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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

William E. Evans, Under Secretary for Oceans and Atmosphere

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Data for June 1988

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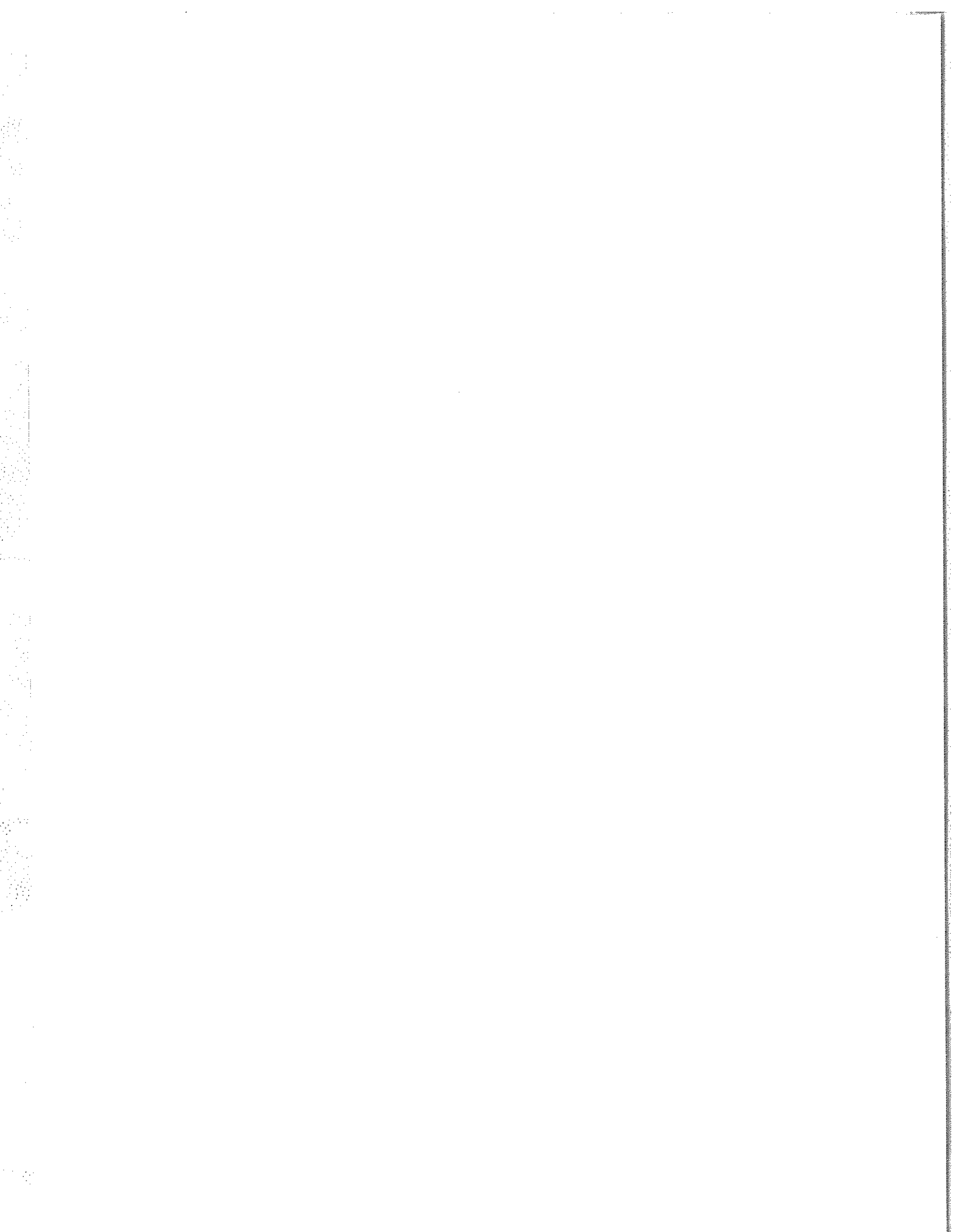
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CARRINGTON ROTATION NUMBER 1803
(5 June to 2 July 1988)

Meudon Observatory

June 1988

Chart and table unavailable at time of publication.

Heliographic Longitude

6
Jun 88

H α SOLAR FLARES

JUNE 1988

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Type	Area Measurement			Remarks
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0001	HOLL	01	0122	0125	0134	N28	E56	5031	06	5.4	12	SF	C	1.4	2	E	30		FH
0002		01	02046	02121	0222	S22	W61	5028	05	27.5	18	SN					59	0.9	
	PALE	01	0204	0213	0226	S22	W61	5028	05	27.5	22	SF		3	E		76		
	PEKG	01	0210	0212	0219	S21	W61	5028	05	27.5	9	SN			C	0212	42	0.9	
0003	HTPR	01	0638	0656	0715	N19	E52	5032	06	5.2	37	SF			C	0656	40	0.6	E
0004		01	0649*	0652*	0732	N28	E49	5031	06	5.1	43	SF					25	0.4	DEH
	KHAR	01	0649	0652	0658	N28	E48	5031	06	5.0	9	SF		2	P	0655	20	0.4	DH
	HTPR	01	0708	0710	0810	N28	E50	5031	06	5.2	62	SF			C	0710	30	0.5	E
	KHAR	01	0723	0725	0729	N28	E48	5031	06	5.0	6	SF		2	V	0725			D
0005		01	07122	07141	0726	N16	E46	5032	06	4.8	14	SB					60	0.8	EL
	HTPR	01	0712	0714	0725	N17	E45	5032	06	4.7	13	SB			C	0714	60	0.8	E
	KHAR	01	0714	0715	0726	N16	E47	5032	06	4.9	12	SN		2	V	0715			L
0006	KHAR	01	0730	0732	0744	N19	E51	5032	06	5.2	14	SF		2	V	0732			D
0007	HTPR	01	0833	0837	0844	S20	E80	5034	06	7.5	11	1B			C	0837	70		
0008		01	0840	08412	0847	N18	E47	5032	06	4.9	7	SN					40	0.8	DE
	HTPR	01	0840	0841	0848	N18	E48	5032	06	5.0	8	SB			C	0841	40	0.8	E
	KHAR	01	0842U	0843	0846	N18	E46	5032	06	4.9	4U	SF		2	V	0843			D
0009	HTPR	01	0947	0952	1003	S24	W59	5027	05	27.9	16	SB			C	0952	20	0.4	E
0010	HTPR	01	1025		1136D	N20	E51	5032	06	5.3	71D	SF			C	1029	20	0.3	
0011	HTPR	01	1148	1149	1154	S20	E80	5034	06	7.6	6	SF			C	1149	20		
0012		01	11552	1200	1210	S24	W46	5027	05	29.0	15	SN					42	0.8	E
	HTPR	01	1155	1200	1210	S25	W46	5027	05	29.0	15	SB			C	1200	60	0.8	E
	RAMY	01	1157	1200	1209	S24	W46	5027	05	29.0	12	SF		3	E		24		
0013		01	12221	1224	1240	N18	E47	5032	06	5.1	18	SN	C	2.1			49	0.8	EK
	HTPR	01	1142E		1240	N18	E47	5032	06	5.1	58D	SB			C	1224	60	0.9	K
	HTPR	01	1222	1224	1240	N17	E45	5032	06	4.9	18	SB			C	1224	60	0.8	E
	RAMY	01	1223	1224	1241	N18	E49	5032	06	5.2	18	SF	C	2.1	3	E	27		
0014	HTPR	01	1252	1258	1309	S25	W46		05	29.1	17	SF			C	1258	50	0.7	E
0015	HTPR	01	1315	1319	1325	N17	E44	5032	06	4.9	10	SN			C	1319	60	0.8	E
0016	HTPR	01	1318	1323	1325	S27	W55	5027	05	28.4	7	SF			C	1323	40	0.7	E
0017		01	13503	13534	1401	S24	W46	5027	05	29.1	11	SF					33	0.7	EH
	HTPR	01	1350	1353	1405	S25	W46	5027	05	29.1	15	SN			C	1353	50	0.7	E
	HOLL	01	1352	1357	1400	S25	W46	5027	05	29.1	8	SF		3	E		31		H
	RAMY	01	1353	1355	1358	S23	W46	5027	05	29.1	5	SF		3	E		17		
0018	HTPR	01	1405	1409	1418	S27	W52	5027	05	28.6	13	SF			C	1409	20	0.3	
0019	HTPR	01	1427	1434	1446	N18	E43	5032	06	4.9	19	SF			C	1434	50	0.7	E
0020	HTPR	01	1450	1452	1456	N13	E40	5032	06	4.6	6	SF			C	1452	20	0.3	
0021		01	15002	1502	1507	N26	E54	5031	06	5.8	7	SF					18	0.3	
	HTPR	01	1500	1502	1509	N25	E52	5031	06	5.6	9	SF			C	1502	20	0.3	
	HOLL	01	1502	1502	1505	N26	E56	5031	06	6.0	3	SF		3	E		17		
0022		01	1505*	15251	1532	N30	E44	5031	06	5.1	27	SN					28	0.6	EK
	HTPR	01	1505	1526	1532	N31	E43	5031	06	5.0	27	SN			C	1526	40	0.6	EK
	HOLL	01	1524	1525	1531	N30	E46	5031	06	5.2	7	SF		3	E		16		
0023	HTPR	01	1546	1604	1635	S18	E70	5040A	06	7.0	49	SF			C	1604	20		

H α SOLAR FLARES

7
Jun 88

JUNE 1988

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Type	Area Measurement			Remarks	
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0024		01	1540*	16064	1636	S27	E80	5034	06	7.9	56	1N	C 3.1				109		FU	
	HTPR	01	1540	1606	1625	S25	E78	5034	06	7.7	45	SB			C	1606	60			
	KANZ	01	1603	1609	1629	S29	E81	5034	06	8.0	26	1N		2						
	HOLL	01	1604E	1610	1653	S26	E78	5034	06	7.7	49D	1N	C 3.1	3	E		167		UF	
	RAMY	01	1604E	1613U	1626D	S29	E83	5034	06	8.2	22D	1F	C 3.1	3	E		100			
0025		01	17422	1754	1759	N19	E41	5032	06	4.9	17	SF					14			
	HOLL	01	1742	1754	1759	N20	E41	5032	06	4.9	17	SF		3	E		15			
	RAMY	01	1744	1745U	1803D	N18	E41	5032	06	4.9	19D	SF		3	E		13			
0026	HOLL	01	1831	1835	1848	N16	E40	5032	06	4.8	17	SF		3	E		20		F	
0027		01	2008	2008	2014	S26	W56	5027	05	28.6	6	SF	C 1.2				34			
	HOLL	01	2008	2008	2012	S26	W56	5027	05	28.6	4	SF	C 1.2	3	E		28			
	RAMY	01	2008	2009	2016	S25	W57	5027	05	28.5	8	SF	C 1.2	3	E		39			
0028	HOLL	01	2036	2038	2058	N14	E36	5032	06	4.6	22	SF		3	E		13			
0029	HOLL	01	2110	2110	2121	S25	W57	5027	05	28.6	11	SF		3	E		14			
0030	HOLL	01	2332	2347	2355	N13	E36	5032	06	4.7	23	SF		3	E		25		F	
0031	PEKG	01	2344	2346	2354	N25	E47	5031	06	5.6	10	SN			P	2346	42	0.7		
0032	HOLL	02	0006	0008	0016	N18	E42	5032	06	5.2	10	SF		3	E		25			
0033	HOLL	02	0020	0030	0038	N18	E41	5032	06	5.1	18	SF		4	E		13		F	
0034		02	03327	03355	0346	S25	W61	5027	05	28.5	14	1N	C 2.1				143	3.5	D	
	YUNN	02	0332	0335	0345	S23	W64	5027	05	28.3	13	1B	C 2.1		C		241	4.6		
	TACH	02	0335E	0336U	0351D	S27	W53	5027	05	29.1	16D	1B			C	0336	133	2.4	D	
	LEAR	02	0339	0340	0348	S25	W65	5027	05	28.2	9	SF	C 2.1	3	E		55			
0035		02	0712	0720	0731	S26	W57	5027	05	29.0	19	SN					75	1.4		
	HTPR	02	0712	0720	0730	S26	W57	5027	05	29.0	18	SN			C	0720	50	0.9		
	KHAR	02	0720U		0732	S26	W57	5027	05	29.0	12U	SF		2	P	0722	100	2.0		
0036		02	0838	0839	0854	N19	E36	5032	06	5.1	16	SN	C 1.1				37	0.7	E	
	HTPR	02	0838	0839	0856	N18	E36	5032	06	5.1	18	SN			C	0839	60	0.7	E	
	SVTO	02	0838	0840	0852	N20	E36	5032	06	5.1	14	SF	C 1.1	3	E		14			
0037		02	08553	09003	0942	S27	W66	5027	05	28.3	47	SN	C 7.1				77	0.9	EHR	
	HTPR	02	0855		1004D	S24	W63	5027	05	28.6	69D	SB			C	0902	60	1.3	E	
	SVTO	02	0857	0903	0924	S27	W65	5027	05	28.4	27	SF	C 7.1	3	E		68			
	HTPR	02	0858		1004D	S28	W69	5027	05	28.1	66D	SB			C	0901	20	0.5		
	KHAR	02	0858	0900	1000	S28	W66	5027	05	28.3	62	1N		2	P	0906	160		EHR	
0038	RAMY	02	1227	1229	1245	N19	E34	5032	06	5.1	18	SF	C 1.2	3	E		15			
		02	1811		1824	No Flare Patrol														
0039	HOLL	02	1825E	1825U	1841	S23	W70	5027	05	28.5	16D	SF	C 3.0	3	E		25		F	
0040	HOLL	02	1859	1900	1903	N26	E26	5031	06	4.8	4	SF		3	E		12			
0041	HOLL	02	1919	1920U	1931D	N26	E26	5031	06	4.8	12D	SF		3	E		33			
		02	1935		1941	No Flare Patrol														
		02	2010		2014	No Flare Patrol														
0042	HOLL	02	2353	2355	2407	S20	E53	5040A	06	7.0	14	SF		3	E		13			
0043	LEAR	02	2354	2356	2358	S19	E60	5034	06	7.6	4	SF		3	E		14			
0044	HOLL	03	0101	0101	0105	S26	W73	5027	05	28.5	4	SF	C 2.4	3	E		17		F	
0045	LEAR	03	0136	0137	0140	S24	W71	5027	05	28.7	4	SF		3	E		14			

H α SOLAR FLARES

JUNE 1988

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks	
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0046		03	0237	02383	0250	S20	E62	5034	06	7.8	13	SN						28		
	LEAR	03	0237	0238	0252	S20	E60	5034	06	7.7	15	SF		3	E			24		
	YUNN	03	0237E	0241	0249	S20	E63	5034	06	7.9	12D	SN			P			32		
0047		03	05253	05336	0547	S19	E57	5034	06	7.6	22	SN						41	1.0	E
	HTPR	03	0525	0533	0553	S20	E57	5034	06	7.6	28	SF			C	0533		30	0.5	E
	LEAR	03	0527	0539	0548	S20	E57	5034	06	7.6	21	SF		3	E			25		
	TACH	03	0528	0530U	0541	S16	E58	5034	06	7.6	13	SB			C	0530		69	1.5	E
0048		03	0531	0532	0540	S25	W69	5027	05	29.0	9	1N	C 1.3					112		DF
	TACH	03	0528E	0529U	0538	S25	W71	5027	05	28.8	10D	1B			C	0529		163		D
	SVTO	03	0531	0532	0542	S25	W67	5027	05	29.1	11	SF	C 1.3	3	E			62		F
0049		03	0530	05333	0546	S23	W64		05	29.4	16	1N	C 1.3					106	2.6	E
	HTPR	03	0530	0533	0545	S23	W62		05	29.5	15	1N			C	0533		130	2.6	E
	LEAR	03	0530	0536	0547	S23	W65		05	29.3	17	SF	C 1.3	3	E			82		
0050		03	0553*	0614*	0633	S24	W64		05	29.4	40	SN	C 1.2					44	1.2	EF
	HTPR	03	0553	0614	0642	S24	W60		05	29.7	49	SB			C	0614		60	1.2	E
	SVTO	03	0613	0614	0626	S24	W66		05	29.2	13	SF	C 1.2	3	E			33		F
	LEAR	03	0613	0615	0628	S24	W66		05	29.2	15	SF	C 1.2	3	E			69		F
	LEAR	03	0631	0635	0636	S23	W66		05	29.3	5	SF		3	E			13		
0051	HTPR	03	0631	0633	0655	N22	E27	5031	06	5.3	24	SF			C	0633		20	0.2	E
0052		03	07193	07211	0728	S28	W76	5027	05	28.5	9	SF						42		D
	LEAR	03	0719	0722	0727	S27	W77	5027	05	28.4	8	SF		3	E			24		
	HTPR	03	0720	0721	0730	S26	W71	5027	05	28.9	10	SN			C	0721		60		
	KHAR	03	0722	0722U	0728	S30	W79	5027	05	28.2	6	SF		2	V	0722				D
0053		03	08337	08412	0852	S27	W76	5027	05	28.5	19	SN	C 3.4					74		DEH
	HTPR	03	0833	0841	0858	S26	W71	5027	05	28.9	25	1N			C	0841		120		E
	KHAR	03	0839	0841	0850	S29	W80	5027	05	28.2	11	SN		2	V	0841				DH
	KANZ	03	0839	0842	0849	S26	W77	5027	05	28.5	10	SF		2						
	LEAR	03	0840	0843	0850	S27	W78	5027	05	28.4	10	SF	C 3.4	3	E			29		
0054	LEAR	03	0844	0848	0857	N18	E20	5032	06	4.9	13	SF		3	E			13		F
0055	KHAR	03	0900	0901	0910	S24	E56	5034	06	7.7	10	SF		2	P	0903		25	0.5	DH
0056	HTPR	03	1028	1028	1036	N18	E17	5032	06	4.7	8	SF			C	1028		20	0.2	E
0057		03	1246	1246	1308	N21	E17	5032	06	4.8	22	SN						49	1.0	EFV
	HOLL	03	1246E	1246U	1301	N23	E17	5032	06	4.8	15D	SF		3	E			19		
	HTPR	03	1246	1246	1305	N17	E17	5032	06	4.8	19	SB			C	1246		100	1.0	EV
	RAMY	03	1246	1246	1312	N21	E17	5032	06	4.8	26	SF		3	E			28		F
	KANZ	03	1246	1246	1312	N23	E18	5032	06	4.9	26	SF		2						
0058	HTPR	03	1807	1813	1817	S22	W90		05	27.9	10	SN			C	1813		50		
0059		03	1922	19261	1933	S23	W78	5027	05	28.9	11	SN	C 2.5					91		
	RAMY	03	1922E	1925U	1931D	S23	W78	5027	05	28.9	9D	1F	C 2.5	2	E			102		
	PALE	03	1922	1926	1932	S22	W80	5027	05	28.7	10	SN	C 2.5	3	E			95		
	HOLL	03	1922	1927	1934	S24	W76	5027	05	29.0	12	SN	C 2.5	3	E			76		
0060	HOLL	03	2006	2007	2017	N29	E17	5031	06	5.2	11	SF		3	E			11		F
0061	HOLL	03	2043	2045	2053	S19	E51	5034	06	7.7	10	SF			C			11		F
0062	HOLL	03	2332	2334	2402	S20	E47	5034	06	7.6	30	SF		3	E			31		F
0063	HOLL	03	2339	2343	2343	N24	E11	5031	06	4.8	4	SF			C			13		
0064	HOLL	03	2339E	2340U	2345D	S25	W81	5027	05	28.8	6D	SF		3	E			50		
0065		04	00121	00122	0024	S20	E47	5034	06	7.6	12	SF						26		F
	PALE	04	0012	0012	0018	S20	E47	5034	06	7.6	6	SF		3	E			11		F
	HOLL	04	0013	0014	0030	S21	E47	5034	06	7.6	17	SF		3	E			41		F

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Type	Area Measurement			Remarks		
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)			
0066	HOLL	04	0051E	0101	0108	S24	W80	5027	05	28.9	17D	SN		3	E		12				
0067		04	0114I	01153	0121	S23	W79	5027	05	29.1	7	SF					28				
	PALE	04	0114	0116	0120	S22	W79	5027	05	29.1	6	SF		2	E		40				
	LEAR	04	0115	0115	0122	S24	W79	5027	05	29.0	7	SF		3	E		19				
	HOLL	04	0115	0118	0122	S22	W80	5027	05	29.0	7	SF		3	E		24				
0068	LEAR	04	0253	0256	0320	S23	E44	5034	06	7.5	27	SF		3	E		36				
0069	LEAR	04	0334	0339	0342	S20	E45	5034	06	7.6	8	SF		3	E		12				
0070	ABST	04	0430	0433	0508	N13	W33		06	1.7	38	SN			C	0433	87	1.1	DK		
0071		04	05063	05081	0518	N18	E12	5032	06	5.1	12	SN					62	1.2	E		
	ABST	04	0506	0508	0517	N19	E12	5032	06	5.1	11	SN			C	0508	105	1.2	E		
	LEAR	04	0509	0509	0520	N17	E11	5032	06	5.0	11	SF		3	E		18				
0072	LEAR	04	0527	0529	0533	S22	E44	5034	06	7.6	6	SF		3	E		14				
0073		04	05384	05431	0600	S18	E47	5034	06	7.8	22	SF					46	0.8	DE		
	HTPR	04	0534E		0600	S18	E48	5034	06	7.9	26D	SF			C	0543	30	0.4	E		
	ABST	04	0538	0543	0554	S16	E47	5034	06	7.8	16	SN			C	0543	87	1.3	D		
	LEAR	04	0542	0544	0605	S20	E47	5034	06	7.8	23	SF		3	E		21				
0074	ABST	04	0707E	0707U	0801	N14	W34		06	1.7	54D	1F			P	0707	166	2.1	EK		
0075	HOLL	04	1740	1742	1802	S20	E40	5034	06	7.8	22	SF	C 2.2	3	E		24		F		
0076	HOLL	04	1901	1905	1932	N17	E03	5032	06	5.0	31	SF		4	E		58		FH		
0077	HOLL	04	2043	2045	2053	S19	E51	5034	06	8.7	10	SF		3	E		11		F		
0078	RAMY	04	2141	2145	2156	N20	W01	5032	06	4.8	15	SF		3	E		30				
0079	TACH	05	0316E		0321D	S24	E90		06	12.1	5D	SB			C	0316	31		BD		
0080	ABST	05	0518	0544	0604D	N29	E14	5040	06	6.3	46D	SF			C	0544	70	0.9	D		
0081	ABST	05	0638	0640	0654	S21	E31	5034	06	7.6	16	SF			C	0640	87	1.1	D		
		05	0702		0703	No Flare Patrol															
		05	0820		0842	No Flare Patrol															
		05	0846		0901	No Flare Patrol															
		05	1008		1022	No Flare Patrol															
		05	1102		1109	No Flare Patrol															
		05	1145		1151	No Flare Patrol															
0082		05	1437	1438	1450	N18	W06	5032	06	5.1	13	SF	C 1.2				34		F		
	RAMY	05	1437	1438	1450	N18	W07	5032	06	5.1	13	SF	C 1.2	3	E		36				
	HOLL	05	1437	1438	1453D	N17	W06	5032	06	5.1	16D	SF	C 1.2	3	E		31		F		
0083	RAMY	05	1530	1604	1654	N17	W07	5032	06	5.1	84	SF	C 1.2	3	E		35		F		
0084	RAMY	05	1636	1647	1653	S25	W18	5038	06	4.3	17	SF		3	E		10				
0085		05	1746E	17512	1817	N15	W04	5037	06	5.4	31D	1F	C 2.4				109		FU		
	HOLL	05	1746E	1753	1846D	N15	W04	5037	06	5.4	60D	1F	C 2.4	3	E		112		UF		
	PALE	05	1750E	1751	1817	N15	W05	5037	06	5.4	27D	1F	C 2.4	3	E		106		F		
0086	RAMY	05	1751	1753	1801	S25	W19	5038	06	4.3	10	SF		3	E		15				
0087	RAMY	05	1840	1841	1848	S24	W20	5038	06	4.2	8	SF		3	E		19				
0088	HOLL	05	1921	1923	1928	N25	E01	5031	06	5.9	7	SF		3	E		15				
0089		05	1955	1957	2008	S24	W21	5038	06	4.2	13	SF	C 1.2				22				
	RAMY	05	1955	1957	2005	S24	W21	5038	06	4.2	10	SF	C 1.2	3	E		25				
	HOLL	05	2010E	2010U	2012	S25	W21	5038	06	4.2	2D	SF		3	E		18				

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	See	Obs Type	Area Measurement			Remarks
																Time (UT)	Apparent (10 ⁻⁶ Disk)	Corr (Sq Deg)	
0090		05	2010E	2010U	2038	N18	W14	5032	06	4.8	28D	1N	C 8.6				202		F
	HOLL	05	2010E	2010U	2035	N18	W16	5032	06	4.6	25D	1N	C 8.6	3	E		225		
	PALE	05	2014E	2014U	2041	N18	W11	5032	06	5.0	27D	1N	C 8.6	3	E		180		F
0091		05	2008	2014I	2125	N28	W03	5031	06	5.6	77	1F					133		F
	RAMY	05	2008	2014	2124	N28	W05	5031	06	5.4	76	1F		3	E		123		F
	HOLL	05	2010E	2015	2119	N28	W03	5031	06	5.6	69D	1N		3	E		155		F
	PALE	05	2014E	2016U	2132	N27	W02	5031	06	5.7	78D	1F		3	E		120		F
0092		05	2043	2046	2052	S24	W21	5038	06	4.2	9	SF					15		
	HOLL	05	2043	2046	2046	S25	W21	5038	06	4.2	3	SF		3	E		11		
	RAMY	05	2043	2046	2059	S24	W21	5038	06	4.2	16	SF		3	E		19		
0093		05	2126I	2129	2137	S24	W22	5038	06	4.2	11	SF					16		
	RAMY	05	2126	2129	2142	S24	W22	5038	06	4.2	16	SF		3	E		23		
	HOLL	05	2127	2129	2132	S25	W21	5038	06	4.3	5	SF		3	E		10		
0094		05	2150I	2152	2158	S24	W22	5038	06	4.2	8	SF					16		
	RAMY	05	2150	2152	2158	S24	W22	5038	06	4.2	8	SF		3	E		18		
	HOLL	05	2151	2152	2159	S25	W21	5038	06	4.3	8	SF		3	E		15		
0095	HOLL	05	2150	2206	2221	S12	E74	5036	06	11.5	31	SF C	2.5	3	E		48		
0096		06	0122	0127	0137	N18	W12	5032	06	5.1	15	SN C	1.1				70	1.3	EF
	YUNN	06	0118E	0118U	0120D	N18	W12	5032	06	5.1	2D	SN C	1.1		P	0118	113	1.3	E
	LEAR	06	0122	0127	0137	N18	W11	5032	06	5.2	15	SF C	1.1	3	E		26		F
0097	TACH	06	0416	0424U	0428	N26	W17	5031	06	4.8	12	1B			C	0424	214	2.6	FUZ
0098		06	0448	0448	0458	N23	W05	5031	06	5.8	10	SF					57	1.1	DF
	LEAR	06	0448	0448	0453	N23	W04	5031	06	5.9	5	SF		3	E		12		F
	TACH	06	0448	0448U	0503	N23	W06	5031	06	5.7	15	SF			C	0448	102	1.1	D
0099		06	04503	04567	0542	N17	W18	5032	06	4.8	52	1N C	2.3				286	4.5	EFLU
	LEAR	06	0450	0501	0529	N17	W18	5032	06	4.8	39	1F C	2.3	3	E		152		F
	ABST	06	0452	0456	0547	N17	W19	5032	06	4.7	55	1N			C	0456	262	2.9	E
	TACH	06	0452	0506U	0549D	N17	W16	5032	06	5.0	57D	2B			C	0506	617	6.9	LU
	MITK	06	0453	0503	0549	N17	W20	5032	06	4.7	56	1N			C	0503	320	3.7	E
	SVTO	06	0508E	0509U	0530D	N16	W19	5032	06	4.8	22D	SF C	2.3	2	E		80		F
0100	LEAR	06	0522	0524	0526	N25	W05	5031	06	5.8	4	SF		3	E		16		F
0101		06	06102	06111	0616	N18	W16	5032	06	5.0	6	SF					48	1.0	EFV
	ABST	06	0610	0611	0617	N19	W16	5032	06	5.0	7	SN			C	0611	96	1.0	EV
	SVTO	06	0610	0611	0633D	N17	W16	5032	06	5.0	23D	SF		2	E		26		
	LEAR	06	0612	0612	0616	N18	W15	5032	06	5.1	4	SF		3	E		21		F
0102	LEAR	06	0707	0708	0716	N28	W12	5031	06	5.3	9	SF		3	E		20		F
0103	LEAR	06	0746	0748	0803	N18	W18	5032	06	4.9	17	SF		3	E		21		F
0104	LEAR	06	0747	0750	0800	N12	W59	5035	06	1.9	13	SF		3	E		42		
		06	1005		1016	No Flare Patrol													
0105	SVTO	06	1040	1043	1053	N14	W15	5037	06	5.3	13	SF		3	E		67		F
0106	HOLL	06	1332	1338	1359	N18	W20	5032	06	5.0	27	SF		3	E		30		
0107	HOLL	06	1342	1348	1414	N25	W21	5031	06	4.9	32	SF		3	E		25		
0108	HOLL	06	1415	1420	1427	N12	W64	5035	06	1.8	12	SF		3	E		14		
0109	HOLL	06	1432	1434	1437	S24	E10	5034	06	7.4	5	SF		3	E		10		F
0110	HOLL	06	1548	1548	1556	S25	W33	5038	06	4.1	8	SF		3	E		18		
0111	HOLL	06	1638	1638	1644	N29	W13	5031	06	5.7	6	SF		3	E		13		

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Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Imp See	Obs Type	Area Measurement			Remarks	
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0112	HOLL	06 1639	1645	1656	S16	E59	5036	06	11.2	17	SF	C 1.1	3	E		43			
0113		06 1735	1735	1742	S15	E64	5036	06	11.6	7	SF					16			
	HOLL	06 1735	1735	1741	S14	E65	5036	06	11.6	6	SF		3	E		14			
	RAMY	06 1735	1735	1742	S16	E64	5036	06	11.6	7	SF		3	E		17			
0114		06 18047	18079	1820	S24	W35	5038	06	4.0	16	SF					28			
	HOLL	06 1804	1816	1823	S25	W34	5038	06	4.1	19	SF		3	E		36			
	RAMY	06 1805	1807	1810	S24	W35	5038	06	4.0	5	SF		3	E		26			
	RAMY	06 1811	1814	1828	S24	W35	5038	06	4.0	17	SF		3	E		23			
0115	RAMY	06 1914	1915	1940	S15	E64	5036	06	11.6	26	SF		3	E		16			
0116		06 19253	1933*	2000	N25	W13	5031	06	5.8	35	SF					31			F
	RAMY	06 1925	1949U	1957D	N25	W13	5031	06	5.8	32D	SF		3	E		30			F
	HOLL	06 1925	1955	2024	N26	W13	5031	06	5.8	59	SF		3	E		32			F
	PALE	06 1928	1933	1936	N24	W13	5031	06	5.8	8	SF		3	E		31			F
0117		06 1950	19511	2000	S26	W35	5038	06	4.1	10	SF	C 1.3				71			
	RAMY	06 1950	1951	1957D	S25	W35	5038	06	4.1	7D	SF	C 1.3	3	E		79			
	PALE	06 1950	1951	1958	S27	W35	5038	06	4.1	8	SF	C 1.3	3	E		58			
	HOLL	06 1950	1952	2003	S25	W35	5038	06	4.1	13	SF	C 1.3	4	E		75			
0118	HOLL	06 2208	2217	2220	N26	W21	5031	06	5.3	12	SF		3	E		16			F
0119	VORO	06 2311	2314	2319	S27	W39	5038	06	3.9	8	SF		2	C	2314	81	1.2		DJT
0120		06 23275	2334	2342	N26	W21	5031	06	5.3	15	1F					114	2.4		EF1JT
	VORO	06 2327	2334	2341	N26	W21	5031	06	5.3	14	1F		3	C	2334	197	2.4		E1JT
	HOLL	06 2332	2334	2343	N25	W21	5031	06	5.3	11	SF		3	E		32			F
0121		07 0102	0102	0108	N16	W26	5032	06	5.1	6	SF					15			F
	PALE	07 0102	0102	0107	N16	W25	5032	06	5.1	5	SF		3	E		14			F
	HOLL	07 0102	0102	0110	N17	W27	5032	06	5.0	8	SF		3	E		16			
0122	VORO	07 0126	0129	0142	N28	W20	5031	06	5.5	16	1F		3	C	0129	179	2.2		DIJKT
0123		07 0610	0611	0652	N28	W23	5031	06	5.4	42	SN	C 2.8				112	1.8		EFV
	ABST	07 0610	0611	0634U	N29	W24	5031	06	5.4	24U	SN			P	0611	140	1.8		EV
	MITK	07 0610	0611	0652	N28	W23	5031	06	5.4	42	SN			C	0611				E
	LEAR	07 0611E	0611U	0624D	N27	W22	5031	06	5.5	13D	SF	C 2.8	2	E		84			F
0124		07 0609	06141	0633	S20	E52	5036	06	11.2	24	1N					118	2.2		DEF
	MITK	07 0609	0614	0634	S21	E49	5036	06	11.0	25	1N			C	0614	130	2.2		E
	LEAR	07 0611E	0615	0631D	S21	E51	5036	06	11.2	20D	SF		2	E		88			F
	ABST	07 0615E	0618U	0628D	S18	E60	5036	06	11.8	13D	SF			P	0618	52	1.1		D
	ABST	07 0609	0615	0632	S20	E50	5036	06	11.1	23	1N			C	0615	201	3.4		E
0125	ABST	07 0845	0845	0900D	N26	W14	5040	06	6.3	15D	SF			P	0845	175	2.0		EV
0126	HPR	07 0924E		0934D	S23	E09	5034	06	8.1	10D	SF			C	0928	30	0.3		E
0127	RAMY	07 1308	1308	1315	N26	W15	5040	06	6.4	7	SF		3	E		16			
0128		07 14165	1419	1502	N28	W27	5031	06	5.5	46	SF	C 1.8				65			F
	HOLL	07 1416	1419	1505	N28	W26	5031	06	5.6	49	SF	C 1.8	3	E		59			F
	RAMY	07 1416	1421U	1516	N28	W27	5031	06	5.5	60	SF	C 1.8	2	E		74			F
	SVTO	07 1421	1425U	1444	N27	W27	5031	06	5.5	23	SF	C 1.8	2	E		61			F
0129	RAMY	07 1423	1425	1429	S24	W45	5038	06	4.1	6	SF		3	E		12			
0130	HOLL	07 1427	1427	1441	S17	E53	5036	06	11.6	14	SF		3	E		11			
0131		07 14382	1441	1457	N14	W30	5037	06	5.3	19	SF					23			F
	RAMY	07 1438	1441	1501	N15	W30	5037	06	5.3	23	SF		3	E		34			F
	HOLL	07 1440	1441	1453	N14	W30	5037	06	5.3	13	SF		3	E		12			
0132	RAMY	07 1440	1440	1446	S25	W44	5038	06	4.2	6	SF		3	E		11			

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks		
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)			
0133	PALE	07	1751	1752	1757	S26	W46	5038	06	4.2	6	SF		3	E		38				
0134	HOLL	07	1831	1832	1839	N13	W79	5035	06	1.8	8	SF		3	E		25				
0135	HOLL	07	1911	1914	1920	N13	W79	5035	06	1.8	9	SF		3	E		27				
0136	RAMY	07	2003	2004	2038	N15	W33	5037	06	5.3	35	SF		2	E		40				
0137		07	20264	2032	2036	S26	W46	5038	06	4.3	10	SF					29			F	
	RAMY	07	2026	2032	2033	S25	W46	5038	06	4.3	7	SF		2	E		41			F	
	HOLL	07	2030	2032	2039	S26	W47	5038	06	4.2	9	SF		3	E		17				
0138		07	2122	2123	2128	S25	W49	5038	06	4.1	6	SF					14			F	
	RAMY	07	2122	2123	2127	S24	W51	5038	06	3.9	5	SF		2	E		12				
	HOLL	07	2122	2123	2130	S26	W47	5038	06	4.2	8	SF		3	E		16			F	
0139	HOLL	07	2341	2344	2357	S20	W05	5034	06	7.6	16	SF		3	E		46			F	
0140	TACH	08	0304	0316U	0357	N12	W88	5035	06	1.5	53	SN			C	0316	15			D	
0141		08	0419*	04287	0430	S16	E46	5036	06	11.7	11	SF					48				
	PALE	08	0419	0428	0430	S16	E46	5036	06	11.7	11	SF		3	E		60				
	PALE	08	0430	0435	0437D	S16	E46	5036	06	11.7	7D	SF		3	E		37				
0142		08	05153	05171	0537	N15	W36	5037	06	5.5	22	SF	C 1.2				113	2.0		E	
	ABST	08	0515	0518	0543D	N14	W36	5037	06	5.5	28D	SN			C	0518	148	2.0		E	
	LEAR	08	0516	0517	0534	N15	W37	5037	06	5.4	18	SF	C 1.2	3	E		39				
	TACH	08	0518	0522U	0540	N15	W36	5037	06	5.5	22	1F			C	0522	153	2.0		E	
0143	ABST	08	0603	0608	0613	S19	W09	5034	06	7.6	10	SF			C	0608	70	0.8		D	
0144	ABST	08	0639	0642	0655	N23	W49	5038A	06	4.5	16	SF			C	0642	44	0.8		D	
0145	ABST	08	0649	0657	0708	N26	W23	5040	06	6.5	19	SF			C	0657	87	1.1		D	
0146	KANZ	08	0703	0703	0706	S16	E42	5036	06	11.5	3	SF				2					
		08	0929		0943	No Flare Patrol															
		08	0948		0955	No Flare Patrol															
		08	1002		1011	No Flare Patrol															
0147	KANZ	08	1107	1109	1113	N22	W51	5038A	06	4.5	6	SN				2					
0148	KANZ	08	1121	1121	1124	N10	E73	5041	06	13.9	3	SF				2					
0149		08	12152	12172	1230	N12	E73	5041	06	14.0	15	SF					20				
	KANZ	08	1215	1219	1235	N11	E74	5041	06	14.1	20	SF				2					
	RAMY	08	1217	1217	1224	N10	E72	5041	06	13.9	7	SF		3	E		17				
	HOLL	08	1220E	1224U	1230	N14	E72	5041	06	13.9	10D	SF		2	E		24				
0150		08	1259	13021	1310	N11	E74	5041	06	14.1	11	SF					16				
	HOLL	08	1259	1302	1309	N12	E75	5041	06	14.2	10	SF		3	E		16				
	KANZ	08	1259	1303	1310	N10	E73	5041	06	14.0	11	SF		2							
0151	HOLL	08	1314	1314	1328	S22	W11	5034	06	7.7	14	SF		4	E		11				
0152	HOLL	08	1329	1334	1345	N25	W36	5031	06	5.8	16	SF		3	E		20				
0153	HOLL	08	1340	1341	1351	S16	E36	5036	06	11.3	11	SF		3	E		13				
0154		08	13561	13592	1406	N12	E74	5041	06	14.1	10	SF					30				
	HOLL	08	1356	1359	1407	N12	E76	5041	06	14.3	11	SF		4	E		29				
	RAMY	08	1357	1401	1406	N11	E72	5041	06	14.0	9	SF		3	E		30				
0155	HOLL	08	1429	1438	1446	N20	W54	5038A	06	4.5	17	SF		4	E		16				
0156		08	16122	16141	1625	S16	E34	5036	06	11.2	13	SF					20				
	RAMY	08	1612	1614	1626	S17	E34	5036	06	11.2	14	SF		3	E		19				
	HOLL	08	1614	1615	1624	S16	E35	5036	06	11.3	10	SF		3	E		21				

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Time (UT)	Area Measurement		Remarks	
																	Apparent (10-6 Disk)	Corr (Sq Deg)		
0157		08	16322	16341	1650	N20	W53	5038A	06	4.6	18	SF	C	2.4			53		EF	
	HOLL	08	1632	1635	1700	N20	W54	5038A	06	4.5	28	SF	C	2.4	4	E	81		E	
	RAMY	08	1633	1635	1649	N21	W53	5038A	06	4.6	16	SF	C	2.4	3	E	38		F	
	PALE	08	1634	1634	1640	N20	W52	5038A	06	4.7	6	SF	C	2.4	3	E	39		F	
0158		08	17068	17192	1733	S17	E37	5036	06	11.5	27	SF					33		F	
	HOLL	08	1706	1720	1735	S16	E37	5036	06	11.5	29	SF			3	E	42		F	
	RAMY	08	1707	1721	1741D	S17	E35	5036	06	11.4	34D	SF			3	E	29			
	PALE	08	1714	1719	1731	S18	E40	5036	06	11.8	17	SF			3	E	28		F	
0159	HOLL	08	1805	1805	1815	S16	E35	5036	06	11.4	10	SF			3	E	11			
0160	HOLL	08	1953	1956	1959	N14	W46	5037	06	5.3	6	SF			3	E	23			
0161		08	20301	20311	2118	S18	E36	5036	06	11.6	48	SF	C	1.8			66		F	
	HOLL	08	2030	2031	2107	S17	E36	5036	06	11.6	37	SF	C	1.8	4	E	44		F	
	PALE	08	2031	2032	2130	S18	E36	5036	06	11.6	59	SF	C	1.8	3	E	89		F	
0162		08	2142	2154	2214	S25	W62	5038	06	4.1	32	SF					22			
	PALE	08	2142	2154	2226	S25	W60	5038	06	4.2	44	SF			3	E	26			
	HOLL	08	2152E	2154	2201	S25	W63	5038	06	4.0	9D	SF			3	E	18			
0163	HOLL	08	2152	2152	2159	S17	E31	5036	06	11.3	7	SF			3	E	16		F	
0164		08	2226*	2238*	2253	S16	E32	5036	06	11.4	27	SN	C	4.1			45		EF	
	PALE	08	2226	2248	2301	S16	E32	5036	06	11.4	35	SN	C	4.1	3	E	67			
	HOLL	08	2234	2238	2243	S16	E34	5036	06	11.5	9	SF	C	4.1	3	E	18		F	
	HOLL	08	2245	2248	2254	S16	E31	5036	06	11.3	9	SN	C	4.1	4	E	49		FE	
0165	HOLL	08	2342	2342	2351	S25	W63	5038	06	4.1	9	SF			3	E	12			
	0166		09	0002*	0016*	0038	S26	W64	5038	06	4.0	36	SF					18		F
		PALE	09	0002	0016	0036	S26	W62	5038	06	4.2	34	SF			3	E	20		F
	HOLL	09	0017	0031	0040	S25	W65	5038	06	4.0	23	SF			3	E	17			
0167		09	0140	0143	0148	S17	E26	5036	06	11.0	8	SN					80	1.0	T	
	YUNN	09	0140	0143	0147	S16	E28	5036	06	11.2	7	SF				C	64	0.8	T	
	YUNN	09	0146E	0146U	0148	S18	E24	5036	06	10.9	2D	SN				P	96	1.1	T	
0168		09	02036	02092	0215	S17	E30	5036	06	11.4	12	SF					46	1.2	T	
	YUNN	09	0203	0211	0214	S17	E29	5036	06	11.3	11	SN				C	96	1.2	T	
	PALE	09	0208	0209	0215	S16	E30	5036	06	11.4	7	SF			3	E	19			
	LEAR	09	0209	0210	0216	S17	E30	5036	06	11.4	7	SF			3	E	24			
0169	YUNN	09	0250	0254	0254D	S17	E29	5036	06	11.3	4D	SF				P	32	0.4	T	
0170	ABST	09	0409E	0415	0501	N15	W51	5037	06	5.3	52D	SF				P	0415	96	1.6	E
0171		09	0655*	07141	0740	N16	W65	5038A	06	4.3	45	SF	C	2.3			65	1.4	D	
	HTPR	09	0655	0714	0745	N16	W67	5038A	06	4.2	50	SB				C	0714	60	1.4	
	ABST	09	0701	0714	0744	N15	W66	5038A	06	4.3	43	SF				C	0714	87		D
	KANZ	09	0706	0714	0734	N17	W64	5038A	06	4.4	28	SF			2					
	LEAR	09	0706	0715	0739	N15	W63	5038A	06	4.5	33	SF	C	2.3	3	E	47			
	KHAR	09	0718E		0750U	N15	W66	5038A	06	4.3	32U	SF			2	V	0718			D
0172	HTPR	09	0826	0846	0855	N30	W36	5040	06	6.5	29	SF				C	0846	20	0.2	
0173		09	0916	0920	0927	S22	W68	5038	06	4.1	11	SN					20	0.5		
	HTPR	09	0916		0920D	S23	W69	5038	06	4.1	4D	SN				C	0917	20	0.5	
	KANZ	09	0916	0920	0927	S22	W66	5038	06	4.3	11	SF			2					
0174	KHAR	09	0925	0927U	0936	N27	W36	5040	06	6.6	11	SF			2	V	0927			D
0175		09	11311	1135	1143	S21	W26	5034	06	7.5	12	SF					37		F	
	RAMY	09	1131	1136U	1146D	S21	W27	5034	06	7.4	15D	SF			2	E	37		F	
	KANZ	09	1132	1135	1143	S21	W25	5034	06	7.6	11	SF			2					

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks
						Region	Lat	CMD								Apparent (10-6 Disk)	Corr (Sq Deg)	
0176		09	1324*	1339	1354	S21	W29	5034	06	7.3	30	SF				28		F
	HOLL	09	1324	1339	1349	S21	W28	5034	06	7.4	25	SF	3	E		21		F
	RAMY	09	1337	1340	1359	S21	W29	5034	06	7.3	22	SF	4	E		34		F
	KANZ	09	1339	1339	1354	S20	W29	5034	06	7.3	15	SF	2					
0177		09	1416	1420	1431	N28	W40	5040	06	6.5	15	SF				10		
	KANZ	09	1416	1420	1431	N29	W39	5040	06	6.5	15	SF	2					
	RAMY	09	1416	1420	1434D	N27	W41	5040	06	6.4	18D	SF	4	E		10		
0178	RAMY	09	1547	1547	1550	N26	W42	5040	06	6.4	3	SF	4	E		21		
0179		09	1544*	1558	1614	S19	E28	5036	06	11.8	30	SF				38	0.5	EF
	RAMY	09	1544	1559	1617	S20	E26	5036	06	11.6	33	SF	3	E		31		
	HTPR	09	1556	1558	1615	S18	E29	5036	06	11.9	19	SN		C	1558	40	0.5	E
	HOLL	09	1557	1559	1609	S19	E28	5036	06	11.8	12	SF	3	E		42		F
0180		09	1649	1654	1809	N18	W61	5032	06	5.0	80	1F C 9.3				148	3.0	EFHKU
	RAMY	09	1649	1655	1809	N18	W62	5032	06	5.0	80	1F C 9.3	3	E		145		FH
	HOLL	09	1651	1654	1809	N18	W63	5032	06	4.9	78	1F C 9.3	3	E		149		UH
	HTPR	09	1652E		1708D	N18	W58	5032	06	5.3	16D	1N		C	1655	150	3.0	EKU
0181	HOLL	09	1651	1653U	1653D	N15	W56	5037	06	5.5	2D	1F C 9.3	3	E		109		
0182		10	0002	0003	0010	S16	E17	5036	06	11.3	8	SF				16		F
	LEAR	10	0002	0003	0014	S16	E16	5036	06	11.2	12	SF	3	E		23		
	HOLL	10	0006E		0006	S16	E18	5036	06	11.4	12D	SF	3	E		10		F
0183	VORO	10	0045	0047	0053	N20	W68	5038A	06	4.8	8	1F	2	C	0047	81		DIJT
0184	PEKG	10	0336E	0342	0352	S17	E21	5036	06	11.7	16D	SN		P	0342	126	1.5	D
0185	LEAR	10	0637	0638	0644	N14	E50	5041	06	14.0	7	SF	3	E		10		
0186	ABST	10	0757	0759	0810	S20	E18	5036	06	11.7	13	SN		C	0759	87	1.0	D
0187	ABST	10	0817	0820	0823	N26	W50	5040	06	6.5	6	SF		C	0820	87	1.4	D
0188		10	0821	0821	0826	N12	E51	5041	06	14.2	5	SF				74	2.2	D
	KANZ	10	0821	0821	0825	N11	E50	5041	06	14.1	4	SF	2					
	LEAR	10	0821	0823	0826	N11	E49	5041	06	14.0	5	SF	3	E		17		
	ABST	10	0821	0823	0827	N14	E53	5041	06	14.3	6	1N		C	0823	131	2.2	D
0189	RAMY	10	1316	1324	1340	S15	E12	5036	06	11.5	24	SF	3	E		23		
0190	HTPR	10	1527	1536	1553	N16	E53	5041	06	14.7	26	SN		C	1536	50	0.8	E
0191	HTPR	10	1720		1755D	N18	W74	5032	06	5.1	35D	SF		C	1731	30		
0192	HTPR	10	1731		1755D	N19	E53	5041	06	14.8	24D	SF		C	1737	20	0.3	
0193	HOLL	10	1752	1759	1811	S15	E11	5036	06	11.6	19	SF	3	E		20		
0194		10	2156	2158	2210	N26	W60	5040	06	6.2	14	SF				18		F
	RAMY	10	2156	2158	2211	N26	W59	5040	06	6.3	15	SF	3	E		20		
	HOLL	10	2159	2202	2209	N26	W60	5040	06	6.2	10	SF	3	E		16		F
		10	2311		2319	No Flare Patrol												
0195		11	0117	0118	0134	S16	E04	5036	06	11.3	17	SN C 1.2				103	1.7	E
	LEAR	11	0117	0118	0135	S16	E04	5036	06	11.3	18	SF C 1.2	3	E		45		
	YUNN	11	0118E	0118U	0134	S15	E04	5036	06	11.3	16D	SN C 1.2		P		161	1.7	E
0196	YUNN	11	0208	0219	0240	S17	E05	5036	06	11.5	32	1N		C		225	2.4	F
0197	ABST	11	0438	0439	0444	N13	E37	5041	06	14.0	6	SN		C	0439	87	1.1	DV
0198	ABST	11	0557	0558	0610	S21	E08	5036	06	11.9	13	SN		C	0558	87	1.0	DV

