		03	9	9	E	HOLL	5882	
15	ASR	2326E	0007D	S12	E90	01	22.7			8	7	E	HOLL	5889	
15	DSD	2330E	0007D	S14	W73	01	10.5		04	9	9	E	HOLL	5874	
15	ASR	2350E	2353D	S13	W90	01	9.2			9	9	E	LEAR	5874	
15	ASR	2354E	0007D	S13	W90	01	9.2			9	9	E	HOLL	5870	
16	ADF	0016	0143D	S48	E30	01	18.5	1				C	VORO		
16	APR	0055	0143D	S22	E90	01	22.9	1				C	VORO		
16	ADF	0056	0143D	S03	W15	01	14.9	1				C	VORO		
16	ASR	0406E	0650D	S11	E90	01	22.9			9	9	E	LEAR	5889	
16	DSD	0642E	0650D	N15	E22	01	17.9		08	9	9	E	LEAR	5882	
16	BSL	0805	0822	S21	E90	01	23.2			9	9	E	SVTO		
16	ASR	0822	1346D	S21	E90	01	23.2			9	9	E	SVTO		
16	ASR	0850E	1455D	S09	E90	01	23.1			9	9	E	SVTO	5889	
16	ADF	0855E	1455D	N04	E10	01	17.1	3	32	5	7	E	SVTO		
16	AFS	1045E	1346D	N10	W11	01	15.6		02	8	9	E	SVTO	5878	
16	DSD	1052E	1159D	N20	E24	01	18.3		05	9	9	E	SVTO	5882	
16	DSD	1052E	1159D	N21	E19	01	17.9		05	9	9	E	SVTO	5882	
16	AFS	1210E	2108D	N31	E13	01	17.5		02	9	9	E	RAMY	5884	
16	AFS	1220E	2108D	N20	E22	01	18.2		03	9	9	E	RAMY	5882	
16	ADF	1230E	2108D	N19	E28	01	18.6	1	04	9	9	E	RAMY	5882	
16	SSB	1431		220	W00	01	18.1			0	0	E	RAMY		
16	ASR	1509	1531	S14	W81	01	10.5			9	9	E	RAMY	5874	Flare Associated
17	ASR	0100E	1041D	S29	E90	01	24.1			9	9	E	LEAR		
17	APR	0100E	0202D	N33	E90	01	24.2	1				C	VORO		
17	ADF	0100E	0202D	S04	W30	01	14.8	1				C	VORO		
17	ASR	0105E	1041D	S12	W90	01	10.3			9	9	E	LEAR	5874	
17	SSB	0520		225	W09	01	19.1			0	0	E	LEAR		
17	BSD	0720E	0738D	S11	E79	01	23.2		07	9	9	E	SVTO		Flare Associated
17	BSD	0725	0829D	S12	E78	01	23.2		05	9	9	E	LEAR		
17	BSD	0857E	1532D	S11	E75	01	23.0		06	9	9	E	SVTO		Flare Associated
17	AFS	0936E	1041D	N14	E09	01	18.1		02	9	9	E	LEAR		
17	AFS	1132E	2148D	S13	E71	01	22.8		02	9	9	E	RAMY	5890	
17	DSD	1139E	1553D	N29	W01	01	17.4		02	9	9	E	RAMY	5884	
17	DSD	1158E	1910D	S14	E75	01	23.2		04	9	9	E	RAMY	5890	Flare Associated
17	AFS	1222E	2148D	S09	E58	01	21.9		03	9	9	E	RAMY	5889	
17	AFS	1224E	2148D	N21	E08	01	18.1		04	9	9	E	RAMY	5882	
17	AFS	1227E	1554D	N11	W26	01	15.6		02	9	8	E	RAMY	5878	
17	AFS	1228E	1918D	N33	E01	01	17.6		03	9	9	E	RAMY	5884	
17	ASR	1229E	1909D	S15	W90	01	10.7			9	9	E	RAMY	5874	
17	ADF	1231E	2148D	S11	W52	01	13.6	1	09	9	9	E	RAMY	5877	
17	SSB	1236		221	W09	01	19.1			0	0	E	RAMY		

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
17	ASR	1318E	1532D	S15	W90	01	10.7			9	9	E	SVTO	5874	
17	ASR	1513E	2122D	S16	W90	01	10.8			9	9	E	HOLL	5874	
17	ASR	1715E	1911D	N21	E88	01	24.5			9	9	E	RAMY	5893	
17	AFS	1741E	2122D	N22	E04	01	18.0		04	9	9	E	HOLL	5882	
17	DSD	1742E	2122D	N32	W09	01	17.0		05	9	9	E	HOLL	5884	
17	AFS	1742E	2122D	N34	W02	01	17.6		03	6	6	E	HOLL	5884	
17	APR	1744E	1814D	N23	E90	01	24.7	1		9	9	E	HOLL		
17	AFS	1745E	2122D	S29	E12	01	18.7		03	9	9	E	HOLL		
17	SSB	1747		222	W10	01	19.4			0	0	E	HOLL		
17	BSL	1809E	1814	N22	E90	01	24.7			9	9	E	HOLL	5893	
17	DSD	1912E	2018D	N32	W08	01	17.2		03	9	9	E	RAMY	5884	
