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Michael A. Chinnery, Director

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

NUMBER 561

(Issued in Two Parts)

Editor: Helen E. Coffey

Chief: Joe H. Allen
Solar-Terrestrial Physics Division

Staff: Daniel C. Wilkinson
Carol Weathers
John A. McKinnon

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H α SOLAR FLARES

NOVEMBER 1990

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/	CMP	Dur	Imp	Obs	Area Measurement			Remarks		
								USAF Region					Mo	Day	(Min)		Opt	Xray
0001	LEAR	01	0220	0221	0229	S20	E62	6347	11	5.8	9	SF	3	E		19		
0002	LEAR	01	0457	0458	0511	S21	E61	6347	11	5.9	14	SF	3	E		15		
0003	ISTA	01	0644E		0649	S03	E33	6345	11	3.7	5D	SB						D
0004	ISTA	01	0646		0655	S20	E62	6347	11	6.0	9	SN						D
0005		01	08021	08022	0808	S20	E60	6350	11	5.9	6	SN C 1.1				20		D
	LEAR	01	0802	0802	0807	S21	E58	6350	11	5.8	5	SF C 1.1	3	E		20		
	ISTA	01	0803	0804	0808	S20	E62	6350	11	6.1	5	SB						D
0006	RAMY	01	1612	1701	1712	S06	E25	6345	11	3.5	60	SF C 1.2	3	E		59		F
0007	PALE	01	1751	1754	1803	S06	E27	6345	11	3.8	12	SF	3	E		13		
0008	PALE	01	1804	1826	1910	S03	E24	6345	11	3.5	66	SF	3	E		17		F
0009	PALE	01	1815	1816	1829	S20	E56	6347	11	6.0	14	SF C 1.3	3	E		48		FU
			01 1952		2007	No Flare Patrol												
			01 2026		2050	No Flare Patrol												
			01 2102		2109	No Flare Patrol												
			01 2157		2159	No Flare Patrol												
0010		02	01281	01291	0136	S04	E17	6345	11	3.3	8	SF B 6.8				64	1.0	DIJ
	LEAR	02	0128	0129	0136	S04	E17	6345	11	3.3	8	SF B 6.8	3	E		37		
	VORO	02	0129	0130	0136	S03	E17	6345	11	3.3	7	SF	2	C	0130	90	1.0	DIJ
0011	URUM	02	0414	0417	0421	S04	E17	6345	11	3.4	7	SF		C		16	0.2	D
0012	LEAR	02	0515	0517	0534	S08	E20	6445	11	3.7	19	SF	3	E		18		
0013		02	1309	13152	1329	S08	E14	6345	11	3.6	20	SF B 8.6				40		
	RAMY	02	1309	1315	1320D	S07	E13	6345	11	3.5	11D	SF B 8.6	2	E		48		
	SVTO	02	1309	1317	1329	S08	E14	6345	11	3.6	20	SF B 8.6	2	E		32		
			02 1421		1424	No Flare Patrol												
			02 1443		1449	No Flare Patrol												
			02 1459		1623	No Flare Patrol												
			02 1704		1738	No Flare Patrol												
			02 1921		1926	No Flare Patrol												
			02 2012		2030	No Flare Patrol												
0014		03	0320	0338	0357	S26	E38	6350	11	6.1	37	SF C 1.9				32		F
	LEAR	03	0320	0338	0357	S26	E37	6350	11	6.0	37	SF C 1.9	3	E		19		
	PALE	03	0328E	0328U	0346D	S25	E39	6350	11	6.2	18D	SF C 1.9	3	E		45		F
0015	URUM	03	0328	0332	0348	S06	E07	6445	11	3.7	20	SN		C		48	0.5	D
			03 1312		1319	No Flare Patrol												
			03 1330		1336	No Flare Patrol												
			03 1615		1630	No Flare Patrol												
			03 1646		1651	No Flare Patrol												
			03 1838		1847	No Flare Patrol												
0016	LEAR	03	2353	2353	2415	S20	E21	6347	11	5.6	22	SF	3	E		61		
0017	LEAR	04	0116	0126	0139	S07	W05	6445	11	3.7	23	SF	3	E		28		F
0018	LEAR	04	0242	0251	0313	S04	W05	6445	11	3.7	31	SF	3	E		38		
0019		04	0255*	03061	0312	S20	E19	6347	11	5.6	17	SN				24	0.3	
	YUNN	04	0255	0306	0307D	S19	E19	6347	11	5.6	12D	SN		P		32	0.3	
	LEAR	04	0306	0307	0312	S20	E19	6347	11	5.6	6	SF	3	E		16		
0020	LEAR	04	0455	0456	0501	N05	W41	6343	11	1.1	6	SF	3	E		20		F

H α SOLAR FLARES

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Grp #	Sta	Start Day	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks	
																Apparent (10-6 Disk)	Corr (Sq Deg)		
0021		04 0505	0513	0524	S25	E23	6350	11	6.0	19	1N	C	1.7			126	3.2	FU	
	TACH	04 0505E	0513	0525	S28	E25	6350	11	6.2	20D	1N			2	C	0513	240	3.2	U
	LEAR	04 0505	0514	0523	S22	E21	6350	11	5.8	18	SF	C	1.7	3	E	13		F	
0022		04 0724	0731	0752	S26	E24	6350	11	6.2	28	SF	C	1.3			90	1.7	F	
	LEAR	04 0724	0731	0750	S26	E24	6350	11	6.2	26	SF	C	1.3	3	E	48		F	
	ABST	04 0725	0733	0753	S25	E23	6350	11	6.1	28	SF				C	0733	131	1.7	F
0023	LEAR	04 0904	0909	0936	S24	E25	6350	11	6.3	32	SF					22		F	
		04 1023		1029	No Flare Patrol														
		04 1210		1251	No Flare Patrol														
0024	RAMY	04 1306	1306	1309	S05	W18	6345	11	3.2	3	SF					19			
0025	RAMY	04 1425	1426	1434	S21	E16	6350	11	5.8	9	SF					25		F	
0026		04 1451	1453	1502	S20	E13	6347	11	5.6	11	SF	C	1.0			36		F	
	RAMY	04 1451	1453	1500	S19	E12	6347	11	5.5	9	SF	C	1.0	3	E	32			
	HOLL	04 1451	1453	1504	S21	E14	6347	11	5.7	13	SF					41		F	
0027		04 1604	1611	1630	S18	E12	6347	11	5.6	26	SF	B	8.8			18		F	
	HOLL	04 1604	1611	1630	S19	E13	6347	11	5.7	26	SF	B	8.8	3	E	21		F	
	RAMY	04 1607	1612	1631	S18	E11	6347	11	5.5	24	SF	B	8.8	3	E	15			
0028	HOLL	04 1731	1731	1735	S07	W20	6345	11	3.2	4	SF					11			
0029		04 1736	1738	1822	S19	E14	6347	11	5.8	46	1B	M	2.1			211		EFH	
	HOLL	04 1736	1738	1828	S21	E15	6347	11	5.9	52	1B	M	2.1	3	E	238		FE	
	PALE	04 1737	1738	1815	S17	E13	6347	11	5.7	38	1N			4	E	184		FH	
0030	PALE	04 1737	1741	1809	S25	E15	6350	11	5.9	32	SF					22			
0031		04 1814	1817	1830	N13	E72	6358	11	10.2	16	SF	C	1.4			65		F	
	HOLL	04 1814	1817	1831	N11	E75	6358	11	10.4	17	SF					74		F	
	PALE	04 1815	1817	1828	N15	E70	6358	11	10.0	13	SF	C	1.4	4	E	56		F	
0032		04 2332	2336*	2404	S24	E15	6350	11	6.1	32	SF	C	1.8			67		F	
	HOLL	04 2332E	2335U	2352D	S24	E15	6350	11	6.1	20D	SF			2	E	64		F	
	LEAR	04 2332	2336	2408	S25	E15	6350	11	6.1	36	SF					93		F	
	PALE	04 2346E	2347	2401	S23	E16	6350	11	6.2	15D	SF	C	1.8	3	E	44		F	
0033		04 2335*	2338*	2356	N17	E73	6358	11	10.5	21	SF					22			
	LEAR	04 2335	2338	2350	N17	E73	6358	11	10.5	15	SF					22			
	PALE	04 2348	2355	2403	N17	E73	6358	11	10.5	15	SF					21			
0034	LEAR	04 2355		2436	S07	W18	6345	11	3.6	41	SF					16			
0035		05 0027	0035*	0118	S24	E14	6350	11	6.1	51	1N	C	3.9			213	3.7	EF	
	LEAR	05 0027	0037	0116	S25	E14	6350	11	6.1	49	1F	C	3.9	3	E	166		F	
	MITK	05 0030	0035	0130	S23	E14	6350	11	6.1	60	1B				C	0035	280	3.3	E
	PEKG	05 0035E	0035	0035D	S24	E15	6350	11	6.2	60D	1B				P	0035	336	4.1	E
	PALE	05 0046E	0048	0108	S23	E14	6350	11	6.1	22D	SF					3	E	70	F
0036		05 0109	0112	0120	N12	E70	6362	11	10.3	11	SF					20			
	PALE	05 0109	0113	0119	N12	E71	6362	11	10.4	10	SF					21			
	LEAR	05 0110	0112	0120	N11	E69	6362	11	10.2	10	SF					20			
0037		05 0128	0134	0143	N12	E71	6362	11	10.4	15	SF					70			
	LEAR	05 0128	0134	0144	N10	E70	6362	11	10.3	16	SF					66			
	PALE	05 0128	0135	0142	N13	E72	6362	11	10.5	14	SF					75			
0038		05 1113	1117	1133	S19	E04	6347	11	5.8	20	SF	C	1.2			18			
	KANZ	05 1113	1117	1133	S19	E04	6347	11	5.8	20	SF								
	SVTO	05 1116	1118	1211D	S19	E04	6347	11	5.8	55D	SF	C	1.2	3	E	18			
0039		05 1303	1305	1318	N20	E66	6358	11	10.6	15	SN	C	4.5			77			
	KANZ	05 1303	1303U	1303D	N19	E66	6358	11	10.6	15D	SB								
	SVTO	05 1304	1305	1318	N20	E65	6358	11	10.5	14	SF	C	4.5	3	E	77			

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Nov 90

H α SOLAR FLARES

NOVEMBER 1990

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF		CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks	
						Region	Lat							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0040	SVTO	05	1321	1321	1328	S29	E78	6364	11	11.7	7	SF C 1.5	3	E		14		
0041	SVTO	05	1428	1432	1439	S29	E83	6364	11	12.1	11	SF	3	E		17		
0042	SVTO	05	1431	1432	1444	N16	E63	6358	11	10.4	13	SF	3	E		18		
0043		05	1451	1454	1502	N18	E64	6358	11	10.5	11	SF C 2.1				68		F
	HOLL	05	1450E	1452U	1525D	N16	E65	6358	11	10.5	35D	SF	2	E		48		F
	SVTO	05	1451	1454	1502	N19	E64	6358	11	10.5	11	SF C 2.1	2	E		88		
0044	HOLL	05	1530	1536	1558	N18	E65	6358	11	10.6	28	SF C 2.9	3	E		89		F
0045	HOLL	05	1547	1547	1604	S19	E01	6347	11	5.7	17	SF	3	E		19		
0046	HOLL	05	1609	1609	1626	S24	E05	6350	11	6.0	17	SF	3	E		27		F
0047	HOLL	05	1622	1629	1706	N18	E64	6358	11	10.5	44	SF C 1.1	3	E		74		
0048	HOLL	05	1724	1725	1734	N08	W61	6343	11	1.1	10	SF	3	E		25		
0049	HOLL	05	1727	1728	1812	S17	E00	6347	11	5.7	45	1N C 2.9	3	E		105		EF
0050		05	1911*	1911*	1932	N18	E62	6358	11	10.5	21	SF				38		F
	PALE	05	1911	1911	1919	N20	E64	6358	11	10.7	8	SF	3	E		15		
	HOLL	05	1919	1923	1930	N18	E63	6358	11	10.6	11	SF	3	E		66		F
	PALE	05	1922	1923	1930	N16	E61	6358	11	10.4	8	SF	3	E		44		F
	HOLL	05	1931	1934	1950	N18	E62	6358	11	10.5	19	SF	3	E		27		F
0051	HOLL	05	1936	1940	1946	S18	W06	6347	11	5.3	10	SF C 1.5	3	E		16		
		05	2125		2136	No Flare Patrol												
0052	HOLL	05	2138E	2138U	2157	S20	W01	6347	11	5.8	19D	SF C 1.7	3	E		52		F
		05	2213		2221	No Flare Patrol												
0053	HOLL	05	2233	2243	2246	S25	E02	6350	11	6.1	13	SF	3	E		18		
0054	HOLL	05	2238	2238	2252	N14	E59	6358	11	10.4	14	SF	3	E		17		
0055		05	2251*	2309S	2418	S24	E04	6350	11	6.3	87	2N M 1.0				355	7.6	EFIJTU
	HOLL	05	2251	2310	2358D	S24	E03	6350	11	6.2	67D	2B M 1.0	3	E		398		UE
	LEAR	05	2307	2309	2356	S25	E04	6350	11	6.3	49	2N M 1.0	3	E		253		UF
	VORO	05	2311E	2314	2449	S22	E04	6350	11	6.3	98D	2F	2	C	2319	672	7.6	EIJT
	PALE	05	2327E	2328U	2410	S24	E03	6350	11	6.2	43D	SF	3	E		96		F
0056		05	2324S	2328	2336	S18	W08	6347	11	5.4	12	SF				46	0.8	EIJT
	VORO	05	2324	2328	2337	S17	W08	6347	11	5.4	13	SF	2	C	2328	72	0.8	EIJT
	LEAR	05	2327	2328	2335	S18	W09	6347	11	5.3	8	SF	3	E		20		
0057	PALE	05	2340	2343	2359D	N19	E62	6358	11	10.7	19D	SF	3	E		25		
0058	PALE	06	0010	0019	0026	N19	E62	6358	11	10.7	16	SF	3	E		12		
0059	MITK	06	0013E		0112	S21	W01	6350	11	5.9	59D	1F		C	0015	180	2.1	E
0060	PALE	06	0048	0050	0059	N19	E60	6358	11	10.6	11	SF	3	E		36		
0061	PEKG	06	0221	0230	0246	N16	W12	6355	11	5.2	25	SN		P	0230	105	1.1	E
0062	LEAR	06	0315	0315	0319	S24	E07	6356	11	6.7	4	SF	3	E		22		F
0063		06	04312	0436	0445	S18	W12	6347	11	5.3	14	SN C 1.5				41	0.7	D
	PEKG	06	0431	0436	0445	S18	W11	6347	11	5.3	14	SB		P	0436	63	0.7	D
	LEAR	06	0433	0438U	0446D	S19	W12	6347	11	5.3	13D	SF C 1.5	3	E		19		
0064		06	0627*	0655*	0706	N17	E54	6358	11	10.4	39	SF C 1.3				35		KT
	SVTO	06	0627	0724	0724D	N15	E53	6358	11	10.3	57D	SF		E		74		TK
	LEAR	06	0654	0655	0659	N18	E53	6358	11	10.3	5	SF C 1.3	3	E		21		
	LEAR	06	0704	0705	0712	N18	E55	6358	11	10.5	8	SF	3	E		10		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/				Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
						Lat	Cmd	Region	CMP Mo						Day	Time (UT)	Apparent (10-6 Disk)	
0065	06		07281	07272	0744	S25	W05	6350	11	5.9	16	SN				65	1.5	EF
	PEKG	06	0727E	0727	0727D	S25	W05	6350	11	5.9	16D	SB		P	0727	126	1.5	E
	LEAR	06	0728	0729	0739	S25	W06	6350	11	5.8	11	SF	3	E		23		
	SVTO	06	0728	0729	0748	S25	W04	6350	11	6.0	20	SF	3	E		45		F
	KANZ	06	0729	0729	0746	S24	W04	6350	11	6.0	17	SF		V				
0066	06		07421	0743	0748	N18	E52	6358	11	10.3	6	SF				16		
	LEAR	06	0742	0743	0747	N18	E53	6358	11	10.3	5	SF	3	E		16		
	KANZ	06	0743	0743	0749	N18	E50	6358	11	10.1	6	SF		V				
0067	06		07406	07453	0751	N07	E78	6361	11	12.2	11	SF				95		AFH
	HTPR	06	0740	0745	0752	N06	E78	6361	11	12.1	12	SF		C				A
	SVTO	06	0742	0747	0752	N08	E77	6361	11	12.1	10	SF	3	E		95		H
	LEAR	06	0744	0746	0750	N08	E76	6361	11	12.0	6	SF	3	E		59		
	ABST	06	0745	0748	0750	N05	E80	6361	11	12.3	5	1F		C	0748	131		F
	KANZ	06	0746	0746	0749	N07	E78	6361	11	12.2	3	SN		V				
0068	06		07496	0749*	0810	S30	E74	6364	11	12.1	21	SN				23		
	SVTO	06	0749	0749	0800	S29	E74	6364	11	12.1	11	SF	3	E		23		
	HTPR	06	0755	0805	0820	S30	E73	6364	11	12.1	25	SN		C				
0069	06		0806*	0855	0859	N16	E54	6358	11	10.4	53	SF	C 3.2			71	1.8	D
	LEAR	06	0806	0815U	0853D	N18	E55	6358	11	10.5	47D	SF	C 3.2	2	E	37		
	ABST	06	0851	0855	0859	N15	E54	6358	11	10.4	8	SF		C	0855	105	1.8	D
0070	SVTO	06	0818	0836	0836D	N16	W16	6355	11	5.1	18D	SN		E		23		KT
0071	SVTO	06	0902	0906	0920	S20	W09	6347	11	5.7	18	SF	4	E		36		F
0072	SVTO	06	0914	0917	0922	S25	W05	6350	11	6.0	8	SF	4	E		17		
0073	06		0935	0950	1005	N18	E52	6358	11	10.3	30	SN				64	1.3	D
	HTPR	06	0935	0950	1005	N18	E53	6358	11	10.4	30	SN		C	0950	80	1.3	D
	LEAR	06	0937E	0939U	0949D	N17	E52	6358	11	10.3	12D	SF	2	E		47		
0074	HTPR	06	1001		1020	N05	E75	6361	11	12.0	19	SF		C				
0075	06		12019	1122*	1202	N18	E51	6358	11	10.4	1	SF	C 3.8			45		FT
	RAMY	06	1110E	1112U	1130	N19	E50	6358	11	10.3	20D	SF	C 3.8	2	E	63		F
	SVTO	06	1122E	1122	1200	N15	E53	6358	11	10.5	38D	SF		3	E	61		T
	RAMY	06	1201	1208	1210	N18	E51	6358	11	10.4	9	SF		3	E	24		F
	RAMY	06	1210	1217	1226	N18	E49	6358	11	10.2	16	SF		3	E	31		
0076	06		1154*	1149*	1216	N16	W16	6355	11	5.3	22	SF				38		FT
	SVTO	06	1149E	1149	1200D	N16	W16	6355	11	5.3	11D	SF		3	E	91		T
	RAMY	06	1154	1154	1211	N15	W16	6355	11	5.3	17	SF		3	E	11		
	RAMY	06	1216	1217	1220	N17	W16	6355	11	5.3	4	SF		3	E	13		F
0077	RAMY	06	1315	1315	1324	N17	E51	6358	11	10.4	9	SF	3	E		73		
		06	1334		1335	No Flare Patrol												
0078	RAMY	06	1405	1405	1416	S17	W18	6347	11	5.2	11	SF	3	E		15		
0079	RAMY	06	1410	1451	1508	N17	W18	6355	11	5.2	58	SF	3	E		17		F
0080	RAMY	06	1416	1418	1423	N19	E53	6358	11	10.6	7	SF	3	E		20		
0081	06		1431*	14397	1452	N19	E51	6358	11	10.5	21	SF				20		
	RAMY	06	1431	1439	1444	N19	E51	6358	11	10.5	13	SF	3	E		23		
	RAMY	06	1445	1446	1500	N19	E51	6358	11	10.5	15	SF	3	E		18		
0082	06		14491	1451	1508	N06	E70	6361	11	11.8	19	SF				36		
	HOLL	06	1449	1453U	1503D	N06	E70	6361	11	11.8	14D	SF	3	E		37		
	RAMY	06	1450	1451	1508	N05	E69	6361	11	11.8	18	SF	3	E		36		
0083	RAMY	06	1502	1506	1515	N19	E50	6358	11	10.4	13	SF	C 1.7	3	E	16		
0084	RAMY	06	1525	1527	1530	N17	W18	6355	11	5.3	5	SF	3	E		19		F

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0085	RAMY	06	1526	1528	1530	N19	E51	6358	11	10.5	4	SF	3	E		14		
		06	1642		1804			No Flare Patrol										
0086	PALE	06	1804E	1810	1844D	S15	E04	6349	11	7.0	40D	SF	4	E		20		
0087	PALE	06	1804E	1812	1915D	N15	W21	6355	11	5.2	71D	SF	4	E		37		
0088	PALE	06	1823	1829	1844D	S29	E69	6364	11	12.2	21D	SF	4	E		12		
		06	2002		2029			No Flare Patrol										
0089		06	2041	2046*	2142D	N08	E68	6361	11	12.0	61D	2N M	3.1			365		EFK
	PALE	06	2041	2046	2142D	N08	E68	6361	11	12.0	61D	2B		E		478		K
	PALE	06	2041	2056	2142D	N08	E68	6361	11	12.0	61D	2B M	3.1	4	E	486		FE
	HOLL	06	2043E	2049U	2053D	N08	E67	6361	11	11.9	10D	1F	2	E		131		F
0090	PALE	06	2055	2056	2108	S13	E01	6349	11	6.9	13	SF	4	E		19		
0091	PALE	06	2057	2057U	2105	N08	E45	6362	11	10.2	8	SF	3	E		11		
0092	PALE	06	2101	2104	2141D	N16	W22	6355	11	5.2	40D	1F	4	E		117		FZ
		06	2113		2140			No Flare Patrol										
0093		06	2205	2210	2221	S16	E04	6363	11	7.2	16	SF				20		
	PALE	06	2205	2210	2220	S16	E05	6363	11	7.3	15	SF	3	E		20		
	LEAR	06	2210E	2210U	2222	S15	E02	6363	11	7.1	12D	SF	3	E		20		
		06	2307		2334			No Flare Patrol										
		06	2348		2355			No Flare Patrol										
0094	LEAR	07	0009	0023	0036	N17	E46	6358	11	10.5	27	SF	3	E		78		F
0095		07	0230	0235*	0300	N15	W26	6355	11	5.1	30	1N				112	1.4	E
	YUNN	07	0230	0235	0249	N15	W25	6355	11	5.2	19	SN		P		32	0.4	
	URUM	07	0230E	0247	0310	N15	W27	6355	11	5.1	40D	1N		C		193	2.3	E
0096	URUM	07	0402	0404	0415	N16	W29	6355	11	5.0	13	SN		C		145	1.7	D
0097	URUM	07	0415	0429	0448	N15	W29	6355	11	5.0	33	SN		C		161	1.9	D
0098	URUM	07	0448	0452	0550	N17	E41	6358	11	10.3	62	1N		C		193	2.7	E
0099	URUM	07	0452E	0452	0559	S15	W03	6349	11	7.0	67D	SN		C		145	1.6	E
0100	URUM	07	0530	0544	0559D	N15	W30	6355	11	4.9	29D	SN		C		145	1.8	D
0101		07	0632*	0636*	0713	N16	W29	6355	11	5.1	41	SF C	2.8			42	0.8	E
	LEAR	07	0632	0648	0706	N15	W29	6355	11	5.1	34	SF C	2.8	3	E	17		
	MITK	07	0634	0636	0655D	N17	W29	6355	11	5.1	21D	SF		C	0636			
	TACH	07	0656	0658	0720	N17	W30	6355	11	5.0	24	SN	1	C	0658	66	0.8	E
0102	TACH	07	0738	0744	0754	S17	E04	6363	11	7.6	16	1B	1	C	0744	423	4.6	U
0103	LEAR	07	0750	0751	0758	N17	E41	6358	11	10.4	8	SF	3	E		73		
0104		07	08149	08221	0832	S16	E48	6359	11	11.0	18	SN				78	1.2	
	YUNN	07	0814	0823	0823D	S18	E49	6359	11	11.1	9D	SN		P		96	1.6	
	HTRP	07	0817	0822	0833	S15	E47	6359	11	10.9	16	SN		C	0822	60	0.9	
	KANZ	07	0823	0823	0831	S16	E48	6359	11	11.0	8	SF		V				
0105	KANZ	07	0819	0819	0823	S18	W26	6347	11	5.4	4	SF		V				
0106	KANZ	07	0827	0827	0834	N15	W31	6355	11	5.0	7	SF		V				
0107	KANZ	07	0853	0856	0907	N15	W26	6355	11	5.4	14	SF		V				
0108	KANZ	07	0953	0953	1001	N15	W31	6355	11	5.1	8	SF		V				

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Grp #	Sta	Start Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF		CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
						Region	Lat CMD							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0109		07	11054	11093	1128	S16 E46	6359	11	10.9	23	SN				140	1.7	
	HTPR	07	1105	1112	1130	S15 E46	6359	11	10.9	25	SN		C	1112	140	1.7	
	KANZ	07	1109	1109	1125	S17 E47	6359	11	11.0	16	SF		V				
0110		07	1128	11322	1142	N16 W32	6355	11	5.0	14	SF C 2.4				41		H
	RAMY	07	1123E	1134	1144	N17 W32	6355	11	5.0	210	SF C 2.4	2	E		41		H
	KANZ	07	1128	1132	1139	N15 W32	6355	11	5.0	11	SF		V				
0111	KANZ	07	1139	1139	1150	N17 E37	6358	11	10.3	11	SF		V				
0112	RAMY	07	1156	1201	1210	N17 E39	6358	11	10.5	14	SF	3	E		22		F
0113	RAMY	07	1253	1255	1301	N17 W33	6355	11	5.0	8	SF	3	E		13		
0114		07	13032	13088	1321	S16 E44	6359	11	10.9	18	SF				69	1.7	FK
	HTPR	07	1303	1309	1320	S15 E46	6359	11	11.0	17	SN		C	1309	140	1.7	
	KANZ	07	1304	1308	1321	S15 E45	6359	11	10.9	17	SF		V				
	RAMY	07	1305	1310	1321	S16 E43	6359	11	10.8	16	SF		E		50		K
	RAMY	07	1305	1316	1321	S16 E43	6359	11	10.8	16	SF	3	E		16		F
0115		07	13041	13041	1309	N08 E68	6364A	11	12.6	5	SF C 3.5				13		
	KANZ	07	1304	1304	1308	N08 E69	6364A	11	12.7	4	SF		V				
	RAMY	07	1305	1305	1310	N08 E66	6364A	11	12.5	5	SF C 3.5	3	E		13		
0116	HTPR	07	1520		1537D	N10 W90	6343	10	31.9	170	SF		C				A
		07	1538		1626	No Flare Patrol											
0117	RAMY	07	1750	1752	1801	N08 E65	6364A	11	12.6	11	SF C 8.9	3	E		36		
		07	1911		1915	No Flare Patrol											
		07	1924		1951	No Flare Patrol											
		07	2001		2009	No Flare Patrol											
		07	2028		2127	No Flare Patrol											
0118	PALE	07	2122	2124	2132	S05 W57	6345	11	3.6	10	SF	3	E		26		
0119		07	22211	2228	2237	S19 W34	6347	11	5.3	16	SF				30		
	PALE	07	2221	2228	2240	S19 W34	6347	11	5.3	19	SF	3	E		29		
	LEAR	07	2222	2228	2234	S19 W34	6347	11	5.3	12	SF	3	E		31		
0120	LEAR	07	2225	2229	2232	N15 W36	6355	11	5.2	7	SF C 3.2	3	E		21		
0121	PALE	07	2243	2243	2550	S05 W57	6345	11	3.7	187	SF		E		33		T
0122	LEAR	08	0202	0204	0216	S22 W26	6350	11	6.1	14	SF C 1.9	3	E		44		F
0123	LEAR	08	0257	0303	0314	S05 W60	6345	11	3.6	17	SF	3	E		19		
0124		08	02586	0311*	0438	S21 W31	6347	11	5.7	100	2N C 7.5				386	8.1	F
	LEAR	08	0258	0311	0459	S22 W27	6347	11	6.0	121	1F C 7.5	3	E		128		F
	URUM	08	0259	0335	0450	S22 W32	6347	11	5.7	111	2B		C		611	8.3	F
	MITK	08	0300	0325	0509	S20 W30	6347	11	5.8	129	2N		C	0325	490	6.4	F
	LEAR	08	0304	0328	0353	S19 W34	6347	11	5.5	49	SF	3	E		26		
	PEKG	08	0355E	0355	0420	S22 W33	6347	11	5.6	250	2N		P	0355	673	9.6	F
0125	LEAR	08	0325	0328	0330	S09 W65	6345	11	3.3	5	SF	3	E		20		
0126	LEAR	08	0337	0405	0412	N03 E49	6359B	11	11.8	35	SF	3	E		47		F
0127	TACH	08	0504	0506	0509	S16 W16	6363	11	7.0	5	SB	1	C	0506	51	0.6	E
0128		08	05461	05471	0610	N16 W42	6355	11	5.0	24	1B				162	2.3	TU
	TACH	08	0546	0547	0610	N17 W44	6355	11	4.9	24	1B	1	C	0547	163	2.4	UT
	YUNN	08	0547	0548	0549D	N14 W40	6355	11	5.2	20	1N		P		161	2.2	

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/	CMP	Dur	Imp	Obs	Area Measurement			Remarks			
								USAF Region					Mo	Day	Time (UT)		Apparent (10-6 Disk)	Corr (Sq Deg)	
0129		08	0645*	0710*	0740	N17	W44	6355	11	4.9	55	1B			159	2.3	ETU		
	URUM	08	0645	0715	0748	N16	W42	6355	11	5.1	63	1N		C		241	3.4	E	
	TACH	08	0706	0710	0730	N17	W44	6355	11	4.9	24	1B	1	C	0710	204	3.0	UT	
	HTPR	08	0709	0710	0725	N17	W44	6355	11	4.9	16	SN		C	0710	80	1.1		
	TACH	08	0741	0741	0755	N18	W44	6355	11	5.0	14	SB	1	C	0741	112	1.7	UT	
0130		08	0750*	0806*	0858	N16	W43	6355	11	5.1	68	SN	C 2.1			128	2.3	DEK	
	HTPR	08	0750	0806	0830	N17	W45	6355	11	4.9	40	SN		C	0806	60	0.8		
	URUM	08	0752	0811	0945	N16	W44	6355	11	5.0	113	1N		C		225	3.3	EK	
	LEAR	08	0804	0806	0811	N16	W43	6355	11	5.1	7	SF	C 2.1	3	E	24			
	KANZ	08	0806	0806	0810	N15	W43	6355	11	5.1	4	SF		V					
	URUM	08	0828	0840	0910	N16	W42	6355	11	5.2	42	SN		C		145	2.0	D	
	URUM	08	0830E	0830		N16	W44	6355	11	5.0		D 1N		C		161	2.3	EK	
	HTPR	08	0850	0858	0935	N17	W44	6355	11	5.0	45	1N		C	0858	170	2.4		
	KANZ	08	0852	0904	0925	N15	W43	6355	11	5.1	33	SF		V					
	LEAR	08	0855	0908U	0917D	N15	W42	6355	11	5.2	220	SF	C 3.8	3	E	32			
	URUM	08	0902E	0902		N15	W43	6355	11	5.1		D 1N		C		209	3.0	EK	
0131	HTPR	08	0818	0820	0845	S32	E50	6364	11	12.3	27	SF		C	0820	50	1.2		
0132		08	08263	08294	0840	S15	W18	6349	11	7.0	14	SF				48	0.8	E	
	HTPR	08	0826	0830	0840	S15	W18	6349	11	7.0	14	SN		C	0830	70	0.8	E	
	LEAR	08	0828	0829	0845	S15	W19	6349	11	6.9	17	SF		3	E	25			
	KANZ	08	0829	0833	0836	S15	W18	6349	11	7.0	7	SF		V					
0133	RAMY	08	1357	1400	1412	N10	E23	6362	11	10.3	15	SF		3	E	15		F	
0134	RAMY	08	1443	1443	1451	N15	W45	6355	11	5.2	8	SF		3	E	17			
0135	HTPR	08	1450	1452	1502	S18	W41	6347	11	5.5	12	SF		C	1452	70	1.1		
0136		08	1510	15124	1606	N17	W46	6355	11	5.1	56	1B	M 1.6			138	3.0	F	
	RAMY	08	1510	1516	1606	N17	W48	6355	11	5.0	56	SB	M 1.6	3	E	87		F	
	HTPR	08	1511E	1512	1530D	N17	W45	6355	11	5.2	190	1N		C	1512	190	3.0		
0137	RAMY	08	1537	1541	1605	S14	W24	6349	11	6.8	28	SF		3	E	19			
			08 1655		1723	No Flare Patrol													
0138	HOLL	08	1740E	1742U	1805D	N15	W47	6355	11	5.2	250	SF	C 2.0	1	E	45		F	
0139		08	1827	1832	1836	N10	E21	6362	11	10.3	9	SF				44			
	HOLL	08	1807E	1812U	1843D	N11	E22	6362	11	10.4	360	SF		2	E	68			
	RAMY	08	1827	1832	1836	N10	E20	6362	11	10.3	9	SF		3	E	19			
0140		08	1837*	18465	1901	N16	W49	6355	11	5.0	24	1N	C 1.4			86		H	
	HOLL	08	1837	1846	1904	N16	W48	6355	11	5.1	27	1N	C 1.4	3	E	116			
	PALE	08	1848	1851	1858	N16	W50	6355	11	5.0	10	SF		3	E	56		H	
0141	HOLL	08	1856E	1912U	1927	N06	E41	6361	11	11.8	310	SF		2	E	36		F	
0142	PALE	08	1941	1943	1953	N15	W50	6355	11	5.0	12	SF		3	E	13			
0143		08	1955	1955	2007	N17	E20	6358	11	10.3	12	SF	C 2.5			29		F	
	HOLL	08	1955E	1955U	2007	N17	E20	6358	11	10.3	120	SF	C 2.5	3	E	31		F	
	PALE	08	1955	1955	2022D	N17	E20	6358	11	10.3	270	SF	C 2.5	3	E	27		F	
0144	HOLL	08	2106	2108	2128	S19	W46	6347	11	5.4	22	SF		3	E	60			
0145		08	21154	2119*	2212	N15	W48	6355	11	5.2	57	SF	C 2.6			55		F	
	HOLL	08	2115	2119	2227	N15	W48	6355	11	5.2	72	SF	C 2.6	3	E	60		F	
	PALE	08	2119	2133	2157	N15	W48	6355	11	5.2	38	SF		3	E	50		F	
0146		08	2304	2305	2322	S20	W48	6347	11	5.3	18	SN	C 2.6			64		EH	
	HOLL	08	2304	2305	2326	S19	W47	6347	11	5.4	22	SN	C 2.6	4	E	99		EH	
	PALE	08	2313E	2313U	2318	S20	W49	6347	11	5.2	50	SF		3	E	30		H	
0147	PALE	08	2354	2403	2455D	N15	W52	6355	11	5.0	610	1F	C 8.8	3	E	161		F	

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NOVEMBER 1990

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP No	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0148		09	02463	0249*	0316	N06	E36	6359B	11	11.8	30	1N	C	6.1			271	5.0	EFKU
	WATU	09	0246	0249	0321	N05	E35	6359B	11	11.7	35	1N			C	0249	170	2.2	F
	PEKG	09	0249E	0250	0310	N08	E35	6359B	11	11.7	210	2F			P	0249	589	7.9	E
	LEAR	09	0249	0251	0403D	N05	E36	6359B	11	11.8	74D	1N	C	6.1	3	E	206		UF
	LEAR	09	0249	0302	0403D	N05	E36	6359B	11	11.8	74D	1N			E		119		K
0149		09	03314	03346	0352	S18	W53	6347	11	5.1	21	1B					147	2.6	D
	WATU	09	0331	0334	0359	S17	W52	6347	11	5.2	28	1N			C	0334	210	3.6	
	PEKG	09	0335	0340	0345	S18	W54	6347	11	5.0	10	SB			P	0340	84	1.5	D
0150		09	05073	05086	0527	S26	W40	6350	11	6.1	20	SN					124	2.5	D
	PEKG	09	0507	0508	0514	S26	W41	6350	11	6.0	7	1F			P	0510	210	3.2	D
	LEAR	09	0507	0514	0539	S25	W39	6350	11	6.2	32	SF		2	E		46		
	TACH	09	0510	0511	0527	S26	W39	6350	11	6.2	17	SB		2	C	0511	117	1.8	D
0151		09	0612	0614	0634	N15	W52	6355	11	5.3	22	1B					114	2.0	D
	TACH	09	0612	0614	0629	N14	W52	6355	11	5.3	17	SB		2	C	0614	36	0.7	D
	URUM	09	0613E	0615U	0638	N16	W53	6355	11	5.2	25D	1N			C		193	3.3	D
0152	LEAR	09	0739	0741	0805D	N15	W54	6355	11	5.2	260	SF		2	E		30		
0153		09	0800*	0804*	0842	S21	W42	6356	11	6.1	42	SF					46		F
	KANZ	09	0800	0812	0816	S22	W42	6356	11	6.1	16	SF			V				
	LEAR	09	0802	0806	0916	S21	W42	6356	11	6.1	74	SF		3	E		45		F
	SVTO	09	0802	0847	0923D	S24	W42	6356	11	6.1	81D	SF		2	E		46		F
	KANZ	09	0804	0804	0816	S17	W38	6356	11	6.4	12	SF			V				
	KANZ	09	0823	0834	0900	S23	W46	6356	11	5.8	37	SF			V				
0154		09	08258	08371	0912	N15	W55	6355	11	5.2	47	SF	C	3.6			50		
	LEAR	09	0825	0837	0910	N15	W55	6355	11	5.2	45	SF	C	3.6	3	E	48		
	SVTO	09	0833	0838	0915	N15	W55	6355	11	5.2	42	SF	C	3.6	3	E	52		
0155	LEAR	09	0907	0909	0915	S16	W32	6349	11	6.9	8	SF		2	E		10		
0156		09	0943*	0946*	1020	N16	W55	6355	11	5.2	37	SF	C	3.5			126	4.0	EF
	LEAR	09	0943	0946	1005	N15	W55	6355	11	5.2	22	SF	C	3.5	2	E	81		
	SVTO	09	0944	0947	1034	N15	W56	6355	11	5.2	50	SF	C	3.5	3	E	70		F
	KANZ	09	0954	0954U	0957D	N15	W54	6355	11	5.3	3D	SF			V				
	ONDR	09	1008E	1012	1037U	N17	W54	6355	11	5.3	29U	1N			P	1012	227	4.0	E
0157	ONDR	09	1100	1104	1107D	S17	W32	6363	11	7.0	7D	SN			P	1104	52	0.7	E
0158		09	1323*	1327*	1358	S30	E36	6364	11	12.4	35	SF	C	1.5			25		
	SVTO	09	1323	1327	1400	S30	E36	6364	11	12.4	37	SF	C	1.5	3	E	28		
	RAMY	09	1341	1341	1356	S31	E35	6364	11	12.3	15	SF		3	E		22		
0159	RAMY	09	1353	1404	1423	N17	W57	6355	11	5.2	30	SF		3	E		17		
0160	HOLL	09	1612	1651	1706	S32	E34	6364	11	12.4	54	SF		3	E		19		
0161		09	16272	1629	1645	N16	W60	6355	11	5.1	18	SF	C	1.2			22		F
	HOLL	09	1627	1629	1655	N16	W59	6355	11	5.2	28	SF	C	1.2	3	E	27		
	RAMY	09	1629	1629	1635	N16	W60	6355	11	5.1	6	SF	C	1.2	3	E	17		F
0162	HOLL	09	1711	1714	1717	N07	E32	6361	11	12.1	6	SF		3	E		19		
0163	HOLL	09	1741	1744	1748	N16	W59	6355	11	5.3	7	SF	C	1.9	3	E	25		
0164	HOLL	09	1944	1947	2008	S31	E35	6364	11	12.6	24	SF		3	E		13		F
0165		09	19484	1948*	2024	N07	E24	6361	11	11.6	36	SF					42		F
	RAMY	09	1948	1948	2022	N07	E25	6361	11	11.7	34	SF		3	E		31		F
	HOLL	09	1952	2005	2026	N07	E24	6361	11	11.6	34	SF		3	E		53		F
0166	HOLL	09	2007	2015	2031	N09	E17	6362	11	11.1	24	SF		3	E		25		F
0167	HOLL	09	2012	2022	2045	S30	E33	6364	11	12.4	33	SF		3	E		26		F
		09	2115		2121	No Flare Patrol													

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Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt	Xray	Obs See	Time (UT)	Area Measurement		Remarks	
												Type	Apparent (10 ⁻⁶ Disk)		Corr (Sq Deg)
0168		09 2132*	2233*	2307	N16 W62 6355	11 5.2	95	SF				26		F	
	HOLL	09 2132	2305	2316	N17 W61 6355	11 5.3	104	SF		3	E	28		F	
	LEAR	09 2225	2233	2254	N16 W62 6355	11 5.2	29	SF		3	E	39			
	LEAR	09 2305	2305	2312	N16 W63 6355	11 5.2	7	SF		3	E	10			
0169		09 22205	22274	2243	S32 E32 6364	11 12.5	23	SF C 1.6				13			
	LEAR	09 2220	2231	2242	S32 E30 6364	11 12.3	22	SF		3	E	13			
	HOLL	09 2225	2227	2244	S31 E34 6364	11 12.6	19	SF C 1.6		3	E	13			
0170	LEAR	10 0153	0154	0201	N16 W66 6355	11 5.1	8	SF		3	E	19			
0171	PALE	10 0230	0234	0236	N15 W64 6355	11 5.2	6	SF		3	E	15			
0172	LEAR	10 0508	0512	0518	N16 W66 6355	11 5.2	10	SF		3	E	32			
0173		10 0532	05341	0551	S24 W53 6350	11 6.1	19	SN				44	0.8	E	
	LEAR	10 0532	0534	0600	S24 W54 6350	11 6.0	28	SF		3	E	48			
	TACH	10 0532	0535	0542	S24 W52 6350	11 6.2	10	SN		2	C	0535	41	0.8	E
0174		10 05322	05361	0552	N08 E01 6362	11 10.3	20	SN C 2.2				105	1.5	E	
	TACH	10 0532	0536	0552	N09 E01 6362	11 10.3	20	SB		2	C	0536	143	1.5	E
	LEAR	10 0534	0537	0552	N07 E01 6362	11 10.3	18	SF C 2.2		3	E	67			
0175		10 09233	0926*	0953	S31 E27 6364	11 12.5	30	SF C 2.7				68		F	
	LEAR	10 0923	0926	0959	S32 E25 6364	11 12.4	36	SF		3	E	89			
	SVTO	10 0923	0936	1000	S30 E26 6364	11 12.4	37	SF C 2.7		3	E	47		F	
	KANZ	10 0926	0926	0939	S31 E29 6364	11 12.7	13	SF			V				
0176	RAMY	10 1126	1131	1133	N16 W69 6355	11 5.2	7	SF		3	E	27			
0177		10 11542	12005	1243	N06 E17 6361	11 11.8	49	2B C 6.4				228		F	
	RAMY	10 1154	1200	1239	N05 E17 6361	11 11.8	45	2B C 6.4		3	E	295		F	
	KANZ	10 1156	1200	1241	N06 E17 6361	11 11.8	45	2B			V				
	SVTO	10 1156	1205	1248	N06 E17 6361	11 11.8	52	1N C 6.4		3	E	162		F	
0178	KANZ	10 1200	1203	1211	N04 E33 6364A	11 13.0	11	SF			V				
0179		10 1327	1334*	1357	S15 W49 6349	11 6.8	30	SF				28		K	
	RAMY	10 1327	1334	1357	S15 W49 6349	11 6.8	30	SF			E	36		K	
	RAMY	10 1327	1347	1357	S15 W49 6349	11 6.8	30	SF		3	E	19			
0180		10 1514*	1514*	1548	S22 W60 6350	11 6.0	34	SF				18		F	
	HOLL	10 1514	1514	1543	S22 W59 6350	11 6.1	29	SF		3	E	13		F	
	RAMY	10 1514	1534	1546	S22 W62 6350	11 5.9	32	SF		3	E	18		F	
	HOLL	10 1544	1544	1554	S22 W60 6350	11 6.0	10	SF		3	E	23		F	
0181		10 15291	15319	1552	S17 W66 6347	11 5.6	23	SF				24			
	HOLL	10 1529	1531	1540	S17 W65 6347	11 5.7	11	SF		3	E	28			
	HOLL	10 1530	1540	1604	S17 W66 6347	11 5.6	34	SF		3	E	20			
0182		10 18178	1821*	1835	N05 E14 6359B	11 11.8	18	SF				18			
	RAMY	10 1817	1821	1822	N05 E14 6359B	11 11.8	5	SF		3	E	19			
	RAMY	10 1824	1837	1844	N04 E14 6359B	11 11.8	20	SF		3	E	19			
	HOLL	10 1825	1826	1839	N05 E15 6359B	11 11.9	14	SF		3	E	17			
0183	PALE	10 1920	1921	1926	N15 W76 6355	11 5.0	6	SF C 1.2		3	E	55			
0184		10 20062	2009	2016	N16 W73 6355	11 5.3	10	SF C 1.4				23			
	HOLL	10 2006	2009	2023	N16 W71 6355	11 5.4	17	SF C 1.4		3	E	25			
	PALE	10 2007	2009	2015	N15 W74 6355	11 5.2	8	SF		3	E	34			
	RAMY	10 2008	2009	2011	N17 W73 6355	11 5.3	3	SF		3	E	11			
0185		10 20268	2041*	2118	N16 W72 6355	11 5.4	52	SF C 1.8				27		F	
	HOLL	10 2026	2053	2118	N17 W70 6355	11 5.5	52	SF C 1.8		3	E	23		F	
	PALE	10 2034	2041	2052D	N16 W74 6355	11 5.2	180	SF		3	E	31			
0186	HOLL	10 2129	2130	2136	S31 E20 6364	11 12.5	7	SF		3	E	12		F	
0187	HOLL	10 2152	2152	2158	N16 W75 6355	11 5.2	6	SF		3	E	10			

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NOVEMBER 1990

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	NOAA/ USAF Region	CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks	
														Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0188	HOLL	10	2320	2320	2325	N06 E14	6361	11	12.0	5	SF	3	E		13		F	
0189		10	2335	2338	2357	S16 W55	6349	11	6.8	22	SF				56	1.9	EFJ	
	MITK	10	2335	2338	2357	S15 W54	6349	11	6.9	22	SF		C	2338				
	VORO	10	2335	2338	2357	S16 W56	6349	11	6.7	22	SF	2	C	2338		99	1.9	EJ
	PALE	10	2335	2339	2356	S17 W54	6349	11	6.9	21	SF	3	E			38		F
	LEAR	10	2336	2340	2358	S16 W55	6349	11	6.8	22	SF	3	E			32		F
0190	VORO	10	2346	2350	2358	N05 W05	6359B	11	10.6	12	SF	2	C	2350		99	1.0	EIJT
0191	VORO	11	0029	0032	0046	N17 W80	6355	11	4.9	17	SF	2	C	0032		54		D
0192	VORO	11	0046	0048	0057	N07 E12	6361	11	11.9	11	SF	2	C	0048		143	1.5	DHIJT
0193	VORO	11	0116	0117	0122	N07 E12	6361	11	11.9	6	SF	2	C	0117		116	1.2	EHIJT
0194	VORO	11	0138	0139	0147	S17 W60	6349	11	6.5	9	SF	2	C	0139		90	1.9	DJ
0195		11	0146	0151	0159	N07 E11	6361	11	11.9	13	SN					76	0.8	EHIJT
	PURP	11	0146	0151	0159	N07 E10	6361	11	11.8	13	SB		C	0151		53	0.6	E
	VORO	11	0151	0154	0159	N07 E12	6361	11	12.0	8	SF	2	C	0154		99	1.0	EHIJT
0196	VORO	11	0232	0235	0239	N07 E12	6361	11	12.0	7	SF	2	C	0235		90	0.9	EHIJT
0197	VORO	11	0255	0258	0300	N07 E12	6361	11	12.0	5	SF	2	C	0258		125	1.3	EHIJT
0198	LEAR	11	0332	0350	0357	N04 E08	6359B	11	11.7	25	SF	3	E			21		
0199		11	0551	0553	0601	N05 E07	6359B	11	11.8	10	SN					33	0.5	D
	URUM	11	0551	0555	0600	N05 E07	6359B	11	11.8	9	SN		C			48	0.5	D
	LEAR	11	0554	0558	0602	N05 E07	6359B	11	11.8	8	SF	3	E			18		
0200	RAMY	11	1123	1126	1134	N09 W16	6362	11	10.3	11	SF	3	E			12		
0201	RAMY	11	1148	1150	1207	S32 E14	6364	11	12.6	19	SF	3	E			15		
0202	RAMY	11	1231	1243	1301	S32 E13	6364	11	12.5	30	SF	3	E			11		
0203		11	1303	1308	1341	S32 E10	6364	11	12.3	38	SF					12		
	RAMY	11	1303	1308	1341	S32 E10	6364	11	12.3	38	SF		E			15		K
	RAMY	11	1303	1317	1341	S32 E10	6364	11	12.3	38	SF	3	E			10		K
0204	RAMY	11	1352	1355	1421	S31 E10	6364	11	12.4	29	SF	3	E			17		F
0205	RAMY	11	1357	1357	1401	N07 E02	6361	11	11.7	4	SF	3	E			18		
0206	RAMY	11	1408	1409	1414	N10 W15	6362	11	10.5	6	SF	3	E			22		
0207		11	1427	1431	1452	S32 E11	6364	11	12.5	25	SF		C 2.3			72		F
	RAMY	11	1427	1431	1508	S32 E11	6364	11	12.5	41	1F		C 2.3	3	E	117		F
	SVTO	11	1428	1431	1437	S32 E11	6364	11	12.5	9	SF		C 2.3	3	E	40		F
	HOLL	11	1428	1431	1451	S32 E11	6364	11	12.5	23	SF		C 2.3	3	E	59		F
0208		11	1437	1439	1500	N07 E02	6361	11	11.7	23	SF					31		F
	HOLL	11	1437	1439	1458	N07 E02	6361	11	11.7	21	SF	3	E			30		F
	RAMY	11	1437	1439	1503	N07 E02	6361	11	11.7	26	SF	3	E			32		
0209	RAMY	11	1601	1602	1610	N07 E01	6361	11	11.7	9	SF	3	E			10		
0210	RAMY	11	1607	1613	1619	S31 E07	6364	11	12.2	12	SF	3	E			21		
0211		11	1615*	1623*	1649	N08 E01	6361	11	11.7	34	SF					31		FHK
	HOLL	11	1615	1623	1640	N08 E01	6361	11	11.7	25	SF					41		K
	HOLL	11	1615	1631	1640	N08 E01	6361	11	11.7	25	SF	3	E			25		
	RAMY	11	1615	1632	1658	N08 E01	6361	11	11.7	43	SF					18		K
	RAMY	11	1615	1644	1658	N08 E01	6361	11	11.7	43	SF	3	E			46		F
	HOLL	11	1644	1644	1651	N08 E02	6361	11	11.8	7	SF	3	E			23		H
0212	HOLL	11	1845	1854	1914	N06 E01	6361	11	11.8	29	SF	3	E			25		

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Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See Type	Area Measurement			Remarks
												Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0213		11 1930*	1946	1958	S31 E08	6364	11 12.4	28	SF				33		
	HOLL	11 1930	1946	1957	S30 E06	6364	11 12.3	27	SF		3 E		26		
	PALE	11 1942	1946	1959	S32 E09	6364	11 12.5	17	SF		3 E		40		
0214	HOLL	11 1944	1948	1955	N07 W01	6361	11 11.7	11	SF		3 E		30		
0215	HOLL	11 2000	2002	2014	N07 E01	6361	11 11.9	14	SF		3 E		19		
0216		11 2018A	2025	2044	S32 E08	6364	11 12.5	26	SF C 1.8				30		F
	PALE	11 2018	2025	2033	S33 E10	6364	11 12.6	15	SF		3 E		32		F
	HOLL	11 2022	2025	2054	S32 E07	6364	11 12.4	32	SF C 1.8		3 E		27		
0217		11 2044*	2047*	2116	N07 W01	6361	11 11.8	32	SF C 2.6				55		K
	HOLL	11 2044	2047	2117	N07 E00	6361	11 11.9	33	SF		E		11		K
	HOLL	11 2044	2059	2117	N07 E00	6361	11 11.9	33	1N C 2.6		3 E		103		
	PALE	11 2056	2102	2114	N07 W03	6361	11 11.6	18	SF		3 E		51		
0218	HOLL	11 2139	2140	2144	S32 E09	6364	11 12.6	5	SF		3 E		25		
0219		11 2153*	22012	2222	N08 W02	6361	11 11.8	29	SF C 9.8				65		EFH
	HOLL	11 2153	2201	2217	N07 W02	6361	11 11.8	24	SN C 9.8		3 E		97		EH
	LEAR	11 2202E	2203	2237	N08 W03	6361	11 11.7	35D	SF		3 E		41		FH
	PALE	11 2203	2203	2213	N08 W02	6361	11 11.8	10	SF		3 E		57		
0220	HOLL	11 2202	2202	2213	N13 W15	6359C	11 10.8	11	SF		3 E		21		
0221		11 2231*	2243*	2322	S33 E06	6364	11 12.4	51	SF C 2.5				24		FK
	LEAR	11 2231	2243	2323	S33 E06	6364	11 12.4	52	SF		E		12		K
	LEAR	11 2231	2254	2323	S33 E06	6364	11 12.4	52	SF C 2.5		3 E		32		F
	HOLL	11 2253	2254	2319	S32 E06	6364	11 12.4	26	SF C 2.5		3 E		28		F
0222	LEAR	12 0006	0012	0023	N08 W02	6361	11 11.8	17	SF C 3.3		3 E		66		
0223		12 01452	0149	0203	N07 W06	6361	11 11.6	18	SN C 2.3				151	2.5	D
	PEKG	12 0145	0149	0158	N07 W06	6361	11 11.6	13	1F		P	0149	420	4.4	D
	LEAR	12 0147	0149	0201	N06 W06	6361	11 11.6	14	SF C 2.3		3 E		58		
	PURP	12 0151E	0151U	0155D	N08 W05	6361	11 11.7	4D	SB		P	0151	60	0.6	
	PALE	12 0153E	0153U	0211	N07 W06	6361	11 11.6	18D	SF		3 E		67		
0224		12 0210	0211	0215	S30 E05	6364	11 12.5	5	SF				26		
	PALE	12 0153E	0201U	0212	S30 E06	6364	11 12.5	19D	SF		3 E		35		
	LEAR	12 0210	0211	0218	S31 E04	6364	11 12.4	8	SF		3 E		17		
0225		12 02261	02281	0232	N08 W06	6361	11 11.6	6	SF				48	0.9	D
	LEAR	12 0226	0229	0233	N07 W06	6361	11 11.6	7	SF		3 E		13		
	PEKG	12 0227	0228	0230	N08 W05	6361	11 11.7	3	SF		C	0228	84	0.9	D
0226	LEAR	12 0302	0308	0327	S30 E01	6364	11 12.2	25	SF		3 E		21		F
0227		12 0332	03341	0341	N07 W02	6361	11 12.0	9	SN				48	0.8	EF
	LEAR	12 0332	0335	0337	N07 W02	6361	11 12.0	5	SF		3 E		16		F
	URUM	12 0334E	0334	0345	N07 W01	6361	11 12.1	11D	SN		C		80	0.8	E
0228		12 04505	04552	0512	S25 W13	6369	11 11.2	22	1N				314	6.7	EF
	WATU	12 0450	0455	0515	S25 W12	6369	11 11.3	25	1N		C	0455	350	4.2	F
	PEKG	12 0450	0457	0505	S26 W12	6369	11 11.3	15	2N		P	0457	757	9.2	EF
	LEAR	12 0455	0455	0509	S22 W15	6369	11 11.0	14	SF		3 E		30		
	LEAR	12 0456E	0457U	0521	S26 W12	6369	11 11.3	25D	1F		3 E		121		F
0229		12 0510*	0510*	0525	N07 W06	6361	11 11.8	15	SF C 3.1				32		H
	LEAR	12 0510	0510	0518	N08 W05	6361	11 11.8	8	SF C 3.1		3 E		52		
	LEAR	12 0522	0529	0532	N06 W08	6361	11 11.6	10	SF		3 E		12		H
0230		12 06054	0610*	0621	N07 W07	6361	11 11.7	16	SN				59	0.8	DE
	URUM	12 0605	0610	0624	N07 W09	6361	11 11.6	19	SN		C		113	1.2	E
	PURP	12 0606	0611	0624	N08 W09	6361	11 11.6	18	SN		C	0611	26	0.3	
	LEAR	12 0606	0620	0626	N07 W03	6361	11 12.0	20	SF		3 E		14		
	PEKG	12 0609	0610	0611	N07 W08	6361	11 11.6	2	SF		P	0610	84	0.9	D

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Grp #	Sta	Start Day	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Xray	Obs See	Type	Area Measurement			Remarks
														Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0231		12 0800	0804	0825	N09	W28	6362	11	10.2	25	SN				48	0.6	D
	BUCA	12 0800	0809	0830	N09	W28	6362	11	10.2	30	SN		P	0809	64	0.8	D
	URUM	12 0804	0815	0820	N09	W28	6362	11	10.2	16	SF		C		32	0.4	D
0232		12 0815	0820	0835	S32	E02	6364	11	12.5	20	SF				34	0.4	E
	URUM	12 0815	0820	0835	S32	E01	6364	11	12.4	20	SF		C		32	0.4	E
	LEAR	12 0817E	0818U	0835	S32	E02	6364	11	12.5	180	SF	3	E		37		
0233	ISTA	12 1034		1041	S32	E02	6364	11	12.6	7	SN						E
0234		12 1254	1255*	1317	N07	W10	6361	11	11.8	23	SF				30	0.4	F
	RAMY	12 1254	1255	1321	N06	W08	6361	11	11.9	27	SF	3	E		20		F
	KANZ	12 1303	1307	1314	N06	W12	6361	11	11.6	11	SF		V				
	HPR	12 1305E	1308	1315	N08	W10	6361	11	11.8	100	SF		C	1308	40	0.4	
0235	RAMY	12 1424	1425U	1439	S33	E00	6364	11	12.6	15	SF	2	E		17		F
0236	RAMY	12 1607	1609	1613	N07	W08	6361	11	12.1	6	SF	3	E		22		
0237		12 1632*	1637	1703	N07	W09	6361	11	12.0	31	SN	C 3.1			66		EFK
	RAMY	12 1632	1637	1709	N07	W09	6361	11	12.0	37	SN		E		15		K
	RAMY	12 1632	1644	1709	N07	W09	6361	11	12.0	37	1N	C 3.1	3	E	109		F
	HOLL	12 1642	1644	1651	N07	W09	6361	11	12.0	9	SN	C 3.1	3	E	75		FE
0238		12 1708	1710	1730	S33	W01	6364	11	12.6	22	SF				32		FK
	HOLL	12 1708	1710	1733	S33	W01	6364	11	12.6	25	SF		E		42		K
	HOLL	12 1708	1713	1733	S33	W01	6364	11	12.6	25	SF	4	E		35		
	RAMY	12 1709	1713	1725	S33	W02	6364	11	12.5	16	SF	3	E		20		F
0239	HOLL	12 1908	1908	1914	N07	W11	6361	11	12.0	6	SF	C 2.2	3	E	10		
0240		12 1920	1921*	1943	N09	W12	6361	11	11.9	23	SN	C 6.9			73		FHK
	HOLL	12 1920	1921	1949	N09	W12	6361	11	11.9	29	SN	C 6.9	3	E	99		H
	HOLL	12 1920	1942	1949	N09	W12	6361	11	11.9	29	SB		E		42		K
	RAMY	12 1921	1922	1930	N09	W12	6361	11	11.9	9	SN		3	E	77		FH
0241		12 1922	1922	1938	N10	W28	6362	11	10.7	16	SF				22		
	RAMY	12 1922	1922	1930	N08	W30	6362	11	10.5	8	SF	3	E		19		
	HOLL	12 1922	1922	1946	N11	W25	6362	11	10.9	24	SF	3	E		24		
0242	HOLL	12 1959	2013	2015	N07	W11	6361	11	12.0	16	SF	3	E		12		
		12 2035		2043	No Flare Patrol												
0243	HOLL	12 2128	2128	2138	S27	W11	6364	11	12.0	10	SF	C 1.7	3	E	12		
0244		12 2346	2347	2356	N07	W19	6361	11	11.6	10	SF	C 1.5			66	1.2	EIJT
	LEAR	12 2346	2347	2356	N07	W19	6361	11	11.6	10	SF	C 1.5	3	E	23		
	VORO	12 2346	2347	2357	N07	W19	6361	11	11.6	11	SF		2	C	2347	108	1.2
0245		13 0122*	0136	0155	N10	W39	6362	11	10.1	33	SF				54	1.0	EHIJT
	VORO	13 0122	0124U	0159	N11	W38	6362	11	10.2	37	SF	2	C	0124	116	1.5	EHIJT
	VORO	13 0122	0136	0159	N11	W38	6362	11	10.2	37	SF	2	C				
	YUNN	13 0136E	0137U	0152	N12	W43	6362	11	9.8	160	SN		P	0137	32	0.5	
	LEAR	13 0138	0143	0150	N08	W38	6362	11	10.2	12	SF	3	E		15		
0246		13 0432*	0435	0454	N08	W19	6361	11	11.8	22	SN	M 1.6			78	1.2	EK
	LEAR	13 0432	0435	0455	N08	W19	6361	11	11.8	23	SN		E		30		K
	LEAR	13 0432	0444	0455	N08	W19	6361	11	11.8	23	SN	M 1.6	3	E	93		E
	WATU	13 0443	0444	0452	N09	W18	6361	11	11.8	9	SN		C	0444	110	1.2	
0247	URUM	13 0550	0556	0602	S33	W19	6364C	11	11.7	12	SF		C		16	0.2	D
0248	URUM	13 0556	0558	0620	N08	W20	6361	11	11.7	24	SF		C		32	0.4	D
0249		13 0728	0731	0738	N08	W20	6361	11	11.8	10	SF	C 2.7			56	0.7	
	LEAR	13 0728	0731	0737	N08	W20	6361	11	11.8	9	SF	C 2.7	3	E	47		
	KANZ	13 0728	0732	0739	N09	W19	6361	11	11.9	11	SF		V				
	YUNN	13 0729	0731	0738	N07	W22	6361	11	11.7	9	SN		C		64	0.7	

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/ USAF		CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
						Region	Lat								Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0271	14	0856	0855U	0900	N08 W33	6361	11	11.9	4	SN						87	1.1	D
	ABST	14	0855E	0900	N09 W34	6361	11	11.8	5D	SN			P		0855	87	1.1	D
	KANZ	14	0855E	0855U	0859	N08 W32	6361	11	12.0	4D	SF		V					
	ISTA	14	0856		0900	N08 W34	6361	11	11.8	4	1B							D
0272	14	09252	09301	0940	S22 E00	6366	11	14.4	15	SN	C 3.0					73		U
	ISTA	14	0925	0939	S20 W01	6366	11	14.3	14	1B								U
	LEAR	14	0925	0930	0942	S24 E00	6366	11	14.4	17	SF	C 3.0	3	E		73		
	KANZ	14	0927	0931	0938	S23 E02	6366	11	14.5	11	SF			V				
0273	LEAR	14	0958	0958	1003	N17 E72	6368	11	19.9	5	SF		3	E		25		
0274	RAMY	14	1138	1147	1155	N19 E77	6368	11	20.4	17	SF		3	E		21		F
0275	14	1222	1226*	1245	N18 E76	6368	11	20.3	23	SF					23		FK	
	RAMY	14	1222	1226	1245	N18 E76	6368	11	20.3	23	SF		E		20		K	
	RAMY	14	1222	1238	1245	N18 E76	6368	11	20.3	23	SF		4	E	26		F	
0276	RAMY	14	1424	1435	1502	S21 W05	6366	11	14.2	38	SF		3	E	40		F	
0277	RAMY	14	1441	1446	1450	N17 E75	6368	11	20.3	9	SF		3	E	12		F	
0278	14	16249	16269	1649	S20 W06	6366	11	14.2	25	SN	C 1.6				21			
	RAMY	14	1624	1626	1631	S20 W05	6366	11	14.3	7	SF	C 1.6	3	E	18			
	RAMY	14	1633	1635	1707	S20 W06	6366	11	14.2	34	SN	C 2.4	3	E	24			
0279	14	17213	17272	1749	S22 W04	6366	11	14.4	28	SN	C 2.3				31		F	
	RAMY	14	1721	1727	1747	S21 W06	6366	11	14.3	26	SN		3	E	32		F	
	HOLL	14	1724	1729	1751	S22 W02	6366	11	14.6	27	SF	C 2.3	3	E	30			
0280	HOLL	14	1724	1730	1740	N18 W57	6358	11	10.4	16	SF		3	E	16			
0281	RAMY	14	1738	1746	1756	N06 W36	6361	11	12.0	18	SF		3	E	28		F	
0282	14	18322	1835	1843	S21 W06	6366	11	14.3	11	SF					12		F	
	HOLL	14	1832	1835	1844	S21 W05	6366	11	14.4	12	SF		3	E	13		F	
	RAMY	14	1834	1835	1842	S21 W06	6366	11	14.3	8	SF		3	E	11		F	
0283	HOLL	14	1844	1845	1902	N16 W58	6358	11	10.4	18	SF		3	E	14		F	
0284	14	18482	1851	1901	S20 W06	6366	11	14.3	13	SF					18		F	
	HOLL	14	1848	1851	1901	S20 W06	6366	11	14.3	13	SF		3	E	21		F	
	RAMY	14	1850	1851	1901	S21 W07	6366	11	14.2	11	SF		3	E	15		F	
0285	RAMY	14	1952	1952	2002	S21 W07	6366	11	14.3	10	SF	C 1.9	3	E	18		F	
0286	HOLL	14	1954	1957	2008	N18 E73	6368	11	20.4	14	SF		3	E	25			
0287	HOLL	14	2050	2055	2120	N15 W58	6358	11	10.5	30	SF	C 2.0	3	E	17		F	
0288	HOLL	14	2053	2057	2105	N21 E69	6368	11	20.2	12	SF		3	E	13		F	
0289	HOLL	14	2059	2102	2124	N07 W37	6361	11	12.1	25	SF		3	E	24		F	
0290	HOLL	14	2124	2125	2153	N16 W57	6358	11	10.6	29	SF		3	E	19		F	
0291	HOLL	14	2227	2229	2244	S21 W07	6366	11	14.4	17	SF		3	E	11		F	
0292	HOLL	14	2315	2321	2332	S21 W08	6366	11	14.3	17	SF		3	E	12		F	
0293	VORO	15	0136U	0236U	0241	S32 W39	6364	11	12.0	65U	SF		2	C	0236	99	1.6	D
0294	15	02503	02542	0310	S20 W11	6366	11	14.3	20	SF	C 3.0				74	1.0	DJT	
	WATU	15	0250	0256	0315	S20 W12	6366	11	14.2	25	SF		C	0256	80	0.9		
	VORO	15	0251	0254	0258D	S20 W11	6366	11	14.3	7D	SF		2	C	0254	90	1.0	DJT
	LEAR	15	0253	0254	0304	S21 W11	6366	11	14.3	11	SF	C 3.0	3	E	51			
0295	15	0524	05262	0546	N19 W62	6358	11	10.5	22	1N	C 5.6				174		U	
	LEAR	15	0524	0526	0547	N19 W64	6358	11	10.3	23	1F	C 5.6	3	E	103			
	TACH	15	0524	0528	0546	N19 W61	6358	11	10.6	22	1B		3	C	0528	244		U