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Grp #	Sta	Start Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks		
								Region	Day							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)			
0199		11	06482	06516	0715	N27	W62	5040	06	6.4	27	1N	C 2.2				94	3.1	EFKS		
	ABST	11	0646E	0650U	0722D	N24	W63	5040	06	6.4	36D	2N		P	0650		262	6.2	EK		
	LEAR	11	0648	0657	0712	N27	W61	5040	06	6.5	24	SF	C 2.2	4	E		38		F		
	PEKG	11	0649	0651	0709	N27	W62	5040	06	6.4	20	SN	C 2.2		P	0651		42	1.0	E	
	KANZ	11	0649	0653	0712	N29	W63	5040	06	6.3	23	SF		2							
	SVTO	11	0650	0652	0710	N26	W62	5040	06	6.5	20	SF	C 2.2	3	E		26			S	
	HTPR	11	0705E		0730	N27	W62	5040	06	6.5	25D	1N			C	0712		100	2.1	E	
0200		11	07459	07553	0805	N14	E40	5041	06	14.3	20	SF					37	1.0	E		
	SVTO	11	0745	0755	0800	N16	E40	5041	06	14.3	15	SF		3	E		13				
	HTPR	11	0752		0815D	N16	E41	5041	06	14.4	23D	SN			C	0757		80	1.0	E	
	LEAR	11	0754	0758	0807	N13	E40	5041	06	14.3	13	SF		4	E		18				
	KANZ	11	0754	0758	0809	N13	E40	5041	06	14.3	15	SF		2							
0201		11	08487	08524	0901	N15	W82	5037	06	5.1	13	SN					33			D	
	KANZ	11	0848	0852	0902	N15	W80	5037	06	5.3	14	SN		2							
	LEAR	11	0849	0855	0902	N16	W78	5037	06	5.4	13	SF		3	E		39				
	SVTO	11	0854	0854	0857	N14	W82	5037	06	5.2	3	SF		3	E		11				
	PEKG	11	0855	0856	0904	N15	W86	5037	06	4.9	9	SN			P	0856		50		D	
		11	1017		1034	No Flare Patrol															
		11	1036		1102	No Flare Patrol															
		11	1140		1144	No Flare Patrol															
0202	RAMY	11	1235	1237	1240	S16	W02	5036	06	11.4	5	SF		3	E		19				
0203		11	13471	13515	1402	S18	W00	5036	06	11.6	15	SF					15			F	
	KANZ	11	1347	1351	1359D	S19	W00	5036	06	11.6	12D	SF		2							
	RAMY	11	1348	1356	1402	S18	W01	5036	06	11.5	14	SF		3	E		15			F	
0204		11	14335	14403	1454	S18	W03	5036	06	11.4	21	SF	C 1.1				24			FH	
	HOLL	11	1433	1441	1457	S16	W06	5036	06	11.1	24	SF	C 1.1	3	E		23			FH	
	KANZ	11	1436	1440	1452	S15	W07	5036	06	11.1	16	SF		2							
	KANZ	11	1436	1440	1456	S19	W00	5036	06	11.6	20	SF		2							
	RAMY	11	1438	1443	1450	S20	E01	5036	06	11.7	12	SF	C 1.1	3	E		25			F	
0205	HOLL	11	1625	1627	1638	S16	W05	5036	06	11.3	13	SF		3	E		40			F	
0206	HOLL	11	1949	1950	1958	N15	W87	5037	06	5.2	9	SF		3	E		31				
0207	LEAR	12	0249	0251	0257	N16	E27	5041	06	14.2	8	SF		4	E		13				
0208	LEAR	12	0355	0356	0406	S13	W11	5036	06	11.3	11	SF		4	E		11				
0209	TACH	12	0420E	0528U	0547D	S08	W70		06	6.9	87D	1N			C	0528		102		EGK	
0210	LEAR	12	0421	0422	0425	S23	W59	5034	06	7.6	4	SF		3	E		17				
0211	ABST	12	0438	0440	0445	S15	W15	5036	06	11.0	7	SF			C	0440		87	1.0	D	
0212		12	05071	0510	0520	S23	W60	5034	06	7.6	13	SB					46	1.0		DG	
	TACH	12	0507	0507U	0513	S22	W61	5034	06	7.5	6	SB			C	0507		31	0.7	DG	
	ABST	12	0508	0510	0527	S24	W60	5034	06	7.6	19	SN			C	0510		61	1.3	D	
0213	ABST	12	0524	0529	0553	N28	W70	5040	06	6.7	29	1N			C	0529		175		DJKT	
0214		12	06142	06162	0626	S24	W60	5034	06	7.6	12	SN	C 2.8				78	2.2		CD	
	ABST	12	0614	0616	0629	S24	W60	5034	06	7.6	15	1N			C	0616		105	2.3	D	
	PEKG	12	0614	0617	0621	S23	W61	5034	06	7.5	7	SB	C 2.8		P	0617		84	2.0	CD	
	SVTO	12	0616	0616	0622	S25	W61	5034	06	7.5	6	SF	C 2.8	3	E		38				
	LEAR	12	0616	0618	0633	S23	W60	5034	06	7.6	17	SF	C 2.8	3	E		87				
0215		12	06511	06541	0710	S24	W64	5034	06	7.3	19	SN					70			D	
	YUNN	12	0651	0655	0705	S23	W63	5034	06	7.4	14	SN			C		80				
	ABST	12	0652	0654	0715	S24	W65	5034	06	7.3	23	SN			C	0654		61		D	
0216	YUNN	12	0751E	0751U	0755D	N12	E21	5041	06	13.9	4D	SN			P		80	0.9			

Ha S O L A R F L A R E S

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/	CMP Mo	Dur (Min)	Imp Opt	Xray	See	Obs Type	Time (UT)	Area Measurement		Remarks	
								USAF Region								Apparent (10-6 Disk)	Corr (Sq Deg)		
0238	PALE	15	2240E	2244U	2329D	S17	E61	5047	06	20.6	49D	SB	C 8.5	3	E	78		F	
		15	2320		2328	No Flare Patrol													
0239		16	0128	0134	0159	S13	W61	5036	06	11.4	31	1N	C 1.8			194	5.8	F	
	LEAR	16	0128	0134	0214	S13	W60	5036	06	11.5	46	1F	C 1.8	3	E	185		F	
	PALE	16	0131E	0137U	0205D	S13	W61	5036	06	11.5	34D	1F	C 1.8	3	E	140		F	
	YUNN	16	0136E	0136U	0144	S13	W62	5036	06	11.4	8D	2B	C 1.8		P	0136	257	5.8	
0240	YUNN	16	0257	0258	0304	N11	W30	5041	06	13.9	7	SF			C	32	0.4	D	
0241	LEAR	16	0549	0552	0555	N34	E50	5051	06	20.2	6	SF			3	E	25		
0242	LEAR	16	0632	0635	0643	N37	E63	5048	06	21.3	11	SF			3	E	23		
0243	LEAR	16	0649	0649	0713	S19	E54	5047	06	20.4	24	SF			3	E	30		
0244	HTPR	16	0912	0916	0920	S14	W64	5036	06	11.5	8	SF			C	0916	20	0.4	E
0245		16	12364	1239*	1307	N12	W34	5041	06	14.0	31	SF	C 1.2			50		F	
	RAMY	16	1236	1239	1311	N12	W32	5041	06	14.1	35	SF	C 1.2	3	E	49			
	SVTO	16	1238	1239	1246	N11	W33	5041	06	14.0	8	SF	C 1.2	3	E	24			
	HOLL	16	1240	1253	1323	N13	W36	5041	06	13.8	43	SF			3	E	76		F
0246		16	1309*	13281	1407	N39	E60	5048	06	21.4	58	1F	C 1.8			105		E	
	HOLL	16	1309	1329	1422	N39	E58	5048	06	21.2	73	1N	C 1.8	4	E	110		E	
	RAMY	16	1322	1328	1404	N38	E61	5048	06	21.5	42	1F	C 1.8	3	E	113			
	SVTO	16	1325	1328	1356	N39	E60	5048	06	21.4	31	SF	C 1.8	3	E	92			
0247		16	1439	1441	1448	N12	W35	5041	06	14.0	9	SF				17			
	HOLL	16	1439	1441	1447	N12	W37	5041	06	13.8	8	SF			3	E	20		
	RAMY	16	1439	1441	1448	N12	W34	5041	06	14.0	9	SF			3	E	16		
	SVTO	16	1439	1442	1449	N13	W33	5041	06	14.1	10	SF			3	E	15		
0248		16	16063	16151	1623	N13	W36	5041	06	13.9	17	SF				14			
	RAMY	16	1606	1616	1638D	N13	W35	5041	06	14.0	32D	SF			3	E	14		
	HOLL	16	1609	1615	1623	N13	W37	5041	06	13.9	14	SF			3	E	13		
0249	HOLL	16	1654	1656	1706	N13	W38	5041	06	13.8	12	SF			3	E	13		
0250	LEAR	17	0039	0042	0101	N13	W40	5041	06	14.0	22	SF			3	E	19		
0251		17	02321	0235*	0254	N13	W44	5041	06	13.8	22	SN				40	0.7	DE	
	PEKG	17	0232	0239	0255	N13	W43	5041	06	13.9	23	SB			C	0239	84	1.2	E
	LEAR	17	0233	0235	0257	N13	W43	5041	06	13.9	24	SF			3	E	25		
	URUM	17	0235E	0236	0244	N13	W45	5041	06	13.7	9D	SF			C	16	0.2	D	
	PALE	17	0243E	0251	0259	N13	W43	5041	06	13.9	16D	SF			3	E	34		
0252		17	03402	03463	0451	S18	E44	5047	06	20.5	71	1N	C 6.1			284	4.4	EFU	
	MITK	17	0340	0346	0444D	S18	E44	5047	06	20.5	64D	2B			C	0346	430	6.6	F
	TACH	17	0341	0350U	0452D	S19	E43	5047	06	20.4	71D	1F			C	0350	300	4.5	U
	PEKG	17	0342	0346	0443	S18	E43	5047	06	20.4	61	2B	C 6.1		C	0346	378	5.6	E
	URUM	17	0344E	0349	0415	S17	E44	5047	06	20.5	31D	SN	C 6.1		C		113	1.7	E
	PALE	17	0349E	0349U	0449D	S18	E43	5047	06	20.4	60D	1N	C 6.1	3	E	225			
	ABST	17	0404E	0404U	0536	S16	E45	5047	06	20.6	92D	1N			P	0404	261	3.5	E
0253	ABST	17	0405	0421	0435	N13	W45	5041	06	13.8	30	1N			C	0421	174	2.4	FJ
0254		17	0553	0555	0628	N13	W44	5041	06	13.9	35	1F				97	1.4	DEJ	
	HTPR	17	0531E		0630	N13	W44	5041	06	13.9	59D	SF			C	0544	20	0.3	E
	ABST	17	0553	0555	0625	N13	W45	5041	06	13.8	32	1F			C	0555	174	2.4	DJ
0255		17	07292	0732*	0750	N12	W45	5041	06	13.9	21	SF				15	0.4	E	
	HTPR	17	0729	0746	0800	N12	W45	5041	06	13.9	31	SF			C	0746	20	0.4	E
	LEAR	17	0731	0732	0741	N13	W45	5041	06	13.9	10	SF			3	E	10		
0256	HTPR	17	0952	0954	1015	N12	W46	5041	06	13.9	23	SF			C	0954	20	0.4	E

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/ USAF			CMP Mo	Dur Day	Imp (Min)	Opt Xray	Imp See	Obs Type	Area Measurement			Remarks	
						Lat	CMD	Region							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0257		17	1226	1231	1240	S16	E47	5047	06	21.1	14	SF				24			
	HOLL	17	1225E	1230U	1237	S16	E47	5047	06	21.1	12D	SF	2	E		30			
	RAMY	17	1226	1231	1242	S17	E47	5047	06	21.1	16	SF	3	E		18			
0258	HOLL	17	1338	1339	1344	N39	E41	5048	06	20.9	6	SF	3	E		10			
0259	PALE	17	2004	2004	2009	N12	W52	5041	06	13.9	5	SF	3	E		10			
			17 2143		2209	No Flare Patrol													
			17 2236		2248	No Flare Patrol													
0260	HOLL	17	2311E	2317U	2323	S17	E35	5047	06	20.6	12D	SF	3	E		26		F	
0261		17	2334	2342	2345	N12	W56	5041	06	13.8	11	SF				14		F	
	HOLL	17	2317E	2326U	2333D	N12	W55	5041	06	13.8	16D	SF	3	E		15		F	
	HOLL	17	2334	2342	2345	N11	W56	5041	06	13.8	11	SF	3	E		12		F	
0262		18	0010I	0014	0102	S18	E36	5047	06	20.7	52	SN C 5.4				60		F	
	HOLL	18	0010	0016U	0042	S17	E35	5047	06	20.7	32	SN C 5.4	3	E		72		F	
	LEAR	18	0011	0014	0122	S18	E36	5047	06	20.7	71	SF C 5.4	4	E		49			
0263		18	0535E	0537I	0546	S17	E33	5047	06	20.7	11	SF				76	1.4	DH	
	PEKG	18	0535	0537	0541	S17	E33	5047	06	20.7	6	SN		C	0537	121	1.6	D	
	SVTO	18	0537	0538	0550	S17	E32	5047	06	20.7	13	SF	3	E		20		H	
	ABST	18	0538E	0539U	0543D	S17	E34	5047	06	20.8	5D	SF		P	0539	87	1.1	D	
0264		18	0601I	0604E	0628	S18	E32	5047	06	20.7	27	1N C 3.7				173	4.3	DEH	
	SVTO	18	0601	0611U	0637	S17	E32	5047	06	20.7	36	1N C 3.7	3	E		108		EH	
	LEAR	18	0602	0604	0627	S18	E32	5047	06	20.7	25	SF C 3.7	4	E		76			
	PEKG	18	0603E	0606	0620	S18	E31	5047	06	20.6	17D	1B C 3.7		C	0611	336	4.3	D	
0265		18	0653	0654I	0700	S18	E32	5047	06	20.7	7	SF				27	0.5	DH	
	LEAR	18	0653	0654	0657	S18	E32	5047	06	20.7	4	SF	3	E		14			
	SVTO	18	0653	0654	0702	S17	E32	5047	06	20.7	9	SF	3	E		25		H	
	PEKG	18	0653	0655	0700	S19	E31	5047	06	20.6	7	SN		C	0655	42	0.5	D	
0266	KAND	18	0902	0903	0909	S18	E32	5047	06	20.8	7	SN		P	0903	42	0.5	E	
0267	RAMY	18	1348	1348	1406	N12	W62	5041	06	13.9	18	SF	3	E		30			
0268		18	1438	1439I	1444	S18	E28	5047	06	20.7	6	SF				20			
	RAMY	18	1438	1439	1443	S19	E28	5047	06	20.7	5	SF	3	E		17			
	HOLL	18	1438	1440	1445	S18	E27	5047	06	20.7	7	SF	3	E		24			
0269	RAMY	18	1758	1813	1820	N13	W60	5041	06	14.2	22	SF	3	E		12			
0270	HOLL	18	1938	1939	1945	S24	E74	5053	06	24.5	7	SF	3	E		23		F	
0271	HOLL	18	2109	2109	2114	S18	E18	5047	06	20.2	5	SF	3	E		25		F	
0272	HOLL	18	2130	2132	2137	S26	E81	5053	06	25.2	7	SF	3	E		47		Z	
0273	HOLL	18	2200	2201	2211	S21	E79	5053	06	25.0	11	SF	3	E		66			
0274		18	2240I	2240*	2251	S20	E79	5053	06	25.0	11	SF				17			
	HOLL	18	2240	2240	2247	S22	E79	5053	06	25.0	7	SF	3	E		11			
	HOLL	18	2249	2251	2255	S18	E79	5053	06	25.0	6	SF	3	E		23			
0275	HOLL	18	2346	2349	2353	S21	E73	5053	06	24.6	7	SF	3	E		19			
0276		19	0059I	0100E	0107	S22	E75	5053	06	24.8	8	SF				41		D	
	URUM	19	0059	0100	0105	S21	E77	5053	06	24.9	6	SN		C		64		D	
	HOLL	19	0059	0104	0109	S21	E75	5053	06	24.8	10	SF	4	E		40			
	LEAR	19	0102	0104	0107	S23	E74	5053	06	24.7	5	SF	3	E		18			
0277		19	0222	0226	0243	N13	W64	5041	06	14.3	21	1F C 2.0				102			
	LEAR	19	0222	0226	0243	N14	W63	5041	06	14.3	21	1F C 2.0	2	E		133			
	PALE	19	0229E		0233D	N12	W66	5041	06	14.1	4D	SF C 2.0	3	E		72			

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks
																Apparent (10-6 Disk)	Corr (Sq Deg)	
0278		19	0653	0653	0657	S17	E17	5047	06	20.6	4	SN				22		
	MITK	19	0646E		0655	S17	E17	5047	06	20.6	9D	SN			0654			
	LEAR	19	0653	0653	0659	S17	E17	5047	06	20.6	6	SF	3	E		22		
0279		19	0824	0827	0845	S19	E18	5047	06	20.7	21	SN	C 1.5			56		
	SVTO	19	0824	0827	0839	S18	E19	5047	06	20.8	15	SN	C 1.5	4	E	56		
	LEAR	19	0832E	0832U	0851	S20	E18	5047	06	20.7	19D	SF	C 1.5	2	E	55		
0280		19	0924I	09247	0941	S18	E16	5047	06	20.6	17	SN				48	0.9	CE
	SVTO	19	0924	0924	0944	S17	E15	5047	06	20.5	20	SF		3	E	14		
	KAND	19	0925	0931	0938	S19	E18	5047	06	20.8	13	SB		P	0931	83	0.9	CE
0281	RAMY	19	1103	1105	1117	S22	E72	5053	06	25.0	14	SF		4	E	35		H
0282	RAMY	19	1151	1152	1157	S19	E17	5047	06	20.8	6	SF		4	E	26		H
0283	HOLL	19	1315	1316	1324	S17	E20	5047	06	21.1	9	SF		3	E	18		
0284		19	14308	1442	1504	N12	W76	5041	06	13.9	34	SF	C 1.0			24		F
	HOLL	19	1430	1442	1504	N11	W79	5041	06	13.7	34	SF	C 1.0	4	E	23		F
	RAMY	19	1438	1442	1549D	N14	W72	5041	06	14.2	71D	SF	C 1.0	2	E	25		F
0285	HOLL	19	1459	1506	1535	N33	W03	5051	06	19.4	36	SF		4	E	21		F
0286		19	1639	1644	1654	S17	E08	5047	06	20.3	15	SF				16		F
	HOLL	19	1639	1644	1656	S17	E08	5047	06	20.3	17	SF		4	E	18		F
	RAMY	19	1648E	1648U	1653	S17	E09	5047	06	20.4	5D	SF		2	E	15		
0287	RAMY	19	1847	1848	1855	S17	E10	5047	06	20.5	8	SF		3	E	12		
0288		19	2135I	2150I	2202	S16	E06	5047	06	20.3	27	SF				42		E
	PALE	19	2135	2150	2202	S17	E07	5047	06	20.4	27	SF		3	E	32		E
	HOLL	19	2136	2151	2202	S16	E06	5047	06	20.3	26	SF		3	E	53		
0289	HOLL	19	2335	2337	2345	N13	W80	5041	06	13.9	10	SF		3	E	33		
0290		20	0232	0233*	0240	S16	E04	5047	06	20.4	8	SF				72	1.4	D
	PEKG	20	0228E	0233	0240	S17	E04	5047	06	20.4	12D	SF		C	0233	126	1.4	D
	PALE	20	0232	0245	0253D	S16	E04	5047	06	20.4	21D	SF		3	E	19		
0291	TACH	20	0325	0329	0353	S18	E41		06	23.3	28	SN		C	0329	117	1.7	DGS
0292		20	0303*	0335*	0412	S17	E05	5047	06	20.5	69	SF				71	1.1	DEFJ
	TACH	20	0303	0329U	0424U	S16	E03	5047	06	20.3	81U	SB		C	0329	148	1.6	E
	LEAR	20	0333	0335	0407	S17	E04	5047	06	20.4	34	SF		3	E	21		F
	PALE	20	0336	0342	0402	S16	E04	5047	06	20.4	26	SF		3	E	21		F
	PEKG	20	0345	0348	0355	S17	E03	5047	06	20.4	10	SF		C	0348	84	0.9	E
	ABST	20	0359E	0400U	0442	S18	E11	5047	06	21.0	43D	SF		P	0400	79	0.9	DJ
0293	ABST	20	0743	0747	0755	N14	E89		06	27.0	12	1F		C	0747	70		D
		20	0919		0944	No Flare Patrol												
0294		20	1611I	16147	1639	S15	E05	5047	06	21.0	28	SF	C 1.4			23		F
	HOLL	20	1611	1619	1645	S15	E05	5047	06	21.0	34	SF	C 1.4	3	E	35		F
	RAMY	20	1612	1614	1644	S16	E05	5047	06	21.0	32	SF	C 1.4	3	E	24		F
	SVTO	20	1613E	1621	1629	S14	E05	5047	06	21.0	16D	SF	C 1.4	3	E	11		F
0295	HOLL	20	1620	1623	1630	N18	W77	5044	06	14.8	10	SF		3	E	13		
0296	RAMY	20	2114E	2119	2125	S26	E31	5054	06	23.3	11D	SF		3	E	19		
0297		20	2317*	2318*	2330	S17	W01	5047	06	20.9	13	SF				13		F
	HOLL	20	2317	2318	2322	S18	W03	5047	06	20.7	5	SF		4	E	14		
	HOLL	20	2328	2328	2339	S16	E01	5047	06	21.0	11	SF		4	E	12		F

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Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Imp See	Obs Type	Time (UT)	Area Measurement		Remarks	
																Apparent (10-6 Disk)	Corr (Sq Deg)		
0298		20 2357*	2411*	2456	S16	W02	5047	06	20.8	59	SF	C	3.3			45		F	
	LEAR	20 2357	2449	2519	S15	W04	5047	06	20.7	82	SF			3	E	75		F	
	HOLL	21 0007	0011	0021	S16	W01	5047	06	20.9	14	SF			4	E	15		F	
	HOLL	21 0045	0047	0048D	S17	W02	5047	06	20.9	3D	SF	C	3.3	4	E	53		F	
	PALE	21 0048E	0048U	0107	S16	E00	5047	06	21.0	19D	SF			3	E	36			
0299	HOLL	21 0045	0046	0048D	N36	W12	5051	06	20.1	3D	SF			4	E	18			
0300	LEAR	21 0049	0050	0100	S26	E29	5054	06	23.3	11	SF			3	E	40		F	
0301		21 02161	0221*	0318	S17	W02	5047	06	20.9	62	SF	C	3.2			94	0.5	EFS	
	LEAR	21 0216	0316	0343	S17	W03	5047	06	20.9	87	1N			3	E	137		FS	
	PALE	21 0217	0221	0336	S17	E00	5047	06	21.1	79	SF	C	3.2	2	E	96		F	
	URUM	21 0220E	0224	0234	S16	W03	5047	06	20.9	14D	SF	C	3.2		C	48	0.5	E	
0302		21 05251	05272	0541	S26	E27	5054	06	23.3	16	SN	C	7.0			60		U	
	LEAR	21 0525	0527	0541	S26	E26	5054	06	23.2	16	SN	C	7.0	3	E	80			
	SVTO	21 0526	0529	0541	S25	E28	5054	06	23.4	15	SF	C	7.0	3	E	40		U	
0303	HTPR	21 0609E		0640	S25	E25	5054	06	23.2	31D	SF				C	0630	20	0.2	E
0304	HTPR	21 0609E		0710	S17	W02	5047	06	21.1	61D	1N				C	0630	300	3.0	FI
0305	HTPR	21 0609E		0725	N24	W16		06	20.0	76D	SN				C	0647	20	0.2	
0306		21 06552	06552	0705	S26	E25	5054	06	23.2	10	SN					53	0.9	E	
	LEAR	21 0655	0655	0707	S26	E26	5054	06	23.3	12	SN			3	E	61			
	SVTO	21 0655	0656	0702	S25	E23	5054	06	23.1	7	SF			3	E	17			
	HTPR	21 0655	0656	0708	S25	E25	5054	06	23.2	13	SB				C	0656	80	0.9	E
	KANZ	21 0657	0657	0704	S26	E26	5054	06	23.3	7	SN			2					
0307	SVTO	21 0655	0657	0705	S22	E31	5055	06	23.7	10	SF			3	E	13			
0308	HTPR	21 0725	0727	0736	S26	E32	5055	06	23.8	11	SF				C	0727	10	0.1	
0309		21 07511	07516	0804	S17	W03	5047	06	21.1	13	SN	C	1.6			42	0.7	DEJ	
	KANZ	21 0751	0751	0805	S16	W03	5047	06	21.1	14	SN			2					
	HTPR	21 0751	0753	0807	S17	W03	5047	06	21.1	16	SB				C	0753	40	0.4	E
	LEAR	21 0752	0752	0800	S17	W02	5047	06	21.2	8	SN	C	1.6	3	E	20			
	SVTO	21 0752	0752	0804	S16	W03	5047	06	21.1	12	SF	C	1.6	3	E	22			
	ABST	21 0755E	0757	0805	S17	W03	5047	06	21.1	10D	SN				P	0757	87	1.0	DJ
0310		21 0804*	0812*	0832	N34	W17	5051	06	20.0	28	SF					84	1.0	D	
	ABST	21 0804	0812	0830D	N34	W17	5051	06	20.0	26D	SF				P	0812	157	2.0	D
	HTPR	21 0820	0827	0832	N35	W17	5051	06	20.0	12	SF				C	0827	10	0.1	
0311	HTPR	21 0857	0858	0904	S17	W14	5047	06	20.3	7	SF				C	0858	30	0.3	E
0312	HTPR	21 1006	1010	1030	S16	W08	5047	06	20.8	24	SF				C	1010	30	0.3	E
0313	HTPR	21 1148	1150	1210	S17	W12	5047	06	20.6	22	SF				C	1150	30	0.3	E
0314	HOLL	21 1248E	1249	1303	N35	W18	5051	06	20.1	15D	SF			4	E	31			
0315		21 1310*	1317*	1414	S17	W09	5047	06	20.9	64	SF	C	2.8			150	3.2	FIK	
	HTPR	21 1310	1317	1422	S17	W09	5047	06	20.9	72	1N				C	1317	320	3.2	FIK
	HOLL	21 1311	1318	1420	S16	W10	5047	06	20.8	69	SF	C	2.8	4	E	57		F	
	SVTO	21 1346	1348	1401	S17	W07	5047	06	21.0	15	SF			3	E	73			
0316	HTPR	21 1435	1444	1450	S18	W11	5047	06	20.8	15	SF				C	1444	20	0.2	E
0317		21 1549	15501	1606	S26	E22	5054	06	23.4	17	SN					38	0.6	E	
	HTPR	21 1549	1550	1612	S25	E22	5054	06	23.4	23	SN				C	1550	50	0.6	E
	HOLL	21 1549	1551	1559	S26	E21	5054	06	23.3	10	SF			4	E	25			
0318	HTPR	21 1607	1614	1621	S18	W14	5047	06	20.6	14	SN				C	1614	150	1.5	E

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	See	Obs Type	Time (UT)	Area Measurement		Remarks
																	Apparent (10-6 Disk)	Corr (Sq Deg)	
0319		21	16562	1701	1706	S18	W13	5047	06	20.7	10	SN					36	0.6	F
	HOLL	21	1656	1701	1706	S17	W12	5047	06	20.8	10	SF		3	E		12		F
	HTPR	21	1658		1716D	S18	W14	5047	06	20.6	18D	SN			C	1700	60	0.6	
0320	HTPR	21	1737	1745	1755	S24	E53	5053	06	25.8	18	SN			C	1745	50	0.8	
0321	HTPR	21	1750	1756	1800	S18	W14	5047	06	20.7	10	SF			C	1756	60	0.6	E
0322	HTPR	21	1817		1827D	S24	E52	5053	06	25.8	10D	SN			C	1819	40	0.6	E
0323	HOLL	21	1831	1833	1836	S17	W13	5047	06	20.8	5	SF		3	E		22		F
		21	2027		2032	No Flare Patrol													
		21	2111		2119	No Flare Patrol													
0324		21	2158	2215	2224	S18	W14	5047	06	20.8	26	SF	C 1.6				28		F
	HOLL	21	2158	2215	2241	S18	W16	5047	06	20.7	43	SF	C 1.6	3	E		29		
	RAMY	21	2200E	2200U	2206	S17	W13	5047	06	20.9	6D	SF	C 1.6	2	E		28		F
0325		21	2243*	23431	2458	S19	W16	5047	06	20.7	135	1N	C 1.6				177	3.3	EFIJKT
	VORO	21	2243	2343	2403	S23	W17	5047	06	20.6	80	1N		2	C	2343	296	3.3	EIJKT
	HOLL	21	2255E	2344U	2358D	S16	W17	5047	06	20.7	63D	1B	C 1.6	3	E		111		FE
	LEAR	21	2332	2344	2552	S18	W15	5047	06	20.8	140	1N	C 1.6	3	E		123		
0326		22	0043*	0055*	0126	S18	W17	5047	06	20.7	43	SF	C 2.6				97	1.8	DHIJT
	VORO	22	0043	0125U	0140U	S18	W17	5047	06	20.7	57U	1F		2	C	0125	224	2.5	DIJT
	HOLL	22	0047	0055	0103	S17	W14	5047	06	21.0	16	SF		3	E		19		
	MITK	22	0051E	0123	0146	S18	W18	5047	06	20.7	55D	SN			C	0123			H
	URUM	22	0107	0109	0120	S17	W19	5047	06	20.6	13	SN			C		96	1.1	D
	PALE	22	0121E	0122U	0133	S18	W17	5047	06	20.8	12D	SF	C 2.6	3	E		50		
0327	LEAR	22	0158	0159	0204	S18	W18	5047	06	20.7	6	SF		3	E		14		F
0328		22	0351*	04134	0430	S18	W19	5047	06	20.7	39	SN					77	1.2	DJ
	LEAR	22	0351	0413	0426	S18	W19	5047	06	20.7	35	SF		3	E		67		
	ABST	22	0410	0417	0434	S17	W19	5047	06	20.7	24	SN			C	0417	87	1.2	DJ
0329	ABST	22	0403E	0405U	0415	S19	E36		06	24.9	12D	SF		P	0405	131	1.6	BE	
0330		22	0521*	0527*	0608	S17	W18	5047	06	20.8	47	1F	C 4.3				204	2.6	EFIJ
	MITK	22	0519E	0527	0549	S17	W15	5047	06	21.1	30D	1N			C	0527	240	2.7	E
	LEAR	22	0521	0528	0630	S19	W15	5047	06	21.1	69	1N	C 4.3	3	E		98		F
	TACH	22	0521	0529U	0557D	S17	W17	5047	06	20.9	36D	2F			C	0529	561	6.4	J
	HTPR	22	0544	0548	0554	S17	W22	5047	06	20.6	10	SF			C	0548	60	0.6	EI
	HTPR	22	0603	0611	0620	S16	W19	5047	06	20.8	17	SF			C	0611	60	0.6	E
0331	HTPR	22	0810	0813	0817	S18	W25	5047	06	20.4	7	SF			C	0813	20	0.2	
0332	HTPR	22	0817	0820	0830	S19	W22	5047	06	20.7	13	SF			C	0820	20	0.2	
0333		22	0900*	09102	0916	S18	W20	5047	06	20.8	16	SF	C 1.0				36	0.4	EH
	HTPR	22	0900	0910	0917	S20	W19	5047	06	20.9	17	SF			C	0910	50	0.5	E
	SVTO	22	0903	0912	0916	S19	W21	5047	06	20.8	13	SF	C 1.0	3	E		19		H
	HTPR	22	0910	0912	0915	S15	W20	5047	06	20.9	5	SN			C	0912	40	0.4	
0334	HTPR	22	0931	0935	0945	S15	W20	5047	06	20.9	14	SF			C	0935	30	0.3	E
0335	HTPR	22	1003	1004	1007	S15	W21	5047	06	20.8	4	SN			C	1004	30	0.3	
0336	HTPR	22	1058	1100	1110	S21	E30		06	24.7	12	SN			C	1100	40	0.4	E
0337		22	11111	11121	1120	S18	W28	5047	06	20.3	9	SN	C 1.5				70	1.3	EFV
	HTPR	22	1111	1112	1124	S17	W28	5047	06	20.3	13	SB			C	1112	120	1.3	EV
	SVTO	22	1112	1113	1116	S18	W28	5047	06	20.3	4	SF	C 1.5	3	E		21		F
0338	HTPR	22	1132	1135	1136	S14	W20	5047	06	21.0	4	SF			C	1135	30	0.3	E
		22	1144		1149	No Flare Patrol													

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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)
0339		22	1344*	1353*	1423	S17	W24	5047	06	20.7	39	SF			41	1.0	EI	
	HOLL	22	1344	1353	1400D	S16	W20	5047	06	21.0	16D	SF	3	E	12			
	HTPR	22	1350	1412	1434	S17	W28	5047	06	20.4	44	SN		C	1412	100	1.0	EI
	SVTO	22	1403	1403	1412	S19	W24	5047	06	20.7	9	SF	3	E	10			
0340	RAMY	22	1513E	1513U	1526	S18	W25	5047	06	20.7	13D	SF		E	30			
0341	SVTO	22	1647	1648	1655	S18	W25	5047	06	20.8	8	SF	C 5.9	3	E	13		
		22	1729		1731	No Flare Patrol												
		22	1839		1859	No Flare Patrol												
		22	2147		2222	No Flare Patrol												
0342	MITK	22	2344E	2345	2358	S18	W30	5047	06	20.7	14D	SN		C	2345			D
0343	PALE	23	0053	0102	0108	S17	W27	5047	06	21.0	15	SF		E	16			F
0344	LEAR	23	0215	0216	0229	S17	W27	5047	06	21.0	14	SF		E	18			
0345	LEAR	23	0236	0239	0252	S19	W31	5047	06	20.7	16	SF	C 1.1	3	E	22		
0346	PALE	23	0315	0315	0319	S17	W32	5047	06	20.7	4	SF		E	17			
0347	PALE	23	0353	0355	0414D	S18	W32	5047	06	20.7	21D	SF		E	38			
0348	SVTO	23	0531E	0532U	0532D	S18	W45	5047	06	19.8	1D	SN		E	50			
0349		23	0553*	0555*	0610	S16	W34	5047	06	20.7	17	SF			21	0.2		
	HTPR	23	0553	0555	0607	S15	W37	5047	06	20.4	14	SF		C	0555	20	0.2	
	HTPR	23	0601	0606	0611	S16	W33	5047	06	20.7	10	SF		C	0606	30	0.3	
	LEAR	23	0606	0606	0612	S16	W31	5047	06	20.9	6	SF	4	E	12			
0350	HTPR	23	0626	0633	0637	S15	W37	5047	06	20.5	11	SF		C	0633	40	0.5	E
0351	HTPR	23	0729	0731	0750	S18	E90		06	30.2	21	SF		C	0731	10		
0352	HTPR	23	0750	0751	0752	N36	W46	5051	06	19.6	2	SF		C	0751	10	0.1	
0353		23	0907*	09203	0938	S18	W32	5047	06	20.9	31	1B X 1.6			206	3.0	BEFIUVZ	
	HTPR	23	0907		0924D	S17	W30	5047	06	21.1	17D	1B		C	0921	200	2.2	EI
	KAND	23	0912	0920	0938	S17	W33	5047	06	20.9	26	1B X 1.6		P	0920	187	2.4	EIVZ
	YUNN	23	0916	0923	1009D	S19	W35	5047	06	20.7	53D	2B X 1.6		P	0934	482	6.5	F
	LEAR	23	0920	0922	0929D	S18	W33	5047	06	20.9	9D	SB X 1.6	3	E		61		ZU
	HTPR	23	0946E		1006D	S17	W30	5047	06	21.1	20D	SN		C	0946	100	1.1	BEI
0354	SVTO	23	1033	1046	1119	S17	W31	5047	06	21.1	46	SF		E	31			
0355	RAMY	23	1135	1142	1209	S18	W36	5047	06	20.7	34	SF		E	14			H
0356		23	1217	1229	1257	S18	W38	5047	06	20.6	40	SN			22			F
	RAMY	23	1217	1229	1257	S19	W36	5047	06	20.8	40	SF	3	E	19			
	HOLL	23	1233E	1235U	1305D	S17	W39	5047	06	20.5	32D	SN	2	E	25			F
0357		23	13128	13203	1330	S19	W38	5047	06	20.6	18	SF	C 1.7		21	0.5	E	
	HTPR	23	1312	1320	1329	S18	W40	5047	06	20.5	17	SN		C	1320	40	0.5	E
	RAMY	23	1314	1323	1332	S19	W38	5047	06	20.6	18	SF	C 1.7	3	E	14		
	HOLL	23	1320	1320	1330	S19	W37	5047	06	20.7	10	SF	C 1.7	3	E	10		
0358	RAMY	23	1431	1434	1442	S25	E25	5056	06	25.5	11	SF		E	14			
0359		23	17503	17571	1848	S17	W37	5047	06	20.9	58	1B M 8.1			229			F
	HOLL	23	1738E	1758	2046D	S17	W35	5047	06	21.1	188D	1B M 8.1	3	E	214			F
	RAMY	23	1750	1756U	1812D	S18	W40	5047	06	20.7	22D	2B M 8.1	2	E	253			F
	PALE	23	1753	1757	1848	S17	W35	5047	06	21.1	55	1B M 8.1	3	E	220			F
0360	PALE	23	1938	1945	2003	S17	W36	5047	06	21.1	25	SF		E	39			F
0361	PALE	23	2027	2034	2048	S17	W36	5047	06	21.1	21	SF		E	38			F

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Grp #	Sta	Start Day (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)
		23 2125		2144		No Flare Patrol										
		23 2242		2256		No Flare Patrol										
		23 2317		2332		No Flare Patrol										
0362		24 00133	00282	0056	S17 W40	5047	06 21.0	43	SF	C 3.6				52		F
	PALE	24 0013	0030	0057	S17 W39	5047	06 21.0	44	SF	C 3.6	3	E		83		F
	LEAR	24 0016	0028	0055	S17 W40	5047	06 21.0	39	SF	C 3.6	3	E		22		
0363	LEAR	24 0140	0143	0146	N36 W50	5051	06 20.0	6	SF	C 3.3	3	E		20		
0364	LEAR	24 0218	0219	0230	S19 W41	5047	06 21.0	12	SF		3	E		18		
0365		24 0256*	0308*	0354	S16 W42	5047	06 20.9	58	1N	C 4.9				208	4.5	FT
	LEAR	24 0256	0313	0403	S18 W43	5047	06 20.8	67	SN	C 4.9	3	E		62		
	YUNN	24 0306	0308	0348	S17 W43	5047	06 20.9	42	2B	C 4.9		C		482	7.2	FT
	TACH	24 0312E	0317U	0350D	S15 W43	5047	06 20.9	38D	2N			V	0317	400	6.0	F
	PALE	24 0312	0322	0401	S16 W42	5047	06 20.9	49	SN		3	E		71		F
	YUNN	24 0337	0339	0345	S13 W40	5047	06 21.1	8	SF	C 2.0		C		24	0.3	T
0366		24 04163	04228	0634	S17 W44	5047	06 20.8	138	2B	X 1.3				404	8.5	BEFTZ
	YUNN	24 0416	0425	0608	S18 W47	5047	06 20.6	112	3B	X 1.3		C		804	12.9	FT
	LEAR	24 0418	0430	0701	S18 W45	5047	06 20.7	163	1B	X 1.3	3	E		223		ZF
	PALE	24 0419	0422	0424D	S16 W42	5047	06 21.0	5D	1B	X 1.3	3	E		163		F
	TACH	24 0422E	0425U	0550D	S15 W43	5047	06 20.9	88D	2N			V	0425	480	7.2	F
	ABST	24 0442E	0442U	0446D	S18 W44	5047	06 20.8	4D	2N			P	0442	349	5.4	BE
0367	LEAR	24 0633	0633	0638	N36 W60	5051	06 19.4	5	SF		3	E		26		
0368	LEAR	24 0732	0739	0841	S18 W46	5047	06 20.8	69	SF	C 9.5	3	E		55		
0369	LEAR	24 0828	0830	0840	S24 E17	5056	06 25.7	12	SF		3	E		25		
		24 1001		1127		No Flare Patrol										
0370	RAMY	24 1128E	1156	1202	S17 W45	5047	06 21.0	34D	SF		3	E		35		
0371		24 1224	1232	1349	S17 W49	5047	06 20.8	85	1N	C 8.4				64		F
	RAMY	24 1224	1232	1349	S17 W49	5047	06 20.8	85	1N	C 8.4	3	E		102		
	HOLL	24 1233E	1235U	1305D	S17 W49	5047	06 20.8	32D	SN	C 8.4	2	E		25		F
0372	RAMY	24 1349	1352	1403	N35 W56	5051	06 20.1	14	SF	C 7.4	3	E		17		
0373	RAMY	24 1603	1648	1654D	S17 W52	5047	06 20.7	51D	2B	X 2.4	3	E		323		FZ
		24 1655		1706		No Flare Patrol										
0374	HOLL	24 1707E	1711U	1829D	S17 W52	5047	06 20.8	82D	1B	X 2.4	2	E		138		F
		24 1716		1817		No Flare Patrol										
0375	HOLL	24 1846E	1852U	1859	S22 E90	5060	07 1.7	13D	SN		3	E		64		
0376	RAMY	24 1920	1920	1942	S17 W52	5047	06 20.8	22	SF	C 8.2	3	E		54		
0377	RAMY	24 2116	2120	2131	N35 W59	5051	06 20.2	15	SF		3	E		12		
0378		24 21221	2128	2153	S20 E90	5060	07 1.8	31	1B	M 3.3				98		
	HOLL	24 2122	2126U	2133D	S19 E90	5060	07 1.7	11D	SB	M 3.3	3	E		76		
	RAMY	24 2123	2128	2153	S21 E89	5060	07 1.7	30	1B	M 3.3	3	E		119		
		24 2153		2158		No Flare Patrol										
0379	PALE	24 2306	2308	2338	S18 E89	5060	07 1.7	32	SF		3	E		51		E
0380	HOLL	24 2352	2355	2359	S23 E87	5060	07 1.7	7	SF		3	E		18		
0381		25 0219E	0224	0246	S23 E89	5060	07 1.9	27D	1N					116		AH
	PALE	25 0219E	0224U	0237D	S23 E89	5060	07 1.9	18D	1F		3	E		185		
	YUNN	25 0223E	0224	0246	S23 E89	5060	07 1.9	23D	SN			C		48		AH

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Type	Area Measurement			Remarks
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0382	YUNN	25	0315	0325	0339	S26	W24		06	23.3	24	SN			C		64	0.8	
0383		25	0322*	0325*	0406	S17	W58	5047	06	20.7	44	SN	C	6.1			88	2.0	EFT
	YUNN	25	0322	0325	0427	S18	W58	5047	06	20.7	65	SN			C		64	1.4	T
	URUM	25	0330	0335	0346	S18	W58	5047	06	20.7	16	1N	C	6.1	C		129	2.7	E
	PALE	25	0337	0338	0403D	S16	W58	5047	06	20.7	26D	SF	C	6.1	3	E	71		F
0384	PALE	25	0409	0412	0416	S17	W59	5047	06	20.7	7	SF			3	E	49		
0385	YUNN	25	0525	0527	0546	S15	W64	5047	06	20.4	21	SN	C	3.2	C		48		T
0386	TACH	25	0528	0529	0540	S27	W29		06	23.0	12	1B			C	0529	209	2.8	D
0387		25	0645	0652	0729D	S20	W60	5047	06	20.7	44D	2N	M	1.7			290	4.1	E
	YUNN	25	0645	0656U	0729D	S22	W63	5047	06	20.4	44D	2F	M	1.7	P	0656	386		
	URUM	25	0651E	0652	0655D	S17	W58	5047	06	20.9	4D	1N	M	1.7	C		193	4.1	E
		25	0801		0815	No Flare Patrol													
0388		25	0822E		0857	S18	W54	5047	06	21.2	35D	SN					50	0.8	E
	HTPR	25	0822E		0857	S20	W53	5047	06	21.3	35D	SN			C	0826	60	0.9	E
	HTPR	25	0822E		0920D	S16	W56	5047	06	21.1	58D	SN			C	0826	40	0.7	
0389	HTPR	25	0826		0920D	S18	E90	5060	07	2.2	54D	SF			C	0835	20		
0390	KHAR	25	0840		0849	S15	W67	5047	06	20.3	9	SF			2	V	0840		DH
		25	0954		0955	No Flare Patrol													
		25	1026		1030	No Flare Patrol													
0391	RAMY	25	1109	1113	1124	S19	W65	5047	06	20.5	15	SF	M	1.7	3	E		20	
0392		25	1113	1115	1132	S20	E78	5060	07	1.4	19	1N					91		EH
	RAMY	25	1113	1115	1132	S20	E73	5060	07	1.0	19	1N			3	E	122		H
	HTPR	25	1123E		1200D	S20	E84	5060	07	1.9	37D	SF			C	1124	60		E
0393	HTPR	25	1141	1146	1215	S16	W57	5047	06	21.2	34	SN			C	1146	60	1.1	E
0394	HTPR	25	1213		1219D	S18	E90	5060	07	2.4	6D	SN			C	1219	30		E
0395		25	1248E	1256*	1344	S16	W64	5047	06	20.7	56D	SN	M	1.3			48		F
	RAMY	25	1248E	1256	1342	S16	W66	5047	06	20.5	54D	SN	M	1.3	3	E	77		F
	HOLL	25	1329E	1332	1346	S17	W63	5047	06	20.8	17D	SF			3	E	18		F
0396		25	1636	16396	1656	S20	E87	5060	07	2.3	20	SN	M	6.0			70		E
	RAMY	25	1636	1639	1654	S21	E89	5060	07	2.5	18	SN	M	6.0	3	E	95		E
	HOLL	25	1636	1645	1657	S20	E89	5060	07	2.5	21	SB	M	6.0	4	E	91		
	PALE	25	1645E	1647U	1701D	S20	E83	5060	07	2.0	16D	SF	M	6.0	2	E	24		E
0397	RAMY	25	1657	1714	1725	N35	W72	5051	06	19.9	28	SF			3	E		20	
0398		25	1723	17233	1738	S17	W69	5047	06	20.5	15	SF					18		
	RAMY	25	1723	1723	1738	S17	W70	5047	06	20.4	15	SF			3	E	20		
	HOLL	25	1723	1726	1737	S17	W68	5047	06	20.5	14	SF			3	E	16		
0399	HOLL	25	1728	1730	1736	N35	W72	5051	06	20.0	8	SF			3	E		10	
0400	HOLL	25	1738	1741	1755	N35	W71	5051	06	20.0	17	SF			4	E		16	
0401	HOLL	25	1825	1834	1838	N35	W71	5051	06	20.1	13	SF			3	E		17	
0402		25	18272	18305	1842	S22	E86	5060	07	2.4	15	SF					38		
	HOLL	25	1827	1835	1839	S22	E84	5060	07	2.2	12	SF			3	E	34		
	PALE	25	1829	1830	1844	S21	E89	5060	07	2.6	15	SF			3	E	41		
0403		26	00146	0023*	0033	S20	E90	5060	07	2.9	19	1N	C	8.5			118		DHIT
	PALE	26	0014	0101	0117D	S20	E89	5060	07	2.8	63D	SF	C	8.5	3	E	40		
	VORO	26	0020	0023	0033	S21	E90	5060	07	2.9	13	1N			2	C	0023	197	DHIT

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Grp #	Sta	Start Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Type	Area Measurement			Remarks	
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0404	PALE	26	0309	0309	0329D	N35	W76	5051	06	20.0	20D	SF		3	E		29			
			26 0441		0547															
0405	LEAR	26	0703	0705	0709	S21	E80	5060	07	2.4	6	SF		3	E		36		F	
			26 0801		0804															
			26 0853		1025															
0406	RAMY	26	1233	1241	1257	S17	W77	5047	06	20.7	24	SF		3	E		30		F	
0407	RAMY	26	1248	1248	1253	N12	E81	5062	07	2.6	5	SF	C 4.3	3	E		11			
0408	RAMY	26	1256	1257	1305	S22	E78	5060	07	2.5	9	SF		3	E		34			
			26 1329		1334															
0409	RAMY	26	1335	1337	1341	N13	E80	5062	07	2.6	6	SF		3	E		24			
0410		26	1340	1345U	1353	S20	W78	5047	06	20.6	13	1N	M 1.3				88		E	
	RAMY	26	1340	1345U	1357	S18	W77	5047	06	20.7	17	1N	M 1.3	3	E		151		E	
	SVTO	26	1346E	1347U	1349	S21	W79	5047	06	20.5	3D	SF	M 1.3	1	E		26			
0411	RAMY	26	1423	1430U	1441	S22	E67	5060	07	1.7	18	SN		2	E		60		F	
0412	RAMY	26	1529E	1533	1546	S22	E76	5060	07	2.5	17D	SF		2	E				F	
0413	RAMY	26	1608	1610	1611	S21	E71	5060	07	2.1	3	SF		3	E		18		F	
0414		26	1630	1630	1636	S17	W78	5047	06	20.8	6	SF					52			
	HOLL	26	1630	1630	1635	S18	W78	5047	06	20.7	5	SF		4	E		44			
	RAMY	26	1630	1630	1637	S16	W78	5047	06	20.8	7	SF		3	E		60			
0415	HOLL	26	1640	1640	1645	S20	E70	5060	07	2.0	5	SF		4	E		11			
0416		26	17362	17362	1750	S18	W79	5047	06	20.7	14	SN					67			
	HOLL	26	1736	1736	1749	S17	W79	5047	06	20.7	13	SN		3	E		92			
	PALE	26	1738	1738	1752	S19	W79	5047	06	20.7	14	SF		3	E		42			
			26 1832		1842															
			26 1954		2019															
			26 2049		2058															
			26 2105		2133															
			26 2141		2209															
0417	RAMY	26	2211E	2211U	2228	N12	E74	5062	07	2.5	17D	SF		3	E		19			
			26 2315		2327															
			27 0019		0032															
0418	PALE	27	0035	0046	0052	N13	E78	5062	07	2.9	17	SN		3	E		78			
			27 0146		0154															
0419	PALE	27	0249E	0249U	0310	S20	W89	5047	06	20.3	21D	SN	C 7.8	3	E		80			
0420	PALE	27	0249E	0304	0358	S20	E66	5060	07	2.2	69D	SN	M 1.1	3	E		99			
			27 0257		0259															
0421	ABST	27	0436	0443	0456	S25	W15		06	26.0	20	SF				C	0443	122	1.4	E
0422		27	05062	0510	0519	N14	E69	5062	07	2.4	13	1N						60		DJ
	ABST	27	0506	0510	0520	N15	E70	5062	07	2.5	14	1N				C	0510	87		DJ
	LEAR	27	0508	0510	0518	N13	E68	5062	07	2.3	10	SF		3	E		33			
0423	ABST	27	0540	0543	0546	S20	E62	5060	07	2.0	6	SF				C	0543	87	2.0	DJ