17	ASR	1926E	2118D	S08	E90	01	24.5			9	9	E	PALE		
17	DSD	2034E	2122D	S21	E04	01	18.2		02	9	9	E	HOLL	5883	
18	ASR	0108E	1045D	S12	E90	01	24.8			9	9	E	LEAR		
18	AFS	1519E	2020D	S29	E01	01	18.7		03	9	8	E	HOLL	5894	
18	DSD	1524E	2020D	S13	E56	01	22.9		03	9	9	E	HOLL	5890	
18	AFS	1525E	2020D	N31	W10	01	17.8		04	6	9	E	HOLL	5884	
18	ASR	1726E	2020D	S11	E90	01	25.5			9	9	E	HOLL		
18	ASR	1726E	2020D	S21	E90	01	25.6			9	9	E	HOLL		
18	ASR	1902E	1935D	S13	E90	01	25.6			9	9	E	PALE		
18	DSD	2013E	2029D	N19	W15	01	17.7		02	9	9	E	RAMY	5882	
18	AFS	2013E	2029D	N22	W08	01	18.2		03	9	9	E	RAMY	5882	
18	AFS	2015E	2029D	S15	E57	01	23.1		02	9	9	E	RAMY	5890	
18	ASR	2017E	2029D	S13	E90	01	25.6			9	9	E	RAMY		
18	AFS	2027E	2029D	S31	E76	01	24.8		02	9	9	E	RAMY	5892	
18	SSB	2029		219	W24	01	20.3			0	0	E	RAMY		
18	ASR	2312E	1050D	S10	E90	01	25.7			9	9	E	LEAR		
19	ADF	0118E	0145D	N01	W39	01	16.1	1				C	VORO		
19	APR	0118E	0145D	S40	E90	01	26.4	1				C	VORO		
19	BSL	0536E	0803D	S11	E90	01	26.0	1				C	ABST		
19	AFS	0640E	1050D	N21	W24	01	17.4		03	9	9	E	LEAR	5882	
19	ASR	0724E	1050D	N24	E90	01	26.3			9	9	E	LEAR		
19	ASR	0836E	1526D	N24	E90	01	26.3			9	9	E	SVTO		
19	ASR	0836E	1526D	S09	E90	01	26.1			9	9	E	SVTO		
19	ADF	0840E	1050D	N23	W14	01	18.3	2	08	8	9	E	LEAR	5882	
19	DSD	1250E	1903D	S10	E82	01	25.7		08	9	9	E	RAMY		
19	DSD	1319E	1908D	N33	W32	01	17.0		03	9	9	E	RAMY	5887	
19	ASR	1410E	1906D	N23	W82	01	13.3			9	9	E	RAMY		
20	APR	0045	0300D	S35	E90	01	27.2	1				C	VORO		
20	APR	0104	0300D	S12	E90	01	26.8	1				C	VORO		
20	ADF	0114	0300D	N02	W50	01	16.3	1				C	VORO		
20	APR	0145	0300D	S15	W90	01	13.2	1				C	VORO		
20	AFS	0600E	1025D	S30	W20	01	18.7		03	9	9	E	LEAR	5894	
20	ASR	1355E	1431D	S10	E90	01	27.3			9	9	E	SVTO		
20	ASR	1410E	1543D	N14	E90	01	27.4			9	9	E	SVTO		
20	SSB	1455		185	W13	01	27.0			0	0	E	HOLL		204 W32 225 W53
20	ADF	1512E	2128D	S22	W29	01	18.4	1	21	9	9	E	HOLL	5883	
20	AFS	1515E	2156D	N08	E01	01	20.7		03	9	9	E	RAMY		
20	ASR	1534E	1609D	S17	E90	01	27.5			9	9	E	HOLL		
20	ASR	1534E	2337D	S09	E90	01	27.4			9	9	E	HOLL	5900	
20	DSD	1545E	2337D	N20	W38	01	17.7		05	9	9	E	HOLL	5882	
20	AFS	1605E	2337D	N22	E39	01	23.7		03	9	8	E	HOLL	5893	
20	DSD	1615E	2337D	S08	E64	01	25.5		02	9	9	E	HOLL	5897	
20	ADF	1717E	2156D	S09	E60	01	25.2	1	12	9	9	E	RAMY	5897	
20	AFS	1717E	2156D	S41	E46	01	24.5		02	9	9	E	RAMY	5897	
20	SDF	1741E	1520D	S20	W36	01	18.0	3	04	0	0	E	HOLL		
20	SDF	1741E	1524D	N33	E05	01	21.1	3	14	0	0	E	HOLL		
20	SDF	1741E	1526D	N46	E23	01	22.6	3	02	0	0	E	HOLL		
20	SDF	1810E	1924D	N30	W07	01	20.2	3	28	0	0	E	RAMY		
20	ADF	1824E	2156D	S23	E42	01	24.0	1	12	9	9	E	RAMY	5892	
20	AFS	1824E	2156D	S31	E50	01	24.7		03	9	9	E	RAMY	5892	
20	DSD	1904E	2156D	N32	W48	01	17.0		04	9	9	E	RAMY	5884	
20	ASR	1922E	2337D	S15	E90	01	27.6			9	9	E	HOLL		
20	AFS	1924E	2337D	N08	E01	01	20.9		01	5	5	E	HOLL		