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Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/	CMP	Dur	Imp	Obs	Area Measurement	Time	Apparent	Corr	Remarks	
							USAF Region										Mo Day
0296	LEAR	15 0626	0629	0633	N17	E63	6368	11	20.0	7	SF	3	E		24		F
0297	LEAR	15 0657*	0658*	0822	S21	W14	6366	11	14.2	85	SN C 3.2				88	1.5	EFK
	LEAR	15 0657	0658	0702	S20	W14	6366	11	14.2	5	SF	3	E		20		
	YUNN	15 0707	0717	0728	S22	W15	6366	11	14.1	21	SN		C		48	0.6	
	ISTA	15 0725		0810	S21	W14	6366	11	14.2	45	SB						KF
	ABST	15 0734	0752	0854	S20	W14	6366	11	14.2	80	SN		C	0752	140	1.9	F
	LEAR	15 0738	0749	0855	S22	W13	6366	11	14.3	77	SF C 3.2	3	E		45		
	LEAR	15 0738	0832	0855	S22	W13	6366	11	14.3	77	SN		E		51		K
	YUNN	15 0751E	0759U	0810D	S20	W16	6366	11	14.1	19D	SN		P	0759	48	0.6	
	ISTA	15 0825	0830	0840	S21	W15	6366	11	14.2	15	SB						EK
	YUNN	15 0832	0834	0849	S20	W18	6366	11	14.0	17	1N		C		193	2.3	
	BUCA	15 0838E	0840U	0900D	S22	W13	6366	11	14.4	22D	SN		P	0840	161	1.9	E
0298	BUCA	15 0850	0852	0858	N07	W43	6361	11	12.1	8	SN		C	0852	54	0.8	D
0299	LEAR	15 0914	0916	0928	N18	E65	6368	11	20.3	14	SF	3	E		33		F
0300	LEAR	15 0929	0930	0942	N15	E59	6368	11	19.9	13	SF	3	E		28		
0301	HTPR	15 1108	1119	1145	N19	E62	6368	11	20.2	37	SF		C	1119	40	1.0	
0302	HTPR	15 1243	1246	1325	S20	W15	6366	11	14.4	42	SF		C	1246	60	0.7	
0303		15 1427	1435	1458	S21	W16	6366	11	14.4	31	SF C 2.0				40		F
	RAMY	15 1427	1435	1459	S21	W17	6366	11	14.3	32	SF C 2.0	4	E		28		F
	HOLL	15 1432E	1433U	1457	S21	W16	6366	11	14.4	25D	SF	2	E		51		F
0304	HOLL	15 1459	1501	1513	S33	W37	6364	11	12.7	14	SF	3	E		14		
0305		15 1511	15139	1547	N18	E59	6368	11	20.1	36	SF C 6.2				30		F
	RAMY	15 1511	1513	1538	N18	E60	6368	11	20.2	27	SF	3	E		22		F
	HOLL	15 1511	1522	1556	N19	E58	6368	11	20.0	45	SF C 6.2	3	E		38		F
0306	RAMY	15 1614	1615	1618	S20	W20	6366	11	14.1	4	SF	3	E		16		F
		15 1655		1659	No Flare Patrol												
0307		15 1846	18461	1852	S21	W20	6366	11	14.2	6	SF				18		F
	PALE	15 1846	1846	1854	S21	W20	6366	11	14.2	8	SF	3	E		21		F
	HOLL	15 1846	1847	1851	S21	W19	6366	11	14.3	5	SF	3	E		15		F
0308	PALE	15 1945	1945	1952	N19	E60	6368	11	20.4	7	SF C 2.1	3	E		19		
0309	HOLL	15 2040	2044	2054	N17	E52	6368	11	19.8	14	SF C 2.6	3	E		37		F
0310	HOLL	15 2121	2122	2142	N16	E51	6368	11	19.7	21	SN C 6.6	4	E		58		EF
0311	LEAR	15 2206	2212	2215	N18	E57	6368	11	20.3	9	SF	3	E		27		
0312	LEAR	15 2309	2314	2326	S20	W23	6366	11	14.2	17	SF	3	E		10		
0313		15 23203	23241	2338	N18	E56	6368	11	20.2	18	SF				26		F
	LEAR	15 2320	2325	2340	N17	E55	6368	11	20.1	20	SF	3	E		31		
	HOLL	15 2323	2324	2336	N18	E56	6368	11	20.2	13	SF	3	E		20		F
0314		16 0023	0027*	0059	N19	E42	6368	11	19.2	36	SF				62		FK
	LEAR	16 0023	0027	0059	N19	E42	6368	11	19.2	36	SF		E		58		K
	LEAR	16 0023	0039	0059	N19	E42	6368	11	19.2	36	SF	3	E		67		F
0315	LEAR	16 0147	0147	0154	N15	E45	6368	11	19.5	7	SF	3	E		22		
0316		16 0203*	0211*	0311	N18	E51	6368	11	20.0	68	SF C 7.7				82		K
	LEAR	16 0203	0211	0311	N17	E52	6368	11	20.0	68	SF		E		59		K
	LEAR	16 0203	0223	0311	N17	E52	6368	11	20.0	68	SF C 7.7	3	E		81		
	PALE	16 0225	0229	0239D	N19	E50	6368	11	19.9	14D	1F	3	E		106		
0317	PALE	16 0231	0231	0236	S22	W22	6366	11	14.4	5	SF	3	E		18		F

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Grp #	Sta	Start Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0318	URUM	16	0320	0330	0352	S21	W26	6366	11	14.1	32	SF		C		48	0.6	E
0319		16	0330	0333	0341	N18	E41	6368	11	19.3	11	SN				26	0.5	D
	URUM	16	0330	0333	0340	N18	E41	6368	11	19.3	10	SN		C		32	0.5	D
	LEAR	16	0336	0337	0342	N17	E41	6368	11	19.3	6	SF		3	E	19		
0320	URUM	16	0350	0354	0400	N17	E41	6368	11	19.3	10	SN		C		64	0.9	D
0321	LEAR	16	0355	0358	0405	N19	E49	6368	11	19.9	10	SF	C 3.2	3	E	78		F
0322	URUM	16	0432	0451	0540	S22	W27	6366	11	14.1	68	SN		C		48	0.6	E
0323	LEAR	16	0446	0446	0450	N19	E55	6368	11	20.4	4	SF		3	E	22		
0324		16	0540	0543	0551	N17	E46	6368	11	19.7	11	SN	C 1.8			16	0.2	E
	URUM	16	0540	0543	0548	N15	E43	6368	11	19.5	8	SN		C		16	0.2	E
	LEAR	16	0549	0549	0554	N19	E48	6368	11	19.9	5	SF	C 1.8	3	E	17		
0325		16	0609	0610	0615	S24	W26	6366	11	14.2	6	SN				24	0.4	
	YUNN	16	0609	0609	0617	S24	W26	6366	11	14.2	80	SN		P	0609	32	0.4	
	LEAR	16	0609	0610	0613	S25	W26	6366	11	14.2	4	SF		3	E	16		
0326	YUNN	16	0728	0732	0800	N25	E52	6368	11	20.3	32	SN		P		16	0.3	
0327	ABST	16	0731E	0731	0740	N25	E90		11	23.3	90	SF		P	0731	87		D
0328		16	0814	0817	0824	N21	E44	6368	11	19.7	10	SN	C 2.2			68	1.3	DE
	ISTA	16	0814	0820	0827	N18	E53	6368	11	20.4	13	1B						E
	YUNN	16	0814	0820	0823	N25	E39	6368	11	19.4	9	SB		P		80	1.1	
	ABST	16	0816	0817	0820	N21	E50	6368	11	20.2	4	SF		C	0817	87	1.5	D
	ISTA	16	0817	0817	0823	N21	E40	6368	11	19.4	6	1N						E
	LEAR	16	0817	0817	0824	N19	E46	6368	11	19.8	7	SF	C 2.2	3	E	17		
	ABST	16	0819	0820	0824	N20	E39	6368	11	19.3	5	SN		C	0820	87	1.4	D
0329	HTPR	16	0959	1000	1004	N23	E40	6368	11	19.5	5	SF		C	1000	30	0.4	
0330	KANZ	16	1021	1021	1024	N04	W60	6361	11	11.9	3	SF		V				
0331	KANZ	16	1131	1131	1139	N17	W77	6358	11	10.6	8	SF		V				
0332		16	1311	1315	1323	N17	E37	6368	11	19.4	12	1N		C	1315	200	2.6	H
	HTPR	16	1311	1315	1323	N17	E37	6368	11	19.4	12	1N		C	1315	200	2.6	H
	RAMY	16	1313	1315	1329	N17	E36	6368	11	19.3	160	1F	C 4.7	3	E	101		H
	KANZ	16	1314	1314	1326	N18	E35	6368	11	19.2	12	1F		V				
0333	HTPR	16	1353	1353	1356	N22	E53	6368	11	20.6	3	SF		C	1353	30	0.5	
0334		16	1806	1813	1822	N05	W61	6361	11	12.2	16	SF	C 2.4	4	E	63		F
	HOLL	16	1806	1813	1822	N05	W61	6361	11	12.2	16	SF	C 2.4	4	E	63		F
	PALE	16	1809	1812	1817	N05	W63	6361	11	12.0	8	SF	C 2.4	3	E	11		
0335		16	1837	1839	1902	S21	W32	6366	11	14.3	25	SF				25		F
	PALE	16	1837	1839	1902	S21	W32	6366	11	14.3	25	SF		3	E	22		F
	HOLL	16	1838	1840	1907	S21	W30	6366	11	14.5	29	SF		3	E	23		F
	RAMY	16	1843	1843	1848	S20	W34	6366	11	14.2	5	SF		3	E	31		F
0336		16	1858	1859	1904	S30	W56	6364	11	12.4	6	SF				14		F
	PALE	16	1858	1859	1902	S31	W56	6364	11	12.4	4	SF		3	E	17		
	HOLL	16	1858	1859	1905	S30	W55	6364	11	12.5	7	SF		3	E	12		F
0337		16	1936	1939	2015	N21	E47	6368	11	20.4	390	SF		3	E	26		F
	PALE	16	1936	1939	2015	N21	E47	6368	11	20.4	390	SF		3	E	26		F
	HOLL	16	1937	1938	1949	N18	E39	6368	11	19.8	12	SF		3	E	20		
	RAMY	16	1938	1940	2001	N19	E48	6368	11	20.5	23	SF	C 2.2	3	E	33		F
0338	HOLL	16	2050	2051	2117	N19	E45	6368	11	20.3	27	SF	C 2.6	3	E	16		
0339	HOLL	16	2121	2121	2143	S22	W33	6366	11	14.3	22	SF		3	E	10		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See Type	Area Measurement			Remarks		
													Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)			
0340	HOLL	16	2141	2142	2147	N19	E46	6368	11 20.4	6	SF C 2.1	3 E		14				
0341	LEAR	16	2211	2255	2302	S20	W36	6366	11 14.2	51	SF	3 E		26				
0342	LEAR	16	2256	2305	2309	N18	E37	6368	11 19.8	13	SF	3 E		18				
0343		16	2323*	2324*	2436	N15	E34	6368	11 19.5	73	1N C 3.8			218	5.0	EFIJKT		
	LEAR	16	2323	2324	2433	N14	E32	6368	11 19.4	70	SN	E		35		K		
	LEAR	16	2323	2348	2433	N14	E32	6368	11 19.4	70	1N C 3.8	3 E		248				
	HOLL	16	2325E	2329	2351D	N18	E37	6368	11 19.8	26D	SN	E		49		K		
	HOLL	16	2325E	2346	2351D	N18	E37	6368	11 19.8	26D	1N M 1.2	2 E		160		F		
	VORO	16	2327E	2346	2434	N15	E34	6368	11 19.5	67D	2F	2 C	2346	484	6.0	EIJKT		
	MITK	16	2347	2347	2445	N13	E32	6368	11 19.4	58	1B	C	2347	330	4.1	E		
0344	VORO	16	2331	2335	2344	N21	E47	6368	11 20.6	13	SF	2 C	2335	72	1.1	DIJT		
0345	LEAR	16	2351	2357	2422	S22	W35	6366	11 14.3	31	SF	3 E		29				
0346	LEAR	17	0052	0053	0057	N14	E32	6368	11 19.4	5	SF	3 E		22		F		
0347		17	0207I	0226	0423	N15	E40	6368	11 20.1	136	1F C 7.1			199	3.2	EFHIJT		
	MITK	17	0207		0448	N15	E40	6368	11 20.1	161	SN	C	0228			EH		
	LEAR	17	0208	0226	0358	N16	E42	6368	11 20.3	110	1F C 7.1	3 E		156		F		
	VORO	17	0215U		0225D	N15	E38	6368	11 20.0	10U	1F	2 C	0223	242	3.2	EIJT		
0348	LEAR	17	0248	0250	0306	N07	W68	6361	11 12.0	18	SF	3 E		55				
0349	LEAR	17	0359	0415	0421	N19	E43	6368	11 20.4	22	SF C 3.6	3 E		33				
0350	LEAR	17	0422	0425	0437	N14	E30	6368	11 19.4	15	SF	3 E		58		F		
0351	LEAR	17	0607	0610	0621	N17	E39	6368	11 20.2	14	SF	3 E		43				
0352		17	0645	0650*	0727	N17	E36	6368	11 20.0	42	1F C 3.9			132	1.8	DF		
	ABST	17	0645	0650	0709	N17	E35	6368	11 19.9	24	SF	C	0650	87	1.1	D		
	LEAR	17	0645	0723	0743	N17	E38	6368	11 20.2	58	1F C 3.9	3 E		117		F		
	YUNN	17	0645	0724U	0730	N17	E35	6368	11 19.9	45	1N	P	0724	193	2.5			
0353	ISTA	17	0828		0832	N17	E26	6368	11 19.3	4	SN						D	
0354		17	0902*	0907*	0934	N17	E35	6368	11 20.0	32	SF C 3.6			43		F		
	SVTO	17	0850E	0910U	0943D	N18	E32	6368	11 19.8	53D	SF	3 E		57				
	LEAR	17	0902	0907	0927	N17	E37	6368	11 20.2	25	SF C 3.6	3 E		54		F		
	LEAR	17	0929	0931	0940	N17	E37	6368	11 20.2	11	SF	3 E		17				
		17	1031		1032	No Flare Patrol												
		17	1038		1048	No Flare Patrol												
0355		17	1050	1052*	1145	N17	E35	6368	11 20.1	55	SN C 3.9			99	1.2	FK		
	SVTO	17	1050	1052	1253D	N17	E34	6368	11 20.0	123D	1F	E		113		K		
	SVTO	17	1050	1109	1253D	N17	E34	6368	11 20.0	123D	1F C 3.9	3 E		166		F		
	SVTO	17	1050	1136	1140	N17	E34	6368	11 20.0	50	SN	3 E		75		F		
	RAMY	17	1052E	1053U	1056	N15	E33	6368	11 19.9	4D	SF	1 E		53				
	HPR	17	1208E	1212	1240	N18	E37	6368	11 20.3	32D	SN	C	1212	90	1.2			
	KANZ	17	1219E	1220U	1224D	N19	E36	6368	11 20.3	5D	SN	V						
0356	RAMY	17	1234	1238	1240	S32	W64	6364	11 12.4	6	SF	3 E		13				
0357		17	13092	1312	1330	N07	W68	6361	11 12.4	21	1N C 8.5			88				
	HPR	17	1309	1312	1327	N07	W70	6361	11 12.3	18	1N	C	1312	70				
	RAMY	17	1309	1312	1333	N08	W70	6361	11 12.3	24	SN C 8.5	3 E		74				
	SVTO	17	1311	1312U	1313D	N07	W65	6361	11 12.7	2D	1F	3 E		120				
0358		17	13059	1307*	1320	N18	E37	6368	11 20.4	15	SF			21		F		
	RAMY	17	1305	1307	1313	N18	E36	6368	11 20.3	8	SF	3 E		27				
	RAMY	17	1314	1319	1326	N19	E38	6368	11 20.4	12	SF	3 E		15		F		
0359	RAMY	17	1345	1345	1353	N19	E39	6368	11 20.5	8	SF	3 E		12				

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Grp #	Sta	Start Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See Type	Area Measurement			Remarks
													Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0360	RAMY	17	1416	1424	1427	N19	E39	6368	11 20.6	11	SF C 2.8	3 E		20		
0361	RAMY	17	1446	1447	1501	N15	E30	6368	11 19.9	15	SF C 4.5	3 E		25		F
		17	1552		1608	No Flare Patrol										
0362	RAMY	17	1638	1643	1645	N21	E21	6368	11 19.3	7	SF C 3.3	2 E		17		
0363		17	1646	17026	1725	N17	E28	6368	11 19.8	39	SF			45		K
	RAMY	17	1646	1702	1725	N17	E28	6368	11 19.8	39	SF	E		59		K
	RAMY	17	1646	1708	1725	N17	E28	6368	11 19.8	39	SF	2 E		31		
0364		17	17261	1733*	1812	N14	E31	6368	11 20.1	46	1F C 8.8			171		FK
	RAMY	17	1726	1733	1811	N14	E32	6368	11 20.1	45	1F	3 E		196		F
	RAMY	17	1726	1743	1811	N14	E32	6368	11 20.1	45	1F	E		84		K
	HOLL	17	1727	1734	1813	N14	E30	6368	11 20.0	46	1F	E		96		K
	HOLL	17	1727	1744	1813	N14	E30	6368	11 20.0	46	2N C 8.8	2 E		307		F
0365		17	1842	18457	1937	N18	E26	6368	11 19.7	55	SN M 1.1			81		EFK
	HOLL	17	1842	1845	1937	N18	E26	6368	11 19.7	55	SN M 1.1	3 E		63		FE
	HOLL	17	1842	1852	1937	N18	E26	6368	11 19.7	55	SN	E		99		K
0366	HOLL	17	1910	1910	1919D	N07	W73	6361	11 12.3	9D	SF C 7.7	3 E		32		
		17	1920		1933	No Flare Patrol										
0367	HOLL	17	2001	2005	2009	N21	E18	6368	11 19.2	8	SF M 2.4	3 E		19		
0368	HOLL	17	2053	2055	2100	N17	E18	6368	11 19.2	7	SF	3 E		19		F
0369	HOLL	17	2147	2147	2155D	N17	E29	6368	11 20.1	8D	SF C 3.2	3 E		70		
0370	LEAR	17	2239	2244	2314	N15	E28	6368	11 20.1	35	1N M 1.1	3 E		157		EF
0371		18	0010	00228	0058	N18	E31	6368	11 20.4	48	SN M 1.4			79		FK
	LEAR	18	0010	0022	0058	N18	E31	6368	11 20.4	48	SN M 1.4	3 E		79		F
	LEAR	18	0010	0030	0058	N18	E31	6368	11 20.4	48	SN	E		79		K
0372	LEAR	18	0052	0052	0059	S32	W75	6364	11 12.1	7	SF	3 E		11		
0373	LEAR	18	0129	0133	0136	N18	E15	6368	11 19.2	7	SF C 2.3	3 E		17		
0374	LEAR	18	0155	0156	0200	N16	E16	6368	11 19.3	5	SF C 2.0	3 E		20		
0375		18	0357	0404	0417	N11	E19	6376A	11 19.6	20	SN			33	0.4	D
	LEAR	18	0357	0404	0413	N09	E20	6376A	11 19.7	16	SF	3 E		18		
	YUNN	18	0402E	0408U	0428	N12	E18	6376A	11 19.5	26D	SN	P	0408	48	0.5	
	URUM	18	0403E	0404	0410	N11	E19	6376A	11 19.6	7D	SN	C		32	0.4	D
0376		18	05041	05101	0522	N17	W21	6371	11 16.6	18	SN			70	1.0	E
	LEAR	18	0504	0510	0517	N18	W20	6371	11 16.7	13	SF	3 E		33		
	YUNN	18	0505E	0508U	0520	N16	W23	6371	11 16.5	15D	SN	P	0508	80	0.9	
	URUM	18	0505	0511	0528	N18	W20	6371	11 16.7	23	SN	C		96	1.1	E
0377	YUNN	18	0510E	0510U	0512	N17	E18	6368	11 19.6	2D	SN	P	0510	16	0.2	
0378		18	05331	0535	0544	N15	E24	6368	11 20.0	11	SN C 2.8			34	0.6	E
	LEAR	18	0533	0535	0542	N14	E23	6368	11 20.0	9	SF C 2.8	3 E		21		
	URUM	18	0534	0535	0546	N16	E24	6368	11 20.0	12	SN	C		48	0.6	E
0379		18	0628	06293	0636	N14	E18	6368	11 19.6	8	SN			39	0.5	E
	LEAR	18	0628	0629	0636	N14	E18	6368	11 19.6	8	SF	3 E		30		
	URUM	18	0628	0632	0635	N15	E19	6368	11 19.7	7	SN	C		48	0.5	E
0380	URUM	18	0636	0640	0648	N22	E13	6368	11 19.3	12	SN	C		48	0.5	E
0381		18	0721	07231	0732	N16	E24	6368	11 20.1	11	SN			30	0.4	D
	LEAR	18	0721	0723	0735	N15	E24	6368	11 20.1	14	SF	3 E		28		
	URUM	18	0721	0724	0729	N16	E24	6368	11 20.1	8	SN	C		32	0.4	D

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF Region			Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Apparent (10 ⁻⁶ Disk)	Measurement Corr (Sq Deg)	Remarks			
						Lat	Cmd	Mo Day												
0382		18	0810	0813	0817	N16	E18	6368	11	19.7	7	SF	C	1.9		66	1.0	D		
	ABST	18	0810	0813	0816	N17	E18	6368	11	19.7	6	SF			0813	87	1.0	D		
	URUM	18	0810	0814	0817	N14	E18	6368	11	19.7	7	SN				80	0.9	D		
	SVTO	18	0813E	0813U	0818	N16	E17	6368	11	19.6	5D	SF	C	1.9	3	E	30			
0383	SVTO	18	0832	0842	0849	N24	E14	6368	11	19.4	17	SF				4	E	12		
0384	ABST	18	0839	0841	0843	N24	E24	6368	11	20.2	4	SF			0841	87	1.0	D		
0385	LEAR	18	0851	0852	0858	N17	E19	6368	11	19.8	7	SF	C	2.2	3	E	30			
0386	ISTA	18	0914		0921	N18	W84		11	12.0	7	SN							DG	
0387		18	0946I	09462	0954	S33	W84	6364	11	11.7	8	SF				32				
	LEAR	18	0946	0946	0953	S33	W85	6364	11	11.6	7	SF		3	E	31				
	SVTO	18	0947	0948	0954	S33	W84	6364	11	11.7	7	SF		2	E	34				
0388		18	1129I	1130	1137	N22	E10	6368	11	19.2	8	SF	C	1.9		28				
	RAMY	18	1129	1130	1138	N22	E10	6368	11	19.2	9	SF	C	1.9	2	E	43		F	
	SVTO	18	1130	1130	1136	N22	E09	6368	11	19.2	6	SF	C	1.9	3	E	14		F	
0389		18	12402	12431	1310	N15	E20	6368	11	20.0	30	SN	C	4.2		66		F		
	RAMY	18	1240	1244	1313	N14	E21	6368	11	20.1	33	SN	C	4.2	3	E	62		F	
	SVTO	18	1242	1243	1307	N16	E19	6368	11	20.0	25	SN			3	E	70		F	
0390		18	13089	1318	1330	N22	E13	6368	11	19.5	22	SN	C	2.4		40		F		
	SVTO	18	1308	1318	1331	N23	E12	6368	11	19.5	23	SF			3	E	39		F	
	RAMY	18	1317	1318	1328	N20	E14	6368	11	19.6	11	SN	C	2.4	3	E	42			
0391		18	1415	1416	1422	N19	E18	6368	11	20.0	7	SF				34		F		
	RAMY	18	1415	1416	1419	N21	E18	6368	11	20.0	4	SF		3	E	31				
	SVTO	18	1415	1416	1426	N17	E19	6368	11	20.0	11	SF		3	E	36		F		
0392		18	1434I	1437*	1512	N20	E22	6368	11	20.3	38	SF	C	2.1		25		FK		
	RAMY	18	1434	1501	1514	N20	E22	6368	11	20.3	40	SF			E	30		K		
	RAMY	18	1434	1508	1514	N20	E22	6368	11	20.3	40	SF	C	2.1	3	E	13		F	
	HOLL	18	1435	1437	1508	N19	E23	6368	11	20.4	33	SF			3	E	31			
0393		18	15262	15277	1536	N22	E23	6368	11	20.4	10	SF	C	2.7		28		F		
	HOLL	18	1526	1527	1535	N22	E22	6368	11	20.3	9	SF			3	E	44			
	RAMY	18	1528	1534	1537	N21	E24	6368	11	20.5	9	SF	C	2.7	3	E	13		F	
0394		18	1551	1553I	1558	N18	E18	6368	11	20.0	7	SF	C	2.2		53		F		
	RAMY	18	1551	1553	1558	N17	E18	6368	11	20.0	7	SF	C	2.2	3	E	42		F	
	HOLL	18	1551	1554	1559	N18	E17	6368	11	19.9	8	SF	C	2.2	3	E	64			
0395	HOLL	18	1635	1635	1646	N22	E06	6371B	11	19.1	11	SF	C	2.2	3	E	86		FH	
0396		18	16548	1654*	1704	N16	E19	6368	11	20.1	10	SF				24		F		
	HOLL	18	1654	1654	1701	N16	E18	6368	11	20.1	7	SF			3	E	16			
	RAMY	18	1702	1704	1707	N16	E20	6368	11	20.2	5	SF			3	E	32		F	
0397		18	1737I	1746*	1940	N18	E21	6368	11	20.3	123	1N	H	1.3		102		EFK		
	HOLL	18	1737	1746	1940	N19	E21	6368	11	20.3	123	1F			E	79		K		
	HOLL	18	1737	1806	1940	N19	E21	6368	11	20.3	123	1N	H	1.3	3	E	163		FE	
	RAMY	18	1738	1746	1933D	N18	E21	6368	11	20.3	115D	SF			E	71		K		
	RAMY	18	1738	1807	1933D	N18	E21	6368	11	20.3	115D	SN	C	3.1	3	E	94		F	
0398	HOLL	18	1945	1951	2112	N19	E21	6368	11	20.4	87	SF	C	3.9	3	E	33		F	
0399	HOLL	18	2119	2131	2137	N21	E04	6368	11	19.2	18	SN	C	2.4	4	E	99		H	
0400	HOLL	18	2147	2148	2204	N18	E15	6368	11	20.0	17	SF	C	1.7	3	E	14		F	
0401	LEAR	18	2213	2222	2228	N13	E20	6368	11	20.4	15	SF			3	E	28			
0402		18	2229*	2238*	2309	N15	E18	6368	11	20.3	40	SF	C	1.5		29		EF		
	LEAR	18	2229	2308	2319	N14	E20	6368	11	20.4	50	SF	C	1.5	3	E	49		F	
	HOLL	18	2237	2238	2250	N15	E20	6368	11	20.4	13	SF			3	E	13		F	
	HOLL	18	2304	2307	2317	N17	E13	6368	11	19.9	13	SF	C	4.9	3	E	25		FE	

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Grp #	Sta	Start Day	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks		
														Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)			
0424	HOLL	19 2014	2019	2032	N19	W02	6368	11	19.7	18	SF	3	E		21		F		
		19 2042		2116	No Flare Patrol														
0425		19 2128*	2132*	2239	N18	W00	6368	11	19.9	71	SF	C	1.2		37		F		
	HOLL	19 2128	2132	2147	N16	W03	6368	11	19.7	19	SF	C	1.2	3	E	30		F	
	HOLL	19 2151	2154	2158	N18	W01	6368	11	19.8	7	SF	C	1.2	3	E	20		F	
	PALE	19 2155	2224	2313	N18	E00	6368	11	19.9	78	SF			3	E	55		F	
	HOLL	19 2159	2223	22290	N15	E02	6368	11	20.1	300	SF			3	E	87		F	
	LEAR	19 2216	2222	2259	N16	E03	6368	11	20.1	43	SF	C	2.2	3	E	19		F	
	LEAR	19 2316	2316	2320	N22	W04	6368	11	19.7	4	SF	C	2.8	3	E	13			
0426		19 2349*	2353*	2420	N17	W00	6368	11	20.0	31	SF	C	2.1			62		F	
	LEAR	19 2349	2353	2419	N17	E00	6368	11	20.0	30	SF	C	2.1	3	E	87		F	
	PALE	20 0011	0011	0020	N17	W01	6368	11	19.9	9	SF			3	E	38		F	
0427	LEAR	20 0034	0037	0042	N18	E04	6368	11	20.3	8	SF	C	2.1	3	E	11		F	
0428	LEAR	20 0049	0057	0120	N18	E02	6368	11	20.2	31	SF	C	2.7	3	E	33		F	
0429		20 0443*	0454*	0531	N22	W08	6368	11	19.6	48	1N	C	3.2			202	2.3	DETZ	
	LEAR	20 0443	0454	0543	N21	W08	6368	11	19.6	60	1F	C	3.2	3	E	193			
	WATU	20 0448	0455	0535	N23	W10	6368	11	19.4	47	1N			C	0455	190	2.2	TZ	
	YUNW	20 0458	0502	0512	N20	W08	6368	11	19.6	14	1N			C		321	3.5		
	PEKG	20 0521	0524	0534	N23	W08	6368	11	19.6	13	SB			P	0524	105	1.2	D	
	MITK	20 0522E		0531D	N23	W07	6368	11	19.7	90	SF			P	0528			E	
0430	LEAR	20 0706	0709	0718	N14	W05	6368	11	19.9	12	SF	C	1.8	3	E	15			
0431	LEAR	20 0741	0746	0758	N17	W02	6368	11	20.2	17	SF			3	E	42		F	
0432	LEAR	20 0808	0809	0814	N17	W03	6368	11	20.1	6	SF			3	E	16			
0433		20 0835*	0837*	0859	N21	W08	6368	11	19.7	24	SF					36	0.7	D	
	BUCA	20 0835	0837	0855	N24	W10	6368	11	19.6	20	SM			C	0837	64	0.7	D	
	LEAR	20 0851	0854	0859	N22	W09	6368	11	19.7	8	SF			3	E	27			
	LEAR	20 0859	0902	0903	N18	W04	6368	11	20.1	4	SF			3	E	18			
0434		20 0918*	0924*	1013	N17	W03	6368	11	20.1	55	1N	M	1.8			203	3.6	KV	
	KANZ	20 0918	0925	0939	N14	W07	6368	11	19.8	21	SF			V					
	LEAR	20 0918	0926	1018D	N18	W03	6368	11	20.1	600	SB			E		48		K	
	LEAR	20 0918	1002	1018D	N18	W03	6368	11	20.1	600	1F	M	1.8	3	E	206			
	SVTO	20 0922	0924	0943	N16	W05	6368	11	20.0	21	SF			3	E	21			
	SVTO	20 0945	1005	1035	N18	W03	6368	11	20.2	50	1N	M	1.8	3	E	125			
	ATHN	20 0955E	0956	1013	N17	W01	6368	11	20.3	180	1B			3	V	0956	477	5.1	
	HTPR	20 0955	1001	1030	N17	W06	6368	11	19.9	35	1B			C	1001	240	2.5		
	KANZ	20 0955	1002	1022	N18	W02	6368	11	20.3	27	1F			V					
	TACH	20 1005	1005	1032	N19	W02	6368	11	20.3	27	1B			3	C	1005	306	3.3	V
		20 1305		1311	No Flare Patrol														
0435	SVTO	20 1403	1412	1445	N17	W03	6368	11	20.3	42	SM	C	3.0	2	E	60		FH	
		20 1508		1512	No Flare Patrol														
		20 1520		1525	No Flare Patrol														
		20 1601		1612	No Flare Patrol														
0436	RAMY	20 1725	1727	1730	N18	W04	6368	11	20.4	5	SF	C	2.5	3	E	11		F	
		20 1732		1933	No Flare Patrol														
0437	RAMY	20 2030	2040	2054	N18	W06	6368	11	20.4	24	SF			2	E	18		F	
		20 2107		2200	No Flare Patrol														
0438	LEAR	20 2204E	2208	2246	N19	W08	6368	11	20.3	42D	SF	C	4.9	3	E	87		F	
		20 2242		2249	No Flare Patrol														

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Grp #	Sta	Start Day	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See Type	Area Measurement			Remarks	
												Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0439		21 02448	0246*	0336	N19	W13	6368	11 20.1	52	SN	C 2.9			143	2.4	EFIJKT
	LEAR	21 0244	0246	0342	N18	W14	6368	11 20.0	58	SF		E		15		K
	LEAR	21 0244	0254	0342	N18	W14	6368	11 20.0	58	SF	C 2.9	3 E		54		F
	VORO	21 0251	0252	0300D	N20	W12	6368	11 20.2	90	SF		2 C	0252	161	1.8	EIJT
	PEKG	21 0252	0257	0343	N19	W14	6368	11 20.0	51	1B		P	0257	420	4.6	E
	PURP	21 0252	0301	0316	N18	W13	6368	11 20.1	24	SN		C	0301	66	0.7	
0440		21 0456*	0458*	0606	N18	W14	6368	11 20.1	70	SN	C 7.1			111	1.3	DEFKLT
	LEAR	21 0456	0458	0650	N18	W13	6368	11 20.2	114	SF		E		40		K
	LEAR	21 0456	0531	0650	N18	W13	6368	11 20.2	114	1F	C 7.1	3 E		134		F
	TACH	21 0501E		0511	N19	W11	6368	11 20.4	100	SB		2 C	0501	112	1.2	ETLY
	PEKG	21 0520	0535	0550	N19	W15	6368	11 20.1	30	1B		C	0535	210	2.3	E
	YUNN	21 0527	0530U	0617	N18	W13	6368	11 20.2	50	SN		P	0530	161	1.8	
	PURP	21 0527	0531	0539	N18	W19	6368	11 19.8	12	SF		C	0531	33	0.4	
	TACH	21 0529	0530	0540	N18	W18	6368	11 19.8	11	SB		2 C	0530	117	1.4	ETY
	PEKG	21 0630	0633	0635	N19	W13	6368	11 20.3	5	SB		C	0633	84	0.9	D
0441	URUM	21 0818	0821	0825	N25	E06	6375	11 21.8	7	SN		C		32	0.4	D
0442		21 0821	0822	0830	N16	W18	6368	11 20.0	9	1N	C 2.4			21		E
	ISTA	21 0821		0827	N16	W16	6368	11 20.1	6	1N						E
	SVTO	21 0821	0822	0832	N16	W19	6368	11 19.9	11	SF	C 2.4	3 E		21		
0443		21 08402	0848	0905	N22	W25	6368	11 19.4	25	1N				32	0.4	DE
	URUM	21 0840	0848	0900D	N23	W23	6368	11 19.6	20D	SN		C		32	0.4	D
	ISTA	21 0842		0905	N21	W27	6368	11 19.3	23	1N						E
0444	LEAR	21 0907	0910	0915	N19	W13	6368	11 20.4	8	SF	C 1.4	3 E		24		F
		21 0921		0946	No Flare Patrol											
0445		21 0939	1008	1022	N17	W20	6368	11 19.9	43	SN	C 2.5			30		F
	LEAR	21 0939	1008	1016	N16	W19	6368	11 20.0	37	SF		2 E		25		
	SVTO	21 0948E	1008	1027	N18	W21	6368	11 19.8	39D	SN	C 2.5	2 E		36		F
0446	RAMY	21 1141	1149	1200	N17	W19	6368	11 20.0	19	SF		3 E		25		F
0447	RAMY	21 1203	1217	1230	N18	W14	6368	11 20.4	27	SF		3 E		29		F
0448	RAMY	21 1215	1221	1224	S17	W43	6376	11 18.2	9	SF	C 1.7	3 E		18		
0449	HOLL	21 1514E	1538	1603	N23	W25	6368	11 19.7	49D	SF		3 E		46		
		21 1642		1655	No Flare Patrol											
		21 1717		1741	No Flare Patrol											
		21 1751		1754	No Flare Patrol											
0450		21 1838	1839I	1848	N16	W24	6368	11 19.9	10	SF	C 3.9			44		F
	HOLL	21 1742E	1832U	1834D	N15	W23	6368	11 20.0	52D	SF	C 3.9	1 E		62		F
	RAMY	21 1838E	1839	1850	N16	W24	6368	11 19.9	12D	SF	C 4.1	3 E		25		
	HOLL	21 1838	1839	1857D	N16	W24	6368	11 19.9	19D	SN	C 4.1	3 E		52		
	PALE	21 1838	1840	1847	N16	W25	6368	11 19.9	9	SF	C 4.1	3 E		35		
0451		21 1910I	1914Z	1920	N18	W22	6368	11 20.1	10	SF	C 3.6			15		
	PALE	21 1910	1916	1923	N17	W22	6368	11 20.1	13	SF	C 3.6	3 E		12		
	RAMY	21 1911	1914	1916	N18	W21	6368	11 20.2	5	SF		2 E		18		
		21 2017		2030	No Flare Patrol											
		21 2035		2144	No Flare Patrol											
		21 2340		2344	No Flare Patrol											
0452		22 01443	0149*	0212	N15	W28	6368	11 19.9	28	SN				141	2.1	EFIJTU
	MITK	22 0144	0150	0220	N17	W25	6368	11 20.2	36	SN		C	0150			E
	PURP	22 0145	0149	0204	N16	W30	6368	11 19.8	19	SF		C	0149	119	1.5	U
	PEKG	22 0147	0155	0213	N14	W27	6368	11 20.0	26	1B		P	0155	231	2.7	E
	VORO	22 0153E		0214	N15	W29	6368	11 19.9	21D	1F		2 C	0153	188	2.2	EIJT
	PALE	22 0204E	0205	0208	N14	W27	6368	11 20.0	4D	SF		3 E		26		F
0453	PALE	22 0215	0219	0226	N16	W74	6371	11 16.5	11	SF		3 E		17		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF				Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks	
						Lat	CMD	Region	Mo						Day	Time (UT)	Apparent (10 ⁻⁶ Disk)		Corr (Sq Deg)
0454		22	02173	02221	0231	N24	W32	6368	11	19.6	14	SN			100	1.3	DIJT		
	VORO	22	0217	0222	0232	N25	W33	6368	11	19.5	15	SF	2	C	0222	116	1.5	DIJT	
	PEKG	22	0220	0223	0230	N24	W32	6368	11	19.6	10	SB		P	0223	84	1.1	D	
0455		22	0742	0745	0750	N19	W24	6368	11	20.5	8	SN			48	0.6	E		
	URUM	22	0742	0745	0750	N19	W21	6368	11	20.7	8	SN		C	48	0.6	E		
	ISTA	22	0746E		0750	N19	W27	6368	11	20.3	4D	SN					E		
0456		22	0813*	08284	0903	N18	W76	6371	11	16.5	50	SN	C 9.3		79		DE		
	LEAR	22	0813	0828	0906	N17	W74	6371	11	16.7	53	SF	C 9.3	3	E	94			
	URUM	22	0825	0832	0924	N17	W77	6371	11	16.5	59	SN		C	64		E		
	ISTA	22	0829	0832	0838	N19	W78	6371	11	16.4	9	SB					D		
0457		22	08551	0856	0904	N19	W23	6368	11	20.6	9	Sh			21		EF		
	LEAR	22	0855	0856	0904	N19	W25	6368	11	20.5	9	SF		3	E	21		F	
	ISTA	22	0856		0905	N19	W21	6368	11	20.8	9	SB						E	
		22	1231		1409													No Flare Patrol	
		22	1414		1443													No Flare Patrol	
		22	1447		1505													No Flare Patrol	
		22	1524		1532													No Flare Patrol	
	22	1535		1539													No Flare Patrol		
	22	1557		1623													No Flare Patrol		
0458	HOLL	22	2150	2150	2157	N16	W28	6368	11	20.8	7	SF		4	E	13			
0459	HOLL	22	2229	2230	2240	N16	W29	6368	11	20.7	11	SF		4	E	38			
0460	LEAR	23	0009	0020	0115	N16	W40	6368	11	20.0	66	SF	C 1.7	3	E	39			
0461	YUNN	23	0144E	0147U	0228	S05	E90	6379	11	29.8	44D			P	0147			A	
0462		23	0152	01521	0202	N14	W34	6368	11	20.5	10	SN	C 1.4		36	0.6	DIJT		
	LEAR	23	0152	0152	0201	N14	W33	6368	11	20.6	9	SF	C 1.4	3	E	18			
	VORO	23	0152	0153	0202	N15	W35	6368	11	20.4	10	SN		2	C	0153	54	0.6	DIJT
0463		23	03004	03031	0311	N18	W30	6368	11	20.8	11	SF	C 1.2		21		EH		
	MITK	23	0300	0303	0313	N18	W30	6368	11	20.8	13	SF		C	0303	21		EH	
	LEAR	23	0304	0304	0309	N19	W30	6368	11	20.8	5	SF	C 1.2	3	E	21			
0464	URUM	23	0321	0325	0341	N23	W45	6368	11	19.7	20	SN		C	48	0.7	D		
0465	LEAR	23	0344	0346	0400	N14	W34	6368	11	20.6	16	SF		3	E	19			
0466		23	03592	04025	0427	N22	W46	6368	11	19.6	28	SN	C 1.8		56	0.9	E		
	MITK	23	0359	0403	0443	N23	W47	6368	11	19.5	44	SN		C	0403			E	
	PURP	23	0400	0402	0404	N19	W46	6368	11	19.6	4	SF		C	0402	53	0.8		
	URUM	23	0400	0407	0435	N23	W46	6368	11	19.6	35	SN		C	48	0.8	E		
	LEAR	23	0401	0403	0422	N23	W45	6368	11	19.7	21	SF	C 1.8	3	E	44			
	YUNN	23	0405E	0405U	0432	N20	W44	6368	11	19.8	27D	SB		P	0405	80	1.2		
0467		23	04558	05028	0512	N20	W39	6368	11	20.2	17	SN			97	1.4	DV		
	MITK	23	0455	0504	0522	N20	W38	6368	11	20.3	27	SN		C	0504				
	YUNN	23	0500	0510	0517	N21	W46	6368	11	19.7	17	SB		C	64	1.0			
	WATU	23	0501	0503	0506	N19	W39	6368	11	20.2	5	SF		C	0503	60	0.8		
	PURP	23	0501	0503	0506	N19	W36	6368	11	20.5	5	SF		C	0503	66	0.9		
	TACH	23	0502	0502	0508D	N20	W40	6368	11	20.1	6D	1B		3	C	0502	168	2.4	V
	PEKG	23	0503	0505	0510	N19	W37	6368	11	20.4	7	SB		C	0505	126	1.7	D	
		23	0502		0510	N16	W90	6371	11	16.4	8	SN		3	C	0502	56		D
0469	TACH	23	0544		0603	N16	W90	6371	11	16.4	19	SN		3	C	0544	76		D
0470	LEAR	23	0546	0547	0553	N20	W31	6368	11	20.9	7	SF	C 1.3	3	E	17			
0471	ABST	23	0600E	0604U	0620	N17	W90	6371	11	16.4	20D	1N		P	0604	131		ABD	
0472	LEAR	23	0621	0621	0632	S05	E24	6377	11	25.0	11	SF		3	E	28			

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF		CMP Mo Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement			Remarks
						Lat	Cmd Region							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0473	TACH	23	0711		0717	N16 W90	6371	11 16.5	6	SN		3	C	0711	36		D
0474	ISTA	23	0739		0746	N21 W46	6368	11 19.8	7	1N							F
0475	ABST	23	0757	0801	0820	N17 W90	6371	11 16.5	23	1N			C	0801	131		ABD
0476	ISTA	23	0819		0824	N21 W48	6368	11 19.7	5	SB							D
0477		23	08301	0831	0840	N16 W33	6368	11 20.8	10	SN					57	0.9	F
	ISTA	23	0830		0839	N17 W32	6368	11 20.9	9	1B							F
	LEAR	23	0831	0831	0837	N15 W33	6368	11 20.8	6	SF		3	E		44		
	HTPR	23	0831	0831	0845	N15 W35	6368	11 20.7	14	SF			C	0831	70	0.9	
0478		23	08566	09043	0927	N22 W50	6368	11 19.5	31	SN C 2.9					91	1.8	DZ
	LEAR	23	0856	0904	0933	N22 W48	6368	11 19.7	37	SF C 2.9		3	E		59		
	HTPR	23	0856	0905	0945	N22 W50	6368	11 19.5	49	1N			C	0905	130	2.3	Z
	ABST	23	0902	0905	0908	N20 W50	6368	11 19.5	6	SF			C	0905	87	1.5	D
	ABST	23	0902	0907	0922	N24 W50	6368	11 19.5	20	SN			C	0907	87	1.5	D
0479	LEAR	23	0952	0952	0958	N22 W49	6368	11 19.6	6	SF		2	E		18		
0480		23	1226*	1239	1242	N20 W34	6375	11 20.9	16	SF					47	0.9	
	HTPR	23	1226	1239	1241	N20 W33	6375	11 21.0	15	SF			C	1239	70	0.9	
	RAMY	23	1239	1239	1242	N21 W34	6375	11 20.9	3	SF		3	E		24		
0481	RAMY	23	1350	1354	1525	N16 W48	6368	11 19.9	95	SF C 1.5		2	E		47		
0482		23	1555	1557*	1658	N14 W50	6368	11 19.9	63	SF C 2.7					44		FK
	HOLL	23	1555	1557	1658	N14 W50	6368	11 19.9	63	SF			E		20		K
	HOLL	23	1555	1638	1658	N14 W50	6368	11 19.9	63	SF C 2.7		3	E		68		F
0483	HOLL	23	1711	1711	1715	N17 W49	6368	11 20.0	4	SF		3	E		17		F
0484		23	1722*	1727*	1806	N18 W49	6368	11 20.0	44	SF C 1.3					41		FK
	RAMY	23	1722	1729	1820	N18 W48	6368	11 20.1	58	SF			E		59		K
	RAMY	23	1722	1811	1820	N18 W48	6368	11 20.1	58	SF C 1.3		3	E		77		F
	HOLL	23	1726	1727	1731	N18 W47	6368	11 20.1	5	SF		3	E		25		F
	HOLL	23	1744	1745	1800	N15 W51	6368	11 19.9	16	SF		3	E		24		
	HOLL	23	1808	1809	1820	N20 W52	6368	11 19.8	12	SF		3	E		22		
0485		23	18365	18422	1850	S04 E18	6377	11 25.1	14	SF					22		H
	HOLL	23	1836	1842	1851	S04 E18	6377	11 25.1	15	SF		3	E		29		
	RAMY	23	1841	1844	1850	S04 E19	6377	11 25.2	9	SF		3	E		15		H
0486	HOLL	23	1911	1917	1924	S04 E16	6377	11 25.0	13	SF		4	E		35		F
0487	RAMY	23	1953	1958	2007	N24 W54	6368	11 19.6	14	SF		3	E		58		F
0488		23	2031	2032*	2057	N18 W49	6368	11 20.1	26	SN C 1.4					50		FK
	HOLL	23	2031	2032	2057	N18 W49	6368	11 20.1	26	SN			E		28		K
	HOLL	23	2031	2042	2057	N18 W49	6368	11 20.1	26	SN C 1.4		4	E		71		F
0489	HOLL	23	2058	2101	2124	N14 W43	6368	11 20.6	26	SN C 3.0		4	E		49		EF
0490	LEAR	23	2233	2234	2243	N18 W49	6368	11 20.2	10	SF		3	E		19		
0491		24	0026*	00289	0036	N18 W55	6368	11 19.8	10	SF					39	1.2	DIJT
	VORO	24	0026	0028	0031	N21 W58	6368	11 19.6	5	SF		2	C	0028	63	1.2	DIJT
	LEAR	24	0036	0037	0040	N16 W52	6368	11 20.1	4	SF		3	E		15		
0492	VORO	24	0109	0110	0117	N15 W55	6368	11 19.9	8	SF		2	C	0110	72	1.3	EIJT
0493	VORO	24	0156	0157	0205	N17 W57	6368	11 19.7	9	SF		2	C	0157	54	1.0	DIJT
0494	PALE	24	0157	0201	0207	S05 E12	6377	11 25.0	10	SF		3	E		20		

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						Region	Mo	Day					Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)				
0495		24	0211*	0231*	0320	S04	E11	6377	11	24.9	69	SN	C 8.5		114	1.5	EFJK		
	WATU	24	0211	0300	0320	S04	E11	6377	11	24.9	69	SF		C	0300	90	1.0		
	LEAR	24	0221	0243	0321	S05	E12	6377	11	25.0	60	1F	C 8.5	3	E	101		F	
	MITK	24	0223	0231	0357D	S04	E11	6377	11	24.9	94D	SB		C	0231			E	
	VORO	24	0229	0236	0259D	S03	E11	6377	11	24.9	30D	1F		2	C	0236	251	2.6	EJK
	PALE	24	0231	0233	0326D	S04	E11	6377	11	24.9	55D	SF		3	E		77		
	URUM	24	0243E	0250	0305D	S05	E12	6377	11	25.0	22D	SN		C		96	1.0	E	
	PEKG	24	0253	0255	0258	S04	E12	6377	11	25.0	5	1B		P	0255	210	2.2	E	
	YUNN	24	0258E	0258U	0324	S06	E10	6377	11	24.9	26D	SN		P	0258	48	0.5		
	LEAR	24	0322	0326	0335	S05	E11	6377	11	25.0	13	SF		3	E		36		
0496	VORO	24	0213	0214	0223	N16	W52	6368	11	20.1	10	SF		2	C	0214	63	1.1	DIJT
0497	LEAR	24	0228	0228	0237	N16	W53	6368	11	20.1	9	SF		3	E		28		
0498	TACH	24	0722	0722	0801	N21	W44	6375	11	20.9	39	SF		3	C	0722	66	1.0	D
0499		24	0733	0724*	0751	N15	W60	6368	11	19.8	18	SF				52	1.1	D	
	URUM	24	0724E	0724	0751	N15	W60	6368	11	19.8	27D	SF		C		16	0.3	D	
	ABST	24	0733	0734	0740D	N15	W60	6368	11	19.8	7D	SF		C	0734	87	1.9	D	
0500	ABST	24	0728	0729	0735	S05	E06	6377	11	24.7	7	SF		C	0729	87	1.0	D	
0501	YUNN	24	0835E	0843U	0847D	S04	E09	6377	11	25.0	12D	SF		P	0843	80	0.8		
0502		24	11535	1153*	1210	S05	E04	6377	11	24.8	17	SF				12			
	RAMY	24	1153	1153	1157	S05	E03	6377	11	24.7	4	SF		3	E		13		
	RAMY	24	1158	1215	1222	S05	E05	6377	11	24.9	24	SF		3	E		11		
0503	RAMY	24	1154	1201	1205	N16	W59	6368	11	20.0	11	SF		3	E		11		
0504	RAMY	24	1219	1222	1242	N19	W57	6368	11	20.2	23	SF	C 1.4	3	E		21		
0505	RAMY	24	1222	1237	1242	S04	E06	6377	11	25.0	20	SF		3	E		12		
0506	RAMY	24	1249	1253	1258	N16	W62	6368	11	19.8	9	SF		3	E		33		
0507	RAMY	24	1357	1357	1411	N16	W62	6368	11	19.9	14	SF		3	E		15		F
0508		24	14018	1401*	1525	S04	E04	6377	11	24.9	84	1N	C 2.6			95		FHK	
	RAMY	24	1401	1401	1405	S04	E06	6377	11	25.0	4	SF	C 2.6	3	E		13		
	RAMY	24	1409	1415	1605	S04	E04	6377	11	24.9	116	1B	M 3.1		E		96		K
	RAMY	24	1409	1419	1605	S04	E04	6377	11	24.9	116	1B	M 3.1	3	E		153		
	HOLL	24	1419E	1421U	1501D	S02	E04	6377	11	24.9	42D	1B	M 3.1	2	E		181		FH
	HOLL	24	1502E	1503U	1526D	S04	E04	6377	11	24.9	24D	SF		2	E		31		F
0509	RAMY	24	1435	1435	1441	N19	W60	6368	11	20.0	6	SF		3	E		16		
0510		24	1500	15011	1516	N22	W66	6368	11	19.5	16	SF				40		F	
	HOLL	24	1500E	1501	1513	N22	W64	6368	11	19.7	13D	SF		3	E		47		F
	RAMY	24	1500	1502	1518	N23	W67	6368	11	19.5	18	SF		3	E		32		F
0511	HOLL	24	1720	1728	1741	S08	E14	6378	11	25.8	21	SF		3	E		13		F
0512		24	17272	17292	1746	N14	W56	6368	11	20.5	19	SF				28		F	
	HOLL	24	1727	1729	1753	N14	W55	6368	11	20.6	26	SF		3	E		35		F
	RAMY	24	1729	1731	1738	N13	W57	6368	11	20.4	9	SF		3	E		20		
0513		24	18064	1812	1817	N15	W64	6368	11	19.9	11	SF	C 2.9			33		F	
	RAMY	24	1806	1812	1816	N16	W65	6368	11	19.8	10	SF	C 2.9	3	E		37		
	HOLL	24	1808	1812	1818	N15	W62	6368	11	20.1	10	SF	C 2.9	3	E		39		F
	PALE	24	1810	1812	1816	N15	W64	6368	11	19.9	6	SF		3	E		24		
0514		24	1808*	1811*	1847	S04	E03	6377	11	25.0	39	SF	C 3.1			40		FK	
	RAMY	24	1808	1811	1820	S04	E03	6377	11	25.0	12	SF		3	E		40		F
	HOLL	24	1808	1812	1852	S05	E02	6377	11	24.9	44	SN			E		28		K
	PALE	24	1808	1828	1854	S04	E04	6377	11	25.0	46	SF		3	E		56		
	HOLL	24	1808	1829	1852	S05	E02	6377	11	24.9	44	SF	C 3.1	3	E		52		F
	RAMY	24	1827	1828	1844	S04	E03	6377	11	25.0	17	SF		3	E		45		F
	HOLL	24	1854	1859	1902	S05	E02	6377	11	24.9	8	SF		3	E		16		F

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See	Type	Area Measurement			Remarks
														Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0515	RAMY	24	1941	1942	1950D	S06	E01	6377	11 24.9	90	SF	3	E		21		F
0516	PALE	24	2002	2013	2036	S04	E02	6377	11 25.0	34	SF C 3.5	3	E		26		F
0517	PALE	24	2047	2048	2054	S04	E03	6377	11 25.1	7	SF	3	E		12		
0518	LEAR	24	2202	2227	2321	S05	E00	6377	11 24.9	79	SF	3	E		72		F
0519		24	2212*	22421	2256	N16	W64	6368	11 20.1	44	SF C 3.9				73		F
	LEAR	24	2212	2243	2253	N16	W65	6368	11 20.0	41	1F C 3.9	3	E		121		F
	PALE	24	2234	2242	2259	N19	W62	6368	11 20.2	25	SF	3	E		59		
	HOLL	24	2241E	2241U	2251D	N14	W64	6368	11 20.1	100	SF	3	E		40		
0520	LEAR	24	2324	2327	2333	S04	E01	6377	11 25.0	9	SF	3	E		18		
0521		24	2326	2336	2438	N16	W66	6368	11 20.0	72	1F				164		EF
	PALE	24	2326	2336	2428	N16	W68	6368	11 19.8	62	1F	3	E		137		FE
	MITK	24	2347E		2447	N17	W65	6368	11 20.0	60D	1F		C	2347	190		E
0522	LEAR	25	0055	0059	0113	S04	W01	6377	11 25.0	18	SF	3	E		13		
0523	LEAR	25	0129	0134	0141	S05	W02	6377	11 24.9	12	SF	3	E		14		
0524		25	0153*	0156*	0234	S04	W02	6377	11 24.9	41	SF C 3.3				86	2.0	F
	YUNN	25	0153	0156	0242	S03	W01	6377	11 25.0	49	SF		C		193	2.0	
	LEAR	25	0200	0215	0235	S04	W02	6377	11 24.9	35	SF C 3.3	3	E		47		F
	PALE	25	0208	0212	0224	S05	W03	6377	11 24.9	16	SF C 3.3	3	E		17		F
0525		25	0255*	03189	0351	S04	W03	6377	11 24.9	56	SN M 1.1				130	1.7	EFU
	WATU	25	0255	0318	0412	S04	W01	6377	11 25.0	77	SF		C	0318	100	1.0	
	LEAR	25	0316	0318	0349	S04	W02	6377	11 25.0	33	SN M 1.1	3	E		73		UE
	MITK	25	0316	0319	0357	S05	W04	6377	11 24.8	41	1B		C	0319	250	2.6	E
	PALE	25	0317	0318	0336	S05	W04	6377	11 24.8	19	SF M 1.1	3	E		79		F
	PURP	25	0317	0327	0340	S04	W04	6377	11 24.8	23	SN		C	0327	146	1.5	
0526	LEAR	25	0321	0326	0333	N19	W66	6368	11 20.1	12	SF	3	E		42		F
0527	LEAR	25	0330	0337	0344	S09	E08	6378	11 25.7	14	SF	3	E		15		
0528	PEKG	25	0337E	0340	0414	S03	E00	6377	11 25.1	37D	SB		P	0340	168	1.7	E
0529	LEAR	25	0546	0550	0556	N21	W61	6368	11 20.6	10	SF	4	E		11		
0530	LEAR	25	0610	0617	0630	N21	W63	6368	11 20.4	20	SF	4	E		34		
0531	SVTO	25	0732	0732	0736	N17	W58	6368	11 20.9	4	SF	3	E		14		
0532	SVTO	25	0746	0747	0754	N13	W69	6368	11 20.1	8	SF	3	E		51		
0533		25	08102	0812	0830	N19	W66	6368	11 20.3	20	1F				211		D
	SVTO	25	0810	0812	0840	N18	W67	6368	11 20.2	30	1N	3	E		203		
	ISTA	25	0812		0817	N20	W67	6368	11 20.2	5	1F						D
	LEAR	25	0812E	0814U	0834	N19	W65	6368	11 20.4	22D	1F	2	E		219		
0534	LEAR	25	0816	0817	0828	S04	W06	6377	11 24.9	12	SF	2	E		10		F
0535	SVTO	25	0954	1016	1053	N15	W67	6368	11 20.3	59	SF C 3.5	3	E		86		
0536		25	12077	1217	1228	S04	W07	6377	11 25.0	21	SF				40		F
	SVTO	25	1207	1221U	1238D	S05	W08	6377	11 24.9	31D	SF	3	E		56		F
	RAMY	25	1214	1217	1228	S04	W06	6377	11 25.1	14	SF	4	E		24		F
0537		25	1246*	1249*	1313	N19	W73	6368	11 20.0	27	SF				35		F
	SVTO	25	1246	1313	1327	N17	W73	6368	11 20.0	41	SF	3	E		54		
	RAMY	25	1247	1249	1252	N23	W77	6368	11 19.6	5	SF	4	E		33		
	RAMY	25	1253	1300	1309	N19	W70	6368	11 20.2	16	SF	3	E		11		F
	RAMY	25	1311	1314	1325	N18	W71	6368	11 20.1	14	SF	3	E		43		
	0538	RAMY	25	1438	1441	1445	S07	E53	6379	11 29.6	7	SF	3	E		21	

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Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See Type	Area Measurement			Remarks
												Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0561		26 16383	1644	1701	S05	W24	6377	11 24.9	23	1N C 2.4			114		
	RAMY	26 1638	1644U	1703D	S05	W24	6377	11 24.9	25D	1N C 2.4	3 E		102		F
	HOLL	26 1641	1644	1701	S05	W24	6377	11 24.9	20	1N C 2.4	3 E		125		F
0562	HOLL	26 1651	1652	1703D	N19	W80	6368	11 20.6	12D	SF H 1.4	3 E		51		
		26 1704		1705	No Flare Patrol										
0563	RAMY	26 1706	1707	1712	N18	W90	6368	11 19.8	6	SF	3 E		52		
0564		26 1722*	1744*	1816	S06	W25	6377	11 24.8	54	SF C 1.7			16		F
	RAMY	26 1722	1744	1827D	S04	W24	6377	11 24.9	65D	SF C 1.7	3 E		22		F
	PALE	26 1730	1744	1753	S06	W25	6377	11 24.8	23	SF	3 E		15		
	PALE	26 1828	1828	1839	S07	W25	6377	11 24.9	11	SF	3 E		11		F
0565		26 17301	17301	1744	N14	W82	6368	11 20.5	14	SF			20		
	RAMY	26 1730	1730	1747	N16	W83	6368	11 20.4	17	SF	3 E		19		
	PALE	26 1731	1731	1741	N13	W81	6368	11 20.6	10	SF	3 E		21		
0566	RAMY	26 1846E	1851U	1855D	S04	W26	6377	11 24.8	9D	SF	3 E		22		
0567		26 19123	19161	1936	S05	W24	6377	11 25.0	24	SF			40		F
	PALE	26 1912	1916	1940	S05	W23	6377	11 25.1	28	SF	3 E		34		F
	RAMY	26 1913	1916U	1937D	S04	W25	6377	11 24.9	24D	SF	3 E		56		F
	HOLL	26 1915	1917	1931	S05	W24	6377	11 25.0	16	SF	2 E		30		F
0568	RAMY	26 1958	2011	2014	S05	W27	6377	11 24.8	16	SF	3 E		33		
0569	PALE	26 2035	2035	2039	N15	W90	6368	11 20.0	4	SF C 4.2	3 E		20		
0570	PALE	26 2113	2114	2118	S04	W27	6377	11 24.9	5	SF	3 E		23		
0571	PALE	26 2209	2213	2229	S05	W25	6377	11 25.0	20	SF C 3.0	3 E		71		F
		26 2256		2315	No Flare Patrol										
0572		27 00531	00553	0100	N14	W85	6368	11 20.6	7	SF			25		
	VORO	27 0053	0055	0100	N14	W89	6368	11 20.3	7	SF	2 C	0055	27		DH
	PALE	27 0054	0058	0100	N13	W81	6368	11 20.9	6	SF	3 E		23		DH
0573	VORO	27 0111	0113	0127	S09	W26	6378	11 25.1	16	SF	2 C	0113	81	0.9	EIJ
0574	VORO	27 0219	0223	0231	S09	W26	6378	11 25.1	12	SF	2 C	0223	72	0.8	DIJ
0575		27 04362	04452	0458	S04	W30	6377	11 24.9	22	SN			119	1.4	E
	WATU	27 0436	0445	0457	S03	W30	6377	11 25.0	21	SF	C	0445	70	0.8	
	PEKG	27 0438	0447	0459	S04	W30	6377	11 24.9	21	SB	C	0446	168	2.0	E
0576	WATU	27 0459	0504	0545	S12	W22	6378	11 25.5	46	SF	C	0504	80	0.9	
0577	LEAR	27 0632	0633	0645	N18	E66	6383	12 2.3	13	SF	3 E		36		F
0578	ABST	27 0656	0658	0709	N19	W88	6368	11 20.6	13	1F	C	0658	87		AD
0579	LEAR	27 0824	0824	0828	N18	E65	6383	12 2.3	4	SF	3 E		14		
		27 0951		0958	No Flare Patrol										
		27 1035		1049	No Flare Patrol										
		27 1625		1629	No Flare Patrol										
0580	HOLL	27 1807	1808	1817	N16	E59	6383	12 2.2	10	SF	3 E		17		
0581	HOLL	27 1855	1856	1858	N15	E61	6383	12 2.4	3	SF	3 E		23		
0582	HOLL	27 1932	1933	1941	S06	W39	6377	11 24.9	9	SF	3 E		14		F
0583	HOLL	27 1943	1953	1957	N17	E58	6383	12 2.2	14	SF	3 E		20		

H α SOLAR FLARES

NOVEMBER 1990

Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks		
														Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)			
0584		28 0654	28 0657	0712	S04	W49	6377	11	24.6	18	SN	C	6.2			81	1.4	BEF	
	LEAR	28 0654	0658	0714	S04	W49	6377	11	24.6	20	SF	C	6.2	3	E		68		F
	WATU	28 0654	0658	0714	S04	W50	6377	11	24.5	20	SN				C	0658	80	1.3	
	YUNN	28 0656E	0656U	0657D	S04	W51	6377	11	24.5	1D	SB				P	0656	64	1.1	
	URUM	28 0656	0657	0710	S04	W49	6377	11	24.6	14	SN				C		113	1.8	E
	ISTA	28 0703E		0710	S04	W48	6377	11	24.7	7D	SF								B
0585	TACH	28 0655E	0659	0708D	N15	W24	6386	11	26.5	13D	SB			1	C	0659	143	1.8	F
0586		28 0810	0813	0821	S24	E78	6387	12	4.4	11	1N	C	3.9				38		D
	ISTA	28 0810	0814	0824	S23	E80	6387	12	4.5	14	1B								D
	LEAR	28 0812	0813	0818	S25	E77	6387	12	4.3	6	SF	C	3.9	3	E		38		
0587	RAMY	28 1526	1528	1537	N16	E46	6383	12	2.1	11	SF			3	E		29		F
0588	RAMY	28 1606	1629	1631	S22	E77	6387	12	4.6	25	SF			3	E		27		F
		28 1755		1800	No Flare Patrol														
0589		28 1907	1908	1924	S04	W55	6377	11	24.7	17	SF	C	5.5				18		
	HOLL	28 1907	1908	1924	S05	W55	6377	11	24.7	17	SF	C	5.5	3	E		25		
	RAMY	28 1908	1908	1923	S04	W55	6377	11	24.7	15	SF	C	5.5	3	E		11		
0590	HOLL	28 1939	1940	1950	S07	W53	6377	11	24.8	11	SF			3	E		13		
0591	LEAR	28 2257	2257	2309	S05	W55	6377	11	24.8	12	SF			3	E		12		
0592		29 0114*	0132	0142	S04	W60	6377	11	24.6	28	1F						67	2.0	DHI
	LEAR	29 0114	0132	0140	S05	W57	6377	11	24.8	26	SF			3	E		35		
	VORO	29 0128	0133	0144	S04	W62	6377	11	24.4	16	1F			2	C	0133	99	2.0	DHI
0593		29 0146	0150	0158	N14	E46	6383	12	2.6	12	SF	C	4.2				76	1.6	DH
	VORO	29 0146	0151	0159	N15	E46	6383	12	2.5	13	SF			2	C	0151	108	1.6	DH
	LEAR	29 0147	0150	0158	N14	E45	6383	12	2.5	11	SF	C	4.2	3	E		43		
0594	LEAR	29 0340	0342	0348	S04	W61	6377	11	24.6	8	SF			3	E		19		
0595	LEAR	29 0355	0356	0401	N16	E40	6383	12	2.2	6	SF			3	E		14		
0596	LEAR	29 0851	0852	0904	S06	W61	6377	11	24.8	13	SF			3	E		14		
0597		29 0947	0953	1025	S20	E66	6387	12	4.4	38	1N	C	9.9				110		F
	SVTO	29 0947	0959	1025	S19	E68	6387	12	4.6	38	1N	C	9.9	3	E		144		F
	LEAR	29 0950	0953	1000D	S21	E63	6387	12	4.2	10D	SF			1	E		75		
0598		29 1412	1412	1424	N14	E40	6383	12	2.6	12	SN						20	0.4	F
	RAMY	29 1412	1412	1424	N14	E39	6383	12	2.5	12	SF			3	E		11		F
	HTPR	29 1413E		1425	N13	E42	6383	12	2.8	12D	SN				C	1413	30	0.4	
0599	HOLL	29 1758	1758	1803	S06	W05	6379	11	29.4	5	SF			3	E		13		F
0600		29 1912*	1924	2001	S07	E18	6388	12	1.1	49	SF	C	2.0				24		F
	HOLL	29 1912	1924	2001	S08	E18	6388	12	1.1	49	SF	C	2.0	3	E		31		F
	PALE	29 1927	1928	1946D	S06	E19	6388	12	1.2	19D	SF			3	E		18		
0601		29 2033*	2051	2151	S08	E18	6388	12	1.2	78	SF	C	2.2				32		F
	HOLL	29 2033	2052	2151	S08	E17	6388	12	1.1	78	SF	C	2.2	3	E		46		F
	RAMY	29 2050	2051	2057D	S07	E18	6388	12	1.2	7D	SF	C	2.2	2	E		18		F
0602	WATU	30 0231	0255	0343	S07	W09	6379	11	29.4	72	SF				C	0255	90	1.0	
0603	LEAR	30 0252	0350	0413	S07	E13	6388	12	1.1	81	SF			3	E		82		F
0604	LEAR	30 0308	0314	0327	N34	E71	6390	12	5.8	19	SF	C	2.4	3	E		23		F
0605	LEAR	30 0358	0402	0447	S26	E45	6393	12	3.7	49	SF	C	3.4	3	E		48		F
0606		30 0528*	0552	0616	S24	E52	6387	12	4.2	48	1N	C	6.2				102	2.2	E
	TACH	30 0528	0552	0616	S24	E52	6387	12	4.2	48	1N			2	C	0552	117	2.2	E
	LEAR	30 0544	0553	0616	S23	E53	6387	12	4.3	32	SF	C	6.2	3	E		86		

