

4
May 99

H α SOLAR FLARES

MAY 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
			01 0938		1038			No Flare Patrol										
			01 2014		2031			No Flare Patrol										
0001	HOLL	01	2258	2259	2308	N22 W40	8524	04	29.0	10	SF		3	E		47		F
0002	URUM	02	0511E	0511U	0520	N18 W50	8524	04	28.5	9D	SN			P		32	0.6	D
0003	URUM	02	0546	0550	0606	N16 E43	8525	05	5.5	20	SN			C		48	0.7	E
0004	URUM	02	0606E	0606	0617	N17 W48	8524	04	28.7	11D	SN			P		48	0.8	D
0005		02	07522	0759*	0818	N21 W42	8524	04	29.2	26	SF					56		F
	KANZ	02	0752	0820	0820	N21 W42	8524	04	29.2	28	SF	2	C					
	LEAR	02	0754	0759	0816	N21 W43	8524	04	29.1	22	SF	4	E			56		F
0006	KANZ	02	1000	1004	1012	N21 W43	8524	04	29.2	12	SF		2	C				
0007		02	12182	12201	1234	N16 E44	8525	05	5.8	16	SF					19		
	RAMY	02	1218	1221	1235	N16 E42	8525	05	5.7	17	SF	3	E			19		
	KANZ	02	1220	1220	1232	N15 E45	8525	05	5.9	12	SF	2	C					
0008	KANZ	02	1324	1324	1328	N29 E53	8527	05	6.7	4	SF		2	C				
0009		02	1437	1440	1504	N17 E43	8525	05	5.9	27	SF					76		F
	HOLL	02	1437	1440	1502	N16 E42	8525	05	5.8	25	1F	3	E			102		
	RAMY	02	1439E	1440U	1503D	N17 E43	8525	05	5.9	24D	SF	3	E			64		F
	SVTO	02	1439E	1443U	1505	N17 E44	8525	05	5.9	26D	SF	2	E			61		F
0010	HOLL	02	1505	1506	1510	N16 E43	8525	05	5.9	5	SF		3	E		17		
0011	RAMY	02	1703	1707	1713	N24 E52	8527	05	6.7	10	SF		3	E		27		
0012	RAMY	02	1846	1846	1851	N21 W49	8524	04	29.1	5	SF		3	E		14		FH
0013	HOLL	02	2201	2204	2209	N16 E38	8525	05	5.8	8	SF		3	E		39		F
0014	LEAR	03	0543	0551	0745	N15 E32	8525	05	5.7	122	2N		3	E		527		U
0015	SVTO	03	0613E	0614U	0753	N15 E31	8525	05	5.6	100D	2F		3	E		339		U
0016	KANZ	03	0606E		0729D	N18 E42	8530	05	6.4	83D	2N		2	C				U
0017	SVTO	03	0801	0801	0810	N15 E31	8525	05	5.7	9	SF		3	E		18		
0018	SVTO	03	0811	0829	0840D	N15 E31	8525	05	5.7	29D	SF		3	E		37		
0019	KANZ	03	0805E	0805U	0818	N19 E45	8530	05	6.8	13D	SF		2	C				
0020		03	08292	08301	0834	N20 E40	8525	05	6.4	5	SF					25		
	LEAR	03	0829	0830	0833	N19 E39	8525	05	6.3	4	SF	3	E			25		
	KANZ	03	0831	0831	0835	N20 E41	8525	05	6.5	4	SF	2	C					
0021		03	09322	09331	0937	N14 E22	8525	05	5.0	5	SF					15		
	SVTO	03	0932	0933	0935	N15 E22	8525	05	5.1	3	SF	3	E			15		
	KANZ	03	0934	0934	0939	N13 E21	8525	05	5.0	5	SF	2	C					
0022		03	1019	1019U	1025	N21 W58	8524	04	29.1	6	SF					21		
	SVTO	03	1019	1019U	1027D	N21 W58	8524	04	29.1	8D	SF	3	E			21		
	KANZ	03	1021E	1021U	1025	N21 W57	8524	04	29.2	4D	SF	2	C					
		03	1050		1115			No Flare Patrol										
0023		03	1253	1254	1259	N22 W59	8524	04	29.1	6	SF					17		F
	SVTO	03	1253	1254	1258	N24 W60	8524	04	29.0	5	SF	3	E			17		F
	KANZ	03	1256E	1256U	1300	N21 W58	8524	04	29.2	4D	SF	2	C					
		03	1445		1451			No Flare Patrol										