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/	CMP	Dur	Imp	Obs	Area	Measurement	Corr	Remarks		
								USAF Region									Mo	Day
0424		27	0548*	0558*	0622	N14	E68	5062	07	2.4	34	SF M 1.3			43	DJ		
	ABST	27	0548	0619	0628	N15	E71	5062	07	2.6	40	1F	C	0619	87	DJ		
	LEAR	27	0549	0558	0607	N13	E67	5062	07	2.3	18	SF M 1.3	3	E	21			
	LEAR	27	0612	0618	0634	N12	E67	5062	07	2.3	22	SN	3	E	53			
	SVTO	27	0616	0617	0621	N15	E68	5062	07	2.4	5	SF	3	E	10			
0425	YUNN	27	0825E	0825U	0827	S24	W27		06	25.3	2D	SN		P	0825	48	0.6	D
0426	LEAR	27	0829	0832	0837	N13	E66	5062	07	2.3	8	SF C 2.3	3	E		21		
0427	YUNN	27	0835	0838	0846	S18	E61	5060	07	2.0	11	SN		C		24	0.6	E
0428		27	0904	0919U	0938	S19	E60	5060	07	1.9	34	1N			24	0.5	DE	
	YUNN	27	0904	0919U	0919D	S18	E58	5060	07	1.8	15D	SB		P	0919	24	0.5	D
	KHAR	27	0915E		0938	S20	E61	5060	07	2.0	23D	1F	2	C	0919			E
0429	YUNN	27	0917E	0919U	0919D	N13	E66	5062	07	2.4	2D	SN		P	0919	16		D
0430		27	09422	0944	0954	N13	E66	5062	07	2.4	12	SF C 6.8			28		EF	
	KHAR	27	0942	0945U	0948D	N12	E66	5062	07	2.4	6D	1N	2	V	0945		E	
	SVTO	27	0943	0944	0951	N16	E67	5062	07	2.5	8	SF C 6.8	3	E		28		F
	KANZ	27	0944	0944	0956	N12	E66	5062	07	2.4	12	SF	2					
0431		27	11522	11531	1205	S20	E58	5060	07	1.9	13	SF C 2.5			29			
	RAMY	27	1152	1153	1207	S20	E59	5060	07	2.0	15	SF C 2.5	4	E		29		
	KANZ	27	1154	1154	1203	S20	E56	5060	07	1.8	9	SF	1					
0432	RAMY	27	1302	1304	1309	S19	E55	5060	07	1.7	7	SF	3	E		14		
0433		27	1357	1403	1419	S18	E55	5060	07	1.8	22	SF			29			
	RAMY	27	1357	1403	1419	S18	E55	5060	07	1.8	22	SF	3	E		29		
	KANZ	27	1404E	1404U	1411D	S18	E55	5060	07	1.8	7D	SF	2					
0434		27	1438	1443	1508	N14	E61	5062	07	2.2	30	1N C 7.3			76		EF	
	RAMY	27	1438	1443	1514	N13	E61	5062	07	2.2	36	1N C 7.3	3	E	113		FE	
	SVTO	27	1445E	1458U	1502	N16	E61	5062	07	2.2	17D	SF C 7.3	2	E	39			
0435	RAMY	27	1458	1459	1506	S20	E57	5060	07	2.0	8	SF	3	E		11		F
0436	RAMY	27	1459	1459	1506	S24	W33	5056	06	25.1	7	SF	3	E		11		
0437	RAMY	27	1617	1617	1623	S18	E53	5060	07	1.7	6	SF C 2.4	3	E		32		
0438	RAMY	27	1641	1642	1647	N13	E62	5062	07	2.4	6	SF	3	E		19		
0439	RAMY	27	1832	1833	1836	N13	E61	5062	07	2.4	4	SF	3	E		23		F
		27	1902		1906	No Flare Patrol												
0440	HOLL	27	1907E	1908U	1919D	N14	E61	5062	07	2.4	12D	SF	2	E		25		F
		27	1920		1952	No Flare Patrol												
0441	HOLL	27	1953E	1955U	2026	N14	E60	5062	07	2.4	33D	SN C 8.8	2	E		60		F
		27	2030		2059	No Flare Patrol												
0442	PALE	27	2154	2220	2255	S20	E49	5060	07	1.7	61	SF C 2.4	3	E		44		
0443	PALE	27	2223	2226	2235	N14	E61	5062	07	2.5	12	SF	3	E		11		
0444		27	2301	23021	2329	S18	E50	5060	07	1.8	28	SN C 6.8			70			
	HOLL	27	2301E	2302	2304D	S16	E51	5060	07	1.8	3D	SN C 6.8	2	E	80			
	PALE	27	2301	2303	2329	S20	E49	5060	07	1.7	28	SN C 6.8	3	E	60			
0445		28	0001	00014	0012	S20	E52	5060	07	2.0	11	SF C 3.4			20			
	HOLL	28	0001	0001	0014	S17	E52	5060	07	1.9	13	SF C 3.4	3	E	23			
	PALE	28	0001	0005	0009	S23	E52	5060	07	2.0	8	SF C 3.4	3	E	16			

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			CMP Mo	Dur Day	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks	
						Lat	CMD	Region							Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
0446	PALE	28	0003	0015	0039	N14	E60	5062	07	2.5	36	SF	3	E		15			
0447	HOLL	28	0015	0018U	0019D	S19	E46	5060	07	1.5	4D	SF	2	E		16			
0448	28	01182	01201	0130	S22	E54	5060	07	2.2	12	SN	C 1.9			20	0.4	ET		
	YUNN	28	0118	0120	0131	S20	E50	5060	07	1.9	13	SB	C 1.9	C	24	0.4	ET		
	PALE	28	0120	0121	0129	S23	E58	5060	07	2.5	9	SF	C 1.9	3	E	15			
0449	28	01521	01537	0207	S22	E56	5060	07	2.4	15	SF				22	0.8	DT		
	PALE	28	0152	0153	0212	S23	E57	5060	07	2.5	20	SF	3	E	15				
	YUNN	28	0152	0200	0208	S21	E56	5060	07	2.4	16	SN		C	40	0.8	DT		
	LEAR	28	0153	0153	0202	S22	E55	5060	07	2.3	9	SF	3	E	10				
0450	LEAR	28	0152	0154	0157	S25	W34	5056	06	25.4	5	SF	3	E		17			
0451	PALE	28	0338	0338	0350	S23	E50	5060	07	2.0	12	SF	C 4.9	3	E		11		
0452	28	04115	04133	0422	S22	E52	5060	07	2.2	11	1N				74	2.5	EFH		
	PALE	28	0411	0413	0416	S21	E51	5060	07	2.1	5	SF	3	E	19		F		
	MITK	28	0416	0416	0429	S23	E54	5060	07	2.3	13	1N		C	0416	130	2.5	EH	
0453	LEAR	28	0414	0430	0437	N13	E55	5062	07	2.3	23	SF	3	E		19			
0454	28	0418*	0427*	0512	S21	E51	5060	07	2.1	54	1N	M 1.3			179	4.7	DEFJT		
	YUNN	28	0418	0427	0434	S20	E50	5060	07	2.0	16	1N		C	289	5.0	FT		
	PALE	28	0421	0445	0450D	S23	E48	5060	07	1.9	29D	1N	M 1.3	2	E	158			
	LEAR	28	0424	0427	0430	S20	E50	5060	07	2.0	6	SF	3	E	13				
	ABST	28	0425	0427	0437	S22	E54	5060	07	2.3	12	SF		C	0427	87	1.6	DJ	
	YUNN	28	0440	0448	0537	S20	E50	5060	07	2.0	57	2B	M 1.3	C	466	8.1	FT		
	LEAR	28	0443	0444	0531	S19	E49	5060	07	1.9	48	SN	M 1.3	3	E	46		F	
	ABST	28	0443	0458	0552	S21	E52	5060	07	2.2	69	2N		C	0458	306	5.5	FJ	
	SVTO	28	0444	0445	0514	S23	E50	5060	07	2.0	30	SN	M 1.3	3	E	64		F	
	MITK	28	0445	0447	0538	S23	E54	5060	07	2.3	53	1N		C	0447	180	3.5	E	
0455	28	0558*	0600*	0613	S16	E50	5060	07	2.0	15	SF				97	2.1	DJT		
	SVTO	28	0558	0600	0603	S16	E48	5060	07	1.9	5	SF	3	E	13				
	ABST	28	0558	0600	0607	S16	E50	5060	07	2.0	9	SF		C	0600	96	1.6	DJ	
	YUNN	28	0600	0600U	0619	S16	E49	5060	07	2.0	19	1N		P	0600	193	3.2	T	
	ABST	28	0609	0613	0622	S15	E55	5060	07	2.4	13	SF		C	0613	87	1.6	DJ	
0456	ABST	28	0718	0719	0725	S16	E50	5060	07	2.1	7	SF		C	0719	96	1.6	DJV	
0457	28	07406	07442	0748	S16	E44	5060	07	1.6	8	SN				115	3.2	ET		
	MITK	28	0740		0743D	S17	E47	5060	07	1.9	3D	SN		P	0743			E	
	SVTO	28	0740	0744	0748	S16	E45	5060	07	1.7	8	SF	3	E	21				
	YUNN	28	0741E	0741U	0749	S16	E45	5060	07	1.7	8D	1N		P	0741	209	3.2	ET	
	KANZ	28	0746	0746	0750D	S16	E41	5060	07	1.4	4D	SF	2						
0458	LEAR	28	0748	0748	0754	S23	E49	5060	07	2.1	6	SF	3	E		24			
0459	28	0815	08166	0826	S20	E51	5060	07	2.2	11	SN	M 1.5			109	2.7	DT		
	BUCA	28	0814E	0816	0823	S21	E52	5060	07	2.3	9D	SN	M 1.5	C	0816	64	1.1		
	LEAR	28	0815	0816	0823	S20	E50	5060	07	2.2	8	SN	M 1.5	3	E	23			
	YUNN	28	0818E	0822	0831	S20	E51	5060	07	2.2	13D	1N	M 1.5	P	241	4.3	DT		
0460	28	0825	0826	0831	N14	E54	5062	07	2.4	6	SF				40	0.7	D		
	BUCA	28	0825	0826	0828	N14	E54	5062	07	2.4	3	SF		C	0826	43	0.7	D	
	LEAR	28	0825	0826	0834	N13	E53	5062	07	2.3	9	SF	3	E	36				
0461	28	0902*	0913*	0928	N13	E51	5062	07	2.2	26	SF				53	1.6			
	LEAR	28	0902	0913	0926	N13	E51	5062	07	2.2	24	SF	3	E	36				
	SVTO	28	0921	0922	0931	N14	E52	5062	07	2.3	10	SF	3	E	28				
	YUNN	28	0921	0923	0928	N13	E51	5062	07	2.2	7	SN		C	96	1.6			
0462	HTPR	28	0929E		0940	S20	E32		06	30.8	11D	SN		C	0931	20	0.2		
0463	28	09361	09381	0950	S20	E50	5060	07	2.2	14	1N	C 7.3			92	2.2	E		
	HTPR	28	0936	0939	0954	S21	E48	5060	07	2.1	18	1B		C	0939	140	2.2	E	
	SVTO	28	0937	0938	0945	S20	E51	5060	07	2.3	8	SF	C 7.3	3	E	43			

Ha SOLAR FLARES

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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	(Min)		Opt	Xray	See
0464		28	09476	0957	1018	S21	E34		07	1.0	31	1N			200	2.2	EH		
	HTPR	28	0947		1008D	S20	E31		06	30.8	21D	1B		C	0957	200	2.2	E	
	KHAR	28	0953	0955U	1015U	S22	E37		07	1.2	22U	1N	2	V	0955			H	
	KANZ	28	0954E	0957	1018	S21	E34		07	1.0	24D	1N	2						
0465	SVTO	28	1012	1013	1018	N12	E53	5062	07	2.4	6	SF M 3.2	3	E			18		
0466		28	1034	10361	1040	S22	E50	5060	07	2.3	6	SN							
	KHAR	28	1034	1036	1039D	S22	E52	5060	07	2.4	5D	SN	2	V	1036				
	KANZ	28	1034	1037	1040	S22	E49	5060	07	2.2	6	SF	2						
0467		28	10462	10471	1055	S22	E48	5060	07	2.1	9	SF					25		
	SVTO	28	1046	1047	1055	S23	E47	5060	07	2.1	9	SF	3	E			25		
	KANZ	28	1048	1048	1055	S22	E49	5060	07	2.2	7	SF	2						
0468		28	10585	1109*	1123	N15	E49	5062	07	2.2	25	SF					46	E	
	SVTO	28	1058	1109	1121	N16	E50	5062	07	2.2	23	SF	3	E			75		
	KANZ	28	1103	1110	1122	N14	E48	5062	07	2.1	19	SF	2					E	
	RAMY	28	1119E	1124	1127	N14	E50	5062	07	2.2	8D	SF	2	E			16		
0469		28	11091	1116*	1133	S21	E47	5060	07	2.1	24	SN M 4.5					40	F	
	SVTO	28	1109	1116	1119	S23	E47	5060	07	2.1	10	SF M 4.5	3	E			18		
	RAMY	28	1110E	1124U	1144D	S21	E48	5060	07	2.1	34D	SN M 4.5	2	E			62	F	
	KANZ	28	1110	1126	1147	S20	E47	5060	07	2.1	37	SN	2						
0470		28	1204*	12142	1222	S16	E48	5060	07	2.1	18	SF					52	F	
	RAMY	28	1204	1216	1221	S16	E48	5060	07	2.1	17	SF	3	E			52	F	
	KANZ	28	1214	1214	1223	S16	E48	5060	07	2.1	9	SF	2						
0471		28	1238	1238	1243	N14	E50	5062	07	2.3	5	SF					26		
	SVTO	28	1238	1238	1243	N15	E50	5062	07	2.3	5	SF	3	E			26		
	KANZ	28	1238	1238	1243	N12	E51	5062	07	2.4	5	SF	2						
0472	RAMY	28	1312	1325	1413	S22	E45	5060	07	2.0	61	SF C 5.5	3	E			38	F	
		28	1443		1452	No Flare Patrol													
		28	1507		1525	No Flare Patrol													
		28	1605		1622	No Flare Patrol													
0473		28	1653*	1659*	1741	S23	E42	5060	07	1.9	48	SF C 8.8					71	EF	
	RAMY	28	1653	1732	1809	S24	E43	5060	07	2.0	76	1F C 8.8	3	E			104	FE	
	PALE	28	1659	1659	1713	S26	E41	5060	07	1.9	14	SF	3	E			18		
	PALE	28	1726	1728	1743	S20	E41	5060	07	1.9	17	SN M 2.4	3	E			85		
	SVTO	28	1736E	1736U	1740	S23	E43	5060	07	2.0	4D	SF M 2.4	1	E			78		
0474	HOLL	28	1919	1921	1948	S20	E46	5060	07	2.3	29	SF	3	E			36	F	
0475		28	19553	1959	2036	S21	E42	5060	07	2.0	41	SB M 2.1					75	EFU	
	HOLL	28	1955	1959	2051	S19	E45	5060	07	2.3	56	SB M 2.1	3	E			86	UF	
	PALE	28	1958	1959	2022	S23	E39	5060	07	1.8	24	SB M 2.1	3	E			71	FE	
	RAMY	28	2004E	2004U	2028D	S21	E43	5060	07	2.1	24D	SB M 2.1	3	E			67	F	
0476	HOLL	28	2052	2058	2119	S18	E30	5058A	07	1.1	27	SF	3	E			19		
0477	HOLL	28	2113	2114	2122	N14	E46	5062	07	2.4	9	SF	3	E			14		
0478	RAMY	28	2127	2128	2131	N12	E47	5062	07	2.4	4	SF C 5.6	3	E			20		
0479		28	2134	22081	2244	S18	E40	5060	07	1.9	70	1N					104	EF	
	HOLL	28	2128E	2209	2309	S18	E40	5060	07	1.9	101D	1N	2	E			105	FE	
	PALE	28	2134	2208	2220	S19	E39	5060	07	1.9	46	1N	3	E			103	F	
0480		28	21436	21495	2209	N12	E43	5062	07	2.1	26	SF					18	E	
	PALE	28	2143	2154	2207	N11	E37	5062	07	1.7	24	SF	3	E			24	E	
	HOLL	28	2149	2149	2211	N14	E49	5062	07	2.6	22	SF	3	E			12		
0481	HOLL	28	2312	2312	2318D	N13	E48	5062	07	2.6	6D	SF	2	E			13		

Ha SOLAR FLARES

JUNE 1988

Grp #	Sta	Day	Start (UT)	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)	
0500	KAND	29	1120		1135D	N14	E39	5062	07	2.4	150	SN		P				ET
0501	HOLL	29	1305E	1307	1320	N14	E40	5062	07	2.6	150	SF	3	E		36		E
0502		29	13254	13268	1344	N16	E37	5062	07	2.4	19	SN C 4.2				48		EF
	HOLL	29	1325	1326	1342D	N16	E37	5062	07	2.4	17D	SN C 4.2	3	E		61		FE
	SVTO	29	1329	1334	1344	N15	E37	5062	07	2.4	15	SF C 4.2	3	E		35		
		29	1355		1402	No Flare Patrol												
		29	1408		1414	No Flare Patrol												
0503		29	1652	16533	1703	S20	E24	5060	07	1.5	11	1N C 5.5				152		F
	PALE	29	1648E	1653	1725D	S21	E22	5060	07	1.4	37D	2N C 5.5	3	E		286		
	RAMY	29	1652	1656	1703	S19	E26	5060	07	1.7	11	SF C 5.5	3	E		18		F
0504		29	1751	17522	1808	S19	E28	5060	07	1.9	17	SF C 2.3				20		F
	HOLL	29	1751	1752	1807	S19	E26	5060	07	1.7	16	SF C 2.3	3	E		20		
	PALE	29	1751	1754	1808	S19	E31	5060	07	2.1	17	SF C 2.3	3	E		20		F
0505	HOLL	29	1823	1828	1836	S17	E26	5060	07	1.7	13	SF C 5.5	3	E		39		
0506		29	19195	19196	1936	S21	E28	5060	07	1.9	17	SF				19		
	PALE	29	1919	1919	1937	S21	E29	5060	07	2.0	18	SF	3	E		28		
	HOLL	29	1924	1925	1934	S21	E28	5060	07	1.9	10	SF	3	E		10		
0507		29	2015	20161	2119	S19	E27	5060	07	1.9	64	1B M 4.1				200		FUZ
	PALE	29	2015	2016	2123	S19	E27	5060	07	1.9	68	1B M 4.1	3	E		224		UF
	HOLL	29	2015	2017	2115	S19	E27	5060	07	1.9	60	1B M 4.1	3	E		177		ZF
0508		29	2022	2023	2054	N13	E34	5062	07	2.4	32	SN				53		F
	PALE	29	2022	2023	2054	N13	E34	5062	07	2.4	32	SF	3	E		60		F
	HOLL	29	2022	2023	2054	N13	E34	5062	07	2.4	32	SN	3	E		46		
0509	PALE	29	2127	2129	2133	S18	E25	5060	07	1.8	6	SF	3	E		14		
0510	PALE	29	2206	2216	2235	S19	E25	5060	07	1.8	29	SF	3	E		31		F
0511		30	00032	00043	0018	N14	E33	5062	07	2.5	15	SF C 1.8				24		
	PALE	30	0003	0004	0020	N14	E33	5062	07	2.5	17	SF C 1.8	3	E		22		
	HOLL	30	0005	0007	0017	N14	E33	5062	07	2.5	12	SF C 1.8	3	E		25		
0512		30	0056	00564	0112	S18	E23	5060	07	1.8	16	SF				37	0.8	FT
	PALE	30	0056	0056	0110	S18	E23	5060	07	1.8	14	SF	3	E		23		
	HOLL	30	0056	0100	0113	S17	E23	5060	07	1.8	17	SF	3	E		25		F
	YUNN	30	0058E	0100	0110D	S18	E23	5060	07	1.8	12D	SN		P		64	0.8	T
0513		30	0138	0142	0145	S21	E18	5060	07	1.4	7	1F				110	2.2	DIJT
	PALE	30	0138	0142	0145	S21	E17	5060	07	1.4	7	SF	3	E		32		
	VORO	30	0138	0142	0145	S21	E18	5060	07	1.4	7	1F	2	C	0142	188	2.2	DIJT
0514		30	01552	02026	0229	N13	E31	5062	07	2.4	34	SF C 3.2				88	2.0	DEFIJT
	VORO	30	0155	0202	0205D	N14	E33	5062	07	2.6	10D	1F	2	C	0202	170	2.0	DIJT
	PALE	30	0156	0208	0224	N13	E30	5062	07	2.3	28	SF C 3.2	3	E		42		E
	LEAR	30	0157	0207	0234	N13	E29	5062	07	2.3	37	SF C 3.2	3	E		51		F
0515		30	0452	0456	0521	N13	E30	5062	07	2.5	29	SN C 1.5				34	0.2	EF
	LEAR	30	0452	0456	0520	N13	E30	5062	07	2.5	28	SF C 1.5	3	E		51		F
	YUNN	30	0501E	0501U	0522	N13	E30	5062	07	2.5	21D	SN C 1.5		P	0501	16	0.2	E
0516	YUNN	30	0504E	0504U	0508	S17	E27	5060	07	2.3	4D	SB C 1.5		P	0504	64	0.8	T
0517		30	06284	06302	0638	N13	E29	5062	07	2.4	10	SF C 1.6				97	1.9	DFG
	YUNN	30	0624E	0630	0639	N13	E30	5062	07	2.5	15D	SF C 1.6		P		161	1.9	
	KHAR	30	0628	0630	0637	N14	E31	5062	07	2.6	9	SF	2	V	0630			DG
	LEAR	30	0629	0631	0641	N13	E28	5062	07	2.4	12	SF C 1.6	3	E		33		F
	KANZ	30	0632	0632	0636	N12	E28	5062	07	2.4	4	SF	2					

Ha SOLAR FLARES

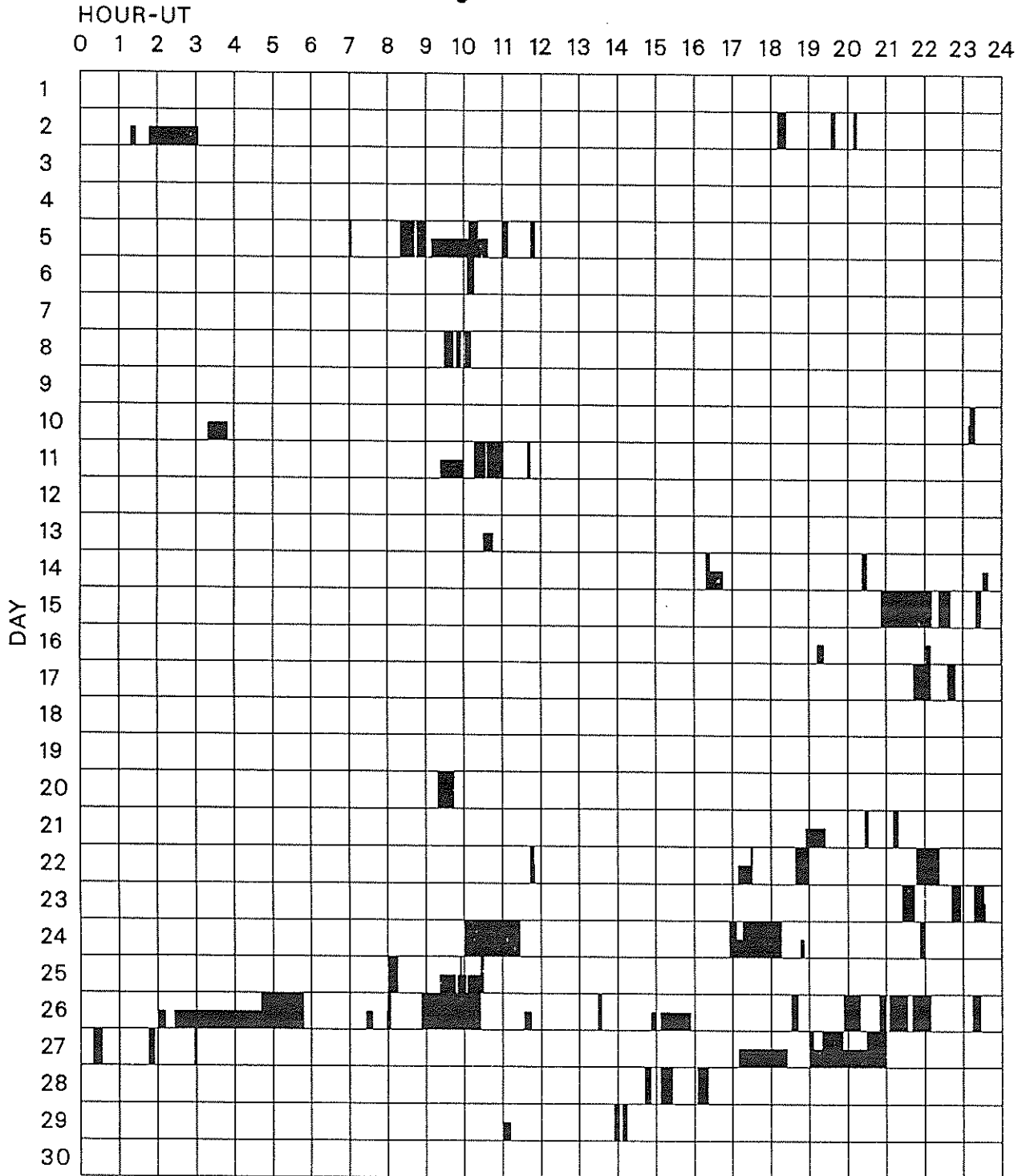
31
Jun 88

JUNE 1988

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Time (UT)	Area Measurement		Remarks	
																	Apparent (10-6 Disk)	Corr (Sq Deg)		
0518		30	0810*	08221	0858	S21	E21	5060	07	1.9	48	SN	C	5.8			224	4.2	EFT	
	SVTO	30	0810	0822	0846	S20	E23	5060	07	2.1	36	SN	C	5.8	3	E	88		F	
	KHAR	30	0818	0822	0835D	S22	E22	5060	07	2.0	17D	1N			2	P	0826	350	3.9	E
	YUNN	30	0820	0823	0855	S21	E21	5060	07	1.9	35	1B	C	5.8		C	370	4.5	FT	
	LEAR	30	0821	0823	0900	S22	E17	5060	07	1.6	39	SN	C	5.8	3	E	87		F	
	KANZ	30	0822	0822U	0909	S22	E24	5060	07	2.2	47	SF			2					
0519		30	09032	09053	0929	S16	E23	5060	07	2.1	26	2B	M	9.2			481	7.8	EFHTXZ	
	SVTO	30	0903	0907	0915	S15	E24	5060	07	2.2	12	2N			3	E	296		H	
	LEAR	30	0904	0906	0916	S16	E22	5060	07	2.0	12	2B	M	9.2	3	E	291		FE	
	YUNN	30	0904E	0908	0940	S16	E23	5060	07	2.1	36D	1B	M	9.2		P	338	4.0	FHT	
	KANZ	30	0905	0905	0937	S16	E22	5060	07	2.0	32	2B			2				HZ	
	KHAR	30	0906E	0906U	0937	S16	E24	5060	07	2.2	31D	2B			2	P	0909	1000	11.5	HXZ
0520	SVTO	30	0905	0906	0913	N15	E28	5062	07	2.5	8	SF			3	E	16			
0521		30	10032	10034	1012	N14	E29	5062	07	2.6	9	SF	C	1.5			14		EG	
	KANZ	30	1003	1003	1012	N14	E28	5062	07	2.5	9	SF			2					
	KHAR	30	1003	1007	1008D	N14	E30	5062	07	2.7	5D	SF			2	V	1007		EG	
	SVTO	30	1005	1006	1013	N15	E28	5062	07	2.5	8	SF	C	1.5	3	E	14			
0522	KANZ	30	1024	1028U	1028D	S22	E24	5060	07	2.3	4D	SF			2					
0523		30	1111	11152	1124	S22	E22	5060	07	2.1	13	SF					24			
	KANZ	30	1111	1115	1122	S22	E22	5060	07	2.1	11	SF			1					
	RAMY	30	1111	1117	1127	S22	E22	5060	07	2.1	16	SF			3	E	24			
0524		30	12531	12542	1329	S18	E16	5060	07	1.7	36	SF	C	4.0			53		EF	
	RAMY	30	1253	1254	1336	S19	E14	5060	07	1.6	43	SF	C	4.0	3	E	66		F	
	SVTO	30	1253	1256	1316	S20	E15	5060	07	1.7	23	SF	C	4.0	3	E	33		F	
	HOLL	30	1254	1255	1336	S14	E18	5060	07	1.9	42	SF	C	4.0	4	E	60		FE	
0525	RAMY	30	1320	1326	1327	N13	E26	5062	07	2.5	7	SF			3	E	10			
0526	HOLL	30	1359	1359	1402	N13	E28	5062	07	2.7	3	SF			4	E	14			
0527		30	14352	14392	1448	S21	E15	5060	07	1.7	13	1N					115		EF	
	HOLL	30	1435	1439	1448	S21	E16	5060	07	1.8	13	1N			4	E	128		FE	
	SVTO	30	1437	1441	1447	S21	E14	5060	07	1.7	10	1F			3	E	102		F	
0528		30	1707*	1729	1746	S20	E17	5060	07	2.0	39	SF	C	4.5			38		F	
	HOLL	30	1707	1729U	1750	S20	E17	5060	07	2.0	43	SF	C	4.5	3	E	47		F	
	PALE	30	1721	1729	1743	S21	E17	5060	07	2.0	22	SF	C	4.5	3	E	28		F	
0529		30	17541	1802	1826	S18	E14	5060	07	1.8	32	SF					28		F	
	HOLL	30	1754	1802	1830	S18	E14	5060	07	1.8	36	SF			4	E	42		F	
	PALE	30	1755	1802	1823	S19	E13	5060	07	1.7	28	SF			3	E	14			
0530	PALE	30	2018	2021	2027	N14	E20	5062	07	2.3	9	SF			3	E	19			
0531	PALE	30	2217	2225	2237	S22	E09	5060	07	1.6	20	SF			3	E	51			
0532	HOLL	30	2349	2349	2354	S15	E15	5060	07	2.1	5	SF			3	E	14			

INTERVALS OF NO FLARE PATROL OBSERVATION FOR PRECEDING SOLAR FLARE TABLE

JUNE 1988



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

Abastumani
Bucharest
Haute Provence

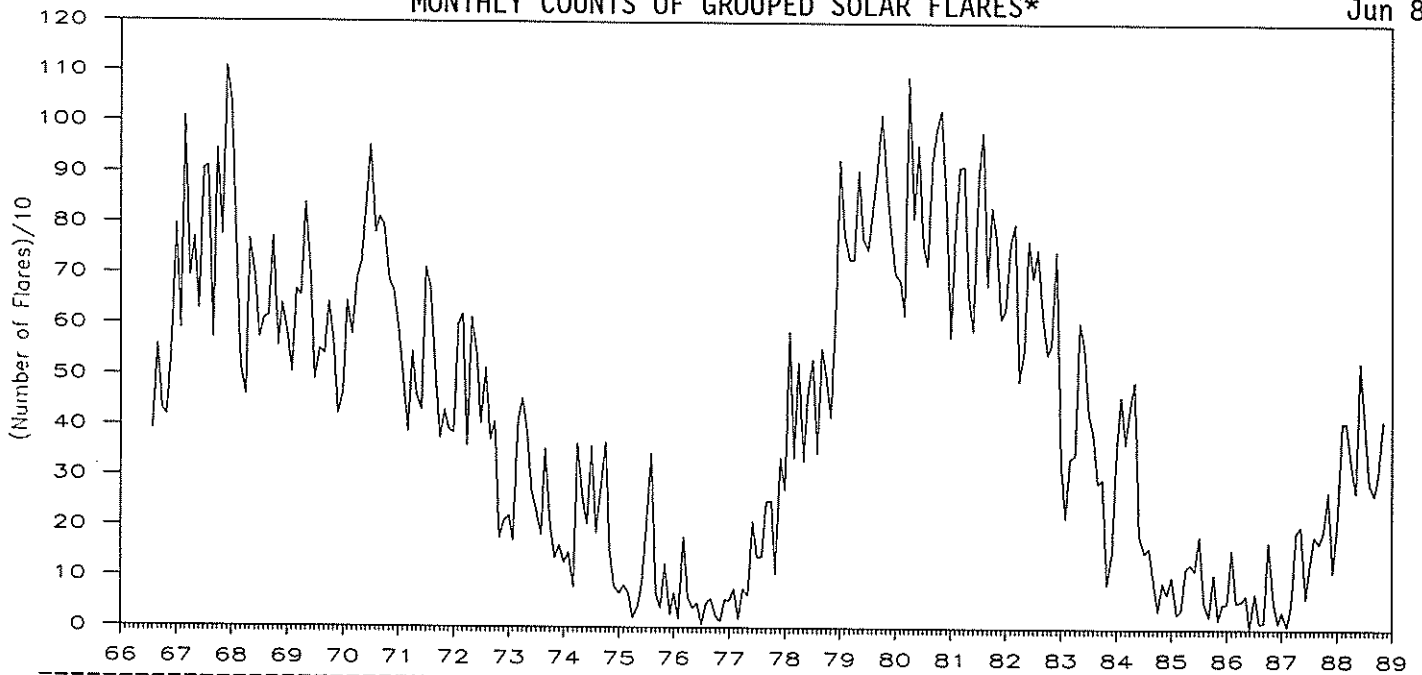
Holloman
Kandilli
Kanzelhoehe
Kharkov

Learmonth
Lvov
Manila
Mitaka

Palehua
Peking
Ramey
San Vito

Tashkent
Urumqi
Voroshilov
Yunnan

MONTHLY COUNTS OF GROUPED SOLAR FLARES*



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1966								391	558	432	417	543	2341
1967	796	589	1009	694	771	629	907	911	573	946	775	1109	9709
1968	1037	773	519	460	768	697	573	611	616	772	556	640	8022
1969	581	504	669	655	839	694	489	551	540	643	566	422	7153
1970	466	646	578	688	722	836	954	780	811	797	687	667	8632
1971	598	505	387	546	461	430	713	673	518	375	431	394	6031
1972	384	599	621	361	614	541	404	515	371	408	175	210	5203
1973	221	171	410	453	388	270	232	182	353	201	136	163	3180
1974	127	148	79	364	255	204	360	187	270	366	153	81	2594
1975	68	82	69	19	42	85	196	346	68	38	127	25	1165
1976	69	18	180	60	38	48	6	47	57	23	13	55	614
1977	54	77	18	76	64	210	140	140	250	252	107	336	1724
1978	274	588	338	526	330	460	533	346	554	499	418	648	5514
1979	926	781	731	731	907	772	750	821	901	1018	888	786	10012
1980	703	689	621	1092	811	956	763	720	924	988	1027	838	10132
1981	578	782	914	915	658	592	893	982	680	836	773	615	9218
1982	631	766	803	490	553	769	696	753	615	544	564	748	7932
1983	332	220	337	346	609	561	427	389	289	298	88	152	4048
1984	353	461	366	440	492	185	151	161	95	36	92	69	2901
1985	104	29	38	119	129	116	185	53	25	108	19	50	975
1986	51	158	54	56	68	3	71	12	14	174	56	13	730
1987	36	7	52	192	205	61	132	185	171	198	273	114	1626
1988	209	412	412	328	272	532	413	291	267	308	415		3859

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

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JUNE 1988

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22	Mean W/m 2 Hz)		
01	127	TORN	44 NS	1000.0E		320.0D		1.0		V=1
	950	GORK	23 GRF	0257.2	0544.5	496.0	13.0			
	9100	GORK	20 GRF	0300.0E	0528.0	477.0D	14.0			
	650	GORK	23 GRF	0303.3E	0743.4	536.0D	20.0			
	2950	GORK	21 GRF	0424.0U	0718.0	338.0U	9.4			
	500	HIRA	46 C	0425.0	0428.7	15.0	15.0			WR
	536	ONDR	41 F	0600.0	0952.0	487.0	165.0U			
	260	ONDR	41 F	0605.3	1103.9U	482.1	157.0U			
	500	HIRA	42 SER	0623.3	0658.0	47.0	26.0			WR
	3100	CRIM	21 GRF	0627.0	0717.5	114.0	5.0	2.0		
	950	GORK	46 C	0630.4	0632.0		6.0			
	950	GORK	46 C	0630.4	0658.2		12.0			
	950	GORK	46 C	0630.4	0649.3		9.0			
	950	GORK	46 C	0630.4	0707.3		19.0			
	950	GORK	46 C	0630.4	0659.4		8.0			
	950	GORK	46 C	0630.4	0655.4		11.0			
	950	GORK	46 C	0630.4	0630.8	37.0	6.0			
	650	GORK	46 C	0645.2	0658.0		20.0			
	650	GORK	46 C	0645.2	0656.1		23.0			
	650	GORK	46 C	0645.2	0707.6		27.0			
	650	GORK	46 C	0645.2	0648.9	22.5	22.0			
	5900	KISV	23 GRF	0711.2	0717.4		8.0			
	5900	KISV	23 GRF	0711.2	0712.7	42.5	10.0			
	1470	POTS	1 S	0711.2	0713.9	3.4	3.0			
	3100	CRIM	1 S	0712.0	0713.0	2.0	5.8	2.0		
	3000	POTS	1 S	0712.2	0712.5	1.0	8.0			
	9300	KISV	21 GRF	0712.2	0714.5	44.0	6.0			
	2950	GORK	1 S	0712.4	0712.7	1.3	5.0	2.5		
	810	KRAK	1 S	0809.5	0810.0	0.5	5.0	1.0		
	204	IZMI	8 S	0828.4	0828.4	0.2	3.0	1.5		
	5900	KISV	1 S	0839.4	0840.1	4.5	13.0			
	2950	GORK	3 S	0839.5	0840.0	2.2	13.0	6.0		
3100	CRIM	1 S	0839.5	0840.1	3.0	9.2	3.0			
9300	KISV	2 S/F	0839.9	0840.3	8.5	5.0				
3000	POTS	22 GRF	0930.0	0947.5	43.0U	7.0				
1470	POTS	22 GRF	0931.5	0945.7	44.0	7.0				
650	GORK	46 C	0932.2	0938.3	26.1	16.0				
650	GORK	46 C	0932.2	0947.6		14.5				
650	GORK	46 C	0932.2	0944.7		11.5				
650	GORK	46 C	0932.2	0949.8		14.0				
810	KRAK	27 RF	0932.3	0949.7	27.0	18.0	4.0			
430	KRAK	41 F	0936.0	0949.5	24.0D	34.0	5.0			
950	GORK	40 F	0936.2	0947.0		9.0				
950	GORK	40 F	0936.2	0939.0	16.5	15.0				
950	GORK	40 F	0936.2	0944.7		9.0				
204	IZMI	8 S	0939.7	0939.8	0.2	22.0	11.0			
810	KRAK	8 S	1016.5	1016.6	0.2	11.0				
810	KRAK	1 S	1101.5	1101.7	0.5	4.0	1.0			
810	KRAK	41 F	1110.3	1111.0	3.5	4.0	1.0			
810	KRAK	2 S/F	1123.7	1124.0	0.8	5.0	2.0			
3100	CRIM	1 S	1222.8	1223.8	2.0	6.9	2.0			
5900	KISV	2 S/F	1223.0	1223.6	3.5	7.0				
29	UPIC	45 C	1459.4	1459.6	1.6					
2800	OTTA	20 GRF	1521.0	1615.0	210.0	7.6	3.0			
9400	HUAN	20 GRF	1605.4	1617.8	33.2	2.9	2.0			
9400	HUAN	2 S/F	1951.6	1954.4	9.8	4.4	2.2			
02	33	UPIC	44 NS	0400.0E		840.0D				
	29	UPIC	44 NS	0400.0E		840.0D				
	127	TORN	44 NS	1030.0E		290.0D		1.0		V=0
	100	HIRA	42 SER	0214.5	0218.2	5.9	315.0			
	200	HIRA	42 SER	0214.9	0220.1	6.0	73.0			WR
	500	HIRA	22 GRF	0230.0	0403.0	500.0D	18.0			WR
	650	GORK	21 GRF	0300.0E	0929.4	540.0D	29.0			
	950	GORK	22 GRF	0330.0	0432.0U	405.0	12.0			
100	HIRA	46 C	0332.3		6.2	1000.0D	585.0D			

S O L A R R A D I O E M I S S I O N
O U T S T A N D I N G O C C U R R E N C E S

JUNE 1988

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean		
02	200	HIRA	46 C	0332.3	0333.7	6.6	650.0	142.0		WR
	2950	GORK	4 S/F	0333.2	0334.1	3.4	10.6			
	2695	LEAR	4 S/F	0334.0	0334.0	3.0	14.0			QL=5 ST=2 TYP=3
	9300	KISV	2 S/F	0503.2	0505.3	3.0	4.0			
	5900	KISV	1 S	0503.9	0504.3	1.0	3.0			
	536	ONDR	41 F	0550.0	1100.00	490.0				
	260	ONDR	42 SER	0552.0		490.0				
	430	KRAK	41 F	0719.5	0737.0	57.0	29.0	1.0		
	810	KRAK	1 S	0738.8	0739.0	0.5	7.0	2.0		
	810	KRAK	41 F	0753.3	0756.5	6.0	7.0	1.0		
	3100	CRIM	45 C	0837.0	0838.0	3.0	2.4	1.0		
	3100	CRIM	45 C	0837.0	0839.4		2.4			
	2950	GORK	4 S/F	0837.4	0839.2	6.4	4.9	2.0		
	810	KRAK	1 S	0839.0	0839.0	0.5	9.0	2.0		
	5900	KISV	2 S/F	0843.3	0844.1	2.5	4.0			
	9500	POTS	21 GRF	0855.0	0903.4	60.0	13.0			
	2950	GORK	20 GRF	0856.2	0921.3	64.0	4.3	2.0		
	5900	KISV	46 C	0856.3	0859.1	8.7	14.0			
	5900	KISV	46 C	0856.3	0858.3		10.0			
	3100	CRIM	20 GRF	0856.3	0901.3	50.0	2.4	1.0		
	5900	KISV	46 C	0856.3	0900.5		8.0			
	5900	KISV	46 C	0856.3	0903.6		11.0			
	9100	GORK	22 GRF	0857.0	0903.5	50.0	12.0			
	9300	KISV	46 C	0857.2	0859.0		12.0			
	9300	KISV	46 C	0857.2	0902.1	7.8	14.0			
	9300	KISV	46 C	0857.2	0858.3		9.0			
	9300	KISV	46 C	0857.2	0902.8		14.0			
	9300	KISV	29 PBI	0905.6	0905.6	42.0	9.0			
	5900	KISV	29 PBI	0905.8	0905.8	21.5	6.0			
	810	KRAK	8 S	0943.2	0943.3	0.4	6.0			
	204	IZMI	41 F	1026.6	1036.8	16.6	16.0			
	810	KRAK	42 SER	1100.8	1101.0	6.2	18.0			
	127	TORN	8 S	1104.0		2.0	60.00	40.00		
	204	IZMI	2 S/F	1108.8	1109.0	0.6	40.0	20.0		
	9500	POTS	20 GRF	1338.0	1341.5	17.0	10.0			
5900	KISV	23 GRF	1338.3	1341.9	20.2	8.0				
9300	KISV	23 GRF	1338.8	1341.7	19.5	9.0				
33	UPIC	45 C	1459.5	1459.6	1.2					
9400	HUAN	1 S	1532.0	1535.7	6.9	7.5	4.5			
9400	HUAN	22 GRF	1546.0	1555.0	28.3	6.0	3.0			
9400	HUAN	20 GRF	1741.6	1812.5	63.8	10.6	6.0			
200	HIRA	42 SER	2238.9	2241.7	3.0	31.0			WR	
500	HIRA	6 S	2331.1	2333.0	8.0	7.0			WR	
200	HIRA	42 SER	2344.2	2344.9	10.6	320.0			0	
100	HIRA	42 SER	2344.4	2344.9	10.6	610.0				
03	127	TORN	44 NS	0900.0E	1042.8	330.00	50.0	1.0		V=1
	33	UPIC	43 NS	0919.3		520.70				
	29	UPIC	43 NS	0919.7		520.30				
	100	HIRA	46 C	0015.6	0016.4	2.0	895.0			
	200	HIRA	46 C	0144.6	0147.9	18.5	7.0			WR
	2950	GORK	20 GRF	0510.4	0530.5	59.0	4.3			
	950	GORK	5 S	0528.6	0530.3	3.4	8.0			
	200	HIRA	8 S	0529.0	0529.8	1.3	72.0			MR
	650	GORK	2 S/F	0529.8	0530.3	6.3	7.7			
	260	ONDR	41 F	0550.0		490.0				
	536	ONDR	41 F	0610.0		490.0				
	204	IZMI	2 S/F	0613.6	0613.8	0.5	330.0	115.0		
	2950	GORK	20 GRF	0613.6U	0632.8	65.0U	3.0			
	500	HIRA	42 SER	0613.7	0621.7	18.0	24.0			WR
	430	KRAK	41 F	0758.0	0758.3	1.7	11.0	1.0		
	2950	GORK	20 GRF	0823.0	0836.0	217.00	7.5			
	3100	CRIM	1 S	0833.6	0836.0	10.0	5.6	2.0		
	5900	KISV	21 GRF	0833.9	0835.8	72.0	13.0			
9300	KISV	25 R	0834.0	0836.0	326.0	13.0				
9100	GORK	22 GRF	0834.0	0835.8	54.0	11.5				

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JUNE 1988

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	810	KRAK	8 S	0842.0	0842.0	0.2	11.0			
	5900	KISV	2 S/F	0904.0	0904.7	3.5	4.0			
	327	TRST	45 C	1113.8	1114.0	0.4	55.0			20R
	237	TRST	45 C	1113.8	1114.2	0.9	30.0			7R
	408	TRST	45 C	1113.8	1113.9	0.3	82.0			31R
	9400	HUAN	3 S	1244.1	1245.7	3.2	32.6	8.9		
	2695	SGMR	8 S	1245.0	1245.0	1.0	120.0			QL=5 ST=2 TYP=5
	8800	SVTO	8 S	1245.0	1245.0	1.0	41.0			QL=5 ST=2 TYP=3
	2695	SVTO	8 S	1245.0	1245.0	1.0	120.0			QL=5 ST=2 TYP=5
	9500	POTS	3 S	1245.0	1245.9	1.5	30.0			
	15000	KISV	2 S/F	1245.4	1246.0	0.9	28.0			
	9300	KISV	2 S/F	1245.4	1245.9	1.0	38.0			
	5900	KISV	2 S/F	1245.4	1245.9	2.0	10.0			
	1470	POTS	3 S	1245.5	1246.0	3.0	13.0			
	2800	OTTA	8 S	1245.5	1246.2	0.8	156.0	78.0		
	3000	POTS	3 S	1245.5	1245.8	2.0	99.0			
	3100	CRIM	3 S	1245.6	1246.1	2.5	76.0	28.0		
	810	KRAK	8 S	1309.5	1309.6	0.2	3.0			
	9400	HUAN	1 S	1600.5	1602.6	6.7	3.0	1.3		
04	33	UPIC	43 NS	0503.5		776.5D				
	29	UPIC	43 NS	0504.0		776.0D				
	100	HIRA	43 NS	0530.0	0813.0	260.0D	130.0	62.0		
	204	IZMI	43 NS	0600.0		360.0	20.0			
	260	ONDR	44 NS	0617.0E	1336.4	521.0D	112.0			
	127	TORN	44 NS	0620.0E		400.0D		16.0		V=2
	200	GORK	43 NS	0628.0		197.0D		5.0		
	100	GORK	43 NS	0635.0		192.0D		40.0		
	200	HIRA	43 NS	0646.0	0830.0	180.0D	12.0	4.0		WR
	650	GORK	23 GRF	0357.2	0422.6	40.7	10.5			
	5900	KISV	21 GRF	0407.8	0428.8	87.0	13.0			
	950	GORK	21 GRF	0419.7	0431.1	26.7	3.0			
	2695	PALE	4 S/F	0426.0	0428.0	3.0	25.0			QL=5 ST=2 TYP=3
	3100	CRIM	3 S	0426.0	0428.1	6.0	14.0	5.0		
	650	GORK	4 S/F	0426.3	0428.0	4.2	30.0	11.0		
	500	HIRA	45 C	0426.4	0427.6	4.5	29.0			0
	200	HIRA	46 C	0426.5	0427.9	4.0	7.0			0
	2840	YUNN	45 C	0426.7	0428.2	4.8	18.0			
	2950	GORK	4 S/F	0426.9	0428.1	3.1	19.2			
	950	GORK	46 C	0427.0	0428.0		17.0			
	2695	SVTO	8 S	0427.0	0428.0	1.0	20.0			QL=5 ST=2 TYP=3
	950	GORK	46 C	0427.0	0427.1	3.3	12.0			
	2695	LEAR	8 S	0428.0	0428.0	1.0	31.0			QL=5 ST=2 TYP=3
	2950	GORK	29 PBI	0430.2	0430.2	4.3	4.9			
	950	GORK	21 GRF	0502.4E	0504.7	11.9D	1.0			
	5900	KISV	1 S	0503.1	0503.6	1.5	3.0			
	200	HIRA	8 S	0503.3	0503.5	1.0	107.0			0
	950	GORK	1 S	0503.5	0504.0	1.2	2.0			
	650	GORK	1 S	0503.5	0503.9	3.0	1.6			
	5900	KISV	22 GRF	0600.0	0754.0		27.0			
	5900	KISV	22 GRF	0600.0	0701.4	267.0	17.0			
	3100	CRIM	24 R	0614.5	0754.5		14.0			
	2950	GORK	20 GRF	0633.3	0751.0	180.0	12.6			
	9100	GORK	22 GRF	0636.0	0754.5	184.0	26.0			
	9300	KISV	22 GRF	0644.0	0754.0		21.0			
	9300	KISV	22 GRF	0644.0	0701.4	154.0	17.0			
5900	KISV	2 S/F	0644.4	0644.8	1.3	7.0				
950	GORK	22 GRF	0650.7	0710.0	19.3U	10.0				
650	GORK	23 GRF	0652.3	0729.4	95.7U	20.0				
650	GORK	2 S/F	0658.5	0701.5	3.4	12.5				
500	HIRA	27 RF	0713.0	0733.0	46.0	11.0	3.0		WR	
430	KRAK	27 RF	0713.0	0720.0	47.0	25.0	5.0			
950	GORK	21 GRF	0716.5	0739.8	124.5	3.5				
810	KRAK	27 RF	0719.0	0720.0	35.5	7.0	1.0			
950	GORK	2 S/F	0719.5	0719.9	1.1	6.0				
650	GORK	8 S	0719.6	0720.0	0.5	36.0				