H α SOLAR FLARES

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Nov 90

NOVEMBER 1990

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	NOAA/ USAF CMD	Region	CMP	Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks
																		Apparent (10-6 Disk)	Corr (Sq Deg)	
0607		30	07461	07515	0816	S23	E52	6387	12	4.3	30	SF	C	2.1				43	0.9	EF
	LEAR	30	0746	0756	0817	S24	E51	6387	12	4.3	31	SF	C	2.1	3	E		35		F
	TACH	30	0747	0751	0800	S24	E50	6387	12	4.2	130	SN			2	C	0751	51	0.9	E
	KANZ	30	0747	0755	0814	S21	E54	6387	12	4.5	27	SF				C				
0608	LEAR	30	0918	0921	0935	S24	E53	6387	12	4.5	17	SF	C	2.2	3	E		20		F
0609	HTPR	30	0918		0945	N23	E90		12	7.3	27	SN				C				
0610	HTPR	30	1045	1059	1110	N23	E90		12	7.4	25	SF				C				
0611		30	12241	12282	1240	S22	E50	6387	12	4.3	16	1N	C	4.8				158	2.8	FH
	RAMY	30	1224	1230	1242	S21	E47	6387	12	4.1	18	1N	C	4.8	3	E		127		FH
	HTPR	30	1225	1228	1239	S24	E52	6387	12	4.5	14	1N				C	1228	190	2.8	H
0612	RAMY	30	1315	1316	1322	S06	W76	6377	11	24.9	7	SF			4	E		15		
0613	RAMY	30	1358	1359	1409	S06	E07	6388	12	1.1	11	SF			3	E		34		F
0614	HOLL	30	1533	1534	1544	S07	W75	6377	11	25.0	11	SF			3	E		22		F
0615	HOLL	30	1533	1537	1543	S23	E49	6387	12	4.4	10	SF			3	E		23		F
0616	HOLL	30	1546	1548	1604	S07	W75	6377	11	25.0	18	SF	C	2.1	3	E		16		F
0617		30	16033	1607	1629	S24	E48	6387	12	4.4	26	SF						42		F
	HOLL	30	1603	1607	1639	S23	E48	6387	12	4.4	36	SF			3	E		51		F
	RAMY	30	1606	1607	1619	S24	E49	6387	12	4.4	13	SF			3	E		34		F
0618	HOLL	30	1738	1738	1755	S23	E47	6387	12	4.3	17	SF	C	2.4	3	E		10		F
0619	HOLL	30	1811	1811	1822	N35	E64	6390	12	5.9	11	SF			3	E		14		F

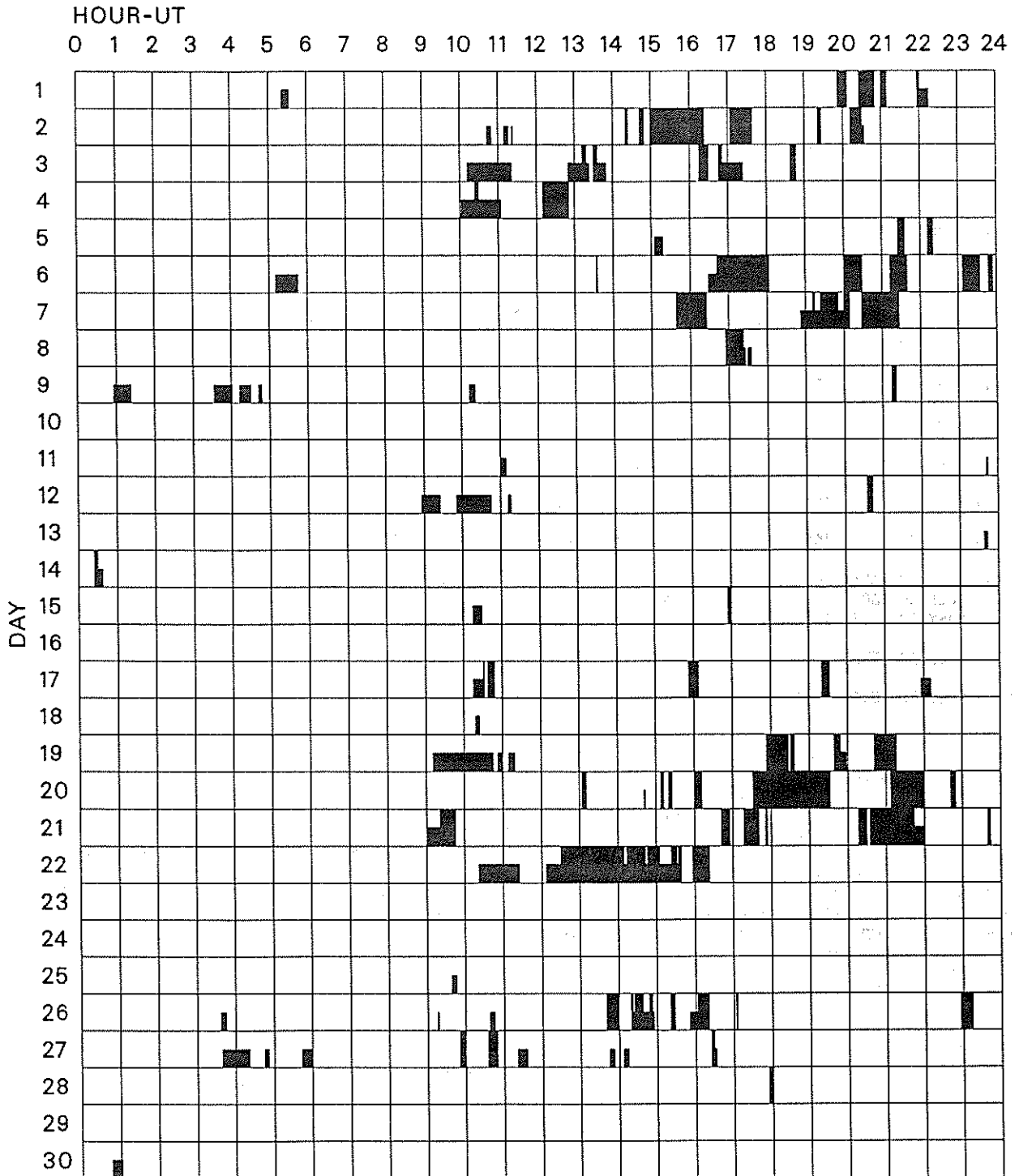
"Remarks"

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

NOVEMBER 1990



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

Abastumani
Athens
Bucharest
Haute Provence

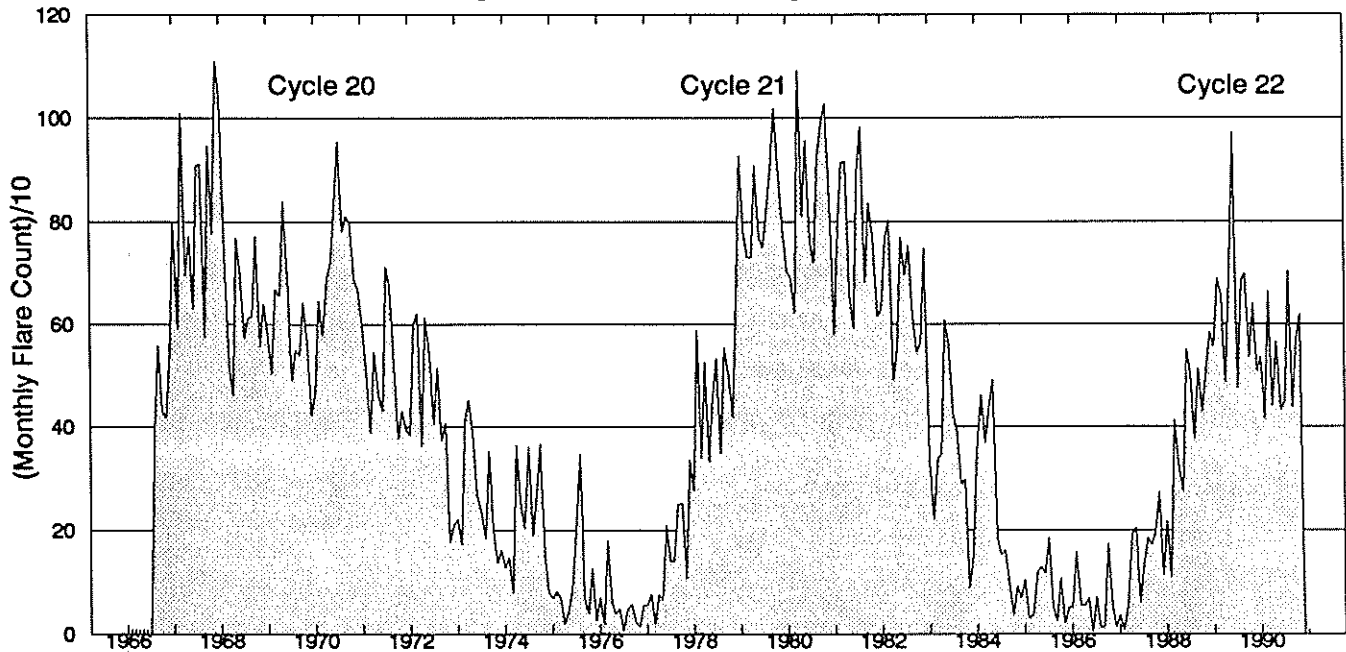
Holloman
Istanbul
Kanzelhoehe
Kharkov

Learmonth
Mitaka
Ondrejov
Palehua

Peking
Purple Mt.
Ramey
San Vito

Tashkent
Urumqi
Voroshilov
Watakosek
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	513	429	508	584	4803
1989	689	539	658	485	686	971	473	684	699	535	640	507	7566
1990	536	415	664	439	565	433	447	703	436	569	619	--	5826

*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.

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

NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
01	100	GORK	44 NS	0500.0E		450.00		5.0		
	100	HIRA	42 SER	0408.4	0408.8		585.0			
	2840	PEKG	5 S	0554.0	0558.1	8.0	12.4	7.7		
	100	HIRA	46 C	0555.4	0556.1U	2.6	1000.0D			
	200	GORK	4 S/F	0555.4	0557.2	2.6	140.0			
	100	GORK	46 C	0555.8	0557.1	2.8	1400.0			
	100	GORK	46 C	0555.8	0557.3		2500.0			
	245	LEAR	8 S	0556.0E	0557.0	1.0D	270.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	0556.0E	0557.0	1.0D	43.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0556.0E	0557.0	1.0D	320.0			QL=4 ST=2 TYP=3
	4995	SVTO	8 S	0556.0E	0557.0	1.0D	36.0			QL=4 ST=2 TYP=3
	2950	GORK	3 S	0556.1	0557.2	2.3	14.0			
	5900	KISV	4 S/F	0556.3	0557.2	2.1	49.0			
	2850	CRIM	1 S	0556.6	0557.0	1.0	18.0	6.0		
	9300	KISV	4 S/F	0556.6	0557.1	1.7	50.0			
	9100	GORK	3 S	0556.8	0557.2	2.1	55.0			
	15400	LEAR	8 S	0557.0E	0557.0		31.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0557.0E	0557.0		33.0			QL=4 ST=2 TYP=3
	4995	LEAR	8 S	0557.0E	0557.0		29.0			QL=4 ST=2 TYP=3
	15000	KISV	2 S/F	0557.1	0557.3	1.4	29.0			
	5900	KISV	23 GRF	0642.7	0649.7	24.3	7.0			
	5900	KISV	46 C	0645.1	0647.0		11.0			
	5900	KISV	46 C	0645.1	0646.1		8.0			
	5900	KISV	46 C	0645.1	0647.2	3.1	12.0			
	9300	KISV	21 GRF	0646.8	0647.2	23.6	12.0			
	5900	KISV	2 S/F	0749.5	0753.0	4.5	6.0			
	1470	POTS	40 F	0751.0	0752.9	2.5	25.0			
	113	POTS	42 SER	0752.5	0806.1	14.9	140.0			
	204	IZMI	5 S	0752.8	0753.0	0.4	23.0	1.0		
	30	POTS	42 SER	0757.7	0800.8U	8.4	4000.0D			
	2850	CRIM	1 S	0759.9	0800.3	1.2	15.0	5.0		
	1470	POTS	1 S	0800.0	0801.0	2.0	2.0			
	100	GORK	4 S/F	0800.0	0801.1	1.7	340.0			
	200	GORK	4 S/F	0800.0	0801.3	1.7	40.0			
	3000	POTS	4 S/F	0800.0	0800.6	2.0	13.0			
	3013	IZMI	5 S	0800.0	0800.8	2.0	11.0			
	2950	GORK	2 S/F	0800.1	0800.9	1.4	12.0			
	5900	KISV	2 S/F	0800.2	0800.7	1.6	11.0			
	204	IZMI	7 C	0800.8	0802.0	1.5	53.0			
	204	IZMI	7 C	0907.0	0907.3	0.5	61.0	3.0		
	2850	CRIM	1 S	0908.0	0908.5	1.0	2.6	1.0		
	204	IZMI	41 F	1005.0	1008.5	6.5	12.0			
	127	TORN	41 F	1411.0	1415.0	12.0	30.0D	1.0D		
	2800	OTTA	20 GRF	1612.0	1635.0	115.0	2.8	1.0		
	245	PALE	8 S	1815.0E	1815.0	1.0D	240.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1815.0E	1815.0	1.0D	270.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1947.0E	1947.0		63.0			QL=4 ST=2 TYP=3
245	SGMR	8 S	1951.0E	1951.0		450.0			QL=4 ST=2 TYP=3	
245	SGMR	49 GB	1953.0E	1955.0	3.0D	1900.0			QL=4 ST=2 TYP=6	
610	SGMR	8 S	1954.0E	1955.0	1.0D	320.0			QL=4 ST=2 TYP=3	
2800	OTTA	3 S	1954.0	1954.3	4.6	21.3	4.0			
410	SGMR	8 S	1955.0E	1955.0	1.0D	210.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	2003.0E	2003.0		92.0			QL=4 ST=2 TYP=3	
410	SGMR	8 S	2011.0E	2011.0		59.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	2032.0E	2033.0	1.0D	130.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	2032.0E	2033.0	1.0D	130.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	2050.0E	2050.0		60.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	2054.0E	2055.0	1.0D	390.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	2055.0E	2055.0		430.0			QL=4 ST=2 TYP=3	
245	PALE	49 GB	2103.0E	2105.0	2.0D	1500.0			QL=4 ST=2 TYP=6	
245	SGMR	49 GB	2103.0E	2105.0	2.0D	1100.0			QL=4 ST=3 TYP=6	
100	HIRA	46 C	2103.8	2105.3	2.1	1000.0D				
200	HIRA	48 C	2103.8	2104.6	2.6	5000.0	315.0		0	
02	200	GORK	44 NS	0454.0E		453.0D		5.0		
	204	IZMI	43 NS	0600.0			360.0	20.0		
	127	TORN	44 NS	0620.0E		520.0D				V=1
	260	ONDR	43 NS	0800.0		360.0D				
	200	HIRA	42 SER	0129.5	0129.7	4.0	1300.0			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 (2 Hz)	Int	Remarks
02	100	HIRA	42 SER	0129.7		4.2	1000.00			
	610	LEAR	8 S	0130.0E	0130.0	1.00	85.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0130.0E	0130.0	1.00	310.0			QL=4 ST=2 TYP=3
	245	LEAR	49 GB	0130.0E	0130.0	1.00	820.0			QL=4 ST=2 TYP=6
	610	PALE	8 S	0130.0E	0130.0	U	69.0			QL=4 ST=2 TYP=3
	410	PALE	49 GB	0130.0E	0130.0	U	540.0			QL=4 ST=2 TYP=6
	245	PALE	49 GB	0130.0E	0130.0	1.00	980.0			QL=4 ST=2 TYP=6
	500	HIRA	42 SER	0130.0	0130.5	4.3	240.0			WL
	245	LEAR	49 GB	0133.0E	0133.0	1.00	660.0			QL=4 ST=2 TYP=6
	410	LEAR	8 S	0133.0E	0133.0	U	130.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	0133.0E	0133.0	U	180.0			QL=4 ST=2 TYP=3
	245	PALE	49 GB	0133.0E	0133.0	U	690.0			QL=4 ST=2 TYP=6
	245	LEAR	8 S	0136.0E	0136.0	U	310.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0136.0E	0136.0	U	460.0			QL=4 ST=2 TYP=3
	245	LEAR	4 S/F	0213.0E	0216.0	4.00	79.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0214.0E	0215.0	2.00	69.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0336.0E	0336.0	U	66.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0414.0E	0414.0	1.00	210.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0414.0E	0414.0	1.00	120.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0418.0E	0418.0	1.00	74.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0525.0E	0525.0	U	100.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0525.0E	0525.0	1.00	35.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0550.0E	0550.0	1.00	250.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0550.0E	0551.0	1.00	52.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	0550.0E	0550.0	1.00	200.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0552.0E	0552.0	U	75.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0856.0E	0856.0	1.00	190.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0856.0E	0856.0	1.00	70.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0856.0E	0856.0	U	280.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	0856.0E	0856.0	1.00	110.0			QL=4 ST=2 TYP=3
	430	KRAK	8 S	0856.0	0856.5	1.1	140.0			
	234	POTS	4 S/F	0856.3	0856.6	0.9	200.0			
	5900	KISV	2 S/F	0856.3	0856.8	4.5	5.0			
	245	LEAR	8 S	0945.0E	0945.0	1.00	84.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	1011.0E	1011.0	U	59.0			QL=4 ST=2 TYP=3
	9300	KISV	2 S/F	1131.5	1132.7	4.7	8.0			
	410	SGMR	4 S/F	1252.0E	1252.0	4.00	34.0			QL=4 ST=3 TYP=3
	410	SVTO	8 S	1252.0E	1252.0	U	78.0			QL=4 ST=2 TYP=3
	6700	CUBA	1 S	1314.6	1316.0	2.4	5.0	2.0		POL FAILURE
	245	SGMR	8 S	1325.0E	1325.0	U	55.0			QL=4 ST=2 TYP=3
245	SVTO	8 S	1325.0E	1325.0	U	59.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1334.0E	1334.0	1.00	70.0			QL=4 ST=3 TYP=3	
245	PALE	8 S	1858.0E	1859.0	1.00	120.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1858.0E	1859.0	1.00	170.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1923.0E	1923.0	U	74.0			QL=4 ST=2 TYP=3	
03	200	GORK	44 NS	0506.0E		384.00		5.0		
	204	IZMI	43 NS	0600.0		360.0	10.0			
	127	TORN	44 NS	0620.0E	0959.8	320.00	70.0	1.0		V=1
	200	HIRA	41 F	0124.0	0200.0	79.0	27.0	6.0		ML
	245	LEAR	8 S	0212.0E	0212.0	1.00	100.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0212.0E	0212.0	U	73.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0223.0E	0223.0	U	100.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0223.0E	0223.0	U	80.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0259.0E	0259.0	U	62.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0348.0E	0348.0	U	62.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0354.0E	0354.0	U	84.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0424.0E	0425.0	1.00	51.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0520.0E	0520.0	1.00	69.0			QL=4 ST=2 TYP=3
	5900	KISV	1 S	0700.9	0701.4	0.9	4.0			
	600	HUMN	1 S	0825.5	0826.0	1.5	22.0	10.0		
	430	KRAK	7 C	0850.2	0852.9	2.8	62.0	14.0		
	260	ONDR	41 F	0900.0	1021.7	170.0	18.0			
	245	SGMR	8 S	1502.0E	1503.0	1.00	86.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1503.0E	1530.0	U	77.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1855.0E	1855.0	U	65.0			QL=4 ST=2 TYP=3
200	HIRA	42 SER	2351.5	2357.0	5.9	74.0			O	
100	HIRA	42 SER	2351.7	2356.4	6.1	930.0				
245	LEAR	49 GB	2352.0E	2352.0	1.00	800.0			QL=2 ST=3 TYP=6	

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
03	410	LEAR	8 S	2352.0E	2352.0	1.0D	56.0			QL=2 ST=3 TYP=3	
	610	LEAR	8 S	2352.0E	2353.0	1.0D	260.0			QL=2 ST=3 TYP=3	
	500	HIRA	8 S	2352.8	2352.8	0.6	106.0			WL	
04	200	HIRA	43 NS	0251.0	0320.0	270.0D	7.0	3.0		WL	
	200	GORK	44 NS	0512.0E		288.0D		5.0			
	245	LEAR	8 S	0028.0E	0028.0	1.0D	83.0			QL=2 ST=2 TYP=3	
	245	LEAR	8 S	0427.0E	0427.0	1.0D	90.0			QL=4 ST=2 TYP=3	
	245	LEAR	8 S	0436.0E	0437.0	1.0D	160.0			QL=4 ST=2 TYP=3	
	245	LEAR	8 S	0440.0E	0440.0	U	80.0			QL=4 ST=2 TYP=3	
	245	LEAR	8 S	0600.0E	0600.0	1.0D	63.0			QL=4 ST=2 TYP=3	
	5900	KISV	2 S/F	0606.8	0607.4	2.0	3.0				
	650	GORK	1 S	0630.8	0631.1	1.9	3.0				
	950	GORK	2 S/F	0630.8	0632.5	2.7	9.0				
	5900	KISV	22 GRF	0631.4	0641.7	22.0	5.0				
	650	GORK	1 S	0647.0	0647.3	1.0	3.0				
	950	GORK	2 S/F	0647.2	0647.7	0.8	4.0				
	5900	KISV	46 C	0723.0	0725.2		6.0				
	5900	KISV	46 C	0723.0	0724.5		6.0				
	5900	KISV	46 C	0723.0	0723.7	7.0	8.0				
	2950	GORK	22 GRF	0723.3	0915.1	234.4	9.0				
	9100	GORK	21 GRF	0733.0	1013.9	237.0D	12.0				
	2850	CRIM	24 R	0736.0	0820.0		4.0				
	245	LEAR	8 S	0800.0E	0800.0	1.0D	57.0				QL=4 ST=2 TYP=3
	15400	LEAR	4 S/F	0939.0E	0947.0	861.0D	65.0				QL=4 ST=1 TYP=5
	5900	KISV	4 S/F	0957.5	0959.3		18.0				
	9300	KISV	2 S/F	0958.1	0959.5	6.0	15.0				
	9100	GORK	2 S/F	0958.4	0959.3	2.0	10.0				
	950	GORK	1 S	1005.0	1005.3	0.6	2.0				
	650	GORK	1 S	1005.1	1005.4	0.5	1.0				
	204	IZMI	8 S	1050.5	1050.5	0.5	85.0				
	260	ONDR	4 S/F	1153.0	1155.5	4.0	91.0				
	245	SGMR	8 S	1154.0E	1156.0	2.0D	310.0				QL=4 ST=2 TYP=3
	234	POTS	4 S/F	1154.6	1156.3	3.1	400.0				
	245	SVTO	8 S	1155.0E	1156.0	1.0D	310.0				QL=4 ST=2 TYP=3
	410	SVTO	8 S	1155.0E	1155.0	U	53.0				QL=4 ST=2 TYP=3
	430	KRAK	41 F	1155.0	1156.2	2.6	43.0	11.0			
	536	ONDR	C	1155.0	1156.4	4.0	31.0				
	204	IZMI	41 F	1155.3	1155.5	1.8	300.0				
	127	TORN	45 C	1155.8	1156.0	1.7	15.0	3.0			
	3000	POTS	1 S	1156.0	1156.3U	1.5U	4.0				
	1470	POTS	3 S	1156.0	1156.5	1.5	6.0				
	810	KRAK	8 S	1156.1	1156.2	0.1	4.0				
	9400	HUAN	1 S	1232.5	1235.2	6.0	4.6	2.8			
	127	TORN	45 C	1256.0	1257.3	3.0	20.0	6.0			
	245	SGMR	8 S	1452.0E	1452.0	U	140.0				QL=4 ST=2 TYP=3
	410	SGMR	8 S	1452.0E	1452.0	U	140.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1452.0E	1452.0	U	150.0				QL=2 ST=2 TYP=3
	15400	PALE	4 S/F	1735.0E	1737.0	13.0D	310.0				QL=4 ST=2 TYP=3
	245	PALE	49 GB	1736.0E	1737.0	3.0D	9800.0				QL=4 ST=2 TYP=6
	2695	PALE	4 S/F	1736.0E	1737.0	5.0D	330.0				QL=4 ST=2 TYP=3
410	PALE	49 GB	1736.0E	1737.0	3.0D	1400.0				QL=4 ST=2 TYP=6	
8800	PALE	49 GB	1736.0E	1737.0	3.0D	740.0				QL=4 ST=2 TYP=6	
8800	SGMR	49 GB	1736.0E	1737.0	7.0D	740.0				QL=4 ST=2 TYP=6	
2695	SGMR	4 S/F	1736.0E	1737.0	4.0D	330.0				QL=4 ST=2 TYP=3	
4995	SGMR	49 GB	1736.0E	1737.0	4.0D	910.0				QL=4 ST=2 TYP=6	
4995	PALE	49 GB	1736.0E	1737.0	12.0D	950.0				QL=4 ST=2 TYP=6	
2800	OTTA	3 S	1736.3	1737.8	4.1	302.0	62.0				
9400	HUAN	45 C	1736.4	1737.3	4.8	503.4	186.8				
6700	CUBA	47 GB	1736.5	1737.6	6.6	1027.0					
15000	CUBA	3 S	1736.9	1737.4	3.1	363.0	108.0				
1415	PALE	8 S	1737.0E	1737.0	2.0D	97.0				5R	
610	PALE	8 S	1737.0E	1737.0	2.0D	56.0				QL=4 ST=2 TYP=3	
1415	SGMR	8 S	1737.0E	1737.0	2.0D	94.0				QL=4 ST=2 TYP=3	
410	SGMR	49 GB	1737.0E	1737.0	2.0D	1000.0				QL=4 ST=2 TYP=6	
610	SGMR	8 S	1737.0E	1737.0	2.0D	59.0				QL=4 ST=2 TYP=3	
15400	SGMR	4 S/F	1737.0E	1737.0	383.0D	320.0				QL=4 ST=1 TYP=3	
15000	CUBA	29 PBI	1740.0		17.0	25.0	12.0			9R	
2800	OTTA	29 PBI	1740.4	1740.4	62.0	17.6	8.0				

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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	Int	Remarks
04	9400	HUAN	29 PBI	1741.2	1741.2	68.8	23.2	11.4		
	6700	CUBA	29 PBI	1743.1		541.00	16.0	8.0		
05	260	ONDR	43 NS	1025.0	1215.0	110.00	92.0			
	245	SVTO	44 NS	1131.0E	1132.0	5.00	170.0			QL=4 ST=2 TYP=1
	245	SGMR	44 NS	1337.0E	1337.0	623.00	300.0			QL=4 ST=3 TYP=1
	245	LEAR	8 S	0103.0E	0103.0		U	64.0		QL=4 ST=2 TYP=3
	245	PALE	8 S	0103.0E	0103.0		U	63.0		QL=4 ST=2 TYP=3
	245	LEAR	8 S	0345.0E	0346.0	1.00	340.0			QL=4 ST=2 TYP=3
	2840	PEKG	5 S	0345.0	0346.7	7.0	10.4	5.7		
	200	HIRA	8 S	0345.5	0345.5	0.7	540.0			0
	610	LEAR	8 S	0346.0E	0346.0		U	24.0		QL=4 ST=2 TYP=3
	5900	KISV	22 GRF	1117.8	1122.4	34.1	10.0			
	9400	HUAN	1 S	1237.7	1239.1	3.1	6.0	2.5		
	2850	CRIM	1 S	1300.9	1301.1	0.8	30.8	10.0		
	245	SVTO	8 S	1337.0E	1337.0	1.00	280.0			QL=4 ST=2 TYP=3
	2800	OTTA	3 S	1450.6	1451.5	1.9	7.1	2.0		
	2800	OTTA	20 GRF	1726.5	1728.5	13.0	6.5	3.0		
	9400	HUAN	1 S	1727.1	1728.7	1052.0	7.2	3.2		
	6700	CUBA	2 S/F	1727.5	1731.0	7.0	4.0	2.0		
	245	PALE	8 S	1810.0E	1810.0		U	100.0		QL=4 ST=2 TYP=3
	245	SGMR	8 S	1810.0E	1810.0		U	85.0		QL=4 ST=2 TYP=3
	2800	OTTA	20 GRF	1935.0	1941.0	22.0	3.9	1.0		
	200	HIRA	46 C	2120.5	2121.5	1.8	280.0			0
	2695	PENT	3 S	2120.7	2122.1	17.2	57.9	12.0		
	245	PALE	8 S	2121.0E	2121.0	1.00	120.0			QL=4 ST=2 TYP=3
	2695	PENT	4 S/F	2307.0	2308.0	9.7	120.0	24.0		
	15400	LEAR	4 S/F	2307.0E	2309.0	5.00	100.0			QL=2 ST=2 TYP=3
	2695	LEAR	4 S/F	2307.0E	2308.0	5.00	110.0			QL=4 ST=2 TYP=3
	1415	LEAR	4 S/F	2307.0E	2308.0	4.00	30.0			QL=4 ST=2 TYP=3
	8800	LEAR	4 S/F	2307.0E	2309.0	10.00	98.0			QL=4 ST=2 TYP=3
	4995	LEAR	4 S/F	2307.0E	2308.0	11.00	110.0			QL=4 ST=2 TYP=3
	80000	NOBE	3 S	2307.4	2309.2	5.0	30.0			L
	17000	NOBE	4 S/F	2307.4	2309.2	7.0	86.0			L
	35000	NOBE	4 S/F	2307.4	2309.2	5.0	96.0			L
610	LEAR	8 S	2310.0E	2310.0	1.00	23.0			QL=4 ST=2 TYP=3	
06	200	GORK	44 NS	0515.0E		319.00		5.0		
	127	TORN	43 NS	0646.0		97.0		9.0		V=1
	204	IZMI	43 NS	0700.0		300.0	10.0			
	245	SVTO	44 NS	1115.0E	1125.0	1400.00	100.0			QL=2 ST=2 TYP=1
	245	SGMR	44 NS	1658.0E	1733.0	422.00	110.0			QL=4 ST=3 TYP=1
	245	PALE	44 NS	1728.0E	1738.0	392.00	140.0			QL=4 ST=3 TYP=1
	245	LEAR	49 GB	0430.0E	0431.0	1.00	940.0			QL=4 ST=2 TYP=6
	8800	LEAR	8 S	0430.0E	0431.0	1.00	13.0			QL=4 ST=2 TYP=3
	410	LEAR	49 GB	0430.0E	0430.0	2.00	880.0			QL=4 ST=2 TYP=6
	200	HIRA	8 S	0430.4	0430.8	0.8	1200.0			0
	500	HIRA	41 F	0430.6	0432.3	3.0	81.0			WL
	100	HIRA	42 SER	0430.6	0430.9	6.6	1000.00			
	245	LEAR	8 S	0436.0E	0436.0		U	120.0		QL=4 ST=2 TYP=3
	5900	KISV	2 S/F	0703.8	0704.4	1.3	3.0			
	3000	POTS	3 S	0727.5	0728.5	2.0	7.0			
	245	LEAR	8 S	0742.0E	0743.0	1.00	57.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0743.0E	0743.0		U	60.0		QL=4 ST=2 TYP=3
	410	LEAR	8 S	0745.0E	0745.0	1.00	64.0			QL=4 ST=2 TYP=3
	260	ONDR	41 F	0800.0	1129.5U	360.0	41.0			
	430	KRAK	42 SER	0950.0	0958.8	14.0	15.0			
	5900	KISV	2 S/F	1006.8	1008.8	7.2	4.0			
	204	IZMI	41 F	1041.3	1042.1	1.5	150.0			
	610	SGMR	8 S	1405.0E	1405.0		U	39.0		QL=4 ST=2 TYP=3
	245	SGMR	8 S	1448.0E	1448.0		U	430.0		QL=4 ST=2 TYP=3
245	SVTO	8 S	1448.0E	1448.0		U	480.0		QL=4 ST=2 TYP=3	
6700	CUBA	21 GRF	1448.0	2101.0	440.00	32.0			SUNSET	
2800	OTTA	4 S/F	1448.5	1450.6	4.9	19.3	6.0			
9400	HUAN	2 S/F	1448.6	1450.3	5.3	6.1	2.8			
4995	SGMR	8 S	1450.0E	1450.0	1.00	57.0			QL=4 ST=2 TYP=3	
15000	CUBA	20 GRF	1450.0	1924.0	381.0	21.0	10.0		OOL	
9400	HUAN	22 GRF	1557.2	1611.0U	39.4	12.2	5.4			
245	SGMR	8 S	1641.0E	1641.0	1.00	91.0			QL=2 ST=2 TYP=3	

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

NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m ² Hz)	Mean		
06	9400	HUAN	22 GRF	1654.6	1705.8	42.6	6.1	3.2		
	245	PALE	8 S	1659.0E	1700.0	1.00	98.0			QL=4 ST=2 TYP=3
	245	PALE	4 S/F	1720.0E	1721.0	4.00	74.0			QL=4 ST=2 TYP=3
	2800	OTTA	22 GRF	1754.0	1821.5	120.0	11.7	5.0		
	610	PALE	8 S	1757.0E	1757.0	U	300.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	1757.0E	1757.0	U	380.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1757.0E	1757.0	U	120.0			QL=4 ST=2 TYP=3
	610	SGMR	8 S	1757.0E	1757.0	1.00	440.0			QL=4 ST=3 TYP=3
	410	SGMR	8 S	1757.0E	1757.0	1.00	380.0			QL=4 ST=3 TYP=3
	245	SGMR	8 S	1757.0E	1757.0	U	95.0			QL=4 ST=3 TYP=3
	245	PALE	8 S	1855.0E	1856.0	2.00	180.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1855.0E	1856.0	2.00	160.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	2037.0E	2038.0	1.00	180.0			QL=2 ST=2 TYP=3
	245	PALE	4 S/F	2040.0E	2041.0	17.00	160.0			QL=2 ST=2 TYP=3
	9400	HUAN	45 C	2040.2	2048.9	14.7	248.2	136.8		
	2800	OTTA	4 S/F	2040.5	2042.1	18.0	151.0	45.0		
	6700	CUBA	45 C	2040.8	2048.0U	16.2	243.0D			
	6700	CUBA	45 C	2040.8	2043.2		173.0			
	610	SGMR	4 S/F	2041.0E	2049.0	9.00	260.0			QL=2 ST=2 TYP=5
	2695	PALE	4 S/F	2041.0E	2043.0	14.00	120.0			QL=4 ST=2 TYP=5
	610	PALE	4 S/F	2041.0E	2049.0	11.00	300.0			QL=2 ST=2 TYP=5
	4995	PALE	4 S/F	2041.0E	2049.0	15.00	250.0			QL=4 ST=2 TYP=5
	4995	SGMR	4 S/F	2041.0E	2043.0	199.00	260.0			QL=4 ST=3 TYP=3
	2695	SGMR	4 S/F	2041.0E	2043.0	199.00	140.0			QL=4 ST=3 TYP=3
	8800	PALE	4 S/F	2042.0E	2049.0	12.00	190.0			QL=4 ST=2 TYP=5
	8800	SGMR	4 S/F	2042.0E	2043.0	198.00	88.0			QL=4 ST=3 TYP=3
	15000	CUBA	46 C	2042.0	2049.5	10.0	148.0	47.0		OOL
	1415	PALE	8 S	2043.0E	2043.0	U	23.0			QL=4 ST=2 TYP=3
	8800	SGMR	4 S/F	2043.0E	2049.0	7.00	160.0			QL=2 ST=2 TYP=5
	410	PALE	49 GB	2043.0E	2049.0	10.00	570.0			QL=4 ST=2 TYP=7
	15400	SGMR	4 S/F	2045.0E	2047.0	5.00	140.0			QL=2 ST=2 TYP=3
	410	SGMR	4 S/F	2046.0E	2049.0	4.00	480.0			QL=2 ST=2 TYP=3
	245	SGMR	8 S	2047.0E	2049.0	2.00	220.0			QL=2 ST=2 TYP=3
1415	SGMR	8 S	2048.0E	2049.0	2.00	75.0			QL=2 ST=2 TYP=3	
15000	CUBA	29 PBI	2052.0	2052.0	19.0	40.0	20.0		53R	
9400	HUAN	29 PBI	2054.9	2054.9	46.7	41.4	16.2			
2800	OTTA	29 PBI	2058.5	2058.5	65.0	14.9	7.0			
200	HIRA	42 SER	2138.9	2206.6	27.7	13.0			WR	
200	HIRA	27 RF	2253.0	2324.0	79.0	30.0	8.0		MR	
07	200	GORK	44 NS	0530.0E		360.00		5.0		
	100	GORK	44 NS	0545.0E		345.00		5.0		
	280	CUBA	44 NS	1250.0E		510.00		36.0		
	235	CUBA	44 NS	1250.0E		510.00		23.0		
	245	PALE	44 NS	1853.0E	1923.0	55.00	98.0			QL=4 ST=2 TYP=1
	200	HIRA	44 NS	2107.0E	0011.0	620.00	13.0			WL
	100	HIRA	43 NS	2300.0	2358.0	300.0	43.0	15.0		
	245	LEAR	8 S	0424.0E	0426.0	2.00	67.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0540.0E	0540.0	1.00	130.0			QL=4 ST=2 TYP=3
	2950	GORK	23 GRF	0600.0U	0953.7	329.7D	11.0			
	9300	KISV	20 GRF	0749.8	0756.7	18.5	8.0			
	260	ONDR	41 F	0800.0	0848.5	360.0	83.0			
	100	GORK	46 C	0818.9	0820.3	6.2	5000.0			
	100	GORK	46 C	0818.9	0825.3		2800.0			
	410	SVTO	8 S	0819.0E	0819.0	1.00	330.0			QL=4 ST=2 TYP=3
	127	TORN	4 S/F	0819.1	0820.5	2.8	1600.0	800.0		
	113	POTS	42 SER	0819.1	0823.6	7.0	1700.0			
	234	POTS	42 SER	0819.1	0823.6	5.3	12000.0			
	40	POTS	42 SER	0819.1	0820.7	5.5	3800.0			
	204	I2MI	41 F	0819.4	0824.0	6.0	1100.0			
	200	GORK	46 C	0819.4	0820.3	5.2	60.0			
	200	GORK	46 C	0819.4	0823.4		330.0			
	430	KRAK	42 SER	0819.5	0819.5	2.0	250.0D			
	650	GORK	45 C	0819.6	0821.0		4.0			
950	GORK	20 GRF	0819.6	0821.1	8.0	3.0				
650	GORK	45 C	0819.6	0819.9	3.0	23.0				
245	SVTO	8 S	0820.0E	0820.0	U	100.0			QL=4 ST=2 TYP=3	
1470	POTS	3 S	0820.0	0820.2	1.5	6.0				
3000	POTS	3 S	0820.0	0820.3	1.5	8.0				

S O L A R R A D I O E M I S S I O N
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Nov 90

NOVEMBER 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	Int	Remarks
07	2950	GORK	1 S	0820.0	0820.4	1.7	5.0			
	245	SVTO	49 GB	0822.0E	0823.0	1.00	2100.0			QL=4 ST=2 TYP=6
	410	SVTO	49 GB	0822.0E	0823.0	2.00	1500.0			QL=4 ST=2 TYP=6
	245	LEAR	49 GB	0823.0E	0823.0	U	2500.0			QL=4 ST=2 TYP=6
	245	LEAR	8 S	0849.0E	0849.0	U	260.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0849.0E	0849.0	U	40.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0849.0E	0849.0	U	240.0			QL=4 ST=2 TYP=3
	204	I2MI	5 S	0849.0	0849.2	0.8	180.0	9.0		
	430	KRAK	8 S	0849.2	0849.2	0.4	44.0			
	234	POTS	4 S/F	0849.3	0849.4	0.7	300.0			
	950	GORK	46 C	0952.4	0953.4		12.0			
	950	GORK	46 C	0952.4	0952.6	1.7	5.0			
	9300	KISV	2 S/F	0952.7	0953.7	1.8	8.0			
	810	KRAK	2 S/F	0953.0	0953.5	0.9	17.0	2.0		
	9500	POTS	1 S	0953.0	0953.5	1.7	7.0			
	3000	POTS	1 S	0953.0	0953.7	1.2	4.0			
	1470	POTS	4 S/F	0953.4	0953.5	0.8	20.0			
	430	KRAK	8 S	1102.0	1102.1	0.5	150.0			
	100	GORK	46 C	1104.5	1106.0		850.0			
	100	GORK	46 C	1104.5	1105.7	2.3	850.0			
	33	UPIC	45 C	1105.0	1106.2	1.7				
	1470	POTS	1 S	1105.0	1105.5	1.5	5.0			
	2950	GORK	2 S/F	1105.0	1105.6	1.2	10.0			
	3013	I2MI	7 C	1105.0	1105.6	2.5	8.0			
	3000	POTS	4 S/F	1105.0	1105.7	1.5	10.0			
	113	POTS	42 SER	1105.8E	1106.1	8.30	250.0			
	40	POTS	42 SER	1105.8E	1106.1	8.30	45000.0			
	536	ONDR	8 S	1125.5	1125.6	0.8	57.0			
	1470	POTS	40 F	1131.5	1134.3	3.5	6.0			
	3000	POTS	40 F	1132.0	1134.2	13.0	20.0			
	3013	I2MI	41 F	1132.5	1134.3	8.0	12.0			
	9500	POTS	40 F	1133.0	1136.4	5.0	14.0			
	15000	KISV	2 S/F	1133.4	1134.1	1.4	10.0			
	9300	KISV	46 C	1133.4	1134.3	5.4	14.0			
	9300	KISV	46 C	1133.4	1136.5		12.0			
	9300	KISV	46 C	1133.4	1133.8		14.0			
	430	KRAK	8 S	1209.6	1209.7	0.5	54.0			
	113	POTS	41 F	1303.4	1309.4	8.2	650.0			
	40	POTS	41 F	1303.7	1306.1	7.9	45000.0			
	1470	POTS	1 S	1305.0	1305.5	1.0	5.0			
	3000	POTS	3 S	1305.0	1305.5	1.0	7.0			
	33	UPIC	46 C	1305.1	1306.0	1.4				
	245	SGMR	8 S	1423.0E	1423.0	U	88.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1540.0E	1540.0	U	68.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	1725.0E	1725.0	1.00	78.0			QL=4 ST=2 TYP=3
245	SGMR	8 S	1725.0E	1725.0	1.00	62.0			QL=4 ST=2 TYP=3	
6700	CUBA	2 S/F	1743.5	1745.0	4.4	1.0	1.0			
15000	CUBA	2 S/F	1744.6	1746.9	3.9	13.0	6.0		OOL	
6700	CUBA	20 GRF	1750.0	1850.0	258.00	9.0			SUNSET	
245	SGMR	4 S/F	1758.0E	1800.0	3.00	110.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	1800.0E	1800.0	1.00	92.0			QL=4 ST=2 TYP=3	
15000	CUBA	20 GRF	1841.0	1853.0	54.0	18.0	9.0		OOL	
245	SGMR	4 S/F	1845.0E	1855.0	26.00	85.0			QL=4 ST=3 TYP=3	
15000	CUBA	8 S	1946.4	1946.5	0.2	533.0	267.0		7R	
15000	CUBA	8 S	2049.4	2049.5	0.3	103.0	51.0		32R	
500	HIRA	42 SER	2223.5	2224.1	5.0	14.0			0	
410	LEAR	8 S	2227.0E	2228.0	2.00	250.0			QL=4 ST=2 TYP=3	
245	LEAR	8 S	2230.0E	2230.0	1.00	61.0			QL=4 ST=3 TYP=3	
08	245	LEAR	44 NS	0409.0E	0410.0	23.00	59.0			QL=4 ST=2 TYP=1
	200	GORK	44 NS	0524.0E		367.00		5.0		
	100	GORK	44 NS	0539.0E		351.00		5.0		
	127	TORN	44 NS	0620.0E		500.00		3.0		V=1
	204	I2MI	43 NS	0700.0		300.0	10.0			
	235	CUBA	44 NS	1250.0E		520.00		22.0		
	280	CUBA	44 NS	1250.0E		520.00		33.0		
	245	SGMR	44 NS	1647.0E	1702.0	15.00	60.0			QL=4 ST=3 TYP=1
	245	SGMR	44 NS	1732.0E	1741.0	163.00	82.0			QL=4 ST=2 TYP=1
	200	HIRA	44 NS	2107.0E	0309.0	620.00	220.0	36.0		ML

S O L A R R A D I O E M I S S I O N
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NOVEMBER 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	Int	Remarks
08	9100	GORK	21 GRF	0526.0	0600.0	65.3	10.0			
	650	GORK	21 GRF	0527.0E	0704.5	275.7D	5.0			
	2950	GORK	20 GRF	0540.7	0908.1	258.0	10.0			
	9100	GORK	1 S	0547.5	0548.0	2.0	10.0			
	9100	GORK	22 GRF	0817.3	0918.0	90.7	10.0			
	410	LEAR	8 S	0845.0E	0845.0	U	57.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0854.0E	0855.0	1.0D	72.0			QL=2 ST=2 TYP=3
	810	KRAK	2 S/F	0905.5	0905.8	1.1	16.0	2.0		
	950	GORK	2 S/F	0905.8	0906.1	0.7	8.0			
	650	GORK	2 S/F	0905.8	0906.4	0.7	2.0			
	6700	CUBA	21 GRF	1323.0	1516.0	194.0	22.0	11.0		
	9500	CUBA	21 GRF	1356.0E	1518.0	400.0D	54.0	27.0		
	245	SGMR	8 S	1439.0E	1439.0	1.0D	190.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1439.0E	1439.0	1.0D	220.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1509.0E	1510.0	2.0D	59.0			QL=4 ST=2 TYP=3
	2695	SGMR	8 S	1509.0E	1510.0	2.0D	43.0			QL=4 ST=2 TYP=3
	4995	SGMR	4 S/F	1509.0E	1510.0	4.0D	66.0			QL=4 ST=2 TYP=3
	4995	SVTO	8 S	1509.0E	1510.0	2.0D	100.0			QL=2 ST=2 TYP=3
	2695	SVTO	8 S	1509.0E	1510.0	2.0D	65.0			QL=4 ST=2 TYP=3
	15000	CUBA	21 GRF	1509.0	1517.0	236.0	31.0	15.0		4L 1650-1702 OF
	6700	CUBA	1 S	1509.1	1510.0	4.0	65.0	31.0		
	2800	OTTA	3 S	1509.3	1510.8	4.5	55.1	16.0		
	9500	CUBA	1 S	1509.5	1510.2	3.7	58.0	29.0		
	15000	CUBA	2 S/F	1509.5	1510.5	2.0	24.0	12.0		5L
	1415	SGMR	8 S	1510.0E	1511.0	1.0D	24.0			QL=4 ST=2 TYP=3
	2800	OTTA	29 PBI	1513.5	1537.5	101.0	10.9	5.0		
	245	SGMR	8 S	1558.0E	1558.0	2.0D	300.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1558.0E	1558.0	1.0D	140.0			QL=4 ST=2 TYP=3
	2800	OTTA	20 GRF	1721.0	1722.5	14.0	9.5	4.0		
	6700	CUBA	2 S/F	1739.5	1742.0	6.5	15.0	7.0		
	9500	CUBA	1 S	1742.1	1742.5	5.6	8.0	4.0		
	245	PALE	8 S	1811.0E	1811.0	U	170.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1811.0E	1811.0	U	170.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1825.0E	1825.0	1.0D	140.0			QL=4 ST=2 TYP=3
	9400	HUAN	2 S/F	1953.9	1955.2	4.4	4.1	2.6		
	9500	CUBA	1 S	1954.6	1955.1	2.2	8.0	4.0		
	6700	CUBA	1 S	1954.7	1955.2	3.4	7.0	3.0		
	9500	CUBA	20 GRF	2118.0	2124.0	14.0	19.0	9.0		
	6700	CUBA	20 GRF	2119.0	2124.0	10.0	16.0	8.0		
	9400	HUAN	2 S/F	2120.3	2125.5	9.1	16.5	6.8		
	200	HIRA	8 S	2149.5	2149.5	0.8	295.0			SL
	2695	LEAR	8 S	2304.0E	2304.0	U	36.0			QL=4 ST=2 TYP=3
	4995	LEAR	8 S	2304.0E	2304.0	1.0D	91.0			QL=4 ST=2 TYP=3
	15400	LEAR	8 S	2304.0E	2304.0	U	31.0			QL=2 ST=2 TYP=3
	4995	PALE	8 S	2304.0E	2304.0	1.0D	84.0			QL=4 ST=3 TYP=3
09	245	LEAR	44 NS	0206.0E	0248.0	338.0D	320.0			QL=4 ST=2 TYP=1
	245	PALE	44 NS	0213.0E	0256.0	82.0D	220.0			QL=4 ST=2 TYP=1
	410	LEAR	44 NS	0218.0E	0249.0	60.0D	70.0			QL=4 ST=2 TYP=1
	100	HIRA	43 NS	0230.0	0453.0	300.0D	590.0	120.0		
	100	GORK	44 NS	0508.0E		383.0D		5.0		
	200	GORK	44 NS	0509.0E		381.0D				
	127	TORN	44 NS	0620.0E		500.0D		12.0		V=1
	113	POTS	44 NS	0625.0E	0707.0	155.0D	60.0			
	245	SVTO	44 NS	0628.0E	0628.0	90.0D	130.0			QL=4 ST=2 TYP=1
	234	POTS	44 NS	0630.0E	0647.0	54.0D	60.0			
	204	IZMI	43 NS	0700.0		150.0	50.0			
	234	POTS	43 NS	1129.0	1414.0	181.0D	30.0			
	113	POTS	43 NS	1205.0	1420.0	147.0D	50.0			
	235	CUBA	44 NS	1301.0E		476.0D		29.0		
	280	CUBA	44 NS	1304.0E		476.0D		23.0		
	245	SGMR	44 NS	1444.0E	1444.0	64.0D	61.0			QL=2 ST=2 TYP=1
	500	HIRA	20 GRF	0110.0	0230.0	290.0	52.0	19.0		WL
	245	LEAR	8 S	0129.0E	0129.0	1.0D	68.0			QL=4 ST=2 TYP=3
	2840	PEKG	5 S	0152.0	0153.5	4.0	10.4	4.5		
	17000	NOBE	1 S	0152.9	0157.1	6.0	17.0			0,80,35GHz:0
2840	PEKG	5 S	0246.0	0249.3	6.0	22.5	9.7			
410	LEAR	8 S	0248.0E	0248.0	U	110.0			QL=2 ST=2 TYP=3	
410	PALE	8 S	0248.0E	0248.0	1.0D	70.0			QL=2 ST=2 TYP=3	

S O L A R R A D I O E M I S S I O N
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Nov 90

NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m ² Hz)	Mean (2 Hz)			
09	610	PALE	8 S	0248.0E	0249.0	2.00	60.0			QL=2 ST=2 TYP=3	
	2840	PEKG	5 S	0332.0	0333.5	4.0	40.5	17.5			
	17000	NOBE	1 S	0332.9	0333.5	1.5	16.0			0,80,35GHz:0	
	100	GORK	41 F	0508.0	0513.1		950.0				
	100	GORK	41 F	0508.0	0520.1		580.0				
	100	GORK	41 F	0508.0	0522.4		600.0				
	100	GORK	41 F	0508.0	0513.6		950.0				
	100	GORK	41 F	0508.0	0521.7		850.0				
	100	GORK	41 F	0508.0	0511.9		600.0				
	100	GORK	41 F	0508.0	0509.9	17.5	1100.0				
	950	GORK	21 GRF	0530.0E	1015.0	360.00	10.0				
	650	GORK	20 GRF	0530.0E	0650.2	145.90	7.0				
	950	GORK	2 S/F	0945.7	0946.2	0.9	2.0				
	6700	CUBA	20 GRF	1408.0	1719.0	425.0	12.0	6.0			
	245	SGMR	8 S	1426.0E	1426.0	1.00	60.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	1426.0E	1427.0	1.00	60.0				QL=4 ST=2 TYP=3
	6700	CUBA	1 S	1740.6	1741.2	4.4	4.0	2.0			
6700	CUBA	20 GRF	1918.0	1958.0	108.0	5.0	2.0				
10	200	GORK	44 NS	0530.0E		360.00		5.0			
	127	TORN	43 NS	0646.0		440.0		10.0		V=1	
	204	IZMI	43 NS	0700.0		300.0	10.0				
	100	GORK	43 NS	0806.0		204.00		5.0			
	650	GORK	22 GRF	0536.6	0540.0	12.8	16.0				
	950	GORK	1 S	0539.8	0540.6	5.8	4.0				
	260	ONDR	42 SER	0830.0	1158.4	223.0	25.0				
	234	POTS	8 S	0831.1	0831.2	0.5	13.0				
	2950	GORK	21 GRF	0918.8	0927.4	40.5	8.0				
	2850	CRIM	1 S	0922.1	0925.2	9.1	12.3	4.0			
	3000	POTS	20 GRF	0923.0	0926.0	37.0	10.0				
	2950	GORK	1 S	0923.8	0925.4	3.2	7.0				
	9100	GORK	20 GRF	0924.0	0926.3	30.0	8.0				
	430	KRAK	27 RF	1035.5	1038.0	4.0	6.0	4.0			
	650	GORK	2 S/F	1109.5	1110.3	2.5	4.0				
	950	GORK	1 S	1109.5	1110.7	2.5	3.0				
	240	IZMI	4 S/F	1150.0	1150.2	0.5	38.0				
	113	POTS	4 S/F	1150.0	1150.3	0.8	250.0				
	808	ONDR	4 S/F	1155.6	1159.3	6.5	31.0				
	1470	POTS	4 S/F	1156.0	1159.0	17.0	61.0				
	9500	POTS	20 GRF	1156.0	1201.0	29.0	17.00				
	3000	POTS	4 S/F	1156.00	1159.0	49.00	146.0				
	536	ONDR	46 C	1156.5	1158.5	8.5	96.0				
	3013	IZMI	7 C	1156.8	1158.8	5.0	85.0				
	410	SGMR	8 S	1157.0E	1158.0	2.00	130.0				QL=2 ST=3 TYP=3
	410	SVTO	8 S	1157.0E	1159.0	2.00	93.0				QL=4 ST=2 TYP=3
	430	KRAK	45 C	1157.0	1158.5	4.0	62.0	18.0			
	600	HUMN	2 S/F	1158.0	1200.0	7.0	26.0	9.0			
	1415	SGMR	8 S	1158.0E	1159.0	2.00	60.0				QL=2 ST=3 TYP=3
	2695	SGMR	8 S	1158.0E	1159.0	2.00	150.0				QL=2 ST=3 TYP=3
	1415	SVTO	8 S	1158.0E	1159.0	2.00	55.0				QL=4 ST=2 TYP=3
	4995	SVTO	8 S	1158.0E	1158.0	1.00	43.0				QL=4 ST=2 TYP=3
	810	KRAK	4 S/F	1158.0	1159.5	4.8	27.0	9.0			
245	SGMR	8 S	1159.0E	1159.0	U	240.0				QL=4 ST=2 TYP=3	
234	POTS	4 S/F	1200.7	1200.9	0.3	200.0					
810	KRAK	40 F	1209.3	1209.4	1.3	11.0	1.0				
245	PALE	8 S	2043.0E	2043.0	U	150.0				QL=4 ST=2 TYP=3	
245	SGMR	8 S	2043.0E	2043.0	U	140.0				QL=4 ST=2 TYP=3	
11	200	GORK	43 NS	0530.0		393.0		5.0			
	280	CUBA	44 NS	1252.0E		521.00		24.0			
	235	CUBA	44 NS	1252.0E		521.00		15.0			
	2840	PEKG	5 S	0420.0	0426.6	22.0	20.7	10.0			
	245	LEAR	8 S	0422.0E	0422.0	1.00	81.0				QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0422.0E	0423.0	2.00	22.0				QL=4 ST=2 TYP=3
	100	HIRA	46 C	0422.6	0424.0	11.9	1000.00	110.00			
	2695	LEAR	8 S	0423.0E	0423.0	1.00	21.0				QL=4 ST=2 TYP=3
	200	HIRA	41 F	0423.0E	0424.4	2.60	32.0				0
	950	GORK	2 S/F	0544.3	0545.8	5.5	4.0				
234	POTS	8 S	0720.0	0720.1	0.4	140.0					

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

NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m ² Hz)	Mean		
11	9100	GORK	20 GRF	0935.1	0954.0	39.90	10.0			
	950	GORK	2 S/F	0959.4	0959.6	0.4	15.0			
	2950	GORK	21 GRF	1018.9	1038.4	52.8	4.0			
	260	ONDR	4 S/F	1031.3	1032.5	4.0	204.0			
	204	IZMI	5 S	1031.4	1032.0	1.2	500.0			
	2850	CRIM	1 S	1031.4	1032.6	1.7	6.0	2.0		
	215	SVTO	8 S	1032.0E	1032.0	1.00	470.0			QL=4 ST=2 TYP=3
	9100	GORK	2 S/F	1032.1	1032.5	0.7	15.0			
	9300	KISV	4 S/F	1032.1	1032.6	3.5	24.0			
	9500	POTS	8 S	1032.2	1032.5	0.8	15.0			
	200	GORK	4 S/F	1032.2	1032.6	1.0	30.0			
	234	POTS	4 S/F	1032.2	1032.6	0.8	800.0			
	2950	GORK	1 S	1032.3	1032.6	0.6	5.0			
	3000	POTS	1 S	1032.4	1032.6	0.6	5.0			
	1470	POTS	8 S	1032.5	1032.5	0.5	18.0			
	260	ONDR	3 S	1214.5	1214.6	5.0	36.0			
	245	SGMR	8 S	1215.0E	1215.0	U	120.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1215.0E	1215.0	U	130.0			QL=4 ST=2 TYP=3
	234	POTS	4 S/F	1215.0	1215.5	0.7	100.0			
	1470	POTS	40 F	1404.0	1405.5	2.5	10.0			
	1470	POTS	3 S	1418.0	1418.1	2.0	18.0			
	245	SGMR	8 S	1442.0E	1442.0	U	140.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1442.0E	1442.0	1.00	97.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	1442.0E	1442.0	1.00	140.0			QL=4 ST=2 TYP=3
	2695	PALE	8 S	2055.0E	2055.0	U	98.0			QL=4 ST=2 TYP=3
	610	PALE	8 S	2055.0E	2055.0	U	120.0			QL=4 ST=2 TYP=3
	1415	PALE	8 S	2055.0E	2055.0	U	55.0			QL=4 ST=2 TYP=3
2695	SGMR	8 S	2055.0E	2055.0	U	93.0			QL=4 ST=3 TYP=3	
610	SGMR	8 S	2055.0E	2055.0	U	130.0			QL=4 ST=3 TYP=3	
2800	OTTA	3 S	2055.0	2055.4	3.3	144.0	29.0			
2695	PENT	3 S	2159.2	2200.7	2.1	20.8	6.0			
2695	PENT	29 PBI	2201.3	2204.3	17.6	8.0	3.0			
12	200	GORK	44 NS	0530.0E		390.00	5.0			
	280	CUBA	44 NS	1450.0E		400.00	22.0			
	235	CUBA	44 NS	1450.0E		480.00	19.0			
	200	HIRA	44 NS	2111.0E	2324.0	610.00	8.0			WR
	245	LEAR	8 S	0345.0E	0345.0	U	82.0			QL=4 ST=2 TYP=3
	4995	LEAR	8 S	0509.0E	0509.0	U	14.0			QL=4 ST=2 TYP=3
	15400	LEAR	8 S	0509.0E	0509.0	1.00	35.0			QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0509.0E	0509.0	U	15.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0509.0E	0509.0	U	19.0			QL=4 ST=2 TYP=3
	610	LEAR	8 S	0509.0E	0509.0	U	230.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0509.0E	0509.0	U	23.0			QL=4 ST=2 TYP=3
	2950	GORK	4 S/F	0509.0	0509.6	3.2	20.0			
	9100	GORK	2 S/F	0509.2	0509.6	0.9	20.0			
	17000	NOBE	1 S	0509.3	0509.6	1.0	32.0			L, 80, 35GHz:0
	950	GORK	4 S/F	0639.8	0640.7	3.1	16.0			
	650	GORK	1 S	0639.8	0640.7	1.8	3.0			
	650	GORK	4 S/F	0706.1	0706.8	1.2	75.0			
	950	GORK	4 S/F	0706.7	0706.8	0.5	20.0			
	2850	CRIM	21 GRF	0737.2	0817.3	92.0	13.0	4.0		
	3000	POTS	42 SER	0810.0	0811.5	10.0	14.0			
	2950	GORK	21 GRF	0810.6	0819.9	14.0	5.0			
	2850	CRIM	4 S/F	0811.0	0811.7	2.0	32.0	11.0		
	2950	GORK	2 S/F	0811.4	0811.5	1.2	9.0			
	2950	GORK	1 S	0817.2	0817.4	0.8	3.0			
	950	GORK	1 S	0950.2	0952.4	5.0	4.0			
	2950	GORK	3 S	1024.9	1025.7	2.6	16.0			
	2850	CRIM	3 S	1024.9	1025.8	2.0	21.0	7.0		
3000	POTS	3 S	1025.0	1025.8	3.0	18.0				
9300	KISV	2 S/F	1025.1	1025.8	2.8	8.0				
260	ONDR	1 S	1026.0	1026.5	2.0	15.0				
600	HUMN	2 S/F	1449.0	1452.0	6.0	14.0	6.0			
9400	HUAN	1 S	1640.9	1644.5	7.3	5.0	2.6			
2800	OTTA	4 S/F	1641.8	1642.3	4.7	26.1	5.0			
410	SGMR	49 GB	1644.0E	1644.0	2.00	570.0			QL=4 ST=2 TYP=6	
1415	PALE	8 S	1920.0E	1921.0	1.00	58.0			QL=4 ST=2 TYP=3	
610	PALE	8 S	1920.0E	1920.0	U	81.0			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

45
Nov 90

NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 ⁻²² W/m ² Hz)	Mean			
12	8800	PALE	8 S	1920.0E	1920.0	1.00	52.0			QL=2 ST=2 TYP=3	
	2695	PALE	8 S	1920.0E	1920.0	1.00	51.0			QL=4 ST=2 TYP=3	
	8800	SGMR	8 S	1920.0E	1920.0	1.00	60.0			QL=2 ST=2 TYP=3	
	15400	SGMR	8 S	1920.0E	1920.0	1.00	89.0			QL=4 ST=2 TYP=3	
	2695	SGMR	8 S	1920.0E	1920.0	1.00	62.0			QL=4 ST=2 TYP=3	
	610	SGMR	8 S	1920.0E	1920.0	1.00	140.0			QL=4 ST=2 TYP=3	
	4995	SGMR	8 S	1920.0E	1920.0	1.00	42.0			QL=4 ST=2 TYP=3	
	6700	CUBA	1 S	1920.0	1920.7	6.5	38.0	19.0			
	9500	CUBA	1 S	1920.3	1920.5	6.7	66.0	33.0			
	15000	CUBA	1 S	1920.5	1920.7	1.5	96.0	48.0			12L
	2800	OTTA	3 S	1920.5	1920.8	7.2	62.8	19.0			
	410	LEAR	49 GB	2151.0E	2151.0	1.00	710.0				QL=2 ST=2 TYP=6
410	PALE	49 GB	2151.0E	2151.0	1.00	1700.0				QL=4 ST=2 TYP=6	
13	200	GORK	44 NS	0533.0E		387.00		5.0			
	204	IZMI	43 NS	0700.0		300.0	10.0				
	127	TORN	44 NS	0700.0E		400.00		5.0		V=1	
	235	CUBA	44 NS	1300.0E		480.00		17.0			
	280	CUBA	44 NS	1300.0E		480.00		23.0			
	200	HIRA	44 NS	2112.0E	0219.0	610.00	11.0	5.0			WR
	245	LEAR	8 S	0113.0E	0115.0	2.00	38.0				QL=4 ST=2 TYP=3
	410	LEAR	4 S/F	0113.0E	0115.0	3.00	100.0				QL=4 ST=2 TYP=3
	245	LEAR	8 S	0221.0E	0222.0	1.00	79.0				QL=4 ST=2 TYP=3
	410	LEAR	8 S	0250.0E	0250.0	1.00	140.0				QL=4 ST=2 TYP=3
	410	PALE	8 S	0250.0E	0250.0	1.00	120.0				QL=4 ST=2 TYP=3
	410	LEAR	8 S	0342.0E	0342.0	U	67.0				QL=4 ST=2 TYP=3
	2840	PEKG	3 S	0414.0	0434.7	44.0	134.5	63.1			
	410	LEAR	49 GB	0443.0E	0445.0	3.00	850.0				QL=4 ST=2 TYP=6
	2695	LEAR	8 S	0443.0E	0444.0	2.00	93.0				QL=4 ST=2 TYP=3
	15400	LEAR	4 S/F	0443.0E	0444.0	3.00	170.0				QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0443.0E	0444.0	1.00	140.0				QL=4 ST=2 TYP=3
	1415	LEAR	4 S/F	0443.0E	0444.0	1157.00	70.0				QL=4 ST=1 TYP=3
	610	LEAR	4 S/F	0443.0E	0443.0	1157.00	420.0				QL=4 ST=1 TYP=3
	4995	LEAR	4 S/F	0443.0E	0444.0	1157.00	92.0				QL=4 ST=1 TYP=3
	500	HIRA	46 C	0443.0	0443.4	6.0	678.0	58.0			O
	17000	NOBE	1 S	0443.5	0444.1	1.0	136.0				L
	80000	NOBE	1 S	0444.0	0444.1	0.5	16.0				
	35000	NOBE	1 S	0444.0	0444.1	0.5	72.0				O
	200	HIRA	42 SER	0623.8	0624.7	4.0	105.0				O
	245	LEAR	8 S	0624.0E	0625.0	2.00	180.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	0625.0E	0625.0	U	190.0				QL=2 ST=2 TYP=3
	245	LEAR	8 S	0627.0E	0627.0	1.00	63.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	0627.0E	0628.0	1.00	65.0				QL=2 ST=2 TYP=3
	610	LEAR	8 S	0628.0E	0628.0	U	33.0				QL=4 ST=2 TYP=3
	410	LEAR	49 GB	0628.0E	0628.0	U	650.0				QL=4 ST=2 TYP=6
	410	SVTO	8 S	0628.0E	0628.0	U	460.0				QL=2 ST=2 TYP=3
	245	SVTO	8 S	0715.0E	0715.0	1.00	63.0				QL=2 ST=2 TYP=3
	245	LEAR	8 S	0744.0E	0745.0	1.00	200.0				QL=4 ST=2 TYP=3
	245	SVTO	8 S	0744.0E	0745.0	1.00	220.0				QL=4 ST=3 TYP=3
	204	IZMI	41 F	0745.0	0746.0	6.0	1750.0				
	260	ONDR	45 C	0932.0	0933.0	2.5	27.0				
	950	GORK	1 S	1006.2	1006.3	0.4	4.0				
	260	ONDR	45 C	1027.2	1028.5	2.0	27.0				
	9500	POTS	20 GRF	1105.0	1129.0	100.0	32.0				
	3000	POTS	21 GRF	1105.0	1129.0	100.0	32.0				
	2950	GORK	22 GRF	1108.1	1130.0	50.7	30.0				
	2850	CRIM	21 GRF	1114.5	1123.6	95.5	33.7	11.0			
	1470	POTS	21 GRF	1118.0	1122.5	42.0	10.0				
	3013	IZMI	20 GRF	1119.5	1123.5	4.5	13.0				
	1470	POTS	3 S	1123.0	1124.0	1.5	14.0				
	3000	POTS	3 S	1123.0	1123.5	2.0	33.0				
1470	POTS	3 S	1251.5	1254.0	6.5	10.0					
3000	POTS	3 S	1251.5	1252.5	5.0	9.0					
2850	CRIM	1 S	1252.9	1253.8	3.0	7.6	2.0				
245	SGMR	8 S	1624.0E	1625.0	1.00	50.0				QL=4 ST=2 TYP=3	
245	SGMR	8 S	1656.0E	1656.0	U	56.0				QL=4 ST=2 TYP=3	
245	SGMR	4 S/F	1908.0E	1910.0	3.00	59.0				QL=4 ST=2 TYP=3	
245	PALE	8 S	1910.0E	1910.0	U	58.0				QL=4 ST=2 TYP=3	
245	PALE	8 S	1922.0E	1922.0	U	70.0				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

NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
13	410	PALE	8 S	1922.0E	1922.0	U	50.0			QL=4 ST=2 TYP=3	
	245	SGMR	8 S	1922.0E	1922.0	U	72.0			QL=4 ST=2 TYP=3	
	410	SGMR	8 S	1922.0E	1922.0	U	100.0			QL=4 ST=2 TYP=3	
	9400	HUAN	2 S/F	1947.0	1948.6	5.2	14.4	6.8			
14	200	GORK	44 NS	0536.0E		304.00		5.0			
	204	IZMI	43 NS	0700.0		300.0					
	245	LEAR	44 NS	0753.0E	0815.0	22.00	68.0			QL=4 ST=2 TYP=1	
	245	SVTO	44 NS	0756.0E	0809.0	74.00	86.0			QL=4 ST=2 TYP=1	
	260	ONDR	44 NS	0800.0E	0932.5	330.00	171.0				
	280	CUBA	44 NS	1340.0E		395.00		31.0			
	235	CUBA	44 NS	1340.0E		395.00		28.0			
	245	SGMR	44 NS	1612.0E	1621.0	9.00	140.0				QL=4 ST=2 TYP=1
	245	PALE	44 NS	2103.0E	0132.0	390.00	200.0				QL=4 ST=2 TYP=1
	200	HIRA	44 NS	2113.0E	0126.0	610.00	33.0		19.0		WR
	245	LEAR	44 NS	2317.0E	0132.0	562.00	160.0				QL=4 ST=2 TYP=1
	200	HIRA	42 SER	0207.3	0209.2	39.0	340.0				MR
	245	LEAR	8 S	0223.0E	0223.0	1.00	54.0				QL=4 ST=2 TYP=3
	200	HIRA	42 SER	0314.9	0315.2	28.4	84.0				MR
	245	LEAR	8 S	0340.0E	0341.0	1.00	79.0				QL=4 ST=2 TYP=3
	245	LEAR	8 S	0416.0E	0418.0	2.00	89.0				QL=4 ST=2 TYP=3
	2950	GORK	20 GRF	0708.7	0709.8	11.7	4.0				
	5900	KISV	22 GRF	0747.2	0747.7	13.1	3.0				
	5900	KISV	2 S/F	0853.1	0853.5	1.2	3.0				
	950	GORK	1 S	0927.5	0927.8	0.5	3.0				
	650	GORK	4 S/F	0927.6	0927.8	2.4	17.0				
	810	KRAK	8 S	0927.8	0927.9	0.1	10.0				
	5900	KISV	2 S/F	1008.0	1008.3	0.7	8.0				
	6700	CUBA	20 GRF	1249.0E	1627.0	543.00	23.0				SUNRISE, SUNSET
	9500	CUBA	20 GRF	1314.0E	1721.0	504.00	38.0				2138 OFF
	245	SGMR	8 S	1322.0E	1323.0	1.00	65.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1331.0E	1331.0	U	72.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1343.0E	1343.0	U	51.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1412.0E	1413.0	1.00	74.0				QL=4 ST=2 TYP=3
	245	PALE	8 S	1755.0E	1755.0	1.00	100.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1755.0E	1755.0	1.00	92.0				QL=4 ST=2 TYP=3
	245	SGMR	8 S	1837.0E	1838.0	1.00	120.0				QL=4 ST=2 TYP=3
245	PALE	8 S	1838.0E	1838.0	U	110.0				QL=4 ST=2 TYP=3	
245	PALE	8 S	1955.0E	1955.0	U	54.0				QL=2 ST=2 TYP=3	
500	HIRA	27 RF	2303.5	2420.0	97.5	49.0		18.0		WL	
15	200	GORK	44 NS	0542.0E		378.00		5.0			
	234	POTS	44 NS	0630.0E	0657.5	480.00	100.0				
	204	IZMI	43 NS	0700.0		300.0	20.0				
	127	TORN	44 NS	0740.0E		390.00		3.0			V=0
	260	ONDR	44 NS	0800.0E	1145.0	330.00	31.0				
	245	SVTO	44 NS	0838.0E	1349.0	390.00	180.0				QL=4 ST=2 TYP=1
	245	SGMR	44 NS	1242.0E	1330.0	420.00	180.0				QL=2 ST=2 TYP=1
	280	CUBA	44 NS	1252.0E		324.00		40.0			
	235	CUBA	44 NS	1552.0E		324.00		35.0			
	245	PALE	44 NS	1718.0E	0102.0	615.00	220.0				QL=4 ST=2 TYP=1
	100	HIRA	44 NS	2114.0E	0430.0	600.00	11.0		3.0		
	200	HIRA	44 NS	2114.0E	0505.0	600.00	49.0		25.0		0
	245	LEAR	44 NS	2310.0E	0915.0	675.00	440.0				QL=4 ST=2 TYP=1
	2840	PEKG	5 S	0523.0	0526.3	8.0	14.8		6.5		
	5900	KISV	21 GRF	0710.3	0711.2	13.1	9.0				
	2950	GORK	21 GRF	0739.1	0939.7	184.9	8.0				
	3013	IZMI	7 C	0806.0	0807.8	4.5	10.0				
	2850	CRIM	29 PBI	0806.8	0812.3	32.0	3.9		1.0		
	2950	GORK	2 S/F	0806.8	0807.8	2.4	15.0				
	2850	CRIM	1 S	0806.8	0807.9	5.5	18.4		6.0		
	3000	POTS	3 S	0808.0	0808.8	3.0	18.0				
	5900	KISV	2 S/F	0848.0	0848.5	2.5	4.0				
	2950	GORK	1 S	0853.9	0854.6	1.6	4.0				
	2850	CRIM	1 S	0854.2	0854.7	0.9	4.6		1.0		
	9300	KISV	2 S/F	0912.5	0915.4	8.6	8.0				
5900	KISV	2 S/F	0913.5	0915.4	7.4	10.0					
9300	KISV	20 GRF	0927.7	0959.5	60.3	8.0					
5900	KISV	20 GRF	0928.0	0941.4	24.5	6.0					

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak	Mean		
							(10 -22 W/m ² Hz)			
15	9300	KISV	20 GRF	1113.4	1119.0	13.6	10.0			
	9400	HUAN	2 S/F	1114.2	1119.8	10.3	6.4	2.8		
	5900	KISV	2 S/F	1115.5	1120.0	10.0	7.0			
	245	SVTO	8 S	1330.0E	1330.0	U	200.0			QL=2 ST=2 TYP=3
	9400	HUAN	1 S	1510.8	1513.5	7.8	10.7	4.9		
	6700	CUBA	3 S	1511.0	1512.0	9.0	7.0	3.0		
	9500	CUBA	20 GRF	1511.0	1513.0	17.0	8.0	4.0		
	9400	HUAN	1 S	1539.0	1542.2	8.5	17.1	6.4		
	2800	OTTA	3 S	1821.1	1822.1	3.0	8.8	3.0		
	245	PALE	8 S	1822.0E	1822.0	1.00	120.0			QL=2 ST=2 TYP=3
16	2695	PENT	4 S/F	2119.8	2121.4	4.5	13.5	4.0		
	245	LEAR	8 S	2221.0E	2222.0	1.00	92.0			QL=4 ST=2 TYP=3
	200	GORK	44 NS	0533.0E		387.00		5.0		
	100	GORK	44 NS	0533.0E		387.00		5.0		
245	SVTO	44 NS	0558.0E	0915.0U	550.00	490.0			QL=2 ST=2 TYP=1	
234	POTS	44 NS	0630.0E	U	480.00	U				
113	POTS	44 NS	0630.0E	0722.5	228.00	11.0				
204	IZMI	43 NS	0700.0		300.0	200.0				
127	TORN	44 NS	0700.0E		420.00		15.0		V=1	
260	ONDR	44 NS	0800.0E	1314.0	330.00	160.0				
245	SGMR	44 NS	1159.0E	1340.0	537.00	150.0			QL=2 ST=2 TYP=1	
235	CUBA	44 NS	1256.0E		492.00		39.0			
280	CUBA	44 NS	1256.0E		492.00		42.0			
245	PALE	44 NS	1732.0E	0056.0	600.00	310.0			QL=4 ST=2 TYP=1	
200	HIRA	44 NS	2115.0E	2350.0	610.00	55.0	33.0		MR	
245	LEAR	44 NS	2333.0E	0018.0	653.00	330.0			QL=4 ST=2 TYP=1	
15400	LEAR	8 S	0025.0E	0025.0	1.00	33.0			QL=4 ST=2 TYP=3	
8800	LEAR	8 S	0025.0E	0025.0	1.00	49.0			QL=4 ST=2 TYP=3	
4995	LEAR	8 S	0025.0E	0025.0	1.00	94.0			QL=4 ST=2 TYP=3	
1415	LEAR	8 S	0025.0E	0025.0	1.00	28.0			QL=4 ST=2 TYP=3	
2695	LEAR	8 S	0025.0E	0025.0	1.00	130.0			QL=4 ST=2 TYP=3	
4995	PALE	8 S	0025.0E	0025.0	1.00	93.0			QL=4 ST=2 TYP=3	
8800	PALE	8 S	0025.0E	0025.0	1.00	44.0			QL=4 ST=2 TYP=3	
2695	PALE	8 S	0025.0E	0025.0	1.00	110.0			QL=4 ST=2 TYP=3	
17000	NOBE	1 S	0025.3	0025.8	2.5	23.0			0,80,35GHz:0	
245	SVTO	4 S/F	0044.0E	0745.0	421.00	400.0			QL=2 ST=2 TYP=3	
1415	LEAR	8 S	0049.0E	0049.0	1.00	480.0			QL=4 ST=2 TYP=3	
1415	PALE	8 S	0049.0E	0049.0	1.00	420.0			QL=4 ST=2 TYP=3	
245	LEAR	8 S	0102.0E	0102.0	1.00	210.0			QL=4 ST=2 TYP=3	
245	LEAR	8 S	0125.0E	0125.0	U	110.0			QL=4 ST=2 TYP=3	
610	LEAR	4 S/F	0142.0E	0143.0	3.00	92.0			QL=4 ST=2 TYP=3	
500	HIRA	42 SER	0143.5	0147.5	5.0	18.0			0	
410	LEAR	8 S	0147.0E	0147.0	U	120.0			QL=4 ST=2 TYP=3	
500	HIRA	27 RF	0200.0	0227.0	61.0	7.0	3.0		0	
17000	NOBE	20 GRF	0214.5	0225.7	45.0	14.0			L,80,35GHz:0	
245	LEAR	4 S/F	0220.0E	0222.0	3.00	240.0			QL=4 ST=2 TYP=3	
610	LEAR	4 S/F	0220.0E	0222.0	3.00	55.0			QL=4 ST=2 TYP=3	
410	LEAR	49 GB	0221.0E	0222.0	2.00	790.0			QL=4 ST=2 TYP=6	
245	PALE	8 S	0222.0E	0222.0	1.00	270.0			QL=2 ST=2 TYP=3	
410	PALE	49 GB	0222.0E	0222.0	1.00	1200.0			QL=4 ST=2 TYP=6	
200	HIRA	42 SER	0222.4	0222.4	30.0	760.0			0	
245	PALE	8 S	0243.0E	0244.0	1.00	140.0			QL=2 ST=2 TYP=3	
500	HIRA	42 SER	0243.7	0243.8	9.3	94.0			WR	
410	LEAR	8 S	0244.0E	0244.0	U	110.0			QL=4 ST=2 TYP=3	
1415	LEAR	8 S	0244.0E	0244.0	1.00	73.0			QL=4 ST=2 TYP=3	
245	LEAR	8 S	0244.0E	0244.0	U	150.0			QL=4 ST=2 TYP=3	
410	PALE	8 S	0244.0E	0244.0	U	130.0			QL=4 ST=2 TYP=3	
1415	PALE	8 S	0244.0E	0244.0	1.00	76.0			QL=4 ST=2 TYP=3	
245	LEAR	8 S	0247.0E	0247.0	U	170.0			QL=4 ST=2 TYP=3	
245	LEAR	8 S	0251.0E	0252.0	1.00	75.0			QL=4 ST=2 TYP=3	
8800	LEAR	4 S/F	0251.0E	0252.0	3.00	23.0			QL=4 ST=2 TYP=3	
1415	LEAR	8 S	0252.0E	0252.0	2.00	61.0			QL=4 ST=2 TYP=3	
610	LEAR	8 S	0252.0E	0252.0	1.00	17.0			QL=4 ST=2 TYP=3	
2695	LEAR	8 S	0252.0E	0252.0	U	10.0			QL=4 ST=2 TYP=3	
4995	LEAR	8 S	0252.0E	0252.0	U	18.0			QL=4 ST=2 TYP=3	
200	HIRA	42 SER	0335.8	0354.7	53.5	1450.0			WR	
2840	PEKG	3 S	0353.0	0354.6	11.0	18.5	7.8			
500	HIRA	46 C	0353.5	0355.0	5.3	91.0			MR	

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
16	100	HIRA	42 SER	0354.1	0358.0	4.1	1000.00			
	245	LEAR	8 S	0539.0E	0539.0	1.00	320.0			QL=4 ST=2 TYP=3
	5900	KISV	2 S/F	0607.9	0609.4	5.9	4.0			
	9300	KISV	2 S/F	0612.0	0613.8	5.5	17.0			
	2950	GORK	22 GRF	0657.5	1051.0	269.5	7.0			
	9300	KISV	2 S/F	0713.2	0714.6	7.8	13.0			
	9100	GORK	2 S/F	0713.7	0714.2	4.3	15.0			
	15000	KISV	2 S/F	0713.9	0714.6	2.9	10.0			
	245	LEAR	8 S	0724.0E	0726.0	2.00	340.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	0743.0E	0745.0	2.00	330.0			QL=2 ST=2 TYP=3
	245	SVTO	8 S	0744.0E	0745.0	1.00	400.0			QL=2 ST=2 TYP=3
	9300	KISV	2 S/F	0814.1	0815.0	4.9	7.0			
	5900	KISV	2 S/F	0814.3	0815.1	4.7	4.0			
	200	GORK	4 S/F	0910.4	0910.9	1.6	440.0			
	5900	KISV	2 S/F	1050.7	1051.4	1.6	6.0			
	204	IZMI	41 F	1107.0	1109.0	3.0	750.0			
	6700	CUBA	21 GRF	1250.0E	1521.0	499.00	46.0			SUNRISE, 2139
	9500	CUBA	21 GRF	1307.0E	1648.0	586.00	24.0	12.0		2135 OFF
	15400	SGMR	8 S	1309.0E	1311.0	2.00	190.0			QL=4 ST=2 TYP=3
	260	ONDR	46 C	1310.0	1314.0	6.0	160.0			
	1470	POTS	45 C	1310.0	1312.0	7.3	942.0			
	410	SGMR	49 GB	1310.0E	1311.0	2.00	6400.0			QL=4 ST=2 TYP=6
	610	SGMR	49 GB	1310.0E	1311.0	2.00	2000.0			QL=4 ST=2 TYP=6
	4995	SGMR	8 S	1310.0E	1311.0	1.00	150.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1310.0E	1311.0	1.00	340.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1310.0E	1311.0	1.00	230.0			QL=4 ST=2 TYP=3
	1415	SVTO	49 GB	1310.0E	1311.0	2.00	1100.0			QL=2 ST=2 TYP=6
	410	SVTO	49 GB	1310.0E	1311.0	2.00	6600.0			QL=2 ST=2 TYP=6
	9500	CUBA	45 C	1310.0E	1311.4	20.00	107.0			
	3000	POTS	3 S	1310.5	1311.0	2.9	159.0			
	810	KRAK	45 C	1310.5	1311.2	6.5	80.0	14.0		
	9500	POTS	3 S	1310.5	1311.4	2.5	182.0			
	234	POTS	4 S/F	1310.5	1311.4	1.5	1100.0			
	536	ONDR	48 C	1310.5	1312.5	7.5	U			
	810	KRAK	45 C	1310.5	1314.7		74.0			
	9400	HUAN	3 S	1310.6	1310.9	1.9	226.8	92.6		
	15000	CUBA	1 S	1310.8	1311.3	1.1	237.0	119.0		35L
	235	CUBA	7 C	1311.0	1312.0	8.0	1236.0			
	2695	SGMR	8 S	1311.0E	1311.0	1.00	290.0			QL=4 ST=2 TYP=3
	610	SVTO	49 GB	1311.0E	1311.0	U	1700.0			QL=2 ST=2 TYP=6
	4995	SVTO	8 S	1311.0E	1311.0	U	160.0			QL=2 ST=2 TYP=3
	245	SVTO	8 S	1311.0E	1311.0	U	390.0			QL=2 ST=2 TYP=3
	2695	SVTO	8 S	1311.0E	1311.0	1.00	300.0			QL=2 ST=2 TYP=3
	15400	SVTO	8 S	1311.0E	1311.0	U	130.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1311.0E	1311.0	U	180.0			QL=2 ST=2 TYP=3
	430	KRAK	45 C	1311.0	1311.2U	6.0	210.00	46.00		
	808	ONDR	46 C	1311.0	1312.3	7.5	52.0			
	430	KRAK	45 C	1311.0	1314.5		200.0			
	6700	CUBA	46 C	1311.2	1312.5	11.8	194.0	93.0		
	610	SVTO	4 S/F	1313.0E	1315.0	8.00	380.0			QL=2 ST=2 TYP=3
	9400	HUAN	2 S/F	1313.9	1316.3		12.7			
	9400	HUAN	2 S/F	1313.9	1314.6	4.1	14.8	6.6		
	600	HUMN	4 S/F	1314.0U	1315.0	8.00	65.0			
	410	SGMR	8 S	1314.0E	1314.0	1.00	150.0			QL=4 ST=2 TYP=3
	245	SGMR	8 S	1314.0E	1314.0	1.00	240.0			QL=4 ST=2 TYP=3
	610	SGMR	8 S	1314.0E	1314.0	2.00	420.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1314.0E	1315.0	1.00	130.0			QL=2 ST=2 TYP=3
	245	SVTO	8 S	1314.0E	1315.0	1.00	190.0			QL=2 ST=2 TYP=3
	9500	CUBA	2 S/F	1314.1	1314.8	2.9	9.0	4.0		
	9400	HUAN	1 S	1404.5	1406.1	6.3	6.4	2.8		
	113	POTS	8 S	1417.2	1417.4	0.5	280.0			
	9400	HUAN	1 S	1503.6	1507.0	7.1	8.5	3.6		
	410	PALE	8 S	1828.0E	1828.0	U	300.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1828.0E	1828.0	U	280.0			QL=4 ST=3 TYP=3
	245	SGMR	8 S	1838.0E	1838.0	U	170.0			QL=2 ST=2 TYP=3
	410	SGMR	8 S	1858.0E	1859.0	1.00	180.0			QL=4 ST=2 TYP=3
	245	SGMR	49 GB	1858.0E	1859.0	1.00	780.0			QL=2 ST=2 TYP=6
	9400	HUAN	2 S/F	1934.8	1937.6	9.7	10.6	4.2		
	15000	CUBA	2 S/F	1937.0	1937.5	4.0	38.0	19.0		3R

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Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22 W/m 2 Hz)	Mean		
16	9500 CUBA	2 S/F	1937.1	1937.5	3.4	5.0	2.0		
	9400 HUAN	2 S/F	1948.3	1950.4	9.9	8.5	3.9		
	9400 HUAN	4 S/F	2136.9	2140.2	7.6	67.8	22.4		
	15400 PALE	8 S	2139.0E	2139.0	2.00	75.0			QL=4 ST=2 TYP=3
	245 LEAR	8 S	2221.0E	2221.0	U	60.0			QL=4 ST=2 TYP=3
	245 LEAR	4 S/F	2323.0E	2324.0	5.00	65.0			QL=4 ST=2 TYP=3
	245 LEAR	8 S	2330.0E	2331.0	1.00	69.0			QL=4 ST=2 TYP=3
	4995 PALE	4 S/F	2344.0E	2346.0	8.00	220.0			QL=4 ST=2 TYP=3
	1415 LEAR	4 S/F	2345.0E	2346.0	6.00	74.0			QL=4 ST=2 TYP=3
	410 LEAR	8 S	2345.0E	2346.0	1.00	67.0			QL=4 ST=2 TYP=3
	1415 PALE	8 S	2345.0E	2346.0	2.00	71.0			QL=4 ST=2 TYP=3
	245 PALE	49 GB	2345.0E	2345.0	2.00	960.0			QL=2 ST=2 TYP=6
	2695 PALE	4 S/F	2345.0E	2346.0	3.00	180.0			QL=4 ST=2 TYP=3
	8800 PALE	4 S/F	2345.0E	2346.0	6.00	160.0			QL=4 ST=2 TYP=3
	8800 LEAR	4 S/F	2345.0E	2346.0	10.00	120.0			QL=4 ST=2 TYP=3
	2695 LEAR	4 S/F	2345.0E	2346.0	12.00	200.0			QL=4 ST=2 TYP=3
	4995 LEAR	4 S/F	2345.0E	2346.0	12.00	200.0			QL=4 ST=2 TYP=3
	245 LEAR	49 GB	2345.0E	2345.0	12.00	970.0			QL=4 ST=2 TYP=7
	200 HIRA	46 C	2345.1	2345.1	1.7	1400.0			0
	500 HIRA	46 C	2345.5	2346.0	5.0	53.0	10.0		0
	610 LEAR	8 S	2346.0E	2346.0	U	34.0			QL=4 ST=2 TYP=3
	15400 LEAR	8 S	2346.0E	2346.0	U	49.0			QL=4 ST=2 TYP=3
	610 PALE	8 S	2346.0E	2346.0	U	46.0			QL=4 ST=2 TYP=3
410 PALE	8 S	2346.0E	2346.0	U	75.0			QL=4 ST=2 TYP=3	
17000 NOBE	1 S	2346.0	2346.3	1.0	35.0			0,80,35GHz:0	
17	200 GORK	44 NS	0541.0E		340.00		5.0		
	100 GORK	44 NS	0541.0E		340.00		5.0		
	245 SVTO	43 NS	0605.0	1500.0	542.00	350.0			QL=4 ST=2 TYP=1
	234 POTS	44 NS	0630.0E	1432.0	485.00	165.0			
	410 LEAR	44 NS	0631.0E	0632.0	1049.00	120.0			QL=4 ST=1 TYP=1
	113 POTS	44 NS	0646.0E	1429.0	464.00	90.0			
	204 IZMI	43 NS	0700.0		300.0	45.0			
	127 TORN	44 NS	0700.0E		450.00		40.0		V=1
	260 ONDR	44 NS	0800.0E	1147.5	330.00	310.0			
	245 SGMR	44 NS	1200.0E	1836.0	535.00	950.0			QL=2 ST=2 TYP=1
	600 HUMN	43 NS	1349.0	1430.0	90.00	20.0			
	410 SVTO	43 NS	1417.0	1455.0	50.00	190.0			QL=2 ST=2 TYP=1
	410 SGMR	44 NS	1418.0E	1452.0	397.00	260.0			QL=4 ST=2 TYP=1
	610 SGMR	44 NS	1427.0E	2018.0	388.00	92.0			QL=4 ST=2 TYP=1
	245 PALE	44 NS	1702.0E	1835.0	630.00	980.0			QL=4 ST=2 TYP=1
	410 PALE	44 NS	1805.0E	2023.0	567.00	200.0			QL=4 ST=2 TYP=1
	100 HIRA	44 NS	2116.0E	0012.0	610.00	180.0	71.0		
	200 HIRA	44 NS	2116.0E	2300.0	610.00	190.0	128.0		MR
	410 LEAR	43 NS	2150.0	0106.0	325.00	100.0			QL=4 ST=2 TYP=1
	245 LEAR	44 NS	2250.0E	0300.0	696.00	470.0			QL=4 ST=2 TYP=1
	245 PALE	8 S	0018.0E	0018.0	U	260.0			QL=2 ST=2 TYP=3
	2840 PEKG	20 GRF	0201.0	0227.0	43.0	37.4	15.0		
	17000 NOBE	2 S/F	0405.2	0411.5	17.0	27.0			0,80,35GHz:0
	2840 PEKG	1 S	0410.0	0412.6	4.0	4.4	1.8		
	500 HIRA	27 RF	0417.0	0430.0	26.0	9.0	2.0		0
	2840 PEKG	1 S	0418.0	0419.9	4.0	3.7	1.5		
	2840 PEKG	5 S	0427.0	0427.5	4.0	15.6	6.3		
	5900 KISV	22 GRF	0607.1	0609.5	20.6	15.0			
	9300 KISV	23 GRF	0607.3	0609.5	20.6	27.0			
	9300 KISV	23 GRF	0607.3	0619.6		6.0			
	2840 PEKG	1 S	0631.0	0633.7	5.0	2.9	1.2		
	2840 PEKG	1 S	0642.0	0645.8	8.0	6.6	2.7		
2840 PEKG	1 S	0653.0	0655.5	11.0	8.1	3.2			
2950 GORK	21 GRF	0655.4	0726.6	157.0	9.0				
650 GORK	21 GRF	0712.9	0718.0	19.6	3.0				
650 GORK	2 S/F	0713.7	0714.4	1.0	7.0				
950 GORK	1 S	0714.0	0714.3	1.0	3.0				
2850 CRIM	29 PBI	0720.7	0724.4	4.6	11.0	4.0			
2850 CRIM	3 S	0720.7	0722.8	3.7	27.0	9.0			
9100 GORK	2 S/F	0721.0	0722.6	5.0	30.0				
2950 GORK	4 S/F	0721.2	0722.7	4.6	24.0				
245 SVTO	8 S	0722.0E	0722.0	U	220.0			QL=4 ST=2 TYP=3	
3013 IZMI	5 S	0722.0	0722.4	3.0	23.0	12.0			

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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)	Mean	Int	Remarks
17	100	GORK	3 S	0722.8	0723.0	0.6	380.0			
	9300	KISV	2 S/F	0759.6	0801.4	7.3	8.0			
	9300	KISV	45 C	0819.9	0823.1	5.7	7.0			
	9300	KISV	45 C	0819.9	0820.6		6.0			
	5900	KISV	45 C	0822.2	0823.1		6.0			
	5900	KISV	45 C	0822.2	0828.1	14.2	14.0			
	3013	IZMI	5 S	0826.5	0828.0	6.0	6.0	3.0		
	3000	POTS	3 S	0827.0U	0828.0U	2.0U	9.0			
	650	GORK	45 C	0827.0	0827.1	3.0	5.0			
	2950	GORK	1 S	0827.0	0828.1	2.8	5.0			
	650	GORK	45 C	0827.0	0828.2		12.0			
	2850	CRIM	1 S	0827.0	0827.9	1.8	7.0	2.0		
	950	GORK	1 S	0827.8	0828.1	1.0	2.0			
	3013	IZMI	5 S	0840.0	0841.0	5.0	5.0	2.0		
	3000	POTS	3 S	0840.0U	0840.6U	2.5U	9.0			
	2850	CRIM	1 S	0840.1	0840.6	2.0	7.0	2.0		
	2950	GORK	1 S	0840.2	0841.0	2.0	4.0			
	5900	KISV	22 GRF	0900.0	0902.9	24.0	9.0			
	9300	KISV	22 GRF	0900.0	0912.9	44.5	10.0			
	650	GORK	22 GRF	0905.0	0910.0	10.3	3.0			
	204	IZMI	41 F	1014.0	1017.0	3.0	250.0			
	100	GORK	46 C	1015.0	1017.0	6.0	11700.0			
	100	GORK	46 C	1015.0	1018.7		3700.0			
	113	POTS	41 F	1015.8	1018.5	4.2	900.0			
	30	POTS	41 F	1015.9	1018.6	4.1	1600.0U			
	650	GORK	2 S/F	1016.5	1019.0	2.9	9.0			
	950	GORK	22 GRF	1016.5	1018.7	8.4	3.0			
	650	GORK	21 GRF	1016.5	1031.8	21.2	1.0			
	33	UPIC	46 C	1016.6	1018.7	2.6				
	9300	KISV	2 S/F	1018.0	1018.7	3.6	19.0			
	5900	KISV	2 S/F	1018.0	1018.7	2.3	14.0			
	9500	POTS	8 S	1018.5	1018.8	0.8	11.0			
	650	GORK	2 S/F	1021.0	1021.1	0.4	5.0			
	2950	GORK	23 GRF	1042.4	1116.5	44.0	12.0			
	9300	KISV	23 GRF	1047.5	1103.4	39.0	16.0			
	410	SVTO	8 S	1049.0E	1049.0	1.0D	300.0			QL=4 ST=2 TYP=3
	5900	KISV	4 S/F	1049.2	1051.5	7.8	16.0			
	2850	CRIM	1 S	1050.7	1051.4	1.4	9.0	3.0		
	950	GORK	1 S	1051.0	1051.5	6.3	2.0			
	650	GORK	2 S/F	1051.1	1051.5	3.7	14.0			
	650	GORK	4 S/F	1055.3	1056.4	4.7D	32.0			
	950	GORK	1 S	1055.4	1056.7	1.9	2.0			
	3000	POTS	20 GRF	1102.5E	1113.0U	94.0D	11.0			
	3013	IZMI	23 GRF	1104.0	1110.0	15.0	8.0			
	15000	KISV	20 GRF	1104.6	1106.3	16.0	10.0			
	2950	GORK	46 C	1104.8	1108.1		27.0			
	9300	KISV	45 C	1104.8	1108.1		23.0			
	2850	CRIM	45 C	1104.8	1108.2		48.0			
	2850	CRIM	45 C	1104.8	1105.4	4.0	59.0	19.0		
	2950	GORK	46 C	1104.8	1105.5	6.7	45.0			
9300	KISV	45 C	1104.8	1105.6	9.2	26.0				
2850	CRIM	29 PBI	1104.8	1108.8	29.0	25.0	8.0			
5900	KISV	45 C	1104.9	1106.0	6.4	60.0				
5900	KISV	45 C	1104.9	1108.5		36.0				
2695	SVTO	4 S/F	1105.0E	1105.0	4.0D	54.0			QL=4 ST=2 TYP=3	
4995	SVTO	4 S/F	1105.0E	1105.0	6.0D	79.0			QL=4 ST=2 TYP=3	
1470	POTS	42 SER	1105.0	1108.3	6.0	13.0				
3013	IZMI	41 F	1105.0	1105.5	4.0	48.0				
3000	POTS	3 S	1105.0U	1105.5U	2.0U	51.0				
245	SVTO	8 S	1107.0E	1108.0	1.0D	160.0			QL=2 ST=2 TYP=3	
204	IZMI	41 F	1107.0	1111.8	5.0	500.0				
3000	POTS	3 S	1107.5	1108.0U	3.5U	43.0				
650	GORK	4 S/F	1107.7	1108.1	1.6	17.0				
950	GORK	1 S	1107.7	1108.3	2.0	5.0				
410	SVTO	8 S	1108.0E	1108.0	U	59.0			QL=4 ST=2 TYP=3	
9300	KISV	23 GRF	1131.5	1137.6	14.5	9.0				
5900	KISV	4 S/F	1131.5	1133.7	14.0	138.0				
536	ONDR	4 S/F	1132.2	1134.0	2.8	86.0				
245	SVTO	8 S	1133.0E	1134.0	1.0D	110.0			QL=2 ST=2 TYP=3	

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Flux Density Mean	Int	Remarks
17	4995	SVTO	8 S	1133.0E	1133.0	1.00	89.0			QL=4 ST=2 TYP=3
	410	SVTO	8 S	1133.0E	1133.0	1.00	82.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	1133.0E	1133.0	1.00	80.0			QL=4 ST=2 TYP=3
	810	KRAK	2 S/F	1133.2	1133.5	0.6	11.0	3.0		
	1470	POTS	3 S	1133.5	1134.5	1.5	8.0			
	9500	POTS	8 S	1133.5	1133.8	0.8	45.0			
	3000	POTS	3 S	1133.5U	1133.8U	1.0U	11.0			
	3013	IZMI	7 C	1133.5	1133.9	1.0	11.0			
	9300	KISV	4 S/F	1133.6	1133.9	3.2	103.0			
	15000	KISV	2 S/F	1134.1	1134.3	1.9	29.0			
	3000	POTS	3 S	1138.5U	1139.0U	1.5U	6.0			
	5900	KISV	4 S/F	1149.5	1150.4	5.8	33.0			
	3000	POTS	1 S	1149.5	1150.4	2.0	7.0			
	410	SVTO	8 S	1150.0E	1150.0	U	280.0			QL=4 ST=2 TYP=3
	536	ONDR	3 S	1150.0	1150.5	1.5	43.0			
	9300	KISV	2 S/F	1150.1	1150.4	1.7	8.0			
	245	SGMR	8 S	1220.0E	1220.0	2.00	130.0			
	234	POTS	42 SER	1228.6	1234.4	33.7	800.0			QL=2 ST=2 TYP=3
	3000	POTS	3 S	1234.0U	1234.4	1.0U	9.0			
	536	ONDR	5 S	1240.7	1241.4	1.5	175.0			
	610	SGMR	8 S	1241.0E	1241.0	U	110.0			QL=2 ST=2 TYP=3
	9400	HUAN	22 GRF	1309.4	1328.0	46.3	8.3	4.6		
	3000	POTS	3 S	1309.5	1310.3	4.0	13.0			
	1470	POTS	3 S	1309.5	1310.8	3.5	8.0			
	3000	POTS	3 S	1332.7	1333.0	1.3	12.0			
	9400	HUAN	23 GRF	1408.6	1450.5	99.1	12.5	7.2		
	9400	HUAN	2 S/F	1421.2	1424.5	8.6	8.3	4.2		
	245	SVTO	8 S	1440.0E	1440.0	U	290.0			QL=2 ST=2 TYP=3
	410	SVTO	8 S	1442.0E	1442.0	U	330.0			QL=2 ST=2 TYP=3
	2800	OTTA	3 S	1445.5	1448.0	5.5	16.4	5.0		
	9400	HUAN	3 S	1459.0	1500.2	5.2	20.8	9.4		
	2800	OTTA	3 S	1459.8	1500.3	3.1	15.4	4.0		
	15000	CUBA	2 S/F	1500.0U	1500.0U	3.0U	34.0	17.0		36R
	9400	HUAN	3 S	1533.1	1535.6	5.5	22.9	10.2		
	2800	OTTA	20 GRF	1556.0	1605.0	34.0	10.3	4.0		
	6700	CUBA	2 S/F	1557.1	1557.3	1.4	8.0	4.0		
	6700	CUBA	21 GRF	1602.0	1748.0	353.0	32.0			SUNSET
	15000	CUBA	21 GRF	1633.0	1910.0	237.0	33.0	16.0		00R
	9400	HUAN	23 GRF	1642.4	1751.3	162.7	29.2	13.6		
	2800	OTTA	20 GRF	1721.5	1730.5	112.0	16.9	8.0		
	8800	SGMR	4 S/F	1740.0E	1743.0	6.00	100.0			QL=4 ST=2 TYP=3
	9400	HUAN	3 S	1740.5	1743.1	6.4	116.8	66.8		
	6700	CUBA	1 S	1740.5	1742.3	6.0	34.0	17.0		
	8800	PALE	4 S/F	1741.0E	1742.0	4.00	80.0			QL=2 ST=2 TYP=3
	15400	PALE	4 S/F	1741.0E	1742.0	4.00	190.0			QL=2 ST=2 TYP=3
	4995	SGMR	4 S/F	1741.0E	1743.0	4.00	39.0			QL=4 ST=2 TYP=3
	15400	SGMR	4 S/F	1742.0E	1743.0	3.00	220.0			QL=4 ST=2 TYP=3
15000	CUBA	4 S/F	1742.2	1743.4	3.8	290.0	69.0		15R	
8800	PALE	8 S	1841.0E	1842.0	2.00	92.0			QL=2 ST=2 TYP=3	
15000	CUBA	2 S/F	1841.0E	1843.5	9.00	150.0	75.0		6R	
9400	HUAN	4 S/F	1841.5	1843.3	11.1	114.7	56.7			
15400	PALE	8 S	1842.0E	1842.0	1.00	70.0			QL=2 ST=2 TYP=3	
8800	SGMR	4 S/F	1842.0E	1843.0	7.00	110.0			QL=4 ST=2 TYP=3	
6700	CUBA	46 C	1842.0	1844.0	11.0	41.0			RAIN	
15400	SGMR	8 S	1843.0E	1843.0	2.00	92.0			QL=4 ST=2 TYP=3	
2800	OTTA	3 S	1937.1	1939.2	4.1	9.7	3.0			
9400	HUAN	22 GRF	1940.6	1954.0	22.8	20.8	9.6			
9400	HUAN	20 GRF	2019.1	2033.8	46.9	12.5	5.8			
500	HIRA	24 R	2118.0E	2307.0	605.00	57.0	21.0		MR	
8800	LEAR	8 S	2247.0E	2248.0	1.00	49.0			QL=4 ST=2 TYP=3	
15400	LEAR	8 S	2247.0E	2248.0	1.00	72.0			QL=4 ST=2 TYP=3	
17000	NOBE	1 S	2247.6	2248.1	2.0	58.0			0,80,35GHz:0	
18	200	GORK	44 NS	0536.0E		333.00		10.0		
	100	GORK	44 NS	0536.0E		333.00		10.0		
	410	SVTO	44 NS	0601.0E	0929.0	346.00	110.0			QL=2 ST=2 TYP=1
	245	SVTO	44 NS	0601.0E	1111.0	545.00	360.0			QL=2 ST=2 TYP=1
	410	LEAR	44 NS	0631.0E	0632.0	59.00	120.0			QL=4 ST=2 TYP=1
	234	POTS	44 NS	0638.0E	0702.5	494.00	200.0			

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m ² Hz)	Mean		
18	113	POTS	44 NS	0640.0E	0725.0	495.00	140.0			
	204	IZMI	43 NS	0700.0		300.0	50.0			
	127	TORN	44 NS	0700.0E		450.00		160.0		V=1
	430	KRAK	44 NS	0800.0E	1009.0	303.00	150.0	14.0		
	260	ONDR	44 NS	0800.0E	1317.5	330.00	397.0			
	410	LEAR	44 NS	0821.0E	0823.0	61.00	100.0			QL=4 ST=2 TYP=1
	245	SGMR	44 NS	1202.0E	2037.0	532.00	630.0			QL=2 ST=2 TYP=1
	245	PALE	44 NS	1703.0E	0312.0	629.00	1300.0			QL=4 ST=2 TYP=1
	200	HIRA	44 NS	2117.0E	0100.0	610.00	145.0	96.0		WR
	100	HIRA	44 NS	2117.0E	0056.0	610.00	220.0	109.0		
	245	LEAR	44 NS	2149.0E	0029.0	759.00	1600.0			QL=2 ST=2 TYP=1
	17000	NOBE	4 S/F	0009.6	0019.1	30.0	73.0			R,80,35GHz:0
	8800	LEAR	4 S/F	0015.0E	0019.0	10.00	81.0			QL=4 ST=2 TYP=3
	15400	LEAR	4 S/F	0017.0E	0019.0	3.00	100.0			QL=4 ST=2 TYP=3
	15400	PALE	8 S	0017.0E	0019.0	2.00	77.0			QL=2 ST=2 TYP=3
	4995	LEAR	4 S/F	0018.0E	0019.0	6.00	17.0			QL=4 ST=2 TYP=3
	8800	PALE	8 S	0018.0E	0019.0	1.00	52.0			QL=2 ST=2 TYP=3
	2840	PEKG	5 S	0125.0	0128.6	7.0	14.7	6.2		
	610	LEAR	8 S	0207.0E	0208.0	1.00	74.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0207.0E	0208.0	1.00	71.0			QL=4 ST=2 TYP=3
	2840	PEKG	1 S	0247.0	0248.0	3.0	4.7	2.0		
	610	LEAR	49 GB	0508.0E	0508.0	1.00	780.0			QL=4 ST=2 TYP=6
	2840	PEKG	20 GRF	0540.0	0602.1	54.0	8.5	3.6		
	650	GORK	23 GRF	0545.0E	1000.0	292.90	8.0			
	950	GORK	21 GRF	0555.2	0700.0	183.8	3.0			
	5900	KISV	2 S/F	0603.5	0604.5	2.0	7.0			
	610	LEAR	8 S	0627.0E	0627.0	2.00	140.0			QL=4 ST=2 TYP=3
	650	GORK	46 C	0627.2	0627.3	1.7	120.0			
	650	GORK	46 C	0627.2	0628.6		50.0			
	5900	KISV	2 S/F	0627.3	0628.3	2.2	10.0			
	9300	KISV	2 S/F	0627.3	0628.3	3.0	9.0			
	950	GORK	2 S/F	0628.0	0628.3	0.6	7.0			
	15000	KISV	2 S/F	0633.2	0634.0	1.5	5.0			
	950	GORK	2 S/F	0637.2	0639.1	2.4	8.0			
	15000	KISV	2 S/F	0725.2	0725.4	0.8	9.0			
	5900	KISV	23 GRF	0742.0	0759.6	42.0	9.0			
	9300	KISV	2 S/F	0748.5	0750.1	2.5	19.0			
	610	LEAR	4 S/F	0809.0E	0810.0	3.00	86.0			QL=4 ST=2 TYP=3
	610	SVTO	4 S/F	0809.0E	0810.0	3.00	100.0			QL=2 ST=2 TYP=3
	5900	KISV	2 S/F	0809.3	0810.6	2.4	9.0			
	9300	KISV	2 S/F	0810.1	0810.5	1.2	6.0			
	9300	KISV	4 S/F	0848.2	0851.8	8.3	56.0			
	5900	KISV	45 C	0848.8	0851.0	8.2	35.0			
	5900	KISV	45 C	0848.8	0849.3		12.0			
	9500	POTS	3 S	0850.3	0851.0	2.3	38.0			
	9100	GORK	3 S	0850.4	0851.0	1.4	50.0			
	15000	KISV	2 S/F	0850.4	0851.0	1.2	19.0			
	2850	CRIM	1 S	0850.5	0850.9	1.2	6.9	2.0		
	2950	GORK	1 S	0850.6	0851.0	0.7	8.0			
	5900	KISV	2 S/F	0928.7	0930.4	5.1	9.0			
100	GORK	46 C	0937.7	0938.1	1.3	1300.0				
113	POTS	4 S/F	0937.7	0938.5	1.6	200.0				
100	GORK	46 C	0937.7	0938.6		500.0				
200	GORK	4 S/F	0938.0	0938.1	0.8	180.0				
30	POTS	4 S/F	0938.0	0938.5	1.8	4000.00				
536	ONDR	41 F	0940.0	1317.6	220.0	100.0				
204	IZMI	41 F	1012.0	1012.2	2.0	2500.0				
100	GORK	41 F	1025.2	1025.8	6.4	630.0				
100	GORK	41 F	1025.2	1030.9		760.0				
113	POTS	4 S/F	1030.7	1030.9	0.8	200.0				
40	POTS	4 S/F	1030.8	1031.0	0.8	1500.0				
9300	KISV	4 S/F	1042.8	1043.5	5.5	48.0				
5900	KISV	4 S/F	1042.8	1043.6	6.7	59.0				
9100	GORK	2 S/F	1042.9	1043.5	2.9	40.0				
9500	POTS	3 S	1043.0	1043.5	3.0	30.0				
3013	IZHI	5 S	1043.0	1043.6	3.0	20.0	10.0			
2850	CRIM	3 S	1043.1	1043.5	2.3	30.0	10.0			
15000	KISV	2 S/F	1043.1	1043.7	1.4	14.0				
2950	GORK	4 S/F	1043.2	1043.5	0.9	22.0				

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

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Nov 90

NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak	Mean		
							(10 -22 W/m 2 Hz)			
18	2950	GORK	29 PBI	1044.1	1044.1	12.2	7.0			
	9300	KISV	22 GRF	1101.5	1104.2	9.2	9.0			
	15000	KISV	23 GRF	1113.5	1114.4	20.7	12.0			
	15000	KISV	2 S/F	1117.0	1118.2	5.6	46.0			
	5900	KISV	23 GRF	1119.5	1121.3	13.5	9.0			
	9300	KISV	23 GRF	1119.6	1130.1	14.9	13.0			
	5900	KISV	45 C	1122.6	1130.1		18.0			
	5900	KISV	45 C	1122.6	1123.8	8.4	63.0			
	9500	POTS	3 S	1123.0	1124.0	5.0	54.0			
	4995	SVTO	8 S	1123.0E	1123.0	2.00	46.0			QL=4 ST=2 TYP=3
	8800	SVTO	4 S/F	1123.0E	1124.0	3.00	62.0			QL=4 ST=2 TYP=3
	15400	SVTO	8 S	1123.0E	1124.0	1.00	30.0			QL=4 ST=2 TYP=3
	9300	KISV	4 S/F	1123.2	1123.9	5.5	62.0			
	2850	CRIM	1 S	1127.1	1130.0	3.1	14.3	5.0		
	3000	POTS	40 F	1128.0E	1130.0U	3.00	15.0			
	40	POTS	4 S/F	1128.2	1129.3	2.0	2500.0			
	113	POTS	4 S/F	1128.6	1128.8	1.4	600.0			
	1470	POTS	3 S	1129.5	1129.8	1.5	11.0			
	9500	CUBA	21 GRF	1314.0	1817.0	501.00	22.0	11.0		2135 OFF
	9400	HUAN	3 S	1315.3	1317.5	5.9	178.5	62.4		
	113	POTS	4 S/F	1315.9	1317.6	3.2	3500.0			
	260	ONDR	4 S/F	1316.0	1317.5	3.5	397.0			
	536	ONDR	4 S/F	1316.0	1317.6	3.5	100.0			
	40	POTS	4 S/F	1316.1	1317.6	3.9	37000.0			
	234	POTS	4 S/F	1316.1	1317.6	3.2	2300.0			
	15000	CUBA	1 S	1316.2	1317.7	5.8	258.0	129.0		28L
	33	UPIC	46 C	1316.6	1317.6	1.5				
	9500	CUBA	45 C	1316.9	1317.5	7.1	75.0	19.0		
	1415	SGMR	8 S	1317.0E	1317.0	1.00	130.0			QL=4 ST=2 TYP=3
	410	SGMR	8 S	1317.0E	1317.0	1.00	250.0			QL=2 ST=2 TYP=3
	2695	SGMR	8 S	1317.0E	1317.0	U	56.0			QL=4 ST=2 TYP=3
	15400	SGMR	8 S	1317.0E	1317.0	U	170.0			QL=2 ST=2 TYP=3
	8800	SGMR	8 S	1317.0E	1317.0	1.00	170.0			QL=2 ST=2 TYP=3
	4995	SGMR	8 S	1317.0E	1317.0	1.00	97.0			QL=4 ST=2 TYP=3
	245	SGMR	49 GB	1317.0E	1317.0	1.00	1400.0			QL=2 ST=2 TYP=6
	15400	SVTO	8 S	1317.0E	1317.0	1.00	150.0			QL=4 ST=2 TYP=3
	4995	SVTO	8 S	1317.0E	1317.0	1.00	100.0			QL=4 ST=2 TYP=3
	610	SVTO	8 S	1317.0E	1317.0	1.00	130.0			QL=2 ST=2 TYP=3
	245	SVTO	49 GB	1317.0E	1317.0	1.00	1500.0			QL=2 ST=2 TYP=6
	610	SGMR	4 S/F	1317.0E	1317.0	643.00	120.0			QL=4 ST=1 TYP=3
	2695	SVTO	4 S/F	1317.0E	1317.0	643.00	64.0			QL=4 ST=1 TYP=3
	1415	SVTO	4 S/F	1317.0E	1317.0	643.00	160.0			QL=4 ST=1 TYP=3
	6700	CUBA	45 C	1317.0	1317.5	5.0	148.0	20.0		
	3000	POTS	3 S	1317.0E	1317.5	2.00	40.0			
	9500	POTS	3 S	1317.0	1317.5	2.0	147.0			
	810	KRAK	8 S	1317.1	1317.5	1.0	85.0			
	1470	POTS	3 S	1317.3	1317.5	2.2	140.0			
	808	ONDR	8 S	1317.5	1317.9	2.0	106.0			
	2800	OTTA	3 S	1317.6	1317.8	2.5	65.2	13.0		
	9400	HUAN	22 GRF	1335.5	1342.7	29.1	8.9	5.2		
245	SGMR	8 S	1336.0E	1336.0	2.00	220.0			QL=2 ST=2 TYP=3	
6700	CUBA	20 GRF	1429.0	1434.0	46.0	27.0	13.0			
9400	HUAN	2 S/F	1431.1	1433.8	9.5	10.7	6.4			
9500	CUBA	2 S/F	1432.2	1433.6	3.8	5.0	2.0			
6700	CUBA	21 GRF	1523.0	1529.0	49.0	11.0	5.0			
6700	CUBA	2 S/F	1524.0	1526.2	4.0	15.0	7.0			
9400	HUAN	1 S	1524.1	1525.4	6.5	14.3	6.8			
9500	CUBA	2 S/F	1525.0	1525.7	4.0	8.0	4.0			
9400	HUAN	1 S	1550.6	1554.4	11.1	17.8	7.6			
6700	CUBA	2 S/F	1553.0	1554.1	6.5	9.0	4.0			
9500	CUBA	1 S	1553.5	1554.2	6.5	8.0	4.0			
2800	OTTA	3 S	1634.7	1635.2	2.2	144.5	29.0			
2695	SGMR	8 S	1635.0E	1635.0	U	120.0			QL=4 ST=2 TYP=3	
410	SGMR	8 S	1635.0E	1635.0	U	50.0			QL=4 ST=2 TYP=3	
1415	SGMR	8 S	1635.0E	1635.0	U	56.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1635.0E	1635.0	U	70.0			QL=4 ST=2 TYP=3	
6700	CUBA	2 S/F	1635.0	1635.7	7.0	7.0	3.0			
245	SGMR	8 S	1639.0E	1640.0	1.00	330.0			QL=4 ST=2 TYP=3	
245	SGMR	49 GB	1647.0E	1647.0	U	730.0			QL=2 ST=2 TYP=6	

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

NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
18	245	SGMR	8 S	1710.0E	1711.0	1.00	420.0			QL=2 ST=2 TYP=3
	15000	CUBA	21 GRF	1727.0	1817.0	85.0	31.0	16.0		17R
	6700	CUBA	40 F	1728.0	1729.0	2.0	8.0	4.0		
	9500	CUBA	40 F	1728.0	1729.0	3.0	3.0	1.0		
	6700	CUBA	21 GRF	1735.0	1815.0	64.0	25.0	12.0		
	6700	CUBA	2 S/F	1737.0	1739.5	3.0	7.0	3.0		
	9400	HUAN	23 GRF	1739.0	1823.8	65.3	30.3	16.8		
	2800	OTTA	3 S	1739.5	1739.6	2.2	81.6	16.0		
	245	PALE	49 GB	1742.0E	1742.0	U	770.0			QL=2 ST=2 TYP=6
	245	SGMR	49 GB	1742.0E	1742.0	U	690.0			QL=2 ST=2 TYP=6
	9400	HUAN	3 S	1744.6	1746.4	4.2	37.5	19.4		
	410	PALE	8 S	1745.0E	1746.0	1.00	58.0			QL=4 ST=2 TYP=3
	15000	CUBA	2 S/F	1745.4	1746.4	2.6	38.0	19.0		28L
	6700	CUBA	2 S/F	1745.5	1747.0	4.0	18.0	9.0		
	9500	CUBA	2 S/F	1745.5	1746.4	3.0	13.0	6.0		
	245	SGMR	49 GB	1747.0E	1748.0	2.00	740.0			QL=2 ST=2 TYP=6
	245	PALE	49 GB	1748.0E	1748.0	U	1100.0			QL=2 ST=2 TYP=6
	9500	CUBA	2 S/F	1751.3	1752.0	3.2	6.0	3.0		
	245	PALE	8 S	1759.0E	1759.0	U	470.0			QL=2 ST=3 TYP=3
	245	SGMR	49 GB	1759.0E	1759.0	U	510.0			QL=2 ST=2 TYP=6
	9500	CUBA	45 C	1803.9	1804.0U	2.6	19.00			
	4995	SGMR	4 S/F	1804.0E	1806.0	6.00	110.0			QL=4 ST=2 TYP=3
	9400	HUAN	4 S/F	1804.2	1806.5	8.4	212.4	109.2		
	2800	OTTA	3 S	1804.8	1806.4	2.3	26.7	8.0		
	8800	PALE	8 S	1805.0E	1806.0	2.00	150.0			QL=2 ST=2 TYP=3
	4995	PALE	8 S	1805.0E	1806.0	2.00	53.0			QL=2 ST=2 TYP=3
	8800	SGMR	4 S/F	1805.0E	1806.0	5.00	220.0			QL=2 ST=2 TYP=3
	15400	SGMR	8 S	1805.0E	1806.0	1.00	70.0			QL=2 ST=2 TYP=3
	6700	CUBA	45 C	1805.0E	1806.5	8.00	164.0			
	15000	CUBA	1 S	1805.0E	1806.6	5.00	97.0			27R
	2800	OTTA	29 PBI	1807.1	1807.1	33.0	13.6	6.0		
	9500	CUBA	40 F	1811.0	1812.0	3.0	3.0	1.0		
	6700	CUBA	22 GRF	1914.0	1950.0	133.0	35.0	17.0		
	15000	CUBA	23 GRF	1923.0	1936.0	67.0	20.0	10.0		00L
	9500	CUBA	40 F	1932.0	1934.0	4.0	12.0	6.0		
	9400	HUAN	23 GRF	1934.9	1950.0	87.7	28.6	12.6		
	245	PALE	49 GB	2037.0E	2037.0	U	750.0			QL=4 ST=2 TYP=6
	9400	HUAN	1 S	2050.8	2053.6	4.7	14.3	6.8		
	2695	PENT	3 S	2052.0	2053.7	3.7	8.8	2.0		
	9400	HUAN	4 S/F	2143.2	2145.0	11.8	176.7	84.6		
	4995	PALE	8 S	2144.0E	2145.0	2.00	100.0			QL=4 ST=2 TYP=3
	8800	PALE	4 S/F	2144.0E	2144.0	3.00	150.0			QL=2 ST=2 TYP=3
	15400	PALE	8 S	2144.0E	2144.0	2.00	75.0			QL=2 ST=2 TYP=3
	2695	PENT	3 S	2144.1	2145.1	2.8	18.5	4.0		
	15000	CUBA	1 S	2144.3	2145.0	4.0	74.0	37.0		76R
6700	CUBA	46 C	2144.3	2144.9	3.7	116.0			SUNSET	
9500	CUBA	46 C	2149.4	2149.8	4.6	141.0	33.0			
245	LEAR	8 S	2235.0E	2235.0	U	79.0			QL=4 ST=2 TYP=3	
245	LEAR	8 S	2237.0E	2237.0	U	290.0			QL=4 ST=2 TYP=3	
245	PALE	49 GB	2237.0E	2237.0	U	500.0			QL=2 ST=2 TYP=6	
245	LEAR	8 S	2251.0E	2252.0	2.00	120.0			QL=4 ST=2 TYP=3	
245	LEAR	49 GB	2300.0E	2303.0	5.00	500.0			QL=2 ST=2 TYP=7	
245	PALE	49 GB	2303.0E	2303.0	U	800.0			QL=2 ST=3 TYP=6	
17000	NOBE	7 C	2306.8	2307.1	4.0	48.0			R,80,35GHz:0	
19	100	GORK	44 NS	0540.0E		380.00		10.0		
	200	GORK	44 NS	0540.0E		380.00		5.0		
	245	SVTO	44 NS	0602.0E	1302.0U	543.00	870.0			QL=2 ST=2 TYP=1
	113	POTS	44 NS	0640.0E	1245.5	465.00	150.0			
	234	POTS	44 NS	0650.0E	1350.0	455.00	115.0			
	204	IZMI	43 NS	0700.0		300.0	25.0			
	127	TORN	44 NS	0700.0E		450.00		210.0		V=2
	260	ONDR	44 NS	0800.0E	1251.6	330.00	305.0			
	245	SGMR	44 NS	1203.0E	1935.0	530.00	920.0			QL=2 ST=2 TYP=1
	280	CUBA	44 NS	1453.0E		383.00		75.0		
	235	CUBA	44 NS	1453.0E		383.00		90.0		
	245	PALE	44 NS	1703.0E	2215.0	629.00	860.0			QL=4 ST=2 TYP=1
	100	HIRA	44 NS	2118.0E	2220.0	610.00	110.0	18.0		
200	HIRA	44 NS	2118.0E	2200.0	610.00	125.0	55.0		0	

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

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Nov 90

NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean		
19	245	LEAR	44 NS	2149.0E	2215.0	759.00	720.0			QL=2 ST=2 TYP=1
	410	PALE	8 S	0000.0E	0000.0	U	300.0			QL=4 ST=2 TYP=3
	245	PALE	49 GB	0029.0E	0029.0	1.00	1200.0			QL=2 ST=2 TYP=6
	100	HIRA	46 C	0045.5	0046.2	2.2	1000.00			
	2840	PEKG	5 S	0047.0	0048.2	3.0	25.1	11.3		
	245	LEAR	4 S/F	0052.0E	0054.0	5.00	440.0			QL=2 ST=2 TYP=3
	2840	PEKG	3 S	0209.0	0216.8	12.0	27.5	12.4		
	245	LEAR	49 GB	0215.0E	0216.0	2.00	670.0			QL=2 ST=2 TYP=6
	200	HIRA	46 C	0215.4	0215.8	2.3	220.0			MR
	17000	NOBE	7 C	0215.8	0216.4	2.0	77.0			L,80,35GHz:0
	100	HIRA	46 C	0215.8	0216.7	3.3	910.0			
	4995	LEAR	8 S	0216.0E	0216.0	1.00	36.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0216.0E	0216.0	U	85.0			QL=4 ST=2 TYP=3
	2695	LEAR	8 S	0216.0E	0216.0	U	21.0			QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0216.0E	0216.0	U	20.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0216.0E	0216.0	2.00	94.0			QL=4 ST=2 TYP=3
	15400	LEAR	8 S	0216.0E	0216.0	1.00	96.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	0216.0E	0216.0	U	100.0			QL=4 ST=2 TYP=3
	15400	PALE	8 S	0216.0E	0216.0	1.00	73.0			QL=2 ST=2 TYP=3
	8800	PALE	8 S	0216.0E	0216.0	U	62.0			QL=2 ST=2 TYP=3
	4995	PALE	8 S	0216.0E	0216.0	U	30.0			QL=4 ST=2 TYP=3
	245	PALE	49 GB	0216.0E	0216.0	U	770.0			QL=2 ST=2 TYP=6
	500	HIRA	46 C	0216.0	0216.2	3.0	28.0			0
	2840	PEKG	5 S	0455.0	0456.4	5.0	37.4	16.8		
	245	LEAR	8 S	0456.0E	0456.0	2.00	140.0			QL=2 ST=2 TYP=3
	245	LEAR	8 S	0504.0E	0504.0	1.00	240.0			QL=2 ST=2 TYP=3
	9300	KISV	4 S/F	0553.5	0557.4	7.5	26.0			
	500	HIRA	41 F	0554.5	0624.5	75.00	180.0			WR
	5900	KISV	2 S/F	0556.4	0557.5	2.6	10.0			
	15000	KISV	2 S/F	0556.5	0557.3	1.4	10.0			
	15000	KISV	2 S/F	0604.6	0613.1	15.9	12.0			
	5900	KISV	2 S/F	0604.6	0607.6	5.1	7.0			
	9300	KISV	20 GRF	0604.8	0613.6	10.0	19.0			
	2840	PEKG	45 C	0620.0	0624.2	10.0	61.3	27.6		
	9300	KISV	23 GRF	0620.0	0626.8	13.1	20.0			
	15000	KISV	47 GB	0620.3	0622.2	9.0	513.0			
	5900	KISV	47 GB	0620.5	0622.4	4.1	342.0			
	5900	KISV	29 PBI	0620.5	0624.6	15.4	50.0			
	8800	LEAR	4 S/F	0621.0E	0622.0	3.00	130.0			QL=4 ST=2 TYP=3
	15400	LEAR	4 S/F	0621.0E	0622.0	4.00	100.0			QL=4 ST=2 TYP=3
	4995	LEAR	4 S/F	0621.0E	0622.0	3.00	76.0			QL=4 ST=2 TYP=3
	8800	SVTO	4 S/F	0621.0E	0622.0	4.00	120.0			QL=2 ST=2 TYP=3
	200	HIRA	46 C	0621.4	0622.0	2.9	410.0			MR
	9100	GORK	4 S/F	0621.5	0622.5	4.5	135.0			
	2950	GORK	46 C	0621.7	0622.0	3.9	40.0			
	2950	GORK	46 C	0621.7	0624.2		160.0			
	200	GORK	46 C	0621.7	0624.5		310.0			
	200	GORK	46 C	0621.7	0622.6	3.3	160.0			
	2850	CRIM	46 C	0621.8	0622.0	4.0	63.5			
	2850	CRIM	46 C	0621.8	0624.3		132.0			
950	GORK	46 C	0621.8	0624.5		350.0				
650	GORK	46 C	0621.8	0624.5		510.0				
650	GORK	46 C	0621.8	0622.5	5.2	17.0				
950	GORK	46 C	0621.8	0622.5	6.7	15.0				
9300	KISV	45 C	0621.8	0624.5		37.0				
9300	KISV	45 C	0621.8	0622.5	3.7	84.0				
100	GORK	46 C	0621.9	0624.5		1700.0				
100	GORK	46 C	0621.9	0622.6	3.5	1500.0				
245	LEAR	49 GB	0622.0E	0624.0	3.00	690.0			QL=2 ST=2 TYP=6	
2695	LEAR	8 S	0622.0E	0624.0	2.00	130.0			QL=4 ST=2 TYP=5	
1415	LEAR	8 S	0622.0E	0624.0	2.00	370.0			QL=4 ST=2 TYP=5	
4995	SVTO	8 S	0622.0E	0622.0	2.00	83.0			QL=2 ST=2 TYP=3	
245	SVTO	49 GB	0622.0E	0624.0	2.00	830.0			QL=2 ST=2 TYP=6	
17000	NOBE	2 S/F	0622.2	0622.4	2.5	32.0			L,80,35GHz:0	
610	LEAR	8 S	0624.0E	0624.0	1.00	300.0			QL=4 ST=2 TYP=3	
410	LEAR	8 S	0624.0E	0624.0	1.00	220.0			QL=4 ST=2 TYP=3	
610	SVTO	8 S	0624.0E	0624.0	U	350.0			QL=2 ST=2 TYP=3	
2695	SVTO	8 S	0624.0E	0624.0	U	48.0			QL=2 ST=2 TYP=3	
410	SVTO	8 S	0624.0E	0624.0	1.00	370.0			QL=2 ST=2 TYP=3	