20	AFS	1950E	2156D	N22	E36	01	23.6		03	9	9	E	RAMY	5893	
20	AFS	1952E	2156D	N08	E00	01	20.8		02	9	9	E	RAMY	5899	
20	DSD	2120E	2156D	N23	W40	01	17.8		04	9	9	E	RAMY	5892	Flare Associated

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
20	DSD	2127E	2337D	S32	E48	01	24.7		02	9	9	E	HOLL	5892	
21	BSL	0101	0136	S08	E90	01	27.8	1				C	VORO		
21	APR	0130	0250D	S04	E90	01	27.8	1				C	VORO		
21	BSL	0132	0151	S12	E90	01	27.8	1				C	VORO		
21	APR	0132	0250E	S47	E90	01	28.6	1				C	VORO		
21	ASR	0202E	1102D	S10	E90	01	27.8			9	9	E	LEAR	5900	
21	SDF	0218E	0002D	N32	E20	01	22.7	3	18	0	0	E	LEAR		
21	SDF	0218E	0002D	N33	E01	01	21.2	3	18	0	0	E	LEAR		
21	AFS	0227E	1102D	N21	E32	01	23.5		02	9	9	E	LEAR	5893	
21	BSL	0246E	0250D	S08	E90	01	27.9	1				C	VORO		
21	ASR	0808E	1153D	S08	E90	01	28.1			9	9	E	SVTO	5900	
21	AFS	0808E	1308D	N23	E30	01	23.6		02	9	9	E	SVTO	5893	
21	SSB	1225		224	W64	01	23.6			0	0	E	RAMY		
21	AFS	1319E	1847D	N21	E28	01	23.7		03	9	9	E	RAMY	5893	
21	ADF	1322E	1847D	N36	W39	01	18.4	1	14	8	8	E	RAMY	5886	
21	ASR	1413E	1516D	S05	E90	01	28.3			9	9	E	SVTO	5900	
21	SDF	1430E	1430D	N32	W16	01	20.3	3	22	0	0	E	RAMY		
21	ADF	1540E	1542D	N20	W53	01	17.6	1	06	9	9	E	HOLL	5882	
21	ADF	1550E	0015D	S21	W33	01	19.1	1	06	7	7	E	HOLL		
21	ADF	1554E	0015D	S08	E73	01	27.1	1	09	9	9	E	HOLL	5890	
21	DSD	1759E	0015D	S09	E72	01	27.1		02	9	9	E	HOLL	5900	
21	AFS	1807E	0015D	N32	E55	01	26.1		02	8	8	E	HOLL	5898	
21	AFS	1813E	0015D	N21	W48	01	18.1		02	8	9	E	HOLL	5882	
21	ADF	1818E	1937D	S60	W80	01	14.7	1	08	9	9	E	HOLL		
21	AFS	1821E	0015D	S11	E18	01	23.1		01	8	7	E	HOLL	5890	
21	SSB	1826		172	W15	01	27.2			0	0	E	HOLL		224 W67
21	AFS	2046E	0015D	N33	W54	01	17.6		04	9	9	E	HOLL	5884	
22	ADF	0017E	0300D	S48	W39	01	18.7	1				C	VORO		
22	ASR	0020	0040D	S09	E73	01	27.5			9	9	E	LEAR	5900	Flare Associated
22	DSD	0028	0047	S09	E78	01	27.9	1				C	VORO		
22	APR	0047	0300D	S03	W90	01	15.3	1				C	VORO		
22	ADF	0109	0300D	S30	W13	01	21.0	1				C	VORO		
22	ADF	0150E	1100D	S10	E06	01	22.5	2	07	9	9	E	LEAR	5890	
22	ADF	0810E	1440D	S07	E63	01	27.0	1	13	9	9	E	SVTO	5900	
22	ADF	0810E	1440D	S09	E43	01	25.6	1	07	8	9	E	SVTO	5897	
22	AFS	0810E	1440D	S25	E23	01	24.1		02	9	9	E	SVTO	5892	
22	ADF	0810E	1440D	S26	E32	01	24.8	1	08	9	9	E	SVTO	5892	
22	AFS	0810E	1440D	S27	E32	01	24.8		03	9	9	E	SVTO	5892	
22	AFS	0810E	1440D	S29	W42	01	19.0		03	9	9	E	SVTO	5894	
22	AFS	0825E	1440D	N08	W19	01	20.9		02	9	9	E	SVTO	5899	
22	AFS	0850E	1440D	N32	W62	01	17.4		02	6	8	E	SVTO	5884	
22	DSD	1229E	1633D	S13	E76	01	28.2		03	9	9	E	RAMY		
22	AFS	1230E	2031D	S08	E64	01	27.3		04	9	9	E	RAMY	5900	
22	ADF	1232E	2031D	S11	E41	01	25.6	1	07	9	9	E	RAMY	5897	
22	ADF	1237E	1633D	S13	E06	01	23.0	1	06	8	8	E	RAMY	5890	
22	SSB	1303		147	W01	01	26.0			0	0	E	RAMY		225 W78
22	AFS	1630E	1937D	S12	W03	01	22.5		02	9	9	E	RAMY	5890	
22	ADF	1816E	1935D	S27	E26	01	24.8	2	12	9	9	E	HOLL	5892	