H α SOLAR FLARES5
May 99

MAY 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Apparent (10 ⁻⁶ Disk)	Measurement Corr (Sq Deg)	Remarks
0024		03	15333	15346	1544	N21	W59	8524	04	29.2	11	SF					50		
	RAMY	03	1533	1534	1544	N22	W60	8524	04	29.1	11	SF		3	E		50		
	KANZ	03	1536	1540	1544	N20	W58	8524	04	29.3	8	SF		2	C				
		03	1753		1811	No Flare Patrol													
0025		03	19192	19211	1932	N22	W62	8524	04	29.1	13	SF					31		
	RAMY	03	1919	1921	1934	N22	W62	8524	04	29.1	15	SF		3	E		25		
	HOLL	03	1921	1922	1931	N22	W62	8524	04	29.1	10	SF		3	E		37		
0026	RAMY	03	2044	2045	2048	N22	W16	8526	05	2.6	4	SF		3	E		10		
		03	2050		2100	No Flare Patrol													
		03	2142		2400	No Flare Patrol													
		04	0000		0059	No Flare Patrol													
		04	0109		0125	No Flare Patrol													
		04	0302		0327	No Flare Patrol													
		04	0938		0940	No Flare Patrol													
		04	1000		1003	No Flare Patrol													
		04	1027		1052	No Flare Patrol													
		04	1059		1210	No Flare Patrol													
		04	1216		1222	No Flare Patrol													
		04	1228		1239	No Flare Patrol													
		04	1244		1254	No Flare Patrol													
		04	1304		1311	No Flare Patrol													
0027		04	1822*	18582	1928	N25	E22	8527	05	6.5	66	1F					165		F
	RAMY	04	1822	1900	1931	N26	E20	8527	05	6.3	69	1F		3	E		174		F
	HOLL	04	1846	1858	1924	N24	E24	8527	05	6.6	38	1F		3	E		156		F
0028	HOLL	04	1929	1931	1935	N23	E26	8527	05	6.8	6	SF		3	E		11		
0029	HOLL	04	1831	1844	1846	N23	E23	8527	05	6.5	15	SF		3	E		40		
0030	URUM	05	0149	0153	0216	N12	E09	8525	05	5.7	27	SN			C		129	1.4	E
0031	URUM	05	0456	0500	0512	N19	W32	8526	05	2.8	16	SF			C		48	0.6	DG
		06	0916		0936	No Flare Patrol													
0032		06	1041	1048	1059	S18	E71	8534	05	11.8	18	SN					50		H
	SVTO	06	1041	1048	1059	S18	E71	8534	05	11.8	18	SF		3	E		69		
	RAMY	06	1046E	1046U	1059D	S17	E71	8534	05	11.8	13D	SN		3	E		30		H
0033	SVTO	06	1047	1058	1119	N18	W07	8525	05	5.9	32	SF		3	E		96		F
0034	RAMY	06	1314	1314	1320	N20	W12	8525	05	5.6	6	SF		3	E		14		
0035	RAMY	06	1323	1327	1349	N20	W12	8525	05	5.6	26	SF		3	E		23		
0036		06	13234	13321	1342	N23	W08	8525	05	5.9	19	SF					28		F
	RAMY	06	1323	1332	1345	N25	W05	8525	05	6.2	22	SF		3	E		11		
	SVTO	06	1323	1333U	1339	N22	W08	8525	05	5.9	16	SF		3	E		55		F
	HOLL	06	1327	1333	1342	N21	W11	8525	05	5.7	15	SF		3	E		17		
0037	SVTO	06	1341	1341	1350	N15	W12	8525	05	5.7	9	SF		3	E		26		F
0038		06	14441	14441	1450	N02	E63	8533	05	11.3	6	SF					16		
	RAMY	06	1444	1444	1450	N02	E63	8533	05	11.3	6	SF		3	E		19		
	HOLL	06	1445	1445	1449	N02	E63	8533	05	11.3	4	SF		3	E		13		
	SVTO	06	1445	1445	1451	N01	E63	8533	05	11.3	6	SF		3	E		16		
0039	LEAR	07	0254	0254	0259	N13	E55	8539	05	11.3	5	SF		3	E		14		
0040	LEAR	07	0445	0446	0454	N20	E87	8541	05	13.8	9	SF		4	E		14		
0041		07	06552	0700	0722	N15	E58	8539	05	11.7	27	SF					53		E
	SVTO	07	0655	0700	0723	N15	E59	8539	05	11.7	28	SF		3	E		54		
	LEAR	07	0657	0700	0720	N15	E58	8539	05	11.7	23	SF		4	E		52		E