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

NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
19	9300	KISV	21 GRF	0641.3	0647.4	26.3	13.0			
	5900	KISV	21 GRF	0641.3	0647.5	11.1	9.0			
	15000	KISV	21 GRF	0655.4	0700.2	21.1	19.0			
	245	LEAR	4 S/F	0705.0E	0705.0	5.00	330.0			QL=2 ST=2 TYP=3
	9300	KISV	2 S/F	0726.1	0728.5	6.4	6.0			
	245	LEAR	8 S	0737.0E	0737.0	1.00	210.0			QL=2 ST=2 TYP=3
	9300	KISV	22 GRF	0750.8	0754.4	21.4	8.0			
	245	LEAR	4 S/F	0817.0E	0821.0	7.00	240.0			QL=2 ST=2 TYP=3
	9300	KISV	2 S/F	0905.8	0906.3	3.2	17.0			
	9100	GORK	3 S	0906.0	0906.2	0.8	20.0			
	9500	POTS	8 S	0906.0	0906.4	0.8	20.0			
	15000	KISV	1 S	0906.1	0906.3	1.7	43.0			
	5900	KISV	45 C	0919.8	0930.0	19.0	30.0			
	5900	KISV	45 C	0919.8	0921.8		26.0			
	9500	POTS	3 S	0920.5	0921.8	3.0	25.0			
	9300	KISV	23 GRF	0920.8	0934.2	61.2	55.0			
	9300	KISV	28 PRE	0920.8	0921.8	3.8	30.0			
	15000	KISV	45 C	0920.9	0922.3		8.0			
	15000	KISV	45 C	0920.9	0921.8	2.8	10.0			
	9100	GORK	2 S/F	0921.0	0921.8	1.7	23.0			
	8800	SVTO	4 S/F	0926.0E	0949.0	38.00	290.0			QL=4 ST=2 TYP=5
	9300	KISV	45 C	0926.0	0930.1	18.0	97.0			
	9300	KISV	45 C	0926.0	0927.9		81.0			
	9100	GORK	46 C	0926.3	0949.0		315.0			
	9100	GORK	46 C	0926.3	0930.0	40.7	100.0			
	9500	POTS	4 S/F	0926.5	0929.8	19.0	100.0			
	33	UPIC	2 S/F	0926.7	0926.9	0.6				
	15000	KISV	23 GRF	0926.8	0940.9	57.2	40.0			
	15000	KISV	4 S/F	0927.0	0928.0	6.0	177.0			
	8800	LEAR	4 S/F	0927.0E	0930.0	13.00	80.0			QL=4 ST=2 TYP=3
	15400	LEAR	4 S/F	0927.0E	0928.0	18.00	120.0			QL=4 ST=2 TYP=3
	15400	SVTO	4 S/F	0927.0E	0949.0	36.00	160.0			QL=4 ST=2 TYP=5
	245	LEAR	8 S	0930.0E	0930.0	U	47.0			QL=2 ST=2 TYP=3
	15000	KISV	45 C	0933.2	0934.3		103.0			
	15000	KISV	45 C	0933.2	0935.6	7.7	119.0			
	5900	KISV	45 C	0945.3	0948.1		140.0			
	5900	KISV	45 C	0945.3	0949.1	8.3	144.0			
	5900	KISV	29 PBI	0945.3	0953.8	30.4	29.0			
	9300	KISV	47 GB	0945.9	0949.0	14.1	320.0			
	9300	KISV	47 GB	0945.9	0948.1		284.0			
	8800	LEAR	4 S/F	0946.0E	0949.0	7.00	220.0			QL=4 ST=2 TYP=3
	9500	POTS	4 S/F	0946.5	0949.0	14.0	232.0			
	2950	GORK	21 GRF	0946.9	0952.2	81.3	10.0			
	2850	CRIM	29 PBI	0946.9	0950.4	39.6	6.9	2.0		
	2850	CRIM	3 S	0946.9	0948.5	3.5	20.6	7.0		
4995	LEAR	4 S/F	0947.0E	0948.0	4.00	84.0			QL=4 ST=2 TYP=3	
15400	LEAR	4 S/F	0947.0E	0949.0	6.00	140.0			QL=4 ST=2 TYP=3	
4995	SVTO	4 S/F	0947.0E	0949.0	8.00	110.0			QL=4 ST=2 TYP=3	
3000	POTS	4 S/F	0947.0	0948.5	3.5	21.0				
3013	IZMI	7 C	0947.2	0948.3	4.9	17.0	15.0			
2950	GORK	2 S/F	0947.4	0948.4	3.5	16.0				
9300	KISV	29 PBI	1003.3E	1003.3	14.70	21.0				
9500	POTS	4 S/F	1010.0	1010.8	7.5	77.0				
15400	LEAR	8 S	1021.0E	1022.0	2.00	34.0			QL=4 ST=2 TYP=3	
245	LEAR	8 S	1021.0E	1023.0	2.00	170.0			QL=2 ST=2 TYP=3	
2695	LEAR	8 S	1021.0E	1022.0	2.00	29.0			QL=4 ST=2 TYP=3	
4995	LEAR	8 S	1022.0E	1022.0	1.00	44.0			QL=4 ST=2 TYP=3	
8800	LEAR	8 S	1022.0E	1022.0	1.00	36.0			QL=4 ST=2 TYP=3	
2695	LEAR	4 S/F	1025.0E	1027.0	3.00	47.0			QL=2 ST=2 TYP=3	
8800	LEAR	8 S	1026.0E	1027.0	2.00	49.0			QL=2 ST=2 TYP=3	
1415	LEAR	8 S	1026.0E	1026.0	2.00	21.0			QL=2 ST=2 TYP=3	
4995	LEAR	8 S	1026.0E	1027.0	2.00	61.0			QL=2 ST=2 TYP=3	
245	LEAR	8 S	1027.0E	1029.0	2.00	410.0			QL=2 ST=2 TYP=3	
9300	KISV	22 GRF	1032.3	1054.7	40.2	15.0				
9100	GORK	23 GRF	1039.0	1109.0	81.00	10.0				
9300	KISV	23 GRF	1108.8	1114.5	23.7	10.0				
9100	GORK	46 C	1109.0	1115.2		30.0				
9100	GORK	46 C	1109.0	1110.8	12.0	80.0				
9300	KISV	4 S/F	1109.8	1110.8	3.8	69.0				

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
19	5900	KISV	4 S/F	1110.0	1110.8	10.0	22.0				
	9300	KISV	45 C	1118.2	1119.0		18.0				
	9300	KISV	45 C	1118.2	1120.3	5.1	75.0				
	234	POTS	4 S/F	1123.7	1125.2	3.4	600.0				
	9500	POTS	4 S/F	1124.3	1126.2	6.5	63.0				
	950	GORK	1 S	1124.3	1126.4	6.4	3.0				
	650	GORK	1 S	1125.0	1126.4	5.8	2.0				
	200	GORK	4 S/F	1125.8	1126.2	1.3	160.0				
	5900	KISV	4 S/F	1125.8	1126.4	2.5	26.0				
	100	GORK	8 S	1125.9	1126.2	0.5	15400.0				
	113	POTS	4 S/F	1125.9	1125.9	1.3U	3000.00				
	410	SVTO	49 GB	1126.0E	1126.0		U	1100.0			QL=2 ST=2 TYP=6
	8800	SVTO	8 S	1126.0E	1126.0		U	58.0			QL=2 ST=2 TYP=3
	15400	SVTO	8 S	1126.0E	1126.0		U	72.0			QL=2 ST=2 TYP=3
	430	KRAK	8 S	1126.0	1126.3	0.4	190.00				
	30	POTS	4 S/F	1126.1	1126.1	2.1	4000.00				
	536	ONDR	3 S	1126.4	1126.5	1.2	22.0				
	9500	POTS	20 GRF	1140.0	1143.4	7.5	15.0				
	9300	KISV	2 S/F	1141.0	1142.7	7.0	15.0				
	245	SVTO	49 GB	1200.0E	1200.0	1.00	710.0				QL=2 ST=3 TYP=6
	9500	CUBA	21 GRF	1242.0E	1349.0	574.00	42.0				SUNSET
	9500	CUBA	1 S	1258.3	1259.5	2.2	11.0	5.0			
	6700	CUBA	2 S/F	1258.4	1301.2	8.0	21.0				1303-1305 OFF
	234	POTS	4 S/F	1300.0	1301.0	1.5	2000.0				
	9500	CUBA	2 S/F	1314.5	1315.5	5.5	20.0	10.0			
	15000	CUBA	3 S	1315.0	1316.0	8.0	11.0	5.0			44R
	6700	CUBA	20 GRF	1315.0	1317.0	14.0	14.0	7.0			
	15000	CUBA	32 ABS	1331.0	1334.0	3.8	10.0	5.0			00L
	6700	CUBA	45 C	1333.9	1334.0U	12.1	291.00				
	6700	CUBA	45 C	1333.9	1338.5		129.0				
	4995	SGMR	4 S/F	1334.0E	1336.0	3.00	200.0				QL=4 ST=2 TYP=3
	8800	SVTO	49 GB	1334.0E	1336.0	9.00	510.0				QL=2 ST=2 TYP=7
	4995	SVTO	4 S/F	1334.0E	1336.0	7.00	320.0				QL=2 ST=2 TYP=3
	9500	CUBA	46 C	1334.4	1339.0		356.0				
	9500	CUBA	46 C	1334.4	1336.5	12.6	415.0				
	1470	POTS	4 S/F	1334.5	1336.0	6.3	89.0				
	9500	POTS	45 C	1334.5	1336.0	18.0	442.0				
	3000	POTS	4 S/F	1334.5	1336.0	10.5	27.0				
	2800	OTTA	3 S	1334.5	1336.1	3.1	79.5	23.0			
	15000	CUBA	49 GB	1334.8	1338.7	8.2	531.0				32R
	2695	SGMR	8 S	1335.0E	1336.0	2.00	77.0				QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1335.0E	1336.0	1.00	480.0				QL=4 ST=2 TYP=3
	1415	SGMR	8 S	1335.0E	1336.0	1.00	80.0				QL=4 ST=2 TYP=3
	15400	SVTO	4 S/F	1335.0E	1338.0	8.00	380.0				QL=2 ST=2 TYP=5
	1415	SVTO	8 S	1335.0E	1336.0	1.00	97.0				QL=4 ST=2 TYP=3
	2695	SVTO	8 S	1335.0E	1336.0	2.00	82.0				QL=4 ST=2 TYP=3
	15400	SGMR	4 S/F	1335.0E	1338.0	625.00	430.0				QL=2 ST=1 TYP=5
	810	KRAK	2 S/F	1335.0	1335.4	2.0	11.0	3.0			
	2800	OTTA	29 PBI	1337.6	1337.6	40.0	9.6	4.0			
	15000	CUBA	30 PBI	1343.0		16.0	52.0	26.0			24R
6700	CUBA	30 PBI	1346.0		20.0	15.0	7.0				
6700	CUBA	2 S/F	1349.5	1350.8	3.5	19.0	9.0				
15000	CUBA	1 S	1350.1	1350.7	1.5	32.0	16.0			55R	
9500	CUBA	1 S	1350.1	1350.8	2.4	32.0	16.0				
9400	HUAN	20 GRF	1431.0	1504.9	65.8	12.4	5.8				
9500	CUBA	1 S	1435.0	1437.2	7.0	5.0	2.0				
6700	CUBA	21 GRF	1442.0	1455.0	46.0	8.0	4.0				
410	SGMR	8 S	1513.0E	1513.0		U	58.0			QL=4 ST=2 TYP=3	
8800	SGMR	8 S	1515.0E	1515.0	1.00	350.0				QL=2 ST=2 TYP=3	
6700	CUBA	1 S	1525.1	1525.8	1.1	7.0	3.0				
6700	CUBA	2 S/F	1715.9	1716.8	2.1	5.0	2.0				
9400	HUAN	4 S/F	1749.2	1751.6	7.4	103.3	56.6				
8800	PALE	8 S	1752.0E	1752.0	1.00	80.0				QL=4 ST=2 TYP=3	
8800	SGMR	8 S	1752.0E	1752.0	2.00	92.0				QL=2 ST=2 TYP=3	
4995	SGMR	8 S	1752.0E	1752.0	1.00	52.0				QL=4 ST=2 TYP=3	
15400	SGMR	8 S	1752.0E	1752.0	1.00	34.0				QL=2 ST=2 TYP=3	
6700	CUBA	46 C	1752.0E	1752.9	4.00	91.0					
15000	CUBA	2 S/F	1752.2	1752.9	3.3	57.0	28.0			62L	
9500	CUBA	1 S	1752.2	1752.9	4.8	89.0	44.0				

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
19	6700	CUBA	29 PBI	1756.0		10.0	5.0	3.0		
	9500	CUBA	1 S	1820.5	1821.3	4.5	8.0	4.0		
	6700	CUBA	20 GRF	1933.0	1936.0	10.0	21.0	10.0		
	15000	CUBA	23 GRF	1934.0	1935.0	11.0	27.0	13.0		42L
	9500	CUBA	1 S	1934.0	1935.3	7.0	27.0	13.0		
	245	PALE	49 GB	2139.0E	2139.0	1.00	1300.0			QL=4 ST=2 TYP=6
20	100	GORK	44 NS	0533.0E		387.00		5.0		
	200	GORK	44 NS	0533.0E		387.00		5.0		
	245	SVTO	44 NS	0603.0E	0603.0	541.00	250.0			QL=2 ST=3 TYP=1
	234	POTS	44 NS	0640.0E	0703.0	465.00	400.0			
	113	POTS	44 NS	0640.0E	1216.5	465.00	80.0			
	204	IZMI	43 NS	0700.0		300.0	10.0			
	127	TORN	44 NS	0700.0E		450.00		60.0		V=2
	260	ONDR	44 NS	0820.0E	1106.6	310.00	164.0			
	245	SGMR	44 NS	1204.0E	1429.0	529.00	2000.0			QL=2 ST=2 TYP=1
	280	CUBA	44 NS	1256.0E		507.00		44.0		
	100	HIRA	44 NS	2118.0E	2315.0	605.00	35.0	20.0		
	200	HIRA	44 NS	2118.0E	0543.0	605.00	140.0	56.0		SL
	245	LEAR	44 NS	2204.0E	0657.0	744.00	320.0			QL=2 ST=2 TYP=1
	245	PALE	44 NS	2335.0E	2338.0	236.00	150.0			QL=4 ST=2 TYP=1
	500	HIRA	27 RF	0221.0	0254.0	39.0	6.0	3.0		0
	245	LEAR	49 GB	0344.0E	0345.0	2.00	1600.0			QL=2 ST=2 TYP=6
	8800	LEAR	8 S	0454.0E	0454.0	U	60.0			QL=4 ST=2 TYP=3
	15400	LEAR	8 S	0454.0E	0454.0	U	37.0			QL=4 ST=2 TYP=3
	4995	LEAR	8 S	0454.0E	0454.0	U	19.0			QL=4 ST=2 TYP=3
	4995	LEAR	4 S/F	0505.0E	0507.0	3.00	21.0			QL=4 ST=2 TYP=3
	610	LEAR	4 S/F	0506.0E	0506.0	3.00	160.0			QL=4 ST=2 TYP=3
	200	HIRA	42 SER	0517.0	0603.3	53.0	610.0			WL
	500	HIRA	41 F	0553.0	0557.0	30.0	87.0			0
	9100	GORK	23 GRF	0616.6	0948.4	343.40	33.0			
	9300	KISV	22 GRF	0617.0	0631.3	18.5	16.0			
	5900	KISV	45 C	0631.0	0633.2		6.0			
	5900	KISV	45 C	0631.0	0631.4	3.2	6.0			
	5900	KISV	2 S/F	0639.1	0640.9	5.9	11.0			
	15000	KISV	45 C	0649.4	0651.1	4.7	10.0			
	15000	KISV	45 C	0649.4	0653.3		8.0			
	9300	KISV	23 GRF	0649.5	0651.5	36.9	20.0			
	2850	CRIM	20 GRF	0659.5	0709.0	30.5	13.6	4.0		
	5900	KISV	23 GRF	0701.8	0714.0	24.7	12.0			
	5900	KISV	2 S/F	0702.7	0703.1	2.0	10.0			
2950	GORK	20 GRF	0706.2	0709.2	11.8	6.0				
5900	KISV	2 S/F	0707.2	0709.3	5.7	15.0				
40	POTS	42 SER	0716.5	0721.4	5.5	3800.0				
113	POTS	42 SER	0716.7	0721.4	5.2	400.0				
9300	KISV	1 S	0720.9	0721.3	0.7	13.0				
15000	KISV	1 S	0721.0	0721.3	0.7	13.0				
204	IZMI	5 S	0721.0	0721.5	0.7	80000.0				
650	GORK	1 S	0721.1	0721.3	0.5	10.0				
5900	KISV	1 S	0721.1	0721.3	0.4	14.0				
950	GORK	1 S	0721.2	0721.3	0.2	1.0				
234	POTS	8 S	0721.2	0721.3	0.7	2100.0				
5900	KISV	21 GRF	0740.2	0743.2	15.5	16.0				
9300	KISV	2 S/F	0740.3	0743.2	9.7	15.0				
2950	GORK	1 S	0741.4	0742.2	4.1	3.0				
245	LEAR	8 S	0750.0E	0750.0	U	480.0			QL=2 ST=2 TYP=3	
9300	KISV	2 S/F	0808.1	0808.7	6.0	9.0				
2950	GORK	1 S	0819.1	0820.6	4.9	4.0				
15000	KISV	45 C	0831.6	0834.3		8.0				
9300	KISV	45 C	0831.6	0834.4		7.0				
9300	KISV	45 C	0831.6	0832.9	4.7	12.0				
15000	KISV	45 C	0831.6	0832.9	3.9	12.0				
650	GORK	2 S/F	0831.9	0832.6	1.4	5.0				
810	KRAK	1 S	0832.2	0832.4	0.8	10.0	3.0			
5900	KISV	2 S/F	0832.3	0833.0	3.9	12.0				
950	GORK	2 S/F	0832.3	0832.6	1.0	7.0				
5900	KISV	46 C	0849.6	0854.1	9.7	11.0				
5900	KISV	46 C	0849.6	0851.6		9.0				
5900	KISV	46 C	0849.6	0852.7		8.0				

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean		
20	9300	KISV	46 C	0850.5	0853.2		17.0			
	9300	KISV	46 C	0850.5	0851.3		9.0			
	9300	KISV	46 C	0850.5	0853.8	8.7	19.0			
	2950	GORK	20 GRF	0908.3	0919.6	81.1	8.0			
	5900	KISV	47 GB	0938.4	0955.2	18.8	194.0			
	5900	KISV	29 PBI	0938.4	0957.2	23.8	77.0			
	9300	KISV	47 GB	0940.6	0955.2	15.3	382.0			
	9300	KISV	29 PBI	0940.6	0955.9	33.3	39.0			
	15000	KISV	23 GRF	0942.2	0958.5	39.2	97.0			
	8800	LEAR	4 S/F	0954.0E	0955.0	8.00	250.0			QL=4 ST=2 TYP=3
	15400	LEAR	8 S	0954.0E	0955.0	2.00	280.0			QL=4 ST=2 TYP=3
	4995	LEAR	4 S/F	0954.0E	0955.0	8.00	74.0			QL=4 ST=2 TYP=3
	4995	SVTO	4 S/F	0954.0E	0955.0	11.00	98.0			QL=4 ST=2 TYP=3
	8800	SVTO	4 S/F	0954.0E	0955.0	11.00	310.0			QL=4 ST=2 TYP=3
	9100	GORK	4 S/F	0954.0	0955.3	25.9	315.0			
	9500	POTS	4 S/F	0954.4	0955.0	21.3	282.0			
	15000	KISV	4 S/F	0954.5	0955.0	1.8	439.0			
	3013	IZMI	5 S	0955.0	0955.3	1.0	8.0	4.0		
	3013	IZMI	23 GRF	0955.0	1001.5	10.0	8.0			
	9300	KISV	23 GRF	1046.7	1053.5	26.8	16.0			
	2950	GORK	2 S/F	1058.6	1100.0	6.1	15.0			
	536	ONDR	4 S/F	1058.6	1059.7	7.0	31.0			
	5900	KISV	4 S/F	1058.8	1059.7	2.1	20.0			
	9300	KISV	2 S/F	1058.9	1059.7	1.8	16.0			
	3000	POTS	4 S/F	1059.0	1100.0	2.0	17.0			
	1470	POTS	4 S/F	1059.0	1100.2	1.5	40.0			
	3013	IZMI	5 S	1059.0	1059.5	2.5	13.0	7.0		
	808	ONDR	5 S	1059.0	1059.6	5.0	83.0			
	9500	POTS	4 S/F	1059.0	1059.7	1.5	12.0			
	650	GORK	4 S/F	1059.1	1100.0	3.9	30.0			
	950	GORK	4 S/F	1059.2	1059.9	4.5	90.0			
	2850	CRIM	1 S	1059.5	1100.0	1.5	14.7	5.0		
	5900	KISV	23 GRF	1101.1E	1101.1		11.0			
	9300	KISV	45 C	1128.7	1129.4	3.8	8.0			
	9300	KISV	45 C	1128.7	1130.9		8.0			
	5900	KISV	2 S/F	1128.8	1129.5	3.6	6.0			
	234	POTS	42 SER	1137.3	1137.6	10.9	1500.0			
	9500	CUBA	21 GRF	1326.0	1413.0	498.0	26.0	13.0		
	2800	OTTA	20 GRF	1327.0	1415.0	90.0	13.8	6.0		
	6700	CUBA	21 GRF	1331.0	1407.0	76.0	14.0	7.0		
	245	SVTO	8 S	1333.0E	1333.0	U	370.0			QL=2 ST=2 TYP=3
	3000	POTS	4 S/F	1402.5	1404.5	4.5	17.0			
	6700	CUBA	1 S	1410.4	1412.8	4.9	6.0	3.0		
	245	SVTO	8 S	1423.0E	1424.0	1.00	350.0			QL=2 ST=2 TYP=3
	6700	CUBA	2 S/F	1423.0	1424.4	3.7	12.0	6.0		
	9500	CUBA	2 S/F	1423.0	1424.5	2.7	8.0	4.0		
	2800	OTTA	3 S	1423.7	1424.2	3.0	32.9	7.0		
	6700	CUBA	1 S	1429.0	1430.0	3.3	20.0	10.0		
	245	SVTO	49 GB	1429.0E	1429.0	2.00	2400.0			QL=2 ST=2 TYP=6
	15000	CUBA	1 S	1429.0	1429.3	2.7	14.0	7.0		59R
9500	CUBA	1 S	1429.2	1430.0	1.8	19.0	9.0			
2800	OTTA	3 S	1429.6	1429.9	1.9	6.7	1.0			
410	SGMR	8 S	1433.0E	1434.0	1.00	82.0			QL=2 ST=3 TYP=3	
245	SVTO	8 S	1434.0E	1434.0	U	300.0			QL=2 ST=2 TYP=3	
410	SVTO	8 S	1434.0E	1434.0	U	58.0			QL=2 ST=2 TYP=3	
6700	CUBA	20 GRF	1511.0	1536.0	64.0	9.0	4.0			
9500	CUBA	1 S	1547.2	1547.5	4.6	5.0	2.0			
6700	CUBA	2 S/F	1618.4	1620.8	3.6	7.0	3.0			
9500	CUBA	40 F	1654.0	1655.0	2.0	12.0	6.0			
6700	CUBA	40 F	1655.0	1656.0	2.0	19.0	9.0			
6700	CUBA	21 GRF	1707.0	1836.0	134.0	18.0	9.0			
9500	CUBA	3 S	1721.9	1722.8	8.1	29.0	14.0			
15000	CUBA	23 GRF	1722.0	1723.0	33.0	52.0	26.0		30R	
6700	CUBA	2 S/F	1722.0	1722.8	2.0	7.0	3.0			
6700	CUBA	46 C	1742.3	1743.4	6.7	77.0	15.0			
2800	OTTA	3 S	1742.5	1743.4	3.1	42.5	13.0			
9500	CUBA	1 S	1742.9	1743.5	4.3	88.0	44.0			
8800	SGMR	8 S	1743.0E	1743.0	1.00	86.0			QL=4 ST=2 TYP=3	
4995	SGMR	8 S	1743.0E	1743.0	2.00	110.0			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

NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22)	Mean W/m 2 Hz		
20	2695	SGMR	8 S	1743.0E	1743.0	1.00	39.0			QL=4 ST=2 TYP=3
	2800	OTTA	29 PBI	1745.6	1745.6	30.0	10.4	5.0		
	6700	CUBA	46 C	1812.0	1814.0	8.3	36.0	17.0		
	9500	CUBA	2 S/F	1812.9	1813.9	4.1	29.0	14.0		
	9500	CUBA	45 C	1822.5	1824.7	9.5	67.0	31.0		
	8800	SGMR	4 S/F	1823.0E	1824.0	6.00	69.0			QL=4 ST=2 TYP=3
	15000	CUBA	23 GRF	1823.0	1825.0	26.0	28.0	14.0		38R
	6700	CUBA	46 C	1823.3	1824.7	8.7	68.0	23.0		
	4995	SGMR	8 S	1824.0E	1824.0	1.00	36.0			QL=4 ST=2 TYP=3
	9400	HUAN	22 GRF	1843.0	1850.8	33.5	11.4	6.2		
	6700	CUBA	2 S/F	1846.7	1849.0	5.6	24.0	12.0		
	9500	CUBA	2 S/F	1847.5	1849.0	5.5	7.0	3.0		
	6700	CUBA	40 F	1910.0	1912.0	7.0	21.0	10.0		
	9400	HUAN	1 S	2002.6	2005.7	8.6	5.7	2.6		
	9400	HUAN	3 S	2029.0	2030.3	5.0	53.2	26.4		
	15000	CUBA	3 S	2029.1	2030.3	6.9	98.0	11.0		48R
	9500	CUBA	1 S	2029.9	2030.2	6.0	54.0	27.0		
	6700	CUBA	2 S/F	2029.9	2030.5	2.1	21.0	10.0		
	245	SGMR	49 GB	2030.0E	2030.0	U	1100.0			QL=2 ST=2 TYP=6
	9400	HUAN	29 PBI	2034.0	2034.0	23.7	4.8	2.8		
9400	HUAN	3 S	2116.6	2118.0	5.4	32.3	12.4			
2695	PENT	3 S	2117.8	2118.3	2.3	18.1	4.0			
9400	HUAN	2 S/F	2144.0	2147.0	8.2	17.1	8.6			
9400	HUAN	2 S/F	2201.3	2205.0	8.5	20.9	9.8			
21	100	GORK	44 NS	0540.0E		380.00		5.0		
	200	GORK	44 NS	0540.0E		380.00		10.0		
	245	SVTO	44 NS	0604.0E	1352.0	540.00	310.0			QL=2 ST=2 TYP=1
	113	POTS	44 NS	0640.0E	0718.0	467.00	40.0			
	234	POTS	44 NS	0640.0E	0715.0	467.00	150.0			
	204	IZMI	43 NS	0700.0		300.0	150.0			
	127	TORN	44 NS	0700.0E		440.00		60.0		V=1
	260	ONDR	44 NS	0800.0E	1149.0	330.00	201.0			
	245	SGMR	44 NS	1205.0E	1426.0	527.00	280.0			QL=2 ST=2 TYP=1
	280	CUBA	44 NS	1251.0E		520.00		61.0		
	235	CUBA	44 NS	1251.0E		520.00		60.0		
	245	PALE	44 NS	1705.0E	0109.0	626.00	490.0			QL=4 ST=2 TYP=1
	200	HIRA	44 NS	2120.0E	0320.0	600.00	100.0	76.0		ML
	100	HIRA	44 NS	2120.0E	2203.0	600.00	130.0	21.0		
	245	LEAR	44 NS	2149.0E	0109.0	761.00	500.0			QL=4 ST=2 TYP=1
	15400	LEAR	8 S	0152.0E	0153.0	1.00	24.0			QL=2 ST=2 TYP=3
	200	HIRA	42 SER	0152.8	0200.0	8.6	840.0			WL
	245	LEAR	49 GB	0153.0E	0153.0	1.00	2100.0			QL=2 ST=2 TYP=6
	245	PALE	49 GB	0153.0E	0153.0	2.00	1500.0			QL=2 ST=2 TYP=6
	245	PALE	49 GB	0159.0E	0159.0	1.00	1300.0			QL=2 ST=2 TYP=6
	17000	NOBE	1 S	0243.3	0243.4	0.7	60.0			R,80,35GHz:0
	2840	PEKG	3 S	0246.0	0254.5	14.0	73.8	35.0		
	2695	LEAR	4 S/F	0251.0E	0253.0	6.00	62.0			QL=2 ST=2 TYP=3
	8800	LEAR	4 S/F	0251.0E	0253.0	5.00	61.0			QL=4 ST=2 TYP=3
	4995	PALE	4 S/F	0251.0E	0253.0	5.00	97.0			QL=4 ST=2 TYP=3
	2695	PALE	4 S/F	0251.0E	0253.0	7.00	66.0			QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0252.0E	0253.0	1.00	20.0			QL=4 ST=2 TYP=3
	8800	PALE	4 S/F	0252.0E	0253.0	6.00	48.0			QL=4 ST=2 TYP=3
	4995	LEAR	4 S/F	0253.0E	0253.0	4.00	82.0			QL=4 ST=2 TYP=3
	2840	PEKG	29 PBI	0300.0	0300.7	32.0	21.1	10.0		
	17000	NOBE	20 GRF	0341.1	0342.0	15.0	13.0			0,80,35GHz:0
	2840	PEKG	45 C	0348.0	0350.7	10.0	79.1	37.5		
	17000	NOBE	1 S	0456.7	0456.9	0.8	58.0			R,80,35GHz:0
410	LEAR	8 S	0457.0E	0457.0	1.00	160.0			QL=4 ST=2 TYP=3	
2840	PEKG	1 S	0457.0	0458.0	2.0	9.9	4.7			
2840	PEKG	5 S	0522.0	0530.9	74.0	40.7	19.3			
2850	CRIM	3 S	0527.0E	0530.2	12.00	30.4	10.0			
9100	GORK	4 S/F	0531.8	0533.0	3.0	110.0				
8800	LEAR	8 S	0532.0E	0533.0	2.00	110.0			QL=4 ST=2 TYP=3	
4995	LEAR	8 S	0532.0E	0533.0	1.00	28.0			QL=4 ST=2 TYP=3	
15400	LEAR	8 S	0532.0E	0533.0	2.00	100.0			QL=4 ST=2 TYP=3	
17000	NOBE	3 S	0532.2	0533.0	2.0	84.0			R,80,35GHz:0	
17000	NOBE	20 GRF	0536.9	0539.1	23.0	19.0			0,80,35GHz:0	
9300	KISV	23 GRF	0628.0	0631.9	19.8	12.0				

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

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Nov 90

NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean		
21	15000	KISV	2 S/F	0628.3	0630.7	6.8	46.0			
	200	GORK	46 C	0630.0	0630.2	2.3	1000.0			
	200	GORK	46 C	0630.0	0631.8		290.0			
	9100	GORK	1 S	0630.4	0630.7	0.6	17.0			
	9300	KISV	1 S	0630.6	0630.8	0.3	14.0			
	2840	PEKG	5 S	0637.0	0638.0	13.0	16.3	7.7		
	650	GORK	1 S	0642.9	0643.3	1.6	3.0			
	950	GORK	1 S	0643.0	0643.3	1.3	2.0			
	9500	POTS	40 F	0738.0	0741.4	8.0	21.0			
	9300	KISV	22 GRF	0740.5	0741.3	12.8	21.0			
	15000	KISV	2 S/F	0740.8	0741.5	1.6	14.0			
	9100	GORK	1 S	0740.9	0741.2	1.3	15.0			
	245	SVTO	8 S	0751.0E	0751.0	1.00	340.0			QL=2 ST=2 TYP=3
	410	SVTO	8 S	0759.0E	0759.0	1.00	79.0			QL=2 ST=3 TYP=3
	3013	IZMI	7 C	0820.0	0821.0	3.0	8.0			
	5900	KISV	22 GRF	0820.0	0821.0	12.2	11.0			
	9300	KISV	2 S/F	0820.0	0821.1	7.7	10.0			
	2850	CRIM	1 S	0820.0	0820.9	1.8	9.7	3.0		
	100	GORK	46 C	0828.5	0830.3		310.0			
	100	GORK	46 C	0828.5	0829.4	2.4	1000.0			
	950	GORK	2 S/F	0829.3	0830.7	1.8	3.0			
	650	GORK	2 S/F	0829.4	0830.6	1.6	7.0			
	200	GORK	4 S/F	0839.6	0840.1	1.1	440.0			
	2950	GORK	21 GRF	0848.6	1009.0	134.4	7.0			
	2950	GORK	2 S/F	0850.3	0851.1	1.2	6.0			
	410	LEAR	8 S	0921.0E	0921.0	U	54.0			QL=4 ST=2 TYP=3
	430	KRAK	8 S	0921.0	0921.4	0.5	117.0			
	536	ONDR	42 SER	0921.0	0921.5	7.0	53.0			
	5900	KISV	2 S/F	0929.8	0930.3	1.4	5.0			
	9300	KISV	46 C	0936.7	0938.2		14.0			
	9300	KISV	46 C	0936.7	0945.3		34.0			
	9300	KISV	46 C	0936.7	0940.5	26.1	50.0			
	9100	GORK	46 C	0937.2	0940.5	10.8	45.0			
	9100	GORK	46 C	0937.2	0942.9		180.0			
	9500	POTS	40 F	0938.0	0942.6	22.0	143.0			
	610	LEAR	8 S	0939.0E	0939.0	U	11.0			QL=4 ST=2 TYP=3
	5900	KISV	45 C	0939.8	0945.3		20.0			
	5900	KISV	45 C	0939.8	0940.5	25.3	33.0			
	15400	LEAR	4 S/F	0940.0E	0942.0	3.00	170.0			QL=4 ST=2 TYP=3
	8800	LEAR	4 S/F	0940.0E	0942.0	5.00	160.0			QL=4 ST=2 TYP=5
	8800	SVTO	4 S/F	0940.0E	0942.0	5.00	160.0			QL=4 ST=2 TYP=5
	15400	SVTO	8 S	0940.0E	0940.0	U	30.0			QL=4 ST=2 TYP=3
	15000	KISV	2 S/F	0940.2	0940.5	1.6	35.0			
	4995	LEAR	8 S	0942.0E	0942.0	1.00	50.0			QL=4 ST=2 TYP=3
	4995	SVTO	8 S	0942.0E	0942.0	1.00	51.0			QL=4 ST=2 TYP=3
5900	KISV	4 S/F	0942.4	0942.8	1.5	98.0				
15000	KISV	4 S/F	0942.4	0942.8	2.4	238.0				
9300	KISV	4 S/F	0942.4	0942.8	2.2	115.00				
950	GORK	1 S	0944.6	0945.4	1.3	1.0				
650	GORK	1 S	0944.6	0945.4	1.5	3.0				
2850	CRIM	1 S	0945.0	0945.1	1.0	4.1	1.0			
2950	GORK	1 S	0945.0	0945.3	1.0	3.0				
9100	GORK	29 PBI	0948.0	0948.0	13.5	15.0				
410	SVTO	8 S	0956.0E	0956.0	U	110.0			QL=2 ST=2 TYP=3	
536	ONDR	41 F	1140.0	1144.0	4.0	10.0				
430	KRAK	1 S	1141.3	1141.7	1.2	8.0	4.0			
9500	POTS	4 S/F	1241.5	1242.8	3.5	13.0				
9500	CUBA	21 GRF	1252.0E	1718.0	521.00	44.0			SUNRISE, 1748-19	
9500	POTS	40 F	1253.3	1253.7	4.2	10.0				
3000	POTS	4 S/F	1253.3	1253.8	3.2	13.0				
1470	POTS	1 S	1253.5	1253.7	1.0	3.0				
2850	CRIM	1 S	1303.2	1303.9	1.2	9.7	3.0			
9500	CUBA	2 S/F	1318.8	1319.3	1.2	18.0	9.0			
9500	CUBA	2 S/F	1345.8	1346.5	2.4	53.0	26.0			
15000	CUBA	2 S/F	1346.0	1346.5	1.0	14.0	7.0		45R	
6700	CUBA	2 S/F	1346.0	1346.5	2.0	18.0	9.0			
9500	POTS	4 S/F	1346.0	1346.5	2.5	26.0				
245	SGMR	49 GB	1348.0E	1349.0	2.00	1400.0			QL=2 ST=2 TYP=6	
235	CUBA	6 S	1349.0	1350.0	3.0	179.0				

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

NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean		
21	280	CUBA	6 S	1349.0	1350.0	3.0	131.0			
	245	SVTO	49 GB	1349.0E	1350.0	1.0D	1300.0			QL=2 ST=2 TYP=6
	9500	CUBA	1 S	1425.9	1426.1	0.6	14.0	7.0		
	6700	CUBA	1 S	1425.9	1426.1	2.1	10.0	5.0		
	235	CUBA	7 C	1513.0	1517.0	23.0	352.0			
	280	CUBA	7 C	1513.0	1514.0	23.0	245.0			
	6700	CUBA	21 GRF	1525.0	1658.0	266.0	8.0			1748-1923 OFF
	9500	CUBA	1 S	1526.1	1530.2	6.5	16.0	8.0		
	15000	CUBA	1 S	1528.4	1530.0	4.3	19.0	9.0		56L
	6700	CUBA	2 S/F	1529.3	1530.5	2.7	8.0	4.0		
	245	SGMR	4 S/F	1545.0E	1547.0	3.0D	240.0			QL=2 ST=2 TYP=3
	6700	CUBA	1 S	1546.5	1547.0	3.4	3.0	1.0		
	9500	CUBA	1 S	1608.7	1609.3	1.1	9.0	4.0		
	15000	CUBA	1 S	1609.0	1611.8	6.0	12.0	6.0		39R
	6700	CUBA	2 S/F	1611.2	1611.8	2.8	8.0	4.0		
	9500	CUBA	1 S	1611.7	1611.9	3.3	16.0	8.0		
	245	PALE	49 GB	1708.0E	1709.0	2.0D	550.0			QL=2 ST=2 TYP=6
	245	SGMR	49 GB	1708.0E	1713.0	7.0D	1300.0			QL=2 ST=2 TYP=7
	245	PALE	49 GB	1711.0E	1713.0	2.0D	760.0			QL=2 ST=2 TYP=6
	9500	CUBA	2 S/F	1711.5	1713.1	3.0	30.0	15.0		
	9400	HUAN	3 S	1711.6	1713.1	4.2	30.4	12.4		
	15000	CUBA	1 S	1712.7	1713.0	1.7	34.0	17.0		62R
	6700	CUBA	1 S	1712.7	1713.1	1.5	16.0	8.0		
	2800	OTTA	3 S	1723.2	1726.8	6.0	64.3	19.0		
	9400	HUAN	2 S/F	1723.3	1726.5	10.4	21.8	9.4		
	6700	CUBA	1 S	1724.7	1726.5	4.6	25.0	12.0		
	4995	SGMR	8 S	1725.0E	1726.0	2.0D	51.0			QL=4 ST=2 TYP=3
	2695	SGMR	4 S/F	1725.0E	1726.0	3.0D	60.0			QL=4 ST=2 TYP=3
	9500	CUBA	2 S/F	1725.2	1726.6	4.7	27.0	13.0		
	245	SGMR	8 S	1727.0E	1727.0	1.0D	290.0			QL=2 ST=2 TYP=3
	2800	OTTA	29 PBI	1729.2	1729.2	120.0	11.3	5.0		
	6700	CUBA	2 S/F	1729.2	1729.8	7.3	7.0	3.0		
	9400	HUAN	2 S/F	1754.3	1757.0	8.4	23.9	11.2		
	15400	PALE	8 S	1913.0E	1913.0	1.0D	180.0			QL=4 ST=2 TYP=3
	8800	PALE	8 S	1913.0E	1913.0	1.0D	41.0			QL=4 ST=2 TYP=3
	15400	SGMR	8 S	1913.0E	1913.0	1.0D	170.0			QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1913.0E	1913.0	1.0D	70.0			QL=4 ST=2 TYP=3
	9500	CUBA	1 S	1918.5	1919.0	2.3	16.0	8.0		
	9400	HUAN	2 S/F	1928.0	1932.8	8.1	7.2	3.4		
	9500	CUBA	1 S	1928.1	1929.8	2.4	10.0	5.0		
9400	HUAN	2 S/F	1941.6	1946.2	10.0	16.3	6.7			
6700	CUBA	2 S/F	1945.8	1946.3	2.7	11.0	5.0			
9500	CUBA	2 S/F	1945.8	1946.4	5.0	9.0	4.0			
15000	CUBA	40 F	2035.0	2042.0	12.0	16.0	8.0		40R	
9400	HUAN	4 S/F	2035.3	2038.3	8.9	41.6	18.6			
2695	PENT	4 S/F	2037.0	2038.4	6.6	37.9	8.0			
6700	CUBA	2 S/F	2038.0	2038.7	2.2	27.0	13.0			
9500	CUBA	2 S/F	2038.1	2038.6	2.1	31.0	15.0			
410	SGMR	8 S	2039.0E	2039.0		36.0			QL=4 ST=2 TYP=3	
9400	HUAN	22 GRF	2153.0	2209.0	27.6	9.0	5.2			
200	HIRA	42 SER	2203.3	2220.5	22.4	540.0			SL	
100	HIRA	46 C	2327.7	2328.3	1.5	860.0				
500	HIRA	24 R	2338.0	2928.0	480.0D	49.0	28.0		WL	
200	HIRA	42 SER	2351.5	2351.5	46.8	410.0			SL	
22	410	LEAR	44 NS	0445.0E	0536.0	345.0D	120.0			QL=4 ST=2 TYP=1
	245	SVTO	44 NS	0605.0E	1420.0U	538.0D	680.0			QL=2 ST=2 TYP=1
	410	SVTO	44 NS	0605.0E	1314.0U	538.0D	120.0			QL=2 ST=2 TYP=1
	234	POTS	44 NS	0641.0E	0705.0	462.0D	275.0			
	113	POTS	44 NS	0648.0E	0901.0	455.0D	60.0			
	204	IZMI	43 NS	0700.0		300.0	200.0			
	127	TORN	44 NS	0700.0E		440.0D		90.0		V=2
	430	KRAK	44 NS	0815.0E	1313.7	335.0D	112.0	8.0		
	260	ONDR	44 NS	0900.0E	1209.0	270.0D	140.0			
	245	SGMR	44 NS	1207.0E	1801.0	524.0D	1200.0			QL=2 ST=2 TYP=1
	410	SGMR	44 NS	1347.0E	1528.0	205.0D	190.0			QL=2 ST=2 TYP=1
	280	CUBA	44 NS	1450.0E		320.0D		109.0		
	235	CUBA	44 NS	1450.0E		370.0D		107.0		
	245	PALE	44 NS	1705.0E	0008.0	626.0D	2000.0			QL=4 ST=2 TYP=1

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
22	410	PALE	44 NS	1920.0E	1925.0	60.0D	78.0			QL=4 ST=2 TYP=1
	200	HIRA	44 NS	2120.0E	2225.0	600.0D	280.0	112.0		ML
	100	HIRA	44 NS	2120.0E	2223.0	600.0D	570.0	147.0		
	500	HIRA	44 NS	2120.0E	0010.0	600.0D	80.0	26.0		WL
	245	LEAR	44 NS	2149.0E	0000.0	761.0D	970.0			QL=2 ST=2 TYP=1
	100	HIRA	42 SER	0215.8	0321.0	128.0	1000.0D			
	245	LEAR	49 GB	0318.0E	0320.0	8.0D	1600.0			QL=2 ST=2 TYP=6
	245	PALE	49 GB	0320.0E	0320.0	1.0D	1300.0			QL=2 ST=2 TYP=6
	17000	NOBE	1 S	0320.7	0320.8	1.0	77.0			R,80,35GHz:0
	200	HIRA	42 SER	0438.3	0539.9	125.0	630.0			SL
	245	LEAR	49 GB	0439.0E	0440.0	1.0D	1100.0			QL=2 ST=2 TYP=6
	9100	GORK	1 S	0652.8	0653.0	0.5	8.0			
	2850	CRIM	25 R	0725.0	0800.0		4.4			
	9300	KISV	1 S	0728.0	0728.2	9.0	5.0			
	5900	KISV	1 S	0728.1	0728.2	0.9	2.0			
	9100	GORK	1 S	0804.3	0804.8	1.7	8.0			
	5900	KISV	2 S/F	0804.5	0804.9	3.6	6.0			
	9300	KISV	2 S/F	0804.5	0804.9	2.0	6.0			
	9100	GORK	23 GRF	0823.5	0827.7	216.5D	20.0			
	2950	GORK	21 GRF	0823.6	0908.7	67.0	6.0			
	5900	KISV	2 S/F	0824.1	0827.7	6.2	19.0			
	9300	KISV	2 S/F	0824.1	0827.8	4.7	16.0			
	9500	POTS	1 S	0825.5	0827.8	3.5	7.0			
	650	GORK	4 S/F	0825.7	0827.5	4.3	375.0			
	2850	CRIM	1 S	0826.0	0827.5	3.0	5.7	2.0		
	1470	POTS	1 S	0826.5	0827.5	2.0	3.0			
	3000	POTS	1 S	0826.5	0827.5	2.0	4.0			
	3013	IZMI	1 S	0826.5	0827.7	2.5	5.0	3.0		
	810	KRAK	4 S/F	0826.5	0827.8	2.8	76.0	43.0		
	2950	GORK	1 S	0827.0	0827.7	1.3	3.0			
	9100	GORK	2 S/F	0854.8	0855.1	3.4	20.0			
	9300	KISV	23 GRF	0854.8	0855.1	17.3	22.0			
	5900	KISV	2 S/F	0854.9	0855.2	4.3	5.0			
	15000	KISV	2 S/F	0855.0	0855.1	3.1	29.0			
	5900	KISV	2 S/F	0859.2	0900.9	8.1	6.0			
	536	ONDR	41 F	0900.0	1208.5	270.0	83.0			
	9500	POTS	8 S	0900.0	0900.8	1.4	20.0			
	9100	GORK	3 S	0900.2	0900.9	1.5	25.0			
	9300	KISV	4 S/F	0900.3	0900.9	2.0	23.0			
	15000	KISV	2 S/F	0900.4	0901.0	1.7	25.0			
	5900	KISV	2 S/F	0915.2	0917.0	7.3	6.0			
	9300	KISV	2 S/F	0916.2	0917.0	2.1	5.0			
	9300	KISV	22 GRF	0953.1	1007.0	34.8	18.0			
	5900	KISV	22 GRF	1005.0	1007.2	23.0	11.0			
	9500	POTS	4 S/F	1006.5	1007.0	3.5	13.0			
	204	IZMI	41 F	1105.0	1107.0	6.0	2000.0			
	2850	CRIM	3 S	1116.0	1122.0	7.0	30.0	10.0		
	2850	CRIM	29 PBI	1116.0	1123.0	42.0	19.4	6.0		
	5900	KISV	23 GRF	1117.4	1142.6	37.7	14.0			
	9300	KISV	23 GRF	1117.5	1122.0	37.6	16.0			
3000	POTS	29 PBI	1118.0	1122.3	37.0	32.0				
3013	IZMI	7 C	1119.0	1122.0	11.0	22.0				
2950	GORK	22 GRF	1119.4	1122.1	12.8	21.0				
5900	KISV	4 S/F	1120.7	1122.1	8.0	20.0				
9500	POTS	1 S	1121.0	1122.0	2.0	11.0				
15400	SVTO	8 S	1142.0E	1142.0	1.0D	120.0			QL=2 ST=2 TYP=3	
9500	POTS	4 S/F	1142.0	1142.5	3.0	42.0				
9100	GORK	2 S/F	1142.0	1142.7	3.9	35.0				
9300	KISV	4 S/F	1142.0	1142.7	4.4	41.0				
15000	KISV	4 S/F	1142.2	1142.6	2.7	173.0				
245	SGMR	49 GB	1201.0E	1201.0	1.0D	740.0			QL=2 ST=2 TYP=6	
245	SVTO	49 GB	1201.0E	1201.0	1.0D	1300.0			QL=2 ST=2 TYP=6	
113	POTS	42 SER	1201.5	1202.1	17.1	330.0				
234	POTS	42 SER	1201.5	1208.6	7.9	1100.0				
245	SGMR	8 S	1207.0E	1208.0	1.0D	440.0			QL=2 ST=2 TYP=3	
245	SGMR	8 S	1214.0E	1215.0	2.0D	370.0			QL=4 ST=2 TYP=3	
808	ONDR	3 S	1242.5	1242.7	0.4	25.0				
245	SGMR	8 S	1255.0E	1256.0	1.0D	270.0			QL=4 ST=2 TYP=3	
245	SGMR	8 S	1306.0E	1306.0	U	260.0			QL=4 ST=2 TYP=3	

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NOVEMBER 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	Int	Remarks
22	410	SGMR	8 S	1313.0E	1313.0	1.00	210.0			QL=4 ST=2 TYP=3
	9400	HUAN	1 S	1327.1	1331.8	8.9	14.2	6.4		
	6700	CUBA	23 GRF	1330.0	1333.0	10.0	8.0	4.0		
	15000	CUBA	1 S	1331.0	1332.0	2.2	72.0	36.0		31R
	6700	CUBA	20 GRF	1358.0	1359.0	11.0	9.0	4.0		
	6700	CUBA	21 GRF	1416.0	1426.0	32.0	20.0	10.0		
	9500	CUBA	4 GRF	1416.0	1456.0	439.00	20.0			2135 OFF
	9400	HUAN	4 S/F	1416.3	1429.7	18.7	46.0	23.6		
	9500	CUBA	46 C	1418.2	1420.0	9.3	33.0	10.0		
	6700	CUBA	2 S/F	1418.5	1420.0	2.5	10.0	5.0		
	15000	CUBA	1 S	1419.8	1420.0	0.5	22.0	11.0		19R
	6700	CUBA	2 S/F	1421.5	1421.8	3.5	14.0	7.0		
	9500	CUBA	1 S	1428.2	1429.8	2.1	27.0	13.0		
	15000	CUBA	1 S	1428.6	1429.6	2.4	22.0	11.0		39R
	6700	CUBA	3 S	1429.8	1429.8	10.7	28.0	14.0		
	9400	HUAN	29 PBI	1435.0	1435.0	35.7	8.8	3.6		
	9500	CUBA	1 S	1528.4	1528.7	0.8	8.0	4.0		
	6700	CUBA	1 S	1528.5	1528.6	0.9	8.0	4.0		
	9400	HUAN	1 S	1540.3	1541.4	6.3	7.1	2.8		
	9400	HUAN	2 S/F	1611.3	1621.0	10.6	8.8	3.9		
	245	PALE	49 GB	1801.0E	1801.0	2.00	940.0			QL=2 ST=2 TYP=6
	9400	HUAN	1 S	1808.0	1811.0	7.6	8.7	3.4		
	245	PALE	49 GB	1810.0E	1810.0	U	740.0			QL=2 ST=2 TYP=6
	2800	OTTA	3 S	1810.1	1810.6	3.1	27.5	6.0		
	9400	HUAN	3 S	1833.4	1835.7	11.6	34.7	18.6		
	6700	CUBA	21 GRF	1834.0	1838.0	15.0	4.0	2.0		
	9500	CUBA	2 S/F	1834.7	1836.0	3.8	39.0	19.0		
	6700	CUBA	1 S	1835.2	1836.0	1.7	12.0	6.0		
	15000	CUBA	1 S	1835.3	1836.0	1.1	19.0	9.0		36R
	9400	HUAN	3 S	1905.2	1907.0	11.1	69.4	26.3		
	245	PALE	49 GB	1906.0E	1907.0	1.00	2100.0			QL=2 ST=3 TYP=6
	410	PALE	8 S	1906.0E	1907.0	1.00	50.0			QL=4 ST=2 TYP=3
	15400	PALE	8 S	1906.0E	1907.0	1.00	93.0			QL=4 ST=2 TYP=3
	245	SGMR	49 GB	1906.0E	1907.0	1.00	4700.0			QL=2 ST=2 TYP=6
	6700	CUBA	1 S	1906.2	1907.2	1.8	32.0	16.0		
	9500	CUBA	45 C	1906.3	1907.2	11.2	80.0	9.0		
15000	CUBA	2 S/F	1906.6	1907.0	3.4	93.0	46.0		41R	
8800	SGMR	8 S	1907.0E	1907.0	U	54.0			QL=4 ST=2 TYP=3	
15400	SGMR	8 S	1907.0E	1907.0	U	82.0			QL=4 ST=2 TYP=3	
6700	CUBA	29 PBI	1909.2	1909.2	9.0	5.0	2.0			
245	SGMR	49 GB	2024.0E	2024.0	U	520.0			QL=2 ST=2 TYP=6	
15000	CUBA	2 S/F	2105.7	2106.3	2.6	24.0	12.0		23R	
245	LEAR	4 S/F	2226.0E	2229.0	4.00	400.0			QL=2 ST=2 TYP=3	
200	HIRA	42 SER	2350.0	2543.6	125.0	980.0			SL	
23	200	GORK	44 NS	0558.0E		362.00		30.0		
	100	GORK	44 NS	0558.0E		363.00		35.0		
	245	SVTO	43 NS	0607.0	1436.0	535.00	1000.0			QL=2 ST=2 TYP=1
	410	SVTO	44 NS	0624.0E	1321.0U	518.00	130.0			QL=2 ST=2 TYP=1
	234	POTS	44 NS	0640.0E	1332.5	478.00	935.0			
	113	POTS	44 NS	0645.0E	1230.5	471.00	700.0			
	204	IZHI	43 NS	0700.0		300.0	700.0			
	127	TORN	44 NS	0700.0E		440.00		440.0		V=1
	40	POTS	43 NS	0712.5	1054.0	442.0	5200.0			
	430	KRAK	44 NS	0812.0E	0830.8	347.00	82.0	12.0		
	260	ONDR	44 NS	0900.0E	1140.4	270.00	144.0			
	245	SGMR	44 NS	1208.0E	1658.0	522.00	1500.0			QL=2 ST=2 TYP=1
	235	CUBA	44 NS	1257.0E		483.00		245.0		
	280	CUBA	44 NS	1257.0E		483.00		128.0		
	410	SGMR	44 NS	1321.0E	1321.0	639.00	120.0			QL=2 ST=3 TYP=1
	245	PALE	44 NS	1706.0E	2203.0	625.00	1200.0			QL=4 ST=2 TYP=1
	200	HIRA	44 NS	2122.0E	2343.0	600.00	190.0	93.0		WL
	100	HIRA	44 NS	2122.0E	2313.0	600.00	270.0	29.0		
	245	LEAR	44 NS	2149.0E	0552.0	761.00	1200.0			QL=4 ST=2 TYP=1
	245	PALE	49 GB	0000.0E	0000.0	1.00	1100.0			QL=2 ST=2 TYP=6
	410	PALE	8 S	0021.0E	0022.0	1.00	64.0			QL=4 ST=2 TYP=3
	8800	LEAR	4 S/F	0150.0E	0152.0	4.00	70.0			QL=4 ST=2 TYP=3
245	LEAR	8 S	0150.0E	0150.0	2.00	310.0			QL=2 ST=2 TYP=3	
17000	NOBE	1 S	0151.7	0152.4	1.3	16.0			R,80,35GHz:0	

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Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22 W/m ² Hz)	Mean		
23	2840 PEKG	1 S	0153.0	0154.5	3.6	18.0	9.2		
	100 HIRA	42 SER	0235.0	0257.4	79.0	610.0			
	200 HIRA	42 SER	0239.6	0258.4	23.8	2600.0			
	245 LEAR	49 GB	0259.0E	0301.0	8.00	630.0			ML
	410 LEAR	4 S/F	0259.0E	0300.0	5.00	59.0			QL=2 ST=2 TYP=6
	17000 NOBE	20 GRF	0320.2	0321.5	12.0	18.0			QL=4 ST=2 TYP=3
	200 HIRA	46 C	0337.6	0338.0	1.5	1500.0			L,80,35GHz:0
	15400 LEAR	8 S	0338.0E	0338.0	1.00	51.0			MR
	4995 LEAR	8 S	0338.0E	0338.0	1.00	44.0			QL=4 ST=2 TYP=3
	8800 LEAR	8 S	0338.0E	0338.0	1.00	110.0			QL=4 ST=2 TYP=3
	17000 NOBE	1 S	0338.2	0338.7	2.0	42.0			QL=4 ST=2 TYP=3
	15400 LEAR	8 S	0402.0E	0402.0	1.00	78.0			R,80,35GHz:0
	8800 LEAR	8 S	0402.0E	0402.0	1.00	82.0			QL=4 ST=2 TYP=3
	4995 LEAR	8 S	0402.0E	0402.0	1.00	62.0			QL=4 ST=2 TYP=3
	17000 NOBE	1 S	0402.3	0402.7	2.0	58.0			QL=4 ST=2 TYP=3
	200 HIRA	42 SER	0442.9	0442.9	48.0	240.0			L,80,35GHz:0
	650 GORK	23 GRF	0600.0E	0813.2	320.6U	9.0			WR
	950 GORK	20 GRF	0600.0E	0714.5	117.10	4.0			
	5900 KISV	21 GRF	0617.5	0621.5	13.8	7.0			
	200 HIRA	46 C	0628.4	0628.7	2.0	620.0			ML
	5900 KISV	2 S/F	0714.3	0714.8	1.5	4.0			
	9300 KISV	2 S/F	0714.4	0714.9	1.2	5.0			
	15000 KISV	2 S/F	0714.6	0714.9	2.5	8.0			
	5900 KISV	2 S/F	0735.5	0736.1	2.2	5.0			
	200 GORK	41 F	0827.0	0839.6		810.0			
	200 GORK	41 F	0827.0	0856.6		1600.0			
	200 GORK	41 F	0827.0	0830.8	36.0	4300.0			
	15400 LEAR	8 S	0830.0E	0830.0	U	43.0			QL=4 ST=2 TYP=3
	8800 LEAR	8 S	0830.0E	0830.0	1.00	100.0			QL=4 ST=2 TYP=3
	4995 LEAR	8 S	0830.0E	0830.0	1.00	120.0			QL=4 ST=2 TYP=3
	410 LEAR	8 S	0830.0E	0830.0	1.00	92.0			QL=4 ST=2 TYP=3
	245 LEAR	49 GB	0830.0E	0830.0	1.00	980.0			QL=2 ST=2 TYP=6
	2695 LEAR	8 S	0830.0E	0830.0	1.00	26.0			QL=4 ST=2 TYP=3
	410 SVTO	8 S	0830.0E	0830.0	1.00	180.0			QL=4 ST=2 TYP=3
	8800 SVTO	8 S	0830.0E	0830.0	1.00	92.0			QL=4 ST=2 TYP=3
	245 SVTO	49 GB	0830.0E	0830.0	1.00	870.0			QL=4 ST=2 TYP=6
	4995 SVTO	4 S/F	0830.0E	0830.0	930.00	120.0			QL=4 ST=1 TYP=3
	3013 IZMI	7 C	0830.0	0830.5	2.5	37.0			
	3000 POTS	4 S/F	0830.0	0830.6	1.5	3.0			
	9300 KISV	4 S/F	0830.2	0830.6	7.3	122.0			
	234 POTS	4 S/F	0830.2	0830.8	1.3	900.0			
	2850 CRIM	3 S	0830.3	0830.5	1.2	41.0		10.0	
	650 GORK	4 S/F	0830.3	0830.5	1.3	37.0			
	2950 GORK	4 S/F	0830.3	0830.5	1.3	36.0			
	9500 POTS	4 S/F	0830.3	0830.5	1.7	75.0			
	950 GORK	4 S/F	0830.3	0830.8	1.3	30.0			
	9100 GORK	3 S	0830.4	0830.5	1.4	127.0			
	15000 KISV	3 S	0830.4	0830.7	0.9	55.0			
	204 IZMI	45 C	0830.5	0831.0	1.5	30000.0			
	100 GORK	41 F	0830.5	0908.5		1400.0			
113 POTS	4 S/F	0830.5	0830.7	1.1	2500.0				
1470 POTS	2 S/F	0830.5E	0830.7	1.50	4.0				
100 GORK	41 F	0830.5	0856.8		5600.0				
100 GORK	41 F	0830.5	0830.9	38.5	2700.0				
810 KRAK	8 S	0831.0	0831.2	0.7	21.0				
33 UPIC	42 SER	0834.1		24.3					
113 POTS	42 SER	0845.6	0856.2	12.6	2500.0				
40 POTS	42 SER	0845.7	0856.4	14.3	6000.0				
2950 GORK	1 S	0845.8	0846.1	1.0	4.0				
2850 CRIM	1 S	0845.9	0846.0	0.5	4.6		1.0		
950 GORK	21 GRF	0845.9	1006.5	154.1U	6.0				
234 POTS	42 SER	0847.4	0856.6	11.2	2200.0				
650 GORK	8 S	0848.4	0848.5	0.2	19.0				
9100 GORK	46 C	0854.3	0901.1		40.0				
9100 GORK	46 C	0854.3	0856.9	14.7	385.0				
9300 KISV	47 GB	0854.4	0857.1	5.3	366.0				
5900 KISV	29 PBI	0854.4	0859.5	81.7	17.0				
9300 KISV	29 PBI	0854.4	0859.7	73.6	17.0				
5900 KISV	47 GB	0854.4	0856.9	5.1	262.0				

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Outstanding Occurrences

NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean		
23	15000	KISV	4 S/F	0854.6	0857.2	4.8	194.0			
	15000	KISV	29 PBI	0854.6	0859.4	29.4	14.0			
	8800	LEAR	4 S/F	0855.0E	0856.0	3.00	300.0			QL=4 ST=2 TYP=3
	4995	LEAR	4 S/F	0855.0E	0856.0	3.00	160.0			QL=4 ST=2 TYP=3
	15400	LEAR	4 S/F	0855.0E	0856.0	6.00	270.0			QL=4 ST=2 TYP=3
	245	LEAR	49 GB	0855.0E	0855.0	1.00	1000.0			QL=2 ST=2 TYP=6
	8800	SVTO	4 S/F	0855.0E	0857.0	3.00	290.0			QL=4 ST=2 TYP=3
	245	SVTO	49 GB	0855.0E	0855.0	2.00	850.0			QL=4 ST=2 TYP=6
	9500	POTS	29 PBI	0855.0	0857.0	15.0	261.0			
	2950	GORK	21 GRF	0855.0	0906.2	55.4	9.0			
	2850	CRIM	29 PBI	0855.0	0905.5	15.5	10.2	3.0		
	2850	CRIM	45 C	0855.0	0901.8		22.8			
	2850	CRIM	45 C	0855.0	0856.9	10.5	49.2	16.0		
	2950	GORK	4 S/F	0855.5	0856.9	3.5	40.0			
	1470	POTS	4 S/F	0855.6	0856.6	3.4	25.0			
	650	GORK	4 S/F	0855.8	0856.9	2.7	19.0			
	950	GORK	4 S/F	0855.8	0856.9	2.5	11.0			
	2695	LEAR	8 S	0856.0E	0856.0	1.00	31.0			QL=4 ST=2 TYP=3
	4995	SVTO	8 S	0856.0E	0857.0	2.00	170.0			QL=4 ST=2 TYP=3
	15400	SVTO	8 S	0856.0E	0856.0	2.00	230.0			QL=4 ST=2 TYP=3
	3000	POTS	29 PBI	0856.0	0856.9	11.0	37.0			
	810	KRAK	2 S/F	0856.1	0857.1	1.6	7.0	3.0		
	15000	KISV	45 C	0859.8	0904.1		18.0			
	15000	KISV	45 C	0859.8	0901.3	8.8	28.0			
	5900	KISV	45 C	0859.9	0901.2		16.0			
	5900	KISV	45 C	0859.9	0904.2	9.1	17.0			
	9300	KISV	45 C	0900.0	0904.2		16.0			
	9300	KISV	45 C	0900.0	0901.3	7.4	21.0			
	2950	GORK	2 S/F	0900.8	0901.6	4.4	10.0			
	950	GORK	46 C	0903.6	0904.0	3.5	8.0			
	950	GORK	46 C	0903.6	0906.7		12.0			
	9100	GORK	30 PBI	0909.0	0909.0	51.0	15.0			
	5900	KISV	2 S/F	0914.7	0914.8	2.9	8.0			
	9300	KISV	2 S/F	0940.3	0940.6	3.4	7.0			
	5900	KISV	2 S/F	0940.4	0940.7	2.4	7.0			
	15000	KISV	2 S/F	0945.2	0946.1	2.0	14.0			
	9100	GORK	2 S/F	0945.4	0946.3	1.2	10.0			
	5900	KISV	45 C	0945.4	0946.4		8.0			
	5900	KISV	45 C	0945.4	0953.8	17.1	18.0			
	9300	KISV	45 C	0945.5	0946.4	12.2	15.0			
	9300	KISV	45 C	0945.5	0953.7		15.0			
	9100	GORK	2 S/F	0951.8	0953.6	5.2	10.0			
	5900	KISV	21 GRF	1039.5	1041.1		4.0			
	5900	KISV	21 GRF	1039.5	1049.3	25.2	7.0			
	9300	KISV	21 GRF	1043.0	1049.4	20.4	16.0			
	9300	KISV	21 GRF	1043.0	1043.6		7.0			
	15000	KISV	2 S/F	1043.2	1043.6	2.3	10.0			
	245	SVTO	49 GB	1118.0E	1118.0	1.00	1200.0			QL=2 ST=2 TYP=6
	245	SGMR	49 GB	1222.0E	1222.0	1.00	680.0			QL=2 ST=2 TYP=6
	9400	HUAN	1 S	1228.6	1230.3	9.6	15.2	7.4		
9400	HUAN	2 S/F	1307.7	1310.5	7.1	16.2	8.6			
15000	CUBA	2 S/F	1308.0	1310.5	5.0	20.0	10.0		51R	
6700	CUBA	2 S/F	1309.2	1310.5	3.0	14.0	7.0			
6700	CUBA	29 PBI	1312.0		6.5	3.0	1.0			
9400	HUAN	29 PBI	1314.8	1314.8	42.3	13.3	5.8			
9500	CUBA	2 S/F	1354.0	1355.2	2.0	8.0	4.0			
6700	CUBA	2 S/F	1354.3	1355.0	2.2	5.0	2.0			
9400	HUAN	1 S	1522.2	1526.0	6.5	13.3	6.2			
6700	CUBA	2 S/F	1524.0	1525.1	2.7	13.0	7.0			
245	SGMR	8 S	1602.0E	1603.0	1.00	490.0			QL=2 ST=2 TYP=3	
410	SGMR	8 S	1602.0E	1603.0	1.00	150.0			QL=2 ST=2 TYP=3	
9400	HUAN	22 GRF	1606.6	1651.5	87.0	5.7	3.4			
6700	CUBA	20 GRF	1634.0	1635.0	9.0	10.0	5.0			
9500	CUBA	1 S	1634.9	1635.2	1.1	18.0	9.0			
2800	OTTA	4 S/F	1634.9	1636.6	8.5	13.1	2.0			
9500	CUBA	21 GRF	1655.0E	1813.0	121.00	17.0				
6700	CUBA	2 S/F	1723.0	1724.7	4.9	9.0	4.0			
9500	CUBA	1 S	1724.2	1724.5	1.5	6.0	3.0			
9500	CUBA	2 S/F	1743.2	1744.0	2.8	9.0	4.0			