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

37
Jun 88

JUNE 1988

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m ² Hz)	Mean (W/m ² Hz)		
04	204	IZMI	21 GRF	0719.6	0720.2	5.4	53.0	25.0		
	234	POTS	42 SER	0746.0	0754.0	14.0	275.0			
	200	HIRA	46 C	0751.5	0753.5	5.3	185.0	67.0		WR
	237	TRST	46 C	0752.5	0754.0	2.1	351.0			16R
	204	IZMI	41 F	0752.8	0754.0	4.0	280.0			
	650	GORK	46 C	0822.6	0824.1		8.0			
	650	GORK	46 C	0822.6	0822.7	2.7	7.0			
	204	IZMI	4 S/F	1033.8	1034.0	0.7	80.0	40.0		
	237	TRST	46 C	1033.9	1034.0	0.2	235.0			1L
	9400	HUAN	1 S	1146.5	1148.2	5.9	9.4	4.4		
	810	KRAK	8 S	1205.5	1205.5	0.2	14.0			
	430	KRAK	8 S	1205.5	1205.7	0.4	19.0			
	5900	KISV	2 S/F	1237.7	1238.2	3.1	5.0			
	9400	HUAN	1 S	1307.0	1308.5	7.8	8.6	3.7		
9400	HUAN	2 S/F	1324.7	1328.8	13.6	7.8	5.9			
05	100	GORK	43 NS	0251.0		414.0D		5.0		
	200	GORK	44 NS	0251.0E		414.0D		5.0		
	200	HIRA	43 NS	0400.0	0830.0	340.0D	8.0	1.0		WR
	260	ONDR	44 NS	0550.0E	0844.7U	524.0D	230.0U	10.0		
	204	IZMI	43 NS	0600.0		360.0				
	29	UPIC	43 NS	0911.8		355.1				
	33	UPIC	43 NS	0911.8		355.0				
	200	HIRA	44 NS	1925.0E	2010.0	570.0D	7.9	2.0		WR
	200	HIRA	42 SER	0257.4	0257.9	2.1	210.0			0
	650	GORK	40 F	0331.0	0340.3	16.0	13.0			
	650	GORK	40 F	0331.0	0341.6		20.0			
	650	GORK	20 GRF	0410.1	0419.0	20.0	5.0			
	536	ONDR	41 F	0638.6		381.4				
	810	KRAK	42 SER	0712.2	0730.7	23.0	11.0			
	204	IZMI	21 GRF	0820.4	0820.6	0.8	120.0	60.0		
	2950	GORK	1 S	0827.5	0827.6	0.3	4.0	2.0		
	650	GORK	23 GRF	0833.9	0842.9	44.1	2.4			
	810	KRAK	42 SER	0835.6	0837.2	2.0	26.0			
	950	GORK	22 GRF	0837.5	0844.6	8.7	3.0			
	650	GORK	1 S	0838.2	0838.4	0.4	7.7			
	204	IZMI	2 S/F	0911.7	0911.8	0.4	140.0	70.0		
	810	KRAK	42 SER	0912.1	0912.1	6.7	13.0			
	200	HIRA	45 C	0913.9	0914.3	2.1	360.0			0
	950	GORK	1 S	0914.2	0914.4	0.5	4.8			
	650	GORK	1 S	0914.3	0914.5	0.4	6.0			
	810	KRAK	8 S	1105.5	1105.5	0.5	13.0			
	9500	POTS	40 F	1404.0	1405.5	7.5	7.0			
1470	POTS	40 F	1404.5	1405.6	5.0	5.0				
9300	KISV	1 S	1404.8	1405.8	3.0	6.0				
3000	POTS	3	1405.0	1405.5	3.0	16.0				
5900	KISV	1 S	1405.0	1405.6	3.0	7.0				
9400	HUAN	20 GRF	1727.5	1750.5	53.3	10.0	6.2			
9400	HUAN	20 GRF	2002.7	2016.7	41.9	11.7	7.6			
06	100	GORK	44 NS	0240.0E		560.0D		5.0		
	200	GORK	44 NS	0240.0E		560.0D		5.0		
	260	ONDR	44 NS	0555.0E	0914.6	491.0D	200.0			
	33	UPIC	43 NS	0720.4		446.1				
	29	UPIC	43 NS	0720.5		446.3				
	127	TORN	44 NS	1130.0E		180.0D		1.0		V=1
	200	HIRA	44 NS	1925.0E	0543.0	850.0D	10.0	2.0		WR
	9100	GORK	20 GRF	0306.0E	0306.7	234.0D	11.0			
	2695	SVTO	8 S	0358.0	0358.0	1.0	32.0			QL=5 ST=2 TYP=3
	2695	SVTO	8 S	0358.0	0358.0	1.0	23.0			QL=5 ST=2 TYP=3
	8800	SVTO	4 S/F	0358.0	0358.0	5.0	29.0			QL=5 ST=2 TYP=3
	8800	SVTO	4 S/F	0359.0	0403.0	4.0	9.0			QL=5 ST=2 TYP=3
	2950	GORK	20 GRF	0442.3	0531.5	66.0	4.7			
	3100	CRIM	25 R	0442.7	0729.0		8.0			
	2950	GORK	1 S	0649.8	0650.3	3.2	1.6			
2950	GORK	20 GRF	0658.4	0701.1	22.0	1.9				

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

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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		
06	810	KRAK	8 S	0734.4	0734.5	0.5	12.0			
	3100	CRIM	1 S	0744.5	0745.5	4.0	5.5	1.9		
	2950	GORK	3 S	0745.0	0745.3	2.3	4.5			
	234	POTS	42 SER	0910.5	0910.7	5.5	650.0			
	950	GORK	2 S/F	0913.1	0913.3	0.5	6.8			
	650	GORK	2 S/F	0913.2	0913.3	0.6	10.5			
	40	POTS	4 S/F	0913.8	0915.4	5.2	400.0	70.0		
	204	IZMI	41 F	0914.0	0914.6	6.0	200.0			
	950	GORK	20 GRF	0914.3	0915.5	10.2	2.0			
	650	GORK	20 GRF	0914.5	0915.6	13.1	2.3			
07	200	GORK	44 NS	0305.0E		540.0D		10.0		
	204	IZMI	43 NS	0600.0		360.0	40.0			
	29	UPIC	43 NS	0704.5		291.5				
	33	UPIC	43 NS	0704.5		291.6				
	260	ONDR	44 NS	0740.0E	1401.7U	485.0D	275.0U			
	100	GORK	43 NS	0836.0		209.0D		10.0		
	127	TORN	44 NS	1000.0E		300.0D		3.0		V=1
	200	HIRA	44 NS	1925.0E	2136.0	850.0D	13.0	4.0		WL
	9100	GORK	20 GRF	0303.0E		135.0D				
	5900	KISV	22 GRF	0451.7	0452.4	15.0	4.0			
	5900	KISV	1 S	0511.0	0511.5	1.0	7.0			
	9100	GORK	22 GRF	0538.2	0541.0	86.5	12.7			
	9300	KISV	2 S/F	0539.3	0541.0	4.5	11.0			
	5900	KISV	2 S/F	0539.6	0541.0	6.5	13.0			
	2950	GORK	21 GRF	0540.5	0614.1	191.0	6.5			
	3100	CRIM	45 C	0608.0	0611.0	7.0	17.8	6.0		
	3100	CRIM	45 C	0608.0	0613.0		9.0			
	2840	PEKG	45 C	0608.0	0610.5	8.0	33.0	25.2		
	2695	SVTO	4 S/F	0609.0	0611.0	5.0	27.0			QL=3 ST=2 TYP=3
	950	GORK	21 GRF	0609.4	0612.8	7.0	3.0			
	2950	GORK	4 S/F	0609.7	0611.0	4.3	29.0			
	5900	KISV	23 GRF	0609.8	0611.2	13.5	8.0			
	5900	KISV	23 GRF	0609.8	0616.9		6.0			
	3013	IZMI	7 C	0610.0	0611.4	5.0	26.0	13.0		
	650	GORK	1 S	0610.1	0611.0	2.4	6.4			
	950	GORK	1 S	0610.3	0611.1	1.5	5.0			
	9300	KISV	23 GRF	0610.4	0617.0	13.5	9.0			
9300	KISV	23 GRF	0610.4	0611.2		7.0				
810	KRAK	8 S	0934.2	0934.3	0.1	4.0				
536	ONDR	41 F	1107.9		277.1					
08	200	GORK	44 NS	0254.0E		540.0D		5.0		
	260	ONDR	44 NS	0552.0E	1301.7	503.0D	192.0			
	204	IZMI	43 NS	0830.0		210.0	5.0			
	127	TORN	44 NS	1000.0E		340.0D		3.0		V=1
	200	HIRA	44 NS	1925.0E	2225.0	850.0D	48.0	18.0		ML
	9100	GORK	20 GRF	0312.0E		267.0D				
	2950	GORK	20 GRF	0344.0E	0516.0	200.0D	7.7			
	650	GORK	22 GRF	0509.6	0513.2	9.7	3.4			
	2950	GORK	3 S	1004.0	1004.7	2.7	9.9			
	536	ONDR	41 F	1011.6	1013.4	243.3	6.0			
	810	KRAK	8 S	1044.4	1044.5	0.1	11.0			
	237	TRST	46 C	1103.9	1104.1	0.8	188.0			8R
	200	GORK	4 S/F	1103.9	1104.2	1.3	730.0			
	5900	KISV	2 S/F	1103.9	1104.8	2.0	9.0			
	204	IZMI	4 S/F	1104.0	1104.2	1.4	290.0	145.0		
	327	TRST	45 C	1104.0	1104.3	0.6	65.0			2R
	3000	POTS	3 S	1104.0	1104.8	3.0	11.0			
	3100	CRIM	1 S	1104.0	1104.9	2.0	8.0	3.0		
	3013	IZMI	5 S	1104.0	1104.9	3.2	9.0	4.0		
	1470	POTS	1 S	1104.0	1104.9	2.0	4.0			
	100	GORK	4 S/F	1104.2	1104.4	1.9	970.0			
	408	TRST	42 SER	1104.2	1104.8	0.6	65.0			2R
	5900	KISV	2 S/F	1158.4	1159.0	3.5	6.0			
500	HIRA	22 GRF	2019.0	2044.0	68.0	9.0	4.0		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		
09	200	GORK	44 NS	0238.0E		560.0D		5.0		
	100	GORK	44 NS	0238.0E		560.0D		5.0		
	260	ONDR	44 NS	0548.0E	0932.2	496.0D	204.0			
	204	IZMI	43 NS	0600.0		360.0	20.0			
	200	HIRA	44 NS	1925.0E	0240.0	850.0D	12.0	4.0		0
	500	HIRA	27 RF	0050.0	0127.0	95.0	15.0	5.0		0
	650	GORK	22 GRF	0306.0E	0441.6	215.4D	15.0			
	500	HIRA	22 GRF	0345.0	0518.0	135.0	11.0	5.0		0
	2950	GORK	1 S	0422.5	0423.2	2.2	2.4			
	2950	GORK	21 GRF	0540.0	0724.0	380.0D	6.8			
	234	POTS	4 S/F	0645.6	0646.2	1.6	385.0	60.0		
	200	GORK	4 S/F	0645.8	0646.3	1.4	1800.0			
	204	IZMI	4 S/F	0646.0	0646.4	0.7	860.0	430.0		
	3100	CRIM	1 S	0646.0	0646.5	1.0	3.2	1.0		
	650	GORK	4 S/F	0646.1	0646.3	0.7	27.0			
	100	GORK	4 S/F	0646.1	0646.4	1.0	430.0			
	2950	GORK	1 S	0646.1	0646.5	1.1	4.9	2.3		
	950	GORK	4 S/F	0646.1	0646.7	0.9	10.0			
	3013	IZMI	1 S	0646.4	0646.6	1.6	5.0	2.5		
	650	GORK	20 GRF	0740.3	0804.4	51.3	2.0			
	204	IZMI	4 S/F	0805.6	0806.0	1.5	100.0	50.0		
	810	KRAK	8 S	0912.5	0912.9	0.5	23.0			
	950	GORK	1 S	0912.6	0913.0	0.8	1.7			
	234	POTS	4 S/F	0931.6	0932.2	2.0	3100.0	600.0		
	327	TRST	46 C	0931.7	0932.1	0.8	118.0			18R
	237	TRST	47 GB	0931.7	0932.2	0.8	4290.3			6R
	650	GORK	1 S	0931.7	0932.5	3.9	1.0			
	200	GORK	4 S/F	0931.8	0932.2	1.0	980.0			
	100	GORK	4 S/F	0931.8	0932.3	1.0	240.0			
	408	TRST	46 C	0931.9	0932.2	0.5	104.0			47R
	950	GORK	1 S	0932.0	0932.3	0.7	2.3			
	204	IZMI	4 S/F	0932.0	0932.5	1.2	800.0	400.0		
	650	GORK	21 GRF	0942.4	0946.2	10.5	1.0			
	650	GORK	1 S	0947.2	0947.3	0.3	4.5			
810	KRAK	8 S	1159.0	1159.2	0.3	9.0				
610	TRST	46 C	1400.6	1400.6	1.0	130.0			OR	
408	TRST	46 C	1400.6	1400.6	0.6	299.0			OR	
327	TRST	42 SER	1401.8	1401.8	0.2	145.0			1R	
2800	OTTA	20 GRF	1650.0	1726.0	170.0	8.5	4.0			
9400	HUAN	20 GRF	1655.4	1712.2	71.9	19.6	6.3			
10	200	GORK	44 NS	0255.0E		540.0D		5.0		
	100	GORK	43 NS	0330.0		500.0D		5.0		
	260	ONDR	44 NS	0548.0E	1346.9U	492.0D	253.0U			
	204	IZMI	44 NS	0600.0E		360.0D	46.0			
	127	TORN	44 NS	1125.0E		145.0D		2.0		V=1
	650	GORK	1 S	0508.6	0508.8	0.6	2.0			
	950	GORK	1 S	0508.7	0509.0	0.7	1.3			
	5900	KISV	2 S/F	0755.7	0756.8	6.3	7.0			
	9100	GORK	20 GRF	0909.3	0958.2	74.0	6.8			
	9500	POTS	1 S	0957.0	0958.0	2.0	6.0			
	2950	GORK	1 S	0957.3	0958.0	1.5	2.1	1.0		
	1470	POTS	1 S	0957.5	0958.1	1.0	2.0			
	3000	POTS	1 S	0957.5	0958.2	1.5	5.0			
536	ONDR	40 F	1031.5	1150.9	208.5	14.0U				
810	KRAK	42 SER	1044.5	1045.5	35.0	9.0				
430	KRAK	42 SER	1214.0	1215.5	2.0	25.0				
11	260	ONDR	44 NS	0640.0E	1134.6U	460.0D	60.0U			
	200	GORK	43 NS	0657.3		118.0		5.0		
	430	KRAK	44 NS	0720.0E	0757.3	173.0D	14.0			
	200	GORK	44 NS	0855.3E		43.0D				
	2950	GORK	1 S	0556.1	0557.6	1.6	4.8	2.4		
	2840	YUNN	1 S	0556.2	0557.1	5.9	7.0			
	3100	CRIM	1 S	0556.3	0557.8	2.7	4.0	1.3		
2950	GORK	29 PBI	0557.7	0558.6	16.5	1.9				

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OUTSTANDING OCCURRENCES

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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		
11	500	HIRA	27 RF	0644.0	0656.5	35.0	8.0	3.0		0
	650	GORK	20 GRF	0646.7	0658.8	27.0	3.7			
	9100	GORK	20 GRF	0648.4	0703.1	52.0	7.0			
	3100	CRIM	1 S	0650.7	0652.0	3.3	5.6	1.8		
	950	GORK	1 S	0650.8	0652.0	4.0	1.3			
	2840	YUNN	1 S	0650.9	0651.7	2.8	8.0			
	408	TRST	27 RF	0651.0	0657.1	17.0	61.0			4R
	2950	GORK	3 S	0651.2	0651.9	2.6	5.8	2.5		
	327	TRST	27 RF	0654.0	0656.9	15.8	98.0			2R
	200	HIRA	46 C	0656.1	0702.0	12.5	11.0			0
	237	TRST	27 RF	0656.3	0702.6	13.8	59.0			0L
	200	GORK	46 C	0658.6	0708.0		14.0			
	200	GORK	46 C	0658.6	0702.4	11.7	15.0			
	33	UPIC	45 C	0727.0	0727.3	1.8				
	29	UPIC	45 C	0727.5	0728.5	1.3				
	204	IZMI	42 SER	0855.0	0904.0	65.0	72.0			
	2950	GORK	20 GRF	0933.1	0936.0	8.00	4.0			
3100	CRIM	1 S	0934.0	0936.5	4.0	3.0	1.0			
2800	OTTA	20 GRF	1427.0	1440.0	50.0	7.8	4.0			
2800	OTTA	20 GRF	1610.0	1627.0	42.0	3.9	2.0			
12	100	GORK	43 NS	0700.0		150.00		5.0		
	200	HIRA	27 RF	0044.2	0108.6	79.0	12.0	4.0		0
	2950	GORK	20 GRF	0435.0	0437.7	11.5	3.2			
	3100	CRIM	1 S	0553.5	0554.0	2.0	2.4	1.0		
	950	GORK	2 S/F	0615.4	0616.1	1.4	83.0			
	2950	GORK	1 S	0615.6	0616.1	1.4	5.9			
	5900	KISV	1 S	0615.6	0616.4	2.1	19.0			
	3100	CRIM	1 S	0615.7	0616.1	1.5	5.5	2.0		
	9100	GORK	1 S	0615.7	0616.2	1.9	19.6			
	9300	KISV	1 S	0615.7	0616.4	1.0	15.0			
	15000	KISV	1 S	0615.9	0616.4	1.0	15.0			
	260	ONDR	42 SER	0640.0E	0840.9U	450.00	68.0U			
	204	IZMI	41 F	0731.0	0732.5	3.0	16.0			
	430	KRAK	42 SER	0826.5	0829.5	5.5	8.0			
	204	IZMI	41 F	0827.0	0831.0	9.0	80.0			
	204	IZMI	8 S	0918.3	0918.4	0.2	36.0	18.0		
	430	KRAK	42 SER	0934.8	0941.6	7.5	8.0			
	810	KRAK	8 S	1015.0	1015.2	0.4	58.0			
	3100	CRIM	1 S	1022.0	1026.0	8.0	4.0	1.0		
430	KRAK	1 S	1103.3	1103.5	0.4	2.0	1.0			
810	KRAK	8 S	1253.7	1254.2	0.7	37.0				
536	ONDR	45 C	1253.9	1254.1	0.8	37.0				
1470	POTS	1 S	1254.0	1254.4	2.0	3.0				
3000	POTS	1 S	1254.0	1254.6	1.0	3.0				
13	260	ONDR	42 SER	0600.0E	1238.7U	480.00	9.0U			
	536	ONDR	40 F	1133.3	1135.4	4.4	30.0			
14	9100	GORK	20 GRF	0306.0E	0404.1	105.00	10.0			
	2950	GORK	20 GRF	0358.0	0407.6	195.0	3.2			
	260	ONDR	42 SER	0932.5	0937.7	194.0	2.0			
15	2840	PEKG	5 S	0031.0	0033.4	14.0	9.0	8.5		
	9100	GORK	20 GRF	0309.0E		65.00				
	200	GORK	41 F	0425.3	0447.8		22.0			
	200	GORK	41 F	0425.3	0438.8	31.7	10.5			
	3100	CRIM	21 GRF	0428.0	0510.0U	262.0	11.0			
	2950	GORK	21 GRF	0430.0	0509.0	450.00	14.8			
	9100	GORK	20 GRF	0434.8	0512.3	111.0	15.0			
	2695	LEAR	8 S	0459.0	0459.0	1.0	57.0			
	950	GORK	22 GRF	0903.4	0924.6	34.6	4.5			
	3000	POTS	21 GRF	0905.0	0925.0	75.0	10.0			
	9500	POTS	21 GRF	0905.0	0924.7	40.0	9.0			
	33	UPIC	42 SER	0906.1	0924.9	52.4				
	29	UPIC	42 SER	0910.1	0938.0	48.6				

QL=1 ST=2 TYP=3

S O L A R R A D I O E M I S S I O N
O U T S T A N D I N G O C C U R R E N C E S

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J U N E 1 9 8 8

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
15	9100	GORK	22 GRF	0915.0	0925.0	33.0	12.0			
	1470	POTS	21 GRF	0915.0	0924.7	40.0	8.0			
	3100	CRIM	42 SER	0916.0	0925.1		7.5			
	3100	CRIM	42 SER	0916.0	0917.1	15.0	2.5	1.7		
	650	GORK	1 S	0923.6	0924.8	3.4	1.5			
	2950	GORK	1 S	0924.5	0924.9	2.2	7.8			
	9100	GORK	20 GRF	1015.0	1103.9	72.0	4.2			
	536	ONDR	41 F	1100.0	1533.2U	300.0				
	260	ONDR	41 F	1100.0U	1439.5	295.0U	13.0U			
	810	KRAK	8 S	1114.3	1114.4	0.2	4.0			
	9400	HUAN	1 S	1410.2	1415.8	10.8	4.6	1.7		
	2800	PENT	22 GRF	2220.0	2227.0	58.0	32.1	7.0		
	100	HIRA	42 SER	2224.4	2225.2	12.2	970.0			
	500	HIRA	42 SER	2224.5	2231.5	8.0	12.0			WL
	8800	PALE	8 S	2225.0	2225.0	1.0	89.0			QL=1 ST=2 TYP=3
	8800	SGMR	8 S	2225.0E	2225.0	1.0D	84.0			QL=1 ST=2 TYP=3
16	260	ONDR	41 F	0600.0E	1417.5U	522.0D	262.0U			
	650	GORK	1 S	0647.6	0648.4	2.0	3.0			
	950	GORK	1 S	0647.6	0648.6	1.6	4.8			
	810	KRAK	8 S	1028.4	1028.5	0.2	6.0			
	9400	HUAN	1 S	1235.3	1240.4	12.3	2.8	2.1		
	3000	POTS	29 PBI	1238.0	1239.5	13.0	14.0			
	3100	CRIM	1 S	1238.3	1239.5	3.5	10.0	3.0		
	5900	KISV	2 S/F	1238.3	1239.5	6.5	10.0			
	9500	POTS	20 GRF	1238.5	1239.8	6.5	6.0			
	9300	KISV	2 S/F	1239.0	1239.5	5.5	5.0			
	1470	POTS	28 PRE	1326.5	1330.7	17.0U	1.0			
	33	UPIC	45 C	1436.4	1436.5	1.6				
	29	UPIC	45 C	1436.5	1436.8	1.6				
	100	HIRA	27 RF	2116.5	2223.8	107.0	56.0	14.0		
200	HIRA	27 RF	2140.3	2209.2	48.0	8.0	3.0		WL	
100	HIRA	46 C	2208.6	2209.9	3.8	940.0				
17	100	GORK	43 NS	0245.0		540.0D		10.0		
	200	GORK	44 NS	0245.0E		550.0D		5.0		
	127	TORN	44 NS	0620.0E		400.0D		4.0		V=1
	200	HIRA	46 C	0002.0	0036.1	73.0	12.0	3.0		WL
	100	HIRA	42 SER	0003.3	0010.7	7.9	215.0			
	200	HIRA	8 S	0010.3	0010.9	0.8	510.0			WL
	100	HIRA	27 RF	0018.5	0056.0	118.0	74.0	18.0		
	9100	GORK	20 GRF	0303.0E	0357.9	339.0D	20.0			
	950	GORK	21 GRF	0328.6	0634.3	424.0	9.0			
	100	HIRA	48 C	0335.0	0344.2	77.0	830.0	67.0		
	200	HIRA	46 C	0335.4	0342.2		450.0			WL
	200	HIRA	46 C	0335.4	0344.2	70.0	760.0	16.0		WL
	200	GORK	46 C	0335.8	0342.5	34.1	420.0			
	200	GORK	46 C	0335.8	0344.7		380.0			
	200	GORK	46 C	0335.8	0346.9		135.0			
	100	GORK	41 F	0336.0	0341.0	11.8	1000.0			
	100	GORK	41 F	0336.0	0342.5		2200.0			
	100	GORK	41 F	0336.0	0344.6		500.0			
	2840	YUNN	45 C	0336.8	0346.0	28.2	82.0			
	3100	CRIM	28 PRE	0338.0	0341.0	3.0	4.3	2.0		
	2950	GORK	46 C	0339.4	0345.9	23.6	73.0			
	500	HIRA	46 C	0339.5	0350.5		54.0			O
	500	HIRA	46 C	0339.5	0346.7	27.5	54.0	13.0		ML
	650	GORK	46 C	0339.7	0356.3		50.0			
650	GORK	46 C	0339.7	0350.6		57.0				
650	GORK	46 C	0339.7	0347.6	35.3	58.0				
650	GORK	46 C	0339.7	0355.8		224.0				
2840	PEKG	46 C	0340.0	0345.8	30.0	77.2	74.2			
950	GORK	46 C	0340.8	0405.0		36.0				
950	GORK	46 C	0340.8	0403.1		36.0				
950	GORK	46 C	0340.8	0344.1	34.0	35.0				
950	GORK	46 C	0340.8	0356.3		93.0				

SOLAR RADIO EMISSION
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Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22 W/m 2 Hz)	Mean		
17	950 GORK	46 C	0340.8	0355.3		114.0			
	3100 CRIM	47 GB	0341.0	0346.0		52.3			
	3100 CRIM	47 GB	0341.0	0347.0		47.0			
	8800 LEAR	4 S/F	0341.0	0351.0		50.0			QL=1 ST=1 TYP=3
	3100 CRIM	47 GB	0341.0	0349.5		26.0			
	3100 CRIM	47 GB	0341.0	0343.5	19.0	28.0	17.0		
	2695 PALE	8 S	0345.0	0345.0	2.0	92.0			
	2695 SVTO	8 S	0346.0	0346.0	1.0	65.0			QL=1 ST=2 TYP=3
	3100 CRIM	29 PBI	0400.0	0400.0	44.0	6.5	2.0		
	2950 GORK	29 PBI	0403.0	0403.0	158.0	11.8			
	260 ONDR	41 F	0600.0E	1332.5	540.0D	44.0U			2L
	408 TRST	46 C	1054.2	1054.2		82.0			
	536 ONDR	41 F	1110.0U	1337.6U	240.0U	32.0U			
	33 UPIC	42 SER	1330.3	1337.2	14.5				
29 UPIC	42 SER	1331.1	1337.2	13.7					
18	200 HIRA	44 NS	0016.0E	0820.0	600.0D	73.0	42.0		SL
	200 GORK	44 NS	0257.0E		393.0D		18.0		
	100 GORK	44 NS	0300.0E		400.0D		10.0		
	204 IZMI	44 NS	0600.0E		360.0D	250.0			
	234 POTS	44 NS	0600.0E	0936.0U	515.0D	165.0			
	29 UPIC	43 NS	0610.2		425.5				
	33 UPIC	43 NS	0610.5		424.0				
	127 TORN	44 NS	0620.0E		560.0D		38.0U		V=27
	260 ONDR	44 NS	0720.0E	0838.8U	510.0D	159.0U			
	327 TRST	43 NS	0839.3	0839.6		133.0			26L
	200 HIRA	44 NS	1925.0E	0728.0	850.0D	150.0	78.0		SL
	100 HIRA	44 NS	1925.0E	0751.0	850.0D	340.0	64.0		
	9100 GORK	20 GRF	0254.0E	0606.8	300.0D	12.0			
	2950 GORK	21 GRF	0345.3	0607.0	210.0	5.4			
	5900 KISV	45 C	0601.3	0604.3	13.5	19.0			
	9300 KISV	21 GRF	0601.7	0604.3	16.0	13.0			
	2840 YUNN	5 S	0602.0	0603.4	3.5	13.0			
	3100 CRIM	1 S	0602.0	0603.6	3.0	11.7	4.0		
	3013 IZMI	5 S	0602.5	0603.4	2.5	4.0	2.0		
	2695 LEAR	4 S/F	0603.0E	0603.0		14.0			QL=1 ST=2 TYP=3
	8800 LEAR	4 S/F	0604.0E	0604.0		12.0			QL=1 ST=2 TYP=3
	2950 GORK	1 S	0608.9	0609.3	0.8	10.2			
	234 POTS	4 S/F	0653.0	0653.2	0.5	38000.0	4000.0		
	237 TRST	47 GB	0653.1	0653.1	0.4	14110.0			14L
	327 TRST	47 GB	0653.1	0653.1	0.4	1113.0			14L
	408 TRST	47 GB	0653.1	0653.1	0.4	318.0			9L
	610 TRST	47 GB	0653.1	0653.1	0.4	1227.0			3L
	204 IZMI	21 GRF	0653.1	0653.2	0.6	8000.0	4000.0		
536 ONDR	41 F	0800.0		460.0					
204 IZMI	21 GRF	0839.0	0839.5	1.0	1000.0	500.0			
237 TRST	47 GB	0839.3	0839.7	0.6	922.0			19L	
234 POTS	8 S	0839.4	0839.8	0.7	550.0	20.0			
237 TRST	46 C	0841.1	0841.2	0.5	442.0			27L	
327 TRST	46 C	0841.1	0841.2	0.2	103.0			17L	
610 TRST	46 C	0841.2	0841.2	0.1	115.0			5L	
408 TRST	46 C	0841.2	0841.2	0.1	104.0			6L	
234 POTS	8 S	1332.1	1332.3	0.4	600.0	200.0			
500 HIRA	22 GRF	2102.0	2117.0	180.0	8.0	3.0		0	
19	100 GORK	44 NS	0300.0E		400.0D		10.0		
	200 GORK	44 NS	0303.0E		389.0D		18.0		
	260 ONDR	44 NS	0520.0E	0825.2	580.0D	154.0U			
	234 POTS	44 NS	0536.0E	0751.0	539.0D	220.0			
	33 UPIC	43 NS	0545.0		369.0				
	29 UPIC	43 NS	0545.2		368.5				
	204 IZMI	44 NS	0600.0E		360.0D	100.0			
	127 TORN	44 NS	0620.0E		520.0D		72.0D		V=1
	100 HIRA	44 NS	1925.0E	2011.0	640.0D	60.0	12.0		
200 HIRA	44 NS	1925.0E	0000.0	850.0D	150.0	69.0		SL	
2840 YUNN	45 C	0222.8	0224.6	8.8	15.0				

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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 (W/m 2 Hz)		
19	100	GORK	8 S	0300.0	0300.1	0.5	75.0			
	100	GORK	41 F	0333.3	0348.0		350.0			
	100	GORK	41 F	0333.3	0344.0		350.0			
	100	GORK	41 F	0333.3	0333.7	27.0	350.0			
	3100	CRIM	1 S	0552.0	0553.5	4.0	2.3	0.8		
	2950	GORK	1 S	0552.6	0553.3	2.4	2.0	1.0		
	2950	GORK	20 GRF	0607.0	0612.0	37.5	2.0	1.0		
	100	HIRA	8 S	0633.7	0634.9	2.0	760.0			
	100	GORK	41 F	0634.5	0635.2	5.7	17000.0			
	100	GORK	41 F	0634.5	0639.3		1350.0			
	500	HIRA	6 S	0635.0	0638.3	3.5	9.0			0
	5900	KISV	1 S	0652.5	0653.0	3.1	6.0			
	9300	KISV	2 S/F	0652.7	0653.0	13.0	7.0			
	100	GORK	46 C	0748.7	0755.0		500.0			
	100	GORK	46 C	0748.7	0753.2	8.3	1250.0			
	3000	POTS	3 S	0750.0	0753.9	7.0U	11.0			
	2840	YUNN	45 C	0750.4	0754.1	10.7	8.0			
	3100	CRIM	1 S	0751.0	0754.1	5.6	7.4	2.0		
	2950	GORK	21 GRF	0751.0	0753.5	11.0D	2.0			
	3013	IZMI	5 S	0751.0	0753.8	6.0	25.0	10.0		
	5900	KISV	2 S/F	0751.4	0753.9	6.1	20.0			
	9500	POTS	3 S	0752.0	0754.2	9.0	13.0			
	9100	GORK	20 GRF	0752.1	0753.8	19.5	14.0			
	950	GORK	1 S	0752.4	0754.2	2.4	1.5			
	2950	GORK	3 S	0753.0	0754.0	2.3	6.0	3.0		
	9300	KISV	2 S/F	0753.0	0754.1	8.1	13.0			
	200	GORK	46 C	0819.3	0821.1	4.7	519.0			
	200	GORK	46 C	0819.3	0822.3		1084.0			
	9500	POTS	20 GRF	0820.0	0831.5	20.0	13.0			
	30	POTS	4 S/F	0820.4	0822.8	12.0	12000.0			
	100	GORK	41 F	0821.0	0824.0	11.0	10000.0			
	100	GORK	41 F	0821.0	0825.2		5400.0			
	100	GORK	41 F	0821.0	0831.5		7000.0			
	5900	KISV	45 C	0822.2	0830.0	15.1	16.0			
	5900	KISV	45 C	0822.2	0831.5		14.0			
	9300	KISV	45 C	0822.5	0830.0	14.3	15.0			
	9300	KISV	45 C	0822.5	0831.5		16.0			
	234	POTS	4 S/F	0822.5	0831.5	9.2	20000.0			
	9100	GORK	22 GRF	0822.5	0831.5	16.6	12.0			
	1470	POTS	40 F	0822.5	0826.5	15.0	4.0			
	2950	GORK	46 C	0822.7	0830.1		10.7			
	2950	GORK	46 C	0822.7	0826.1	12.2	15.4			
	204	IZMI	41 F	0823.0	0831.6	9.0	8900.0			
	3100	CRIM	42 SER	0823.8	0826.1	12.0	9.1	2.5		
	3100	CRIM	42 SER	0823.8	0830.6		8.7			
	3013	IZMI	7 C	0824.0	0826.0	7.8	16.0	8.0		
	950	GORK	23 GRF	0824.0	0829.2	8.5	1.4			
	430	KRAK	46 C	0824.5	0831.4		200.0D			
	430	KRAK	46 C	0824.5	0826.6	10.2	100.0	2.0		
	536	ONDR	2 S/F	0824.8	0826.5	2.0	95.0			
	3000	POTS	42 SER	0825.0	0830.0	11.0	12.0			
	810	KRAK	2 S/F	0825.7	0826.4	1.2	12.0	3.0		
	810	KRAK	2 S/F	0825.7	0826.6		12.0			
	650	GORK	4 S/F	0825.8	0826.7	1.5	33.0			
	950	GORK	45 C	0826.0	0826.4	0.9	6.0			
	950	GORK	45 C	0826.0	0826.7		9.5			
	200	GORK	4 S/F	0828.9	0829.2	1.9	1000.0			
	810	KRAK	8 S	0831.3	0831.3	0.1	5.0			
	650	GORK	8 S	0831.3	0831.4	0.5	58.0			
	950	GORK	1 S	0831.3	0831.4	0.3	4.5			
	100	GORK	41 F	0855.5	0915.0		300.0			
	100	GORK	41 F	0855.5	0913.5		300.0			
	100	GORK	41 F	0855.5	0856.5	26.0	300.0			
	3100	CRIM	20 GRF	0918.0	0924.3	32.0	2.0	0.7		
	430	KRAK	8 S	0925.7	0925.7	0.2	6.0			
	810	KRAK	8 S	0926.0	0926.0	0.2	5.0			

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Day	Freq Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
						Peak (10 -22 W/m 2 Hz)	Mean		
19	430 KRAK	8 S	0949.0	0949.0	0.1	16.0			
	810 KRAK	8 S	0949.5	0949.5	0.1	5.0			
	430 KRAK	1 S	1101.2	1101.6	0.7	4.0	2.0		
20	260 ONDR	44 NS	0500.0E	0735.6	600.0D	95.0U			
	234 POTS	44 NS	0540.0E	0918.0	560.0D	68.0			
	204 IZMI	44 NS	0600.0E		360.0D	90.0			
	33 UPIC	43 NS	0624.1		695.9D				
	29 UPIC	43 NS	0625.0		695.0D				
	127 TORN	44 NS	0720.0E		460.0D		12.0		V=1
	100 HIRA	44 NS	1925.0E	2330.0	850.0D	12.0	4.0		
	200 HIRA	44 NS	1925.0E	0013.0	850.0D	130.0	61.0		SL
	2950 GORK	1 S	0333.0	0333.3	0.9	2.3			
	234 POTS	8 S	0605.6	0606.1	1.1	330.0	100.0		
	9100 GORK	1 S	0627.1	0627.8	3.9	4.6			
	5900 KISV	2 S/F	0627.1	0627.8	5.5	8.0			
	9300 KISV	2 S/F	0627.2	0627.7	2.0	5.0			
	2950 GORK	1 S	0627.4	0627.7	0.7	2.7	1.3		
	234 POTS	4 S/F	0717.6	0719.0	1.8	250.0	50.0		
	127 TORN	7 C	0731.8	0733.4	2.0	450.0	230.0		
	430 KRAK	1 S	0821.5	0822.0	1.0	2.0	1.0		
	3100 CRIM	1 S	1004.0	1004.9	1.4	2.5	0.8		
	234 POTS	4 S/F	1014.0	1015.0	1.2	300.0	75.0		
	2950 GORK	1 S	1014.3	1014.8	1.6	2.7	1.3		
	237 TRST	42 SER	1042.8	1043.3	1.0	357.0			23L
327 TRST	42 SER	1042.8	1043.4	1.0	39.0			19L	
237 TRST	46 C	1158.4	1158.4	0.2	668.0			4L	
9400 HUAN	3 S	2010.8	2012.6	3.3	49.0	15.2			
100 HIRA	46 C	2316.2	2316.8	28.0	670.0				
21	260 ONDR	44 NS	0520.0E	0654.3	530.0D				
	33 UPIC	43 NS	0526.0		754.0D				
	29 UPIC	43 NS	0526.0		754.0D				
	234 POTS	44 NS	0540.0E	0834.0	560.0D	225.0			
	204 IZMI	44 NS	0600.0E		360.0D	80.0			
	127 TORN	44 NS	0630.0E		420.0D		109.0		V=7
	430 KRAK	43 NS	0707.0	0951.5	258.0D	33.0	8.0		
	100 HIRA	44 NS	1925.0E	2123.0	850.0D	46.0	5.0		
	200 HIRA	44 NS	1925.0E	2125.0	850.0D	37.0	11.0		ML
	950 GORK	21 GRF	0302.1	0317.0	19.2	5.7			
	2840 YUNN	45 C	0309.5	0311.8	34.0	33.0			
	950 GORK	46 C	0309.7	0311.4	7.2	71.0			
	950 GORK	46 C	0309.7	0315.7		14.6			
	9100 GORK	4 S/F	0309.8	0311.6	3.1	58.0			
	2695 SYDN	4 S/F	0310.0	0311.0	3.0	34.0			QL= ST= TYP=3
	2950 GORK	3 S	0310.7	0311.6	2.0	31.0			
	17000 NOBE	7 C	0310.8	0311.5	10.0	27.0			60R
	8800 LEAR	4 S/F	0311.0	0311.0	7.0	60.0			QL=1 ST=2 TYP=3
	2695 LEAR	4 S/F	0311.0	0313.0	7.0	40.0			QL=1 ST=2 TYP=3
	8800 PALE	8 S	0311.0E	0311.0U	2.0D	71.0			QL=1 ST=2 TYP=3
	500 HIRA	46 C	0311.0	0311.3	8.5	64.0			0
	2950 GORK	30 PBI	0312.7	0312.8	31.0	8.9			
	9100 GORK	29 PBI	0312.9	0313.9	19.7	20.0			
	2950 GORK	2 S/F	0314.4	0315.9	4.6	4.8			
	950 GORK	46 C	0323.0	0324.0		19.0			
	950 GORK	46 C	0323.0	0323.4	1.6	23.0			
	2950 GORK	1 S	0323.8	0324.2	1.2	2.0			
	950 GORK	4 S/F	0326.1	0326.4	1.5	5.0			
	2840 PEKG	5 S	0329.0	0329.3	4.0	30.3	29.5		
	100 HIRA	42 SER	0431.7	0444.9	17.0	560.0			
500 HIRA	24 R	0432.0	0605.0	330.0D	37.0	16.0		WL SUNSET	
200 HIRA	24 R	0435.0	0557.0	310.0D	580.0	130.0		SL SUNSET	
2950 GORK	21 GRF	0441.0	0533.0	440.0D	13.7				
5900 KISV	28 PRE	0442.0	0525.1	43.2	18.0				
650 GORK	23 GRF	0444.3	1103.8	438.0D	31.0				
9100 GORK	21 GRF	0446.5	0928.6	282.1U	14.0				

S O L A R R A D I O E M I S S I O N
O U T S T A N D I N G O C C U R R E N C E S

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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		
21	100	HIRA	48 C	0450.0	0650.3	300.0D	830.0	560.0		SUNSET
	950	GORK	23 GRF	0455.0	0842.0	365.0	7.5			
	3100	CRIM	21 GRF	0458.0	0540.0	257.0	8.0	3.0		
	2840	YUNN	3 S	0522.5	0526.1	9.5	80.0			
	8800	LEAR	4 S/F	0524.0	0526.0	8.0	36.0			QL=1 ST=2 TYP=3
	3100	CRIM	3 S	0524.0	0526.1	5.0	56.0	19.0		
	2840	PEKG	5 S	0524.0	0524.9	2.0	72.0	69.9		
	9300	KISV	45 C	0524.3	0526.2	14.4	40.0			
	9300	KISV	45 C	0524.3	0526.7		32.0			
	950	GORK	4 S/F	0524.7	0526.3	7.0	19.5			
	2695	LEAR	8 S	0525.0	0526.0	2.0	80.0			QL=1 ST=2 TYP=3
	2950	GORK	3 S	0525.1	0526.0	4.1	77.0	38.0		
	5900	KISV	4 S/F	0525.1	0526.0	7.3	62.0			
	650	GORK	46 C	0525.5	0533.1		34.0			
	650	GORK	46 C	0525.5	0526.4	12.3	20.0			
	15000	KISV	45 C	0525.6	0526.3	10.0	18.0			
	15000	KISV	45 C	0525.6	0526.9		17.0			
	950	GORK	4 S/F	0558.4	0601.5	7.5	21.0			
	650	GORK	46 C	0558.6	0605.5		25.0			
	650	GORK	46 C	0558.6	0606.6		19.0			
	650	GORK	46 C	0558.6	0601.6	12.5	26.0			
	237	TRST	27 RF	0643.0	0643.2	9.2	505.0			91L
	2695	LEAR	8 S	0654.0	0655.0	2.0	84.0			QL=1 ST=2 TYP=3
	2840	YUNN	45 C	0654.1	0655.2	8.4	45.0			
	3000	POTS	4 S/F	0654.1	0655.3	2.9	39.0			
	3100	CRIM	3 S	0654.2	0655.0	3.0	36.0	12.0		
	950	GORK	4 S/F	0654.2	0655.9	2.8	94.0			
	2950	GORK	4 S/F	0654.3	0655.2	2.5	43.0			
	1470	POTS	4 S/F	0654.4	0655.5	5.6	41.0			
	3013	IZMI	7 C	0654.5	0655.4	3.6	25.0	12.0		
	234	POTS	4 S/F	0654.5	0655.8	3.5	850.0			
	327	TRST	47 GB	0654.6	0655.1	0.9	712.0			10L
	9300	KISV	2 S/F	0654.6	0655.2	3.4	13.0			
	5900	KISV	4 S/F	0654.6	0655.3	7.4	22.0			
	237	TRST	47 GB	0654.6	0655.8	1.8	1474.0			26L
	650	GORK	4 S/F	0654.9	0656.1	2.0	22.0			
	15000	KISV	2 S/F	0654.9	0655.3	4.5	7.0			
	408	TRST	46 C	0655.0	0655.1	0.3	105.0			7L
	9500	POTS	29 PBI	0655.0	0655.4	15.0	9.0			
	610	TRST	46 C	0655.3	0656.0	0.8	140.0			4L
	2840	PEKG	5 S	0707.0	0708.2	3.0	44.6	43.3		
	5900	KISV	2 S/F	0715.8	0717.3	6.5	6.0			
	9100	GORK	1 S	0754.7	0755.2	1.8	10.6			
	9100	GORK	45 C	0925.6	0926.1	2.1	34.0			
	9100	GORK	45 C	0925.6	0926.6		24.0			
	810	KRAK	1 S	0958.4	0958.5	0.3	2.0	1.0		
	5900	KISV	1 S	1007.1	1007.9	6.3	7.0			
	2950	GORK	1 S	1007.4	1007.7	1.2	3.3	1.5		
	9100	GORK	1 S	1048.3	1049.4	3.2	4.4			
	5900	KISV	2 S/F	1048.5	1049.6	4.8	3.0			
5900	KISV	2 S/F	1135.2	1135.8	1.8	2.0				
9500	POTS	20 GRF	1255.0	1322.0	75.0	15.0				
2800	OTTA	22 GRF	1300.0	1317.0	85.0	26.6	8.0			
1470	POTS	28 PRE	1303.0	1316.3	72.0	12.0				
3000	POTS	28 PRE	1305.0U	1316.3	55.0U	22.0				
5900	KISV	23 GRF	1305.0	1316.3	73.0	20.0				
9300	KISV	20 GRF	1308.6	1318.3	54.5D	13.0				
9400	HUAN	20 GRF	1310.8	1328.5	47.4	4.7	1.0			
234	POTS	4 S/F	1336.5	1337.5	3.8	385.0	50.0			
30	POTS	4 S/F	1337.0	1338.6	3.1	4000.0	1000.0			
234	POTS	4 S/F	1423.1	1424.2	3.4	950.0	140.0			
9400	HUAN	1 S	1753.2	1758.3	8.0	11.0	2.4			
9400	HUAN	1 S	1840.4	1846.0	12.7	6.3	2.6			
500	HIRA	21 GRF	2100.0	2138.0	115.0	6.0	2.0		WL	
200	HIRA	8 S	2129.7	2129.8	0.8	5000.0			0	
500	HIRA	42 SER	2208.3	2341.2	108.0	1400.0			SL	

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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 (10 ⁻²² W/m ² Hz)		
21	200	HIRA	46 C	2229.7	2256.1	40.0	710.0	27.0		SL
	200	HIRA	46 C	2229.7	2238.3		70.0			ML
	100	HIRA	42 SER	2234.0	2256.0	36.0	620.0			
	100	HIRA	46 C	2341.8	2343.5	2.0	890.0			
	200	HIRA	46 C	2342.2	2342.9	1.3	790.0			0
22	29	UPIC	44 NS	0400.0E		840.0D				
	33	UPIC	44 NS	0400.0E		840.0D				
	204	IZMI	44 NS	0600.0E		360.0D	10.0			
	260	ONDR	44 NS	0600.0E	1309.2	490.0D	114.0			
	127	TORN	44 NS	0800.0E		240.0D		3.0		V=1
	200	HIRA	44 NS	1925.0E	2118.5	300.0D	7.0	3.0		WL
	200	HIRA	42 SER	0111.6	0122.4	11.0	280.0			0
	8800	LEAR	8 S	0119.0	0120.0	1.0	12.0			QL=1 ST=2 TYP=3
	500	HIRA	7 C	0119.0	0120.5	4.5	760.0			SL
	500	HIRA	8 S	0331.0	0331.0	0.7	90.0			ML
	100	HIRA	42 SER	0343.8	0347.6	21.0	710.0			
	2950	GORK	3 S	0346.4	0348.3	3.1	18.3			
	8800	LEAR	8 S	0347.0	0348.0	1.0	34.0			QL=1 ST=3 TYP=3
	500	HIRA	48 C	0347.0	0348.3	1.8	6100.0	1150.0		SL
	650	GORK	4 S/F	0347.1	0348.2U	1.7	690.0D			
	950	GORK	4 S/F	0347.2	0348.2	1.6	35.0			
	9100	GORK	1 S	0347.8	0348.3	1.8	23.0	10.0		
	2950	GORK	21 GRF	0510.0	0534.0	318.0	13.3			
	650	GORK	21 GRF	0510.5	0549.6	84.2	7.5			
	2840	YUNN	20 GRF	0511.3	0526.9	15.6U	20.0			
	950	GORK	23 GRF	0515.0	0530.4	60.0	10.0			
	3100	CRIM	21 GRF	0516.0	0527.0	49.0	16.4	5.0		
	500	HIRA	46 C	0518.0	0524.5		90.0			SL
	500	HIRA	46 C	0518.0	0545.5	73.0	500.0	8.0		SL
	9300	KISV	22 GRF	0520.0	0704.0	199.0	11.0			
	5900	KISV	20 GRF	0520.0	0530.1	166.0	19.0			
	650	GORK	46 C	0521.2	0542.0		19.0			
	650	GORK	46 C	0521.2	0535.6		52.0			
	650	GORK	46 C	0521.2	0527.7		36.0			
	9100	GORK	22 GRF	0521.5	0546.3	43.9	16.0			
	2950	GORK	4 S/F	0524.9	0526.9	6.5	7.8			
	8800	LEAR	4 S/F	0527.0	0530.0	5.0	16.0			QL=1 ST=2 TYP=3
	2695	LEAR	4 S/F	0527.0	0527.0	4.0	18.0			QL=1 ST=2 TYP=3
	100	HIRA	46 C	0527.5	0547.5	59.0	830.0	96.0		
	100	HIRA	46 C	0527.5	0537.6		580.0			
	2695	LEAR	20 GRF	0533.0E	0534.0	1.0D	19.0			QL=1 ST=2 TYP=2
	8800	LEAR	20 GRF	0533.0E	0534.0	1.0D	21.0			QL=1 ST=2 TYP=2
	3100	CRIM	1 S	0545.0	0546.0	2.0	5.3	2.0		
	8800	LEAR	8 S	0545.0	0546.0	1.0	18.0			QL=1 ST=2 TYP=3
	5900	KISV	46 C	0545.2	0546.2	2.8	10.0			
	650	GORK	4 S/F	0545.2	0545.9	1.3	260.0			
	2950	GORK	4 S/F	0545.3	0546.3	1.5	7.0			
	950	GORK	46 C	0545.3	0546.4		11.0			
	950	GORK	46 C	0545.3	0545.9	1.1	16.0			
	9300	KISV	46 C	0545.4	0546.2	1.0	10.0			
536	ONDR	41 F	0600.0D		490.0D					
650	GORK	4 S/F	0601.3	0614.3		13.0				
650	GORK	4 S/F	0601.3	0606.7		60.0				
650	GORK	4 S/F	0601.3	0601.7	14.8	27.0				
500	HIRA	42 SER	0729.5	0733.5	47.5	73.0			ML	
408	TRST	27 RF	0730.3	0739.1	9.3	230.0			67L	
327	TRST	27 RF	0730.3	0734.3	9.3	99.0			66L	
237	TRST	27 RF	0730.3	0732.8	9.3	73.0			80L	
610	TRST	27 RF	0732.0	0733.2	7.0	161.0			52L	
9300	KISV	46 C	0742.6	0743.5	1.5	9.0				
650	GORK	4 S/F	0905.1	0906.9	3.4	11.6				
810	KRAK	2 S/F	1011.5	1012.0	1.0	6.0	2.0			
650	GORK	4 S/F	1011.6	1012.0	3.0	19.0				
950	GORK	2 S/F	1011.6	1012.4	1.4	5.7				
810	KRAK	2 S/F	1033.8	1034.5	0.7	9.0	2.0			