6
May 99

H α SOLAR FLARES

MAY 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	(Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0042	LEAR	07	0700	0710	0717	N18	W53	8526	05	3.2	17	SF		4	E		11		
0043	SVTO	07	0914	0914	0921	N20	W54	8537	05	3.2	7	SF		3	E		16		
0044	SVTO	07	1249	1259	1313	N14	E55	8539	05	11.7	24	SF		3	E		11		
0045		07	1336	1338	1346	S26	E46	8536	05	11.1	10	SF					42		H
	RAMY	07	1336	1338	1344	S26	E46	8536	05	11.1	8	SF		3	E		44		
	HOLL	07	1336	1338	1344	S25	E46	8536	05	11.1	8	SF		3	E		36		
	SVTO	07	1336	1338	1349	S27	E46	8536	05	11.1	13	SF		3	E		45		H
0046	SVTO	07	1356	1357	1400	N19	W21	8525	05	6.0	4	SF		3	E		17		
0047		07	1414*	1427	1506	N18	W24	8525	05	5.8	52	2F					276		S
	SVTO	07	1414	1427U	1529D	N17	W25	8525	05	5.7	75D	2N		3	E		334		
	RAMY	07	1416	1427	1506	N20	W21	8525	05	6.0	50	1F		3	E		214		S
	HOLL	07	1424	1424U		N18	W25	8525	05	5.7		2F		3	E		281		
0048	HOLL	07	1425	1426	1510	N27	W17	8527	05	6.3	45	SF		3	E		33		
0049	HOLL	07	1608	1612	1614	N18	W59	8537	05	3.2	6	SF		3	E		15		
0050		07	1620	1621	1626	S26	E44	8536	05	11.1	6	SF					18		
	RAMY	07	1620	1621	1625	S26	E44	8536	05	11.1	5	SF		3	E		16		
	HOLL	07	1620	1621	1626	S25	E45	8536	05	11.2	6	SF		3	E		19		
0051		07	16301	1633	1637	S26	E42	8536	05	10.9	7	SF					17		
	RAMY	07	1630	1633	1638	S26	E42	8536	05	10.9	8	SF		3	E		18		
	HOLL	07	1631	1633	1636	S25	E43	8536	05	11.0	5	SF		3	E		16		
0052	RAMY	07	1628	1628	1634	N19	W56	8537	05	3.4	6	SF		3	E		15		
0053	HOLL	07	1712	1715	1723	N14	E53	8539	05	11.7	11	SF		3	E		19		
0054	RAMY	07	1722	1722	1725	N11	W30	8538	05	5.5	3	SF		3	E		15		
0055	HOLL	07	1755	1758	1802	N19	W59	8537	05	3.2	7	SF		3	E		12		
0056	HOLL	07	1829	1830	1833	N12	W30	8525	05	5.5	4	SF		3	E		10		
0057	HOLL	07	1842	1852	1925	N15	E56	8539	05	12.0	43	SF		3	E		53		
0058	HOLL	07	1942	1943	1948	N20	W60	8537	05	3.2	6	SF		3	E		47		
0059	HOLL	07	1953	1958	2004	N20	W72	8537	05	2.3	11	SF		3	E		10		
0060	HOLL	07	2059	2100	2104	N21	E80	8541	05	14.0	5	SF		3	E		25		
0061	HOLL	07	2117	2121	2157	N16	E50	8539	05	11.7	40	SF		3	E		28		F
0062	HOLL	07	2145	2146	2201	S25	E39	8536	05	10.9	16	SF		3	E		56		
0063	HOLL	07	2331	2332	2334	N20	W62	8537	05	3.2	3	SF		3	E		16		
0064	LEAR	08	0037	0037	0041	N19	W63	8537	05	3.2	4	SF		2	E		11		
0065	LEAR	08	0101	0104	0109	N20	W62	8537	05	3.3	8	SF		3	E		11		
0066	LEAR	08	0119	0119	0122	N20	W61	8537	05	3.4	3	SF		3	E		16		
0067		08	0141	01423	0148	N18	W61	8537	05	3.4	7	SN					52	1.9	E
	LEAR	08	0141	0142	0148	N19	W61	8537	05	3.4	7	SF		3	E		23		
	URUM	08	0141	0145	0149	N18	W61	8537	05	3.4	8	SN			C		80	1.9	E
0068		08	0157	0157	0214	N20	W61	8537	05	3.4	17	SN					28	0.8	D
	URUM	08	0157E	0157	0212	N22	W60	8537	05	3.5	15D	SB			P		32	0.8	D
	LEAR	08	0157	0157	0215	N19	W62	8537	05	3.3	18	SF		3	E		24		
0069	URUM	08	0247	0304	0311	N19	W61	8537	05	3.5	24	1N			C		113	2.7	E