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

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NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak	Mean		
							(10 -22 W/m	2 Hz)		
23	6700	CUBA	1 S	1743.4	1743.8	0.6	5.0	2.0		
	15000	CUBA	1 S	1744.3	1744.6	1.7	15.0	7.0		00R
	9500	CUBA	1 S	1806.9	1809.3	3.4	18.0	9.0		
	6700	CUBA	21 GRF	1807.0	1811.0	14.0	8.0	4.0		
	9400	HUAN	1 S	1807.3	1809.2	5.8	20.9	9.2		
	6700	CUBA	1 S	1808.1	1809.5	1.9	12.0	6.0		
	15000	CUBA	1 S	1808.4	1809.6	2.0	8.0	4.0		17R
	9400	HUAN	29 PBI	1813.1	1813.1	23.2	7.6	3.8		
	15000	CUBA	23 GRF	1841.0E	1947.0	132.00	35.0	17.0		7R
	410	PALE	8 S	1919.0E	1920.0	1.00	71.0			QL=4 ST=2 TYP=3
	6700	CUBA	2 S/F	1956.0	1956.3	2.0	7.0	3.0		
	9500	CUBA	2 S/F	1956.1	1956.2	1.8	10.0	5.0		
	245	PALE	49 GB	2001.0E	2001.0	1.00	1700.0			QL=2 ST=2 TYP=6
	245	SGMR	49 GB	2001.0E	2002.0	1.00	1300.0			QL=2 ST=3 TYP=6
	245	SGMR	49 GB	2030.0E	2031.0	1.00	1500.0			QL=4 ST=2 TYP=6
	410	PALE	8 S	2031.0E	2031.0	1.00	64.0			QL=4 ST=2 TYP=3
	245	PALE	49 GB	2031.0E	2031.0	U	1600.0			QL=4 ST=2 TYP=6
	9500	CUBA	2 S/F	2032.2	2032.7	4.8	25.0	12.0		
	6700	CUBA	2 S/F	2032.3	2032.8	2.7	19.0	9.0		
	6700	CUBA	23 GRF	2058.0	2107.0	12.0	19.0	9.0		
	9500	CUBA	20 GRF	2059.0	2102.0	20.0	34.0	17.0		
	410	PALE	8 S	2111.0E	2111.0	U	140.0			QL=4 ST=2 TYP=3
	9400	HUAN	2 S/F	2202.1	2206.1	8.7	15.1	6.6		
500	HIRA	46 C	2327.5	2328.2	1.7	19.0			0	
24	100	GORK	44 NS	0543.0E		45.00		5.0		
	200	GORK	43 NS	0545.0		43.00		5.0		
	245	SVTO	44 NS	0608.0E	1227.0	534.00	450.0			QL=4 ST=2 TYP=1
	410	SVTO	43 NS	0617.0	0617.0	23.00	79.0			QL=4 ST=2 TYP=1
	200	GORK	44 NS	0645.0E		285.00		5.0		
	100	GORK	44 NS	0645.0E		285.00		5.0		
	234	POTS	44 NS	0650.0E	0947.0	455.00	140.0			
	113	POTS	44 NS	0650.0E	0900.0	455.00	28.0			
	204	IZMI	43 NS	0700.0		300.0	100.0			
	127	TORN	44 NS	0700.0E		440.00		40.0		V=2
	260	ONDR	44 NS	0900.0E	1026.1	270.00	198.0			
	245	SGMR	44 NS	1209.0E	1414.0	711.00	230.0			QL=2 ST=3 TYP=1
	410	SGMR	44 NS	1500.0E	1500.0	69.00	82.0			QL=2 ST=2 TYP=1
	245	PALE	44 NS	1707.0E	2326.0	624.00	350.0			QL=4 ST=2 TYP=1
	200	HIRA	44 NS	2122.0E	2323.0	600.00	52.0		23.0	WR
	245	LEAR	44 NS	2252.0E	0107.0	699.00	790.0			QL=4 ST=2 TYP=1
	245	LEAR	49 GB	0047.0E	0050.0	3.00	4100.0			QL=2 ST=2 TYP=6
	410	LEAR	8 S	0049.0E	0049.0	1.00	100.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	0049.0E	0049.0	1.00	130.0			QL=4 ST=2 TYP=3
	245	PALE	49 GB	0049.0E	0049.0	1.00	3600.0			QL=2 ST=2 TYP=6
	410	LEAR	8 S	0052.0E	0052.0	U	54.0			QL=4 ST=2 TYP=3
	610	LEAR	4 S/F	0239.0E	0240.0	3.00	140.0			QL=4 ST=2 TYP=3
	610	PALE	8 S	0240.0E	0240.0	U	130.0			QL=4 ST=2 TYP=3
	500	HIRA	46 C	0240.0	0240.3	2.8	76.0			MR
	500	HIRA	46 C	0456.5	0457.0	1.3	37.0			ML
	410	LEAR	8 S	0457.0E	0457.0	U	130.0			QL=4 ST=2 TYP=3
	245	LEAR	49 GB	0457.0E	0457.0	3.00	1800.0			QL=2 ST=2 TYP=6
	9100	GORK	22 GRF	0658.3	0706.9	16.7	12.0			
	9300	KISV	20 GRF	0658.6	0706.9	15.2	10.0			
	5900	KISV	2 S/F	0706.2	0706.9	1.6	4.0			
	9100	GORK	2 S/F	0754.0	0759.1	7.8	15.0			
	9300	KISV	45 C	0754.1	0759.0	9.3	14.0			
	9300	KISV	45 C	0754.1	0756.4		9.0			
	5900	KISV	45 C	0754.9	0759.1	8.5	21.0			
	5900	KISV	45 C	0754.9	0756.4		10.0			
	3013	IZMI	41 F	0756.2	0759.0	4.0	20.0			
	2850	CRIM	45 C	0756.2	0759.1		37.8			
	2850	CRIM	45 C	0756.2	0756.3	5.0	17.1	10.0		
	2950	GORK	45 C	0756.3	0759.1		28.0			
	2950	GORK	45 C	0756.3	0756.5	5.2	10.0			
9500	POTS	1 S	0758.5	0759.2	1.0	6.0				
200	GORK	46 C	0806.0	0807.6	2.6	550.0				
200	GORK	46 C	0806.0	0807.9		410.0				
9300	KISV	2 S/F	0841.0	0841.5	4.1	5.0				

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

NOVEMBER 1990

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak	Mean		
						(10 -22 W/m 2 Hz)			
24	5900 KISV	2 S/F	0841.0	0841.5	4.4	3.0			
	100 GORK	4 S/F	0848.4	0849.2	1.1	690.0			
	15000 KISV	2 S/F	0908.8	0909.4	3.2	9.0			
	9300 KISV	22 GRF	0908.9	0909.5	14.6	5.0			
	5900 KISV	22 GRF	0925.0	0928.8	20.0	10.0			
	9300 KISV	23 GRF	0925.1	0934.7	33.9	10.0			
	9300 KISV	45 C	0927.7	0929.1	4.4	10.0			
	9300 KISV	45 C	0927.7	0928.2		8.0			
	9300 KISV	2 S/F	1039.7	1041.5	4.6	6.0			
	5900 KISV	45 C	1052.8	1056.4	11.7	13.0			
	5900 KISV	45 C	1052.8	1054.6		9.0			
	9300 KISV	45 C	1053.9	1056.4	7.8	17.0			
	9300 KISV	45 C	1053.9	1054.6		7.0			
	234 POTS	4 S/F	1129.1	1129.9	3.9	330.0			
	9300 KISV	22 GRF	1154.0	1159.1	12.0U	13.0			
	5900 KISV	22 GRF	1154.0	1158.3	10.4	14.0			
	9500 POTS	20 GRF	1154.5	1158.0	10.5	14.0			
	3000 POTS	20 GRF	1155.0U	1158.0U	6.0U	5.0			
	245 SGMR	8 S	1227.0E	1227.0	1.00	430.0			QL=2 ST=2 TYP=3
	536 ONDR	8 S	1237.5	1237.7	0.5	41.0			
	245 SGMR	8 S	1328.0E	1329.0	1.00	210.0			QL=2 ST=2 TYP=3
	6700 CUBA	21 GRF	1329.0	1436.0	447.00	41.0			SUNSET
	9500 POTS	1 S	1338.5	1339.4	1.5	8.0			
	430 KRAK	8 S	1338.5	1339.5	2.0	270.00			
	234 POTS	4 S/F	1338.6	1339.4	2.0	77000.0			
	113 POTS	4 S/F	1338.8	1339.5U	1.8	4200.00			
	245 SGMR	49 GB	1339.0E	1339.0	U	4600.0			QL=2 ST=2 TYP=6
	410 SGMR	49 GB	1339.0E	1339.0	U	970.0			QL=2 ST=2 TYP=6
	610 SGMR	8 S	1339.0E	1339.0	U	59.0			QL=4 ST=2 TYP=3
	410 SVTO	49 GB	1339.0E	1339.0	U	950.0			QL=2 ST=2 TYP=6
	245 SVTO	49 GB	1339.0E	1339.0	U	5700.0			QL=2 ST=2 TYP=6
	610 SVTO	8 S	1339.0E	1339.0	U	77.0			QL=4 ST=2 TYP=3
	600 HUMN	8 S	1339.0	1339.3	1.0	38.0	12.0		
	1470 POTS	1 S	1339.0	1339.4	1.0	4.0			
	3000 POTS	1 S	1339.0E	1339.5	1.00	6.0			
	6700 CUBA	1 S	1339.2	1339.5	0.8	10.0	5.0		
	40 POTS	4 S/F	1339.2	1339.6	0.8	1500.0			
	810 KRAK	8 S	1339.4	1339.5	0.6	6.0			
	9500 POTS	4 S/F	1355.8	1356.5	2.2	31.0			
	3000 POTS	2 S/F	1356.0E	1356.2	2.5D	4.0			
	6700 CUBA	1 S	1356.0	1356.8	3.0	28.0	14.0		
	245 SGMR	49 GB	1406.0E	1406.0	1.00	530.0			QL=2 ST=2 TYP=6
	245 SVTO	49 GB	1406.0E	1406.0	1.00	600.0			QL=2 ST=2 TYP=6
	6700 CUBA	46 C	1413.1	1419.5	12.4	269.0			
	15000 CUBA	46 C	1414.0	1420.0	12.0	219.0	91.0		COMPLEX POL.
	2800 OTTA	4 S/F	1415.0	1427.8	19.0	232.0	93.0		
	4995 SGMR	4 S/F	1415.0E	1420.0	20.00	330.0			QL=4 ST=2 TYP=3
	2695 SGMR	20 GRF	1416.0E	1427.0	17.00	250.0			QL=4 ST=2 TYP=2
	4995 SVTO	4 S/F	1416.0E	1420.0	17.00	350.0			QL=2 ST=2 TYP=3
	8800 SVTO	4 S/F	1416.0E	1420.0	584.00	200.0			QL=2 ST=1 TYP=3
8800 SGMR	4 S/F	1417.0E	1420.0	14.00	210.0			QL=2 ST=2 TYP=3	
1415 SGMR	49 GB	1417.0E	1427.0	17.00	730.0			QL=4 ST=2 TYP=7	
2695 SVTO	20 GRF	1417.0E	1427.0	16.00	240.0			QL=2 ST=2 TYP=2	
15400 SGMR	4 S/F	1418.0E	1420.0	17.00	140.0			QL=2 ST=2 TYP=3	
610 SGMR	49 GB	1419.0E	1428.0	17.00	1200.0			QL=4 ST=2 TYP=7	
600 HUMN	47 GB	1419.2	1429.2	29.8	341.0	95.0			
410 SGMR	49 GB	1422.0E	1430.0	14.00	1100.0			QL=2 ST=2 TYP=6	
245 SGMR	49 GB	1422.0E	1422.0	10.00	1300.0			QL=2 ST=2 TYP=6	
6700 CUBA	2 S/F	1425.9	1427.3	7.1	31.0	15.0			
15000 CUBA	29 PBI	1426.0		88.0	74.0	37.0		61R	
2800 OTTA	29 PBI	1433.9	1433.9	210.0	25.3	12.0			
1415 SGMR	4 S/F	1437.0E	1438.0	5.00	100.0			QL=4 ST=2 TYP=3	
610 SGMR	4 S/F	1437.0E	1442.0	8.00	190.0			QL=4 ST=2 TYP=3	
245 SGMR	4 S/F	1437.0E	1441.0	6.00	150.0			QL=2 ST=2 TYP=3	
1415 SVTO	4 S/F	1437.0E	1438.0	8.00	110.0			QL=2 ST=2 TYP=3	
610 SVTO	4 S/F	1437.0E	1442.0	8.00	200.0			QL=2 ST=2 TYP=3	
410 SGMR	4 S/F	1437.0E	1441.0	10.00	140.0			QL=4 ST=2 TYP=3	
2800 OTTA	3 S	1437.8	1441.7	10.2	7.5	2.0			
410 SVTO	4 S/F	1438.0E	1441.0	6.00	190.0			QL=2 ST=2 TYP=3	

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Outstanding Occurrences

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NOVEMBER 1990

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
24	245	SVTO	4 S/F	1440.0E	1442.0	5.00	250.0			QL=2 ST=2 TYP=3	
	4995	SVTO	8 S	1442.0E	1442.0	U	26.0			QL=2 ST=2 TYP=3	
	2695	SVTO	8 S	1442.0E	1442.0	U	29.0			QL=2 ST=2 TYP=3	
	9400	HUAN	4 S/F	1458.8	1500.4	6.0	87.2	36.8			
	2800	OTTA	3 S	1458.9	1500.5	7.6	61.4	18.0			
	4995	SGMR	8 S	1459.0E	1500.0	2.00	120.0				QL=4 ST=2 TYP=3
	2695	SGMR	8 S	1500.0E	1500.0	U	68.0				QL=4 ST=2 TYP=3
	8800	SGMR	8 S	1500.0E	1500.0	U	82.0				QL=2 ST=2 TYP=3
	9400	HUAN	29 PBI	1504.8	1504.8	45.9	14.4	8.8			
	6700	CUBA	2 S/F	1527.4	1528.0	1.4	5.0	2.0			
	6700	CUBA	2 S/F	1528.9	1529.6	1.3	5.0	2.0			
	245	SGMR	8 S	1554.0E	1554.0	U	490.0				QL=2 ST=2 TYP=3
	610	SGMR	8 S	1554.0E	1554.0	U	310.0				QL=4 ST=2 TYP=3
	410	SGMR	49 GB	1554.0E	1554.0	U	570.0				QL=2 ST=2 TYP=6
	2800	OTTA	3 S	1725.2	1729.1	9.3	10.4	3.0			
	9400	HUAN	2 S/F	1725.2	1728.8	7.8	12.6	7.2			
	6700	CUBA	2 S/F	1728.1	1730.8	3.9	17.0	8.0			
	9400	HUAN	22 GRF	1801.0	1835.3	68.0	10.8	6.4			
	6700	CUBA	1 S	1809.0	1809.5	1.0	16.0	8.0			
	6700	CUBA	1 S	1931.0	1932.1	2.5	8.0	4.0			
	410	PALE	8 S	1945.0E	1945.0	U	60.0				QL=4 ST=2 TYP=3
	9400	HUAN	23 GRF	1947.7	2023.7	66.3	3.6	1.9			
	9400	HUAN	2 S/F	1956.2	1957.8	5.1	12.6	6.6			
	9400	HUAN	2 S/F	2154.6	2203.2	12.6	17.1	8.6			
	245	PALE	49 GB	2324.0E	2324.0	2.00	690.0				QL=2 ST=2 TYP=6
	410	PALE	8 S	2324.0E	2324.0	1.00	37.0				QL=4 ST=2 TYP=3
	2695	PALE	8 S	2326.0E	2326.0	U	42.0				QL=4 ST=2 TYP=3
	2695	LEAR	4 S/F	2329.0E	2331.0	7.00	67.0				QL=4 ST=2 TYP=3
	4995	LEAR	4 S/F	2329.0E	2331.0	7.00	69.0				QL=4 ST=2 TYP=3
	8800	LEAR	4 S/F	2329.0E	2331.0	7.00	53.0				QL=4 ST=2 TYP=3
15400	LEAR	8 S	2330.0E	2331.0	2.00	21.0				QL=4 ST=2 TYP=3	
8800	PALE	4 S/F	2330.0E	2331.0	3.00	37.0				QL=2 ST=2 TYP=3	
2695	PALE	4 S/F	2330.0E	2331.0	4.00	58.0				QL=4 ST=2 TYP=3	
4995	PALE	4 S/F	2330.0E	2331.0	4.00	65.0				QL=4 ST=2 TYP=3	
1415	LEAR	8 S	2331.0E	2332.0	2.00	28.0				QL=4 ST=2 TYP=3	
25	200	GORK	44 NS	0548.0E		342.00		5.0			
	100	GORK	44 NS	0548.0E		342.00		5.0			
	204	IZMI	43 NS	0700.0		300.0	30.0				
	127	TORN	44 NS	0700.0E		430.00		5.0		V=1	
	260	ONDR	44 NS	0900.0E	1113.4	270.00	128.0				
	245	SVTO	44 NS	1326.0E	1412.0	95.00	380.0				QL=2 ST=2 TYP=1
	245	SGMR	44 NS	1326.0E	2019.0	443.00	400.0				QL=2 ST=2 TYP=1
	245	PALE	44 NS	2011.0E	0306.0	440.00	420.0				QL=4 ST=2 TYP=1
	200	HIRA	44 NS	2122.0E	2213.0	600.00	20.0	9.0			O
	245	LEAR	43 NS	2358.0	0957.0	634.0	420.0				QL=2 ST=2 TYP=1
	245	LEAR	49 GB	0014.0E	0014.0	1.00	2400.0				QL=2 ST=2 TYP=6
	245	PALE	49 GB	0014.0E	0014.0	1.00	2000.0				QL=2 ST=2 TYP=6
	200	HIRA	8 S	0014.3	0014.3	0.8	440.0				O
	245	PALE	49 GB	0107.0E	0107.0	1.00	840.0				QL=2 ST=2 TYP=6
	200	HIRA	42 SER	0118.5	0142.9	59.0	70.0				ML
	410	LEAR	8 S	0149.0E	0149.0	U	18.0				QL=4 ST=2 TYP=3
	610	LEAR	8 S	0149.0E	0149.0	U	41.0				QL=4 ST=2 TYP=3
	245	LEAR	8 S	0149.0E	0149.0	U	340.0				QL=2 ST=2 TYP=3
	245	PALE	8 S	0149.0E	0149.0	U	310.0				QL=2 ST=2 TYP=3
	610	PALE	8 S	0149.0E	0149.0	U	45.0				QL=4 ST=2 TYP=3
	500	HIRA	42 SER	0149.0	0219.5	31.0	46.0				WL
	410	PALE	8 S	0218.0E	0218.0	1.00	59.0				QL=4 ST=2 TYP=3
	1415	LEAR	8 S	0522.0E	0523.0	2.00	260.0				QL=4 ST=2 TYP=3
	2840	PEKG	45 C	0522.0	0523.7	3.0	34.7	17.6			
	2695	LEAR	8 S	0523.0E	0523.0	U	36.0				QL=4 ST=2 TYP=3
	5900	KISV	45 C	0609.3	0615.0	10.5	10.0				
	5900	KISV	45 C	0609.3	0612.3		8.0				
	500	HIRA	41 F	0610.0	0611.0	6.5	18.0				O
	245	SVTO	8 S	0613.0E	0614.0	2.00	240.0				QL=2 ST=3 TYP=3
	245	LEAR	8 S	0614.0E	0614.0	1.00	340.0				QL=2 ST=2 TYP=3
410	LEAR	8 S	0614.0E	0614.0	1.00	84.0				QL=4 ST=2 TYP=3	
410	SVTO	8 S	0614.0E	0614.0	1.00	380.0				QL=2 ST=3 TYP=3	
1415	LEAR	8 S	0624.0E	0624.0	1.00	60.0				QL=4 ST=2 TYP=3	

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Outstanding Occurrences

NOVEMBER 1990

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22 W/m 2 Hz)	Mean		
25	2695 LEAR	8 S	0624.0E	0624.0	1.00	21.0			QL=4 ST=2 TYP=3
	5900 KISV	2 S/F	0645.3	0646.7	5.5	13.0			
	9100 GORK	2 S/F	0710.3	0711.1	7.1	10.0			
	9300 KISV	2 S/F	0710.3	0711.3	6.2	10.0			
	2950 GORK	22 GRF	0712.7	0720.6	10.7	4.0			
	410 LEAR	8 S	0718.0E	0720.0	2.00	46.0			QL=4 ST=2 TYP=3
	610 LEAR	4 S/F	0718.0E	0720.0	4.00	32.0			QL=4 ST=2 TYP=3
	245 LEAR	8 S	0719.0E	0720.0	1.00	130.0			QL=2 ST=2 TYP=3
	113 POTS	4 S/F	0730.7	0732.5	3.9	770.0			
	30 POTS	4 S/F	0730.7	0732.6	3.5	4000.00			
	100 GORK	46 C	0730.8	0732.1	3.2	470.0			
	100 GORK	46 C	0730.8	0732.5		1000.0			
	5900 KISV	29 PBI	0801.0	0818.0	38.4	26.0			
	5900 KISV	46 C	0801.0	0812.5		40.0			
	5900 KISV	46 C	0801.0	0811.8		50.0			
	5900 KISV	46 C	0801.0	0810.9	17.0	54.0			
	2950 GORK	22 GRF	0810.0	0928.1	160.9	9.0			
	9500 POTS	29 PBI	0810.0	0814.5	45.0	16.0			
	9100 GORK	22 GRF	0810.0	0810.6	20.0	18.0			
	9300 KISV	29 PBI	0810.2	0819.2	26.8	7.0			
	9300 KISV	46 C	0810.2	0814.3		17.0			
	9300 KISV	46 C	0810.2	0812.5		15.0			
	9300 KISV	46 C	0810.2	0810.6	9.0	17.0			
	410 LEAR	8 S	0823.0E	0823.0	2.00	130.0			QL=4 ST=2 TYP=3
	410 SVTO	8 S	0823.0E	0823.0	U	140.0			QL=2 ST=2 TYP=3
	430 KRAK	42 SER	0851.0	0855.6	4.8	30.0			
	9300 KISV	2 S/F	0858.0	0858.5	2.0	4.0			
	5900 KISV	23 GRF	0904.7	0915.8	36.9	10.0			
	9300 KISV	2 S/F	0906.3	0907.0	3.0	13.0			
	5900 KISV	2 S/F	0906.4	0906.9	2.8	10.0			
	9500 POTS	42 SER	0906.5	0927.4	25.5	16.0			
	9100 GORK	2 S/F	0906.6	0907.0	0.9	12.0			
	9300 KISV	2 S/F	0912.4	0912.8	2.4	8.0			
	9100 GORK	45 C	0923.0	0927.3		16.0			
	9100 GORK	45 C	0923.0	0923.5	7.0	18.0			
	9300 KISV	45 C	0923.2	0927.4		16.0			
	9300 KISV	45 C	0923.2	0923.5	10.3	17.0			
	5900 KISV	2 S/F	0923.3	0923.5	2.5	10.0			
	9300 KISV	2 S/F	0939.2	0939.7	2.7	5.0			
	9100 GORK	22 GRF	1013.9	1014.7	31.1	15.0			
	9500 POTS	1 S	1014.0	1014.5	4.0	10.0			
	5900 KISV	2 S/F	1014.0	1014.7	4.8	17.0			
	9300 KISV	2 S/F	1014.0	1014.8	3.7	14.0			
	5900 KISV	2 S/F	1032.4	1034.0	7.3	6.0			
	536 ONDR	42 SER	1120.0	1120.5	1.0	18.0			
	9400 HUAN	1 S	1243.0	1247.5	8.4	10.2	4.8		
	9500 POTS	1 S	1245.5	1247.0	3.5	8.0			
	234 POTS	4 S/F	1258.3	1258.4	0.8	1200.0			
	234 POTS	4 S/F	1327.6	1328.5	1.0	550.0			
	2800 OTTA	20 GRF	1426.0	1436.0	100.0	12.5	6.0		
9400 HUAN	2 S/F	1430.7	1435.2	7.9	11.1	6.2			
6700 CUBA	20 GRF	1432.0	1436.0	101.0	10.0	5.0			
9500 CUBA	2 S/F	1434.2	1436.5	4.7	8.0	4.0			
245 SGMR	49 GB	1534.0E	1534.0	U	1100.0			QL=2 ST=2 TYP=6	
410 SGMR	8 S	1534.0E	1534.0	U	110.0			QL=4 ST=2 TYP=3	
9500 CUBA	1 S	1537.5	1537.6	0.4	10.0	5.0			
9500 CUBA	20 GRF	1621.0	1655.0	119.0	17.0	8.0			
6700 CUBA	20 GRF	1633.0	1707.0	118.0	15.0	7.0			
9400 HUAN	1 S	1704.8	1706.6	3.3	11.1	5.4			
9400 HUAN	21 GRF	1844.1	1910.8	114.7	38.8	12.8			
245 PALE	8 S	1849.0E	1849.0	U	110.0			QL=4 ST=2 TYP=3	
6700 CUBA	20 GRF	1850.0	1858.0	125.0	49.0	24.0			
9500 CUBA	20 GRF	1850.0	1858.0	140.00	49.0			2110 OFF	
15000 CUBA	22 GRF	1853.0	1900.0	94.0	17.0	8.0		23R	
9400 HUAN	4 S/F	1855.0	1858.7	9.6	35.1	18.6			
245 PALE	8 S	1902.0E	1902.0	U	98.0			QL=4 ST=2 TYP=3	
245 PALE	8 S	1905.0E	1907.0	2.00	110.0			QL=4 ST=2 TYP=3	
245 PALE	8 S	1946.0E	1947.0	1.00	190.0			QL=4 ST=2 TYP=3	
245 PALE	8 S	1958.0E	1958.0	1.00	130.0			QL=4 ST=2 TYP=3	

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 ⁻²² W/m ² Hz)	Mean			
25	245	PALE	8 S	2006.0E	2006.0	U	200.0			QL=4 ST=2 TYP=3	
	245	PALE	8 S	2018.0E	2019.0	1.00	430.0			QL=2 ST=2 TYP=3	
	410	PALE	8 S	2019.0E	2020.0	1.00	45.0			QL=4 ST=2 TYP=3	
	9400	HUAN	22 GRF	2115.9	2130.0	39.0	12.9	8.4			
	9400	HUAN	4 S/F	2219.1	2223.1	6.3	57.2	32.8			
	245	LEAR	8 S	2305.0E	2305.0	U	250.0			QL=2 ST=2 TYP=3	
	245	PALE	8 S	2305.0E	2305.0	1.00	290.0			QL=2 ST=2 TYP=3	
	500	HIRA	24 R	2345.0	2540.0	165.0					
245	LEAR	8 S	2351.0E	2352.0	1.00	82.0			QL=2 ST=2 TYP=3		
26	127	TORN	44 NS	0700.0E		440.00		3.0		V=1	
	245	SVTO	44 NS	0716.0E	0803.0	96.00	190.0			QL=2 ST=2 TYP=1	
	234	POTS	44 NS	0745.0E	1131.0	420.00	50.00				
	260	ONDR	44 NS	0900.0E	1010.6	270.00	226.0				
	245	SVTO	44 NS	1140.0E	1356.0	200.00	97.0			QL=2 ST=2 TYP=1	
	245	SVTO	44 NS	1148.0E	1356.0	192.00	97.0			QL=2 ST=2 TYP=1	
	245	SGMR	44 NS	1226.0E	1657.0	694.00	270.0			QL=2 ST=3 TYP=1	
	235	CUBA	44 NS	1250.0E		501.00		30.0			
	280	CUBA	44 NS	1250.0E		501.00		39.0			
	245	PALE	44 NS	1708.0E	1715.0	270.00	230.0			QL=4 ST=2 TYP=1	
	200	HIRA	44 NS	2124.0E	0107.0	600.00	24.0	13.0			MR
	410	LEAR	8 S	0053.0E	0053.0	2.00	76.0			QL=4 ST=2 TYP=3	
	245	LEAR	8 S	0116.0E	0116.0	U	160.0			QL=2 ST=2 TYP=3	
	200	HIRA	42 SER	0204.6	0340.9	116.0	85.0				SL
	410	LEAR	8 S	0312.0E	0312.0	1.00	61.0			QL=4 ST=2 TYP=3	
	245	LEAR	49 GB	0453.0E	0455.0	3.00	1600.0			QL=2 ST=2 TYP=6	
	410	LEAR	8 S	0455.0E	0455.0	U	50.0			QL=4 ST=2 TYP=3	
	200	HIRA	8 S	0546.9	0547.0	0.5	2300.0				0
	5900	KISV	21 GRF	0631.7	0644.3	18.4	4.0				
	5900	KISV	2 S/F	0635.1	0635.7	1.9	6.0				
	245	SVTO	8 S	0639.0E	0640.0	1.00	100.0			QL=2 ST=2 TYP=3	
	245	SVTO	8 S	0655.0E	0655.0	1.00	210.0			QL=2 ST=2 TYP=3	
	2850	CRIM	1 S	0710.0	0713.0	13.8	8.0	3.0			
	5900	KISV	20 GRF	0712.4	0713.1	10.2	4.0				
	40	POTS	4 S/F	0712.5	0712.7	1.6	2200.0				
	113	POTS	4 S/F	0712.5	0712.8	1.6	1900.0				
	2695	LEAR	8 S	0720.0E	0720.0	2.00	66.0			QL=4 ST=2 TYP=3	
	3000	POTS	21 GRF	0955.0	1010.5	30.0	8.0				
	2950	GORK	20 GRF	1007.2	1010.4	8.1	4.0				
	9300	KISV	2 S/F	1007.6	1010.5	9.4	6.0				
	536	ONDR	42 SER	1009.8	1056.6	47.0	23.0				
	5900	KISV	2 S/F	1010.4	1010.5	1.6	3.0				
	410	SVTO	8 S	1137.0E	1137.0	1.00	450.0			QL=2 ST=2 TYP=3	
	245	SVTO	8 S	1137.0E	1137.0	1.00	160.0			QL=2 ST=2 TYP=3	
	9500	POTS	4 S/F	1223.0	1224.0	3.0	19.0				
	536	ONDR	46 C	1255.0	1256.9	3.5	60.0				
	2800	OTTA	3 S	1346.0	1346.9	3.1	5.8	2.0			
	234	POTS	4 S/F	1347.6	1350.0	4.4	1900.0				
	9400	HUAN	1 S	1347.6	1350.8	6.0	15.3	7.2			
	245	SVTO	49 GB	1348.0E	1350.0	3.00	890.0			QL=2 ST=2 TYP=6	
810	KRAK	2 S/F	1348.7	1350.0	1.8	28.0	10.0				
9500	POTS	3 S	1349.0	1350.0	3.0	15.0					
245	SGMR	49 GB	1349.0E	1349.0	1.00	980.0			QL=2 ST=2 TYP=6		
410	SGMR	8 S	1349.0E	1351.0	2.00	120.0			QL=4 ST=2 TYP=3		
410	SVTO	8 S	1349.0E	1351.0	2.00	110.0			QL=4 ST=2 TYP=3		
1470	POTS	4 S/F	1349.0	1350.7	3.0	11.0					
6700	CUBA	2 S/F	1349.1	1350.2	4.9	9.0	4.0				
15000	CUBA	2 S/F	1349.2	1350.1	2.9	15.0	7.0			47L	
40	POTS	4 S/F	1349.3	1351.2	2.3	10000.0					
113	POTS	4 S/F	1349.4	1350.0	4.2	770.0					
3000	POTS	4 S/F	1349.5	1350.0	3.0	7.0					
600	HUMN	2 S/F	1350.0	1351.0	3.0	35.0	15.0				
610	SVTO	8 S	1350.0E	1350.0	1.00	71.0			QL=4 ST=2 TYP=3		
33	UPIC	46 C	1350.0	1350.2	1.6						
810	KRAK	8 S	1352.3	1352.5	0.5	9.0	3.0				
2800	OTTA	3 S	1355.9	1356.3	2.4	14.7	3.0				
3000	POTS	4 S/F	1358.0	1358.5	2.00	15.0					
1470	POTS	3 S	1358.0	1358.5	2.0	6.0					
113	POTS	4 S/F	1418.7	1419.1	0.8	525.0					

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NOVEMBER 1990

Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
						Peak	Mean		
26	40 POTS	4 S/F	1419.0	1419.4	0.9	1500.0			
	6700 CUBA	1 S	1546.9	1547.2	1.1	6.0	3.0		
	9500 CUBA	1 S	1547.0	1547.3	0.5	6.0	3.0		
	2800 OTTA	3 S	1642.3	1643.1	2.9	9.1	3.0		
	9400 HUAN	3 S	1649.3	1650.6	5.1	139.4	52.4		
	8800 SGMR	8 S	1650.0E	1650.0	1.00	120.0			QL=4 ST=2 TYP=3
	15400 SGMR	8 S	1650.0E	1650.0	1.00	110.0			QL=4 ST=2 TYP=3
	6700 CUBA	45 C	1650.0	1650.8	5.5	56.0	14.0		
	15000 CUBA	45 C	1650.1	1650.8	3.3	93.0	34.0		27L
	9500 CUBA	45 C	1650.5	1650.7	3.9	160.0	24.0		
	9400 HUAN	29 PBI	1654.4	1654.4	40.9	3.8	2.2		
	6700 CUBA	20 GRF	1735.0	1739.0	8.0	3.0	1.0		
	9400 HUAN	1 S	1758.6	1802.7	6.1	7.6	4.2		
	2800 OTTA	20 GRF	1850.0	1900.0	95.0	24.4	12.0		
	9400 HUAN	2 S/F	2032.2	2036.1	6.0	5.7	3.8		
	9500 CUBA	2 S/F	2034.0	2035.5	4.0	8.0	4.0		
	9400 HUAN	2 S/F	2211.6	2213.9	8.6	21.0	9.8		
	200 HIRA	42 SER	2300.0	2523.0	165.0	170.0			MR
	245 LEAR	8 S	2301.0E	2301.0	1.00	65.0			QL=2 ST=2 TYP=3
	15400 LEAR	8 S	2313.0E	2314.0	2.00	110.0			QL=4 ST=2 TYP=3
	8800 LEAR	4 S/F	2313.0E	2314.0	3.00	160.0			QL=4 ST=2 TYP=3
8800 PALE	4 S/F	2313.0E	2314.0	3.00	140.0			QL=2 ST=2 TYP=3	
17000 NOBE	4 S/F	2313.9	2314.6	13.0	86.0			R,80,35GHz:0	
15400 PALE	8 S	2314.0E	2314.0	U	86.0			QL=2 ST=2 TYP=3	
27	245 PALE	44 NS	0122.0E	0124.0	78.00	65.0			QL=4 ST=2 TYP=1
	245 LEAR	44 NS	0147.0E	0147.0	283.00	220.0			QL=4 ST=2 TYP=1
	200 GORK	44 NS	0554.0E		84.00		5.0		
	100 GORK	44 NS	0554.0E		84.00		5.0		
	234 POTS	44 NS	0650.0E	1029.0	467.00	40.0			
	113 POTS	44 NS	0653.0E	0734.0	95.00	25.0			
	204 IZMI	43 NS	0700.0		300.0	20.0			
	127 TORN	44 NS	0700.0E		440.00		17.0		V=2
	260 ONDR	44 NS	0900.0E	1107.2	270.00	178.0			
	245 SGMR	44 NS	1219.0E	1219.0	177.00	90.0			QL=2 ST=2 TYP=1
	280 CUBA	44 NS	1253.0E		495.00		29.0		
	235 CUBA	44 NS	1253.0E		495.00		22.0		
	200 HIRA	44 NS	2125.0E	0100.0	600.00	10.0	5.0		WR
	245 LEAR	8 S	0052.0E	0052.0	2.00	58.0			QL=2 ST=2 TYP=3
	245 LEAR	4 S/F	0122.0E	0122.0	3.00	79.0			QL=2 ST=2 TYP=3
	2840 PEKG	28 PRE	0436.0	0438.0	18.0	7.6	4.4		
	100 HIRA	42 SER	0443.2		31.7	1000.00			
	200 HIRA	42 SER	0443.2	0443.8	15.2	255.0			WR
	245 LEAR	8 S	0444.0E	0444.0	1.00	92.0			QL=2 ST=2 TYP=3
	2840 PEKG	45 C	0454.0	0504.1	20.0	107.8	63.0		
	2695 LEAR	4 S/F	0457.0E	0503.0	18.00	87.0			QL=4 ST=2 TYP=5
	500 HIRA	46 C	0457.0	0502.0	42.0	156.0	9.0		SL
	1415 LEAR	4 S/F	0500.0E	0502.0	5.00	40.0			QL=4 ST=2 TYP=3
	4995 LEAR	4 S/F	0500.0E	0504.0	13.00	99.0			QL=4 ST=2 TYP=5
	200 HIRA	46 C	0500.0	0504.0	97.0	475.0	22.0		O
	200 HIRA	46 C	0500.0	0603.3		25.0			MR
	245 LEAR	4 S/F	0501.0E	0504.0	12.00	470.0			QL=2 ST=2 TYP=5
	8800 LEAR	4 S/F	0501.0E	0504.0	10.00	56.0			QL=4 ST=2 TYP=3
	17000 NOBE	20 GRF	0501.8	0504.4	12.0	19.0			O,80,35GHz:0
	410 LEAR	4 S/F	0502.0E	0504.0	7.00	470.0			QL=4 ST=2 TYP=3
	610 LEAR	4 S/F	0502.0E	0504.0	3.00	87.0			QL=4 ST=2 TYP=3
	15400 LEAR	4 S/F	0502.0E	0505.0	10.00	40.0			QL=4 ST=2 TYP=5
	2840 PEKG	29 PBI	0514.0	0514.0	60.0	22.8	13.3		
	100 HIRA	27 RF	0515.8	0533.0	119.00	105.0	42.0		SUNSET
100 GORK	46 C	0652.3	0655.6		810.0				
100 GORK	46 C	0652.3	0653.8	4.7	2300.0				
200 GORK	4 S/F	0655.7	0658.2	2.7	50.0				
245 SVTO	8 S	0721.0E	0722.0	1.00	71.0			QL=2 ST=2 TYP=3	
9100 GORK	20 GRF	0827.0	0830.0	8.4	5.0				
430 KRAK	8 S	0832.9	0833.0	0.2	56.0				
9300 KISV	4 S/F	0837.0	0837.3	2.0	27.0				
9100 GORK	3 S	0837.0	0837.4	2.6	25.0				
5900 KISV	2 S/F	0837.0	0837.4	2.0	12.0				
9500 POTS	4 S/F	0837.0	0837.4	1.5	12.0				

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks	
							Peak (10 -22 W/m 2 Hz)	Mean			
27	15000	KISV	2 S/F	0837.1	0837.4	1.9	11.0				
	536	ONDR	46 C	1103.5	1104.5	5.5	40.0				
	5900	KISV	45 C	1105.0	1106.0	2.9	3.0				
	410	SVTO	8 S	1105.0E	1105.0	2.00	65.0			QL=4 ST=2 TYP=3	
	5900	KISV	45 C	1105.0	1106.7		3.0				
	9300	KISV	45 C	1105.1	1106.7		4.0				
	9300	KISV	45 C	1105.1	1105.9	2.3	5.0				
	260	ONDR	46 C	1105.4	1107.0	3.5	178.0				
	245	SVTO	8 S	1106.0E	1106.0	1.00	400.0			QL=2 ST=2 TYP=3	
	204	IZMI	41 F	1106.5	1107.0	1.5	4700.0				
	40	POTS	4 S/F	1106.5	1107.2	1.4	3000.0				
	113	POTS	4 S/F	1106.5E	1107.2	1.80	500.0				
	536	ONDR	8 S	1206.0	1206.1	0.5	26.0				
	245	SVTO	8 S	1219.0E	1219.0	U	100.0			QL=2 ST=2 TYP=3	
	6700	CUBA	8 S	1326.2	1326.5	0.5	22.0	11.0			
	9400	HUAN	1 S	1356.8	1358.1	5.8	8.0	3.6			
	9400	HUAN	20 GRF	1623.0	1641.8	33.0	6.0	2.9			
	6700	CUBA	1 S	1721.7	1722.3	1.1	3.0	1.0			
	9500	CUBA	21 GRF	1905.0	1952.0	143.0	24.0	12.0			
	245	SGMR	8 S	1918.0E	1918.0	U	76.0			QL=2 ST=2 TYP=3	
	6700	CUBA	40 F	2012.0	2014.0	4.0	10.0	5.0			
	9500	CUBA	40 F	2012.0	2013.0	3.0	12.0	6.0			
	28	200	GORK	44 NS	0557.0E		63.00		5.0		
		204	IZMI	43 NS	0700.0		300.0	25.0			
		127	TORN	44 NS	0700.0E		440.00		35.0		V=2
		234	POTS	44 NS	0720.0E	0912.0	224.00	80.0			
		113	POTS	44 NS	0720.0E	0930.0	224.00	90.0			
245		SVTO	44 NS	0900.0E	0929.0	180.00	91.0			QL=4 ST=2 TYP=1	
245		LEAR	44 NS	0904.0E	0907.0	89.00	71.0			QL=4 ST=2 TYP=1	
234		POTS	43 NS	1222.5	1428.3	138.00	130.0				
113		POTS	43 NS	1230.0	1409.0	130.00	40.0				
245		SVTO	44 NS	1305.0E	1327.0	115.00	100.0			QL=4 ST=2 TYP=1	
245		SGMR	44 NS	1307.0E	1512.0	460.00	270.0			QL=2 ST=2 TYP=1	
235		CUBA	44 NS	1414.0E		413.00		36.0			
280		CUBA	44 NS	1414.0E		413.00		40.0			
245		PALE	44 NS	2012.0E	2239.0	308.00	190.0			QL=4 ST=2 TYP=1	
200		HIRA	44 NS	2125.0E		595.00		36.0			
245		LEAR	8 S	0349.0E	0349.0	U	160.0			QL=4 ST=2 TYP=3	
245		LEAR	8 S	0528.0E	0528.0	1.00	87.0			QL=4 ST=2 TYP=3	
200		HIRA	8 S	0638.6	0638.7	0.7	860.0			0	
245		LEAR	8 S	0639.0E	0639.0	U	250.0			QL=4 ST=2 TYP=3	
200		GORK	46 C	0639.0	0639.4	1.0	2900.0				
200		GORK	46 C	0639.0	0639.6		290.0				
245		LEAR	8 S	0707.0E	0707.0	U	100.0			QL=4 ST=2 TYP=3	
2950		GORK	20 GRF	0727.6	0737.2	18.9	5.0				
204		IZMI	8 S	0739.4	0739.5	0.2	1300.0	1000.0			
245		LEAR	8 S	0759.0E	0759.0	1.00	80.0			QL=4 ST=2 TYP=3	
245		SVTO	8 S	0759.0E	0800.0	1.00	56.0			QL=2 ST=2 TYP=3	
127		TORN	47 GB	0840.5	0843.6	5.0	780.0	210.0			
204		IZMI	24 R	0905.0		40.0	30.0				
260		ONDR	RF	0906.0	0935.1	45.0	114.0				
2950		GORK	20 GRF	0922.0U	0927.8	21.70	8.0				
5900		KISV	2 S/F	0925.5	0927.7	2	9.0				
204		IZMI	41 F	0926.0	0927.0	5.0	2000.0				
536		ONDR	8 S	0927.0	0927.6	1.2	90.0				
536		ONDR	47 GB	1142.5	1144.7	20.0	48.0				
430		KRAK	41 F	1142.6	1145.0	20.0	16.0	6.0			
600		HUMN	2 S/F	1144.0	1146.0	11.0	15.0	5.0			
9500		CUBA	20 GRF	1534.0	1750.0	301.00	30.0			2135 OFF	
9400		HUAN	20 GRF	1600.0	1609.4	17.8	11.3	6.2			
9400		HUAN	22 GRF	1629.0	1647.1	30.9	18.1	9.2			
15000		CUBA	20 GRF	1716.0	2051.0	267.0	35.0	18.0		00L	
6700	CUBA	20 GRF	1720.0	1935.0	275.00	12.0			SUNSET		
245	LEAR	8 S	2200.0E	2200.0	U	100.0			QL=4 ST=2 TYP=3		
245	LEAR	4 S/F	2211.0E	2214.0	3.00	97.0			QL=4 ST=2 TYP=3		
245	LEAR	8 S	2223.0E	2224.0	1.00	62.0			QL=4 ST=2 TYP=3		
410	LEAR	8 S	2337.0E	2337.0	U	83.0			QL=4 ST=2 TYP=3		
410	PALE	8 S	2337.0E	2337.0	U	68.0			QL=4 ST=2 TYP=3		

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 ⁻²² W/m ² Hz)	Flux Density Mean	Int	Remarks
29	245	PALE	44 NS	0240.0E	0315.0	51.00	110.0			QL=4 ST=2 TYP=1
	245	SVTO	44 NS	0643.0E	1004.0	496.00	150.0			QL=2 ST=2 TYP=1
	234	POTS	44 NS	0650.0E	1056.0	430.00	110.0			
	204	IZMI	43 NS	0700.0		300.0	35.0			
	127	TORN	44 NS	0700.0E		440.00		18.0		V=1
	113	POTS	44 NS	0700.0E	0732.0	420.00	10.0			
	260	ONDR	44 NS	0900.0E	1236.0	270.00	508.0			
	245	SGMR	44 NS	1224.0E	1225.0	503.00	250.0			QL=2 ST=2 TYP=1
	280	CUBA	44 NS	1251.0E		463.00		28.0		
	235	CUBA	44 NS	1251.0E		463.00		19.0		
	410	LEAR	8 S	0148.0E	0148.0	1.00	150.0			QL=4 ST=2 TYP=3
	410	PALE	8 S	0148.0E	0149.0	1.00	110.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0156.0E	0156.0	2.00	100.0			QL=4 ST=2 TYP=3
	500	HIRA	21 GRF	0200.0	0335.0	165.0	11.0	7.0		0
	245	LEAR	8 S	0239.0E	0240.0	2.00	87.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0243.0E	0243.0	1.00	83.0			QL=4 ST=2 TYP=3
	410	LEAR	8 S	0606.0E	0606.0	1.00	41.0			QL=4 ST=2 TYP=3
	2840	PEKG	1 S	0711.0	0713.5	5.0	3.9	2.2		
	2850	CRIM	1 S	0712.5	0714.0	2.8	8.9	3.0		
	2950	GORK	2 S/F	0712.7	0714.0	2.6	7.0			
	245	SVTO	8 S	0837.0E	0837.0	U	170.0			QL=2 ST=2 TYP=3
	9300	KISV	20 GRF	0944.7	0951.6	38.3	17.0			
	3000	POTS	29 PBI	0946.0	0951.3	34.00	19.0			
	2850	CRIM	7 C	0946.6	0951.0		15.4			
	2850	CRIM	30 PBI	0946.6	0953.6	27.0	3.5	1.0		
	2850	CRIM	7 C	0946.6	0948.9	7.0	13.0	5.0		
	5900	KISV	23 GRF	0946.8	0949.2	39.6	10.0			
	2950	GORK	21 GRF	0946.9	0958.2	49.6	8.0			
	9500	POTS	20 GRF	0948.0	0951.5	42.0	10.0			
	3013	IZMI	7 C	0948.1	0951.0	7.5	16.0	8.0		
	2950	GORK	2 S/F	0948.3	0951.5	4.8	11.0			
	9100	GORK	20 GRF	0948.5	1000.0	41.5	12.0			
	5900	KISV	2 S/F	0949.8	0951.7	4.4	12.0			
	234	POTS	4 S/F	0953.7	0954.4	1.5	400.0			
	2850	CRIM	1 S	0958.5	0959.2	2.0	7.1	2.0		
	113	POTS	4 S/F	1010.5	1011.2	1.7	140.0			
	30	POTS	4 S/F	1010.5	1011.2	1.5	1000.00			
	33	UPIC	2 S/F	1010.9	1011.1	0.4				
	410	SVTO	8 S	1133.0E	1133.0	U	80.0			QL=2 ST=2 TYP=3
	810	KRAK	8 S	1144.2	1144.3	0.4	94.0			
	430	KRAK	8 S	1204.5	1205.0	0.8	19.0			
	810	KRAK	8 S	1205.0	1205.0	0.1	41.0			
	234	POTS	4 S/F	1234.7	1235.2	1.0	3000.0			
	245	SGMR	49 GB	1235.0E	1235.0	U	1400.0			QL=4 ST=2 TYP=6
	410	SGMR	8 S	1235.0E	1235.0	U	78.0			QL=4 ST=2 TYP=3
410	SVTO	8 S	1235.0E	1235.0	U	110.0			QL=4 ST=2 TYP=3	
40	POTS	8 S	1235.2	1235.3	0.6	1100.0				
9500	CUBA	20 GRF	1311.0	1700.0	549.00	39.0			SUNSET	
410	PALE	8 S	2055.0E	2055.0	U	38.0			QL=4 ST=2 TYP=3	
245	PALE	8 S	2055.0E	2055.0	1.00	110.0			QL=4 ST=2 TYP=3	
200	HIRA	8 S	2338.4	2338.9	1.0	190.0			WL	
245	LEAR	8 S	2339.0E	2339.0	U	64.0			QL=4 ST=2 TYP=3	
30	200	HIRA	43 NS	0420.0	0600.0	106.0	13.0	7.0		0
	204	IZMI	43 NS	0700.0		300.0	10.0			
	127	TORN	44 NS	0700.0E		370.00		5.0		V=1
	280	CUBA	44 NS	1255.0E		495.00		21.0		
	235	CUBA	44 NS	1259.0E		495.00		14.0		
	245	SGMR	44 NS	1306.0E	1458.0	172.00	88.0			QL=2 ST=2 TYP=1
	200	HIRA	27 RF	0225.0	0317.0	73.0	10.0	4.0		WL
	500	HIRA	46 C	0255.0	0257.0	7.0	22.0	11.0		0
	610	LEAR	8 S	0255.0E	0257.0	2.00	23.0			QL=4 ST=2 TYP=3
	245	LEAR	4 S/F	0255.0E	0257.0	3.00	340.0			QL=4 ST=2 TYP=3
	410	LEAR	4 S/F	0256.0E	0257.0	3.00	19.0			QL=4 ST=2 TYP=3
	245	PALE	8 S	0256.0E	0257.0	2.00	320.0			QL=4 ST=2 TYP=3
	2840	PEKG	5 S	0348.0	0351.0	12.0	11.2	6.0		
	245	LEAR	8 S	0503.0E	0504.0	1.00	68.0			QL=4 ST=2 TYP=3
	113	POTS	41 F	0733.7	0735.6	6.3	2100.00			
200	GORK	46 C	0733.9	0735.5	5.4	790.0				

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
30	200	GORK	46 C	0733.9	0735.8		630.0			
	127	TORN	7 C	0734.0	0735.0U	2.3	1800.0b	140.0b		
	204	IZMI	41 F	0734.0	0735.8	5.5	2500.0			
	245	LEAR	8 S	0735.0E	0735.0	1.0b	140.0			QL=4 ST=2 TYP=3
	245	SVTO	8 S	0735.0E	0735.0	U	140.0			QL=4 ST=2 TYP=3
	234	POTS	41 F	0735.1	0735.5	4.2	500.0			
	100	GORK	46 C	0736.5	0739.8		1300.0			
	100	GORK	46 C	0736.5	0738.9	4.1	19600.0			
	410	LEAR	8 S	0738.0E	0738.0	1.0b	38.0			QL=4 ST=2 TYP=3
	245	LEAR	8 S	0738.0E	0738.0	1.0b	110.0			QL=4 ST=2 TYP=3
	650	GORK	20 GRF	0906.0	0929.8	79.6	4.0			
	260	ONDR	41 F	0954.5	0955.2	60.0	39.0			
	950	GORK	20 GRF	1005.2E	1007.3	16.0b	2.0			
	204	IZMI	41 F	1145.5	1145.7	1.0	750.0			
	33	UPIC	46 C	1204.3	1208.0	5.2				
	113	POTS	4 S/F	1204.8	1207.5	3.7	700.0			
	30	POTS	4 S/F	1205.0	1207.5	4.0	4000.0b			
	1470	POTS	4 S/F	1205.5	1206.3	3.5	9.0			
	234	POTS	4 S/F	1207.0	1207.3	1.0	100.0			
	3000	POTS	20 GRF	1222.0U	1226.0	10.0U	5.0			
1470	POTS	20 GRF	1222.0	1222.7	10.5	7.0				
410	SGMR	4 S/F	1510.0E	1512.0	5.0b	68.0			QL=2 ST=2 TYP=3	
245	SGMR	8 S	1511.0E	1512.0	1.0b	460.0			QL=2 ST=2 TYP=3	
9400	HUAN	2 S/F	2038.8	2044.2	9.9	10.6	4.8			

Reports are received routinely from the following observatories:

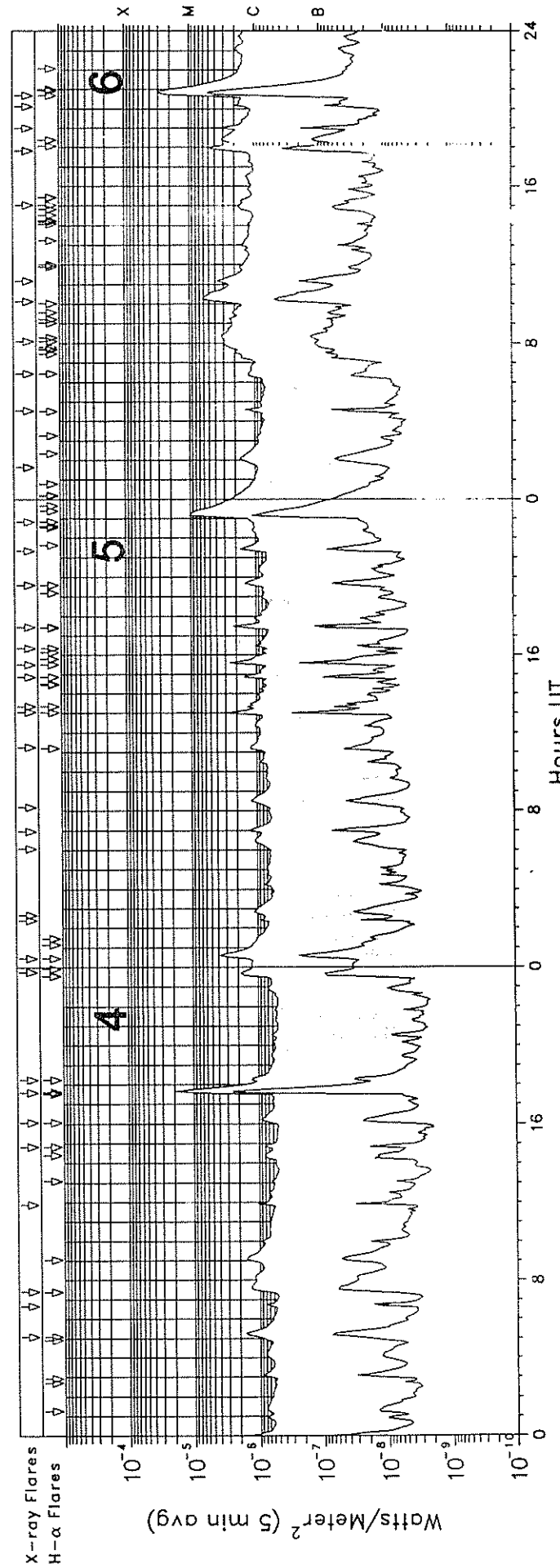
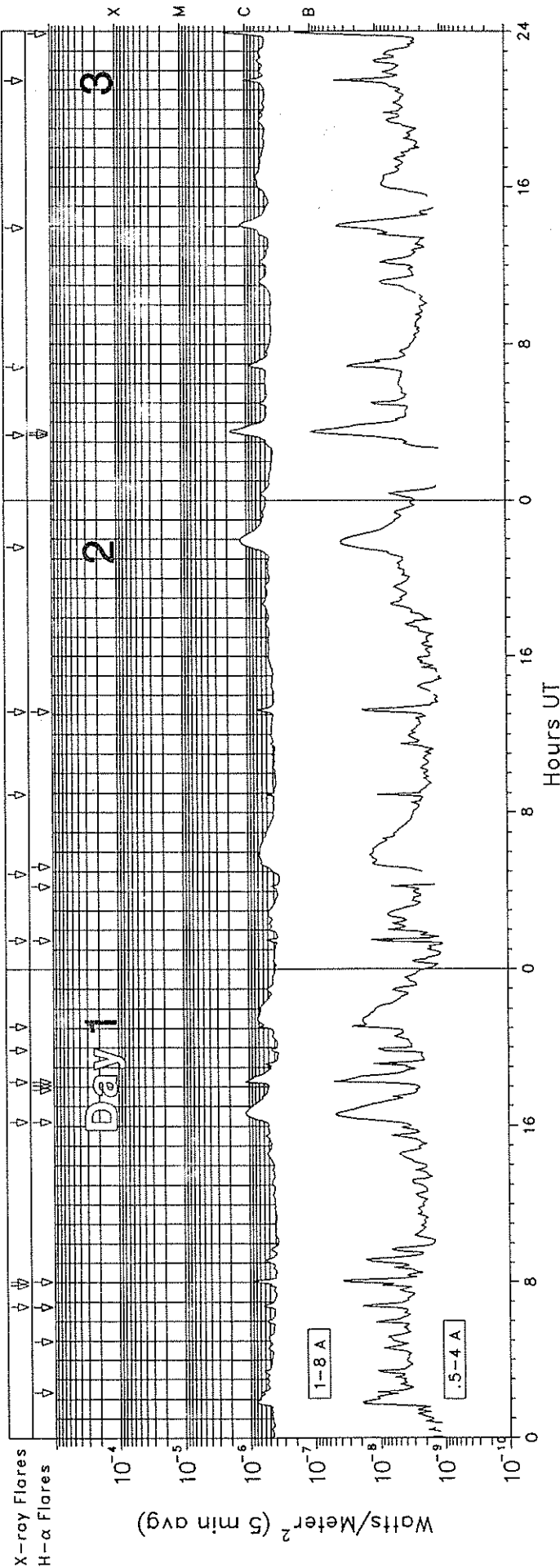
BERN = Berne	IZMI = IZMIRAN	ONDR = Ondrejov	SVTO = San Vito
CRIM = Crimea	KISK = Kislovodsk	OTTA = Ottawa	SYDN = Sydney
GORK = Gorky	KRAK = Krakow	PALE = Palehua	TORN = Torun
HIRA = Hiraiso	LEAR = Learmonth	PENT = Penticton	TRST = Trieste
HUAN = Huancayo	NOBE = Nobeyama	POTS = Potsdam	TYKW = Toyokawa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

Explanation of Type Code:

1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple 3F	28 Precursor	41 Group of Bursts	47 Great Burst
6 Minor	23 Simple 3AF	29 Post Burst Increase	42 Series of Bursts	48 Major
1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F	
3A Simple 2A	40 Rise Only	16A Fall A	27AF Rise and Fall AF	
21A Simple 3A GRF	40F Rise Only F	260 Fall Only	31A Post Burst Decrease A	
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A	

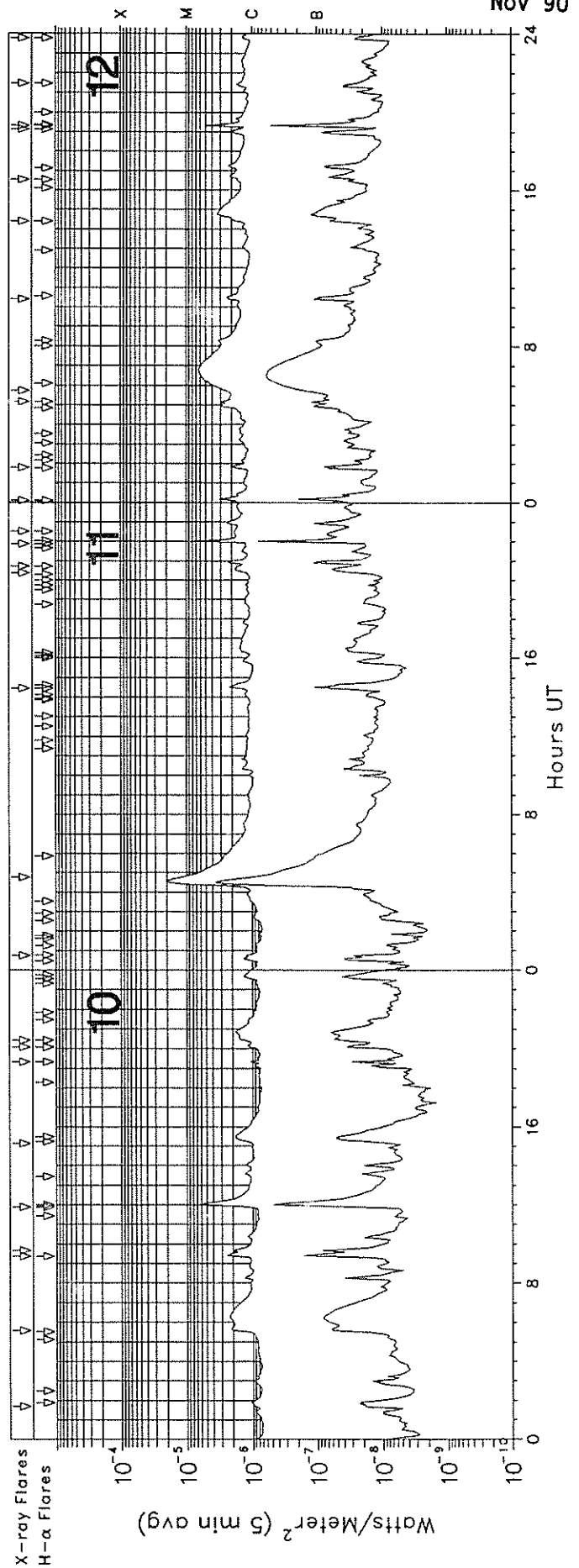
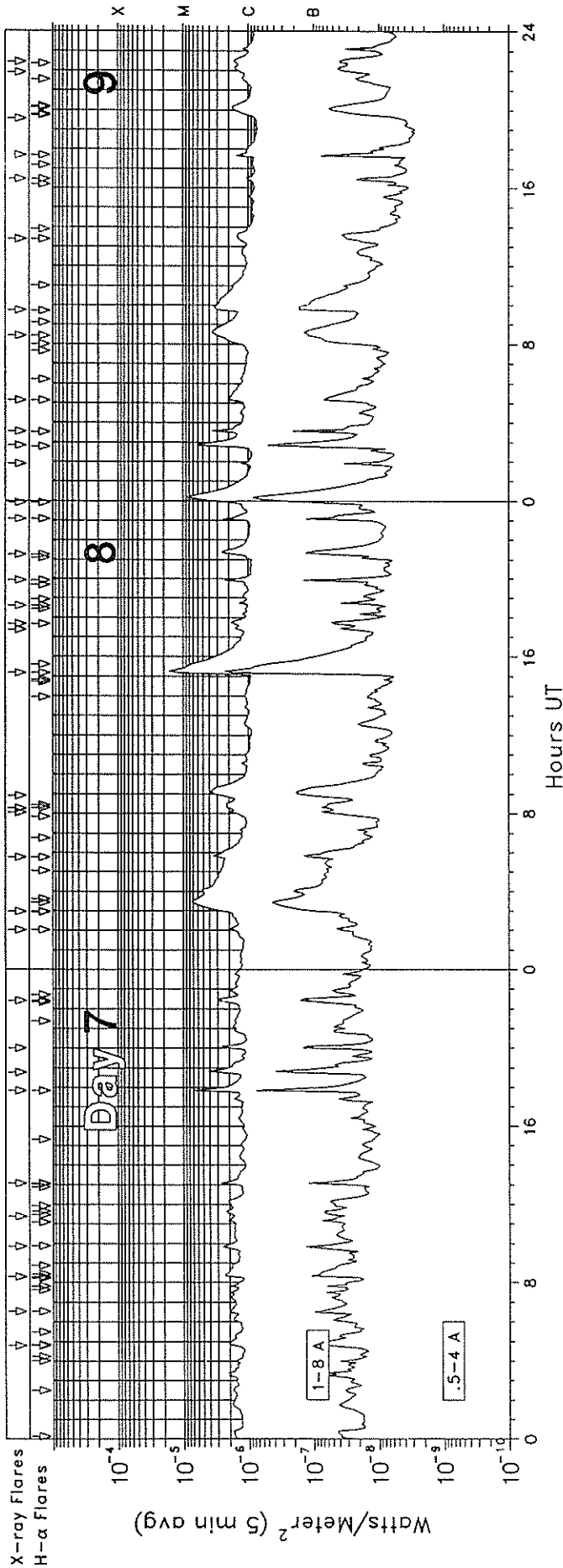
GOES-7 X-RAY DETECTOR

November 1990



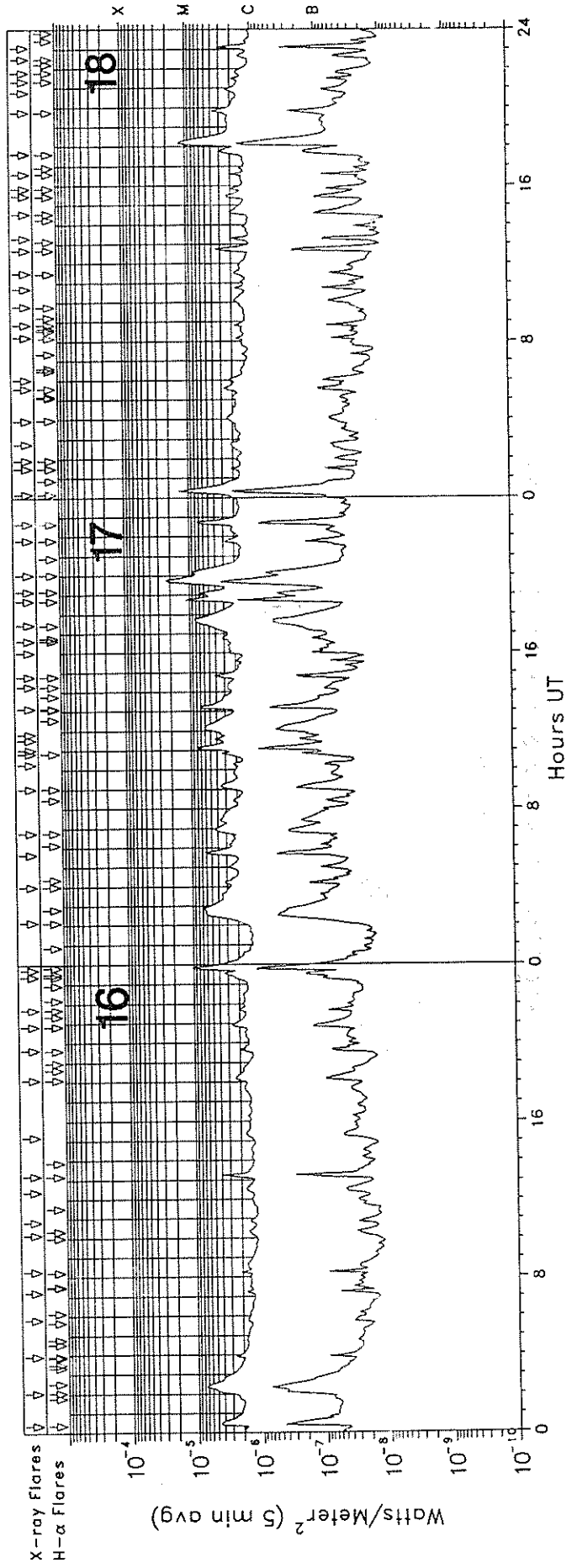
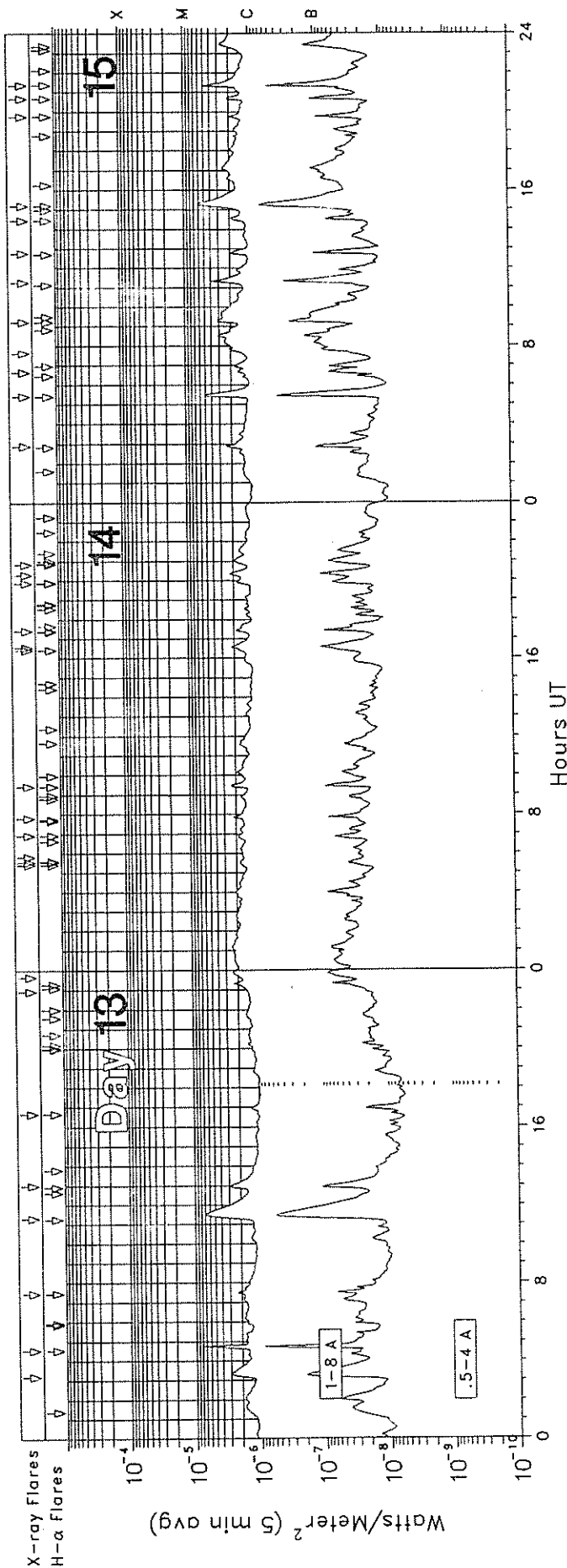
GOES-7 X-RAY DETECTOR