22	AFS	1817E	1935D	N08	W25	01	20.9		04	8	6	E	HOLL	5899	
22	SSB	1818		173	W29	01	28.5			0	0	E	HOLL		227 W83
22	AFS	1913E	1915D	S25	E15	01	24.0		01	9	9	E	HOLL	5892	
22	AFS	1913E	1935D	S25	E15	01	24.0		01	9	9	E	HOLL	5892	
22	AFS	1918E	1935D	N21	E11	01	23.6		02	9	9	E	HOLL	5893	
22	SDF	2019E	1718D	S50	W60	01	17.8		48	0	0	E	HOLL		
22	AFS	2334E	0809D	N07	W29	01	20.8		03	9	9	E	LEAR	5899	
23	ADF	0026	0300D	S48	W49	01	18.9	1				C	VORO		
23	APR	0031	0300D	S02	W90	01	16.3	1				C	VORO		
23	APR	0121	0300D	N19	E90	01	29.9	1				C	VORO		
23	BSL	0156	0218	N33	W90	01	15.9	1				C	VORO		
23	AFS	0731E	1452D	N08	W33	01	20.8		03	9	9	E	SVTO	5899	
23	ADF	0738E	1452D	S26	E12	01	24.2	1	07	9	9	E	SVTO	5892	
23	ADF	0753E	1452D	S06	E50	01	27.1	1	14	9	9	E	SVTO	5900	
23	ADF	1155E	2145D	S08	E47	01	27.0	1	07	9	9	E	RAMY	5900	
23	DSD	1156E	1428D	N08	W40	01	20.5		04	8	7	E	RAMY	5899	
23	ADF	1217E	1452D	S24	E23	01	25.3	1	23	9	9	E	SVTO	5892	
23	DSD	1250	1730D	S13	E55	01	27.7		04	9	9	E	RAMY	5900	Flare Associated
23	ADF	1327E	1452D	S11	W08	01	22.9	1	18	9	9	E	SVTO	5890	

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
23	AFS	1327E	1452D	S12	W11	01	22.7		02	9	9	E	SVTO	5890	
23	AFS	1352E	1452D	S15	W52	01	19.6		01	8	8	E	SVTO		
23	SDF	1430E	1502D	S41	W48	01	19.7		34	0	0	E	RAMY		
23	DSD	1657	1835D	S11	W14	01	22.6		06	9	9	E	RAMY	5890	Flare Associated
23	AFS	1846E	2029D	S16	E04	01	24.1		03	9	8	E	HOLL		
23	AFS	1854E	2029D	S16	W54	01	19.7		02	8	8	E	HOLL		
23	AFS	1901E	2029D	N22	W01	01	23.7		03	9	9	E	HOLL	5893	
23	ASR	1903E	2029D	N18	W90	01	16.9			9	9	E	HOLL	5882	
24	ADF	0812E	1536D	N17	W08	01	23.7	1	05	7	9	E	SVTO	5893	
24	ASR	0812E	1536D	N19	W90	01	17.5			9	9	E	SVTO	5882	
24	ADF	0812E	1536D	N25	W06	01	23.9	1	13	9	9	E	SVTO	5893	
24	ADF	0812E	1536D	S06	E36	01	27.0	1	15	9	9	E	SVTO	5900	
24	ADF	0812E	1536D	S28	E06	01	24.8	1	10	9	9	E	SVTO	5892	
24	APR	0915E	1200D	S35	W90	01	17.2					V	ATHN		
24	ADF	0920E	1200D	N32	E50	01	28.3					V	ATHN		
24	ASR	1141E	1225D	N21	W88	01	17.7			9	9	E	RAMY	5882	
24	ADF	1141E	2125D	S07	E34	01	27.0	1	11	9	9	E	RAMY	5900	
24	AFS	1240E	2125D	N14	E36	01	27.2		02	9	9	E	RAMY		
24	ASR	1504E	0014D	N21	W90	01	17.7			9	9	E	HOLL	5882	
24	AFS	1519E	0014D	S11	W25	01	22.7		04	9	9	E	HOLL	5890	
24	ASR	1555E	2125D	S21	E90	01	31.6			9	9	E	RAMY		
24	ASR	1559E	1634D	S30	W90	01	17.6			8	8	E	RAMY	5879	
24	DSD	1632	1835D	S11	W34	01	22.1		03	9	9	E	RAMY	5889	Flare Associated
24	AFS	1758E	2125D	S15	E66	01	29.7		01	9	9	E	RAMY		
24	AFS	1910E	2125D	N14	E22	01	26.5		02	9	9	E	RAMY		
24	ASR	1925E	2125D	S90	W27	01	22.3			9	9	E	RAMY	5881	
24	AFS	1940E	0014D	N14	E22	01	26.5		01	9	9	E	HOLL	5907	
24	SDF	1941E	1443D	S18	E50	01	28.6		06	0	0	E	HOLL		
24	ASR	2240E	0014D	S26	W90	01	17.9			9	9	E	HOLL	5894	
25	AFS	0048E	0947D	N14	E19	01	26.5		03	9	9	E	LEAR	5907	
25	ASR	0048E	0947D	N23	W90	01	18.1			9	9	E	LEAR	5882	
25	ASR	1005E	1210D	N34	W86	01	18.6			9	9	E	SVTO	5884	