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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		
22	950	GORK	2 S/F	1033.9	1034.5	1.3	4.0			
	610	TRST	41 F	1034.0	1034.5	0.9	465.0		59L	
	9100	GORK	20 GRF	1035.2	1112.4	45.8	7.0			
	3000	POTS	40 F	1111.0	1112.5	3.0	4.0			
	29	UPIC	46 C	1111.3		3.9				
	237	TRST	47 GB	1111.3	1111.9	1.4	957.0		15L	
	2950	GORK	2 S/F	1111.4	1112.0	1.6	3.8			
	1470	POTS	2 S/F	1111.4	1112.2	1.6	4.0			
	33	UPIC	46 C	1111.5		3.8				
	5900	KISV	2 S/F	1111.6	1112.1	2.9	5.0			
	950	GORK	2 S/F	1111.7	1112.0	1.5	8.6			
	650	GORK	2 S/F	1111.8	1112.0	1.6	3.0			
	810	KRAK	8 S	1111.8	1112.0	0.3	5.0			
	204	IZMI	41 F	1111.8	1112.5	9.6	900.0			
	237	TRST	46 C	1113.9	1114.6	0.9	77.0			13L
	327	TRST	45 C	1114.1	1114.1	0.6	60.0			12L
	237	TRST	47 GB	1115.7	1115.8	0.2	584.0			10L
	237	TRST	46 C	1117.8	1118.3	0.7	86.0			10L
	9400	HUAN	22 GRF	1234.0	1246.5	18.0	5.6	3.0		
	3000	POTS	3 S	1245.5	1246.8	2.5	9.0			
	9500	POTS	1 S	1246.0	1246.7	1.2	7.0			
	3100	CRIM	1 S	1246.0	1246.8	1.5	5.8	2.0		
	5900	KISV	1 S	1246.3	1246.7	1.1	10.0			
	9300	KISV	1 S	1246.3	1248.7	2.4	9.0			
	1470	POTS	1 S	1246.5	1246.8	1.0	3.0			
	408	TRST	42 SER	1253.6	1253.6	0.2	104.0			3L
	327	TRST	46 C	1253.6	1253.7	0.3	239.0			17L
	9400	HUAN	1 S	1318.3	1322.0	8.9	4.2	1.9		
	9300	KISV	4 S/F	1346.9	1350.1	7.0	29.0			
	9400	HUAN	3 S	1347.4	1350.2	6.2	26.6	10.9		
	9500	POTS	3 S	1348.0	1350.2	4.5	25.0			
	5900	KISV	4 S/F	1348.5	1350.2	6.0	25.0			
	3000	POTS	1 S	1349.0	1350.1	2.0U	6.0			
	1470	POTS	1 S	1350.0	1350.2	1.3	3.0			
	9400	HUAN	30 PBI	1353.6	1353.6	87.6	9.8	3.6		
	2800	OTTA	3 S	1420.0	1421.0	2.2	78.9	39.0		
	8800	SGMR	8 S	1420.0	1420.0	1.0	110.0			QL=1 ST=2 TYP=3
	2695	SGMR	8 S	1420.0	1420.0	1.0	74.0			QL=1 ST=2 TYP=3
	8800	SVTO	8 S	1420.0	1420.0	1.0	130.0			QL=1 ST=2 TYP=3
	2695	SVTO	4 S/F	1420.0E	1420.0		81.0			QL=1 ST=2 TYP=3
	9400	HUAN	3 S	1420.0	1420.5	4.1	118.9	34.7		
	3000	POTS	3 S	1420.0	1420.6	4.0	62.0			
	9500	POTS	3 S	1420.0	1420.8	4.0	103.0			
	1470	POTS	3 S	1420.5	1420.9	4.5	44.0			
	2800	OTTA	29 PBI	1422.2	1458.0	53.0	3.2	1.0		
9400	HUAN	23 GRF	1538.1	1619.2	99.9	7.0	1.5			
2800	OTTA	22 GRF	1631.0	1647.0	47.0	4.9	2.0			
2800	OTTA	45 C	1647.0	1655.3	11.7	34.2	13.0			
2800	OTTA	45 C	1647.0	1648.8	3.5	22.3	11.0			
9400	HUAN	45 C	1647.6	1648.7	10.9	142.7	40.8			
8800	SGMR	8 S	1648.0	1649.0	2.0	140.0			QL=1 ST=2 TYP=3	
8800	SVTO	8 S	1648.0	1648.0	1.0	140.0			QL=1 ST=2 TYP=3	
2800	OTTA	45 C	1650.5	1651.7	3.7	22.1	11.0			
8800	SGMR	8 S	1654.0	1655.0	1.0	72.0			QL=1 ST=2 TYP=3	
2800	OTTA	45 C	1654.2	1655.3	4.5	34.2	17.0			
500	HIRA	23 GRF	2105.0	2124.0	85.0	5.0	3.0		WL	
2695	SGMR	20 GRF	2239.0	2240.0	1.0	24.0			QL=1 ST=2 TYP=2	
8800	SGMR	8 S	2239.0	2239.0	1.0	85.0			QL=1 ST=2 TYP=3	
35000	NOBE	7 C	2239.2	2243.8	12.0	43.0			0	
17000	NOBE	7 C	2239.2	2239.9	21.0	44.0			47R	
500	HIRA	22 GRF	2323.0	0117.0	170.0	8.0	4.0		WL	
2840	PEKG	5 S	2339.0	2339.9	2.0	14.2	13.4			
23	260	ONDR	44 NS	0530.0E	0936.3	516.0D	127.0			
	204	IZMI	43 NS	0600.0		360.0	10.0			
	127	TORN	44 NS	0720.0E		500.0D		4.0		V=1

SOLAR RADIO EMISSION
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JUNE 1988

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
23	33	UPIC	43 NS	0731.5		418.2				
	29	UPIC	43 NS	0731.8		414.2				
	430	KRAK	43 NS	0924.7	0928.7	59.0	51.0	9.0		
	430	KRAK	44 NS	1023.7E		157.0D	5.0			
	8800	LEAR	8 S	0241.0	0241.0	1.0	17.0			QL=1 ST=2 TYP=3
	17000	NOBE	7 C	0241.5	0241.9	1.5	22.0			40R
	3100	CRIM	25 R	0620.0	0700.0		2.5			
	650	GORK	22 GRF	0719.5	0731.4	18.4	1.3			
	950	GORK	1 S	0729.0	0731.4	4.5	2.6			
	500	HIRA	6 S	0729.0	0730.5	3.2	3.0			0
	810	KRAK	41 F	0729.0	0729.8	4.5	7.0	3.0		
	9100	GORK	20 GRF	0800.8	0834.6	51.8	6.5			
	9100	GORK	21 GRF	0908.0	0931.8	172.0D	45.0			
	5900	KISV	46 C	0908.9	0924.1		156.0			
	5900	KISV	46 C	0908.9	0920.4	23.0	138.0			
	9300	KISV	46 C	0912.0	0924.4		177.0			
	9300	KISV	46 C	0912.0	0920.4	18.3	134.0			
	9500	POTS	45 C	0915.0	0924.4	105.0	195.0			
	2950	GORK	46 C	0916.0	0924.7		66.0			
	2950	GORK	46 C	0916.0	0921.7	14.0	87.0			
	8800	LEAR	4 S/F	0918.0	0924.0	13.0	150.0			QL=1 ST=2 TYP=5
	2695	LEAR	4 S/F	0918.0	0921.0	13.0	73.0			QL=1 ST=2 TYP=3
	1470	POTS	45 C	0918.0	0926.6	272.0	20.0			
	3000	POTS	45 C	0918.0	0921.7	102.0	77.0			
	9100	GORK	46 C	0918.3	0924.3		195.0			
	9100	GORK	46 C	0918.3	0920.3	13.5	157.0			
	3013	IZMI	7 C	0918.3	0921.8	12.4	73.0	36.0		
	15000	KISV	46 C	0918.4	0924.4		190.0			
	15000	KISV	46 C	0918.4	0920.5	11.3	178.0			
	3100	CRIM	47 GB	0918.5	0921.5		67.7			
	3100	CRIM	47 GB	0918.5	0919.5	13.0	36.0	22.0		
	3100	CRIM	47 GB	0918.5	0924.6		50.6			
	950	GORK	23 GRF	0918.6	0939.1	52.2	12.0			
	650	GORK	23 GRF	0918.7	0947.8	90.0	24.0			
	8800	SVTO	4 S/F	0919.0	0924.0	10.0	260.0			QL=1 ST=2 TYP=5
	810	KRAK	27 RF	0919.0	0952.3	64.0	8.0	4.0		
	950	GORK	46 C	0919.3	0920.2		61.0			
	650	GORK	4 S/F	0919.3	0919.5	0.7	70.0			
	950	GORK	46 C	0919.3	0919.6	1.1	85.0			
	810	KRAK	4 S/F	0919.5	0919.8	4.0	150.0	6.0		
	2695	SVTO	8 S	0920.0	0921.0	2.0	81.0			QL=1 ST=2 TYP=3
	408	TRST	27 RF	0924.0	0931.0	72.0	85.0			58L
	237	TRST	27 RF	0924.0	0957.7	72.0	669.0			90L
	327	TRST	27 RF	0924.0	0935.7	72.0	101.0			67L
	610	TRST	27 RF	0924.0	0937.8	72.0	150.0			40L
204	IZMI	42 SER	0925.0	0958.0	60.0	40.0				
234	POTS	27 RF	0928.0	0958.0	52.0	16.0	5.0			
2950	GORK	29 PBI	0930.0	0930.0	150.0D	21.0				
3100	CRIM	29 PBI	0931.0	0931.0	111.0	16.0	5.0			
650	GORK	41 F	0937.2	0937.4U	3.9	60.0D				
650	GORK	41 F	0937.2	0937.8U		60.0D				
810	KRAK	8 S	0937.7	0937.7	0.1	33.0				
234	POTS	41 F	0955.6	0957.6	3.1	275.0	15.0			
9300	KISV	2 S/F	1211.9	1212.4	1.0	3.0				
2695	SGMR	8 S	1426.0	1426.0	1.0	69.0			QL=1 ST=2 TYP=3	
9400	HUAN	20 GRF	1544.7	1614.2	67.5	10.3	7.4			
9400	HUAN	21 GRF	1731.3	1817.0	152.3	42.8	16.1			
2695	SVTO	4 S/F	1744.0	1758.0	16.0	130.0			QL=1 ST=2 TYP=3	
9400	HUAN	45 C	1750.1	1756.6	31.1	184.9	71.8			
2800	OTTA	45 C	1752.0	1757.0	11.0	57.7	23.0			
2800	OTTA	45 C	1752.0	1757.0	18.0	57.7	28.0			
8800	PALE	4 S/F	1753.0	1756.0	8.0	170.0			QL=1 ST=2 TYP=3	
8800	SVTO	4 S/F	1753.0	1756.0	7.0	130.0			QL=1 ST=2 TYP=3	
8800	SGMR	20 GRF	1753.0	1756.0	17.0	190.0			QL=1 ST=2 TYP=2	
2695	PALE	8 S	1756.0	1757.0	1.0	54.0			QL=1 ST=2 TYP=3	
2695	SGMR	8 S	1756.0	1757.0	1.0	56.0			QL=1 ST=2 TYP=3	

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

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Jun 88

JUNE 1988

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	2800 OTTA	45 C	1803.0	1807.5	7.0	26.9	13.0		
	2695 PALE	20 GRF	1804.0E	1804.0	6.0D	40.0			QL=1 ST=2 TYP=2
	8800 PALE	20 GRF	1804.0E	1807.0	6.0D	85.0			QL=1 ST=2 TYP=2
	2800 OTTA	29 PBI	1810.0	1810.0	195.0	15.1	7.0		
	200 HIRA	42 SER	2335.0	2336.0	59.0	58.0			0
24	260 ONDR	44 NS	0600.0E	1228.3	500.0D	49.0			
	204 IZMI	43 NS	0700.0		300.0	30.0			
	430 KRAK	43 NS	0712.0	0734.6	37.0	32.0			
	200 HIRA	44 NS	1925.0E	0610.0	870.0D	12.0	2.0		0
	500 HIRA	27 RF	0005.0	0037.0	98.0	4.0	2.0		0
	9100 GORK	23 GRF	0306.0E	0309.0	273.0D	44.0			
	8800 LEAR	20 GRF	0308.0E	0309.0	13.0D	10.0			QL=1 ST=2 TYP=2
	2950 GORK	21 GRF	0407.5	0420.0	330.0	3.3			
	5900 KISV	28 PRE	0411.0	0419.3	8.2	7.0			
	9300 KISV	28 PRE	0411.8	0418.9	7.2	63.0			
	650 GORK	20 GRF	0416.8	0532.1	85.2U	10.0			
	2840 YUNN	45 C	0417.5	0422.9	17.2	208.0D			
	9300 KISV	47 GB	0418.9	0422.8U	9.2	1107.0D			
	15000 KISV	47 GB	0419.0	0422.8U	7.8	2200.0D			
	17000 NOBE	7 C	0419.1	0422.8	45.0	870.0			10R
	9100 GORK	47 GB	0419.2	0425.8	7.5	1220.0			
	5900 KISV	47 GB	0419.3	0422.8	8.0	848.0			
	500 HIRA	7 C	0419.5	0441.0		9.0			WL
	500 HIRA	7 C	0419.5	0425.6	73.0	170.0	4.0		0
	3100 CRIM	3 S	0420.0	0423.0U	10.0	192.0D			
	950 GORK	46 C	0420.0	0425.2		31.0			
	950 GORK	46 C	0420.0	0424.3		33.0			
	950 GORK	46 C	0420.0	0423.5		34.5			
	950 GORK	46 C	0420.0	0421.6	5.4	12.7			
	2950 GORK	47 GB	0420.0	0422.8	6.4	320.0			
	8800 PALE	49 GB	0421.0E	0422.0	20.0D	950.0			QL=1 ST=2 TYP=6
	8800 SVTO	49 GB	0421.0E	0422.0	27.0D	970.0			QL=1 ST=2 TYP=6
	2840 PEKG	45 C	0421.0	0424.2	35.0	245.8	227.6		
	2695 PALE	4 S/F	0422.0	0422.0	3.0	270.0			QL=1 ST=2 TYP=3
	2695 SVTO	4 S/F	0422.0	0422.0	3.0	260.0			QL=1 ST=2 TYP=3
	8800 LEAR	4 S/F	0423.0	0423.0	3.0	300.0			QL=1 ST=2 TYP=3
	2695 LEAR	20 GRF	0423.0E	0424.0	127.0D	170.0			QL=1 ST=2 TYP=2
	950 GORK	29 PBI	0425.3	0425.3	204.5	8.0			
	2950 GORK	29 PBI	0426.4	0427.0	173.0	18.0			
	9100 GORK	30 PBI	0426.6	0426.6	116.0	119.0			
	5900 KISV	29 PBI	0427.4	0427.4	197.0	68.0			
	100 HIRA	42 SER	0427.7	0451.9	25.0	335.0			
	9300 KISV	29 PBI	0428.1	0428.1	169.5	74.0			
	3100 CRIM	29 PBI	0430.0	0430.0	155.0	14.0	5.0		
	15000 KISV	2 S/F	0431.0	0433.1	3.0	27.0			
	9100 GORK	2 S/F	0431.0	0433.3	3.4	30.0			
	9300 KISV	2 S/F	0431.9	0433.2	2.0	21.0			
2840 YUNN	29 PBI	0434.7		123.8	14.0				
2840 PEKG	29 PBI	0456.0	0553.0	140.0	6.9	6.3			
9100 GORK	2 S/F	0509.1	0509.8	2.7	10.0				
9100 GORK	2 S/F	0514.8	0515.7	4.8	10.0				
200 HIRA	45 C	0631.7	0631.7	2.0	450.0			0	
100 HIRA	46 C	0632.3		2.6	1000.0D				
204 IZMI	4 S/F	0632.4	0633.0	2.0	570.0	280.0			
33 UPIC	46 C	0632.5	0633.2	2.3					
29 UPIC	45 C	0632.6	0633.8	2.2					
200 HIRA	42 SER	0656.8	0706.0	62.0	95.0			0	
610 TRST	42 SER	0728.3	0728.4	1.7	421.0			6L	
810 KRAK	8 S	0731.3	0731.4	0.2	5.0				
408 TRST	2 S/F	0737.1	0737.1	0.1	80.0			0L	
9100 GORK	23 GRF	0808.0	1155.8	232.0D	39.0				
810 KRAK	8 S	0901.5	0901.6	0.2	54.0				
2950 GORK	20 GRF	0952.2	1006.0	37.5	3.5				
2950 GORK	20 GRF	1144.5	1148.0	15.0D	2.8				
5900 KISV	2 S/F	1146.9	1148.3	4.5	4.0				

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JUNE 1988

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density (10 ⁻²² W/m ² Hz)		Int	Remarks
							Peak	Mean		
24	9500	POTS	1 S	1147.0	1148.3	2.0	12.0			
	9100	GORK	2 S/F	1147.3	1148.3	3.6	9.4			
	9300	KISV	2 S/F	1147.4	1148.3	5.5	10.0			
	536	ONDR	42 SER	1222.4	1222.5	137.6	97.00			
	29	UPIC	4 S/F	1227.7	1228.8	2.2				
	33	UPIC	4 S/F	1227.8	1228.3U	2.2				
	9400	HUAN	22 GRF	1405.4	1421.0	76.6	11.6	6.3		
	9500	POTS	20 GRF	1406.0	1430.5	44.00	13.0			
	1470	POTS	20 GRF	1411.0	1443.5	39.00	6.0			
	2800	OTTA	22 GRF	1414.0	1430.0	106.0	11.2	5.0		
	3000	POTS	20 GRF	1415.0	1430.5	35.00	12.0			
	9400	HUAN	45 C	1601.9	1610.1	11.1	713.8	292.0		
	2800	OTTA	4 S/F	1603.0	1607.0	9.0	162.0	81.0		
	8800	SGMR	49 GB	1604.0E	1605.0	13.00	680.0			QL=1 ST=2 TYP=6
	2695	SGMR	4 S/F	1605.0	1606.0	5.0	180.0			QL=1 ST=2 TYP=3
	2695	SVTO	4 S/F	1605.0	1606.0	7.0	160.0			QL=1 ST=2 TYP=3
	8800	SVTO	49 GB	1605.0E	1605.0	7.00	640.0			QL=1 ST=2 TYP=6
	2800	OTTA	29 PBI	1612.0	1612.0	332.0	32.5	16.0		
	9400	HUAN	30 PBI	1613.0	1613.0	223.1	110.6	79.2		
	9400	HUAN	45 C	1642.3	1645.1	10.9	274.0	123.5		
	2695	PALE	49 GB	1643.0E	1644.0	7.00	270.0			QL=1 ST=2 TYP=7
	8800	PALE	49 GB	1643.0E	1644.0	9.00	1300.0			QL=1 ST=2 TYP=7
	2695	SGMR	49 GB	1643.0E	1644.0	7.00	400.0			QL=1 ST=3 TYP=7
	8800	SGMR	49 GB	1643.0E	1644.0	8.00	1600.0			QL=1 ST=3 TYP=7
	2695	SVTO	S/F	1643.0	1644.0	8.00	340.0			QL=1 ST=2 TYP=5
	8800	SVTO	49 GB	1643.0E	1643.0	10.00	1600.0			QL=1 ST=2 TYP=7
	2800	OTTA	4 S/F	1643.5	1646.5	14.0	365.0	109.0		
	33	UPIC	4 S/F	1644.7		2.0				
	29	UPIC	4 S/F	1644.7	1645.1	1.0				
	9400	HUAN	20 GRF	1854.5	1912.6	34.2	5.0	3.9		
9400	HUAN	42 SER	2127.0			18.2				
9400	HUAN	42 SER	2127.0	2208.0		18.2				
9400	HUAN	42 SER	2127.0	2139.4		14.8				
9400	HUAN	42 SER	2127.0	2151.5		19.8	10.9			
9400	HUAN	42 SER	2127.0	2130.5	45.7	16.5				
9400	HUAN	42 SER	2127.0	2200.6						
25	33	UPIC	44 NS	0400.0E		840.00				
	29	UPIC	44 NS	0400.0E		840.00				
	260	ONDR	44 NS	0550.0E	1113.6	550.00	225.0			
	204	IZMI	44 NS	0600.0E		360.00	20.0			
	127	TORN	44 NS	0940.0E		360.00		2.0		V=0
	500	HIRA	42 SER	0001.0	0033.0	38.5	150.0			0
	100	HIRA	8 S	0031.7	0032.3	1.3	630.0			0
	200	HIRA	8 S	0120.9	0121.3	0.9	140.0			0
	2840	PEKG	3 S	0212.0	0214.0	13.0	53.0	44.1		0
	200	HIRA	42 SER	0212.5	0214.0	10.0	6700.0			0
	100	HIRA	46 C	0212.7		5.4	1000.00			0
	500	HIRA	46 C	0212.8		16.0	24.00			0
	2695	LEAR	8 S	0213.0	0214.0	2.0	84.0			QL=1 ST=2 TYP=3
	8800	LEAR	8 S	0213.0	0214.0	1.0	30.0			QL=1 ST=2 TYP=3
	2695	PALE	8 S	0213.0	0214.0	1.0	56.0			QL=1 ST=2 TYP=3
	200	HIRA	27 RF	0230.0	0316.5	125.0	34.0	6.0		0
	2950	GORK	4 S/F	0246.4E	0248.3	3.70	20.0			
	2950	GORK	21 GRF	0316.0	0708.0	360.0	15.9			
	9100	GORK	20 GRF	0320.3	0410.5	71.4	12.7			
	9100	GORK	23 GRF	0515.0	0725.3	246.0	45.0			
	500	HIRA	42 SER	0526.8	0527.5	5.4	42.0			0
	650	GORK	4 S/F	0530.5	0531.0	1.1	43.0			
	9300	KISV	46 C	0618.5	0647.2	181.5	39.0			
	9300	KISV	46 C	0618.5	0740.5		44.0			
	9300	KISV	46 C	0618.5	0657.6		42.0			
3100	CRIM	21 GRF	0620.0	0722.6	180.0	15.0	5.0			
5900	KISV	28 PRE	0631.9	0727.0	55.1U	24.0				
500	HIRA	42 SER	0637.0	0705.0	67.0	540.0			0	
5900	KISV	46 C	0643.1	0647.2	94.0	19.0				

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JUNE 1988

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	5900	KISV	46 C	0643.1	0737.5		17.0			
	5900	KISV	46 C	0643.1	0657.6		23.0			
	2695	LEAR	4 S/F	0645.0	0646.0	4.0	34.0			QL=1 ST=2 TYP=3
	3000	POTS	20 GRF	0645.0U	0722.0	190.00	20.0			
	9500	POTS	21 GRF	0645.0U	0657.5	185.00	49.0			
	2950	GORK	2 S/F	0645.9	0647.2	4.2	5.8			
	3100	CRIM	1 S	0646.0	0647.2	2.5	4.0	1.3		
	9100	GORK	1 S	0657.1	0657.7	1.5	8.2			
	536	ONDR	47 GB	0700.0	1112.3	254.0U	332.0U			
	100	HIRA	46 C	0704.6		2.4	1000.00			
	200	HIRA	46 C	0704.6	0705.3	1.3	510.0			0
	204	IZMI	4 S/F	0704.8	0705.3	1.2	650.0	300.0		
	650	GORK	23 GRF	0725.6	0731.2	18.1	4.6			
	430	KRAK	46 C	0726.0	0727.0	1.5	87.0	2.0		
	650	GORK	46 C	0726.0	0727.1		23.0			
	650	GORK	46 C	0726.0	0726.2	1.5	57.0			
	950	GORK	23 GRF	0726.0	0741.2	25.0	2.7			
	810	KRAK	41 F	0726.0	0726.3	1.5	4.0	1.0		
	810	KRAK	8 S	0728.0	0728.0	0.1	9.0			
	430	KRAK	46 C	0734.8	0735.0	9.0	95.0	2.0		
	430	KRAK	46 C	0734.8	0740.0		55.0			
	810	KRAK	42 SER	0737.2	0740.2	4.0	30.0			
	650	GORK	4 S/F	0739.6	0739.9	2.1	59.0			
	950	GORK	1 S	0739.9	0740.2	0.9	5.0			
	5900	KISV	23 GRF	0820.2	0823.3	19.5	6.0			
	5900	KISV	23 GRF	0820.2	0833.6		5.0			
	5900	KISV	45 C	1109.7	1116.9		12.0			
	5900	KISV	45 C	1109.7	1113.9U	13.5	48.00			
	430	KRAK	46 C	1109.8	1115.0		174.0			
	430	KRAK	46 C	1109.8	1113.7	11.5	190.00	6.0		
	8800	SGMR	8 S	1113.0	1113.0	1.0	63.0			QL=1 ST=3 TYP=3
	8800	SVTO	8 S	1113.0	1113.0	1.0	70.0			QL=1 ST=3 TYP=3
	430	KRAK	46 C	1113.0	1117.5		23.0			
	810	KRAK	45 C	1113.0	1113.6	9.5	16.0	8.0		
	3000	POTS	29 PBI	1113.0	1113.8	22.0	42.0			
	15000	KISV		1113.0E	1113.8U	1.5U	32.0U			
	3100	CRIM	45 C	1113.1	1113.7	7.0	33.0	11.0		
	3100	CRIM	45 C	1113.1	1116.8		9.0			
	30	POTS	4 S/F	1113.2	1114.1	2.9	32000.0	7000.0		
	3013	IZMI	7 C	1113.4	1114.0	5.8	31.0	15.0		
	234	POTS	4 S/F	1113.4	1114.1	1.1	250.0			
	1470	POTS	29 PBI	1113.5	1114.0	21.0	32.0			
	9500	POTS	42 SER	1113.5	1113.8	6.5	64.0			
	9300	KISV	4 S/F	1113.5	1113.9U	1.5	80.00			
	204	IZMI	41 F	1113.6	1117.0	6.0	280.0			
127	TORN	45 C	1113.7	1114.8U	9.0	150.0	20.0			
810	KRAK	8 S	1115.0	1115.0	0.2	113.0				
9300	KISV	1 S	1116.5	1116.8	1.2	3.0				
9500	POTS	20 GRF	1131.0	1144.7	48.0	16.0				
5900	KISV	21 GRF	1137.9	1144.9	51.0	12.0				
9300	KISV	21 GRF	1141.0	1144.9	15.5	15.0				
5900	KISV	21 GRF	1232.8	1243.8	78.0	13.0				
9400	HUAN	21 GRF	1239.4	1256.2	76.7	22.2	8.4			
9300	KISV	21 GRF	1242.0	1256.4	27.0	15.0				
9400	HUAN	3 S	1250.2	1251.2	4.8	51.3	19.7			
5900	KISV	4 S/F	1250.2	1251.4	3.0	33.0				
9500	POTS	29 PBI	1250.5	1251.5	65.0	53.0				
9300	KISV	4 S/F	1250.6	1251.3	3.0	48.0				
3000	POTS	3 S	1250.6	1251.7	3.4	10.0				
15000	KISV	2 S/F	1250.7	1251.4	8.5	24.0				
8800	SVTO	8 S	1251.0	1251.0	1.0	66.0			QL=1 ST=3 TYP=3	
430	KRAK	8 S	1307.5	1307.6	0.2	32.0				
5900	KISV	2 S/F	1351.3	1353.4	3.5	4.0				
9300	KISV	2 S/F	1351.3	1353.5	3.5	9.0				
9400	HUAN	1 S	1412.7	1416.4	6.9	3.4	1.5			
9400	HUAN	21 GRF	1619.0	1648.5	99.8	30.8	14.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JUNE 1988

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	9400 HUAN	45 C	1641.5	1644.3	5.4	177.8	76.6		
	8800 SGMR	4 S/F	1642.0	1644.0	3.0	200.0			QL=1 ST=2 TYP=3
	8800 PALE	8 S	1643.0	1644.0	1.0	100.0			QL=1 ST=2 TYP=3
	9400 HUAN	1 S	1703.1	1710.0	13.0	6.8	2.8		
	9400 HUAN	2 S/F	1721.3	1722.8	7.3	20.5	5.8		
	9400 HUAN	1 S	1842.6	1847.6	10.1	5.1	1.5		
	9400 HUAN	1 S	2020.3	2024.7	10.8	3.4	1.5		
26	260 ONDR	44 NS	0552.0E	1427.0	538.0D				
	33 UPIC	43 NS	0704.0		272.0				
	29 UPIC	43 NS	0704.2		271.5				
	127 TORN	43 NS	0956.0		344.0		2.0		V=1
	204 IZMI	43 NS	1030.0		90.0	50.0			
	2840 PEKG	45 C	0018.0	0021.0	11.0	87.8	67.5		
	2695 LEAR	4 S/F	0020.0	0021.0	6.0	93.0			QL=1 ST=2 TYP=3
	8800 LEAR	4 S/F	0020.0	0021.0	6.0	150.0			QL=1 ST=2 TYP=3
	2695 PALE	8 S	0020.0	0021.0	1.0	88.0			QL=1 ST=2 TYP=3
	8800 PALE	8 S	0020.0	0021.0	1.0	190.0			QL=1 ST=2 TYP=3
	17000 NOBE	7 C	0020.4	0021.1	8.0	150.0			37R
	8800 PALE	8 S	0024.0	0025.0	1.0	67.0			QL=1 ST=2 TYP=3
	2840 PEKG	29 PBI	0029.0		42.0	3.9	3.0		
	200 HIRA	27 RF	0100.0	0234.0	185.0	8.0	3.0		WL
	9100 GORK	21 GRF	0309.0E	0624.4	291.0D	17.6			
	200 HIRA	46 C	0330.9	0332.2	1.8	440.0			0
	9100 GORK	1 S	0349.4	0349.6	1.3	8.7			
	2950 GORK	21 GRF	0354.5	0858.0	350.0D	10.0			
	5900 KISV	22 GRF	0444.2	0447.2	122.0	8.0			
	9100 GORK	1 S	0446.6	0447.2	2.0	9.6			
	9300 KISV	1 S	0446.6	0447.2	1.5	11.0			
	9300 KISV	1 S	0512.2	0512.6	0.5	5.0			
	3100 CRIM	20 GRF	0526.0	0527.1	35.0	2.8	1.0		
	9300 KISV	1 S	0528.6	0528.8	1.3	6.0			
	2950 GORK	1 S	0630.0	0631.0	2.0	2.7			
	5900 KISV	2 S/F	0636.5	0637.2	2.0	4.0			
	950 GORK	1 S	0636.7	0637.0	0.7	3.0			
	9500 POTS	21 GRF	0810.0	0903.5	138.0	22.0			
	9100 GORK	21 GRF	0810.5	0856.8	90.0D	22.0			
	204 IZMI	41 F	0818.8	0823.8	12.0	37.0			
	5900 KISV	22 GRF	0826.0	0851.3	75.0	18.0			
	9300 KISV	22 GRF	0826.0	0903.4	138.0	27.0			
	650 GORK	22 GRF	0839.5	0849.6	20.5	5.0			
	950 GORK	22 GRF	0841.0	0842.4	17.6	7.0			
	810 KRAK	42 SER	0842.2	0843.3	4.7	4.0			
	3100 CRIM	20 GRF	0848.0	0853.0	20.0	2.5	1.0		
	9100 GORK	1 S	0850.7	0851.3	2.4	6.0			
	810 KRAK	2 S/F	0851.9	0852.4	1.0	9.0	3.0		
	9100 GORK	1 S	0902.4	0903.5	2.2	6.6			
	9100 GORK	1 S	0927.7	0928.1	2.1	6.0			
	810 KRAK	8 S	0928.5	0928.5	0.1U	61.0			
	810 KRAK	42 SER	1022.6	1025.2		150.0D			
	810 KRAK	42 SER	1022.6	1022.9	3.0	150.0D			
	536 ONDR	42 SER	1025.6U	1103.0	268.4U	232.0U			
	9500 POTS	4 S/F	1055.0	1102.1	20.0	37.0			
	5900 KISV	4 S/F	1059.4	1102.2	9.0	153.0			
	810 KRAK	8 S	1100.0	1100.0	0.1	111.0			
1470 POTS	4 S/F	1100.0	1103.0	55.0	58.0				
3000 POTS	4 S/F	1100.0	1102.4	33.0	109.0				
9300 KISV	4 S/F	1100.1	1102.3	8.0	167.0				
3100 CRIM	3 S	1100.5	1102.2	11.0	28.0	28.0			
810 KRAK	45 C	1100.7	1102.0	5.5	64.0	14.0			
3013 IZMI	5 S	1100.8	1102.4	11.2	26.0	13.0			
8800 SGMR	4 S/F	1101.0	1102.0	3.0	220.0			QL=1 ST=2 TYP=3	
2695 SGMR	4 S/F	1101.0	1102.0	3.0	130.0			QL=1 ST=2 TYP=3	
2695 SVTO	4 S/F	1101.0	1102.0	3.0	110.0			QL=1 ST=2 TYP=3	
8800 SVTO	4 S/F	1101.0	1102.0	3.0	200.0			QL=1 ST=2 TYP=3	
15000 KISV	4 S/F	1101.0	1102.2	6.0	217.0				

S O L A R R A D I O E M I S S I O N
O U T S T A N D I N G O C C U R R E N C E S

53
Jun 88

JUNE 1988

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
26	430	KRAK	8 S	1101.2	1101.2	0.3	46.0			
	3100	CRIM	29 PBI	1111.5	1111.5	22.0	8.4	3.0		
	9500	POTS	21 GRF	1341.0	1403.0	39.0D	25.0			
	9400	HUAN	23 GRF	1343.0	1559.5	176.5	41.2	19.2		
	9400	HUAN	2 S/F	1400.0	1403.1	10.0	7.9	5.4		
	2800	OTTA	22 GRF	1430.0	1600.0	560.0	34.3	17.0		
	127	TORN	24 R	1432.0		68.0D		400.0D		
	9400	HUAN	1 S	1733.2	1735.3	6.1	8.7	2.9		
	9400	HUAN	22 GRF	1855.2	1917.3	50.4	6.3	4.6		
	200	HIRA	27 RF	2000.0	2048.0	240.0	13.0	6.0		0
27	200	HIRA	43 NS	0500.0	0630.0	300.0D	7.0	4.0		0
	204	IZMI	43 NS	0600.0		360.0	10.0			
	260	ONDR	44 NS	0600.0E	1103.2	490.0D	21.0			
	127	TORN	44 NS	1040.0E	1145.7	300.0D	40.0	1.0		V=0
	200	HIRA	44 NS	1925.0E	0220.0	870.0D	25.0	10.0		MR
	8800	LEAR	4 S/F	0301.0E	0304.0	7.0D	44.0			QL=1 ST=2 TYP=3
	8800	LEAR	4 S/F	0312.0	0312.0	7.0	26.0			QL=1 ST=2 TYP=3
	2950	GORK	20 GRF	0549.0	0600.0	77.0	4.7			
	9300	KISV	21 GRF	0551.0	0613.0	69.0	14.0			
	5900	KISV	21 GRF	0551.0	0612.5	71.0	11.0			
	9100	GORK	21 GRF	0551.0	0604.7	23.7	14.4			
	5900	KISV	1 S	0551.4	0551.5	3.0	20.0			
	9300	KISV	1 S	0551.4	0551.9	3.0	17.0			
	9100	GORK	1 S	0551.5	0551.8	1.0	12.7			
	2950	GORK	21 GRF	0712.5	1012.0	282.0	4.7			
	204	IZMI	42 SER	0714.0	0719.2	6.5	110.0			
	650	GORK	2 S/F	0802.7	0805.4	62.0	6.0			
	950	GORK	5 S	0805.8	0806.2	2.0	4.0			
	204	IZMI	4 S/F	0916.0	0916.2	0.5	90.0			
	3100	CRIM	1 S	0941.5	0942.6	3.0	4.0	1.0		
	2950	GORK	1 S	0941.7	0942.3	1.9	4.7			
	9100	GORK	20 GRF	0941.8	1011.5	57.0	3.5			
	3100	CRIM	1 S	1129.9	1130.5	1.0	2.5	1.0		
	536	ONDR	2 S/F	1147.9	1148.0	0.5	21.0			
	9100	GORK	21 GRF	1149.0	1154.7	12.6D	9.0			
	5900	KISV	2 S/F	1149.4	1153.0	7.2	17.0			
	9300	KISV	2 S/F	1150.9	1152.9	5.6	27.0			
	15000	KISV	2 S/F	1151.0	1153.0	5.5	18.0			
	9100	GORK	3 S	1152.3	1153.0	1.9	21.0			
	9500	POTS	3 S	1152.4	1153.0	4.6	24.0			
	9500	POTS	8 S	1340.0	1340.3	1.2	23.0			
	8800	SVTO	8 S	1616.0	1617.0	1.0	94.0			QL=1 ST=2 TYP=3
9400	HUAN	3 S	1616.6	1617.0	2.6	78.0	22.8			
8800	SGMR	4 S/F	1617.0E	1617.0		87.0			QL=1 ST=1 TYP=3	
9400	HUAN	29 PBI	1619.2	1619.2	34.5	5.2	1.9			
9400	HUAN	22 GRF	1747.6	1821.3	59.5	17.3	4.8			
9400	HUAN	1 S	1928.7	1933.2	8.1	10.4	3.9			
9400	HUAN	20 GRF	1952.5	2010.5	45.2	6.9	4.4			
500	HIRA	42 SER	2300.0	2302.1	5.5	610.0			0	
2695	SGMR	8 S	2301.0	2302.0	2.0	27.0			QL=1 ST=3 TYP=3	
8800	SGMR	8 S	2301.0	2302.0	1.0	33.0			QL=1 ST=3 TYP=3	
28	200	GORK	44 NS	0300.0E		540.0D		10.0		
	100	GORK	44 NS	0357.0E		540.0D		5.0		
	234	POTS	44 NS	0530.0E	1354.0	570.0D	300.0			
	204	IZMI	44 NS	0600.0E		360.0D	60.0			
	430	KRAK	44 NS	0617.5E	1057.7	400.0D	15.0	2.0		
	260	ONDR	44 NS	0620.0E	0956.0	480.0D				
	127	TORN	44 NS	0700.0E		520.0D		18.0		V=1
	33	UPIC	43 NS	0928.5		423.6				
	29	UPIC	43 NS	0928.5		423.5				
	200	HIRA	44 NS	1925.0E	2320.0	870.0D	37.0	8.0		MR
	5900	KISV	46 C	0342.8	0443.3	139.0	203.0			
9100	GORK	23 GRF	0350.7	0439.5	192.0	21.0				
9300	KISV	28 PRE	0401.8	0441.5	39.7	22.0				

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JUNE 1988

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m ² Hz)	Mean		
28	15000	KISV	2 S/F	0410.8	0411.8	2.2	18.0			
	9100	GORK	2 S/F	0411.2	0411.8	2.0	11.0			
	9300	KISV	2 S/F	0411.3	0412.7	1.4	16.0			
	9300	KISV	2 S/F	0421.8	0424.5	6.0	30.0			
	9100	GORK	2 S/F	0422.4	0424.6	4.8	14.0			
	2950	GORK	21 GRF	0437.5	1112.0	450.00	31.0			
	17000	NOBE	7 C	0440.9	0443.7	20.0	270.0			20R
	9100	GORK	4 S/F	0440.9	0443.8	8.0	377.0			
	3100	CRIM	3 S	0441.0	0444.0	5.0	20.0	7.0		
	15000	KISV	4 S/F	0441.2	0443.7	9.7	221.0			
	9300	KISV	4 S/F	0441.4	0444.0U	21.0	61.00			
	8800	PALE	20 GRF	0442.0	0443.0	6.0	360.0			QL=1 ST=2 TYP=2
	8800	SVTO	4 S/F	0442.0	0443.0	9.0	370.0			QL=1 ST=2 TYP=3
	950	GORK	1 S	0442.2	0442.7	3.7	2.0			
	2840	YUNN	5 S	0442.3	0444.1	4.7	28.0			
	650	GORK	4 S/F	0442.4	0442.6	0.5	37.0			
	2950	GORK	3 S	0442.5	0443.0	4.2	31.0			
	8800	LEAR	4 S/F	0443.0E	0444.0	21.00	330.0			QL=1 ST=3 TYP=3
	3100	CRIM	29 PBI	0446.0	0446.0	28.0	9.7	3.0		
	9100	GORK	29 PBI	0448.8	0448.8	36.7	59.0			
	8800	PALE	4 S/F	0452.0E	0452.0		120.0			QL=1 ST=2 TYP=3
	9300	KISV	29 PBI	0502.4	0502.4	57.5	42.0			
	9300	KISV	2 S/F	0542.0	0544.6	4.3	23.0			
	9100	GORK	2 S/F	0542.8	0544.7	3.8	20.0			
	3100	CRIM	1 S	0543.0	0544.4	4.0	6.4	2.0		
	200	GORK	41 F	0543.2	0543.3	18.0	20.00			
	100	GORK	41 F	0543.2	0543.6	3.0	30.0			
	200	GORK	41 F	0543.2	0544.8		17.0			
	100	GORK	41 F	0543.2	0545.9		30.00			
	15000	KISV	2 S/F	0543.4	0544.7	3.6	18.0			
	2950	GORK	1 S	0543.9	0544.4	1.9	6.8			
	3100	CRIM	20 GRF	0715.0	0716.4	11.0	3.4	1.0		
	5900	KISV	46 C	0715.1	0815.0	77.3	34.0			
	9100	GORK	23 GRF	0715.1	1149.0	285.00	46.0			
	5900	KISV	46 C	0715.1	0740.2		24.0			
	5900	KISV	46 C	0715.1	0823.3		24.0			
	5900	KISV	46 C	0715.1	0716.6		11.0			
	2950	GORK	4 S/F	0716.1	0716.2	3.5	17.4			
	3100	CRIM	20 GRF	0739.1	0740.5	18.0	4.2	2.0		
	2950	GORK	1 S	0739.4	0740.2	1.9	4.3			
	9500	POTS	23 GRF	0809.0	0815.5	51.0	42.0			
	3100	CRIM	21 GRF	0814.0	0815.2	59.0	8.0	3.0		
	9300	KISV	46 C	0814.0	0823.3		23.0			
	9300	KISV	46 C	0814.0	0815.4	17.6	43.0			
	9300	KISV	46 C	0814.0	0818.8		37.0			
15000	KISV	2 S/F	0814.3	0815.4	9.4	53.0				
9100	GORK	2 S/F	0814.5	0815.4	2.9	30.0				
2950	GORK	2 S/F	0814.7	0815.5	1.5	5.2				
950	GORK	4 S/F	0822.8	0823.2	0.5	18.6				
650	GORK	8 S	0822.9U	0823.0	0.6U	70.00				
2950	GORK	3 S	0823.0	0823.2	0.7	18.4	9.0			
3000	POTS	3 S	0823.0	0823.2	1.0	17.0				
9100	GORK	1 S	0823.0	0823.3	0.6	12.4	6.0			
9500	POTS	3 S	0823.0	0823.3	0.5	36.0				
1470	POTS	3 S	0823.0	0823.3	2.0	7.0				
3100	CRIM	1 S	0823.0	0823.5	1.0	12.6	4.0			
950	GORK	29 PBI	0823.3	0823.4	7.3	3.0				
810	KRAK	8 S	0829.7	0829.7	0.1	12.0				
3100	CRIM	1 S	0830.6	0830.9	1.0	2.5	0.8			
2950	GORK	1 S	0830.7	0830.8	0.5	12.6	6.0			
100	GORK	46 C	0904.9	0905.1	1.0	30.0				
100	GORK	46 C	0904.9	0905.2		30.00				
3100	CRIM	1 S	0921.0	0923.1	10.0	4.2	1.0			
1470	POTS	42 SER	0921.0	0923.1	11.0	12.0				
950	GORK	4 S/F	0921.5	0923.0	4.7	9.0				
2950	GORK	1 S	0921.9	0923.1	2.0	4.8	2.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JUNE 1988

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m ² Hz)	Mean		
28	204	IZMI	41 F	0922.4	0923.1	1.8	100.0			
	810	KRAK	7 C	0922.5	0923.0	1.2	8.0	4.0		
	3000	POTS	1 S	0922.6	0922.9	1.4	4.0			
	650	GORK	4 S/F	0922.7	0923.0	1.3	19.0			
	430	KRAK	2 S/F	0922.8	0923.2	1.2	21.0	4.0		
	950	GORK	4 S/F	0927.5	0929.1	2.8	7.0			
	650	GORK	4 S/F	0927.7	0928.4	1.0	57.0			
	810	KRAK	2 S/F	0927.9	0928.4	1.0	6.0	3.0		
	810	KRAK	8 S	0928.9	0928.9	0.1	11.0			
	9300	KISV	4 S/F	0935.9	0936.9	8.0	54.0			
	5900	KISV	4 S/F	0935.9	0936.9	6.0	29.0			
	3100	CRIM	1 S	0936.0	0937.0	2.5	9.0	3.0		
	8800	SVTO	8 S	0936.0E	0936.0	1.0D	52.0			QL=1 ST=2 TYP=3
	9100	GORK	3 S	0936.0	0936.7	3.3	5.6			
	9500	POTS	3 S	0936.0	0936.9	3.0	63.0			
	15000	KISV	2 S/F	0936.1	0936.9	3.0	29.0			
	3000	POTS	3 S	0936.2	0937.0	3.8	13.0			
	2950	GORK	3 S	0936.3	0937.1	2.9	12.3	5.0		
	3013	IZMI	5 S	0936.5	0937.3	2.2	11.0	5.0		
	1470	POTS	2 S/F	0936.5	0936.8	1.5	3.0			
	650	GORK	23 GRF	0936.8	1041.3	125.0D	20.0			
	100	GORK	28 PRE	0950.6	0950.8	1.2	30.0			
	650	GORK	47 GB	0951.1	0956.3	10.1	840.0			
	2840	YUNN	45 C	0954.3	0956.8	16.3	269.0			
	3100	CRIM	3 S	0954.5	0956.5	6.0	193.7	6.3		
	950	GORK	47 GB	0954.6	0956.9	7.3	563.0			
	234	POTS	4 S/F	0954.8	0956.0	8.6	3000.0			
	30	POTS	4 S/F	0954.8	0957.4	30.0	1400.0			
	100	GORK	47 GB	0955.0	0956.0		1200.0			
	204	IZMI	45 C	0955.0	0956.2	4.6	3800.0	1500.0		
	3000	POTS	3 S	0955.0	0956.2	15.0	765.0			
	9500	POTS	4 S/F	0955.0	0956.4	20.0	360.0			
	100	GORK	47 GB	0955.0	0955.6	12.8	2100.0			
	1470	POTS	3 S	0955.0	0956.9	15.0	290.0			
	2950	GORK	47 GB	0955.1	0956.4	3.1	380.0			
	810	KRAK	47 GB	0955.2	0957.5U	18.0	220.0D	34.0		
	200	GORK	47 GB	0955.4	0956.0		3000.0			
	9300	KISV	4 S/F	0955.4	0956.4	3.5	318.0D			
	200	GORK	47 GB	0955.4	0955.5	4.7	1800.0			
	3013	IZMI	5 S	0955.4	0956.5	4.6	295.0	190.0		
	5900	KISV	4 S/F	0955.4	0956.8	4.5	248.0			
	9100	GORK	4 S/F	0955.5	0956.4	3.9	463.0			
	430	KRAK	47 GB	0955.5	0956.5U	8.5	160.0D	52.0		
	15000	KISV	4 S/F	0955.6	0956.4	2.5	143.0			
	536	ONDR	2 S/F	0955.7	0956.3	0.8	196.0			
	33	UPIC	49 GB	0956.0	0956.5	25.2				
	29	UPIC	49 GB	0956.0	0957.6	26.6				
	15000	KISV	29 PBI	0958.1	0958.9	23.5	27.0			
	9300	KISV	29 PBI	0958.9	0959.0	17.0	29.0			
	9100	GORK	29 PBI	0959.4	0959.4	17.9	21.0			
3100	CRIM	29 PBI	1000.0	1000.0	17.0	11.0	4.0			
950	GORK	29 PBI	1001.9	1001.9	11.4	11.0				
200	GORK	24 R	1019.8	1042.0	99.4D	44.0				
100	GORK	24 R	1021.5	1111.3	98.0D	40.0				
204	IZMI	42 SER	1022.0	1040.5	62.0	400.0				
15000	KISV	45 C	1022.6	1024.4		30.0				
15000	KISV	45 C	1022.6	1023.5	15.5	98.0				
9100	GORK	22 GRF	1029.6	1030.2	11.0	11.4				
5900	KISV	23 GRF	1029.8	1030.3	14.0	10.0				
3100	CRIM	25 R	1030.0	1055.0		12.8	1.0			
810	KRAK	8 S	1037.0	1037.5	0.5	10.0				
950	GORK	4 S/F	1037.1	1037.5	0.7	5.0				
9500	POTS	3 S	1044.0	1046.0	4.0	69.0				
5900	KISV	3 S	1044.7	1045.8	5.0	29.0				
9300	KISV	3 S	1044.7	1045.8	3.5	67.0				
9100	GORK	3 S	1044.8	1045.7	3.2	65.0				