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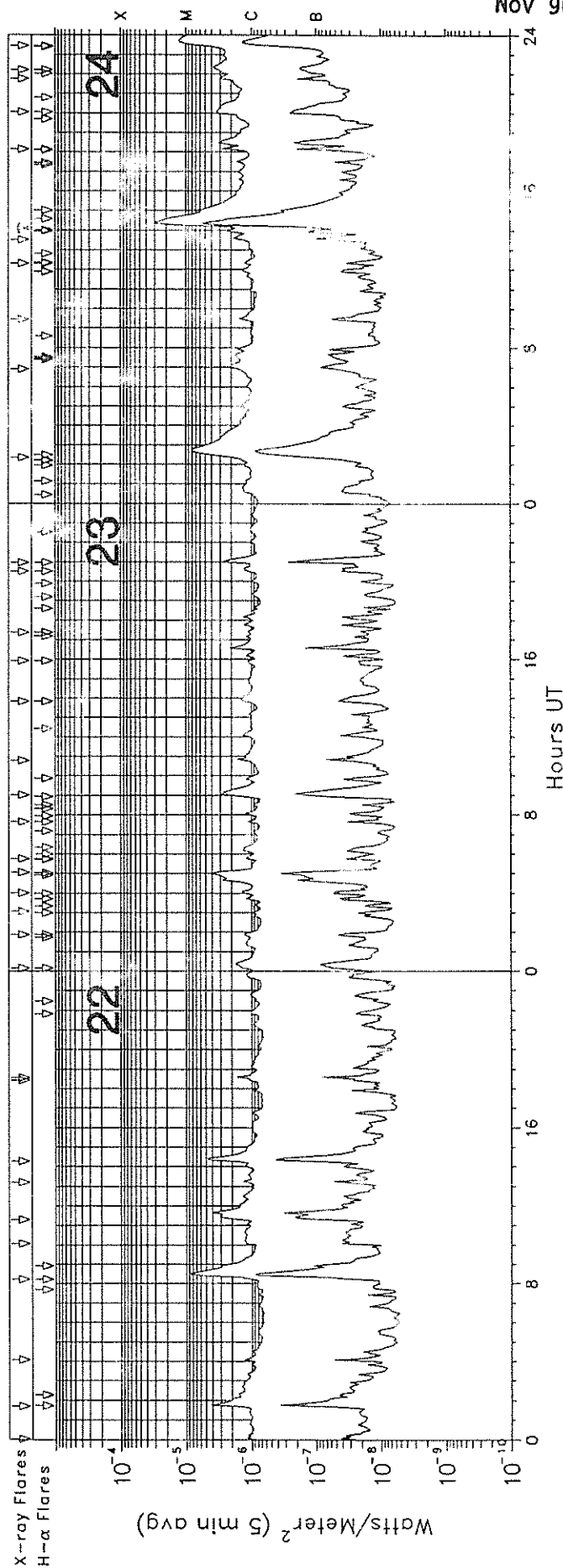
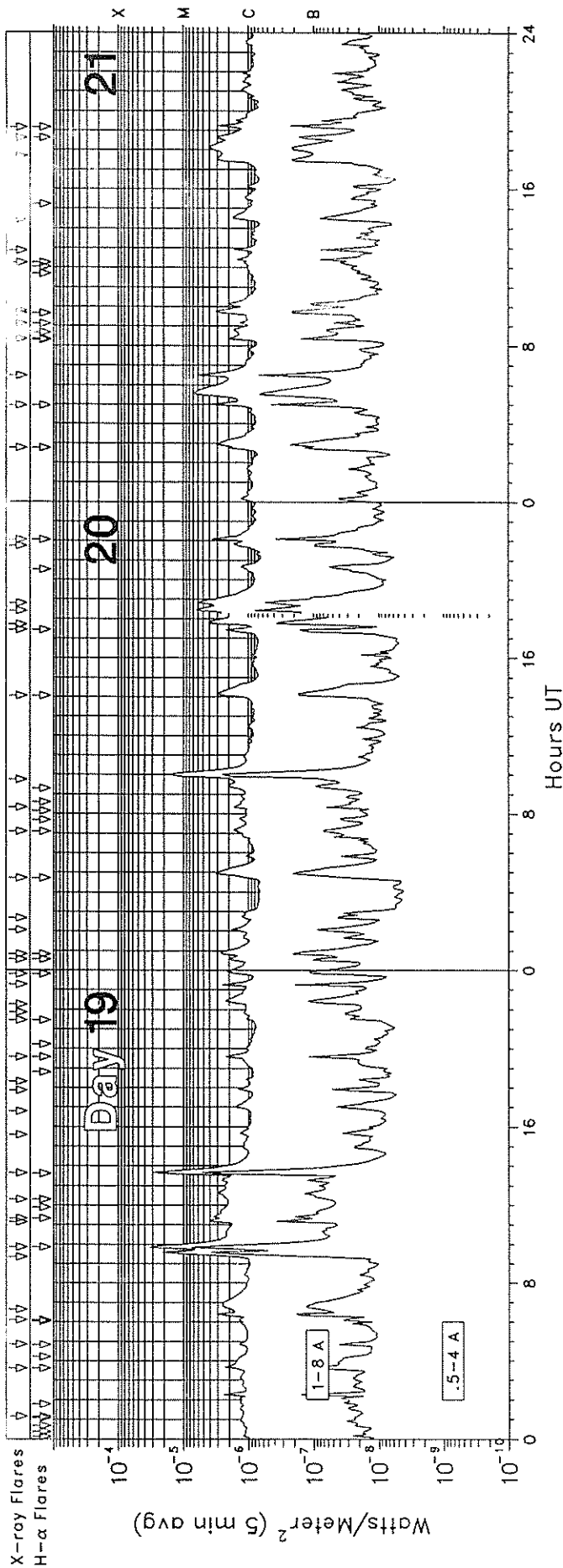
GOES-7 X-RAY DETECTOR

November 1990



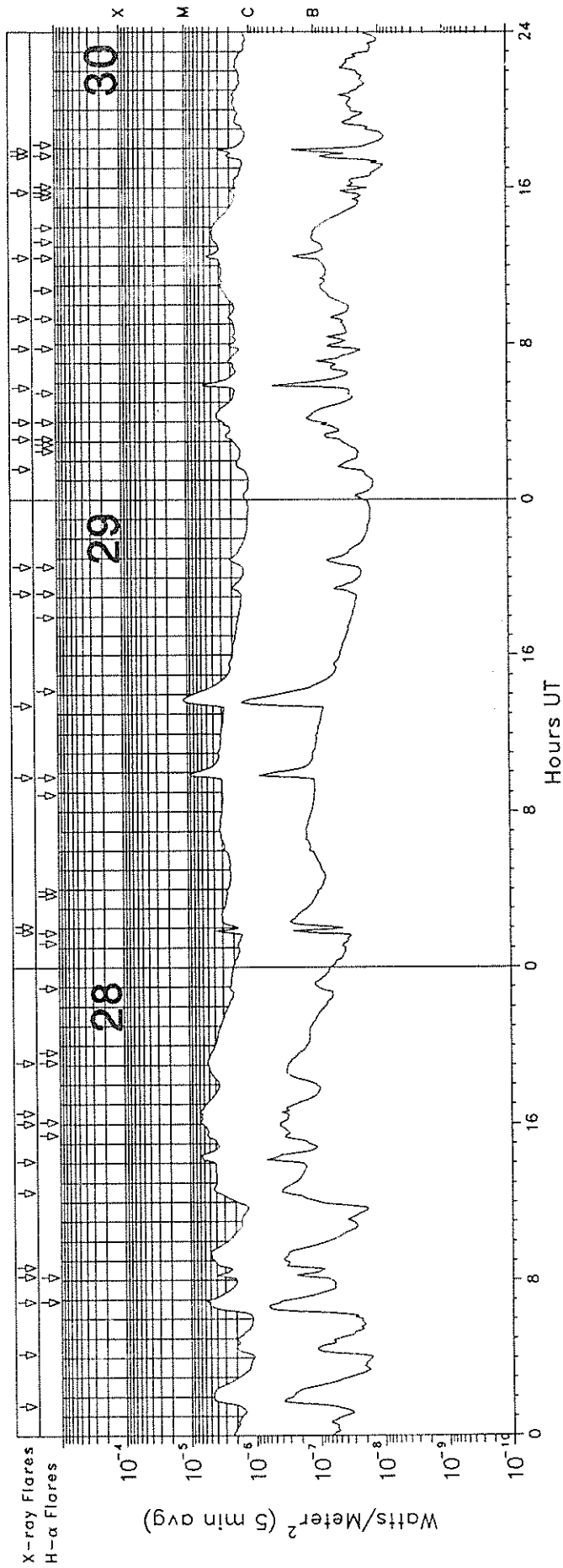
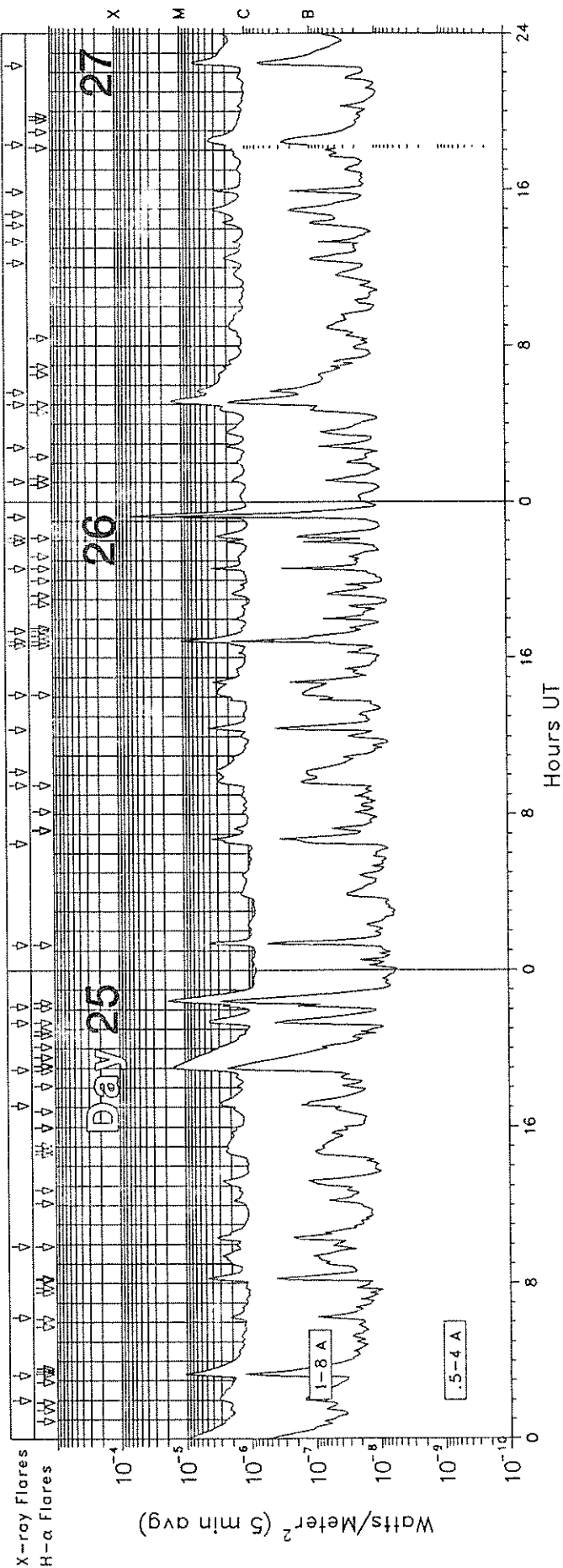
GOES-7 X-RAY DETECTOR

November 1990



GOES-7 X-RAY DETECTOR

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GOES SOLAR X-RAY FLARES
 Preliminary Listing

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Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/USAF Region
01	0646	0650	0653				B7.7	
01	0751	0754	0758				B5.8	
01	0802E	0802	0807D	S21	E58	SF	C1.1	6347
01	1612E	1701	1712D	S06	E25	SF	C1.2	6345
01	1815E	1816	1829D	S20	E56	SF	C1.3	6347
01	1953	1956	1958				B6.8	
01	2104E	2105	2107D	S04	E20	SN	C1.1	6345
02	0128E	0130	0134D	S04	E18	SF	B6.8	
02	0453	0552	0653				B7.1	
02	0855	0858	0900				B6.3	
02	1309E	1315	1320	S07	E13	SF	B8.6	6345
02	2135	2158	2215				C1.3	
03	0320E	0338	0357D	S26	E37	SF	C1.9	6350
03	0649	0656	0705				B9.2	
03	1354	1403	1410				C1.2	
03	2127E	2130	2137D	S18	E26	SF	C1.1	6347
04	0505E	0514	0523D	S22	E21	SF	C1.7	6347
04	0641	0645	0647				B8.9	
04	0725E	0733	0753D	S25	E23	SF	C1.3	
04	1154	1158	1201				C1.4	
04	1451E	1453	1500D	S19	E12	SF	C1.0	6347
04	1604E	1611	1630D	S19	E13	SF	B8.8	6347
04	1736E	1738	1828D	S21	E15	1B	M2.1	6347
04	1815E	1817	1828D	N15	E70	SF	C1.4	6358
04	2346	2347	0001D	S23	E16	SF	C1.8	6350
05	0027E	0037	0116D	S25	E14	1F	C3.9	6350
05	0225	0228	0231				C1.0	
05	0241	0258	0307				C1.1	
05	0605	0636	0652				C1.1	
05	0658	0703	0709				C1.3	
05	0811	0832	0847				C1.3	
05	1116E	1118	1211	S19	E04	SF	C1.2	6347
05	1304E	1305	1318D	N20	E65	SF	C4.5	6358
05	1321E	1321	1328D	S29	E78	SF	C1.5	6364
05	1451E	1454	1502D	N19	E64	SF	C2.1	6358
05	1530E	1536	1558D	N18	E65	SF	C2.9	6358
05	1622E	1629	1706D	N18	E64	SF	C1.1	6358
05	1727E	1728	1812D	S17	W00	1N	C2.9	6347
05	1936E	1940	1946D	S18	W06	SF	C1.5	6347
05	2121E	2122	2139D	S21	W01	SF	C1.7	6347
05	2251E	2310	2358	S24	E03	2B	M1.0	6350
06	0139	0209	0225				C1.7	
06	0433E	0438U	0446	S19	W12	SF	C1.5	6347
06	0627E	0655	0659D	N18	E53	SF	C1.3	6358
06	0806E	0815U	0853	N18	E55	SF	C3.2	6358
06	1008	1022	1040				C6.1	
06	1110	1112U	1130D	N19	E50	SF	C3.8	6358
06	1502E	1506	1515D	N19	E50	SF	C1.7	6358
06	1749	1759	1806				C5.7	
06	1900	1905	1907				C3.9	
06	2008E	2010	2026D	S16	E04	SF	C2.1	6349
06	2041E	2056	2142	N08	E68	2B	M3.1	6361
07	0448	0451	0454				C2.1	
07	0632E	0648	0706D	N15	W29	SF	C2.8	6355
07	0819	0825	0837				C2.8	
07	0951	0955	0957				C3.3	
07	1123	1134	1144D	N17	W32	SF	C2.4	6355
07	1305E	1305	1310D	N08	E66	SF	C3.5	6361
07	1750E	1752	1801D	N08	E65	SF	C8.9	6361

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/USAF Region
07	1847	1851	1854				C6.0	
07	2001	2005	2009				C3.3	
07	2225E	2229	2232D	N15	W36	SF	C3.2	6355
08	0202E	0204	0216D	S22	W26	SF	C1.9	6350
08	0258E	0311	0459D	S22	W27	1F	C7.5	6350
08	0545E	0547	0555D	N17	W40	1F	C3.8	6355
08	0804E	0806	0811D	N16	W43	SF	C2.1	6355
08	0817	0823	0827				C2.2	
08	0855E	0908U	0917	N15	W42	SF	C3.8	6355
08	1510E	1516	1606D	N17	W48	SB	M1.6	6355
08	1723	1729	1740				C1.6	
08	1740	1742U	1805	N15	W47	SF	C2.0	6255
08	1837E	1846	1904D	N16	W48	1N	C1.4	6355
08	1955E	1955	2022	N17	E20	SF	C2.5	6358
08	2115E	2119	2227D	N15	W48	SF	C2.6	6355
08	2304E	2305	2326D	S19	W47	SN	C2.6	6347
08	2354E	0003	0055	N15	W52	1F	C8.8	6355
09	0154E	0156	0202D	S17	W48	SF	C1.4	6347
09	0249E	0251	0403	N05	E36	1N	C6.1	6361
09	0333E	0335	0343D	N17	W53	SB	C4.8	6347
09	0508	0510	0525D	S20	W36	1N	C2.0	
09	0825E	0837	0910D	N15	W55	SF	C3.6	6355
09	0944E	0947	1034D	N15	W56	SF	C3.5	6355
09	1323E	1327	1400D	S30	E36	SF	C1.5	6364
09	1627E	1629	1655D	N16	W59	SF	C1.2	6355
09	1741E	1744	1748D	N16	W59	SF	C1.9	6355
09	1933	2007	2025				C1.8	
09	2153	2207	2219				C1.6	
09	2225E	2227	2244D	S31	E34	SF	C1.6	6364
10	0142	0145	0150				C1.0	
10	0534E	0537	0552D	N07	E01	SF	C2.2	6362
10	0923E	0936	1000D	S30	E26	SF	C2.7	6364
10	0940	0943	0946				C2.1	
10	1154E	1200	1239D	N05	E17	2B	C6.4	6361
10	1508	1530	1549				C1.9	
10	1920E	1921	1926D	N15	W76	SF	C1.2	6355
10	2006E	2009	2023D	N16	W71	SF	C1.4	6355
10	2026E	2053	2118D	N17	W70	SF	C1.8	6355
11	0045E	0048	0052D	N10	E20	SF	C1.3	6361
11	0446E	0449	0454D	N10	E18	SF	M2.1	6361
11	1427E	1431	1508D	S32	E11	1F	C2.3	6364
11	2022E	2025	2054D	S32	E07	SF	C1.8	6364
11	2044E	2059	2117D	N07	W00	1N	C2.6	6361
11	2153E	2201	2217D	N07	W02	SN	C9.8	6361
11	2231E	2254	2323D	S33	E06	SF	C2.5	6364
12	0006E	0012	0023D	N08	W02	SF	C3.3	6361
12	0147E	0149	0201D	N06	W06	SF	C2.3	6361
12	0510E	0510	0518D	N08	W05	SF	C3.1	6361
12	0543	0648	0729				C6.4	
12	1024	1030	1037				C2.5	
12	1423	1448	1544				C3.4	
12	1632E	1644	1709D	N07	W09	1N	C3.1	6361
12	1908E	1908	1914D	N07	W11	SF	C2.2	6361
12	1920E	1921	1949D	N09	W12	SN	C6.9	6361
12	2128E	2128	2138D	S27	W11	SF	C1.7	6364
12	2346E	2347	2356D	N07	W19	SF	C1.5	6361
13	0312	0322	0340				C2.9	
13	0432E	0444	0455D	N08	W19	SN	M1.6	6361
13	0727E	0731	0737D	N08	W20	SF	C2.7	6361

GOES SOLAR X-RAY FLARES
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Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/USAF Region
13	1119E	1130	1253D	N12	W43	1F	C7.2	6358
13	1259	1304	1348D	N10	W10	1F	C2.9	6361
13	1639E	1701	1722D	N07	W22	SF	C1.3	6361
13	2255E	2320	2328	N15	E76	SN	C2.5	6368
13	2339	2355	2359				C2.4	
14	0524E	0524	0532D	S21	W01	SF	C1.7	6366
14	0533E	0535	0540D	N06	W28	SF	C1.9	6361
14	0549E	0556	0559D	N18	E78	SF	C1.7	6368
14	0654E	0659	0702D	N17	E78	SF	C1.9	6368
14	0748E	0750	0803D	S20	W01	1N	C2.3	6366
14	0925E	0930	0942D	S24	W00	SF	C3.0	6366
14	1624E	1626	1631D	S20	W05	SF	C1.6	6366
14	1633E	1635	1707D	S20	W06	SN	C2.4	6366
14	1724E	1729	1751D	S22	W02	SF	C2.3	6366
14	1952E	1952	2002D	S21	W07	SF	C1.9	6366
14	2018	2025	2033				C2.2	
14	2050E	2055	2120D	N15	W58	SF	C2.0	6358
15	0253E	0254	0304D	S21	W11	SF	C3.0	6366
15	0524E	0526	0547D	N19	W64	1F	C5.6	6358
15	0637	0641	0651				C1.5	
15	0738E	0749	0855D	S22	W13	SF	C3.2	6366
15	0914E	0919	0942D	N15	E59	SF	C3.3	6368
15	1116	1122	1126				C4.3	
15	1245E	1246	1314D	S21	W16	SF	C2.7	6366
15	1427E	1435	1459D	S21	W17	SF	C2.0	6366
15	1511E	1522	1556D	N19	E58	SF	C6.2	6368
15	1945E	1945	1952D	N19	E60	SF	C2.1	6368
15	2040E	2044	2054D	N17	E52	SF	C2.6	6368
15	2121E	2122	2142D	N16	E51	SN	C6.6	6368
16	0023E	0039	0105D	N14	E57	SB	C4.9	6368
16	0203E	0223	0311D	N17	E52	SF	C7.7	6368
16	0355E	0358	0405D	N19	E49	SF	C3.2	6368
16	0549E	0549	0554D	N19	E48	SF	C1.8	6368
16	0713	0716	0720				C1.9	
16	0817E	0817	0824D	N19	E46	SF	C2.2	6368
16	1010	1020	1031				C1.6	
16	1049	1052	1059				C1.5	
16	1223	1232	1250				C1.7	
16	1313E	1315	1329	N17	E36	1F	C4.7	6368
16	1512	1521	1542				C1.7	
16	1806E	1813	1822D	N05	W61	SF	C2.4	6361
16	1938E	1940	2001D	N19	E48	SF	C2.2	6368
16	2050E	2051	2117D	N19	E45	SF	C2.6	6368
16	2141E	2142	2147D	N19	E46	SF	C2.1	6368
16	2323E	2348	0033D	N14	E32	1N	C3.8	6368
16	2344E		2349	N18	E39	1N	M1.2	6368
17	0208E	0226	0358D	N16	E42	1F	C7.1	6368
17	0359E	0415	0421D	N19	E43	SF	C3.6	6368
17	0539	0546	0552				C7.1	
17	0645E	0723	0743D	N17	E38	1F	C3.9	6368
17	0645	0656	0712				C4.4	
17	0902E	0907	0927D	N17	E37	SF	C3.6	6368
17	1017	1020	1022				C3.2	
17	1050E	1109	1253D	N17	E34	1F	C3.9	6368
17	1102E	1106U	1304D	N13	E31	1N	C9.2	6368
17	1132	1136	1139				C5.1	
17	1150	1208	1227				C6.1	
17	1309E	1312	1333D	N08	W70	SN	C8.5	6361
17	1416E	1424	1427D	N19	E39	SF	C2.8	6368
17	1446E	1447	1501D	N15	E30	SF	C4.5	6368
17	1600	1603	1606				C3.2	

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/USAF Region
17	1638E	1643	1645D	N21	E21	SF	C3.3	6368
17	1727E	1744	1813D	N14	E30	2N	C8.8	6368
17	1842E	1845	1937D	N18	E26	SN	M1.1	6368
17	1910E	1910	1919	N07	W73	SF	C7.7	6361
17	2001E	2005	2009D	N21	E18	SF	M2.4	6368
17	2147E	2147	2155	N17	E29	SF	C3.2	6368
17	2239E	2244	2314D	N15	E28	1N	M1.1	6368
18	0010E	0022	0058D	N18	E31	SN	M1.4	6368
18	0129E	0133	0136D	N18	E15	SF	C2.3	6368
18	0155E	0156	0200D	N16	E16	SF	C2.0	6368
18	0245E	0246	0248D	N19	E25	SN	C2.3	6368
18	0356E	0400	0413D	N19	E25	SF	C2.4	6368
18	0533E	0535	0542D	N14	E23	SF	C2.8	6368
18	0601	0605	0607				C2.7	
18	0813	0813U	0818D	N16	E17	SF	C1.9	6368
18	0851E	0852	0858D	N17	E19	SF	C2.2	6368
18	0948	1004	1020				C1.8	
18	1042	1045	1048				C2.3	
18	1130E	1130	1136D	N22	E09	SF	C1.9	6368
18	1240E	1244	1313D	N14	E21	SN	C4.2	6368
18	1317E	1318	1328D	N20	E14	SN	C2.4	6368
18	1434E	1508	1514D	N20	E22	SF	C2.1	6368
18	1528E	1534	1537D	N21	E24	SF	C2.7	6368
18	1551E	1553	1558D	N17	E18	SF	C2.2	6368
18	1635E	1635	1646D	N22	E06	SF	C2.2	6368
18	1737E	1806	1940D	N19	E21	1N	M1.3	6368
18	1738E	1807	1933	N18	E21	SN	C3.1	6368
18	1945E	1951	2112D	N19	E21	SF	C3.9	6368
18	2046E		2058	N18	E14	SF	C2.4	6368
18	2119E	2131	2137D	N21	E04	SN	C2.4	6368
18	2147E	2148	2204D	N18	E15	SF	C1.7	6368
18	2229E	2308	2319D	N14	E20	SF	C1.5	6368
18	2304E	2307	2317D	N17	E13	SF	C4.9	6368
19	0110E	0216	0232D	N17	E14	1N	C3.1	6368
19	0337E	0343	0350D	N19	E17	SF	C2.3	6368
19	0452E	0454	0508D	N21	E05	SF	C1.6	6368
19	0607E	0625	0653D	N17	E11	SN	C4.0	6368
19	0639	0700	0707				C2.7	
19	0921	0938	0945				M2.4	
19	0952	0952U	0953	N18	E08	1N	M3.5	6368
19	1109	1114	1120				C4.6	
19	1120	1147	1152D	N18	E11	SF	C3.9	6368
19	1218E	1304	1322D	N17	E06	SF	C3.1	6368
19	1338	1342U	1406D	N18	E06	1F	M3.2	6368
19	1535	1541	1551				C1.4	
19	1647	1701	1724				C1.6	
19	1820	1827	1831				C1.2	
19	1752	1757	1804				C1.4	
19	1935E	1935U	2004	N21	W02	SF	C2.5	6368
19	2128E	2132	2147D	N16	W03	SF	C1.2	6368
19	2151E	2154	2158D	N18	W01	SF	C1.2	6368
19	2216E	2222	2259D	N16	E03	SF	C2.2	6368
19	2316E	2316	2320D	N22	W04	SF	C2.8	6368
19	2349E	2353	0019D	N17	W00	SF	C2.1	6368
20	0034E	0037	0042D	N18	E04	SF	C2.1	6368
20	0049E	0057	0120D	N18	E02	SF	C2.7	6368
20	0203	0206	0210				C2.0	
20	0241	0245	0250				C1.4	
20	0443E	0454	0543D	N21	W08	1F	C3.2	6368
20	0706E	0709	0718D	N14	W05	SF	C1.8	6368
20	0819	0824	0829				C1.8	
20	0945E	1005	1035D	N18	W03	1N	M1.8	6368

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Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/USAF Region
20	1403E	1412	1445D	N17	W03	SN	C3.0	6368
20	1725E	1727	1730D	N18	W04	SF	C2.5	6368
20	1742	1749	1803				C4.2	
20	1823	1829	1837				C6.8	
20	1847	1852	1859				C6.3	
20	2145	2151	2157				C1.8	
20	2204	2208	2246D	N19	W08	SF	C4.9	6368
21	0244E	0254	0342D	N18	W14	SF	C2.9	6368
21	0456E	0531	0650D	N18	W13	1F	C7.1	6368
21	0457	0502	0507				C4.2	
21	0628	0633	0637				C7.6	
21	0821E	0822	0832D	N16	W19	SF	C2.4	6368
21	0907E	0910	0915D	N19	W13	SF	C1.4	6368
21	0939	0945	0953				C3.9	
21	0948	1008	1027D	N18	W21	SN	C2.5	6368
21	1215E	1221	1224D	S17	W43	SF	C1.7	6376
21	1252	1256	1259				C2.1	
21	1426	1434	1450				C1.7	
21	1742	1832U	1834	N15	W23	SF	C3.9	6368
21	1838E	1839	1857	N16	W24	SN	C4.1	6368
21	1910E	1916	1923D	N17	W22	SF	C3.6	6368
22	0003	0006	0010				C1.3	
22	0142E	0150	0230D	N19	W28	2F	C4.7	
22	0404	0408	0411				C1.5	
22	0813E	0828	0906D	N17	W74	SF	C9.3	6371
22	1005	1009	1013				C1.5	
22	1119	1144	1148				C5.5	
22	1312	1317	1319				C1.6	
22	1417	1427	1433				C5.1	
22	1825	1828	1831				C1.1	
22	1834	1837	1839				C2.1	
23	0009E	0015D	0020	N16	W40	SF	C1.7	6368
23	0152E	0152	0201D	N14	W33	SF	C1.4	6368
23	0304E	0304	0309D	N19	W30	SF	C1.2	6368
23	0401E	0403	0422D	N23	W45	SF	C1.8	6368
23	0503E		0512D	N40	W20	SN	C5.9	
23	0546E	0547	0553D	N20	W31	SF	C1.3	6368
23	0739	0742	0745				C1.2	
23	0902E	0907	0922D	N24	W50	SN	C2.9	6368
23	1048	1052	1056				C1.7	
23	1350E	1354	1525D	N16	W48	SF	C1.5	6368
23	1555E	1638	1658D	N14	W50	SF	C2.7	6368
23	1722E	1811	1820D	N18	W48	SF	C1.3	6368
23	2031E	2042	2057D	N18	W49	SN	C1.4	6368
23	2058E	2101	2124D	N14	W43	SN	C3.0	6368
24	0221E	0243	0321D	S05	E12	1F	C8.5	6377
24	0654	0701	0719				C2.1	
24	0926	0929	0936				C1.7	
24	1219E	1222	1242D	N19	W57	SF	C1.4	6368
24	1331	1336	1344				C1.9	
24	1401E	1401	1405D	S04	E06	SF	C2.6	6377
24	1409E	1419	1605D	S04	E04	1B	M3.1	6377
24	1808E	1812	1818D	N15	W62	SF	C2.9	6368
24	1808E	1829	1852D	S05	E02	SF	C3.1	6377
24	2002E	2013	2036D	S04	E02	SF	C3.5	6377
24	2145E	2147	2156D	S04	E01	SF	C3.5	6377
24	2212E	2243	2253D	N16	W65	1F	C3.9	6368
24	2326E	2345	0016D	N16	W64	SF	M1.2	6368

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Imp Opt	Xray	NOAA/USAF Region
25	0200E	0215	0235D	S04	W02	SF	C3.3	6377
25	0316E	0318	0349D	S04	W02	SN	M1.1	6377
25	0615	0618	0622				C2.3	
25	0954E	1016	1053D	N15	W67	SF	C3.5	6368
25	1705E	1707	1715D	N20	W71	SF	C3.1	6368
25	1854E	1859	1932D	N18	W71	1F	M1.5	6368
25	2119	2124U	2130	N17	W74	SF	C4.8	6368
25	2209E	2224	2253D	N19	W74	SF	M1.8	6368
25	2209	2214	2217				C3.3	
26	0117E	0125	0139D	N18	W76	2F	C6.3	6368
26	0630	0647	0652				C4.1	
26	0929	0944	0957				C3.0	
26	1010	1016	1019				C3.2	
26	1221	1226	1230				C5.6	
26	1406	1409	1456	S05	W23	SF	C3.7	6377
26	1638E	1644U	1703	S05	W24	1N	C2.4	6377
26	1651E	1652	1703	N19	W80	SF	M1.4	6368
26	1722E	1744	1827	S04	W24	SF	C1.7	6377
26	2035E	2035	2039D	N15	W90	SF	C4.2	6368
26	2155	2158	2201				C2.5	
26	2209E	2213	2229D	S05	W25	SF	C3.0	6377
26	2313E	2316	2322D	N18	W90	1N	M7.5	6368
27	0102	0108	0120				C1.7	
27	0248	0256	0259				C2.0	
27	0459	0512	0529				M1.5	
27	0537	0544	0555				C6.1	
27	1213	1231	1252				C2.2	
27	1320	1323	1327				C1.6	
27	1410	1421	1432				C2.3	
27	1444	1500	1525				C3.3	
27	1552	1558	1603				C3.0	
27	1816	1830	1845				C3.9	
27	2221	2234	2242				C6.9	
28	0132	0200	0251				C4.6	
28	0413	0438	0446				C2.1	
28	0654E	0658	0714D	S04	W49	SF	C6.2	6377
28	0812E	0813	0818D	S25	E77	SF	C3.9	6387
28	0841	0924	0947				C4.9	
28	1230	1246	1306				C4.3	
28	1405	1425	1440				C6.8	
28	1601	1607	1618				C6.9	
28	1633	1638	1644				C6.4	
28	1907E	1908	1924D	S05	W55	SF	C5.5	6377
29	0147E	0150	0158D	N14	E45	SF	C4.2	6383
29	0205	0242	0309				C3.1	
29	0947E	0959	1025D	S19	E68	1N	C9.9	6387
29	1326	1346	1420				M1.1	
29	1912E	1924	2001D	S08	E18	SF	C2.0	6388
29	2033E	2052	2151D	S08	E17	SF	C2.2	6388
30	0136	0154	0228				C1.6	
30	0308E	0314	0327D	N34	E71	SF	C2.4	6390
30	0358E	0402	0447D	S26	E45	SF	C3.4	6387
30	0544E	0553	0616D	S23	E53	SF	C6.2	6387
30	0746E	0756	0817D	S24	E51	SF	C2.1	6387
30	0918E	0921	0935D	S24	E53	SF	C2.2	6387
30	1224E	1230	1242D	S21	E47	1N	C4.8	6387
30	1546E	1548	1604D	S07	W75	SF	C2.1	6377
30	1738E	1738	1755D	S23	E47	SF	C2.4	6387
30	1753	1757	1800				C3.2	

Preliminary GOES Satellite Data
Daily Average X-ray Background
Dec 1989 - Nov 1990

	1989	1990										
Day	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1	C1.6	C1.4	B9.5	C1.1	B7.4	B3.1	B3.1	C1.2	C1.3	B8.7	B5.1	B3.8
2	C1.2	C1.1	B7.8	C1.1	B5.2	B4.2	B3.7	C1.4	C1.2	B8.6	B7.9	B3.7
3	C1.1	C1.1	B8.9	C1.0	B7.8	B2.8	B3.6	C1.2	B7.8	B6.6	C1.5	B4.0
4	C1.5	C1.1	B7.8	B9.1	B6.9	B2.7	B3.8	C1.1	B7.1	B7.3	C1.1	B5.2
5	C1.1	C1.0	B7.7	B7.0	B6.1	B4.4	B4.8	C1.1	B6.9	C1.0	B8.6	B6.7
6	C1.0	C1.0	C1.1	B7.5	B5.4	B5.7	B8.5	C1.0	B7.0	B6.0	B6.9	B9.4
7	C1.5	---	B7.5	B7.4	B4.6	B7.7	C1.2	C1.1	B7.0	B6.6	B9.0	C1.1
8	C1.4	B7.3	B6.1	B6.7	B4.6	B9.8	C1.0	C1.1	B9.6	B5.9	B8.9	B9.8
9	C1.2	B6.2	B5.7	B5.4	B4.8	C1.0	B9.1	C1.1	B7.8	B6.5	B9.0	B8.6
10	B8.9	B6.9	B5.2	B5.9	B6.1	C1.4	C1.3	B9.7	B7.9	B6.9	B6.5	B7.6
11	B8.1	B7.3	B4.6	B8.5	C1.0	C1.5	C1.0	B7.9	B7.2	B8.7	B6.9	B9.6
12	B7.2	B7.5	B4.3	B5.8	C1.2	---	C1.1	B6.0	B7.9	B7.5	B6.4	C1.1
13	B7.3	B7.5	B4.0	B7.1	---	C1.5	C1.0	B7.8	B8.2	B7.6	B8.3	C1.0
14	B7.4	B6.7	B4.1	B8.8	C1.6	C1.3	B8.0	B4.6	B6.3	C1.0	B8.6	C1.1
15	B6.3	B9.5	B4.2	C1.0	C1.6	C1.9	B8.5	B4.3	B6.6	B7.9	C1.4	C1.1
16	B6.2	C1.0	B4.0	C1.2	C1.3	C1.4	B6.9	B4.6	B9.4	B7.4	C1.2	C1.2
17	B6.8	C1.1	B5.9	B9.3	C1.2	C1.4	B5.9	B6.2	C1.2	B9.3	C1.0	C1.5
18	B8.8	C1.2	B8.2	C1.3	C1.7	C1.6	B4.9	B9.5	C1.7	B8.5	C1.2	C1.2
19	C1.1	C1.6	C1.2	C1.6	C1.3	C2.4	B4.8	B4.7	C1.6	B9.3	C1.6	C1.0
20	B9.6	C1.9	C1.1	C1.1	C1.6	C1.8	B5.2	B4.7	C1.9	B8.1	C1.4	B7.5
21	C1.2	C1.9	C1.2	C1.3	C1.4	C1.6	B5.0	B5.8	C2.0	B9.0	C1.4	B8.3
22	C1.5	C1.8	C1.0	C1.9	C1.1	C1.4	B4.6	B6.2	C2.0	B7.9	B9.5	*
23	C1.2	C1.4	C1.1	C1.4	C1.1	C1.6	B4.2	B7.2	C2.2	B9.5	B6.7	B8.0
24	C1.4	C1.5	C1.0	C1.4	C1.0	C1.3	B5.8	B7.3	C2.1	B8.9	B5.6	B8.8
25	C2.2	C1.2	B9.8	C1.1	C1.1	C1.5	B6.0	C1.0	C1.5	B6.9	B6.7	C1.0
26	C2.7	C1.4	B9.5	C1.7	C1.3	C1.4	B5.2	B9.5	C1.8	B4.8	B5.0	B9.8
27	C2.7	C1.0	C1.2	C1.6	C1.0	B6.8	B9.4	B7.0	C1.7	B4.0	B6.4	C1.1
28	C2.6	C1.0	C1.6	C1.8	B5.7	B6.4	C1.3	B7.3	C2.2	B4.1	B4.5	C1.4
29	C2.7	C1.2		C1.3	B3.8	B4.7	C1.3	B6.6	C1.5	B4.5	B7.3	C1.4
30	C2.5	C1.1		C1.2	B3.4	B5.5	C1.1	C1.0	C1.5	B4.8	B6.5	C1.1
31	C1.8	C1.0		C1.0		B4.5		B9.4	C1.0		B4.4	

MASS EJECTIONS FROM THE SUN

85
Nov 90

NOVEMBER 1990

Site	Mo	Day	— Observed UT —			Location		Freq or Wavelength	Kind of Event
			Start	Max	End	RA*	R/Ro		
POTS	Nov	01	1005.5		1009.2			Meter	II
ABST	Nov	06	0744	0748	0900	085	1.00	H-alpha	SP
CULG	Nov	06	2058		2104			Meter	II
CULG	Nov	06	2103		2114			Meter	II
SGMR	Nov	18	1346.0		1349.0			Meter	II
ONDR	Nov	19	1251.1		1252.0			Meter	II
LEAR	Nov	21	0259.0		0300.0			Meter	II
LEAR	Nov	23	0714.0		0715.0			Meter	II
SVTO	Nov	23		0714.0		0716.0			Meter
CULG	Nov	24	2324		2332			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

REPORTING STATIONS

- ABST = Abastumani
- CULG = Culgoora
- LEAR = Learmonth
- ONDR = Ondrejov
- POTS = Potsdam
- SGMR = Sagamore Hill
- SVTP = Sam Vito

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

86
Nov 90

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
01	SDF	0224E	0026D	S42	E18	11 2.6		10	0	0	E	LEAR		
01	ASR	0723E	1025D	S24	W90	10 25.4			9	9	E	LEAR	6344	
01	ASR	0724E	1025D	S26	W88	10 25.6			9	9	E	SVTO	6344	
01	APR	0725E	1025D	N29	W88	10 25.5			9	9	E	SVTO		
01	ADF	0726E	1025D	S18	W55	10 28.2	1	08	9	9	E	SVTO	6337	
01	DSD	0848E	0930D	S18	W60	10 27.9		16	9	9	E	SVTO	6337	
01	SDF	1025E	0652D	S41	W22	10 30.7		24	0	0	E	SVTO		
01	SSB	1139		460	W90	10 27.0			0	0	E	RAMY		408 W38 370 W00
01	AFS	1145E	1802D	S20	E57	11 5.8		03	9	9	E	RAMY	6347	
01	AFS	1309E	1802D	N07	W08	10 31.9		02	9	9	E	RAMY	6343	
01	DSD	1350E	1802D	S05	E20	11 3.1		03	9	9	E	RAMY	6345	
01	DSD	1350E	1802D	S07	E23	11 3.3		03	9	9	E	RAMY	6345	
01	DSD	1706E	1802D	S14	W65	10 27.9		03	9	9	E	RAMY	6337	
01	DSD	1800E	1818D	S06	E23	11 3.5		01	9	9	E	PALE	6345	
01	DSD	1800E	1818D	S16	W56	10 28.6		02	8	7	E	PALE	6337	
01	AFS	1800E	1818D	S20	E58	11 6.2		03	9	9	E	PALE	6347	
01	ASR	1925E	2243D	S22	W88	10 26.1			9	8	E	PALE	6344	
01	SSB	2200		407	W42	11 1.3			0	0	E	PALE		370 W06
01	DSD	2234E	0822D	S15	W59	10 28.6		03	9	8	E	LEAR	6337	
01	ASR	2253E	2255D	N20	W90	10 26.2			9	9	E	LEAR	6344	
01	DSD	2305E	0335D	N04	W01	11 1.9		04	9	9	E	LEAR	6343	
02	BSL	0650E	0912D	N01	W90	10 26.7	1				C	ABST		
02	APR	0704E	1442D	S36	W87	10 26.4	1		9	9	E	SVTO		
02	APR	0705E	1442D	N27	W85	10 26.8	1		9	9	E	SVTO		
02	AFS	1055E	1442D	S24	E47	11 6.1		02	8	8	E	SVTO	6347	
02	APR	1056E	1442D	S05	E85	11 8.8	1		9	9	E	SVTO		
02	AFS	1057E	1442D	N16	W51	10 29.7		02	9	9	E	SVTO		
02	ADF	1120E	1828D	N04	W62	10 28.9	1	17	9	9	E	RAMY	6341	
02	AFS	1133E	2055D	S04	E14	11 3.5		02	4	4	E	RAMY	6345	
02	DSD	1207	1420D	S21	E23	11 4.3		03	9	9	E	RAMY		
02	AFS	1240E	2055D	S18	E42	11 5.7		03	9	9	E	RAMY	6347	
02	ASR	1243E	1830D	N23	W90	10 26.7			9	9	E	RAMY		
02	AFS	1248E	1442D	S17	E44	11 5.9		02	9	9	E	SVTO	6347	
02	ADF	1249E	1442D	S18	E43	11 5.8	1	13	9	9	E	SVTO	6347	
02	SDF	1442E	1108D	N15	E29	11 4.8		04	0	0	E	SVTO		
02	SDF	1442E	1108D	S05	E06	11 3.1		06	0	0	E	SVTO		
02	SDF	1442E	1108D	S14	E04	11 2.9		09	0	0	E	SVTO		
02	AFS	1640E	2055D	N19	W54	10 29.7		02	8	8	E	RAMY		
02	APR	1655E	2055D	S13	E90	11 9.5	1		8	8	E	RAMY		
02	ADF	1658E	2055D	S23	E50	11 6.5	1	13	9	9	E	RAMY	6347	
02	EPL	2136E	0047D	N30	W90	10 26.9			9	9	E	PALE		
02	AFS	2152E	0346D	S25	E43	11 6.2		02	9	9	E	PALE		
02	EPL	2202E	2253D	N30	W90	10 26.9			9	9	E	LEAR		
02	AFS	2246E	1019D	S26	E40	11 6.0		03	8	9	E	LEAR	6350	
02	ADF	2305E	0259D	N06	W65	10 29.2	1				C	VORO		
03	AFS	0110E	0346D	N12	E01	11 3.1		01	9	9	E	PALE		
03	DSD	0110E	0346D	S01	E13	11 4.0		02	9	9	E	PALE	6345	
03	AFS	0110E	0346D	S07	E06	11 3.5		04	9	9	E	PALE	6345	
03	AFS	0110E	0346D	S19	E39	11 6.0		03	9	9	E	PALE	6347	
03	DSD	0159E	0346D	S17	E38	11 6.0		02	9	9	E	PALE	6347	
03	SSB	0215		412	W63	11 2.0			0	0	E	PALE		375 W26
03	AFS	0354E	1019D	N11	E00	11 3.2		02	7	8	E	LEAR		
03	AFS	0706E	1128D	S17	E32	11 5.7		02	9	9	E	SVTO	6347	
03	AFS	0706E	1128D	S26	E35	11 6.0		02	9	9	E	SVTO	6350	
03	AFS	0845E	1019D	N07	E13	11 4.3		03	9	9	E	LEAR		
03	AFS	0845E	1019D	N11	E18	11 4.7		02	9	9	E	LEAR		
03	DSD	1045E	1340D	S24	E31	11 5.8		04	9	9	E	RAMY	6350	
03	AFS	1045E	2028D	S25	E30	11 5.8		03	9	9	E	RAMY	6350	
03	AFS	1047E	2028D	N09	E15	11 4.6		02	9	9	E	RAMY	6352	
03	ADF	1049E	1310D	S15	E50	11 7.2	1	07	9	9	E	RAMY	6349	
03	AFS	1054E	2028D	S04	E04	11 3.7		02	8	8	E	RAMY	6345	
03	ADF	1058E	1454D	S16	E15	11 4.6	1	08	9	9	E	RAMY		
03	SSB	1108		371	W27	10 29.0			0	0	E	SVTO		408 W64
03	DSD	1144E	1606D	S19	E27	11 5.5		04	9	9	E	RAMY	6347	
03	SSB	1154		373	W30	10 28.8			0	0	E	RAMY		407 W64
03	ASR	1205E	1957D	N12	E90	11 10.3			9	9	E	RAMY	6353	
03	DSD	1213E	1237D	N07	W35	10 31.9		05	9	9	E	RAMY	6343	
03	AFS	1402E	2028D	S18	E29	11 5.8		02	9	9	E	RAMY	6347	

ACTIVE PROMINENCES AND FILAMENTS

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Nov 90

NOVEMBER 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
03	ASR	1433E	1957D	N20	E90	11	10.5			9	9	E	RAMY		
03	DSD	1558E	1953D	N08	W37	10	31.9		02	9	9	E	RAMY	6343	
03	ADF	1558E	2013D	N06	W34	11	1.1	1	04	9	9	E	RAMY	6343	
03	AFS	1604E	2028D	S21	E15	11	4.8		01	9	9	E	RAMY		
03	AFS	1750E	1938D	S07	W04	11	3.4		04	9	9	E	PALE	6345	
03	AFS	1750E	1938D	S21	E15	11	4.9		02	9	9	E	PALE		
03	DSD	1750E	1938D	S24	E31	11	6.1		05	9	9	E	PALE	6350	
03	AFS	1750E	1938D	S25	E30	11	6.1		03	9	9	E	PALE	6350	
03	AFS	1759E	1938D	N08	E07	11	4.3		04	9	9	E	PALE		
03	AFS	1803E	1938D	S17	E28	11	5.9		02	9	9	E	PALE	6347	
03	DSD	1803E	1938D	S18	E24	11	5.6		03	9	9	E	PALE	6347	
03	ASR	1827E	1938D	N29	E88	11	10.7			9	9	E	PALE		
03	SDF	1903E	1513D	S05	E09	11	4.5		09	0	0	E	HOLL		
03	DSD	1952E	2028D	N08	E09	11	4.5		05	9	9	E	RAMY	6352	
03	ASR	2013E	2028D	S15	W90	10	28.1			9	9	E	RAMY	6337	
03	AFS	2026E	2310D	N08	E06	11	4.3		03	9	9	E	HOLL	6352	
03	AFS	2029E	2310D	S18	E26	11	5.8		02	9	9	E	HOLL	6347	
03	AFS	2029E	2310D	S21	E13	11	4.8		01	9	9	E	HOLL		
03	AFS	2029E	2310D	S25	E28	11	6.0		02	9	9	E	HOLL	6350	
03	SSB	2038		S53	W14	10	30.9			0	0	E	HOLL		373 W34 408 W69
03	ASR	2039E	2310D	N11	E90	11	10.6			8	8	E	HOLL		
03	EPL	2136E	0047D	N30	W90	10	27.9			9	9	E	PALE		
03	ASR	2210E	2310D	S11	W90	10	28.2			9	9	E	HOLL	6337	
03	AFS	2258E	1022D	N07	E05	11	4.3		03	9	9	E	LEAR	6352	
03	AFS	2259E	1022D	S26	E26	11	6.0		02	9	9	E	LEAR	6350	
04	AFS	0110E	1022D	S08	W09	11	3.4		02	8	7	E	LEAR	6345	
04	AFS	0514E	1022D	S22	E07	11	4.7		02	9	9	E	LEAR	6354	
04	ASR	0515E	1022D	N10	E90	11	11.0			9	9	E	LEAR		
04	APR	0654E	0816D	N18	E90	11	11.1	1				C	ABST		
04	BSL	0708E	0853D	N07	W90	10	28.6	1				C	ABST		
04	BSL	0737E	0837D	N07	E90	11	11.0	1				C	ABST		
04	SDF	1022E	2147D	S20	W33	11	1.9		22	0	0	E	LEAR		
04	AFS	1107E	1637D	S21	E05	11	4.8		02	9	9	E	RAMY	6354	
04	ASR	1109E	1415D	N13	E88	11	11.1			9	9	E	RAMY		
04	AFS	1110E	1637D	N07	W04	11	4.2		02	9	9	E	RAMY	6352	
04	AFS	1112E	1637D	S25	E18	11	5.9		03	9	9	E	RAMY	6350	
04	AFS	1114E	1637D	S19	E14	11	5.5		02	9	9	E	RAMY	6347	
04	DSD	1115E	1514D	S09	W13	11	3.5		03	9	9	E	RAMY	6345	
04	AFS	1115E	1637D	S06	W13	11	3.5		02	9	9	E	RAMY	6345	
04	ASR	1120E	1535D	S14	W90	10	28.8			9	9	E	RAMY	6337	
04	AFS	1137E	1515D	S23	E28	11	6.6		02	9	9	E	RAMY		
04	SSB	1140		S48	W18	10	31.8			0	0	E	RAMY		373 W43
04	ASR	1258E	1521D	S18	E90	11	11.4			9	9	E	RAMY		
04	ASR	1456E	1637D	N07	E90	11	11.4			8	8	E	RAMY		
04	AFS	1503E	2359D	S06	W13	11	3.6		02	9	9	E	HOLL	6345	
04	DSD	1537E	2359D	N15	E76	11	10.4		02	9	9	E	HOLL	6258	
04	AFS	1543E	2359D	S21	E03	11	4.9		02	9	9	E	HOLL	6354	
04	AFS	1547E	2359D	S25	E18	11	6.0		03	9	9	E	HOLL	6350	
04	AFS	1551E	2359D	S20	E13	11	5.6		02	9	9	E	HOLL	6347	
04	DSD	1554E	2359D	N15	E07	11	5.2		02	9	9	E	HOLL	6355	
04	ASR	1555E	1855D	N06	E90	11	11.4			9	9	E	HOLL		
04	AFS	1603E	1637D	N08	W50	10	31.9		02	9	9	E	RAMY	6343	
04	AFS	1606E	1637D	N16	E05	11	5.0		02	9	9	E	RAMY	6355	
04	DSD	1614E	1637D	N19	E73	11	10.2		03	9	9	E	RAMY	6358	
04	ASR	1615E	1637D	S13	W90	10	29.0			7	7	E	RAMY	6337	
04	DSD	1804E	0314D	N07	W50	11	1.0		04	9	9	E	PALE	6343	
04	DSD	1804E	0314D	N08	W52	10	31.8		02	9	9	E	PALE	6343	
04	DSD	1804E	0314D	N14	E68	11	9.9		03	9	9	E	PALE		
04	DSD	1804E	0314D	S21	E13	11	5.7		04	9	9	E	PALE	6347	Flare Associated
04	DSD	1804E	0314D	S25	E17	11	6.1		03	9	9	E	PALE	6350	
04	APR	1913E	2200D	S11	E90	11	11.6	1		6	8	E	HOLL		
04	SDF	1913E	2200D	S11	E90	11	11.6		02	0	0	E	HOLL		
04	ADF	2312E	2359D	S37	E29	11	7.3	2	25	9	9	E	HOLL		
04	AFS	2320E	1025D	S03	E19	11	6.4		03	7	9	E	LEAR	6345	
04	AFS	2325E	1025D	S11	E26	11	6.9		03	9	9	E	LEAR	6350	
04	AFS	2337E	1025D	N06	W08	11	4.4		03	9	9	E	LEAR	6352	
05	ASR	0020E	1025D	S15	E90	11	11.8			9	9	E	LEAR		
05	AFS	0259E	1025D	S21	W05	11	4.7		03	9	9	E	LEAR	6354	

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
05	ASR	0540E	1025D	S30	E90	11 12.3			9	9	E	LEAR		
05	BSL	0636E	0859D	N20	W90	10 29.5	1				C	ABST		
05	SSB	0812		S23	W04	11 3.6			0	0	E	SVTO		373 W53
05	ASR	0821E	1505D	S29	E90	11 12.4			9	9	E	SVTO		
05	ASR	0824E	1228D	S22	E90	11 12.3			9	9	E	SVTO		
05	ASR	0826E	1119D	S07	E90	11 12.1			9	9	E	SVTO		
05	SSB	0830		S38	W39	10 31.6			0	0	E	LEAR		
05	AFS	0843E	1505D	S25	E08	11 6.0		01	7	7	E	SVTO	6350	
05	AFS	0846E	1505D	S21	W05	11 5.0		02	9	9	E	SVTO	6354	
05	AFS	0848E	1223D	S04	W23	11 3.6		02	9	9	E	SVTO	6347	
05	AFS	0858E	1505D	N15	W03	11 5.1		02	9	9	E	SVTO	6355	
05	AFS	0859E	1505D	N07	W16	11 4.2		01	8	7	E	SVTO	6352	
05	SDF	1025E	2239D	S38	E18	11 6.9		15	0	0	E	LEAR		
05	ASR	1119E	1505D	N10	E90	11 12.2			9	9	E	SVTO		
05	DSD	1450E	1948D	S03	W32	11 3.2		03	9	9	E	RAMY	6345	
05	AFS	1452E	1948D	N09	W18	11 4.3		03	7	7	E	RAMY	6352	
05	AFS	1454E	1948D	S21	W12	11 4.7		02	8	8	E	RAMY	6354	
05	APR	1458E	2358D	N10	E90	11 12.4	1		7	7	E	HOLL		
05	ASR	1458E	2358D	S18	E90	11 12.5			8	8	E	HOLL		
05	ADF	1458E	1948D	S23	E02	11 5.8	1	06	9	9	E	RAMY	6350	
05	DSD	1500E	1920D	S04	W25	11 3.7		02	9	9	E	HOLL	6345	
05	AFS	1500E	2358D	N10	W13	11 4.6		02	9	9	E	HOLL	6352	
05	AFS	1500E	2358D	N11	W32	11 3.2		02	9	9	E	HOLL	6351	
05	AFS	1500E	2358D	N13	W09	11 4.9		02	9	9	E	HOLL	6355	
05	AFS	1500E	2358D	S20	W09	11 4.9		02	9	9	E	HOLL	6354	
05	ADF	1500E	2358D	S25	E07	11 6.2	1	09	9	9	E	HOLL	6350	
05	SDF	1505E	0707D	N24	E04	11 5.9		03	0	0	E	SVTO		
05	SDF	1505E	0707D	S08	W13	11 4.6		03	0	0	E	SVTO		
05	SDF	1505E	0707D	S17	W16	11 4.4		07	0	0	E	SVTO		
05	SDF	1505E	0707D	S48	E33	11 8.4		28	0	0	E	SVTO		
05	DSD	1914E	2358D	S18	W06	11 5.3		04	9	9	E	HOLL	6347	
05	ASR	1916E	2358D	S05	E90	11 12.5			9	9	E	HOLL		
05	DSD	1922E	2358D	N18	E63	11 10.6		03	9	9	E	HOLL	6358	
05	DSD	1925E	0138D	N15	W09	11 5.1		03	9	9	E	PALE	6355	
05	DSD	1925E	0138D	N19	E61	11 10.5		04	9	9	E	PALE	6358	
05	DSD	1925E	0138D	N20	E65	11 10.8		02	9	9	E	PALE	6358	
05	DSD	1925E	0138D	S14	E16	11 7.0		05	9	9	E	PALE	6349	
05	DSD	1925E	0138D	S18	W08	11 5.2		04	9	9	E	PALE	6347	
05	AFS	1925E	2216D	N08	W20	11 4.3		05	9	9	E	PALE	6352	
05	ADF	2244E	2358D	S25	E04	11 6.2	2	06	9	9	E	HOLL	6350	
05	ADF	2311	0259	N09	E13	11 6.9	2				C	VORO		
05	AFS	2343E	0949D	N17	E57	11 10.3		03	9	9	E	LEAR	6358	
05	ASR	2344E	0949D	S33	E90	11 13.1			9	9	E	LEAR		
05	AFS	2345E	0949D	S16	E15	11 7.1		02	9	9	E	LEAR	6349	
06	ASR	0003E	0949D	N07	E90	11 12.7			9	9	E	LEAR	6361	
06	BSL	0027	0052	N07	E90	11 12.8	1				C	VORO		
06	BSL	0110	0130	N07	E90	11 12.8	1				C	VORO		
06	BSL	0110	0200	S28	E90	11 13.1	1				C	VORO		
06	AFS	0255E	0949D	N16	W14	11 5.0		02	9	9	E	LEAR	6355	
06	DSD	0315E	0725D	S16	E11	11 7.0		03	9	9	E	LEAR	6349	
06	APR	0608E	0725D	N01	E90	11 13.0	1				C	ABST		
06	DSD	0650E	1352D	N20	E57	11 10.6		03	9	9	E	SVTO	6358	
06	SDF	0707E	1418D	N13	E01	11 6.4		09	0	0	E	SVTO		
06	SDF	0707E	1418D	S24	E02	11 6.4		03	0	0	E	SVTO		
06	SDF	0707E	1418D	S28	E09	11 7.0		06	0	0	E	SVTO		
06	APR	0744E	0900D	N05	E90	11 13.0	1				C	ABST		
06	BSD	0745E	0830D	N08	E77	11 12.1		07	9	9	E	SVTO	6361	Flare Associated
06	BSD	0747E	0949D	N06	E75	11 11.9		11	9	9	E	LEAR	6361	
06	AFS	0800E	1456D	N15	W16	11 5.1		03	9	9	E	SVTO	6355	
06	AFS	0830E	1456D	S04	W36	11 3.7		03	9	9	E	SVTO	6345	
06	ASR	0928E	1425D	N11	E87	11 12.9			9	9	E	SVTO	6361	
06	BSD	1014E	1040D	N09	E78	11 12.3		05	9	9	E	SVTO	6361	
06	AFS	1050E	1641D	N17	E51	11 10.3		04	9	9	E	RAMY	6358	
06	AFS	1052E	1641D	N17	W15	11 5.3		03	9	9	E	RAMY	6355	
06	DSD	1053E	1415D	S03	W39	11 3.5		03	9	9	E	RAMY	6345	
06	DSD	1057E	1641D	S25	W03	11 6.2		03	9	9	E	RAMY	6350	
06	AFS	1058E	1641D	N14	E09	11 7.1		02	9	9	E	RAMY	6349	
06	ASR	1059E	1641D	S29	E78	11 12.6			9	9	E	RAMY		
06	AFS	1100E	1641D	S13	E62	11 11.1		03	9	9	E	RAMY	6360	

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
06	DSD	1104E	1641D	S16	W15	11	5.3		02	9	9	E	RAMY	6347	
06	ADF	1211E	1641D	N10	E71	11	11.8	1	03	9	9	E	RAMY	6361	
06	DSD	1412E	2053D	S17	W15	11	5.4		03	9	9	E	HOLL	6347	
06	AFS	1413E	2053D	S16	E07	11	7.1		03	9	9	E	HOLL	6349	
06	AFS	1414E	2053D	N16	W16	11	5.4		03	9	9	E	HOLL	6355	
06	ADF	1415E	2053D	N17	E51	11	10.5	1	05	9	9	E	HOLL	6358	
06	DSD	1415E	2053D	N18	E49	11	10.3		04	9	9	E	HOLL	6358	
06	AFS	1417E	2053D	N10	E49	11	10.3		02	9	9	E	HOLL	6362	
06	SSB	1418		325	W22	11	4.7			0	0	E	HOLL		
06	AFS	1450E	1456D	S17	E06	11	7.1		02	9	9	E	SVTO	6349	
06	DSD	1558E	1615	N15	E54	11	10.7		04	9	9	E	RAMY	6358	
06	DSD	1825E	2306D	S05	W43	11	3.5		03	9	9	E	PALE	6345	
06	AFS	1825E	2306D	S16	E04	11	7.1		04	9	9	E	PALE	6349	
06	DSD	1825E	2306D	S17	W23	11	5.0		06	9	9	E	PALE	6347	
06	ADF	1825E	2306D	S25	W09	11	6.1	1	04	9	8	E	PALE	6350	
06	ADF	2045E	2306D	N15	E79	11	12.8		08	9	9	E	PALE	6361	
06	DSD	2045E	2306D	N16	W24	11	5.0		03	9	9	E	PALE	6355	
06	DSD	2045E	2306D	N19	E48	11	10.5		04	9	9	E	PALE	6358	
06	DSD	2045E	2306D	S16	E57	11	11.2		06	9	9	E	PALE	6360	
06	AFS	2045E	2306D	S29	E71	11	12.4		03	9	9	E	PALE		
06	ADF	2350E	1020D	N17	E46	11	10.5	1	06	9	9	E	LEAR	6358	
07	DSD	1134E	1852D	N17	W34	11	4.9		03	9	9	E	RAMY	6355	Flare Associated
07	AFS	1134E	1852D	N18	W30	11	5.2		03	9	9	E	RAMY	6355	
07	AFS	1201E	1852D	N09	E70	11	12.7		03	9	9	E	RAMY	6361	
07	ADF	1211E	1852D	N10	E57	11	11.8	1	06	9	9	E	RAMY	6361	
07	AFS	1430E	1447D	N66	W31	11	4.8		03	9	9	E	HOLL	6355	
07	SDF	1451E	0906D	N26	E02	11	7.8		11	0	0	E	SVTO		
07	SDF	1743E	1750D	N28	W14	11	6.6		08	0	0	E	PALE		
07	AFS	1842E	0313D	N17	E38	11	10.7		03	9	9	E	PALE	6358	
07	AFS	1842E	0313D	S16	W31	11	5.4		04	9	9	E	PALE	6347	
07	AFS	2020E	0313D	S13	E49	11	11.5		05	9	9	E	PALE	6360	
07	AFS	2115E	0313D	N16	W84	11	1.5		03	9	9	E	PALE	6355	
07	AFS	2125E	0313D	N10	E34	11	10.4		03	9	9	E	PALE	6362	
07	AFS	2140E	0313D	S16	E10	11	8.7		03	9	9	E	PALE	6349	
07	ADF	2321E	0251D	N11	W15	11	6.8	1				C	VORO		
07	APR	2330E	0249D	S07	W90	11	1.2	1				C	VORO		
08	SDF	0216E	0204D	N29	W18	11	6.7		10	0	0	E	LEAR		
08	ADF	0253E	1025D	N09	E53	11	12.1	1	08	9	9	E	LEAR	6361	
08	SDF	0940E	1750D	N28	W14	11	7.3		08	0	0	E	PALE		
08	BSD	1101E	1415D	N19	W47	11	4.9		03	9	9	E	RAMY	6355	
08	AFS	1105E	1456D	S29	E51	11	12.4		02	9	9	E	SVTO	6364	
08	AFS	1106E	1456D	N16	W41	11	5.3	1	02	9	9	E	SVTO	6355	
08	AFS	1107E	1842D	S15	W21	11	6.9		02	9	9	E	RAMY	6349	
08	ADF	1107E	1456D	N19	E28	11	10.6	1	11	9	9	E	SVTO	6358	
08	ADF	1118E	1842D	N15	E24	11	10.3	1	06	7	9	E	RAMY	6358	
08	SDF	1456E	0650D	N27	W41	11	5.4		12	0	0	E	SVTO		
08	SDF	1510	1513	N16	W47	11	5.1	3	04	0	0	E	RAMY	6355	Flare Associated
08	DSD	1732E	0055D	N19	E26	11	10.7		01	9	9	E	PALE	6358	
08	AFS	1732E	0055D	N20	E23	11	10.5		03	9	9	E	PALE	6358	
08	ADF	1746E	0055D	S22	W41	11	5.6	1	10	9	9	E	PALE	6350	
08	ADF	1822E	2356D	N10	E45	11	12.1	1	07	9	9	E	HOLL	6361	
08	SSB	1836		297	W23	11	16.2			0	0	E	HOLL		340 W66
08	ADF	1848E	2330D	N05	E46	11	12.2	1	13	9	9	E	HOLL	6361	
08	DSD	1853E	0055D	N15	W49	11	5.1		03	9	9	E	PALE	6355	Flare Associated
08	DSD	1853E	1944D	N16	W49	11	5.1		02	9	9	E	PALE	6355	Flare Associated
08	AFS	1935E	2330D	N06	E44	11	12.1		02	9	9	E	HOLL	6361	
08	DSD	2307	2319	S19	W48	11	5.3		09	9	9	E	HOLL	6347	Flare Associated
08	DSD	2313E	2343D	S20	W49	11	5.2		07	9	9	E	PALE	6347	Flare Associated
09	AFS	0310E	0349D	N15	W66	11	4.1		03	9	9	E	PALE	6355	
09	AFS	0715E	0900D	N15	W53	11	5.3		03	9	9	E	SVTO	6355	
09	ADF	0716E	1503D	N10	E38	11	12.1	1	11	9	9	E	SVTO	6361	
09	SSB	0718		296	W29	11	16.8			0	0	E	SVTO		267 W00
09	DSD	0935E	1055D	N13	W60	11	4.9		14	9	9	E	SVTO	6355	Flare Associated
09	AFS	1050E	2035D	S31	E33	11	12.0		03	9	9	E	RAMY	6364	
09	ADF	1054E	2035D	N04	E37	11	12.2	1	14	9	9	E	RAMY	6361	
09	DSD	1103E	1351D	N16	E20	11	11.0		04	9	9	E	RAMY	6358	
09	ADF	1103E	1357D	N18	E14	11	10.5	1	20	9	9	E	RAMY	6358	