25	AFS	1132E	1805D	S27	W17	01	24.1		03	9	9	E	RAMY	5892	
25	AFS	1139E	1805D	S11	E28	01	27.6		02	9	9	E	RAMY	5900	
25	APR	1200E	1235D	S37	W90	01	18.2					V	ATHN		
25	AFS	1210E	1528D	S26	W11	01	24.6		03	9	9	E	SVTO	5892	
25	DSD	1320	1430D	N13	E13	01	26.5		05	9	9	E	SVTO	5907	Flare Associated
25	AFS	1417E	1805D	N22	E41	01	28.7		03	9	9	E	RAMY	5909	
25	AFS	1419E	1805D	S16	E54	01	29.7		02	9	9	E	RAMY	5908	
25	AFS	1422E	1805D	S12	W38	01	22.7		02	9	9	E	RAMY	5890	
25	SSB	1433		154	W48	01	30.1			0	0	E	RAMY		
25	AFS	1437E	1805D	S13	E22	01	27.3		02	9	9	E	RAMY	5900	
25	AFS	1636E	0018D	N24	E40	01	28.8		01	7	7	E	HOLL		
25	DSD	1636E	0018D	N24	E40	01	28.8		02	9	9	E	HOLL		
25	AFS	1638E	0018D	S16	E52	01	29.6		02	8	7	E	HOLL	5908	
25	AFS	1639E	0018D	N13	E10	01	26.4		01	7	7	E	HOLL	5907	
25	ADF	1640E	0018D	N19	E58	01	30.1	1	12	9	9	E	HOLL		
25	DSD	2141E	2235D	N12	E52	01	29.8		03	9	9	E	HOLL	5904	Flare Associated
26	ASR	0756E	1331D	S16	W92	01	19.3			9	9	E	SVTO	5902	
26	AFS	0832E	1331D	N14	E02	01	26.5		02	7	8	E	SVTO	5907	
26	ADF	0832E	1331D	N18	E24	01	28.2	1	22	9	9	E	SVTO	5906	
26	AFS	0832E	1331D	N24	E31	01	28.7		02	5	9	E	SVTO	5909	
26	AFS	0832E	1331D	S27	W22	01	24.6		03	8	9	E	SVTO	5892	
26	AFS	1312E	2040D	S12	W52	01	22.6		02	9	9	E	RAMY	5890	
26	AFS	1315E	2040D	N13	W02	01	26.4		02	9	9	E	RAMY	5907	
26	AFS	1531E	0019D	N22	E25	01	28.6		03	9	9	E	HOLL	5909	
26	AFS	1735E	0019D	N13	W40	01	23.7		01	9	9	E	HOLL	5910	
27	AFS	0823E	1543D	N13	W13	01	26.4		02	7	9	E	SVTO	5907	
27	ADF	0823E	1543D	N19	E14	01	28.4	1	27	7	9	E	SVTO	5906	
27	AFS	0823E	1543D	S23	E17	01	28.6		03	8	9	E	SVTO	5909	
27	APR	0838E	0907D	N24	E90	02	3.3	1		9	9	E	SVTO		
27	APR	0900E	1200D	S35	W90	01	20.2					V	ATHN		
27	APR	0915E	1215D	S45	W90	01	19.9					V	ATHN		
27	AFS	1209E	1716D	S14	W48	01	23.9		02	9	9	E	RAMY	5910	
27	AFS	1210E	1716D	N23	E16	01	28.7		03	9	9	E	RAMY	5909	
27	AFS	1211E	1716D	S17	E25	01	29.4		02	7	7	E	RAMY	5908	

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
27	DSD	1212E	1716D	N11	E36	01	30.2		04	9	9	E	RAMY	5904	
27	AFS	1212E	1716D	N13	W15	01	26.4		02	9	9	E	RAMY	5907	
27	AFS	1805E	0020D	S16	E26	01	29.7		01	8	8	E	HOLL	5908	
27	ADF	1806E	0020D	N24	E80	02	2.9	1	03	8	7	E	HOLL	5914	
27	DSD	1806E	0020D	N24	E80	02	2.9		02	9	9	E	HOLL	5914	
27	AFS	1813E	0020D	N14	W16	01	26.5		02	8	8	E	HOLL	5907	
27	DSD	1815E	0020D	S11	E00	01	27.8		02	9	9	E	HOLL	5900	
27	AFS	1815E	0020D	S11	E02	01	27.9		01	8	8	E	HOLL	5900	
27	AFS	1818E	0020D	N16	E41	01	30.9		01	8	8	E	HOLL	5913	
27	AFS	2249E	0020D	N23	E10	01	28.7		04	9	9	E	HOLL	5909	
27	ADF	2251E	0020D	S28	W44	01	24.5	2	08	9	9	E	HOLL	5892	
28	APR	0032	0300D	S39	W90	01	20.7	1				C	VORO		
28	APR	0056	0300D	S55	W90	01	20.3	1				C	VORO		
28	BSL	0601E	0747D	S42	W90	01	20.9	1				C	ABST		
28	APR	0630E	0945D	S36	W90	01	21.0					V	ATHN		
28	AFS	0740E	1251D	N07	E12	01	29.2		01	6	8	E	SVTO		