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JUNE 1988

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 ⁻²² W/m ² Hz)	Mean		
28	3100	CRIM	1 S	1044.8	1045.8	2.0	8.6	3.0		
	15000	KISV	3 S	1044.9	1045.8	3.0	64.0			
	8800	SGMR	4 S/F	1045.0E	1045.0		77.0			QL=1 ST=1 TYP=3
	8800	SVTO	8 S	1045.0	1045.0	1.0	77.0			QL=1 ST=2 TYP=3
	2950	GORK	3 S	1045.0	1045.8	3.1	9.6	4.5		
	950	GORK	23 GRF	1101.8	1106.0	13.0	2.0			
	810	KRAK	46 C	1103.3	1104.7	1.5	53.0	4.0		
	950	GORK	46 C	1103.4	1104.5		84.0			
	1470	POTS	42 SER	1103.4	1104.5	11.0	71.0			
	950	GORK	46 C	1103.4	1103.7	2.3	61.0			
	2950	GORK	4 S/F	1103.6	1104.9	2.0	5.0			
	430	KRAK	46 C	1103.7	1104.7	2.2	160.0D	3.0		
	950	GORK	1 S	1110.6	1111.0	1.7	4.6			
	9100	GORK	3 S	1122.4	1123.5	2.2	93.0			
	5900	KISV	45 C	1122.6	1127.5		13.0			
	5900	KISV	45 C	1122.6	1123.5	12.5	37.0			
	9300	KISV	45 C	1122.7	1127.5		23.0			
	9300	KISV	45 C	1122.7	1123.5	17.0	105.0			
	8800	SGMR	8 S	1123.0	1123.0	1.0	92.0			QL=1 ST=2 TYP=3
	8800	SVTO	8 S	1123.0	1123.0	1.0	110.0			QL=1 ST=2 TYP=3
	2950	GORK	1 S	1123.0	1123.4	2.7	5.0			
	9100	GORK	30 PBI	1124.6	1124.6	14.2	28.0			
	9100	GORK	1 S	1127.0	1127.5	1.3	12.0	5.0		
	810	KRAK	1 S	1215.2	1215.3	0.5	5.0	2.0		
	9400	HUAN	2 S/F	1223.1	1228.8	9.0	17.0	7.7		
	5900	KISV	45 C	1236.3	1237.4	6.0	13.0			
	9400	HUAN	3 S	1236.3	1237.7	3.7	61.2	15.9		
	5900	KISV	45 C	1236.3	1238.9		12.0			
	9500	POTS	4 S/F	1236.5	1237.5	4.5	41.0			
	15000	KISV	2 S/F	1236.7	1237.4	2.0	35.0			
	9300	KISV	45 C	1236.7	1237.5	10.0	50.0			
	9300	KISV	45 C	1236.7	1238.9		25.0			
	810	KRAK	8 S	1238.7	1239.0	0.3	22.0			
	5900	KISV	2 S/F	1309.0	1309.8	7.5	6.0			
	9400	HUAN	1 S	1320.8	1323.6	10.6	28.9	10.8		
	9300	KISV	2 S/F	1321.2	1323.7	7.0	29.0			
	9500	POTS	3 S	1321.5	1323.6	7.5	26.0			
	5900	KISV	2 S/F	1321.8	1323.8	5.0	8.0			
	15000	KISV	2 S/F	1322.4	1323.6	3.5	25.0			
	9400	HUAN	3 S	1352.0	1355.4	8.2	219.2	46.6		
	9500	POTS	4 S/F	1353.0	1355.5	8.0	165.0			
	8800	SGMR	8 S	1355.0	1355.0	1.0	190.0			QL=1 ST=2 TYP=3
	8800	SVTO	8 S	1355.0	1355.0	1.0	190.0			QL=1 ST=2 TYP=3
	9400	HUAN	23 GRF	1420.4	1453.2	106.6	5.9	1.1		
	9400	HUAN	1 S	1457.7	1501.0	8.4	6.8	3.2		
9400	HUAN	1 S	1523.0	1526.2	9.4	5.1	4.0			
9400	HUAN	1 S	1641.1	1643.6	5.9	8.5	2.0			
8800	PALE	8 S	1652.0	1652.0	1.0	150.0			QL=1 ST=2 TYP=3	
8800	SVTO	8 S	1652.0	1653.0	1.0	140.0			QL=1 ST=2 TYP=3	
2800	OTTA	3 S	1652.7	1653.0	1.0	16.4	8.0			
2695	PALE	8 S	1701.0	1701.0	1.0	63.0			QL=1 ST=2 TYP=3	
8800	PALE	8 S	1701.0	1701.0	1.0	130.0			QL=1 ST=2 TYP=3	
8800	SVTO	8 S	1701.0	1701.0	1.0	94.0			QL=1 ST=2 TYP=3	
9400	HUAN	3 S	1701.0	1701.5	2.7	93.5	28.9			
2800	OTTA	3 S	1701.2	1701.8	21.0	42.3	8.0			
9400	HUAN	30 PBI	1703.7	1703.7	54.6	8.5	4.9			
9400	HUAN	4 S/F	1726.2	1727.5	11.3	76.5	27.0			
8800	PALE	8 S	1727.0	1727.0	1.0	62.0			QL=1 ST=2 TYP=3	
8800	SGMR	8 S	1727.0	1727.0	1.0	81.0			QL=1 ST=2 TYP=3	
8800	SVTO	8 S	1727.0	1727.0	1.0	77.0			QL=1 ST=3 TYP=3	
9400	HUAN	23 GRF	1825.4E	2135.2	189.8D	47.6	20.6			
9400	HUAN	1 S	1834.7	1835.6	4.0	10.2	2.3			
2800	OTTA	22 GRF	1915.0	1922.0	25.0	4.1	2.0			
9400	HUAN	1 S	1922.1	1923.3	2.4	22.1	6.0			
9400	HUAN	4 S/F	1956.7	1958.4	8.3	78.2	35.5			
8800	PALE	8 S	1958.0	1958.0	1.0	81.0			QL=1 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		
28	8800	SGMR	8 S	1958.0	1958.0	1.0	77.0			QL=1 ST=2 TYP=3
	2800	OTTA	22 GRF	1958.0	1958.8	90.0	18.4	9.0		
	9400	HUAN	1 S	2010.5	2012.9	5.8	6.8	0.9		
29	100	GORK	44 NS	0258.0E		542.0D		100.0		
	200	GORK	44 NS	0328.0E		512.0D		80.0		
	260	ONDR	44 NS	0550.0E	0810.0U	503.0D				
	204	IZMI	44 NS	0600.0E		95.0D	50.0			
	33	UPIC	43 NS	0744.1		615.9D				
	29	UPIC	43 NS	0744.7		615.3D				
	127	TORN	44 NS	0800.0E		300.0D		180.0D		V=07
	204	IZMI	44 NS	0915.0E		75.0D	80.0			
	200	HIRA	44 NS	1925.0E	2008.0	680.0D	45.0	9.0		MR
	500	HIRA	6 S	0028.5	0029.0	2.0	14.0			0
	8800	LEAR	4 S/F	0029.0	0030.0	3.0	67.0			QL=1 ST=2 TYP=3
	2695	LEAR	8 S	0029.0	0030.0	1.0	75.0			QL=1 ST=2 TYP=3
	2840	PEKG	5 S	0029.5	0031.4	4.5	89.4	56.6		
	17000	NOBE	7 C	0045.6	0048.5	19.5	140.0			8L
	8800	PALE	4 S/F	0046.0	0048.0	6.0	170.0			QL=1 ST=2 TYP=3
	2840	PEKG	5 S	0046.0	0049.7	8.0	65.2	41.3		
	2695	LEAR	4 S/F	0048.0	0049.0	4.0	90.0			QL=1 ST=2 TYP=3
	2695	PALE	8 S	0048.0	0049.0	2.0	85.0			QL=1 ST=2 TYP=3
	2695	SYDN	4 S/F	0048.0	0049.0	5.0	64.0			QL= ST= TYP=3
	2840	PEKG	29 PBI	0054.0		47.6	6.2	3.9		
	8800	LEAR	8 S	0105.0	0106.0	2.0	78.0			QL=1 ST=2 TYP=3
	8800	PALE	4 S/F	0105.0E	0105.0	6.0D	64.0			QL=1 ST=2 TYP=3
	17000	NOBE	1 S	0105.1	0105.7	10.0	48.0			0
	17000	NOBE	21 GRF	0136.0	0142.3	17.0	16.0			0
	2840	PEKG	5 S	0150.0	0151.4	5.0	48.5	30.7		
	500	HIRA	41 F	0150.8	0152.0	2.8	340.0			0
	2695	LEAR	8 S	0151.0	0152.0	2.0	66.0			QL=1 ST=2 TYP=3
	2695	PALE	8 S	0151.0	0151.0	2.0	61.0			QL=1 ST=2 TYP=3
	17000	NOBE	1 S	0151.0	0151.3	1.0	20.0			18L
	2840	PEKG	29 PBI	0155.0		15.0	2.6	1.6		
	17000	NOBE	7 C	0214.1	0214.9	10.0	54.0			0
	200	HIRA	46 C	0257.4	0300.0	2.9	6000.0			WR
	9100	GORK	23 GRF	0301.0E	0646.8	254.0D	17.0			
	2840	PEKG	21 GRF	0306.5	0313.0	23.5	3.5	2.2		
	17000	NOBE	1 S	0310.7	0311.2	1.5	34.0			0
	2840	PEKG	8 S	0310.8	0311.0	0.4	26.9	17.1		
	15000	KISV	1 S	0425.8	0426.4	1.0	20.0			
	9300	KISV	2 S/F	0426.7	0427.3	2.5	24.0			
	9100	GORK	2 S/F	0426.8	0427.3	2.2	19.6			
	5900	KISV	23 GRF	0438.6	0442.8	15.0	8.0			
	5900	KISV	23 GRF	0438.6	0439.9		7.0			
	9300	KISV	22 GRF	0438.6	0439.9	14.5	14.0			
2950	GORK	20 GRF	0451.6	0500.3	23.2	5.9				
5900	KISV	22 GRF	0454.5	0500.6	16.0	9.0				
3100	CRIM	1 S	0455.0	0500.5	9.0	4.2	1.0			
2950	GORK	21 GRF	0529.5	0954.0	264.5U	20.0				
9100	GORK	1 S	0529.8	0530.9	6.8	9.0				
5900	KISV	2 S/F	0545.4	0546.2	4.0	9.0				
2950	GORK	1 S	0545.5	0546.0	1.8	3.9	1.5			
2840	PEKG	3 S	0610.0	0614.0	11.0	16.7	10.6			
200	HIRA	42 SER	0610.6	0631.0	74.0	250.0			WR	
5900	KISV	2 S/F	0611.7	0614.2	7.0	12.0				
3100	CRIM	1 S	0612.1	0614.1	4.0	15.2	5.0			
950	GORK	4 S/F	0612.6	0614.0	3.2	17.0				
2950	GORK	3 S	0613.0	0614.1	3.4	13.9	6.0			
2840	YUNN	5 S	0613.0	0614.6	3.0	16.0				
650	GORK	2 S/F	0613.1	0614.1	1.6	5.6				
200	GORK	41 F	0629.4	0709.1		20.0D				
200	GORK	41 F	0629.4	0715.4		20.0D				
200	GORK	41 F	0629.4	0633.6	50.0	20.0D				
200	GORK	41 F	0629.4	0644.7		20.0D				
9100	GORK	45 C	0635.9	0639.2		11.0				

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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		
29	9100	GORK	45 C	0635.9	0636.6	5.3	18.0			
	650	GORK	23 GRF	0703.0E	0730.9	297.0D	4.0			
	536	ONDR	42 SER	0720.0	0746.5U	537.0D				
	9100	GORK	23 GRF	0723.0	1105.5	277.0D	33.0			
	9500	POTS	45 C	0724.5	0737.5	86.0	570.0			
	2840	YUNN	45 C	0728.8	0736.5	27.2	347.0			
	3100	CRIM	47 GB	0731.6	0746.0		90.0			
	3100	CRIM	47 GB	0731.6	0736.0	22.0	184.0	95.0		
	3100	CRIM	47 GB	0731.6	0737.5		282.0			
	9100	GORK	47 GB	0731.8	0737.5	21.4	700.0			
	3000	POTS	45 C	0732.0		148.0	935.0U			
	2950	GORK	47 GB	0732.0	0737.5	29.0	378.0			
	1470	POTS	45 C	0732.0	0745.5	143.0	1370.0			
	9300	KISV	47 GB	0732.0	0737.8	8.5	368.0D			
	3013	IZMI	7 C	0732.2	0737.5	9.8	500.0	250.0		
	950	GORK	49 GB	0732.3	0745.1	47.8	63180.0			
	950	GORK	49 GB	0732.3	0746.2		50500.0			
	5900	KISV	47 GB	0732.4	0737.6	9.0	690.0			
	500	HIRA	48 C	0732.5	0746.0	140.0D	3400.0	87.0		WL SUNSET
	650	GORK	49 GB	0732.5	0745.6		10480.0			
	500	HIRA	48 C	0732.5	0736.8		190.0			0
	650	GORK	49 GB	0732.5	0743.8	31.5	5380.0			
	15000	KISV	47 GB	0732.8	0737.6	8.0	405.0			
	2695	LEAR	4 S/F	0733.0	0737.0	8.0	370.0			QL=1 ST=2 TYP=3
	810	KRAK	49 GB	0733.0	0745.0U	24.5	210.0D	112.0D		
	430	KRAK	49 GB	0733.5	0750.0U	24.5	150.0D	109.0D		
	8800	LEAR	49 GB	0734.0E	0738.0	7.0D	500.0			QL=1 ST=2 TYP=6
	234	POTS	48 C	0734.0	0749.0	411.0D	1200.0			
	200	HIRA	48 C	0734.6	0739.1	139.0D	9000.0	394.0		0 SUNSET
	200	HIRA	48 C	0734.6	0805.3		800.0			MR
	200	GORK	49 GB	0734.6	0739.5		22000.0			
	200	GORK	49 GB	0734.6	0738.7	9.0	6000.0			
	200	GORK	49 GB	0734.6	0739.7		15000.0			
	200	GORK	49 GB	0734.6	0739.9		10500.0			
	204	IZMI	47 GB	0735.0	0740.0	10.0	20000.0	1000.0		
	100	HIRA	49 GB	0735.2		145.0D	1000.0D	670.0D		SUNSET
	100	GORK	47 GB	0735.6	0743.1		8450.0			
	100	GORK	47 GB	0735.6	0739.5	14.7	17300.0			
	100	GORK	47 GB	0735.6	0739.9		1100.0			
	9100	GORK	22 GRF	0738.5	0740.2	31.0	12.4			
	5900	KISV	29 PBI	0740.3	0740.3	77.5	129.0			
	9300	KISV	29 PBI	0740.5	0740.8	83.0	129.0			
	15000	KISV	29 PBI	0740.8	0741.0	36.5	101.0			
	3013	IZMI	7 C	0742.0	0746.4	37.8	110.0	50.0		
	8800	LEAR	4 S/F	0743.0	0745.0	14.0	77.0			QL=1 ST=2 TYP=3
	2695	LEAR	4 S/F	0743.0	0746.0	34.0	130.0			QL=1 ST=2 TYP=3
	200	GORK	24 R	0744.0	0805.4	57.0	500.0			
	204	IZMI	23 GRF	0745.0	0755.0	90.0	1200.0	600.0		
	30	POTS	48 C	0745.0	0751.0	150.0U	6000.0			
	3100	CRIM	30 PBI	0753.0	0753.0	121.0	32.0	11.0		
9100	GORK	29 PBI	0753.4	0753.4	66.0	68.0				
810	KRAK	29 PBI	0757.5	0801.5	90.0	55.0	8.0			
100	GORK	27 RF	0757.6	0815.0	74.4	1240.0				
430	KRAK	29 PBI	0758.0	0800.0	147.5D	113.0	40.0			
650	GORK	29 PBI	0804.0	0804.0	140.3	38.0				
2840	YUNN	29 PBI	0806.0		73.2	21.0				
100	GORK	4 S/F	0815.1	0815.1	1.1	1300.0				
950	GORK	30 PBI	0820.1	0820.1	155.2	14.0				
950	GORK	46 C	0921.4	0922.1		15.0				
950	GORK	46 C	0921.4	0921.6	1.2	46.0				
810	KRAK	42 SER	0921.5	0922.0	2.2	36.0				
30	POTS	4 S/F	1024.8	1030.2	11.0	14000.0				
9500	POTS	21 GRF	1025.0	1031.0	15.0	36.0				
9100	GORK	46 C	1025.3	1031.3		32.0				
9100	GORK	46 C	1025.3	1028.5	13.8	21.0				
100	GORK	41 F	1026.2	1030.1		2220.0				

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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		
29	100	GORK	41 F	1026.2	1031.1		6340.0			
	100	GORK	41 F	1026.2	1027.4	7.3	790.0			
	200	GORK	41 F	1030.0	1031.0		2000.0			
	200	GORK	41 F	1030.0	1030.2	2.0	140.0			
	234	POTS	4 S/F	1030.1	1031.2	1.9	1700.0			
	810	KRAK	2 S/F	1030.5	1031.8	2.3	23.0	10.0		
	950	GORK	46 C	1030.9	1032.1	6.1	19.0			
	650	GORK	46 C	1030.9	1035.2		15.0			
	950	GORK	46 C	1030.9	1035.2		5.0			
	650	GORK	46 C	1030.9	1031.9	5.8	52.0			
	1470	POTS	1 S	1031.0	1031.5	7.0	5.0			
	9100	GORK	2 S/F	1046.0	1047.4	3.1	7.0			
	9100	GORK	2 S/F	1052.1	1052.7	5.2	18.0			
	9100	GORK	4 S/F	1113.7	1114.8	4.7	75.0			
	9100	GORK	29 PBI	1118.4	1118.4	7.3	23.0			
	9400	HUAN	23 GRF	1227.0E	1246.7	72.0D	22.1	10.0		
	9400	HUAN	3 S	1231.5	1236.7	8.4	30.0	14.5		
	5900	KISV	2 S/F	1235.5	1236.6	2.8	14.0			
	9300	KISV	2 S/F	1235.5	1236.6	2.2	15.0			
	15000	KISV	2 S/F	1235.5	1236.6	2.2	15.0			
	9400	HUAN	4 S/F	1417.4	1420.7	7.4	42.6	14.2		
	9400	HUAN	29 PBI	1424.8	1424.8	50.4	7.9	4.1		
	9400	HUAN	21 GRF	1637.2	1709.8	127.9	9.5	5.1		
	9400	HUAN	1 S	1646.7	1648.6	3.3	20.5	6.9		
	9400	HUAN	3 S	1651.6	1653.1	11.4	237.0	36.4		
	8800	PALE	8 S	1652.0	1652.0	2.0	230.0			QL=1 ST=3 TYP=3
	8800	SVTO	8 S	1652.0	1652.0	2.0	280.0			QL=1 ST=2 TYP=3
	9400	HUAN	2 S/F	1741.4	1751.5	19.0	12.6	6.7		
	9400	HUAN	4 S/F	1817.2	1826.5	17.8	30.0	14.8		
	9400	HUAN	23 GRF	1903.5	1944.5	53.9	9.5	7.0		
	9400	HUAN	2 S/F	1918.3	1923.8	10.2	14.2	7.3		
	9400	HUAN	1 S	1932.0	1933.4	4.0	19.0	4.9		
	8800	PALE	49 GB	2014.0E	2016.0	21.0D	2300.0			QL=1 ST=2 TYP=6
8800	SGMR	49 GB	2014.0E	2016.0	226.0D	2800.0			QL=1 ST=3 TYP=6	
2800	OTTA	4 S/F	2014.0	2016.2	7.0	164.0	82.0			
9400	HUAN	45 C	2014.3	2018.3	27.4	216.4	79.2			
2695	PALE	4 S/F	2015.0	2016.0	3.0	160.0			QL=1 ST=2 TYP=3	
2695	SGMR	4 S/F	2015.0	2016.0	3.0	170.0			QL=1 ST=2 TYP=3	
2800	OTTA	29 PBI	2021.2	2021.2	84.0	26.4	13.0			
8800	PALE	4 S/F	2035.0	2036.0	7.0	91.0			QL=1 ST=2 TYP=3	
9400	HUAN	30 PBI	2041.7	2041.7	101.3	50.6	8.6			
500	HIRA	46 C	2142.0	2145.3	5.0	32.0			WL	
9400	HUAN	1 S	2142.6	2145.2	4.6	11.0	2.4			
100	HIRA	46 C	2142.9	2144.9	4.6	1000.0	180.0			
9400	HUAN	2 S/F	2157.3	2200.5	14.6	23.7	9.4			
100	HIRA	46 C	2253.2	2255.4	7.9	910.0	145.0			
500	HIRA	46 C	2255.0	2258.0	9.0	93.0	14.0		WL	
30	200	GORK	44 NS	0300.0E		510.0D		5.0		
	260	ONDR	44 NS	0550.0E	0904.0U	500.0D				
	430	KRAK	44 NS	0700.0E	1012.3	360.0D	158.0	1.0		
	33	UPIC	43 NS	0742.0		618.0D				
	29	UPIC	43 NS	0742.0		618.0D				
	100	HIRA	42 SER	0029.0	0030.8	4.8	1000.0D			
	500	HIRA	42 SER	0128.5	0130.6	7.9	36.0			0
	2840	PEKG	20 GRF	0156.0	0201.4	46.0	8.2	5.0		
	200	HIRA	42 SER	0245.5	0336.8	51.3	2100.0			WR
	200	GORK	4 S/F	0321.3	0321.8	1.0	1500.0			
	100	GORK	41 F	0321.5	0337.5		7400.0			
	100	GORK	41 F	0321.5	0321.9	0.8	4400.0			
	200	GORK	4 S/F	0336.6	0337.5	1.2	2000.0			
	200	HIRA	41 F	0405.9	0406.6	2.6	340.0			WR
	200	GORK	4 S/F	0406.2	0406.9	2.4	300.0			
2950	GORK	21 GRF	0423.8	0827.0	300.0	18.0				
9100	GORK	20 GRF	0446.9	0504.2	20.1	4.7				
536	ONDR	42 SER	0550.0E	0903.9	540.0D	240.0				

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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	204	IZMI	42 SER	0601.0	0601.5	17.0	340.0			
	234	POTS	4 S/F	0601.1	0601.3	0.9	475.0	100.0		
	30	POTS	4 S/F	0601.1	0601.9	1.2	400.0	40.0		
	5900	KISV	2 S/F	0627.4	0631.4	8.7	11.0			
	9100	GORK	20 GRF	0630.0	0631.7	18.5	5.8			
	5900	KISV	22 GRF	0702.6	0720.0	30.1	11.0			
	9100	GORK	20 GRF	0719.4	0723.0	7.4	4.7			
	3013	IZMI	5 S	0720.2	0722.0	6.5	24.0	12.0		
	204	IZMI	42 SER	0723.0	0731.5	40.4	140.0			
	9300	KISV	45 C	0754.0	0754.6	9.0	15.0			
	9300	KISV	45 C	0756.3	0756.3		14.0			
	5900	KISV	28 PRE	0758.4	0819.3	24.0	26.0			
	3100	CRIM	21 GRF	0800.0	0823.0	60.0	13.8	5.0		
	3000	POTS	4 S/F	0813.0	0822.0	32.0	30.0			
	9300	KISV	4 S/F	0814.0	0821.9	35.5	93.0			
	234	POTS	4 S/F	0814.7	0815.3	1.1	385.0	100.0		
	100	GORK	41 F	0815.0	0821.1		16.0			
	15000	KISV	23 GRF	0815.0	0822.1	40.0	34.0			
	100	GORK	41 F	0815.0	0818.5		17.0			
	100	GORK	41 F	0815.0	0839.5		1000.0			
	100	GORK	41 F	0815.0	0815.7	21.0	25.0			
	204	IZMI	8 S	0815.2	0815.4	0.6	180.0	90.0		
	9500	POTS	4 S/F	0817.5	0821.7	25.0	70.0			
	8800	LEAR	4 S/F	0819.0	0822.0	14.0	86.0			QL=1 ST=2 TYP=3
	9100	GORK	4 S/F	0819.3	0821.7	3.1	47.0			
	5900	KISV	4 S/F	0819.3	0821.9	8.0	85.0			
	2840	YUNN	45 C	0819.5	0821.8	5.3	25.0			
	3100	CRIM	1 S	0820.0	0822.0	3.0	16.0	5.0		
	8800	SVTO	4 S/F	0820.0	0822.0	3.0	100.0			QL=1 ST=2 TYP=3
	2695	LEAR	4 S/F	0821.0	0822.0	6.0	28.0			QL=1 ST=2 TYP=3
	2950	GORK	3 S	0821.0	0821.8	1.2	36.0			
	9100	GORK	29 PBI	0822.4	0822.4	36.0	22.0			
	5900	KISV	29 PBI	0827.1	0827.5	33.0	36.0			
	650	GORK	21 GRF	0834.6	0948.4	205.00	12.0			
	204	IZMI	42 SER	0837.0	0840.0	8.0	800.0			
	200	GORK	41 F	0837.3	0839.5	74.0	416.0			
	200	GORK	41 F	0837.3	0841.8		193.0			
	9300	KISV	2 S/F	0839.0	0840.4	2.5	11.0			
	9500	POTS	45 C	0900.0	0903.8	47.0	920.0			
	30	POTS	45 C	0902.0	0904.00	30.0	20000.00			
	9100	GORK	47 GB	0902.00	0903.9	3.50	1100.0			
	9300	KISV	47 GB	0902.2	0904.60	11.0	949.0			
	15000	KISV	47 GB	0902.4	0905.00	5.0	424.00			
	234	POTS	45 C	0902.8	0903.00	36.0	77000.00			
	5900	KISV	47 GB	0902.9	0904.2	5.0	2597.0			
	3100	CRIM	45 C	0903.0	0904.0	7.0	164.6	55.0		
	3100	CRIM	45 C	0903.0	0905.0		143.4			
	200	GORK	42 SER	0903.0	0921.0		5166.0			
	100	GORK	49 GB	0903.0	0928.0		1800.0			
	8800	SVTO	49 GB	0903.0E	0903.0	3.00	890.0			QL=1 ST=3 TYP=6
2695	LEAR	4 S/F	0903.0	0904.0	10.0	300.0			QL=1 ST=2 TYP=3	
2840	YUNN	45 C	0903.0	0904.0	16.5	263.0				
1470	POTS	45 C	0903.0	0904.0	47.0	300.0				
3000	POTS	45 C	0903.0	0904.0	52.0	480.0				
430	KRAK	49 GB	0903.0	0905.00	4.00	204.00	140.00			
100	GORK	49 GB	0903.0	0905.1		22000.0				
100	GORK	49 GB	0903.0	0913.1		2500.0				
100	GORK	49 GB	0903.0	0921.3		700.0				
100	GORK	49 GB	0903.0	0910.3		13000.0				
100	GORK	49 GB	0903.0	0909.3		15000.0				
100	GORK	49 GB	0903.0	0903.3	26.8	22000.0				
200	GORK	42 SER	0903.0	0915.4		1500.0				
100	GORK	49 GB	0903.0	0911.6		5000.0				
100	GORK	49 GB	0903.0	0908.6		22000.0				
950	GORK	47 GB	0903.00	0903.7	9.00	5260.0				
200	GORK	42 SER	0903.0	0903.7		1580.0				

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

JUNE 1988

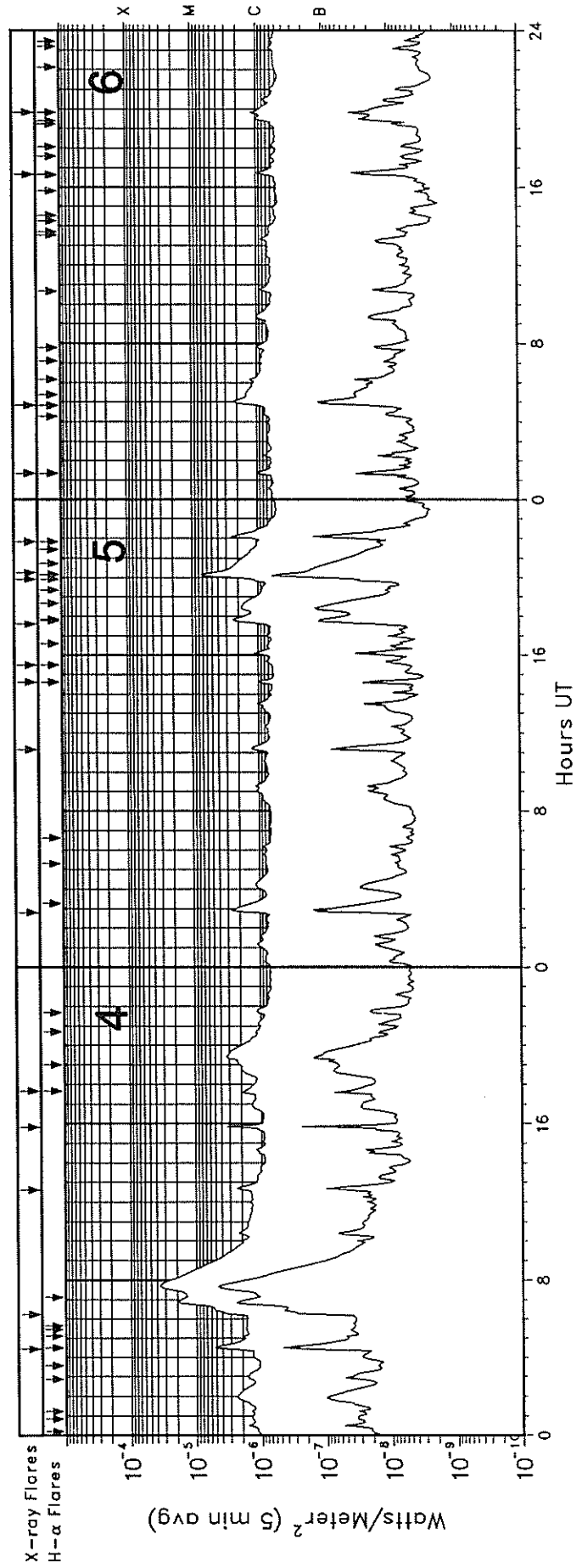
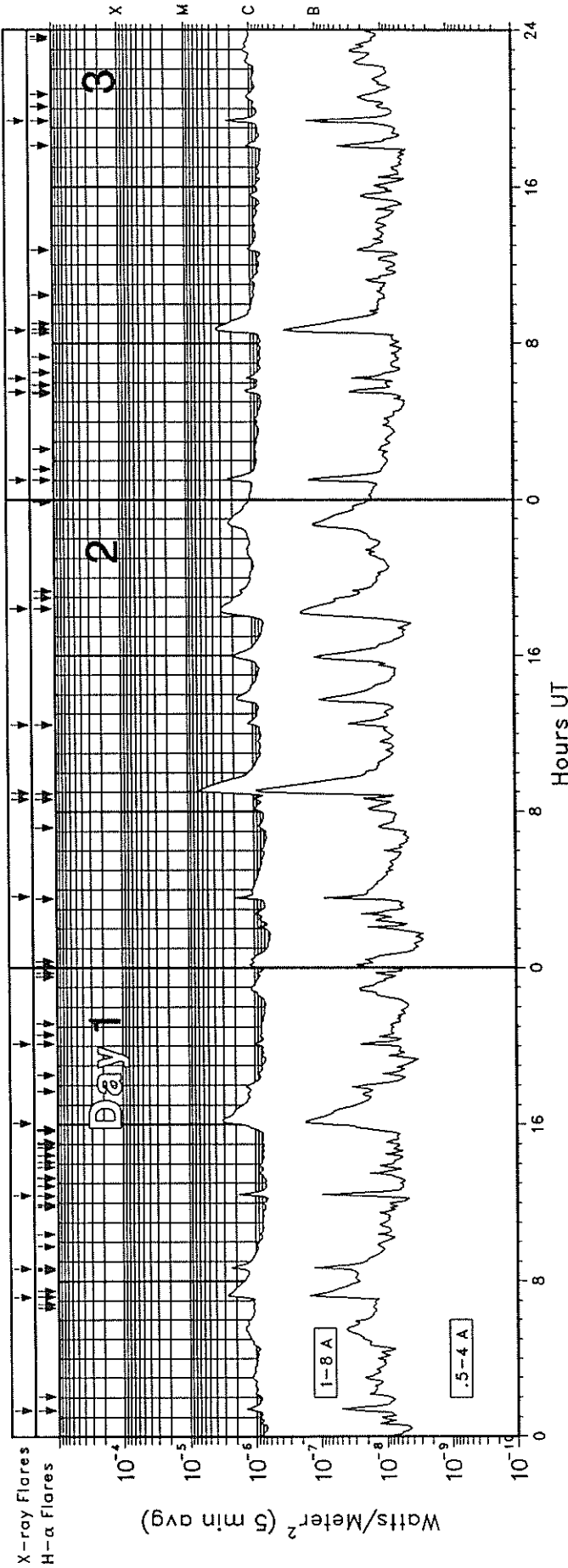
Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density		Int	Remarks
							Peak (10 -22 W/m 2 Hz)	Mean		
30	200	GORK	42 SER	0903.0	0903.7	28.0	38300.0			
	3013	IZMI	7 C	0903.0	0903.8	11.0	260.0	120.0		
	204	IZMI	45 C	0903.0	0903.8	33.0	30000.0	1500.0		
	200	GORK	42 SER	0903.0	0927.9		5666.0			
	650	GORK	47 GB	0903.1	0905.0U	5.0	9340.0			
	2950	GORK	47 GB	0903.1	0905.1	5.1	240.0			
	33	UPIC	49 GB	0903.2		27.9				
	29	UPIC	49 GB	0903.4	0903.6	27.7				
	810	KRAK	49 GB	0903.5	0905.0U	3.0D	260.0D	216.0D		
	9100	GORK	29 PBI	0905.5	0906.0	40.6	114.0			
	650	GORK	29 PBI	0908.1	0908.1	30.9	405.0			
	15000	KISV	31 ABS	0908.2	0910.3	3.3	40.0			
	3100	CRIM	29 PBI	0910.0	0910.0	26.0	21.2	7.0		
	950	GORK	30 PBI	0912.0	0912.0	138.0D	45.0			
	950	GORK	4 S/F	0920.3	0921.3	1.6	16.0			
	15000	KISV	32 ABS	0920.5	0922.5	5.1	95.0			
	5900	KISV	32 ABS	0921.5	0922.7	2.5	9.0			
	9300	KISV	32 ABS	0921.6	0922.8	2.5	18.0			
	15000	KISV	32 ABS	0925.5	0927.1	5.1	64.0			
	5900	KISV	32 ABS	0926.0	0927.2	2.5	6.0			
	9300	KISV	32 ABS	0926.4	0926.8	1.5	11.0			
	810	KRAK	8 S	0942.8	0943.0	0.3	14.0			
	3000	POTS	3 S	1000.0U	1001.4	5.0U	9.0			
	9500	POTS	3 S	1001.0	1002.5	5.5	21.0			
	2950	GORK	20 GRF	1002.4U	1027.0	120.0D	15.6			
	810	KRAK	8 S	1013.9	1014.0	0.2	4.0			
	1470	POTS	20 GRF	1024.0	1028.0	77.0	4.0			
	9100	GORK	22 GRF	1024.0	1030.4	51.0	13.8			
	9100	GORK	20 GRF	1130.0		29.0D				
	9400	HUAN	1 S	1225.0	1228.5	8.0	5.3	1.1		
	3000	POTS	3 S	1250.0	1252.0	7.0	19.0			
	9500	POTS	45 C	1250.0	1252.2	60.0	246.0			
	5900	KISV	4 S/F	1250.7	1252.2	8.0	132.0			
	9400	HUAN	3 S	1250.8	1252.0	8.0	271.1	58.6		
	9300	KISV	4 S/F	1250.9	1252.2	6.5	85.0			
	15000	KISV	4 S/F	1250.9	1252.2	4.0U	177.0			
	8800	SVTO	4 S/F	1251.0	1252.0	4.0	320.0			
	8800	SGMR	20 GRF	1251.0E	1252.0	12.0D	310.0			QL=1 ST=3 TYP=3
	1470	POTS	2 S/F	1251.5	1251.9	1.5	0.5			QL=1 ST=2 TYP=2
	9300	KISV	31 ABS	1257.6	1259.4	6.5	8.0			
	9400	HUAN	29 PBI	1258.8	1258.8	40.3	22.9	16.4		
	30	POTS	42 SER	1300.6	1301.0	3.4	16000.0			
	234	POTS	42 SER	1302.6	1303.2	3.2	18000.0			
	9400	HUAN	22 GRF	1405.5	1438.3	41.6	8.8	3.0		
	9500	POTS	20 GRF	1413.0	1417.4	17.0	11.0			
1470	POTS	20 GRF	1413.0	1414.8	17.0	4.0				
30	POTS	42 SER	1413.7	1418.8	31.0	17000.0				
234	POTS	42 SER	1413.8	1414.3	30.0	83000.0				
9500	POTS	21 GRF	1437.5	1438.3	6.5	15.0				
1470	POTS	40 F	1437.5	1440.7	6.5	80.0				
9400	HUAN	20 GRF	1528.7	1545.0	42.9	9.7	2.6			
9400	HUAN	4 S/F	1633.9	1645.1		21.1				
9400	HUAN	4 S/F	1633.9	1638.7	15.0	42.2	13.1			
8800	SVTO	8 S	1638.0	1638.0	1.0	75.0			QL=1 ST=2 TYP=3	
9400	HUAN	23 GRF	1711.0	1732.0	90.9	10.6	6.7			
9400	HUAN	4 S/F	1718.7	1725.0		33.4				
9400	HUAN	4 S/F	1718.7	1720.2	12.4	24.6	16.4			
9400	HUAN	2 S/F	1759.1	1801.5	15.3	12.3	6.6			

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
		SGMR = Sagamore Hill	UPIC = Upice

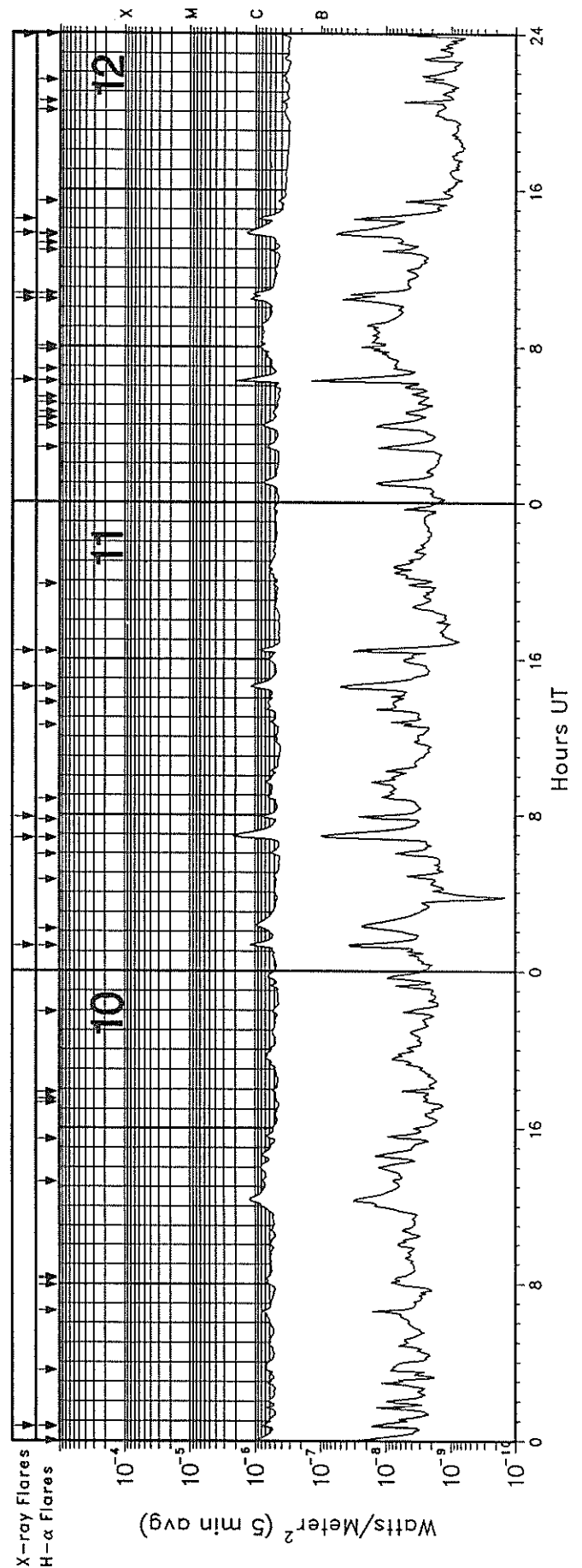
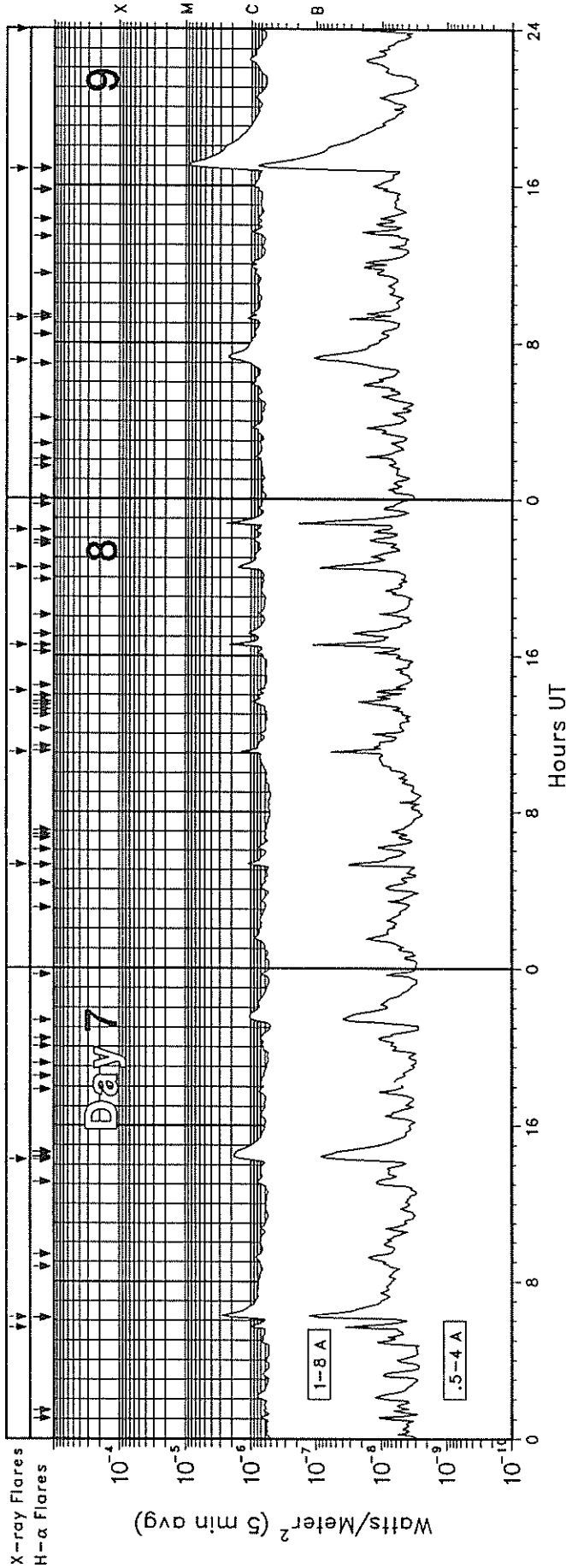
GOES-7 X-RAY DETECTOR

June 1988



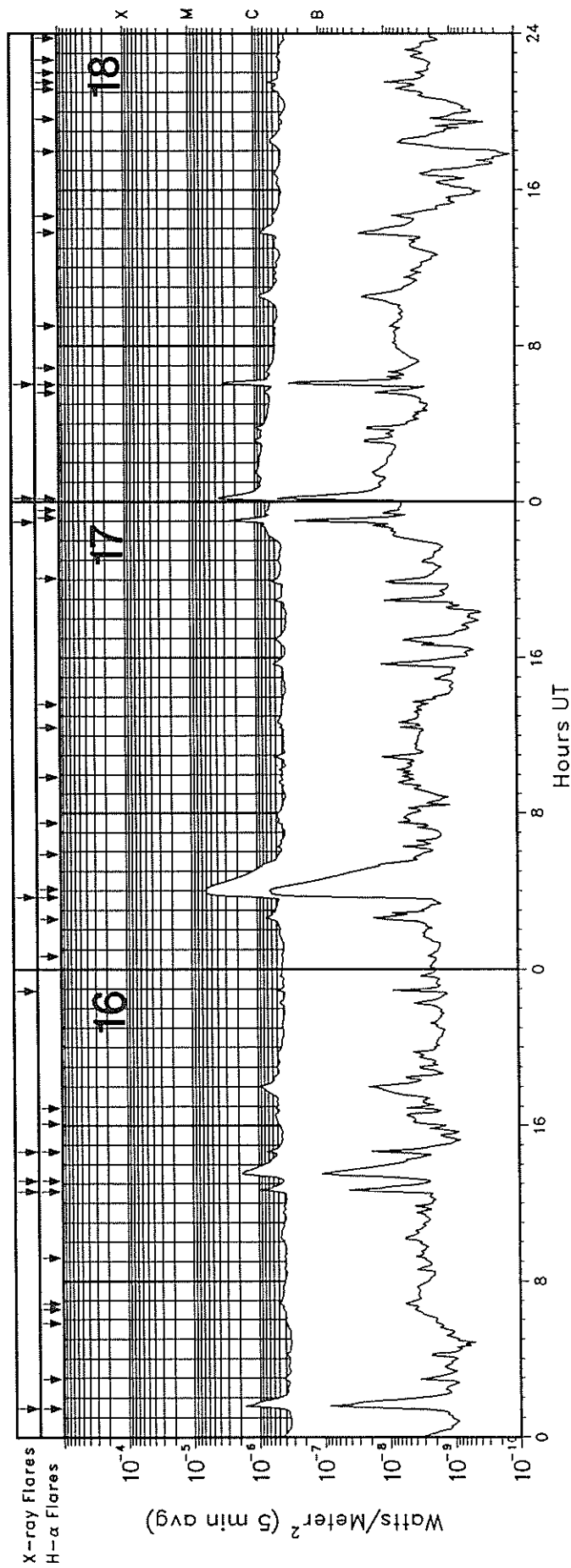
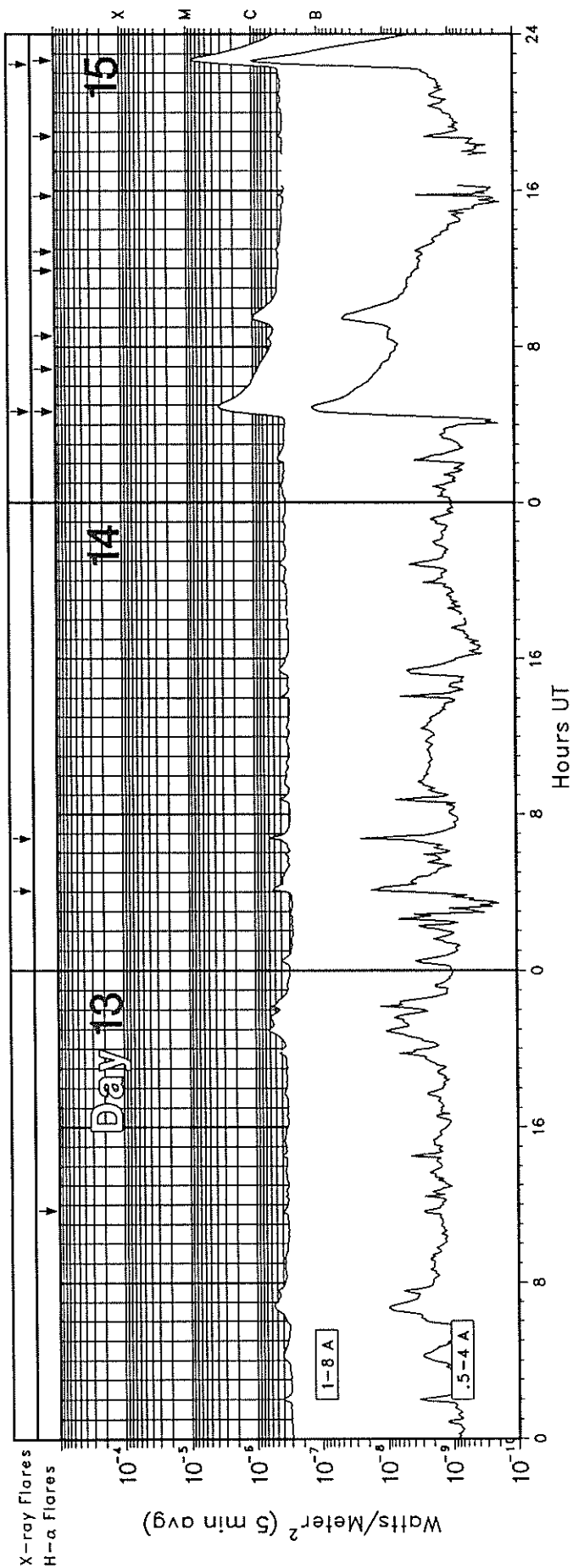
GOES-7 X-RAY DETECTOR

June 1988



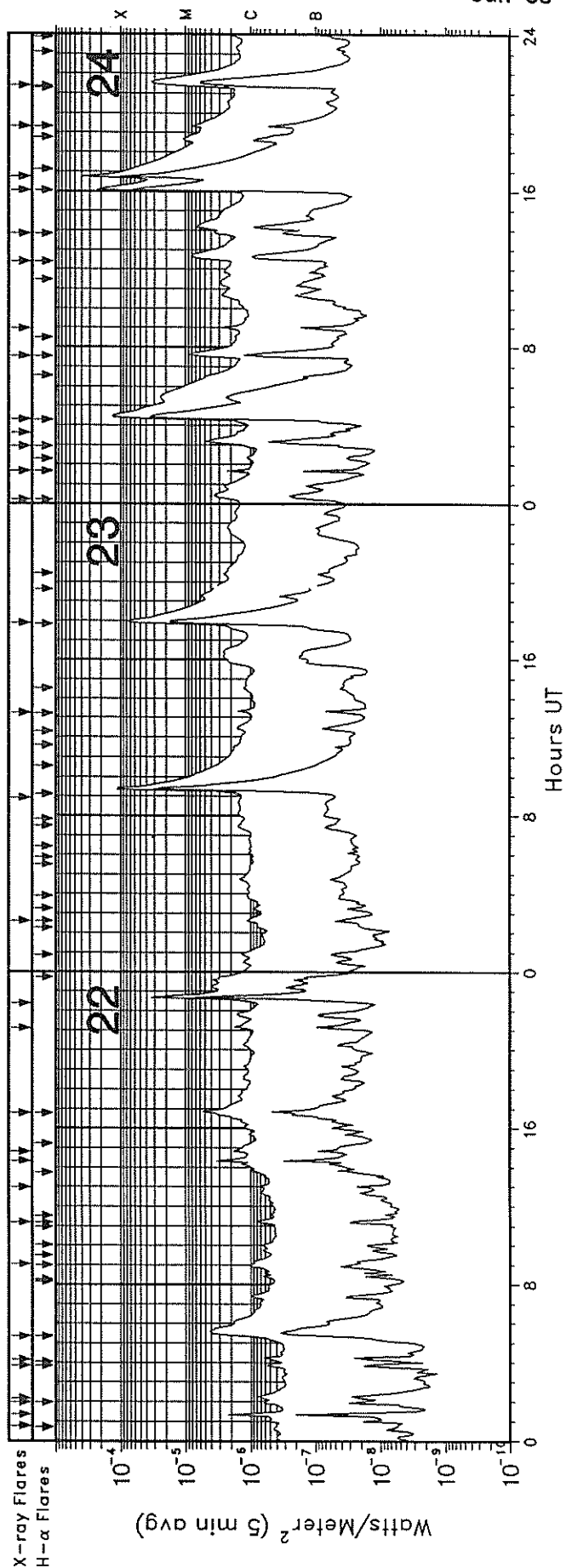
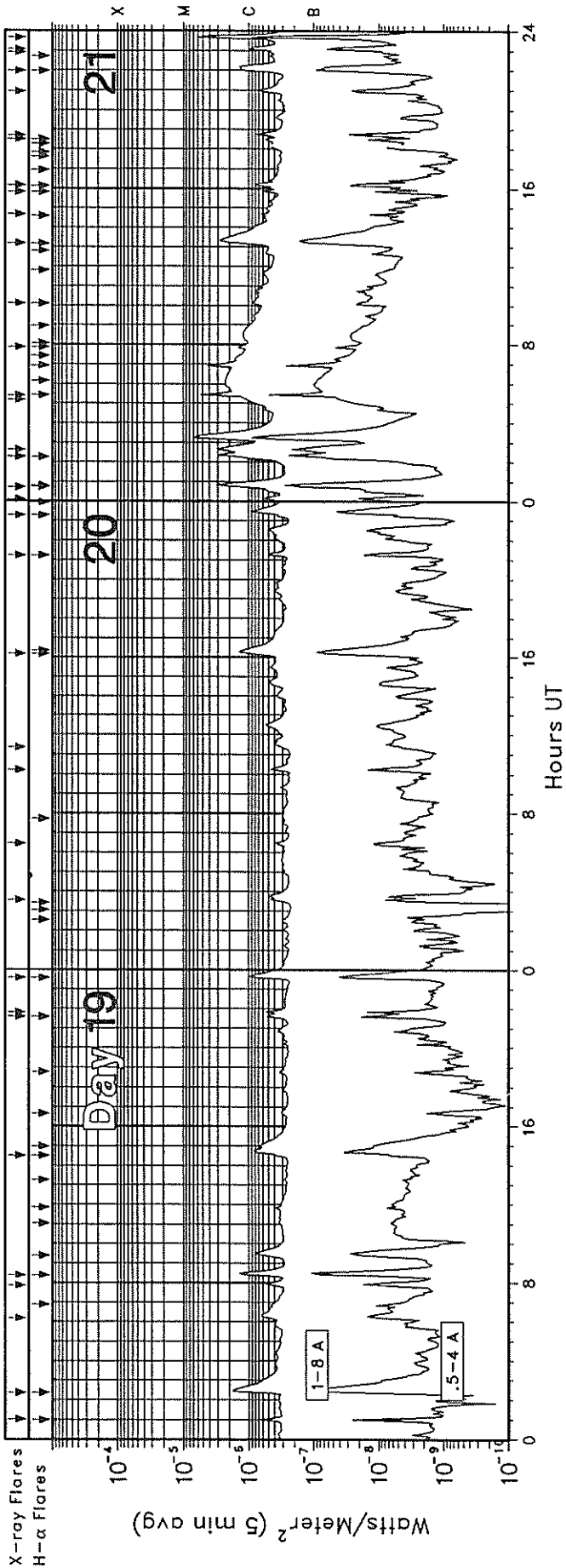
GOES-7 X-RAY DETECTOR