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	NOAA/ USAF Sta Reg#	Remarks
09	DSD	1115E	1259D	N16	W62	11 4.8		04	9	9	E	SVTO 6355	
09	ADF	1137E	1656D	S25	W47	11 5.8	1	08	9	9	E	RAMY 6350	
09	DSD	1340E	1638D	S30	E30	11 11.9		08	9	9	E	RAMY 6364	
09	SSB	1348		265	W01	11 14.4			0	0	E	RAMY	298 W34 345 W81
09	DSD	1353E	1638D	N09	E10	11 10.3		03	9	9	E	RAMY 6362	
09	DSD	1415E	1703D	N15	W61	11 5.0		06	9	9	E	HOLL 6355	
09	ADF	1415E	2356D	N10	E34	11 12.1	1	09	9	9	E	HOLL 6361	
09	AFS	1415E	2356D	N16	W56	11 5.3		02	8	8	E	HOLL 6355	
09	AFS	1439E	1705D	N09	E10	11 10.4		03	9	9	E	RAMY 6362	
09	SDF	1503E	1132D	N03	W11	11 8.8		11	0	0	E	SVTO	
09	SSB	1646		266	W04	11 14.6			0	0	E	HOLL	296 W34 337 W75
09	ADF	1720E	0349D	N19	E16	11 10.9	1	08	9	9	E	PALE 6358	
09	AFS	1720E	0349D	N20	E15	11 10.9		02	9	9	E	PALE 6358	
09	AFS	1720E	0349D	S16	W31	11 7.4		03	9	9	E	PALE 6349	
09	AFS	1720E	0349D	S29	E30	11 12.1		03	9	9	E	PALE 6364	
09	SSB	1855		267	W06	11 14.8			0	0	E	PALE	295 W34
09	DSD	2005E	2306D	N10	E12	11 10.7		09	9	9	E	HOLL 6362	
10	ASR	0733E	1436D	S06	W90	11 3.6			9	9	E	SVTO 6345	
10	ADF	0734E	1506D	N12	E18	11 11.7	1	12	9	9	E	SVTO 6361	
10	SDF	1023E	0028D	S15	E13	11 11.4		05	0	0	E	LEAR	
10	AFS	1056E	2107D	S30	E24	11 12.3		02	9	9	E	RAMY 6364	
10	ADF	1105E	1859D	N11	E23	11 12.2	1	10	9	9	E	RAMY 6361	
10	DSD	1108E	1438D	N15	E06	11 10.9		03	9	9	E	RAMY 6358	
10	DSD	1112E	1436D	N16	W69	11 5.2		04	9	9	E	RAMY 6355	
10	DSD	1116E	1152D	S25	W65	11 5.4		03	9	9	E	RAMY 6350	
10	AFS	1127E	1645D	N13	W30	11 8.2		02	9	9	E	RAMY	
10	MDP	1128E	1645D	S06	W89	11 3.8	1		9	9	E	RAMY 6345	
10	AFS	1130E	1914D	S16	W51	11 6.6		02	9	9	E	RAMY 6349	
10	SSB	1150		267	W15	11 15.6			0	0	E	SVTO	296 W44
10	SSB	1224		266	W15	11 15.5			0	0	E	RAMY	299 W48
10	ADF	1429E	1904D	N05	E02	11 10.7	1	06	9	9	E	RAMY 6362	
10	ADF	1440E	2356D	N10	E20	11 12.1	1	03	9	9	E	HOLL 6361	
10	CAP	1444E	2356D	S05	W90	11 3.9		02	9	9	E	HOLL 6345	
10	ADF	1449E	1805D	S15	W46	11 7.1	1	03	9	9	E	HOLL 6349	
10	ADF	1457E	1754D	S24	W58	11 6.1	1	05	9	9	E	HOLL 6350	
10	AFS	1501E	2356D	N16	W68	11 5.5		01	9	9	E	HOLL 6355	
10	AFS	1503E	2356D	S32	E25	11 12.6		02	9	9	E	HOLL 6364	
10	SDF	1506E	0842D	N37	E11	11 11.5		09	0	0	E	SVTO	
10	SDF	1506E	0942D	S11	W03	11 10.4		07	0	0	E	SVTO	
10	SDF	1511E	1220D	N36	E10	11 11.4	3	06	0	0	E	RAMY	
10	SSB	1515		261	W12	11 15.2			0	0	E	HOLL	265 W16 293 W44
10	SSB	1515		316	W67	11 9.2			0	0	E	HOLL	
10	DSD	1635E	1951D	N08	E15	11 11.8		02	9	9	E	RAMY 6361	
10	AFS	1638E	2107D	N17	W72	11 5.2		02	9	9	E	RAMY 6355	
10	AFS	1730E	0336D	N15	W72	11 5.3		02	9	9	E	PALE 6355	
10	AFS	1731E	0336D	S30	E23	11 12.5		03	9	9	E	PALE 6364	
10	DSD	1732E	0336D	S13	E09	11 11.4		04	9	9	E	PALE 6360	
10	ADF	1757E	2356D	N09	E01	11 10.8	1	08	9	9	E	HOLL 6362	
10	ADF	1835E	0336D	N05	E15	11 11.9	1	04	9	9	E	PALE 6361	
10	AFS	1854E	2107D	S22	E48	11 14.5		02	9	9	E	RAMY	
10	ADF	1856E	1951D	N07	E12	11 11.7	2	06	9	9	E	RAMY 6361	
10	DSD	1911E	2107D	S23	W70	11 5.4		02	9	9	E	RAMY 6350	
10	AFS	2240E	1023D	S32	E32	11 13.5		06	9	9	E	LEAR 6364	
10	ADF	2241E	1023D	N10	E29	11 13.1		14	9	9	E	LEAR 6361	
10	AFS	2242E	1023D	S24	W31	11 8.5		02	9	9	E	LEAR 6356	
10	AFS	2259E	1023D	N18	E08	11 11.6		05	9	9	E	LEAR 6358	
10	ASR	2328E	1023D	S06	W90	11 4.2			9	9	E	LEAR 6345	
10	APR	2336E	0300D	N21	W90	11 4.1	1				C	VORO	
10	ADF	2354E	0954D	N01	E11	11 11.8		05	9	9	E	LEAR 6361	
10	AFS	2355E	0954D	S31	E19	11 12.5		03	9	9	E	LEAR 6364	
11	DSD	0100E	0954D	N06	E11	11 11.9		03	9	9	E	LEAR 6361	
11	ASR	0323E	0336D	N05	W90	11 4.4			9	9	E	PALE 6345	
11	ASR	0336E	0525D	S06	W90	11 4.4			9	9	E	LEAR 6345	
11	AFS	0345E	0954D	N18	W08	11 10.5		04	9	8	E	LEAR 6358	
11	AFS	0532E	0954D	S22	E42	11 14.4		02	9	9	E	LEAR	
11	ADF	0716E	1505D	N08	E05	11 11.7	1	06	9	9	E	SVTO 6361	
11	SSB	0836		267	W27	11 16.6			0	0	E	SVTO	294 W54
11	ASR	0928E	1323D	N20	W90	11 4.5			9	9	E	SVTO 6354	

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP No	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
11	AFS	1046E	2029D	S21	E38	11	14.4		02	9	9	E	RAMY		
11	DSD	1049E	2029D	N06	E05	11	11.8		02	9	9	E	RAMY	6361	
11	ADF	1051E	2029D	N11	W13	11	10.5	1	10	9	9	E	RAMY	6362	
11	DSD	1058E	1947D	S15	W63	11	6.7		02	9	9	E	RAMY	6349	
11	SSB	1115		266	W28	11	16.6			0	0	E	RAMY		295 W57
11	AFS	1435E	1830D	S15	W62	11	6.9		02	9	9	E	HOLL	6349	
11	ASR	1435E	2029D	S18	W90	11	4.7			9	9	E	HOLL	6347	
11	ADF	1447E	2355D	N10	W17	11	10.3	1	11	9	9	E	HOLL	6362	
11	DSD	1500E	2225D	N07	E00	11	11.6		02	9	9	E	HOLL	6361	
11	SDF	1505E	0949D	N10	E07	11	12.1		11	0	0	E	SVTO		
11	SDF	1505E	0949D	S03	W01	11	11.5		05	0	0	E	SVTO		
11	SSB	1525		267	W31	11	16.9			0	0	E	HOLL		298 W62
11	DSD	1646E	1704D	N08	E01	11	11.8		10	9	9	E	HOLL	6361	Flare Associated
11	ADF	2012E	0221D	N05	W05	11	11.5	1	06	9	9	E	PALE	6361	
11	ADF	2012E	0221D	N10	E13	11	12.8		06	9	9	E	PALE	6361	
11	ADF	2012E	0221D	N10	W12	11	10.9	1	08	9	8	E	PALE	6358	
11	ADF	2012E	0221D	N15	W18	11	10.5	1	07	9	9	E	PALE	6362	
11	DSD	2012E	0221D	S21	W75	11	6.1		03	9	9	E	PALE	6350	
11	AFS	2012E	0221D	S31	E09	11	12.5		05	9	9	E	PALE	6364	
11	DSD	2012E	0221D	S35	E09	11	12.6		08	9	9	E	PALE	6364	
11	DSD	2203E	0855D	N07	W03	11	11.7		03	9	9	E	LEAR	6361	Flare Associated
11	AFS	2320E	0855D	N07	E01	11	12.0		02	9	9	E	LEAR	6361	
11	DSD	2321E	0855D	S24	E38	11	14.9		03	9	9	E	LEAR	6366	
11	ASR	2322E	0855D	N16	W90	11	5.1			9	9	E	LEAR	6355	
11	ADF	2345E	0259D	N19	E51	11	15.9	1				C	VORO		
12	AFS	0411E	0855D	S34	E04	11	12.5		01	9	9	E	LEAR	6364	
12	AFS	0936E	1239D	S31	E00	11	12.4		03	8	8	E	SVTO	6364	
12	ADF	0938E	1239D	N09	W04	11	12.1	1	10	7	9	E	SVTO	6361	
12	SSB	0949		270	W44	11	18.2			0	0	E	SVTO		
12	AFS	1107E	1948D	S32	E02	11	12.6		02	8	8	E	RAMY	6364	
12	ADF	1110E	1358D	S33	E19	11	14.0	1	11	9	9	E	RAMY		
12	DSD	1112E	1948D	S31	W09	11	11.7		02	9	9	E	RAMY	6364	
12	AFS	1133E	1239D	S20	E25	11	14.4		02	8	9	E	SVTO	6366	
12	DSD	1144E	1239D	N16	W22	11	10.8		04	9	9	E	SVTO	6358	
12	DSD	1148E	1948D	N17	W20	11	11.0		02	9	9	E	RAMY	6358	
12	DSD	1148E	1948D	N19	W23	11	10.7		02	9	9	E	RAMY	6358	
12	AFS	1150E	1403D	N06	W09	11	11.8		01	9	9	E	RAMY	6361	
12	APR	1200E	1443D	S20	W90	11	5.6	2		9	9	E	RAMY	6349	
12	AFS	1203E	1948D	S23	W65	11	7.5		02	9	9	E	RAMY	6365	
12	SSB	1205		249	W24	11	16.3			0	0	E	RAMY		267 W42
12	ASR	1207E	1948D	S15	W77	11	6.7			9	9	E	RAMY	6349	
12	ASR	1208E	1948D	N15	E90	11	19.3			9	9	E	RAMY		
12	ADF	1357E	1948D	N10	W29	11	10.4	1	08	9	9	E	RAMY	6362	
12	DSD	1420E	2259D	N07	W10	11	11.8		02	9	9	E	HOLL	6361	
12	AFS	1425E	1620D	S32	E00	11	12.6		02	8	7	E	HOLL	6364	
12	DSD	1425E	2259D	S30	W09	11	11.9		03	9	9	E	HOLL	6364	
12	APR	1430E	1442D	S20	W90	11	5.7	2		9	9	E	HOLL	6347	
12	EPL	1430E	1522	S20	W90	11	5.7			9	9	E	HOLL	6347	
12	EPL	1443E	1531D	S20	W90	11	5.7	2		9	9	E	RAMY	6349	
12	DSD	1500E	2259D	N16	W22	11	10.9		03	9	9	E	HOLL	6358	
12	ADF	1505E	1815D	N10	W29	11	10.4	1	10	9	9	E	HOLL	6362	
12	AFS	1510E	2259D	S23	W66	11	7.5		02	8	9	E	HOLL	6365	
12	AFS	1515E	2259D	S21	E23	11	14.4		02	7	7	E	HOLL	6366	
12	ASR	1520E	2259D	N18	E90	11	19.5			9	9	E	HOLL		
12	SSB	1529		268	W45	11	18.3			0	0	E	HOLL		
12	APR	1730E	2259D	S20	W90	11	5.8	2		9	9	E	HOLL	6347	
12	ADF	1815E	2259D	N08	W33	11	10.3	1	05	9	9	E	HOLL	6362	
12	DSD	1921	2202D	N09	W12	11	11.9		05	9	9	E	HOLL	6361	Flare Associated
12	DSD	1922	1937D	N09	W11	11	12.0		05	9	9	E	RAMY	6361	Flare Associated
12	ASR	2230E	2316D	N25	E90	11	19.9			9	9	E	HOLL	6368	
12	EPL	2230E	2317	S28	W90	11	5.9			9	9	E	LEAR	6349	
12	BSL	2235	2316D	N25	E90	11	19.9			9	9	E	HOLL	6368	
12	BSL	2237E	2254	N25	E90	11	19.9			9	9	E	LEAR		
12	ASR	2254E	1030D	N19	E90	11	19.8			9	9	E	LEAR	6368	
12	APR	2317	1030D	S18	W90	11	6.1	1		9	9	E	LEAR	6349	
12	ASR	2326	1030D	S16	W90	11	6.1			9	9	E	LEAR	6349	
12	DSD	2327E	1030D	S31	W15	11	11.8		04	9	9	E	LEAR	6364	
12	DSD	2329E	1030D	N08	W16	11	11.8		02	9	9	E	LEAR	6361	
12	AFS	2331E	1030D	N17	W32	11	10.5		01	7	7	E	LEAR	6358	

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
12	BSL	2336E	0300D	S15	W90	11 6.2	1				C	VORO		
13	APR	0045	0125	N12	E90	11 19.8	1				C	VORO		
13	BSL	0846E	0910D	N33	E90	11 20.5	1				C	ABST		
13	SDF	1030E	2154D	N27	E32	11 15.9		12	0	0	E	LEAR		
13	DSD	1053E	1224D	N05	W21	11 11.9		03	9	9	E	RAMY 6361		
13	DSD	1053E	1224D	N07	W18	11 12.1		02	9	9	E	RAMY 6361		
13	ADF	1108E	1905D	N04	W36	11 10.8	1	06	9	9	E	RAMY 6362		
13	ADF	1108E	2120D	N09	W39	11 10.5	1	06	9	9	E	RAMY 6362		
13	APR	1321E	1910D	S32	W90	11 6.4	2		9	9	E	RAMY 6349		
13	ASR	1421E	2328D	N20	E90	11 20.5			9	9	E	HOLL 6368		
13	DSD	1450E	2126D	N23	W06	11 13.1		04	9	9	E	HOLL 6361		
13	SSB	1536		221	W11	11 15.2			0	0	E	RAMY	270 W60	
13	AFS	1624E	2328D	N17	W38	11 10.8		02	9	9	E	HOLL 6358		
13	AFS	1625E	2328D	S18	W25	11 11.8		03	9	9	E	HOLL		
13	AFS	1629E	2328D	S31	W24	11 11.8		02	9	9	E	HOLL 6364		
13	SSB	1656		222	W13	11 15.4			0	0	E	HOLL	249 W40 267 W58	
13	SDF	1810E	1534D	N16	E18	11 15.1		19	0	0	E	HOLL		
13	DSD	1920E	2328D	N11	W09	11 13.1		02	9	9	E	HOLL 6361		
13	AFS	2126E	2328D	N07	W25	11 12.0		03	9	9	E	HOLL 6361		
13	APR	2131E	2328D	S20	W90	11 7.0	1		9	9	E	HOLL 6365		
13	CRN	2135E	2328D	S28	W90	11 6.9		13	7	6	E	HOLL		
13	APR	2202E	2328D	N32	E90	11 21.0	1		9	9	E	HOLL		
13	ASR	2212E	1029D	S15	W90	11 7.1			9	9	E	LEAR 6349		
13	ASR	2214E	1029D	N18	E90	11 20.8			9	9	E	LEAR 6368		
13	AFS	2234E	1029D	N07	W23	11 12.2		02	9	9	E	LEAR 6361		
14	DSD	0524	1029D	S21	W01	11 14.1		03	9	9	E	LEAR 6366	Flare Associated	
14	BSD	0745E	1029D	S17	W78	11 8.4		02	9	9	E	LEAR 6368		
14	AFS	0816E	0959D	N05	W31	11 12.0		02	9	9	E	SVTO 6361		
14	SDF	1030E	2154D	N27	E32	11 16.9		12	0	0	E	LEAR		
14	DSD	1055E	1637D	S30	W30	11 12.1		03	9	9	E	RAMY 6364		
14	DSD	1107E	2122D	N18	W47	11 10.9		03	9	9	E	RAMY 6358		
14	AFS	1115E	2122D	N18	W52	11 10.5		02	9	9	E	RAMY 6358		
14	AFS	1121E	2122D	S20	W03	11 14.2		02	9	9	E	RAMY 6366		
14	DSD	1202E	2122D	N18	E77	11 20.4		03	9	9	E	RAMY 6368		
14	AFS	1445E	2353D	S21	W03	11 14.4		03	9	9	E	HOLL 6366		
14	ADF	1455E	1845D	N09	W33	11 12.1	1	16	9	9	E	HOLL 6361		
14	ADF	1503E	2122D	N09	W43	11 11.4	2	14	7	9	E	RAMY 6361		
14	SDF	1506E	1522D	N27	W33	11 12.0	3	18	0	0	E	RAMY		
14	AFS	1510E	2353D	N18	W54	11 10.5		02	9	9	E	HOLL 6358		
14	DSD	1510E	2353D	S30	W35	11 11.9		02	8	8	E	HOLL 6364		
14	SSB	1530		251	W54	11 19.0			0	0	E	HOLL	269 W72	
14	APR	1548E	2212D	S18	W90	11 7.8	1		7	7	E	HOLL		
14	APR	1550E	2353D	N32	E90	11 21.8	1		8	8	E	HOLL		
14	ADF	1630E	2122D	N27	E90	11 21.7	1	16	9	9	E	RAMY 6368		
14	ADF	1847E	2353D	N14	W55	11 10.6	1	08	8	8	E	HOLL 6358		
14	AFS	2249E	1029D	N17	E60	11 19.5		07	9	9	E	LEAR 6368		
14	AFS	2253E	1029D	S08	W21	11 13.4		03	9	9	E	LEAR 6366		
14	EPR	2310E	0156	N32	E90	11 22.1	2				C	VORO		
15	AFS	0025E	0335D	N21	E55	11 19.2		02	7	7	E	PALE 6368		
15	AFS	0025E	0335D	N22	E71	11 20.5		01	9	9	E	PALE 6368		
15	AFS	0025E	0335D	N22	E74	11 20.7		02	9	9	E	PALE 6368		
15	AFS	0025E	0335D	S21	W07	11 14.5		02	7	7	E	PALE 6366		
15	AFS	0025E	0335D	S22	W09	11 14.3		03	9	7	E	PALE 6366		
15	DSD	0030E	0335D	N12	W60	11 10.5		03	9	9	E	PALE 6358		
15	AFS	0030E	0335D	N13	W60	11 10.5		01	9	9	E	PALE 6358		
15	DSD	0039E	0335D	N04	W44	11 11.7		03	8	8	E	PALE 6361		
15	ASR	0257E	0335D	N58	E55	11 19.9			5	5	E	PALE		
15	SDF	1031E	2136D	N08	E13	11 16.4		03	0	0	E	LEAR		
15	SDF	1031E	2136D	N53	E07	11 16.0		04	0	0	E	LEAR		
15	ADF	1047E	2119D	N28	E63	11 20.4	2	20	9	9	E	RAMY 6368		
15	DSD	1055E	1329D	S22	W13	11 14.4		04	9	9	E	RAMY 6366		
15	DSD	1058E	1409D	S30	W43	11 12.1		03	9	9	E	RAMY 6364		
15	DSD	1104E	2003D	N05	W45	11 12.1		04	9	9	E	RAMY 6361		
15	SSB	1110		192	W06	11 22.3			0	0	E	RAMY	235 W49 254 W68	
15	APR	1113E	1929D	N32	E90	11 22.6	1		9	9	E	RAMY		
15	DSD	1155E	1329D	S22	W13	11 14.5		04	9	9	E	RAMY 6366		
15	SDF	1415E	1851D	S46	E60	11 20.6	3	20	0	0	E	RAMY		

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
15	ADF	1420E	2352D	N10	W45	11 12.2	1	13	8	8	E	HOLL	6362	
15	DSD	1424E	1521D	N13	W63	11 10.8		02	7	7	E	HOLL	6358	
15	SSB	1524		191	W08	11 22.5			0	0	E	HOLL		251 W68 266 W83
15	SDF	1526E	1526D	S43	E53	11 20.0		13	0	0	E	HOLL		
15	AFS	1720E	0239D	N19	E54	11 19.8		03	9	9	E	PALE	6368	
15	AFS	1722E	0239D	S22	W17	11 14.4		02	7	7	E	PALE	6366	
15	ADF	1835E	0239D	N23	E52	11 19.8	1	26	9	9	E	PALE	6368	
15	DSD	1926E	2000D	N21	E61	11 20.5		02	9	9	E	RAMY	6368	
15	ADF	1938E	1930D	N09	W41	11 12.7	1	04	9	9	E	PALE	6361	
15	ASR	2003E	2109D	N21	W90	11 8.9			9	9	E	RAMY		
15	AFS	2220E	1032D	S21	W20	11 14.4		03	9	9	E	LEAR	6366	
15	AFS	2222E	1032D	N16	E49	11 19.6		06	9	9	E	LEAR	6368	
15	ADF	2223E	1032D	N12	E51	11 19.8		10	9	9	E	LEAR	6368	
15	BSD	2225E	1032D	N19	E45	11 19.4		03	9	9	E	LEAR	6368	
16	SDF	0036E	0020D	N11	E50	11 19.8		09	0	0	E	LEAR		
16	SDF	0036E	0020D	N28	E50	11 19.9		04	0	0	E	LEAR		
16	BSL	0654E	0905D	S66	E90	11 24.4	1				C	ABST		
16	BSL	0755E	0905D	N32	E90	11 23.4	1				C	ABST		
16	ADF	1101E	2035D	N28	E58	11 21.0	1	14	9	9	E	RAMY	6368	
16	AFS	1112E	1843D	N18	W77	11 10.6		02	9	9	E	RAMY	6358	
16	SSB	1127		191	W18	11 23.4			0	0	E	RAMY		242 W69
16	DSD	1325E	1843D	N18	E36	11 19.3		09	9	9	E	RAMY	6368	Flare Associated
16	DSD	1450E	2120D	N13	W75	11 10.9		03	9	9	E	HOLL	6358	
16	DSD	1514E	1800D	N07	W64	11 11.8		03	9	9	E	HOLL	6361	
16	ADF	1515E	1805D	N11	W60	11 12.1	1	16	9	9	E	HOLL		
16	DSD	1525E	2151D	N30	W60	11 11.9		02	9	9	E	HOLL	6364	
16	AFS	1527E	2351D	S21	W30	11 14.3		02	9	9	E	HOLL	6366	
16	AFS	1530E	1810D	N19	E48	11 20.3		02	8	7	E	HOLL	6368	
16	ADF	1530E	2351D	N27	E57	11 21.1	1	09	9	9	E	HOLL	6368	
16	SSB	1550		191	W21	11 23.6			0	0	E	HOLL		
16	AFS	1738E	2220D	N17	E30	11 19.0		02	9	9	E	PALE	6368	
16	AFS	1738E	2220D	N20	E39	11 19.7		04	9	9	E	PALE	6368	
16	ADF	1738E	2220D	N23	E44	11 20.1	1	12	9	9	E	PALE	6368	
16	ADF	1752E	2220D	N07	W53	11 12.8	1	08	9	9	E	PALE	6361	
16	DSD	1801E	2220D	N09	W67	11 11.7		04	9	9	E	PALE	6362	
16	ADF	1801E	2220D	N12	W68	11 11.6		12	9	9	E	PALE	6362	
16	AFS	1801E	2220D	S22	W33	11 14.2		04	9	9	E	PALE	6366	
16	ASR	2208E	2220D	N21	W90	11 10.0			9	9	E	PALE	6358	
16	AFS	2218E	1030D	S22	W34	11 14.3		03	9	9	E	LEAR	6366	
16	AFS	2225E	1030D	N18	E45	11 20.4		01	9	9	E	LEAR	6368	
16	ASR	2236E	0424D	N13	W83	11 10.7			9	9	E	LEAR	6362	
17	BSL	0001	0040	N10	W90	11 10.2	1				C	VORO		
17	AFS	0120E	1030D	N16	E32	11 19.5		02	9	9	E	LEAR	6368	
17	ADF	0137E	1030D	N15	E32	11 19.5	1	03	9	9	E	LEAR	6368	
17	BSL	0138	0202	S05	W90	11 10.3	1				C	VORO		
17	ADF	0415E	1030D	N07	W69	11 12.0	1	02	9	9	E	LEAR	6361	
17	AFS	0525E	1030D	N20	E40	11 20.3		02	9	9	E	LEAR	6368	
17	ADF	0815E	1030D	N14	E40	11 20.4	1	02	9	9	E	LEAR	6368	
17	ASR	0852E	1313D	N17	W90	11 10.5			9	9	E	SVTO	6358	
17	SSB	0907		191	W31	11 24.5			0	0	E	SVTO		
17	AFS	0926E	1313D	S22	W40	11 14.3		03	9	9	E	SVTO	6366	
17	ADF	1059E	1812D	N28	E47	11 21.1	1	26	9	9	E	RAMY	6368	
17	DSD	1102E	1407D	N14	E27	11 19.5		04	9	9	E	RAMY	6368	
17	SSB	1204		191	W59	11 25.5			0	0	E	RAMY		
17	AFS	1251E	1812D	N18	W11	11 16.7		02	8	8	E	RAMY		
17	SDF	1313E	0744D	N24	E26	11 19.5		07	0	0	E	SVTO	6368	
17	SDF	1313E	0744D	N24	E32	11 20.0		05	0	0	E	SVTO	6368	
17	AFS	1405E	1812D	N16	E26	11 19.5		02	9	9	E	RAMY	6368	
17	ADF	1405E	1812D	N21	E31	11 20.0	2	06	9	9	E	RAMY	6368	
17	ASR	1528E	1812D	N13	W89	11 10.9			9	9	E	RAMY	6362	
17	DSD	1725E	2011D	N11	W76	11 12.0		02	9	9	E	HOLL		
17	DSD	1730E	2111D	S22	W49	11 14.0		02	9	9	E	HOLL	6366	
17	AFS	1730E	2315D	S22	W45	11 14.3		02	8	8	E	HOLL	6366	
17	SSB	1755		192	W36	11 25.1			0	0	E	HOLL		
17	ASR	1802E	2111D	S25	W90	11 10.8			9	9	E	HOLL		
17	BSD	1857E	1951D	N07	W77	11 12.0		03	9	9	E	HOLL	6361	
17	ASR	2011E	2315D	N20	W90	11 10.9			9	9	E	HOLL	6358	
17	ADF	2053E	2315D	N15	E18	11 19.2	2	06	9	9	E	HOLL	6368	

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
17	AFS	2235E	1017D	N20	E26	11	19.9		05	9	9	E	LEAR	6368	
17	DSD	2255E	1017D	N15	E28	11	20.1		04	9	9	E	LEAR	6368	Flare Associated
18	BSL	0648E	0720D	N10	W90	11	11.5	1				C	ABST		
18	ASR	0656E	1017D	N12	W90	11	11.5			9	9	E	LEAR	6362	
18	ASR	0830E	1513D	S34	W87	11	11.4			9	9	E	SVTO	6364	
18	ASR	0840E	1513D	N07	W88	11	11.8			9	9	E	SVTO	6361	
18	SSB	0845		192	W44	11	26.0			0	0	E	SVTO		
18	ASR	1102E	2041D	N13	W90	11	11.7			9	9	E	RAMY		
18	AFS	1104E	1537D	N18	W22	11	16.8		02	9	9	E	RAMY	6371	
18	DSD	1106E	1417D	N21	E31	11	20.8		03	9	9	E	RAMY	6368	
18	AFS	1108E	2041D	S20	W52	11	14.5		03	9	9	E	RAMY	6366	
18	ASR	1109E	2041D	N08	W90	11	11.7			9	9	E	RAMY	6361	
18	ADF	1114E	2041D	N26	E13	11	19.5	1	04	9	9	E	RAMY	6368	
18	SSB	1126		191	W45	11	26.0			0	0	E	RAMY		
18	ASR	1250E	1532D	S39	W90	11	11.2			9	9	E	RAMY		
18	ASR	1251E	1332D	N18	W90	11	11.7			9	9	E	RAMY		
18	AFS	1355E	2350D	S18	W01	11	18.5		03	9	9	E	HOLL		
18	ASR	1446E	2350D	N06	W90	11	11.9			8	8	E	HOLL	6361	
18	DSD	1452E	1918D	S23	W62	11	13.8		06	9	9	E	HOLL	6366	
18	DSD	1455E	2350D	N20	E22	11	20.3		03	9	9	E	HOLL	6368	
18	SSB	1458		191	W46	11	26.2			0	0	E	HOLL		
18	ASR	1755E	2350D	S04	E90	11	25.5			6	7	E	HOLL		
18	AFS	1821E	2350D	S11	W08	11	18.2		02	9	9	E	HOLL		
18	ASR	1839E	2350D	N17	W90	11	11.9			9	9	E	HOLL		
18	AFS	1959E	2006D	S18	W03	11	18.6		02	9	9	E	RAMY		
18	EPL	2033	2116	N06	W90	11	12.1			9	9	E	HOLL	6361	Flare Associated
18	DSD	2133	2315D	N22	E05	11	19.3		11	9	9	E	HOLL	6368	Flare Associated
18	ASR	2230E	1015D	N08	W90	11	12.2			9	9	E	LEAR	6361	
18	ASR	2246E	1015D	N22	W83	11	12.6			9	9	E	LEAR		
18	ASR	2318E	1015D	S08	E82	11	25.1			9	9	E	LEAR		
18	BSL	2330	0030	S16	W90	11	12.1	1				C	VORO		
19	SDF	0028E	0100D	S48	E17	11	20.4		07	0	0	E	LEAR		
19	BSL	0051	0120	N22	W90	11	12.1	1				C	VORO		
19	APR	0141	0209	N22	W90	11	12.1	1				C	VORO		
19	AFS	0202E	1015D	S18	W06	11	18.6		03	9	9	E	LEAR		
19	DSD	0203E	1015D	S17	W07	11	18.5		08	9	9	E	LEAR		
19	BSL	0222	0300D	N22	W90	11	12.2	1				C	VORO		
19	BSL	0602E	0721D	N24	W90	11	12.3	1				C	ABST		
19	ASR	0725E	1507D	N20	W90	11	12.4			9	9	E	SVTO		
19	AFS	0725E	1507D	S17	W09	11	18.6		02	9	9	E	SVTO		
19	SSB	0749		195	W59	11	27.6			0	0	E	SVTO		
19	ASR	0810E	1507D	N03	W90	11	12.6			9	9	E	SVTO	6361	
19	AFS	0845E	1507D	N16	W36	11	16.6		02	9	9	E	SVTO	6371	
19	DSD	1135E	2025D	N23	E01	11	19.5		04	9	9	E	RAMY	6368	
19	AFS	1135E	2025D	S17	W12	11	18.6		02	8	9	E	RAMY		
19	ADF	1205E	2025D	S20	W65	11	14.5	1	05	9	9	E	RAMY	6366	
19	APR	1215E	2014D	N23	W89	11	12.6	2		9	9	E	RAMY		
19	APR	1215E	2014D	N35	W88	11	12.5	2		9	9	E	RAMY		
19	DSD	1422E	2031D	S16	W70	11	14.3		05	9	9	E	HOLL		
19	APR	1450E	2039D	N23	W90	11	12.7	1		9	9	E	HOLL		
19	APR	1450E	2039D	S32	W90	11	12.5	1		8	6	E	HOLL	6364	
19	AFS	1536E	2229D	N17	W39	11	16.7		02	8	8	E	HOLL	6371	
19	ASR	1538E	2229D	N07	W90	11	12.9			9	9	E	HOLL	6361	
19	EPL	1550E	1627D	N12	W90	11	12.9	2		9	9	E	RAMY		
19	BSL	1551	1610D	N07	W90	11	12.9			9	9	E	HOLL	6361	
19	AFS	1611E	2229D	S18	W13	11	18.7		02	8	8	E	HOLL		
19	ASR	1652	2008D	N11	W90	11	12.9			9	9	E	RAMY		
19	SSB	1845		193	W64	11	28.1			0	0	E	HOLL		
19	DSD	1906E	2229D	N18	W04	11	19.5		04	9	9	E	HOLL	6368	
19	BSL	1909	2002D	N08	W90	11	13.0			9	9	E	HOLL	6361	
19	SSB	2009		191	W63	11	27.9			0	0	E	RAMY		
19	AFS	2120E	2229D	N23	W02	11	19.7		04	9	9	E	HOLL	6368	
19	DSD	2120E	2229D	N23	W04	11	19.6		02	9	9	E	HOLL	6368	
19	ASR	2220E	0700D	N22	W87	11	13.2			9	9	E	LEAR		
19	AFS	2220E	0135D	N04	E02	11	20.1		02	7	7	E	PALE		
19	AFS	2220E	0135D	N12	W04	11	19.6		03	9	9	E	PALE	6368	
19	AFS	2220E	0135D	N14	W10	11	19.2		03	9	9	E	PALE	6368	
19	AFS	2220E	0135D	N22	W04	11	19.6		08	9	9	E	PALE	6368	

ACTIVE PROMINENCES AND FILAMENTS

NOVEMBER 1990

Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	NOAA/USAF Sta Reg#	Remarks
19	ASR	2220E	2230D	N21	W84	11 13.5			7	7	E	PALE	
19	ASR	2221E	0643D	N08	W90	11 13.2			9	9	E	LEAR 6361	
19	ADF	2222E	1018D	N14	W07	11 19.4		08	9	9	E	LEAR 6368	
19	AFS	2222E	1018D	S17	W21	11 18.3		04	9	9	E	LEAR 6376	
20	AFS	0020E	0155D	S22	W72	11 14.5		02	9	9	E	PALE	
20	AFS	0032E	0155D	N18	W63	11 16.7		02	9	9	E	PALE 6371	
20	ADF	0120E	0155D	S07	E76	11 25.7		08	9	9	E	PALE	
20	DSD	0224E	0923D	N22	W10	11 19.3		03	9	9	E	LEAR 6368	
20	SSB	0720		194	W72	11 28.9			0	0	E	SVTO	
20	AFS	0721E	1459D	N15	W68	11 16.7		02	9	9	E	SVTO 6371	
20	AFS	0722E	1459D	S18	W23	11 18.5		02	9	9	E	SVTO 6376	
20	ADF	0723E	1459D	N08	W10	11 19.5	1	08	9	9	E	SVTO 6368	
20	DSD	1108E	2106D	N19	W09	11 19.8		05	9	9	E	RAMY 6368	
20	AFS	1118E	1122D	S18	W24	11 18.6		02	7	7	E	RAMY 6376	
20	AFS	1132E	2106D	N16	W68	11 16.8		03	9	8	E	RAMY 6371	
20	DSD	1415E	1459D	N18	E02	11 20.7		13	9	9	E	SVTO 6268	Flare Associated
20	DSD	1445	2106D	N17	W02	11 20.5		08	9	9	E	RAMY 6368	
20	SDF	1459E	0645D	S34	W47	11 16.9		10	0	0	E	SVTO	
20	APR	1514E	2106D	N20	W90	11 13.7			9	9	E	RAMY	
20	AFS	2220E	1033D	S16	W31	11 18.6		02	6	7	E	LEAR 6376	
20	ADF	2308E	0300D	N30	W01	11 20.9	2				C	VORO	
20	APR	2345	0200	N24	W90	11 14.0	1				C	VORO	
21	ASR	0345E	1033D	S21	W90	11 14.2			8	7	E	LEAR 6366	
21	AFS	0740E	1439D	N16	W63	11 16.5		02	9	9	E	SVTO 6371	
21	AFS	0741E	1439D	S14	W36	11 18.6		02	9	9	E	SVTO 6376	
21	AFS	0805E	1033D	N17	W64	11 16.5		02	9	9	E	LEAR 6371	
21	SDF	1033E	2215D	S35	W13	11 20.4		11	0	0	E	LEAR	
21	AFS	1052E	2034D	S17	W34	11 18.9		02	9	9	E	RAMY 6376	
21	AFS	1055E	2034D	N18	W55	11 17.3		02	9	9	E	RAMY 6371	
21	AFS	1058E	2034D	N18	W13	11 20.5		03	9	9	E	RAMY 6368	
21	ASR	1100E	1441D	S18	W90	11 14.6			9	9	E	RAMY 6366	
21	SSB	1108		135	W28	11 24.2			0	0	E	RAMY	
21	DSD	1132	1159D	N14	W22	11 19.8		03	9	9	E	RAMY 6368	
21	DSD	1135E	1215D	N14	W25	11 19.6		05	9	9	E	SVTO 6368	
21	APR	1217E	1439D	S26	W89	11 14.6	1		9	9	E	SVTO	
21	DSD	1218E	1249D	S17	W41	11 18.4		04	9	9	E	RAMY 6376	
21	DSD	1248E	1342D	N23	W23	11 19.8		04	9	9	E	RAMY 6368	
21	DSD	1342E	1515D	N18	W10	11 20.8		07	9	9	E	RAMY 6368	
21	SDF	1413E	1611D	S37	W15	11 20.4	3	14	0	0	E	RAMY	
21	SDF	1439E	0948D	N14	E55	11 25.8		12	0	0	E	SVTO	
21	AFS	1444E	2034D	S06	E45	11 25.0		02	9	9	E	RAMY 6377	
21	SDF	1459E	0645D	S34	W47	11 17.9		10	0	0	E	SVTO	
21	SDF	1535	1637D	S30	E90	11 28.7		33	0	0	E	HOLL	
21	APR	1605E	1716D	S41	E90	11 29.0	2		9	9	E	RAMY	
21	ADF	1621E	2034D	N16	W23	11 19.9	1	07	9	9	E	RAMY 6368	
21	DSD	1829E	0304D	N17	W14	11 20.7		04	9	9	E	PALE 6368	
21	AFS	1829E	0304D	N18	W70	11 16.4		03	9	6	E	PALE 6371	
21	DSD	1829E	0304D	S03	E40	11 24.7		04	9	9	E	PALE 6377	
22	ADF	0016E	0300D	N48	E06	11 22.5	1				C	VORO	
22	AFS	0415E	1035D	S10	E47	11 25.7		04	6	6	E	LEAR 6377	
22	AFS	0630E	1035D	N17	W28	11 20.1		03	6	8	E	LEAR 6368	
22	ADF	0645E	1035D	N21	W22	11 20.6	2	03	9	9	E	LEAR 6368	
22	AFS	1033E	1148D	S08	E44	11 25.7		02	9	9	E	SVTO 6377	
22	AFS	1034E	1148D	S03	E34	11 25.0		02	9	9	E	SVTO 6377	
22	DSD	1038E	1148D	N21	W25	11 20.5		04	9	9	E	SVTO 6368	
22	AFS	1412E	2127D	S02	E31	11 24.9		02	9	9	E	RAMY 6377	
22	DSD	1444E	1512D	N27	W35	11 19.9		03	9	9	E	RAMY 6268	
22	DSD	1444E	1916D	N21	W21	11 21.0		06	9	9	E	RAMY 6368	
22	DSD	1444E	2127D	N22	W25	11 20.7		04	9	9	E	RAMY 6368	
22	AFS	1506E	1848D	N19	W82	11 16.4		02	8	8	E	RAMY 6371	
22	SSB	1514		460	W09	11 18.1			0	0	E	RAMY	153 W62
22	DSD	1625E	2348D	N21	W27	11 20.6		03	9	9	E	HOLL 6368	
22	AFS	1630E	2348D	S03	E31	11 25.0		02	9	9	E	HOLL 6377	
22	AFS	1630E	2348D	S08	E40	11 25.7		02	9	9	E	HOLL	
22	ADF	1727E	2127D	N20	W33	11 20.2	1	06	9	9	E	RAMY 6368	
22	ASR	1910E	2348D	S06	E90	11 29.5			9	9	E	HOLL	
22	ASR	1911E	2206D	N12	E90	11 29.6			8	8	E	HOLL	

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
22	AFS	1912E	2348D	S01	E10	11 23.5		02	8	7	E	HOLL		
22	ASR	1914E	2348D	N18	W90	11 15.9			9	9	E	HOLL	6371	
22	DSD	2021	2106D	N25	W42	11 19.6		07	9	9	E	HOLL	6368	
22	ADF	2133E	2322D	S16	E03	11 23.1	1	10	9	9	E	HOLL	6372	
22	ASR	2242E	1030D	S06	E90	11 29.7			9	9	E	LEAR		
22	AFS	2259E	1030D	S07	E27	11 25.0		02	9	7	E	LEAR	6377	
22	AFS	2302E	1030D	S10	E38	11 25.8		02	9	9	E	LEAR	6378	
22	ADF	2314E	1030D	S17	E04	11 23.3	1	09	9	9	E	LEAR	6372	
22	APR	2321E	0235	S05	E90	11 29.7	1				C	VORO		
22	APR	2321E	0245D	N17	W90	11 16.1	1				C	VORO		
22	APR	2321E	0245D	N34	W90	11 15.8	1				C	VORO		
22	ADF	2322E	0242D	N38	W14	11 21.8	2				C	VORO		
22	ASR	2340E	0322D	N18	W90	11 16.1			9	9	E	LEAR	6371	
22	AFS	2353E	2359D	S08	E38	11 25.8		03	9	9	E	PALE	6378	
23	AFS	0010E	1030D	S01	E07	11 23.5		02	6	6	E	LEAR		
23	BSL	0650E	0738D	S24	E90	11 30.2	1				C	ABST		
23	BSL	0758	0832	N16	W90	11 16.5	1				C	ABST		
23	ASR	0835E	1030D	N17	W90	11 16.5			9	9	E	LEAR	6371	
23	DSD	1102E	1324D	N22	W35	11 20.8		03	9	9	E	RAMY	6368	
23	AFS	1102E	2031D	N17	W44	11 20.1		03	9	9	E	RAMY	6368	
23	APR	1104E	1324D	S10	E90	11 30.2	2		9	9	E	RAMY		
23	AFS	1105E	2031D	S09	E31	11 25.8		02	9	9	E	RAMY	6378	
23	AFS	1106E	2031D	S04	E20	11 24.9		03	9	9	E	RAMY	6377	
23	ADF	1112E	2031D	N20	W45	11 20.0	1	05	9	9	E	RAMY	6368	
23	SSB	1149		443	W03	11 20.3			0	0	E	RAMY		149 W68
23	ADF	1459E	2347D	S03	E18	11 25.0	1	04	9	9	E	HOLL	6377	
23	DSD	1523E	2247D	N20	W51	11 19.7		03	9	9	E	HOLL	6368	
23	ADF	1523E	2347D	N20	W47	11 20.0	1	07	9	9	E	HOLL	6368	
23	AFS	1750E	2155D	S06	E17	11 25.0		03	9	9	E	HOLL	6377	
23	DSD	1841	2002D	S04	W18	11 22.4		03	9	9	E	RAMY	6377	Flare Associated
23	ADF	2020E	2347D	N43	W18	11 22.4	2	18	5	6	E	HOLL		
23	BSD	2103	2116	N13	W43	11 20.6		14	0	0	E	HOLL	6368	Flare Associated
23	SSB	2115		444	W09	11 20.6			0	0	E	HOLL		
23	ADF	2315E	0258D	N36	W23	11 22.1	1				C	VORO		
23	APR	2330E	0300D	N46	W90	11 16.5	1				C	VORO		
24	SDF	0123E	2149D	N47	W20	11 22.4	3	22	0	0	E	LEAR		
24	DSD	0150E	0241D	N20	W42	11 20.9		02	9	9	E	PALE	6368	
24	DSD	0150E	0241D	S16	W12	11 23.2		02	9	9	E	PALE	6372	
24	AFS	0154E	0241D	S05	E13	11 25.0		06	9	9	E	PALE	6377	
24	AFS	0154E	0241D	S07	E74	11 29.6		03	9	9	E	PALE	6379	
24	AFS	0329E	1034D	S07	E73	11 29.6		03	9	9	E	LEAR	6379	
24	AFS	0401E	1034D	S04	E12	11 25.1		04	9	9	E	LEAR	6377	
24	BSL	0608E	0635	N40	W90	11 16.9	1				C	ABST		
24	BSL	0744	0902	N66	W90	11 16.2	1				C	ABST		
24	DSD	1101E	1239D	N21	W46	11 20.9		02	9	9	E	RAMY	6368	
24	ADF	1101E	2127D	N18	W52	11 20.5	1	07	9	9	E	RAMY	6368	
24	DSD	1234E	1356D	S19	W20	11 23.0		02	9	9	E	RAMY	6372	
24	DSD	1238E	1521D	N24	W56	11 20.2		02	9	9	E	RAMY	6368	
24	SDF	1339E	1543D	N44	W30	11 22.1	3	24	0	0	E	RAMY		
24	DSD	1500E	1713D	S05	E03	11 24.8		06	9	9	E	HOLL	6377	Flare Associated
24	ADF	1549E	2322D	S11	E11	11 25.5	1	04	9	9	E	HOLL	6378	
24	SSB	1617		447	W23	11 21.0			0	0	E	HOLL		
24	AFS	1753E	0340D	N15	W61	11 20.1		05	9	9	E	PALE	6368	
24	DSD	1753E	0340D	N17	W55	11 20.6		02	9	9	E	PALE	6368	
24	DSD	1753E	0340D	S17	W23	11 23.0		02	9	9	E	PALE	6372	
24	AFS	1800E	0340D	N04	W02	11 24.6		03	9	9	E	PALE	6377	
24	ADF	1800E	0340D	N19	W36	11 22.0	1	14	9	9	E	PALE	6375	
24	DSD	1800E	0340D	S07	E66	11 29.7		02	9	9	E	PALE	6379	
24	ADF	1800E	0340D	S09	E10	11 25.5		03	9	9	E	PALE	6378	
24	DSD	1834E	1950D	N20	W69	11 19.5		04	9	9	E	HOLL	6368	
24	ASR	2208E	0550D	N16	W85	11 18.5			9	9	E	LEAR	6368	
25	AFS	0030E	0857D	S04	W01	11 24.9		02	9	9	E	LEAR	6377	
25	AFS	0545E	0857D	S10	E07	11 25.8		02	9	9	E	LEAR	6378	
25	SSB	0701		377	W00	11 19.5			0	0	E	SVTO		
25	AFS	0741E	1443D	S04	W03	11 25.1		03	8	9	E	SVTO	6377	Flare Associated
25	AFS	0742E	1443D	S04	E55	11 29.4		02	9	9	E	SVTO	6379	
25	AFS	0743E	1443D	S09	E06	11 25.8		02	7	8	E	SVTO	6378	

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
25	ASR	1022E	1411D	S17	W90	11	18.6			9	9	E	SVTO	6376	
25	DSD	1109E	1659D	S05	W03	11	25.2		03	9	9	E	RAMY	6377	
25	AFS	1109E	1754D	S09	W03	11	25.2		02	8	7	E	RAMY	6378	
25	ADF	1119E	1754D	N15	W60	11	20.9	1	04	9	9	E	RAMY	6368	
25	ASR	1125E	1719D	S17	W90	11	18.6			9	9	E	RAMY	6376	
25	APR	1230E	1616D	N15	W87	11	18.9	2		9	9	E	RAMY	6368	
25	APR	1321E	1443D	S21	E90	12	2.4	2		9	9	E	SVTO	6381	
25	SDF	1443E	1012D	N09	W46	11	22.2		09	0	0	E	SVTO		
25	SDF	1443E	1012D	N13	E13	11	26.6		03	0	0	E	SVTO		
25	SDF	1443E	1012D	N24	E02	11	25.8		02	0	0	E	SVTO		
25	SDF	1443E	1012D	N27	W30	11	23.3		07	0	0	E	SVTO		
25	MDP	1817E	2115D	N19	E90	12	2.6			9	9	E	HOLL		
25	ADF	1832E	2318D	S08	E65	11	30.6	1	08	9	9	E	HOLL	6381	
25	DSD	1910E	2132D	S06	E51	11	29.6		03	9	9	E	PALE	6379	
25	APR	2037E	2225D	N16	W90	11	19.0	1		9	8	E	HOLL	6368	
25	AFS	2105E	2107D	N18	W65	11	20.9		03	9	9	E	PALE	6368	
25	DSD	2105E	2107D	N20	W69	11	20.6		05	9	9	E	PALE	6368	
25	BSD	2108E	2228D	N15	W79	11	19.9		11	9	9	E	HOLL	6368	
25	CAP	2110E	2318D	N19	E90	12	2.7		01	6	6	E	HOLL		
25	AFS	2122E	2123D	S05	W16	11	24.7		02	9	9	E	PALE	6377	
25	SSB	2247		448	W40	11	22.0			0	0	E	HOLL		
26	ADF	0004E	0328D	N12	E50	11	29.8		07	9	6	E	PALE		
26	AFS	0710E	1006D	S10	W08	11	25.7		03	6	6	E	LEAR	6378	
26	APR	0722E	0907D	N55	W90	11	18.5	1				C	ABST		
26	AFS	0740E	1006D	S05	W22	11	24.7		03	5	6	E	LEAR	6377	
26	AFS	1038E	1447D	S09	W11	11	25.6		02	9	9	E	SVTO	6378	
26	ASR	1040E	1447D	N17	W88	11	19.7			9	9	E	SVTO	6368	
26	APR	1104E	2109D	N16	W81	11	20.3	2		9	9	E	RAMY	6368	
26	AFS	1110E	2109D	S04	W19	11	25.0		03	9	9	E	RAMY	6377	
26	AFS	1110E	2109D	S09	W10	11	25.7		02	9	9	E	RAMY	6378	
26	DSD	1116E	1711D	S05	E33	11	28.9		02	9	9	E	RAMY	6379	
26	ADF	1116E	2109D	S02	E35	11	29.1	1	06	9	9	E	RAMY	6379	
26	ASR	1141	1956D	N16	W88	11	19.8			9	9	E	RAMY	6368	
26	ASR	1407E	1915D	N24	W90	11	19.6			9	9	E	RAMY	6368	
26	APR	1407E	2109D	N26	W90	11	19.6	2		9	9	E	RAMY	6368	
26	APR	1410E	1447D	N23	W90	11	19.6	1		9	9	E	SVTO	6368	
26	SDF	1424E	0750D	N06	E11	11	27.4		17	0	0	E	SVTO		
26	SDF	1424E	0750D	S03	E65	12	1.4		06	0	0	E	SVTO		
26	SDF	1424E	0750D	S05	E41	11	29.7		06	0	0	E	SVTO		
26	ADF	1424E	1447D	N32	W40	11	23.4	1	11	9	9	E	SVTO		
26	ASR	1513E	2248D	N18	W90	11	19.8			9	9	E	HOLL	6368	
26	AFS	1517E	2248D	S08	W18	11	25.3		03	9	9	E	HOLL	6377	
26	BSD	1550E	1628D	N17	E77	12	2.5		13	9	9	E	HOLL		
26	ADF	1628E	2248D	S05	W24	11	24.9	1	06	9	9	E	HOLL	6377	
26	AFS	1709E	2109D	N11	E39	11	29.6		02	9	9	E	RAMY		
26	ASR	1750E	0112D	N14	W81	11	20.6			9	9	E	PALE	6368	
26	AFS	1750E	0112D	N16	W76	11	21.0		02	9	9	E	PALE	6368	
26	AFS	1900E	0112D	N12	E37	11	29.6		03	9	9	E	PALE		
26	DSD	1900E	0112D	S05	E34	11	29.3		03	9	9	E	PALE	6379	
26	AFS	1900E	0112D	S06	E37	11	29.6		01	9	9	E	PALE	6379	
26	DSD	1900E	0112D	S07	E36	11	29.5		04	9	9	E	PALE	6379	
26	AFS	1900E	0112D	S09	W14	11	25.7		02	9	9	E	PALE	6378	
26	AFS	1900E	0112D	S21	E67	12	1.9		02	9	9	E	PALE	6382	
26	SSB	1944		431	W34	11	24.3			0	0	E	RAMY		
26	AFS	1950E	2109D	S30	W05	11	26.4		02	9	9	E	RAMY		
26	ASR	2015E	0112D	N19	W82	11	20.6			9	9	E	PALE	6368	
26	AFS	2023E	0112D	S06	W30	11	24.6		02	9	9	E	PALE	6377	
26	AFS	2026E	0112D	S31	W03	11	26.6		02	9	9	E	PALE		
26	ASR	2051E	2109D	S23	E90	12	3.8			9	9	E	RAMY		
26	ASR	2112E	2109D	N21	W87	11	20.2			9	9	E	RAMY	6368	
26	SSB	2230		445	W20	11	23.5			0	0	E	HOLL		
26	DSD	2328E	0112D	N19	E74	12	2.6		03	9	9	E	PALE	6383	
26	AFS	2330E	0112D	S06	W26	11	25.0		03	9	9	E	PALE	6377	
26	ADF	2340E	0112D	S09	W33	11	24.5		08	9	7	E	PALE	6377	
27	ASR	0020E	1016D	N15	W82	11	20.8			9	9	E	LEAR	6368	
27	APR	0030E	0235D	N13	W90	11	20.2	1				C	VORO		
27	BSL	0110	0148	N18	W90	11	20.2	1				C	VORO		
27	APR	0110	0235D	N26	W90	11	20.0	1				C	VORO		

ACTIVE PROMINENCES AND FILAMENTS

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP No	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/USAF Reg#	Remarks
27	ASR	0116E	0142D	N20	W82	11	20.8			9	9	E	LEAR	6368	
27	BSL	0116	0150	N19	W90	11	20.2	1				C	VORO		
27	BSL	0212	0235	N19	W90	11	20.2	1				C	VORO		
27	ADF	0525E	1016D	S04	W30	11	25.0	1	02	9	9	E	LEAR	6377	
27	AFS	0525E	1016D	S04	W30	11	25.0		02	9	9	E	LEAR	6377	
27	APR	0624E	0905D	N06	E90	12	4.0	1				C	ABST		
27	APR	0659E	0905D	N01	W90	11	20.6	1				C	ABST		
27	APR	0800E	1511D	N09	W90	11	20.6	1		9	9	E	SVTO		
27	ASR	0805E	1511D	N18	W90	11	20.5			9	9	E	SVTO	6368	
27	ASR	1025E	1435D	S17	E90	12	4.3			9	9	E	SVTO		
27	AFS	1026E	1511D	S07	W32	11	25.0		02	9	9	E	SVTO	6377	
27	AFS	1100E	1511D	N10	E29	11	29.6		02	9	9	E	SVTO		
27	ASR	1113E	1936D	S18	E88	12	4.2			9	9	E	RAMY		
27	DSD	1121E	1402D	N17	E65	12	2.4		03	9	9	E	RAMY	6383	
27	DSD	1124E	1633D	S05	E22	11	29.1		03	9	9	E	RAMY	6379	
27	AFS	1134E	1936D	S05	W34	11	24.9		02	9	9	E	RAMY	6377	
27	BSL	1327E	1403	N24	W90	11	20.6			9	9	E	SVTO		
27	BSL	1350E	1446D	N28	W90	11	20.5			9	9	E	RAMY		
27	APR	1355E	1936D	N10	W90	11	20.8	1		9	9	E	RAMY	6368	
27	ASR	1355E	1936D	N17	W90	11	20.7			9	9	E	RAMY	6368	
27	ASR	1400E	2343D	N26	W90	11	20.6			9	9	E	HOLL	6368	
27	ASR	1403E	1511D	N24	W90	11	20.6			9	9	E	SVTO		
27	ASR	1446E	1936D	N28	W90	11	20.6			9	9	E	RAMY		
27	DSD	1447E	1936D	S03	W45	11	24.2		03	9	9	E	RAMY	6377	
27	AFS	1455E	1936D	N11	E26	11	29.6		02	9	9	E	RAMY		
27	AFS	1525E	2343D	S06	W35	11	25.0		02	9	9	E	HOLL	6377	
27	AFS	1525E	2343D	S13	W10	11	26.9		02	6	9	E	HOLL		
27	AFS	1631E	1936D	S04	E23	11	29.4		02	9	9	E	RAMY	6379	
27	AFS	1632E	1936D	S11	W10	11	26.9		02	9	9	E	RAMY		
27	SSB	1718		413	W29	11	26.7			0	0	E	HOLL		107 W90
27	ASR	1720E	1936D	S26	E90	12	4.7			9	9	E	RAMY		
27	APR	1722E	2343D	S05	W90	11	21.0	2		9	9	E	HOLL		
27	ASR	1725E	2343D	S25	E90	12	4.7			9	9	E	HOLL		
27	AFS	1738E	2343D	S06	E23	11	29.4		02	9	9	E	HOLL	6379	
27	AFS	1827E	1936D	N24	W05	11	27.4		02	9	9	E	RAMY		
27	DSD	1834E	1936D	N15	E57	12	2.1		05	9	9	E	RAMY	6383	
27	AFS	1850E	2343D	N24	W04	11	27.5		01	8	8	E	HOLL		
27	BSL	1927	1946	N13	W90	11	21.0			7	4	E	HOLL	6368	
27	AFS	2300E	1041D	N10	E22	11	29.6		02	9	9	E	LEAR	6384	
27	AFS	2300E	1041D	N15	E57	12	2.3		02	9	9	E	LEAR	6383	
27	AFS	2300E	1041D	S05	W46	11	24.5		02	9	9	E	LEAR	6377	
28	ASR	0300E	1041D	N17	W90	11	21.3			9	9	E	LEAR	6368	
28	BSL	0709E	0805D	S04	W90	11	21.6	1				C	ABST		
28	ASR	1011E	1147	N29	W90	11	21.4			9	9	E	SVTO	6368	
28	AFS	1012E	1353D	S07	W45	11	25.0		02	7	7	E	SVTO	6377	
28	ADF	1013E	1353D	N16	E53	12	2.4	1	07	9	9	E	SVTO	6383	
28	APR	1108E	1211D	N29	W90	11	21.4	1		9	9	E	RAMY		
28	ADF	1113E	1647D	N14	E17	11	29.7	1	05	9	9	E	RAMY	6384	
28	ADF	1114E	2036D	N11	E50	12	2.2	1	09	9	9	E	RAMY	6383	
28	AFS	1116E	1539D	S19	E41	12	1.6		02	9	9	E	RAMY	6382	
28	EPL	1135E	1310D	S06	W90	11	21.7			9	9	E	SVTO		
28	BSL	1148	1307D	N29	W90	11	21.4			9	9	E	SVTO	6368	
28	AFS	1205E	1543D	S09	W39	11	25.6		02	9	9	E	RAMY	6382	
28	BSL	1211E	1700D	N29	W90	11	21.4			9	9	E	RAMY		
28	SSB	1229		378	W05	11	22.7			0	0	E	RAMY		416 W47
28	APR	1316E	1704D	S31	W89	11	21.5	1		8	8	E	RAMY		
28	DSD	1524E	1655D	N16	E47	12	2.2		03	9	9	E	RAMY	6383	
28	ADF	1539E	1647D	S23	E42	12	1.9	1	06	9	9	E	RAMY	6382	
28	BSD	1607E	1723D	S21	E74	12	4.3		12	9	9	E	RAMY		Flare Associated
28	DSD	1642E	1819D	S15	E61	12	3.3		05	9	9	E	RAMY	6385	
28	ASR	1700E	2043D	N23	W90	11	21.8			9	9	E	RAMY		
28	AFS	1814E	2347D	S05	W51	11	24.9		03	9	9	E	HOLL	6377	
28	DSD	1814E	2347D	S06	W59	11	24.3		02	9	9	E	HOLL	6377	
28	AFS	1828E	2347D	S05	E34	12	1.3		02	9	9	E	HOLL		
28	AFS	1828E	2347D	S08	E33	12	1.2		02	9	9	E	HOLL		
28	AFS	1834E	2347D	N03	E16	11	30.0		02	9	9	E	HOLL		
28	DSD	1838E	2347D	N26	W16	11	27.5		02	9	9	E	HOLL	6386	
28	SSB	1845		378	W08	11	22.9			0	0	E	HOLL		
28	ADF	2332E	0259D	S22	W21	11	27.4	1				C	VORO		

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Day	Event Type	Start (UT)	End (UT)	Lat	CMD	CMP Mo	Day	Imp	Extent	Blue Shift (.1 A)	Red Shift (.1 A)	Obs Type	Sta	NOAA/ USAF Reg#	Remarks
28	AFS	2359E	1000D	N02	E14	11	30.0		02	9	9	E	LEAR	6389	
28	AFS	2359E	1000D	S04	W53	11	25.0		04	9	9	E	LEAR	6377	
28	AFS	2359E	1000D	S08	E31	12	1.3		02	7	8	E	LEAR	6388	
29	ASR	0309E	1000D	N35	E80	12	5.5			9	9	E	LEAR		
29	AFS	0720E	1050D	N24	W25	11	27.4		02	9	9	E	SVTO	6386	
29	AFS	0721E	1500D	N03	E08	11	29.9		02	9	9	E	SVTO	6389	
29	AFS	0722E	1500D	S07	E26	12	1.2		02	9	9	E	SVTO	6388	
29	SSB	0723		376	W16	11	23.5			0	0	E	SVTO		
29	AFS	0940E	1500D	N10	E60	12	3.9		02	9	9	E	SVTO		
29	AFS	1110E	2057D	S09	W48	11	25.9		02	9	9	E	RAMY	6378	
29	AFS	1111E	2057D	S05	W56	11	25.3		02	9	9	E	RAMY	6377	
29	AFS	1115E	1402D	S07	E24	12	1.3		02	9	9	E	RAMY	6388	
29	ADF	1117E	2057D	S12	E62	12	4.1	1	06	9	9	E	RAMY	6385	
29	SSB	1134		378	W17	11	23.5			0	0	E	RAMY		
29	APR	1248E	1500D	S01	E90	12	6.2	2		9	9	E	SVTO		
29	ADF	1442E	1805D	S08	W01	11	29.5	1	06	9	9	E	HOLL	6379	
29	ADF	1458E	2344D	S06	E15	11	30.7	1	09	9	9	E	HOLL	6381	
29	DSD	1831E	2245D	N16	E35	12	2.4		02	9	9	E	HOLL	6383	
29	ADF	2005E	2208D	N13	W02	11	29.7	1	05	9	9	E	PALE	6384	
29	DSD	2005E	2208D	N16	E33	12	2.3		03	9	9	E	PALE	6383	
29	ADF	2005E	2208D	S04	E14	11	30.9	1	07	9	9	E	PALE	6381	
29	ADF	2005E	2208D	S07	W06	11	29.4		07	9	9	E	PALE	6379	
29	AFS	2005E	2208D	S08	W66	11	24.9		04	9	9	E	PALE	6377	
29	ADF	2333E	1036D	S12	E25	12	1.9	1	17	9	9	E	LEAR	6388	
30	ADF	0102E	0258D	S21	W22	11	28.3	1				C	VORO		
30	APR	0103E	0300D	S13	E90	12	6.8	2				C	VORO		
30	AFS	0212E	1036D	S26	W13	11	29.1		02	9	9	E	LEAR		
30	BSL	0640E	0750D	N06	E90	12	7.0	1				C	ABST		
30	BSL	0640E	0750D	S13	E90	12	7.1	1				C	ABST		
30	ADF	0847E	1036D	N10	E48	12	4.0	1	08	9	9	E	LEAR	6391	
30	APR	0928E	0950D	N24	E90	12	7.3					V	ATHN		
30	SDF	1010E	2155D	N13	E48	12	4.0		06	0	0	E	LEAR		
30	SSB	1203		365	W18	11	25.5			0	0	E	RAMY		380 W33
30	ADF	1208E	2031D	N16	E24	12	2.3	1	05	9	9	E	RAMY	6383	
30	DSD	1210E	1259	N08	E44	12	3.8		04	9	9	E	RAMY	6391	
30	DSD	1236	1307	S23	E46	12	4.1		17	9	9	E	RAMY	6387	Flare Associated
30	AFS	1257E	2031D	N09	E45	12	3.9		02	9	9	E	RAMY	6391	
30	AFS	1311E	2031D	N00	W10	11	29.8		02	9	9	E	RAMY	6389	
30	APR	1505E	1937D	S15	E90	12	7.4	1		9	9	E	HOLL		
30	ADF	1514E	2347D	S07	W16	11	29.4	1	04	9	9	E	HOLL	6379	
30	DSD	1549E	1857D	N01	W11	11	29.8		02	9	9	E	HOLL	6389	
30	AFS	1553E	2049D	S14	E24	12	2.5		02	9	9	E	HOLL	6383	
30	SSB	1603		353	W08	11	26.7			0	0	E	HOLL		379 W34
30	BSD	1752	2031D	S03	W82	11	24.6		08	9	9	E	RAMY	6377	
30	AFS	1802E	0310D	N10	E42	12	3.9		03	9	9	E	PALE	6391	
30	DSD	1802E	0310D	N23	E47	12	4.4		03	9	9	E	PALE	6387	
30	AFS	1802E	0310D	N36	E64	12	5.9		02	8	7	E	PALE	6390	
30	AFS	1802E	0310D	S07	E07	12	1.3		02	7	7	E	PALE	6388	
30	SSB	1810		380	W36	11	24.3			0	0	E	PALE		
30	ASR	1810E	0310D	N19	E90	12	7.6			9	9	E	PALE		
30	ADF	1810E	0310D	N21	E23	12	2.5		08	9	9	E	PALE	6383	
30	ASR	1850E	2031D	N18	E90	12	7.6			9	9	E	RAMY		
30	AFS	2020E	0310D	N04	W42	11	27.7		02	9	9	E	PALE		
30	DSD	2047E	2256D	S06	W77	11	25.1		13	9	9	E	HOLL	6377	
30	DSD	2135E	2323D	S08	W75	11	25.3		18	9	9	E	PALE	6377	
30	ASR	2300E	1036D	N18	E85	12	7.4			9	9	E	LEAR		
30	ASR	2300E	1036D	S05	W90	11	24.2			9	9	E	LEAR	6377	
30	ASR	2323E	0310D	S08	W77	11	25.2			9	9	E	PALE	6377	



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

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