28	AFS	0740E	1251D	N22	E05	01	28.7		04	9	9	E	SVTO	5909	
28	AFS	0740E	1251D	S12	W03	01	28.1		02	9	9	E	SVTO	5900	
28	ADF	0914E	1251D	N10	W23	01	26.6	1	10	7	9	E	SVTO	5907	
28	AFS	0914E	1251D	N12	W29	01	26.2		03	9	9	E	SVTO	5907	
28	AFS	0950E	1251D	S16	E12	01	29.3		02	6	6	E	SVTO	5908	
28	AFS	1136E	1251D	N13	E30	01	30.7		02	9	9	E	SVTO	5913	
28	AFS	1453E	1942D	S11	W07	01	28.1		03	9	9	E	RAMY	5900	
28	AFS	1503E	1942D	N13	E30	01	30.9		02	8	8	E	RAMY	5913	
28	AFS	1505E	1942D	N22	W02	01	28.5		03	9	9	E	RAMY	5909	
28	DSD	1505E	1942D	N24	W07	01	28.1		04	8	8	E	RAMY	5909	
28	AFS	1515E	1942D	N13	E01	01	28.7		02	9	9	E	RAMY		
28	AFS	1517E	1942D	N13	W31	01	26.3		03	9	9	E	RAMY	5907	
28	ADF	1530E	1942D	S29	W55	01	24.3	1	06	9	9	E	RAMY	5892	
28	ADF	1537E	0020D	S29	W52	01	24.6	1	07	9	9	E	HOLL	5892	
28	ADF	1540E	0020D	S06	W25	01	26.8	1	14	7	9	E	HOLL	5900	
28	AFS	1540E	0020D	S11	W08	01	28.0		02	8	9	E	HOLL	5900	
28	SSB	2135		431	W08	01	26.6			0	0	E	HOLL		105 W42
29	AFS	0507E	1016D	S11	W22	01	27.5		03	9	9	E	LEAR	5900	
29	AFS	0510E	1016D	N24	W06	01	28.7		03	9	9	E	LEAR	5909	
29	ASR	0628E	1016D	S11	W90	01	22.5			9	9	E	LEAR	5890	
29	AFS	1138E	2148D	N22	W06	01	29.0		03	9	9	E	RAMY	5909	
29	ASR	1139E	2148D	S12	W90	01	22.7			9	9	E	RAMY	5890	
29	ADF	1150E	2148D	N26	E50	02	2.4	1	05	9	9	E	RAMY	5914	
29	DSD	1157E	1850D	N08	E08	01	30.1		02	9	9	E	RAMY	5904	
29	SSB	1215		106	W52	01	30.0			0	0	E	RAMY		
29	DSD	1500E	2326D	S13	W19	01	28.2		04	9	9	E	HOLL	5900	
29	AFS	1518E	0023D	N08	W04	01	29.3		02	7	7	E	HOLL	5915	
29	AFS	1521E	0023D	N29	E31	02	1.1		04	9	9	E	HOLL	5911	
29	DSD	1528E	1827D	N11	W44	01	26.3		02	9	9	E	HOLL	5907	
29	DSD	1552E	2330D	N09	E05	01	30.0		02	9	9	E	HOLL	5904	
29	ADF	1805E	0352D	N10	E02	01	29.9		02	9	8	E	PALE	5904	
29	ADF	1805E	0352D	N14	W44	01	26.4		05	7	8	E	PALE	5907	
29	AFS	1805E	0352D	N22	W13	01	28.7		06	9	9	E	PALE	5909	
29	DSD	1805E	0352D	N25	E46	02	2.3		05	9	9	E	PALE	5914	
29	AFS	1805E	0352D	N30	E27	01	31.9		06	9	9	E	PALE	5911	
29	AFS	1805E	0352D	S12	W23	01	28.0		02	9	9	E	PALE	5900	
29	SSB	1920		421	W10	01	28.2			0	0	E	HOLL		433 W22 453 W42
29	APR	1934E	2019	S16	E75	02	4.5	2		9	9	E	RAMY	5918	
29	ASR	1942E	2020D	S12	E90	02	5.6	1		9	9	E	HOLL	5918	
29	EPL	2019E	2042D	S14	E90	02	5.6	3		9	9	E	RAMY	5918	
29	EPL	2020E	2039D	S12	E90	02	5.6			8	8	E	HOLL	5918	
29	APR	2025E	0126D	S15	E90	02	5.7	1		9	7	E	PALE	5918	
30	AFS	0313E	1044D	N25	W18	01	28.7		06	9	9	E	LEAR	5909	
30	AFS	0320E	1044D	N28	E23	01	31.9		07	9	9	E	LEAR	5911	
30	ASR	0657E	1044D	N13	W90	01	23.5			9	9	E	LEAR	5910	
30	AFS	0820E	1044D	S12	W22	01	28.7		02	9	9	E	LEAR	5917	
30	AFS	1205E	2155D	N08	E57	02	3.8		02	9	9	E	RAMY	5919	
30	AFS	1206E	2155D	N24	E41	02	2.7		04	9	9	E	RAMY	5914	
30	AFS	1210E	2155D	N14	W01	01	30.4		02	9	9	E	RAMY	5913	
30	ADF	1210E	2155D	N20	E17	01	31.8	1	10	9	9	E	RAMY	5913	
30	AFS	1217E	1841D	N07	W17	01	29.2		02	9	9	E	RAMY	5915	