June 1988



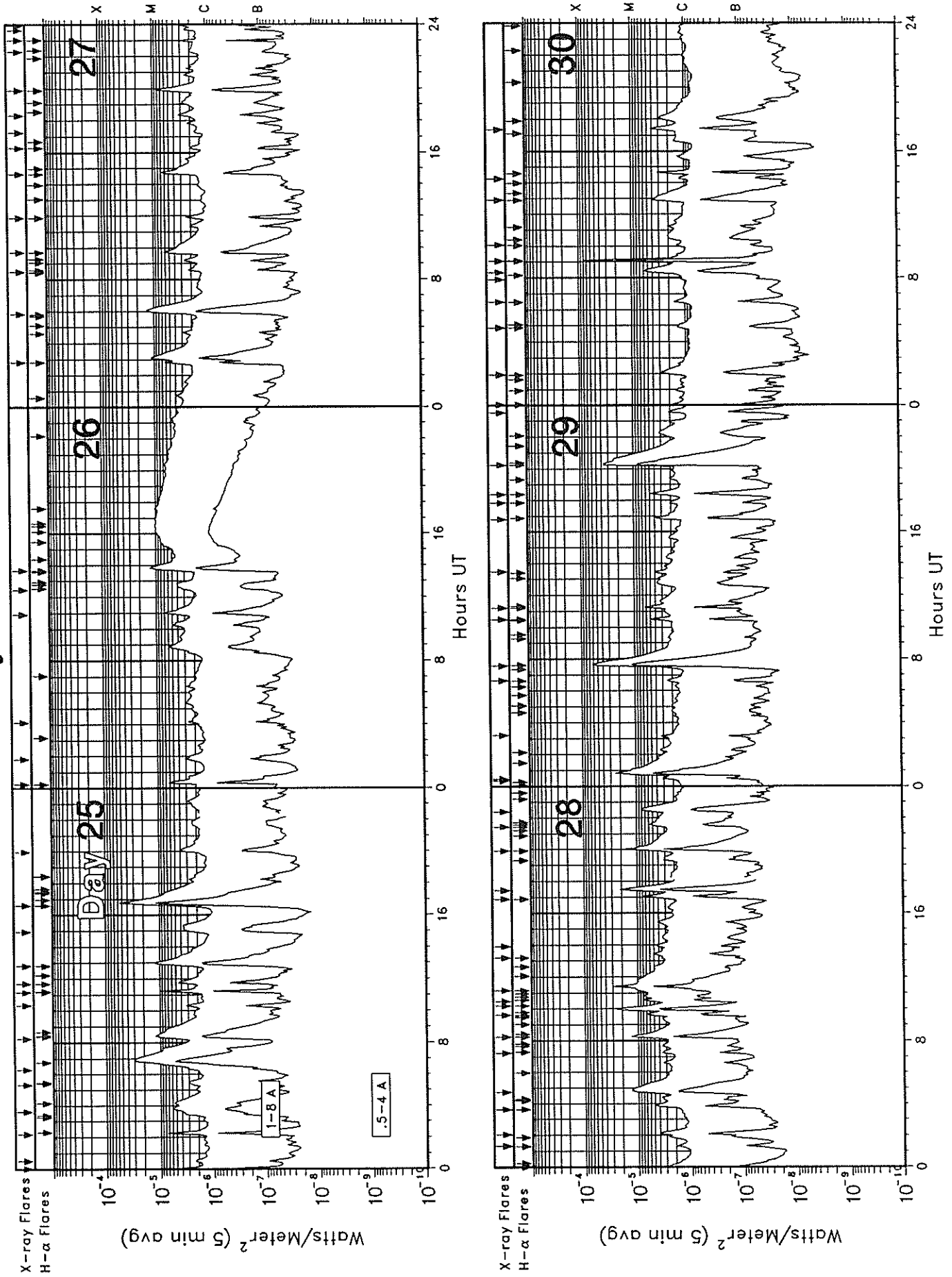
GOES-7 X-RAY DETECTOR

June 1988



GOES-7 X-RAY DETECTOR

June 1988



GOES SOLAR X-RAY FLARES
Preliminary Listing

June 1988

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/USAF Region
01	0122	0125	0134	N28	E56	SF	C1.4	5031
01	0711	0716	0746				C2.7	
01	0839	0842	0848				C2.5	
01	1223	1224	1241	N18	E49	SF	C2.1	5032
01	1604E	1610	1653	S26	E78	1N	C3.1	5034
01	2008	2008	2012	S26	W56	SF	C1.2	5027
02	0339	0340	0348	S25	W65	SF	C2.1	5027
02	0838	0840	0852	N20	E36	SF	C1.1	5032
02	0857	0903	0924	S27	W65	SF	C7.1	5027
02	1227	1229	1245	N19	E34	SF	C1.2	5032
02	1825E	1825U	1841	S23	W70	SF	C3.0	5027
03	0101	0101	0105	S26	W73	SF	C2.4	5027
03	0530	0536	0547	S23	W65	SF	C1.3	5027
03	0613	0615	0628	S24	W66	SF	C1.2	5027
03	0840	0843	0850	S27	W78	SF	C3.4	5027
03	1922	1927	1934	S24	W76	SN	C2.5	5027
04	0426	0433	0443				C5.4	
04	0614	0745	0904	S26	W90		M3.6	5027
04	1237	1243	1250	S22	W90		C2.4	5027
04	1549	1553	1556				C4.1	
04	1740	1742	1802	S20	E40	SF	C2.2	5034
05	0248	0256	0312				C2.9	
05	1110	1115	1123				C1.3	
05	1437	1438	1453D	N17	W06	SF	C1.2	5032
05	1530	1604	1654	N17	W07	SF	C1.2	5032
05	1736	1751	1839	N15	W05	1F	C2.4	5037
05	1955	1957	2005	S24	W21	SF	C1.2	5038
05	2014E	2014U	2041	N18	W11	1N	C8.6	5032
05	2150	2206	2221	S12	E74	SF	C2.5	5036
06	0122	0127	0137	N18	W11	SF	C1.1	5032
06	0450	0501	0529	N17	W18	1F	C2.3	5032
06	1639	1645	1656	S16	E59	SF	C1.1	5036
06	1950	1952	2003	S25	W35	SF	C1.3	5038
07	0539	0544	0550				C1.0	
07	0611E	0611U	0624D	N27	W22	SF	C2.8	5031
07	1416	1419	1505	N28	W26	SF	C1.8	5031
08	0516	0517	0534	N15	W37	SF	C1.2	5037
08	1104	1109	1113				C1.4	
08	1412	1415	1419				B8.5	
08	1632	1635	1700	N20	W54	SF	C2.4	5032
08	2030	2031	2107	S17	E36	SF	C1.8	5036
08	2226	2248	2301	S16	E32	SN	C4.1	5036

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/USAF Region
09	0706	0715	0739	N15	W63	SF	C2.3	5032
09	0916	0920	0922				C1.5	
09	1649	1655	1809	N18	W62	1F	C9.3	5032
09	2358	0004	0013				B9.9	
10	0045	0049	0052				B9.5	
11	0117	0118	0135	S16	E04	SF	C1.2	5036
11	0648	0657	0712	N27	W61	SF	C2.2	5040
11	0754	0758	0807	N13	E40	SF	B9.0	5041
11	1433	1441	1457	S16	W06	SF	C1.1	5036
11	1625	1627	1638	S16	W05	SF	B9.5	5036
12	0616	0618	0633	S23	W60	SF	C2.8	5034
12	1025	1026	1031	S25	W62	SF	C1.2	5034
12	1041	1042	1050	N13	E20	SF	C1.3	5041
12	1346	1349	1406	N12	E19	SF	C1.5	5041
12	1429	1435	1440				B9.4	
12	2355	2358	0000				B4.5	
14	0403	0409	0421				B5.7	
14	0644	0649	0653				B7.0	
15	0440	0452	0502	S21	W59	SF	C3.3	5036
15	2228	2238	2310	S17	E61	SB	C8.5	5047
16	0128	0134	0214	S13	W60	1F	C1.8	5036
16	1236	1239	1311	N12	W32	SF	C1.2	5041
16	1309	1329	1422	N39	E58	1N	C1.8	5048
16	1439	1442	1449	N13	W33	SF	B8.5	5041
16	2254	2256	2302	N14	W40	SF	B5.6	5041
17	0340	0350	0459	S18	E43	1N	C6.1	5047
17	2257	2303	2310				C2.5	
18	0011	0014	0122	S18	E36	SF	C5.4	5047
18	0602	0604	0627	S18	E32	SF	C3.7	5047
19	0102	0104	0107	S23	E74	SF	B9.9	5053
19	0222	0226	0243	N14	W63	1F	C2.0	5041
19	0611	0622	0633				B6.6	
19	0752	0800	0803				B6.0	
19	0824	0827	0839	S18	E19	SN	C1.5	5047
19	1430	1442	1504	N11	W79	SF	C1.0	5041
19	2135	2150	2202	S17	E07	SF	B6.2	5047
19	2149	2152	2154				B6.9	
19	2335	2337	2345	N13	W80	SF	B9.9	5041
20	0333	0335	0407	S17	E04	SF	B5.3	5047
20	0627	0631	0635				B4.3	

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Jun 88

GOES SOLAR X-RAY FLARES
Preliminary Listing

June 1988

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/USAF Region
20	1013	1016	1025				B4.8	
20	1121	1132	1152				B4.2	
20	1611	1619	1645	S15	E05	SF	C1.4	5047
20	2114E	2119	2125	S26	E31	SF	B5.8	5054
20	2317	2318	2322	S18	W03	SF	B9.5	5047
21	0007	0011	0021	S16	W01	SF	B6.2	5047
21	0043	0053	0059				C3.3	
21	0217	0221	0336	S17	W00	SF	C3.2	5047
21	0216	0316	0343	S17	W03	1N	C7.2	5047
21	0238	0243	0246				C3.1	
21	0510	0610	0800				C2.3	
21	0524	0529	0532				C7.0	
21	0752	0752	0800	S17	W12	SN	C1.6	5047
21	1007	1010	1015				B9.5	
21	1311	1318	1420	S16	W10	SF	C2.8	5047
21	1440	1443	1445				B7.4	
21	1549	1551	1559	S26	E21	SF	B6.7	5054
21	1610	1615	1618				C1.1	
21	1831	1833	1836	S17	W13	SF	B6.7	5047
21	1842	1847	1852				B7.8	
21	2056	2101	2105				B8.8	
21	2158	2215	2241	S18	W16	SF	C1.6	5047
21	2255E	2344U	2358D	S16	W17	1B	C1.6	5047
21	2304	2309	2312				C1.6	5047
21	2339	2344	2347				M1.1	5047
22	0047	0055	0103	S17	W14	SF	B6.0	5047
22	0121E	0122U	0133	S18	W17	SF	C2.6	5047
22	0158	0159	0204	S18	W18	SF	B8.5	5047
22	0211	0217	0221				B8.1	
22	0351	0413	0426	S18	W19	SF	B6.0	5047
22	0410	0417	0419				B8.0	
22	0521	0528	0558	S19	W15	1N	C4.3	5047
22	0903	0912	0916	S19	W21	SF	C1.0	5047
22	1112	1113	1116	S18	W28	SF	C1.5	5047
22	1259	1302	1304				B8.8	
22	1420	1421	1430	S18	W23	SF	C3.7	5047
22	1448	1453	1458				C1.9	
22	1647	1648	1655	S18	W25	SF	C5.9	5047
22	2107	2110	2117				C1.9	
22	2223	2242	2259	S18	W27	1N	M5.2	5047
23	0236	0239	0252	S19	W31	SF	C1.1	5047
23	0856	0927	1003	S19	W34	2B	X1.6	5047
23	1314	1323	1332	S19	W38	SF	C1.7	5047
23	1753	1757	1848	S17	W35	1B	M8.1	5047
24	0013	0030	0057	S17	W39	SF	C3.6	5047
24	0140	0143	0146	N36	W50	SF	C3.3	5051
24	0256	0313	0403	S18	W43	SN	C4.9	5047
24	0337	0340	0343				C2.0	
24	0418	0430	0701	S18	W45	1B	X1.3	5047
24	0732	0739	0841	S18	W46	SF	C9.5	5047

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/USAF Region
24	0857	0901	0904				C3.4	
24	1224	1232	1349	S17	W49	1N	C8.4	5047
24	1349	1352	1403	N35	W56	SF	C7.4	5051
24	1603	1648	1654D	S17	W52	2B	X2.4	5047
24	1644	1648	1818				X5.6	5047
24	1920	1920	1942	S17	W52	SF	C8.2	5047
24	2123	2128	2153	S21	E89	1B	M3.3	
25	0002	0007	0010				C4.6	
25	0031	0035	0037				C3.0	
25	0212	0218	0221				C9.1	
25	0337	0338	0403D	S16	W58	SF	C6.1	5047
25	0520	0529	0540				C3.2	
25	0618	0659	0753				M3.0	
25	0815	0825	0907				M1.2	
25	1021	1024	1027				C3.6	
25	1109	1113	1124	S19	W65	SF	M1.7	5047
25	1142	1149	1157				C4.8	
25	1248E	1256	1342	S16	W66	SN	M1.3	5047
25	1456	1523	1532				C3.8	
25	1636	1645	1657	S20	E89	SB	M6.0	5060
25	1958	2006	2019				C4.1	
26	0014	0101	0117D	S20	E89	SF	C8.5	5060
26	0149	0153	0156				C3.3	
26	0407	0412	0417				C2.8	
26	1055	1104	1109				C8.5	
26	1228	1250	1259				C4.3	
26	1340	1345U	1357	S18	W77	1N	M1.3	5047
27	0249E	0249U	0310	S20	W89	SN	C7.8	5047
27	0249E	0304	0358	S20	E66	SN	M1.1	5060
27	0549	0558	0607	N13	E67	SF	M1.3	5062
27	0829	0832	0837	N13	E66	SF	C2.3	5062
27	0943	0944	0951	N16	E67	SF	C6.8	5062
27	1152	1153	1207	S20	E59	SF	C2.5	5060
27	1438	1443	1514	N13	E61	1N	C7.3	5062
27	1617	1617	1623	S18	E53	SF	C2.4	5060
27	1715	1720	1728				C1.8	
27	1818	1822	1830				C3.2	
27	1953E	1955U	2026	N14	E60	SN	C8.8	5062
27	2217	2220	2222				C2.4	
27	2301	2303	2329	S20	E49	SN	C6.8	5060
27	2338	2345	2353				C2.5	
27	2355	0003	0009				C3.4	
28	0120	0121	0129	S23	E58	SF	C1.9	5060
28	0203	0209	0216				C4.3	
28	0338	0338	0350	S23	E50	SF	C4.9	5060
28	0444	0445	0514	S23	E50	SN	M1.3	5060
28	0714	0718	0725				C3.9	
28	0815	0816	0823	S20	E50	SN	M1.5	5060
28	0937	0938	0945	S20	E51	SF	C7.3	5060
28	1012	1013	1018	N12	E53	SF	M3.2	5062

GOES SOLAR X-RAY FLARES
Preliminary Listing

June 1988

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/USAF Region
28	1030	1036	1041				C9.1	
28	1110E	1124U	1144D	S21	E48	SN	M4.5	5060
28	1312	1325	1413	S22	E45	SF	C5.5	5060
28	1355	1400	1407				C4.8	
28	1653	1732	1809	S24	E43	1F	C8.8	5060
28	1726	1728	1743	S20	E41	SN	M2.4	5060
28	1955	1959	2051	S19	E45	SB	M2.1	5060
28	2127	2128	2131	N12	E47	SF	C5.6	5062
28	2224	2231	2246				C8.3	
29	0028	0050	0126	S21	E41	1B	M2.6	5060
29	0021E	0029U	0039D	S23	E40	SF	C3.2	5060
29	0312	0313	0320	S25	E36	SF	C3.7	5060
29	0639	0640	0644	S18	E31	SF	C3.1	5060
29	0734	0738	0847	S19	E24	2B	M6.5	5060
29	1030	1033	1043	S23	E30	SF	C6.1	5060
29	1114	1116	1131	S23	E29	1F	C6.9	5060
29	1329	1334	1344	N15	E37	SF	C4.2	5062

Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Opt	Imp Xray	NOAA/USAF Region
29	1648E	1653	1725D	S21	E22	2N	C5.5	5060
29	1751	1754	1808	S19	E31	SF	C2.3	5060
29	1823	1828	1836	S17	E26	SF	C5.5	5060
29	2015	2017	2115	S19	E27	1B	M4.1	5060
29	2332	2338	2348				C2.1	
30	0003	0004	0020	N14	E33	SF	C1.8	5062
30	0157	0207	0234	N13	E29	SF	C3.2	5062
30	0452	0456	0520	N13	E30	SF	C1.5	5062
30	0821	0823	0900	S22	E17	SN	C5.8	5060
30	0629	0631	0641	N13	E28	SF	C1.6	5062
30	0754	0757	0759				C1.3	
30	0904	0906	0916	S16	E22	2B	M9.2	5060
30	1005	1006	1013	N15	E28	SF	C1.5	5062
30	1254	1255	1336	S14	E18	SF	C4.0	5060
30	1415	1419	1425				C1.3	
30	1721	1729	1743	S21	E17	SF	C4.5	5060

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Jun 88

Preliminary GOES Satellite Data
Daily Average X-ray Background

July 1987 - August 1988

Day	1987						1988					
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1	---	B1.2	B1.1	A6.8	B2.2	A7.6	B2.0	B2.5	B1.0	B4.4	B1.9	B7.5
2	A1.7	B1.2	B1.3	A6.8	B3.8	A8.3	B1.4	B2.5	A8.5	B3.5	B2.6	B6.6
3	A1.4	B1.0	B1.3	A7.7	B3.4	A5.2	B4.6	B1.9	B1.1	B3.7	B3.7	B7.1
4	A1.3	A6.7	B1.3	B1.2	B3.4	A4.8	B2.4	B1.5	B1.8	B3.5	B5.1	B9.5
5	A1.2	A6.5	B1.4	B1.1	B2.1	A5.3	B2.3	B1.7	B1.6	B4.2	B4.1	B6.0
6	A1.3	A6.9	B1.4	B1.0	B2.1	A7.8	B2.5	B1.5	B1.4	B4.3	B2.9	B4.8
7	A1.5	B1.7	B2.7	B1.1	B1.7	A8.5	B2.5	B2.4	B1.6	B3.8	B3.1	B5.6
8	A5.0	B2.8	B2.2	B1.7	B1.2	A9.1	B2.7	B1.8	B1.6	B3.9	B2.5	B5.2
9	A3.5	B2.1	B1.6	B2.1	A8.8	B1.4	B2.3	B1.8	B1.6	B3.2	B1.8	B6.4
10	A3.2	B2.3	B1.7	B2.0	A8.8	A9.4	B3.0	B1.5	B1.8	B3.1	B1.6	B4.9
11	A2.7	B2.9	B1.6	B1.8	B1.9	B2.3	B2.1	B1.6	B2.8	B4.5	B1.6	B4.3
12	A1.9	B2.9	B1.3	B1.7	B1.4	B3.2	B3.1	B1.8	B3.4	B5.5	B1.5	B3.7
13	A1.9	B2.6	B1.2	B2.3	B1.4	B1.8	--	B1.8	B3.4	B4.4	B1.4	B3.0
14	A3.3	B1.9	A9.5	B2.1	A8.2	B1.3	B4.0	B1.5	B2.5	B6.0	B1.3	B2.8
15	A4.3	B1.2	A7.1	B2.2	A9.7	B1.4	B3.9	B1.4	B6.0	B7.4	B1.1	B3.3
16	A5.3	B1.4	A4.6	B2.6	B1.1	B1.2	B5.1	B1.2	B6.9	B9.2	B1.3	B3.7
17	A4.0	B1.1	A5.2	B2.1	B1.1	A9.5	B3.6	B1.2	B4.6	B5.3	B2.0	B3.6
18	A5.2	B1.1	A3.8	B2.6	B1.6	A8.9	B2.2	B1.6	B3.0	B3.9	B3.2	B4.0
19	B1.1	B1.2	A4.7	B2.4	B2.7	A7.3	B2.5	B1.4	B3.3	B5.5	B2.9	B2.6
20	B1.8	B1.3	A7.6	B1.7	B5.2	A7.1	B2.3	B1.2	B4.4	B5.1	B3.2	B2.6
21	B2.0	B1.6	A5.9	B1.5	B3.5	A9.8	B2.4	B1.3	B3.8	B4.7	B4.1	B3.5
22	---	B1.6	A5.0	B1.6	B3.6	B1.5	B2.0	A9.9	B3.7	B3.1	B5.8	B4.6
23	B3.9	B1.5	A3.4	B1.4	B3.0	B1.0	B2.0	B1.0	B6.0	B2.2	B8.8	B9.8
24	B3.5	B1.5	A3.7	B1.4	B2.9	B2.3	B3.1	A9.0	B6.8	B2.6	B4.5	C1.2
25	B3.4	B1.4	A3.0	B1.8	B2.9	B4.9	B1.9	A9.0	B6.1	B2.0	B5.3	---
26	B3.6	B1.1	A2.7	B1.9	B2.9	B4.7	B2.2	B9.5	B4.5	B1.5	B3.8	C2.7
27	B3.7	B1.1	A7.6	B2.5	B2.0	B3.4	B4.6	B1.0	B4.0	B1.1	B3.7	C1.1
28	B3.2	A8.6	B1.0	B2.7	B1.7	B2.3	B5.1	B1.2	B3.5	B1.1	B5.0	C1.6
29	B2.2	A6.6	A9.8	B1.9	B1.7	B1.8	B4.4	B2.0	B3.5	B1.1	B7.2	C1.5
30	B1.6	A7.6	A7.0	B2.7	B1.1	B2.5	B2.7		B3.3	B1.6	B8.0	B8.1
31	B1.4	B1.3		B2.7		---	B2.1		B4.2		B8.5	

MASS EJECTIONS FROM THE SUN

JUNE 1988

Sta	Day	Observed UT			Location		Freq or Wavelength	Kind of Event
		Start	Max	End	RA ^o	R/R _o		
KHAR	Jun 01	0645	E 0646	U 0706	051	0.79-0.83	H-alpha	S
SGMR	Jun 01	1459.0		1500.0			Meter	IV
KHAR	Jun 02	0830	E 0837	U 0900	D 237	0.97	H-alpha	S
KHAR	Jun 02	0920	0936	1015	D 239-241	0.75-0.78	H-alpha	SP
KHAR	Jun 02	0936	0940	U 0955	240	0.9	H-alpha	S
KHAR	Jun 02	1006	1010	U 1020	D 240	0.9	H-alpha	S
KHAR	Jun 03	0640	E	0700	D 238-239	0.86	H-alpha	S
KHAR	Jun 03	0835	0840	0855	241	1.00-1.01	H-alpha	S
KHAR	Jun 03	0855	E 0900	U 0908	D 246	0.93	H-alpha	S
PALE	Jun 06	- 0003.0		0026.0			Meter	II
LEAR	Jun 06	- 0003.0		0025.0			Meter	II
PALE	Jun 06	- 0121.0		0128.0			Meter	II
LEAR	Jun 06	- 0122.0		0130.0			Meter	II
WEIS	Jun 06	0921.5		0931.1			46- 30 MHz	II
SGMR	Jun 06	- 1401.0		1414.0			Meter	II
WEIS	Jun 06	- 1407.2		1413.5			40- 30 MHz	II
KHAR	Jun 09	0833	E 0835	0900	D 210	0.8	H-alpha	S
KHAR	Jun 09	0922	E 0924	0945	308	0.69	H-alpha	S
LEAR	Jun 11	- 0659.0		0710.0			Meter	II
WEIS	Jun 11	- 0659.7		0710.5			60- 30 MHz	II
KHAR	Jun 12	0745	E 0750	U 0825	D 297	1.00	H-alpha	S
LEAR	Jun 15	0434.0		0452.0			Meter	II
LEAR	Jun 17	- 0338.0		0524.0			Meter	II
PALE	Jun 17	- 0340.0		0359.0			Meter	IV
SGMR	Jun 21	1337.0		1346.0			Meter	IV
VORO	Jun 21	2243	E	2311	135-195	0.41	H-alpha	SP
VORO	Jun 21	2312	2315	U 2337	135-195	0.41	H-alpha	SP
VORO	Jun 22	0020	0025	U 0036	195	0.41	H-alpha	SP
VORO	Jun 22	0037		0119	D 135-195	0.41	H-alpha	SP
ABST	Jun 22	0413	E 0425	U 0436	D 302	0.50	H-alpha	SP
SGMR	Jun 24	- 1426.0		1446.0			Meter	II
WEIS	Jun 24	- 1435.6		1444.1			46- 30 MHz	II Herringbone
SGMR	Jun 24	1644.0		1653.0			Meter	IV
KHAR	Jun 25	0830	E	0920	D 111	1.00	H-alpha	S
KHAR	Jun 25	0858	E	0908	254	0.85	H-alpha	S
KHAR	Jun 25	0947	E 1000	U 1011	112	1.00-1.08	H-alpha	S
KHAR	Jun 25	0959		1015	110	1.00-1.04	H-alpha	S
KHAR	Jun 25	1008	E	1015	D 251	0.93	H-alpha	S
SGMR	Jun 25	- 1113.0		1136.0			Meter	II
WEIS	Jun 25	- 1128.5		1129.6			62- 46 MHz	II
WEIS	Jun 25	- 1133.2		1137.4			40- 30 MHz	II
VORO	Jun 26	0026	E 0030	U 0046	D 090	1	H-alpha	S
WEIS	Jun 28	- 1005.7		1018.5			86- 30 MHz	II Herringbone
SGMR	Jun 28	- 1007.0		1015.0			Meter	II
KHAR	Jun 28	1018	E	1021	D 127	0.80-0.83	H-alpha	S
KHAR	Jun 28	1018	E	1039	D 128-131	0.76-0.77	H-alpha	S
WEIS	Jun 29	- 0738.3		0757.0			230- 30 MHz	II Herringbone
LEAR	Jun 29	- 0739.0		0800.0			Meter	II
WEIS	Jun 29	- 0741.4		0826.0			600-160 MHz	IV
LEAR	Jun 29	- 0759.0		0932.0			Meter	IV
WEIS	Jun 29	- 0801		0838			160- 30 MHz	IV
LEAR	Jun 29	0903.0		0918.0			Meter	II

MASS EJECTIONS FROM THE SUN

JUNE 1988

Sta	Day	Observed UT			Location		Freq or L Wavelength	Kind of Event
		Start	Max	End	RA ^o	R/R _o		
KHAR	Jun 30	- 0907	E 0923	U 1008	D 110-128	0.42-0.50	H-alpha	S
SGMR	Jun 30	- 0908.0		0919.0			Meter	II
WEIS	Jun 30	- 0908.1		0924.0			190- 30 MHz	II Herringbone
SGMR	Jun 30	1446.0		1448.0			Meter	II

QUALIFIERS ON START, MAX AND END TIMES

D = event ended after tabulated time
E = event began before the tabulated time
U = uncertain time

REPORTING STATIONS

KHAR = Kharkov
LEAR = Learmonth
PALE = Palehua
SGMR = Sagamore Hill
VORO = Voroshilov
WEIS = Weissenau

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

ACTIVE PROMINENCES AND FILAMENTS

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Jun 88

JUNE 1988

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	DSD	0125	0158D	N28	E56	06	5.4		05	9	9	E	HOLL	5032	Flare Associated
01	AFS	0217E	0218D	N22	E53	06	5.2		04	9	9	E	PALE	5032	
01	AFS	0635E	0901D	N20	E48	06	4.9		03	8	7	E	LEAR	5032	
01	ASR	0640E	0901D	S16	W90	05	25.5			9	8	E	LEAR	5025	
01	DSD	0645E	0706	N29	E47	06	5.0	1				V	KHAR		
01	ADF	0645E	0740	N22	E47	06	4.9	1				V	KHAR		
01	APR	0740E	0755D	S16	W90	05	25.6	1				V	KHAR		
01	ADF	0810E	0825D	N22	E47	06	4.9	1				V	KHAR		
01	AFS	1220E	1450D	S24	W45	05	29.1		02	9	7	E	RAMY	5027	
01	ASR	1224E	1455D	S14	W90	05	25.8			9	9	E	RAMY	5025	
01	DSD	1354	1429D	S25	W46	05	29.1		03	9	9	E	HOLL	5027	Flare Associated
01	DSD	1420E	1421D	S21	W44	05	29.3		09	9	9	E	RAMY	5027	
01	DSD	1421E	1421D	S25	W55	05	28.4		03	9	9	E	RAMY	5027	
01	ASR	1528E	1550D	S14	E90	06	8.4	1		9	9	E	HOLL	5025	
02	DSD	0010	0040	S25	W57	05	28.7		40	9	9	E	HOLL	5027	
02	DSD	0015E	0118D	N18	E42	06	5.2		06	9	9	E	HOLL	5032	
02	DSD	0051	0118D	S25	W57	05	28.7		07	9	9	E	HOLL	5027	
02	ADF	0610E	1741D	N18	E38	06	5.1	1	04	9	9	E	SVTO	5032	
02	SDF	0806E	2345D	N38	W32	05	30.8		50	0	0	E	LEAR		
02	ADF	0807E	0818D	S28	W58	05	28.9	1				V	KHAR		
02	DSD	0830E	0900D	S33	W75	05	27.5	1				V	KHAR		
02	DSD	0920E	1015D	S23	W46	05	29.9	2				V	KHAR		
02	DSD	0936	0955	S27	W65	05	28.4	1				V	KHAR		
02	DSD	1006	1020D	S28	W65	05	28.4	1				V	KHAR		
02	AFS	1113E	2234D	N18	E31	06	4.8		02	8	7	E	RAMY	5032	
02	ADF	1113E	2234D	N23	E39	06	5.5	1	06	9	9	E	RAMY	5031	
02	ADF	1113E	2234D	N28	E28	06	4.6	1	03	9	9	E	RAMY	5031	
02	DSD	1113E	2234D	N28	E35	06	5.2		03	9	9	E	RAMY	5031	
02	ADF	1113E	2234D	N39	E33	06	5.1	1	07	9	9	E	RAMY	5031	
02	ADF	1113E	2234D	S29	E69	06	7.9	1	04	9	9	E	RAMY	5034	
02	AFS	1353E	1741D	S37	E13	06	3.6		03	9	9	E	SVTO		
02	DSD	1355E	1620D	N29	E25	06	4.5		06	9	9	E	SVTO	5031	
02	SDF	1741E	1100D	S36	W38	05	30.8		30	0	0	E	SVTO		
02	SDF	1837E	2359D	S36	W31	05	31.3		29	0	0	E	HOLL		
02	ASR	2035E	0149D	S24	E88	06	9.6			9	9	E	HOLL	5028	
02	ASR	2111E	2234D	S22	W90	05	27.1			9	9	E	RAMY	5027	
03	AFS	0300E	0925D	N18	E23	06	4.9		03	6	4	E	LEAR	5032	
03	AFS	0426E	1713D	N17	E22	06	4.8		03	9	9	E	SVTO	5032	
03	ADF	0428E	1716D	N34	E30	06	5.6	1	08	9	9	E	SVTO	5031	
03	DSD	0522E	0554	S25	W67	05	29.1		07	9	9	E	SVTO	5027	
03	DSD	0640E	0700D	S28	W60	05	29.7	1				V	KHAR		
03	BSL	0835E	0855	S30	W90	05	27.4	1				V	KHAR		
03	DSD	0855	0908	S25	W73	05	28.8	1				V	KHAR		
03	ADF	0902	0923	S26	E57	06	7.8	1				V	KHAR		
03	ADF	0912E	0930D	S28	W60	05	29.8	1				V	KHAR		
03	ADF	0952E	1000D	N35	E24	06	5.3	1				V	KHAR		
03	ADF	1031E	1803D	S28	E68	06	8.7	1	17	9	9	E	SVTO	5034	
03	AFS	1052E	2146D	S21	E54	06	7.6		02	9	9	E	RAMY	5034	
03	DSD	1058E	2146D	N18	E20	06	5.0		03	9	9	E	RAMY	5032	
03	AFS	1058E	2146D	N19	E18	06	4.8		02	9	9	E	RAMY	5032	
03	ADF	1118E	2146D	N41	W44	05	31.0	1	04	9	9	E	RAMY	5033	
03	ADF	1130E	2146D	N25	W05	06	3.1	2	08	9	9	E	RAMY		
03	AFS	1206E	1803D	N12	W22	06	1.8		02	9	9	E	SVTO		
03	AFS	1243E	2146D	N13	W22	06	1.9		02	8	6	E	RAMY	5035	
03	AFS	1250E	1750D	N18	E17	06	4.8		02	9	9	E	HOLL	5032	
03	ASR	1255E	0155D	S23	W90	05	27.7			8	8	E	HOLL	5028	
03	AFS	1325E	0155D	N13	W22	06	1.9		02	9	9	E	HOLL	5035	
03	ASR	1506E	1803D	S27	W90	05	27.7			9	9	E	SVTO	5028	
03	ASR	1659E	0454D	S20	W90	05	27.9			9	9	E	PALE	5027	
03	ADF	2035E	0155D	N42	W50	05	30.8		07	9	9	E	HOLL	5033	
03	DSD	2139E	2328D	N23	E11	06	4.7		03	6	6	E	HOLL	5032	
03	DSD	2145	0001D	S17	E45	06	7.3		06	6	7	E	HOLL	5034	
03	ADF	2158E	0155D	S28	E55	06	8.2		04	9	9	E	HOLL	5034	
04	DSD	0005E	0043D	S21	E44	06	7.4		08	9	9	E	HOLL	5034	
04	DSD	0005E	0043D	S25	E47	06	7.6		05	9	9	E	HOLL	5034	
04	DSD	0035E	0454D	S24	W77	05	29.2	2	11	9	9	E	PALE	5027	
04	ASR	0210E	0858D	S24	W85	05	28.6			9	9	E	LEAR	5027	

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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	NOAA/USAF Sta	Reg#	Remarks
04	ADF	0220E	0858D	S09	E49	06	7.8	3	06	9	9	E	LEAR	5034	
04	AFS	0220E	0858D	S24	E44	06	7.5		03	9	9	E	LEAR	5034	
04	AFS	0235E	0858D	N13	W29	06	1.9		03	9	9	E	LEAR	5035	
04	ASR	0422E	1731D	S25	W90	05	28.3			9	9	E	SVTO	5027	
04	BSL	0424E	0446D	N24	E90	06	11.1	1				C	ABST		
04	BSL	0424E	0446D	S18	E90	06	11.0	1				C	ABST		
04	AFS	0424E	1731D	N13	W31	06	1.8		03	9	9	E	SVTO	5035	
04	ASR	0434E	1731D	S21	E90	06	11.1			9	9	E	SVTO		
04	BSL	0446E	0904D	S07	W90	05	28.5	1				C	ABST		
04	DSD	0457E	0858D	S24	W80	05	29.1		09	7	7	E	LEAR	5027	
04	BSL	0513E	0904D	S33	E90	06	11.4	1				C	ABST		
04	LPS	0703	0858D	S25	W90	05	28.4			9	9	E	LEAR	5027	
04	LPS	0716E	1022	S28	W90	05	28.4	1		9	9	E	SVTO	5027	
04	BSL	0720E	0904D	N40	E90	06	11.6	1				C	ABST		
04	BSL	0720E	0904D	S30	W90	05	28.3	1				C	ABST		
04	ADF	0827E	1720D	S26	E58	06	8.8	2	12	9	9	E	SVTO	5034	
04	SDF	1012E	1012D	S26	E46	06	8.0	2	06	0	0	E	SVTO	5034	
04	AFS	1041E	2240D	N14	W34	06	1.9		03	9	9	E	RAMY	5035	
04	ASR	1041E	2240D	S22	W90	05	28.6			9	9	E	RAMY	5027	
04	ADF	1103E	2240D	N16	E07	06	5.0	1	04	9	9	E	RAMY	5032	
04	AFS	1103E	2240D	S22	E40	06	7.5		02	9	9	E	RAMY	5034	
04	ASR	1153E	2240D	S17	E83	06	10.8			9	9	E	RAMY	5036	
04	LPS	1237E	1320D	S22	W90	05	28.7	1		9	9	E	SVTO	5027	
04	LPS	1239E	1248	S23	W90	05	28.7	1		9	9	E	HOLL	5027	
04	ASR	1240E	1806D	S22	W90	05	28.7			9	9	E	HOLL	5027	
04	ASR	1259E	0104D	S18	E87	06	11.2			8	8	E	HOLL	5036	
04	AFS	1315E	0104D	N13	W35	06	1.9		02	9	9	E	HOLL	5035	
04	DSD	1725	1805D	N17	E04	06	5.0		06	9	9	E	HOLL	5032	
04	ASR	1844E	0104D	S25	W83	05	29.4			8	9	E	HOLL	5027	
04	DSD	1911	2031D	N18	E05	06	5.2		07	9	9	E	HOLL	5032	Flare Associated
04	DSD	2145	0001D	S17	E45	06	8.3		06	6	7	E	HOLL	5034	
04	DSD	2157E	0005D	S27	E46	06	8.5		03	9	9	E	HOLL	5034	
04	APR	2207	0154D	S25	W90	05	29.0	1				C	VORO		
04	DSD	2224E	0104D	N26	E00	06	4.9		06	8	9	E	HOLL	5031	
04	APR	2235	0154D	N39	E90	06	12.2	2				C	VORO		
04	BSL	2238	2327D	N08	E90	06	11.7	1				C	VORO		
04	APR	2245	0158D	N28	E90	06	12.0	1				C	VORO		
04	AFS	2349E	0104D	S22	E33	06	7.5		02	9	9	E	HOLL	5034	
05	AFS	0010E	0104D	N15	E07	06	5.5		02	9	9	E	HOLL		
05	ASR	0027E	0326D	S14	E84	06	11.4			9	9	E	PALE	5036	
05	ASR	0027E	0326D	S22	W82	05	29.8			9	9	E	PALE	5027	
05	AFS	0036E	0326D	N14	E08	06	5.6		02	9	9	E	PALE		
05	AFS	0147E	0326D	S22	E32	06	7.5		02	9	9	E	PALE	5034	
05	BSL	0421E	0725D	S11	E90	06	11.9	1				C	ABST		
05	BSL	0441E	0725D	S21	W90	05	29.4	1				C	ABST		
05	BSL	0456E	0725D	N40	E90	06	12.5	1				C	ABST		
05	BSL	0525E	0725D	N10	E90	06	12.0	1				C	ABST		
05	AFS	0715E	0908D	N14	E02	06	5.4		02	8	7	E	LEAR		
05	ADF	0715E	0908D	N16	W04	06	5.0	1	06	9	8	E	LEAR	5032	
05	DSD	1121E	1530D	S19	E26	06	7.4		03	9	9	E	RAMY	5034	
05	ASR	1121E	1750D	S16	E79	06	11.5			9	9	E	RAMY	5036	
05	AFS	1121E	2230D	N14	E01	06	5.5		02	9	9	E	RAMY	5037	
05	ADF	1121E	2230D	N14	W02	06	5.3	2	04	9	9	E	RAMY	5037	
05	ADF	1121E	2230D	N17	W07	06	4.9	2	03	9	9	E	RAMY	5032	
05	AFS	1121E	2230D	S25	W16	06	4.2		03	9	9	E	RAMY	5038	
05	AFS	1210E	2230D	N27	E11	06	6.4		01	9	9	E	RAMY	5031	
05	AFS	1408E	0114D	N14	E00	06	5.6		03	9	9	E	HOLL	5037	
05	DSD	1408E	0114D	N27	W07	06	5.0		03	9	9	E	HOLL	5031	
05	AFS	1408E	0114D	S26	W16	06	4.3		02	9	9	E	HOLL	5038	
05	ASR	1545E	2230D	S23	W90	05	29.8			9	9	E	RAMY	5027	
05	AFS	2335E	0924D	S25	W22	06	4.3		03	9	9	E	LEAR	5038	
06	AFS	0207E	0211D	S25	W25	06	4.1		03	9	9	E	PALE	5038	
06	ADF	0225E	0924D	N16	W16	06	4.9	1	12	9	7	E	LEAR	5032	
06	BSL	0527E	0903D	N40	E90	06	13.5	1				C	ABST		
06	DSD	0600E	1032D	S23	E18	06	7.6		03	9	9	E	SVTO	5034	
06	DSD	0647E	0709	S23	E16	06	7.5		04	9	9	E	LEAR	5034	
06	BSL	0743E	0903D	S52	E90	06	14.0	1				C	ABST		
06	BSL	0851E	0903D	N10	E90	06	13.1	1				C	ABST		

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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	AFS	0915E	1657D	N27	W03	06	6.1		02	9	9	E	SVTO	5031	
06	ADF	0936E	1657D					1	20	9	9	E	SVTO		
06	AFS	1050E	1050D	N21	W16	06	5.2	0				P	MANI		
06	AFS	1050E	1050D	N25	W41	06	3.3	0				P	MANI		
06	AFS	1050E	1050D	S53	E50	06	10.7	0				P	MANI		
06	ADF	1058E	1500D	N20	W15	06	5.3	1	05	9	9	E	RAMY	5032	
06	AFS	1058E	1704D	N27	W02	06	6.3		02	9	9	E	RAMY	5031	
06	AFS	1058E	2158D	N14	W60	06	1.9		02	9	9	E	RAMY	5035	
06	DSD	1058E	2158D	S26	W27	06	4.3		02	9	9	E	RAMY	5038	
06	SDF	1115E	1500D	N20	W15	06	5.3		05	9	9	E	RAMY	5032	
06	AFS	1230E	2158D	S21	E60	06	11.1		03	9	9	E	RAMY	5036	
06	AFS	1515E	2158D	S25	W32	06	4.1		03	9	9	E	RAMY	5038	
06	DSD	1623E	1946D	S21	W31	06	4.3		08	7	9	E	HOLL	5032	
06	DSD	2045E	0201D	N28	W06	06	6.4		03	9	9	E	HOLL	5031	
06	DSD	2045E	0201D	S25	W37	06	4.0		04	9	9	E	HOLL	5038	
06	APR	2140E	0200D	N40	E90	06	14.2	1				C	VORO		
06	APR	2150	0200D	S38	W90	05	30.7	1				C	VORO		
07	AFS	0040E	0201D	N14	W18	06	5.7		03	9	9	E	HOLL	5037	
07	ADF	0105E	0658D	N18	W25	06	5.1	1	12	7	6	E	LEAR	5032	
07	ADF	0105E	0825D	N19	W38	06	4.1	1	14	9	9	E	LEAR	5031	
07	AFS	0105E	0825D	S23	E07	06	7.6		04	7	5	E	LEAR	5034	
07	AFS	0105E	0825D	S27	W36	06	4.2		03	9	9	E	LEAR	5038	
07	ADF	0116E	0201D	N17	W28	06	4.9	1	03	9	9	E	HOLL	5032	
07	ADF	0116E	0201D	N22	W37	06	4.2	1	06	9	9	E	HOLL	5032	
07	SDF	0132E	1258D	N28	W34	06	4.4		10	0	0	E	HOLL	5031	
07	SDF	0132E	1258D	S22	W61	06	2.4		11	0	0	E	HOLL		
07	AFS	0301E	0436D	S23	E01	06	7.2		02	9	9	E	PALE	5034	
07	AFS	0302E	0436D	N13	W21	06	5.5		01	9	9	E	PALE	5037	
07	AFS	0420E	0825D	N14	W21	06	5.6		02	8	8	E	LEAR	5037	
07	BSL	0450E	0900D	N40	E90	06	14.5	1				C	ABST		
07	DSD	0619	0639D	N27	W22	06	5.5		02	9	9	E	LEAR	5031	Flare Associated
07	BSL	0644E	0900D	S40	E90	06	14.6	1				C	ABST		
07	BSL	0644E	0900D	S50	E90	06	14.9	1				C	ABST		
07	AFS	1105E	2210D	N14	W27	06	5.4		03	9	9	E	RAMY	5037	
07	AFS	1105E	2210D	N15	W75	06	1.8		02	9	9	E	RAMY	5035	
07	AFS	1105E	2210D	N27	W14	06	6.4		03	9	9	E	RAMY	5040	
07	AFS	1105E	2210D	S24	W43	06	4.1		04	9	9	E	RAMY	5038	
07	DSD	1135E	1410D	S16	E56	06	11.7		03	9	9	E	RAMY	5036	
07	AFS	1320E	1710D	N27	W14	06	6.5		04	8	9	E	HOLL	5031	
07	AFS	1350E	0144D	N13	W28	06	5.5		03	9	9	E	HOLL	5037	
07	AFS	1351E	0144D	S25	W44	06	4.2		03	9	9	E	HOLL	5038	
07	ADF	1410E	2210D	S10	E45	06	11.0	1	10	5	9	E	RAMY	5036	
07	ADF	1410E	2210D	S27	E54	06	11.8	2	09	9	9	E	RAMY	5036	
07	ADF	1500E	2210D	N16	W29	06	5.4	1	08	9	9	E	RAMY	5037	
07	ADF	1500E	2210D	S20	W01	06	7.5	1	05	9	9	E	RAMY	5034	
07	AFS	1540E	1558D	N21	W27	06	5.6	0				P	MANI		
07	AFS	1540E	1558D	N24	W52	06	3.6	0				P	MANI		
07	AFS	1540E	1558D	S34	E48	06	11.5	0				P	MANI		
07	AFS	1710E	2215D	N27	W17	06	6.4		03	9	7	E	HOLL	5040	
07	DSD	1745E	2137D	N24	W37	06	4.9		05	9	8	E	RAMY	5031	
07	DSD	1929	2210D	N25	W36	06	5.0		03	7	9	E	HOLL	5031	
07	DSD	1929E	0016D	N25	W34	06	5.2		02	7	9	E	HOLL	5031	
07	AFS	1934E	0437D	S26	W46	06	4.2		01	9	9	E	PALE	5038	
07	AFS	1936E	0437D	N13	W30	06	5.5		02	9	9	E	PALE	5037	
07	AFS	2023E	2210D	N25	W35	06	5.1		03	9	9	E	RAMY	5031	
07	ASR	2118E	2210D	N16	E90	06	14.7			9	9	E	RAMY	5041	
07	DSD	2349	0133D	S15	E45	06	11.4		03	9	9	E	HOLL	5036	
08	AFS	0115E	0928D	N13	W34	06	5.5		02	9	9	E	LEAR	5037	
08	AFS	0115E	0928D	N27	W20	06	6.5		03	7	9	E	LEAR	5040	
08	AFS	0115E	0928D	S25	W49	06	4.2		04	9	9	E	LEAR	5038	
08	AFS	0131E	0437D	N27	W19	06	6.6		02	9	9	E	PALE	5040	
08	AFS	0250E	0928D	S17	E07	06	8.6		02	9	9	E	LEAR		
08	ASR	0345E	0928D	N17	E90	06	15.0			9	9	E	LEAR	5041	
08	BSL	0422E	0903D	N17	E90	06	15.0	1				C	ABST		
08	ADF	0808E	1001D	S17	E44	06	11.7	1	06	9	9	E	SVTO	5036	
08	ADF	0927E	1001D	N15	W49	06	4.7	1	07	9	9	E	SVTO	5032	
08	AFS	0927E	1306D	N13	W42	06	5.2		03	9	9	E	SVTO	5037	
08	AFS	1135E	1914D	S25	W56	06	4.1		02	9	9	E	RAMY	5038	