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	CMP Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
30	AFS	1220E	2155D	N40	W51	01	26.3		03	9	9	E	RAMY	5916	
30	AFS	1221E	2155D	N24	W24	01	28.7		02	9	9	E	RAMY	5909	
30	ASR	1225E	1343D	N13	W90	01	23.7			9	9	E	RAMY	5910	
30	AFS	1227E	2155D	S11	W40	01	27.5		02	8	7	E	RAMY	5900	
30	DSD	1229E	1343D	S14	W32	01	28.1		03	9	9	E	RAMY	5900	
30	DSD	1243E	1343D	S28	W77	01	24.5		08	9	9	E	RAMY	5892	
30	AFS	1247E	2155D	S13	W24	01	28.7		02	9	9	E	RAMY	5917	
30	DSD	1248E	1740D	S16	W12	01	29.6		03	9	9	E	RAMY	5908	
30	ASR	1301E	1740D	S11	W90	01	23.8			9	9	E	RAMY	5895	
30	DSD	1303E	1343D	N23	E36	02	2.3		03	9	9	E	RAMY	5914	Flare Associated
30	ASR	1438E	1807D	S13	W90	01	23.8			9	9	E	HOLL	5903	
30	AFS	1445E	0023D	N28	E17	01	31.9		04	8	9	E	HOLL	5911	
30	AFS	1456E	2308D	N16	E04	01	30.9		02	4	6	E	HOLL	5913	
30	AFS	1458E	0023D	N09	E53	02	3.6		03	9	9	E	HOLL		
30	AFS	1502E	1524D	N24	W25	01	28.7		04	9	9	E	SVTO	5909	
30	AFS	1502E	1524D	N27	E17	01	31.9		03	7	9	E	SVTO	5911	
30	ASR	1502E	1524D	S13	W90	01	23.8			9	9	E	SVTO	5903	
30	AFS	1508E	0023D	S12	W26	01	28.7		02	9	9	E	HOLL	5917	
30	AFS	1511E	0023D	S11	W36	01	27.9		02	9	9	E	HOLL	5900	
30	DSD	1515E	0023D	N24	E35	02	2.3		06	9	9	E	HOLL	5914	
30	AFS	1524E	2314D	S16	W19	01	29.2		01	6	6	E	HOLL	5908	
30	DSD	1540E	1825	N24	E34	02	2.3		05	9	9	E	RAMY	5914	
30	AFS	1813E	0248D	S14	W36	01	28.0		03	9	7	E	PALE	5900	
30	DSD	1813E	0315D	S14	W28	01	28.6		03	9	9	E	PALE	5917	
30	DSD	1813E	0402D	N10	W06	01	30.3		04	9	7	E	PALE	5913	
30	AFS	1813E	0402D	N22	W27	01	28.7		04	9	9	E	PALE	5909	
30	AFS	1813E	0402D	N28	E15	01	31.9		02	9	9	E	PALE	5911	
30	DSD	1848E	2130D	S14	W36	01	28.1		03	9	9	E	RAMY	5900	Flare Associated
30	SSB	2050		104	W67	01	31.2			0	0	E	HOLL		
30	SSB	2050		397	W00	01	23.6			0	0	E	HOLL		427 W30 456 W59
30	ASR	2115E	0006D	S10	W90	01	24.1			9	9	E	HOLL	5895	
30	ADF	2131E	2155D	S11	W52	01	27.0	2	11	9	9	E	RAMY	5900	
30	BSD	2230E	2317D	N41	W61	01	25.9		03	9	9	E	HOLL	5916	
30	DSD	2241E	0023D	S12	W55	01	26.8		04	9	9	E	HOLL	5900	
30	AFS	2252E	1058D	N24	W30	01	28.6		02	9	9	E	LEAR	5909	
30	AFS	2254E	1058D	N08	E49	02	3.6		02	9	9	E	LEAR	5919	
30	AFS	2310E	1058D	S12	W31	01	28.6		02	9	9	E	LEAR	5917	
30	AFS	2314E	0023D	S12	W32	01	28.5		03	9	8	E	HOLL	5917	
30	DSD	2317E	0023D	N41	W61	01	26.0		03	9	9	E	HOLL	5916	
31	ADF	0057	0300D	N44	W17	01	29.6	1				C	VORO		
31	ADF	0127	0300D	N19	W21	01	29.4	1				C	VORO		
31	BSL	0218	0242	S15	W90	01	24.3	1				C	VORO		
31	AFS	0255E	1058D	S16	W21	01	29.5		02	9	9	E	LEAR	5908	
31	AFS	0300E	0402D	N11	E47	02	3.7		02	9	9	E	PALE	5919	
31	DSD	0814E	1058D	N17	E60	02	4.9		03	9	9	E	LEAR		
31	ADF	0818E	1355D	N24	W37	01	28.5	1	04	9	9	E	SVTO	5909	
31	AFS	0818E	1522D	N09	E45	02	3.7		02	9	9	E	SVTO	5919	
31	ASR	1015E	1058D	N12	W58	01	27.0			9	9	E	LEAR	5907	
31	DSD	1125E	2106D	S09	W45	01	28.1		05	9	9	E	RAMY	5900	
31	AFS	1132E	1522D	N10	W58	01	27.1		01	8	9	E	SVTO	5906	
31	AFS	1132E	1522D	S12	W37	01	28.7		01	9	9	E	SVTO	5917	
31	DSD	1145E	1730D	N06	E40	02	3.5		04	9	9	E	RAMY	5919	
31	AFS	1145E	2144D	N08	E41	02	3.6		05	9	9	E	RAMY	5919	
31	AFS	1147E	2144D	S12	W36	01	28.8		02	9	9	E	RAMY	5917	
31	BSD	1300E	1343D	N39	W68	01	26.0		06	9	9	E	SVTO	5916	
31	AFS	1310E	1522D	S17	W28	01	29.4		02	9	9	E	SVTO	5908	
31	ASR	1332E	1446D	S29	W90	01	24.5			7	9	E	SVTO		
31	ASR	1345E	1446D	S10	W90	01	24.8			9	9	E	SVTO	5895	
31	DSD	1350E	1450D	S10	W62	01	26.9		05	9	9	E	SVTO	5906	
31	DSD	1740E	2105D	N25	E27	02	2.8		05	9	9	E	RAMY	5914	Flare Associated
31	AFS	1920E	0321D	S18	W28	01	29.7		03	9	9	E	PALE	5908	
31	AFS	2310E	1100D	N08	E35	02	3.6		04	9	9	E	LEAR	5919	
31	DSD	2316E	1100D	N12	W63	01	27.2		05	9	9	E	LEAR	5906	

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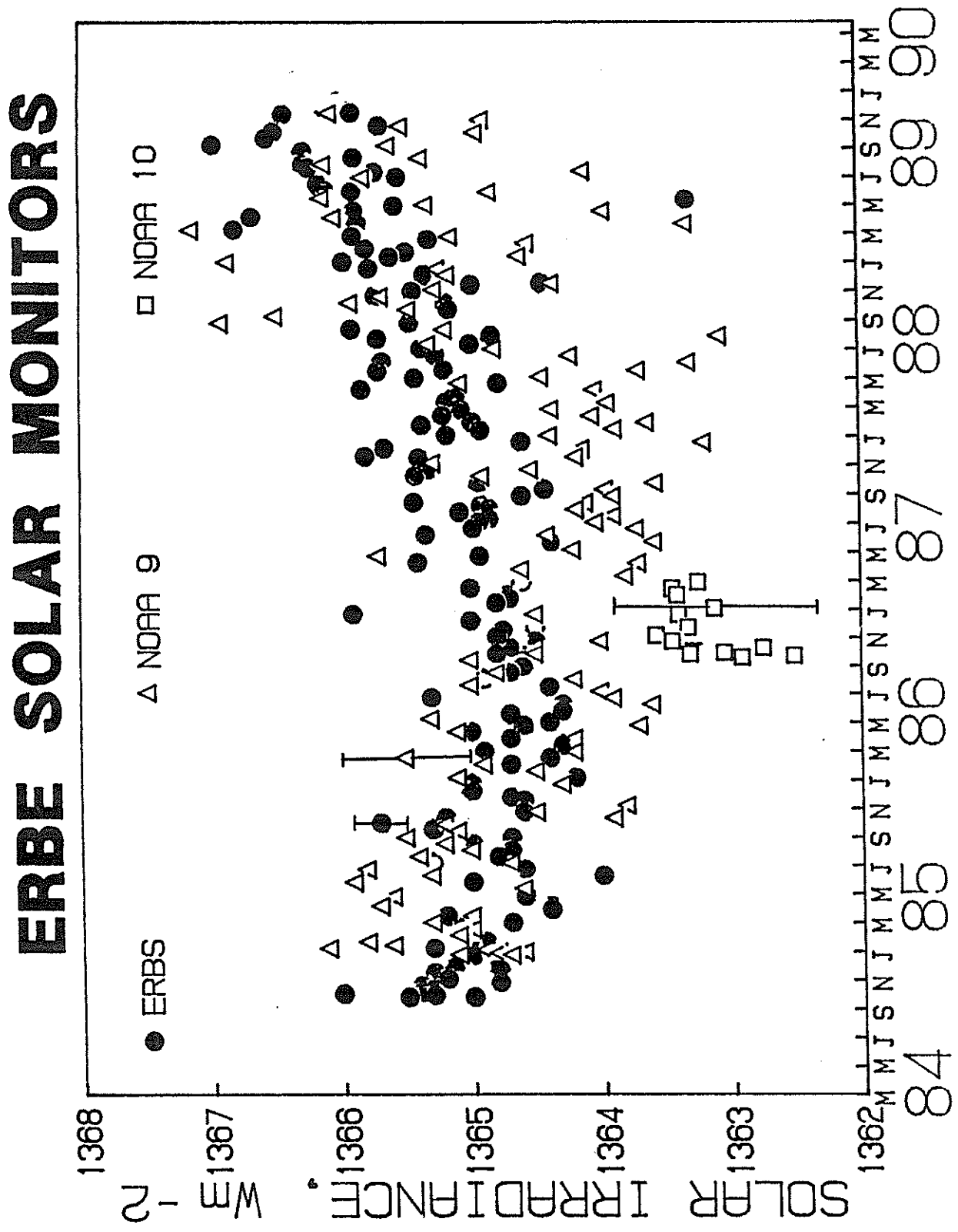
SOLAR IRRADIANCE INSTANTANEOUS VALUES
EARTH RADIATION BUDGET EXPERIMENT
NASA LANGLEY RESEARCH CENTER
WATTS/m^2
1989 - ERBS

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT.	NOV.	DEC.
01	1366.1	1366.1	1365.8									
02						1365.6						
03								1365.5				
04												
05												
06							1365.9					
07												
08												
09											1366.5	
10												
11					1366.7							
12		1365.6								1367.0		
13				1366.8								
14									1365.9			
15						1363.3		1365.7				
16												1366.4
17												
18	1365.2											
19												
20							1366.1					
21												1365.9
22			1365.3			1366.1						
23											1365.7	
24		1365.5										
25					1365.9							
26								1366.2		1366.5		
27				1365.9								
28			1365.9						1365.5			
29												
30											1365.5	
31								1366.3				

SOLAR IRRADIANCE INSTANTANEOUS VALUES
EARTH RADIATION BUDGET EXPERIMENT
NASA LANGLEY RESEARCH CENTER
WATTS/m^2
1989 - NOAA-9

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT.	NOV.	DEC.
01		1366.9						1365.8				
02			1354.6									
03												
04	1365.2											
05												
06							1364.9					
07												
08						1365.3						1364.9
09												
10											1365.9	
11					1366.0							
12										1365.6		
13				1367.1								
14									1364.4			
15		1364.6										
16			1364.5					1364.1				
17												
18	1365.2											
19												
20												
21												
22						1366.1						1366.1
23											1365.5	
24				1363.3								
25					1364.0							
26												
27												
28												
29												
30			1365.1									
31								1366.1				

80
Misc
1989


ERBE SOLAR MONITORS
ERBS
NOAA 9
NOAA 10
SOLAR IRRADIANCE, Wm -2
1368
1367
1366
1365
1364
1363
1362
84
85
86
87
88
89
90
M M J S N J M M J S N J M M J S N J M M J S N J M M

WORLD DATA CENTER A
FOR
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:

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