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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
08	ADF	1322E	1914D	S16	E39	06 11.5	1	02	9	9	E	RAMY	5036	
08	DSD	1330E	1914D	N10	E70	06 13.8		02	9	9	E	RAMY	5041	
08	DSD	1335E	1552D	N24	W37	06 5.7		04	9	9	E	HOLL	5031	
08	DSD	1547E	1823D	S26	W62	06 3.8		07	9	9	E	HOLL	5038	
08	ASR	1600E	1914D	N13	W90	06 1.9			9	9	E	RAMY	5035	
08	AFS	1600E	1914D	N15	W44	06 5.3		02	8	6	E	RAMY	5037	
08	DSD	1639E	1914D	N20	W57	06 4.3		02	9	9	E	RAMY	5032	Flare Associated
08	AFS	1726E	0340D	N14	W42	06 5.5		02	9	9	E	PALE	5037	
08	AFS	1933E	2237D	N30	E32	06 11.3		02	9	9	E	HOLL		
08	AFS	1948E	0340D	N30	E31	06 11.3		02	9	9	E	PALE		
08	AFS	2116E	0200D	S26	W60	06 4.2		03	9	9	E	HOLL	5038	
08	AFS	2320	2355	N32	W10	06 8.2		03	9	9	E	HOLL	5039	
08	DSD	2321	0027	S17	E26	06 10.9		05	9	9	E	HOLL	5036	
09	AFS	0003E	0340D	N32	W10	06 8.2		03	9	9	E	PALE	5039	
09	AFS	0003E	0340D	S16	E32	06 11.4		02	9	9	E	PALE	5036	
09	AFS	0015E	0927D	N14	W47	06 5.4		02	9	9	E	LEAR	5037	
09	ADF	0015E	0927D	N19	W52	06 5.0	1	08	8	8	E	LEAR	5032	
09	ADF	0015E	0927D	S10	E30	06 11.3	1	11	9	7	E	LEAR	5036	
09	AFS	0015E	0927D	S16	E33	06 11.5		02	9	7	E	LEAR	5036	
09	AFS	0120E	0200D	N14	W48	06 5.4		02	9	9	E	HOLL	5037	
09	BSL	0458E	0905D	N17	E90	06 16.0	1				C	ABST		
09	BSL	0601E	0905E	N46	E90	06 16.7	1				C	ABST		
09	ADF	0815	0826	S22	W32	06 6.9	1				V	KHAR		
09	BSL	0818E	0905D	S27	W90	06 2.3	1				C	ABST		
09	AFS	0819E	1245D	S29	W68	06 4.0		04	9	9	E	SVTO	5038	
09	AFS	0820E	1245D	N14	E64	06 14.2		01	9	9	E	SVTO	5041	
09	DSD	0833E	0900D	N25	W50	06 5.5	1				V	KHAR		
09	ADF	0917	0928	S23	W30	06 7.1	1				V	KHAR		
09	DSD	0922E	0945	N26	W36	06 6.6	1				V	KHAR		
09	ADF	1235E	1926D	S22	W29	06 7.3	1	03	9	9	E	RAMY	5034	
09	ADF	1235E	2105D	N17	W66	06 4.5	1	05	9	9	E	RAMY	5032	
09	AFS	1237E	0153D	N15	W53	06 5.5		02	9	9	E	HOLL	5037	
09	AFS	1239E	0153D	S25	W68	06 4.2		02	8	6	E	HOLL	5038	
09	ADF	1255E	1926D	N16	W57	06 5.2	1	09	9	9	E	RAMY	5037	
09	ADF	1300E	2334D	N19	W60	06 5.0	1	05	9	9	E	HOLL	5032	
09	AFS	1320E	1926D	S25	W73	06 3.9		02	9	9	E	RAMY	5038	
09	AFS	1327E	1926D	N40	W28	06 7.3		02	9	9	E	RAMY	5040	
09	AFS	1345E	1926D	N29	E21	06 11.2		02	7	8	E	RAMY	5043	
09	DSD	1654	1716	N18	W62	06 5.0		17	9	9	E	HOLL	5037	Flare Associated
09	DSD	1655	1719D	N17	W62	06 5.0		18	9	9	E	RAMY	5032	Flare Associated
09	DSD	2030	0153D	N12	E54	06 13.9		03	9	9	E	HOLL	5041	
09	APR	2150	0150D	N42	E90	06 17.3	2				C	VORO		
09	APR	2250	0150D	N47	W90	06 2.4	1				C	VORO		
10	APR	0020	0150D	N48	W90	06 2.4	1				C	VORO		
10	APR	0020	0150D	S24	W90	06 3.1	1				C	VORO		
10	ADF	0429E	1603D	S18	E19	06 11.6	1	07	9	9	E	SVTO	5036	
10	ADF	0430E	1603D	N25	W46	06 6.6	1	04	9	9	E	SVTO	5040	
10	BSL	0538E	0903D	N42	E90	06 17.6	1				C	ABST		
10	ADF	0929E	1603D	N20	E56	06 14.7	1	04	9	9	E	SVTO	5041	
10	DSD	1150E	1941D	N28	W50	06 6.6		03	9	9	E	RAMY	5040	
10	ASR	1150E	1941D	S23	W90	06 3.5			9	9	E	RAMY	5038	
10	ADF	1150E	2245D	N19	E53	06 14.5	1	05	9	9	E	RAMY	5041	
10	ADF	1150E	2245D	S10	E09	06 11.2	1	05	9	9	E	RAMY	5036	
10	ADF	1150E	2245D	S16	E11	06 11.3	1	04	9	9	E	RAMY	5036	
10	AFS	1316E	1956D	S15	E12	06 11.5		02	9	9	E	RAMY	5036	
10	AFS	1440E	1956D	N11	E47	06 14.1		02	8	9	E	RAMY	5041	
10	ASR	1740E	1759	N19	W81	06 4.5			9	9	E	HOLL	5037	
10	ASR	2030	2150D	N17	W84	06 4.5			7	8	E	HOLL	5032	
10	DSD	2211E	2258D	S15	E03	06 11.1		04	6	8	E	HOLL	5036	
11	ASR	0023E	0450D	N16	W90	06 4.2			6	9	E	PALE	5032	
11	ASR	0406E	0923D	N17	W90	06 4.3			9	9	E	LEAR	5037	
11	ASR	0439E	0818D	N15	W85	06 4.7			9	9	E	SVTO	5032	
11	BSL	0452E	0726D	N17	W90	06 4.4	1				C	ABST		
11	ADF	0508E	0652	N26	W59	06 6.6	2	05	9	9	E	SVTO	5040	
11	SDF	0508E	0652	N26	W59	06 6.6		05	9	9	E	SVTO	5040	
11	BSL	0623E	0726D	S20	W90	06 4.4	1				C	ABST		
11	BSL	0623E	0726D	S32	W90	06 4.1	1				C	ABST		

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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
11	AFS	0940E	0944D	N31	W41	06	8.2		04	9	9	E	SVTO	5039	
11	ADF	1220E	1420D	N24	W78	06	5.5	1	03	9	9	E	RAMY	5031	
11	ADF	1220E	2006D	N11	E33	06	14.0	2	02	9	9	E	RAMY	5041	
11	ADF	1220E	2006D	N17	E39	06	14.5	1	04	9	9	E	RAMY	5041	
11	ASR	1220E	2006D	N19	W90	06	4.6			9	8	E	RAMY	5032	
11	ASR	1230E	2006D	S24	W90	06	4.6			9	9	E	RAMY	5038	
11	ASR	1404E	2358D	S27	W82	06	5.2			8	8	E	HOLL	5038	
11	AFS	1418E	2006D	S14	E03	06	11.8		02	8	6	E	RAMY	5036	
11	ADF	1418E	2006D	S17	W02	06	11.4	1	06	9	9	E	RAMY	5036	
11	DSD	1452E	2227D	S16	W02	06	11.5		06	9	9	E	HOLL	5036	Flare Associated
11	ASR	1710E	2358D	N15	W90	06	4.9			9	9	E	HOLL	5037	
11	ASR	1721E	0031D	N18	W86	06	5.2			9	7	E	PALE	5032	
11	BSL	2026E	2048	N15	W90	06	5.0			9	9	E	HOLL	5037	
11	ASR	2033E	2052	N14	W90	06	5.0			9	9	E	PALE	5037	
12	DSD	0025	0250D	S17	W16	06	10.8		03	9	9	E	LEAR	5036	
12	ASR	0125E	0927D	N17	W90	06	5.2			9	9	E	LEAR	5037	
12	BSL	0457E	0904D	N56	W90	06	4.4	1				C	ABST		
12	ADF	0500E	1727D	S16	W14	06	11.1	1	06	9	9	E	SVTO	5036	
12	ADF	0528E	1727D	N20	E29	06	14.4	1	05	9	9	E	SVTO	5041	
12	ADF	0610E	1727D	N26	W72	06	6.7	1	02	9	9	E	SVTO	5040	
12	ADF	0735E	0757	N40	W67	06	6.8	1				V	KHAR		
12	ADF	0735E	0845D	S16	W14	06	11.2	1				V	KHAR		
12	BSL	0745	0825D	N27	W90	06	5.3	1				V	KHAR		
12	AFS	0851E	1727D	S25	W63	06	7.5		03	9	9	E	SVTO	5034	
12	AFS	1129E	1538D	N11	E20	06	14.0		03	9	9	E	RAMY	5041	
12	AFS	1129E	2110D	S23	W62	06	7.7		02	9	9	E	RAMY	5034	
12	ADF	1129E	2221D	N12	E19	06	13.9	1	05	8	9	E	RAMY	5041	
12	ADF	1129E	2221D	S15	W18	06	11.1	2	15	9	9	E	RAMY	5036	
12	ADF	1129E	2221D	S24	W65	06	7.4	1	05	9	9	E	RAMY	5034	
12	APR	1312E	2221D	N33	W90	06	5.4	2		9	9	E	RAMY	5040	
12	DSD	1420E	1625D	S15	W19	06	11.1		15	8	9	E	HOLL	5036	
12	DSD	1424E	2116D	S17	W22	06	10.9		03	9	9	E	RAMY	5036	
12	DSD	1623E	1903D	N14	E18	06	14.0		08	7	9	E	HOLL	5041	
12	ADF	1631E	0205D	S16	W19	06	11.2		13	7	8	E	HOLL	5036	
12	DSD	2033	0047D	N15	E13	06	13.8		03	9	9	E	HOLL	5041	Flare Associated
12	DSD	2038	2106	N15	E12	06	13.8		05	9	9	E	RAMY	5041	Flare Associated
13	ADF	0030E	0535D	S16	W26	06	11.0	1	12	9	9	E	LEAR	5036	
13	ASR	0120E	0928D	N28	W90	06	6.0			9	9	E	LEAR	5040	
13	AFS	0710E	0730D	S15	W22	06	11.6		04	9	9	E	LEAR	5036	
13	AFS	0710E	0928D	S15	W22	06	11.6		04	9	9	E	LEAR	5036	
13	ASR	0811E	1725D	N26	W90	06	6.3			9	9	E	SVTO	5040	
13	ADF	0924E	0926D	S19	W26	06	11.4	1	06	9	9	E	SVTO	5036	
13	ADF	0924E	1725D	S19	W26	06	11.4	1	06	9	9	E	SVTO	5036	
13	AFS	1100E	1915D	N10	E05	06	13.8		03	9	9	E	RAMY	5041	
13	ADF	1100E	1915D	N12	E06	06	13.9	1	05	8	8	E	RAMY	5041	
13	ASR	1100E	1915D	N29	W90	06	6.4			9	9	E	RAMY	5040	
13	ADF	1100E	1915D	S15	W31	06	11.1	1	20	9	8	E	RAMY	5036	
13	DSD	1100E	1915D	S25	W77	06	7.5		03	9	9	E	RAMY	5034	
13	DSD	1143	1430D	N22	E52	06	17.5		03	9	9	E	RAMY		Flare Associated
13	ASR	1228E	1725D	S90	W23	06	11.4			9	9	E	SVTO	5034	
13	DSD	1312E	1557D	N15	E04	06	13.8		02	9	9	E	HOLL	5041	
13	ASR	1422E	2325D	N29	W90	06	6.5			9	9	E	HOLL	5040	
13	ASR	1428E	2045D	S22	W84	06	7.1			9	9	E	HOLL	5034	
13	AFS	1626E	1643D	S17	W22	06	12.0	0				P	MANI		
13	AFS	1626E	1643D	S26	W25	06	11.7	0				P	MANI		
13	AFS	1626E	1643D	S54	E37	06	16.9	0				P	MANI		
13	ASR	1635E	0457D	N31	W90	06	6.6			9	9	E	PALE	5040	
13	SSB	1901		341	W46	06	10.4			9	0	E	PALE		
13	AFS	2219E	0457D	N11	W01	06	13.8	1	02	9	9	E	PALE	5041	
14	AFS	0058E	0912D	S15	W38	06	11.2		03	9	9	E	LEAR	5036	
14	AFS	0059E	0912D	N11	W03	06	13.8		02	9	9	E	LEAR	5041	
14	ASR	0101E	0912D	N30	W81	06	7.7			9	9	E	LEAR	5040	
14	ASR	0255E	0912D	S16	E84	06	20.5			9	9	E	LEAR		
14	ASR	0705E	1546D	S13	E90	06	21.1			9	9	E	SVTO		
14	ASR	0707E	1406D	N39	E90	06	21.6			9	9	E	SVTO		
14	ASR	1117E	1355D	N29	W90	06	7.4			6	6	E	RAMY	5039	
14	DSD	1117E	1548D	S12	W45	06	11.1		03	9	9	E	RAMY	5036	

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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	NOAA/ USAF Reg#	Remarks
14	ADF	1117E	2058D	N12	W07	06 13.9	1	08	7	4	E	RAMY 5041	
14	ASR	1128E	1355D	S16	E90	06 21.3			9	8	E	RAMY	
14	ASR	1128E	1548D	N34	E90	06 21.6			6	4	E	RAMY	
14	ADF	1138E	1548D	N23	E41	06 17.6	1	09	8	9	E	RAMY 5046	
14	ASR	1405E	1817D	N30	W90	06 7.5			9	9	E	HOLL	
14	ASR	1410E	1511D	N29	W90	06 7.5			9	9	E	SVTO 5039	
14	BSL	1417	1427	N30	W90	06 7.5			9	9	E	HOLL	
14	BSL	1419	1431	N31	W90	06 7.5			5	9	E	RAMY 5039	
14	ASR	1431	1548D	N31	W90	06 7.5			5	6	E	RAMY 5039	
14	SDF	1645E	0633D	S31	W43	06 11.3		20	0	0	E	SVTO	
14	ASR	1712	2001D	S13	E90	06 21.5			9	9	E	HOLL 5047	
14	ASR	1727E	0324D	S15	E81	06 20.8			9	9	E	PALE 5047	
14	ADF	1820E	0152D	N28	E41	06 18.0	1	04	9	9	E	HOLL 5046	
14	ADF	1833E	0152D	S16	W47	06 11.2	1	06	9	9	E	HOLL 5036	
14	SSB	1901		S41	W46	06 11.4			9	0	E	PALE	
14	AFS	1906E	1910D	S14	W35	06 12.1	0				P	MANI	
14	AFS	1906E	1910D	S34	W34	06 12.1	0				P	MANI	
14	AFS	2010E	0152D	S36	W11	06 13.9		02	9	9	E	HOLL 5045	
14	SSB	2308		S37	W68	06 6.2			0	0	E	PALE	
14	ASR	2345E	0926D	S25	E90	06 22.0			9	9	E	LEAR 5047	
15	SDF	0000E	0633D	S31	W43	06 11.6		20	0	0	E	SVTO	
15	ADF	0101E	0457D	S23	W41	06 11.9	1	13	9	9	E	PALE 5036	
15	ADF	0115E	0926D	S14	W46	06 11.6	1	15	7	9	E	LEAR 5036	
15	ASR	0126E	0408D	S24	E90	06 22.0			9	9	E	PALE	
15	APR	0415E	0926D	S27	W90	06 8.2	1		8	7	E	LEAR	
15	AFS	0945E	1728D	S20	W48	06 11.7		03	9	9	E	SVTO 5041	
15	ADF	0951E	1728D	S23	W49	06 11.6	1	11	9	9	E	SVTO 5036	
15	ASR	1012E	1225D	S24	W90	06 8.5			9	9	E	SVTO 5034	
15	ASR	1013E	1219D	S23	E90	06 22.4			9	9	E	SVTO 5047	
15	AFS	1049E	1728D	S29	E37	06 18.3		01	9	9	E	SVTO	
15	AFS	1115E	1512D	N11	W19	06 14.0		02	9	9	E	RAMY 5041	
15	AFS	1210E	1512D	S18	E75	06 21.2		03	9	9	E	RAMY 5047	
15	ASR	1215E	1512D	S25	E90	06 22.5			9	8	E	RAMY	
15	ASR	1219E	1728D	S22	W90	06 8.6			9	9	E	SVTO	
15	ASR	1252	1355D	S17	W90	06 8.7			9	9	E	SVTO 5042	
15	ADF	1257E	0135D	S15	W59	06 11.1	1	06	9	9	E	HOLL 5036	
15	AFS	1306E	1750D	N11	W22	06 13.9		02	9	9	E	HOLL 5041	
15	ASR	1308E	1418D	S23	E82	06 21.9			9	9	E	HOLL	
16	AFS	0041E	0412D	N15	W26	06 14.1		02	9	9	E	PALE 5041	
16	AFS	0106E	0135D	S15	W28	06 13.9		02	9	9	E	HOLL 5041	
16	ADF	0145E	0527D	S15	W62	06 11.4	1	06	8	7	E	LEAR 5036	
16	AFS	0314	0412D	N24	E18	06 17.5		02	9	9	E	PALE 5046	
16	BSL	0408E	0625D	N39	W90	06 8.9	1				C	ABST	
16	BSL	0408E	0625D	N43	W90	06 8.7	1				C	ABST	
16	BSL	0408E	0625D	S09	W90	06 9.4	1				C	ABST	
16	APR	0408E	0625D	S42	W90	06 8.8	1				C	ABST	
16	AFS	0514E	0913D	N23	E16	06 17.4		02	9	9	E	LEAR 5046	
16	AFS	1106E	1435D	N12	W32	06 14.0		02	9	9	E	SVTO 5041	
16	AFS	1106E	1723D	N30	E48	06 20.2		01	9	9	E	SVTO	
16	AFS	1106E	1723D	N34	E45	06 20.0		02	9	9	E	SVTO	
16	ADF	1150E	2215D	S14	W32	06 14.1	1	06	7	9	E	RAMY 5041	
16	ADF	1216	1435D	S21	E64	06 21.4	1	05	9	9	E	SVTO 5047	
16	ADF	1232E	1234D	S19	E57	06 20.9	1	11	8	9	E	RAMY 5047	
16	SDF	1232E	1445D	S19	E57	06 20.9		11	0	0	E	RAMY 5047	
16	ADF	1456	1723D	N14	W34	06 14.0	1	06	9	9	E	SVTO 5041	
16	ADF	1509E	1945D	S22	E43	06 19.9	1	07	7	5	E	RAMY 5050	
16	DSD	1511E	1945D	N37	E52	06 20.8		06	9	9	E	RAMY 5048	
16	APR	1535E	1723D	S31	E90	06 23.7	1		9	9	E	SVTO	
16	AFS	1625E	0132D	N35	E43	06 20.1		01	7	8	E	HOLL 5051	
16	AFS	1710E	0449D	N34	E45	06 20.3		02	9	9	E	PALE 5051	
16	SDF	1723E	0600D	N17	E03	06 16.9		03	0	0	E	SVTO	
16	SDF	1723E	0600D	N28	E20	06 18.3		05	0	0	E	SVTO	
16	AFS	1945E	2215D	N34	E43	06 20.2		02	9	9	E	RAMY 5051	
16	ASR	2332	0132D	S17	W89	06 10.2			9	9	E	HOLL 5036	
17	APR	0419E	0812D	N37	W90	06 9.9	1				C	ABST	
17	APR	0419E	0812D	N43	W90	06 9.8	1				C	ABST	
17	APR	0419E	0812D	S40	W90	06 9.8	1				C	ABST	

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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	APR	0448E	0812D	N13	E90	06	24.0	1				C	ABXT		
17	AFS	0545E	1015D	N13	W42	06	14.1		02	9	9	E	SVTO	5041	
17	BSL	0547E	0812D	S01	W90	06	10.5	1				C	ABST		
17	ADF	0550E	1020D	S20	E52	06	21.2	1	04	9	9	E	SVTO	5047	
17	APR	0745E	0812D	N01	E90	06	24.0	1				C	ABST		
17	ADF	0909	1728D	N40	E51	06	21.5	1	04	9	9	E	SVTO	5048	
17	DSD	0910E	1728D	N14	W47	06	13.8		02	9	9	E	SVTO	5041	
17	AFS	1158E	1832D	N12	W47	06	13.9		02	9	9	E	RAMY	5041	
17	DSD	1356E	0152D	N14	W48	06	13.9		02	9	9	E	HOLL	5041	
17	DSD	1400E	0152D	N39	E45	06	21.2		02	9	9	E	HOLL	5048	
17	DSD	1400E	1625D	N38	E41	06	20.9		02	9	9	E	HOLL	5048	
17	DSD	1421E	1601D	N37	E47	06	21.4		02	9	9	E	RAMY	5048	
17	ADF	1616E	1832D	N37	E46	06	21.4	1	03	9	9	E	RAMY	5048	
17	AFS	1632	1646	S55	W21	06	15.9	0				P	MANI		
17	AFS	1632E	1646D	N48	W12	06	16.7	0				P	MANI		
17	DSD	1719E	0356D	N37	E45	06	21.3		02	9	9	E	PALE	5048	
17	DSD	1910E	0356D	N16	W51	06	13.9		02	9	9	E	PALE	5041	
17	SDF	1933E	1824D	N02	E08	06	18.4		03	0	0	E	PALE		
17	ASR	2003E	0152D	S34	W80	06	11.4			5	8	E	HOLL		
17	APR	2003E	0152D	S43	W85	06	10.8			5	7	E	HOLL		
17	DSD	2041E	0152D	S16	E39	06	20.8		05	8	7	E	HOLL	5047	
17	APR	2136E	0152D	S17	W80	06	11.8	1		7	9	E	HOLL	5036	
17	BSD	2343E	0009D	N11	W56	06	13.8		03	7	9	E	HOLL	5041	Flare Associated
18	BSL	0456E	0645D	N27	E90	06	25.2	1				C	ABST		
18	APR	0456E	0645D	N38	W90	06	10.9	1				C	ABST		
18	APR	0456E	0645D	S01	E90	06	24.9	1				C	ABST		
18	BSL	0456E	0645D	S19	W90	06	11.3	1				C	ABST		
18	APR	0456E	0645D	S35	W90	06	11.0	1				C	ABST		
18	BSL	0522E	0645D	S21	E90	06	25.1	1				C	ABST		
18	BSL	0522E	0645D	S22	E90	06	25.1	1				C	ABST		
18	ASR	0523	0842D	S21	E90	06	25.1			9	9	E	SVTO		
18	DSD	0550	1617D	S17	E32	06	20.7		04	9	9	E	SVTO	5047	
18	AFS	0730E	0928D	S18	E29	06	20.5		02	9	9	E	LEAR	5047	
18	ASR	0904	1617D	S20	E90	06	25.3			9	9	E	SVTO		
18	DSD	1112E	1720D	S19	E29	06	20.7		03	9	9	E	RAMY	5047	
18	ASR	1112E	2055D	S22	E90	06	25.4			8	7	E	RAMY	5053	
18	ASR	1315E	0142D	S22	E90	06	25.5			9	9	E	HOLL	5053	
18	DSD	1520E	1621D	S16	E23	06	20.4		03	9	9	E	HOLL	5047	
18	ADF	1530E	2055D	N39	E36	06	21.6	1	03	9	9	E	RAMY	5048	
18	AFS	1710E	2055D	N17	W44	06	15.4		02	9	9	E	RAMY	5044	
18	ADF	1720E	2055D	S16	E29	06	20.9	1	10	8	8	E	RAMY	5047	
18	ASR	1813E	0249D	S23	E85	06	25.3			9	9	E	PALE	5053	
18	SDF	1824E	1808D	S55	W40	06	15.3		17	0	0	E	PALE		
18	AFS	1922	1935	N13	W53	06	14.8	0				P	MANI		
18	AFS	1922	1935	N26	W01	06	18.7	0				P	MANI		
18	AFS	1922	1935	S26	W63	06	13.9	0				P	MANI		
18	APR	2122E	0114D	S16	E87	06	25.5			6	7	E	HOLL	5053	
18	ASR	2133	2200D	S26	E81	06	25.2			9	9	E	HOLL	5053	Flare Associated
18	BSD	2343E	0009D	N11	W56	06	14.8		03	7	9	E	HOLL	5041	Flare Associated
18	ASR	2346E	2357	S19	E79	06	25.0			7	9	E	HOLL	5053	Flare Associated
19	ASR	0101	0117	S21	E75	06	24.8			8	9	E	HOLL	5053	Flare Associated
19	BSD	0101E	0109D	S23	E74	06	24.7		05	0	0	E	LEAR	5053	Flare Associated
19	ADF	0939E	1727D	S20	E24	06	21.2	1	06	9	9	E	SVTO	5047	
19	ADF	1050E	1550D	N12	W71	06	14.1	1	10	9	9	E	RAMY	5041	
19	ADF	1050E	2119D	S16	E18	06	20.8	2	15	9	9	E	RAMY	5047	
19	DSD	1105	1126	S22	E72	06	25.0		03	9	9	E	RAMY	5053	Flare Associated
19	ADF	1120E	2119D	N40	E28	06	21.7	1	07	9	9	E	RAMY	5048	
19	ADF	1120E	2119D	S23	E66	06	24.5	1	15	9	9	E	RAMY	5053	
19	DSD	1155	1320D	S20	E17	06	20.8		05	9	9	E	RAMY	5047	Flare Associated
19	AFS	1415E	1720D	N18	W56	06	15.3		02	9	9	E	RAMY	5044	
19	DSD	1530	1830D	S15	E13	06	20.6		03	9	9	E	HOLL	5047	
19	DSD	1533	2119D	S16	E12	06	20.5		05	9	9	E	RAMY	5047	
19	AFS	1605	1618	N20	W10	06	18.9	0				P	MANI		
19	AFS	1605	1618	N21	W61	06	15.0	0				P	MANI		
19	AFS	1605	1618	S27	E50	06	23.6	0				P	MANI		
19	SDF	1618E	1840D	S50	W90	06	12.0	2	33	0	0	E	HOLL		
19	DSD	1708E	1841D	S15	E11	06	20.5		02	9	9	E	PALE	5047	
19	AFS	1715E	2119D	S17	E09	06	20.4		03	9	9	E	RAMY	5047	

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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	NOAA/ USAF Sta Reg#	Remarks
19	AFS	1719E	0434D	S16	E10	06	20.5		02	9	9	E	PALE 5047	
19	ADF	1834E	0207D	S28	E69	06	25.2	1	12	7	9	E	HOLL 5053	
19	AFS	1840E	0025D	S16	E10	06	20.5		02	9	9	E	HOLL 5047	
19	APR	2122E	0114D	S16	E87	06	26.5	1		6	7	E	HOLL 5053	
20	AFS	0045E	0918D	S16	E13	06	21.0		03	6	4	E	LEAR 5047	
20	BSL	0422E	0558D	N16	E90	06	27.0	1				C	ABST	
20	BSL	0514E	0759D	N31	W90	06	13.1	1				C	ABST	
20	APR	0514E	0759D	N39	E90	06	27.5	1				C	ABST	
20	BSL	0514E	0759D	N40	W90	06	12.9	1				C	ABST	
20	ADF	0750E	1650D	S24	E48	06	24.0	1	03	9	9	E	SVTO 5053	
20	ADF	0750E	1740D	S25	E61	06	25.0	1	08	9	9	E	SVTO 5053	
20	AFS	0751E	1740D	N35	W03	06	20.1		04	7	7	E	SVTO 5051	
20	ADF	0752E	1650D	N39	E12	06	21.3	1	06	9	9	E	SVTO 5048	
20	ADF	0753E	1657D	S34	E47	06	24.1	1	05	8	8	E	SVTO	
20	AFS	0755E	1534D	S15	E09	06	21.0	1	03	9	9	E	SVTO 5047	
20	AFS	0755E	1534D	S17	E13	06	21.3	1	02	8	8	E	SVTO 5047	
20	AFS	0756E	1740D	S16	E03	06	20.5		04	8	8	E	SVTO 5047	
20	ADF	0756E	1740D	S18	E10	06	21.1	1	07	9	9	E	SVTO 5047	
20	ASR	1100E	1652D	N14	W90	06	13.6			9	9	E	RAMY 5041	
20	AFS	1100E	2114D	S17	E00	06	20.4		03	7	9	E	RAMY 5047	
20	AFS	1100E	2114D	S17	E07	06	21.0		03	9	9	E	RAMY 5047	
20	AFS	1100E	2236D	N32	W05	06	20.1		02	9	9	E	RAMY 5051	
20	ADF	1100E	2236D	S17	E05	06	20.8	1	15	8	9	E	RAMY 5047	
20	ASR	1100E	1534D	N11	W90	06	13.7			9	9	E	SVTO 5041	
20	ASR	1244E	1752D	N12	W90	06	13.8			9	9	E	HOLL 5041	
20	ASR	1310E	1958D	N16	W90	06	13.7			9	9	E	HOLL 5041	
20	ADF	1345E	2236D	S30	E56	06	25.0	2	19	9	8	E	RAMY 5053	
20	ADF	1357E	2236D	N39	E11	06	21.5	1	05	9	9	E	RAMY 5048	
20	AFS	1605	1609	N23	W21	06	19.0	0				P	MANI	
20	AFS	1605	1609	N27	W70	06	15.2	0				P	MANI	
20	AFS	1605	1609	S33	E38	06	23.7	0				P	MANI	
20	DSD	1635E	1749D	N36	W06	06	20.2		05	9	9	E	HOLL 5051	
20	AFS	1748E	0135D	N35	W07	06	20.2		03	9	9	E	HOLL 5051	
20	AFS	1752E	0135D	S16	E04	06	21.0		02	9	9	E	HOLL 5047	
20	AFS	1823E	0341D	N34	W08	06	20.1		03	9	9	E	PALE 5051	
20	ADF	1958E	0135D	S16	E00	06	20.8	2	10	9	9	E	HOLL 5047	
20	DSD	2114E	2140D	S16	E02	06	21.0		05	9	9	E	RAMY 5047	
20	ASR	2201E	2230D	N15	W90	06	14.1			9	9	E	RAMY 5041	
20	ASR	2215E	2244	N15	W90	06	14.1			9	9	E	HOLL 5041	
20	AFS	2233E	0135D	S25	E30	06	23.3		02	7	9	E	HOLL 5054	
20	ADF	2345E	0917D	S19	W01	06	20.9	2	08	9	9	E	LEAR 5047	
20	AFS	2345E	0917D	S20	E51	06	24.9		03	8	9	E	LEAR 5051	
21	ASR	0050	0917D	N20	W90	06	14.1			7	6	E	LEAR 5041	
21	AFS	0340E	0917D	S16	W01	06	21.1		02	9	9	E	LEAR 5047	
21	DSD	0432E	0605D	S24	E28	06	23.3		03	9	9	E	SVTO 5054	
21	ADF	0437E	1550D	S21	E36	06	23.9	1	20	9	9	E	SVTO 5053	
21	AFS	0442E	1550D	N33	W16	06	19.9		04	9	9	E	SVTO 5051	
21	BSL	0754E	0841D	N25	W90	06	14.3	1				C	ABST	
21	AFS	1248E	0209D	N34	W19	06	20.0		03	9	9	E	HOLL 5051	
21	DSD	1249E	0209D	S18	W12	06	20.6		10	9	9	E	HOLL 5047	
21	DSD	1525E	1550D	S19	W11	06	20.8		03	9	9	E	SVTO 5047	
21	AFS	1605	1609	N12	E00	06	21.7	0				P	MANI	
21	AFS	1605	1609	N21	W38	06	18.7	0				P	MANI	
21	AFS	1605	1609	S19	E00	06	21.7	0				P	MANI	
21	AFS	1605	1609	S26	E48	06	25.4	0				P	MANI	
21	AFS	1605	1609	S32	E24	06	23.6	0				P	MANI	
21	AFS	1638E	2206D	N34	W19	06	20.2		04	9	9	E	RAMY 5051	
21	DSD	1807E	2206D	S20	W17	06	20.4		04	9	9	E	RAMY 5047	
21	DSD	1807E	2206D	S22	W16	06	20.5		08	9	9	E	RAMY 5047	
21	ASR	2000	2009	N18	W90	06	15.0			7	7	E	HOLL 5044	
21	DSD	2130E	0300D	S18	W16	06	20.7		04	9	9	E	PALE 5047	
21	SDF	2206E	1210D	S22	W16	06	20.7		06	0	0	E	RAMY 5047	
21	DSD	2243E	2311	S17	W16	06	20.7	2				C	VORO	
21	DSD	2312	2337	S17	W16	06	20.7	1				C	VORO	
21	ASR	2326E	0906D	N20	W90	06	15.1			7	8	E	LEAR 5044	
21	AFS	2326E	0906D	N35	W22	06	20.2		04	7	5	E	LEAR 5051	
21	AFS	2326E	0906D	S17	W16	06	20.8		02	9	9	E	LEAR 5047	
22	DSD	0020	0036	S17	W16	06	20.8	1				C	VORO	

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	DSD	0037	0119D	S17	W16	06 20.8	1				C	VORO		
22	DSD	0413	0436	S21	W20	06 20.6	1				C	ABST		
22	AFS	0800E	1728D	N25	W09	06 21.6	1	03	9	9	E	SVTO	5051	
22	DSD	0805E	0909D	S22	W20	06 20.8		03	9	9	E	SVTO	5047	
22	ADF	0850E	1728D	S14	W19	06 20.9	1	05	9	9	E	SVTO	5047	
22	DSD	0938E	1728D	S22	W23	06 20.6		03	9	9	E	SVTO	5047	
22	SDF	1108E	0712D	S31	W05	06 22.1		23	0	0	E	SVTO		
22	ASR	1207E	1828D	N20	W90	06 15.6			9	7	E	RAMY	5044	
22	ADF	1229E	1828D	N38	W10	06 21.7	1	06	8	5	E	RAMY	5048	
22	AFS	1248E	0209D	N34	W19	06 21.0		03	9	9	E	HOLL	5051	
22	DSD	1249E	0209D	S18	W12	06 21.6		10	9	9	E	HOLL	5047	
22	ADF	1534E	1828D	S21	W20	06 21.1	1	08	8	7	E	RAMY	5047	
22	SDF	1831E	1902D	S29	E03	06 23.0		20	0	0	E	PALE		
22	DSD	2045E	0459D	S17	W30	06 20.6		02	9	9	E	PALE	5047	
23	AFS	0055E	0929D	S19	W29	06 20.8		02	9	9	E	LEAR	5047	
23	DSD	0423E	1746D	S17	W33	06 20.7		03	9	9	E	SVTO	5047	
23	ADF	0431E	1746D	N40	W24	06 21.2	1	05	9	9	E	SVTO	5048	
23	ADF	0510E	1746D	S27	E21	06 24.8	1	08	9	9	E	SVTO	5053	
23	ADF	0517E	1746D	S22	W24	06 21.4	1	06	9	9	E	SVTO	5047	
23	AFS	0635E	1742D	S19	W32	06 20.8		04	9	9	E	SVTO	5047	
23	DSD	0843E	1615D	N36	W49	06 19.4		03	9	9	E	SVTO	5051	
23	DSD	1122E	1206D	S16	W40	06 20.4		03	9	9	E	RAMY	5047	
23	DSD	1122E	1402D	N37	W48	06 19.6		05	9	9	E	RAMY	5051	
23	AFS	1122E	1812D	S18	W35	06 20.8		02	9	9	E	RAMY	5047	
23	ADF	1122E	1812D	S22	W31	06 21.1	1	05	9	9	E	RAMY	5047	
23	DSD	1135E	1356D	S18	W36	06 20.7		02	9	9	E	RAMY	5047	Flare Associated
23	ADF	1241E	1812D	N39	W26	06 21.4	1	07	9	9	E	RAMY	5048	
23	DSD	1339E	1812D	S12	W34	06 21.0		03	9	9	E	RAMY	5047	
23	DSD	1729E	1812D	S17	W35	06 21.1		03	9	9	E	RAMY	5051	
23	ASR	2027E	2202D	S19	E89	06 30.6			8	6	E	PALE	5058	
23	AFS	2333E	0913D	N37	W32	06 21.4		02	9	9	E	LEAR	5048	
23	AFS	2333E	0913D	S17	W39	06 21.0		05	9	9	E	LEAR	5047	
24	ASR	0345E	0913D	S17	E81	06 30.3			9	9	E	LEAR		
24	AFS	1214E	1628D	S25	E14	06 25.6		02	9	9	E	RAMY	5056	
24	ASR	1214E	2225D	S25	E90	07 1.5			9	9	E	RAMY		
24	AFS	1355E	2225D	S18	W51	06 20.7		02	9	9	E	RAMY	5047	
24	DSD	1355E	2225D	S19	W48	06 20.9		03	9	9	E	RAMY	5047	
24	ASR	1859	0001D	S19	E90	07 1.6			9	9	E	HOLL		Flare Associated
24	DSD	1947E	2225D	S18	W58	06 20.4		04	9	9	E	RAMY	5047	
24	AFS	2015E	2225D	S25	E10	06 25.6		03	9	9	E	RAMY	5056	
24	ASR	2055E	0455D	S25	E89	07 1.8			9	9	E	PALE	5060	
24	LPS	2142E	2307	S22	E90	07 1.8			9	9	E	PALE		
24	LPS	2206E	2348D	S19	E90	07 1.8			9	9	E	HOLL		Flare Associated
24	BSL	2256E	0002	S18	E90	07 1.8	2				C	VORO		
24	APR	2315	0116D	N25	E90	07 1.9	1				C	VORO		
24	APR	2315	0116D	N33	W90	06 17.8	1				C	VORO		
24	APR	2333	0116D	S25	W90	06 18.0	1				C	VORO		
24	BSL	2350	0045	S14	E90	07 1.8	1				C	VORO		
25	BSL	0035	0050	S18	E90	07 1.9	1				C	VORO		
25	BSL	0055	0116D	S24	E90	07 2.0	1				C	VORO		
25	BSL	0105	0121D	S18	E90	07 1.9	1				C	VORO		
25	AFS	0532E	0949D	S23	W22	06 23.5		03	9	9	E	SVTO	5055	
25	ASR	0538E	1645D	S20	E90	07 2.1	1		9	9	E	SVTO	5060	
25	BSL	0830E	0920D	S21	E90	07 2.2	1				V	KHAR		
25	ADF	0841E	0925D	S17	W71	06 20.0	1				V	KHAR		
25	DSD	0858E	0908	S12	W58	06 21.0	1				V	KHAR		
25	BSL	0947E	1011	S22	E90	07 2.3	1				V	KHAR		
25	AFS	0952	1010	N38	E27	06 27.6	0				P	MANI		
25	AFS	0952	1010	S22	W59	06 20.9	0				P	MANI		
25	BSL	0959	1015	S20	E90	07 2.3	1				V	KHAR		
25	DSD	1008E	1015D	S17	W67	06 20.3	1				V	KHAR		
25	ASR	1036E	2158D	S19	E82	07 1.7			9	9	E	RAMY	5060	
25	AFS	1144E	1545D	S17	W66	06 20.5		02	8	9	E	RAMY	5047	
25	ADF	1144E	2158D	S21	W54	06 21.3	2	04	9	9	E	RAMY	5047	
25	ASR	1409	1425	S18	E84	07 2.0			9	9	E	HOLL	5060	
25	CRN	1800E	1835D	S22	E90	07 2.7		07	9	9	E	RAMY	5060	
25	CRN	1813E	1834	S22	E90	07 2.7		06	7	7	E	HOLL	5060	

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
25	LPS	1834	2006	S22	E90	07	2.7			8	8	E	HOLL	5060	
25	LPS	1835E	2005D	S22	E90	07	2.7			9	9	E	RAMY	5060	
25	LPS	1836E	1945D	S20	E89	07	2.6			9	9	E	PALE	5060	
25	ASR	1957E	2204	N13	E90	07	2.6			9	9	E	HOLL		
25	AFS	2001E	2237D	N35	W72	06	20.1		02	8	6	E	HOLL	5051	
25	AFS	2001E	2202D	N38	W79	06	19.4		03	9	9	E	PALE	5051	
25	ADF	2112E	0200D	N46	E05	06	26.3	1				C	VORO		
25	BSL	2121E	2200	S19	E90	07	2.7	1				C	VORO		
25	ASR	2138E	2202D	S21	E84	07	2.3			9	9	E	PALE	5060	
25	APR	2140	0154D	S38	E90	07	3.2	1				C	VORO		
25	ASR	2142E	2202	S19	E84	07	2.3			9	9	E	HOLL	5060	
25	BSL	2220	2250	N14	E90	07	2.7	1				C	VORO		
25	BSL	2250	2330	N14	E90	07	2.7	1				C	VORO		
26	BSL	0013	0112D	N14	E90	07	2.8	1				C	VORO		
26	BSL	0026	0046	S20	E90	07	2.9	1				C	VORO		
26	BSL	0112	0135	N14	E90	07	2.8	1				C	VORO		
26	ASR	0118E	0225D	N15	E90	07	2.9			9	9	E	PALE		
26	ASR	0548E	0807D	N13	E90	07	3.0			9	9	E	LEAR		
26	ASR	0548E	0807D	S21	E79	07	2.3			9	7	E	LEAR	5060	
26	BSD	1146E	1425D	S18	E76	07	2.3			9	9	E	SVTO	5060	
26	ADF	1220E	2236D	S20	W73	06	20.9	1	07	9	9	E	RAMY	5047	
26	ASR	1227E	2236D	N35	W90	06	19.3			8	8	E	RAMY	5051	
26	AFS	1243E	2236D	S24	W14	06	25.4		03	9	9	E	RAMY	5056	
26	ASR	1250E	1504D	S21	E90	07	3.4			9	9	E	RAMY	5060	
26	ADF	1250E	1615D	S21	E63	07	1.4	1	06	9	9	E	RAMY	5060	
26	ASR	1303E	2236D	N12	E90	07	3.3			9	9	E	RAMY	5062	
26	DSD	1330E	2236D	N27	W19	06	25.1		02	9	9	E	RAMY		
26	BSD	1348	1355D	S18	W77	06	20.7		03	9	9	E	RAMY	5047	Flare Associated
26	ASR	1500E	0145D	S21	E88	07	3.4			7	7	E	HOLL	5060	
26	SDF	1500E	1615D	S21	E63	07	1.4		06	9	9	E	RAMY	5060	
26	ASR	1705E	0438D	S22	E75	07	2.5			9	7	E	PALE	5060	
26	ASR	2332E	0927D	S16	W75	06	21.3			9	9	E	LEAR	5047	
27	ASR	0021E	0438D	S18	W77	06	21.1			9	9	E	PALE	5047	
27	BSL	0428E	0817D	N26	E90	07	4.2	1				C	ABST		
27	APR	0428E	0817D	S17	W90	06	20.3	1				C	ABST		
27	BSL	0428E	0817D	S25	E90	07	4.1	1				C	ABST		
27	APR	0502E	0727D	S19	E90	07	4.1	1				C	ABST		
27	AFS	0525E	1738D	N15	E70	07	2.5		03	9	9	E	SVTO	5062	
27	APR	0552E	0817D	N44	E90	07	4.7	1				C	ABST		
27	ASR	0600E	1738D	S19	W90	06	20.4			9	9	E	SVTO	5047	
27	AFS	0845E	1738D	S26	W24	06	25.5		02	9	9	E	SVTO	5056	
27	ADF	0859E	0948D	N11	E66	07	2.3	1				V	KHAR		
27	ADF	1025E	1036D	S25	W45	06	23.9	1				V	KHAR		
27	LPS	1122E	1227D	S17	W90	06	20.6			8	9	E	RAMY	5047	
27	LPS	1123E	1250D	S20	W90	06	20.6			9	9	E	SVTO	5047	
27	ASR	1125E	1540D	N37	W90	06	20.2			9	9	E	RAMY	5051	
27	AFS	1125E	1901D	N11	E68	07	2.6		04	9	9	E	RAMY	5062	
27	ASR	1125E	1901D	S19	W90	06	20.6			9	9	E	RAMY	5047	
27	AFS	1125E	1901D	S21	E61	07	2.1		03	9	9	E	RAMY	5060	
27	AFS	1125E	1901D	S24	W24	06	25.6		03	9	9	E	RAMY	5056	
27	ASR	1855E	2321D	S19	W89	06	21.0			9	9	E	PALE	5047	
27	ASR	2322E	0306D	N40	W90	06	20.6			9	8	E	PALE	5048	
27	BSL	2340E	0014D	S21	W90	06	21.1	1				C	VORO		
28	ASR	0310E	0930	N34	W90	06	20.9			8	9	E	LEAR	5048	
28	ASR	0330E	0450D	N40	W90	06	20.8			9	9	E	PALE	5048	
28	APR	0425E	0504D	S21	W90	06	21.3	1				C	ABST		
28	BSL	0504E	0729D	N46	W90	06	20.7	1				C	ABST		
28	ASR	0545E	1745D	N34	W90	06	21.1			9	9	E	SVTO	5048	
28	ADF	0605E	1745D	S24	E47	07	1.9	1	12	9	9	E	SVTO	5060	
28	AFS	0620E	1745D	S24	W37	06	25.4		02	9	9	E	SVTO	5056	
28	APR	0940	1745D	N28	E90	07	5.4	1		9	9	E	SVTO		
28	DSD	1018E	1021D	S27	E48	07	2.2	1				V	KHAR		
28	DSD	1018E	1039D	S27	E42	07	1.7	1				V	KHAR		
28	ASR	1239E	2139D	N37	W90	06	21.3			8	8	E	RAMY	5048	
28	DSD	1243E	2139D	N11	E50	07	2.3		02	9	9	E	RAMY	5062	
28	DSD	1308E	2139D	S18	E51	07	2.4		03	9	9	E	RAMY	5060	
28	AFS	1308E	2139D	S20	E33	07	1.1		02	9	9	E	RAMY	5060	

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
28	ADF	1308E	2139D	S26	E41	07	1.7	1	08	9	9	E	RAMY	5060	
28	ASR	1339E	2139D	S19	W89	06	21.8			9	9	E	RAMY	5047	
28	ASR	1339E	1745D	S21	W90	06	21.7	1		9	9	E	SVTO	5047	
28	DSD	2116E	0039D	N12	E46	07	2.3		04	9	8	E	HOLL	5062	
28	ASR	2331E	0930D	S15	W90	06	22.2			9	9	E	LEAR	5047	
29	ASR	0023E	0239D	S14	W89	06	22.3			9	9	E	PALE	5047	
29	ADF	0515E	1739D	S28	E38	07	2.2	1	05	9	9	E	SVTO	5060	
29	ASR	0527	0930D	S28	W86	06	22.5			9	9	E	LEAR	5054	
29	ASR	0542	0844D	S15	W90	06	22.4			9	9	E	SVTO	5047	
29	ASR	0542	0844D	S28	W90	06	22.2			9	9	E	SVTO	5055	
29	AFS	0914E	1739D	N16	E37	07	2.2		02	9	9	E	SVTO	5062	
29	ADF	0935	1040	N14	E36	07	2.1	2	04	9	9	E	SVTO	5060	
29	AFS	0935	1739D	N16	E36	07	2.1		02	9	9	E	SVTO	5060	
29	AFS	1018E	1739D	N22	W03	06	29.2		02	9	9	E	SVTO		
29	ASR	1225E	1827D	S25	W90	06	22.5			9	9	E	RAMY	5054	
29	ADF	1230E	2146D	S42	E58	07	4.3	1	20	9	9	E	RAMY	5060	
29	DSD	1241E	2146D	N12	E37	07	2.3		03	9	9	E	RAMY	5062	
29	AFS	1745E	2146D	N12	E36	07	2.4		02	9	9	E	RAMY	5062	
29	BSD	1749	1807D	S14	E30	07	2.0		04	9	9	E	HOLL	5060	Flare Associated
29	AFS	1750	1810	N10	E12	06	30.6	0				P	MANI		
29	AFS	1750	1810	N42	W30	06	27.3	0				P	MANI		
29	AFS	1750	1810	S21	E33	07	2.3	0				P	MANI		
29	AFS	1750	1810	S36	W11	06	28.9	0				P	MANI		
29	DSD	1758E	2140D	S17	E29	07	1.9		07	9	9	E	RAMY	5060	
29	BSD	2047E	2135D	S20	E33	07	2.4		02	9	9	E	HOLL	5060	Flare Associated
29	BSD	2047E	2135D	S20	E33	07	2.4		02	9	9	E	HOLL	5060	Flare Associated
29	DSD	2116E	0039D	N12	E46	07	3.3		04	9	8	E	HOLL	5062	
29	AFS	2322E	0443D	N12	E31	07	2.3		06	9	9	E	PALE	5062	
30	APR	0022E	0105D	S08	E90	07	6.8	1				C	VORO		
30	AFS	0525E	0932D	S17	E25	07	2.1		02	9	9	E	LEAR	5060	
30	AFS	0650E	0932D	N12	E26	07	2.2		02	9	9	E	LEAR	5062	
30	DSD	0907E	1008D	S12	E24	07	2.2	2				V	KHAR		
30	DSD	0912E	1400D	S14	E23	07	2.1		06	9	9	E	SVTO	5060	Flare Associated
30	DSD	0920E	0932D	S16	E22	07	2.0		06	9	9	E	LEAR	5060	Flare Associated
30	BSD	1032	1045	S15	E35	07	3.1		03	9	9	E	SVTO	5060	
30	ADF	1125E	2230D	S22	E71	07	5.9	1	04	9	9	E	RAMY	5056	
30	DSD	1327E	2230D	N11	E27	07	2.6		02	9	9	E	RAMY	5062	
30	DSD	1455E	1735D	N14	E27	07	2.7		06	9	9	E	SVTO	5062	
30	AFS	1530E	2230D	N12	E22	07	2.3		03	9	9	E	RAMY	5062	
30	DSD	1530E	2230D	S18	E15	07	1.8		04	9	9	E	RAMY	5060	
30	AFS	1625	1642	N13	W00	06	30.7	0				P	MANI		
30	AFS	1625	1642	N37	W44	06	27.1	0				P	MANI		
30	AFS	1625	1642	S26	E09	07	1.4	0				P	MANI		
30	AFS	1625	1642	S36	W24	06	28.7	0				P	MANI		
30	DSD	1851	0140D	S24	E14	07	1.9		07	9	9	E	HOLL	5060	
30	APR	1854E	0140D	S25	W83	06	24.3	1		9	9	E	HOLL	5056	
30	DSD	2007E	0140D	N12	E15	07	2.0		04	9	9	E	HOLL	5062	
30	BSD	2047E	2135D	S20	E33	07	3.4		02	9	9	E	HOLL	5060	Flare Associated
30	AFS	2322E	0443D	N12	E31	07	3.3		06	9	9	E	PALE	5062	
30	AFS	2322E	2324D	N12	E31	07	3.3		06	9	9	E	PALE	5062	

ADF = Active Dark Filament
 AFS = Arch Filament System
 APR = Active Prominence
 ASR = Active Surge Region
 BSD = Bright Surge on Disk

BSL = Bright Surge on Limb
 CAP = CAP Prominence (Tandberg-Hanssen)
 CRN = Coronal Rain
 DSD = Dark Surge on Disk
 EPL = Eruptive Prominence on Limb

LPS = Loops
 MDP = Mound Prominence
 SDF = Sudden Disappearing Filament
 SPY = Spray
 SSB = Solar Sector Boundary

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

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

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

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



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."