H α SOLAR FLARES7
May 99

MAY 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		CMP Mo	Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Time (UT)	Area Measurement		Remarks
								Region										Apparent (10-6 Disk)	Corr (Sq Deg)	
0070		08	03261	03311	0338	N20	W60	8537	05	3.5	12	SN						30	1.0	D
	LEAR	08	0326	0332	0336	N19	W62	8537	05	3.4	10	SF			3	E		11		D
	URUM	08	0327	0331	0339	N21	W58	8537	05	3.7	12	SB				C		48	1.0	D
0071	LEAR	08	0345	0346	0348	N20	W77	8526	05	2.3	3	SF			3	E		11		
0072	LEAR	08	0411	0411	0415	N17	W66	8537	05	3.1	4	SF			3	E		23		
0073		08	05093	0517	0521	N18	W64	8537	05	3.3	12	1N						66	2.7	EF
	URUM	08	0509	0517	0521	N20	W61	8537	05	3.5	12	1N				C		113	2.7	E
	LEAR	08	0512	0517	0521	N17	W67	8537	05	3.1	9	SF			3	E		19		F
0074	LEAR	08	0532	0534	0537	N19	W63	8537	05	3.4	5	SF			3	E		30		
0075	KANZ	08	0851	0851	0855	S19	E43	8534	05	11.6	4	SF			2	C				
0076	KANZ	08	1015	1015	1019	N14	W43	8525	05	5.2	4	SF			2	C				
0077	RAMY	08	1052E	1104U	1146	N18	E64	8541	05	13.3	54D	SF			3	E		89		F
0078	SVTO	08	1102E	1106U	1108D	N21	E73	8541	05	14.0	6D	1F			2	E		100		F
0079	RAMY	08	1123	1126	1137	N21	W71	8537	05	3.0	14	SF			3	E		37		
0080	RAMY	08	1143	1143	1154	N17	E19	8531	05	9.9	11	SF			3	E		10		
0081	RAMY	08	1156	1158	1212	N20	W69	8537	05	3.2	16	SF			3	E		34		F
0082	RAMY	08	1223	1223	1231	N19	W70	8537	05	3.2	8	SF			3	E		13		
0083	RAMY	08	1258	1306	1320	N19	W72	8537	05	3.0	22	SF			3	E		17		FH
0084	RAMY	08	1323	1324	1337	N19	W70	8537	05	3.2	14	SF			3	E		20		
0085		08	13428	13459	1356	N20	W75	8537	05	2.8	14	SF						18		
	RAMY	08	1342	1345	1354	N19	W71	8537	05	3.1	12	SF			3	E		26		
	SVTO	08	1350	1354	1357	N22	W79	8537	05	2.5	7	SF			3	E		10		
0086	HOLL	08	1348	1348	1353	N20	E70	8541	05	13.9	5	SF			3	E		18		
0087		08	13533	14101	1428	N20	E72	8541	05	14.1	35	SF						48		F
	SVTO	08	1353	1411	1422	N19	E71	8541	05	14.0	29	SF			3	E		50		F
	HOLL	08	1356	1410	1433	N21	E72	8541	05	14.1	37	SF			3	E		47		
0088	HOLL	08	1425	1429	1506	N19	W68	8537	05	3.4	41	SF			3	E		62		
0089	SVTO	08	1425	1429	1511	N23	W75	8526	05	2.8	46	1F			3	E		168		
0090	SVTO	08	1502	1502	1515	N28	E08		05	9.2	13	SF			3	E		11		
0091		08	15091	1510	1528	N16	W36	8525	05	5.9	19	SF						34		F
	HOLL	08	1509	1510	1528	N15	W38	8525	05	5.7	19	SF			3	E		37		
	SVTO	08	1510	1510	1528	N17	W34	8525	05	6.0	18	SF			3	E		30		F
0092	SVTO	08	1519	1520	1530	N23	W25	8527	05	6.7	11	SF			3	E		13		
0093	SVTO	08	1547	1547	1550	N21	W78	8526	05	2.7	3	SF			3	E		25		
0094	HOLL	08	1719	1720	1725	N19	W72	8537	05	3.2	6	SF			3	E		55		
0095	HOLL	08	1822	1835	1858	N19	W74	8537	05	3.1	36	SF			3	E		66		
0096	HOLL	08	1905	1917	1927	N19	W70	8537	05	3.4	22	SF			3	E		44		
0097	HOLL	08	1926	1930	1933	N21	E71	8541	05	14.2	7	SF			3	E		11		
0098	HOLL	08	1939	2031	2100	N19	W75	8537	05	3.1	81	1F			3	E		111		F
0099	HOLL	08	2105	2116	2155	N19	W77	8537	05	3.0	50	SF			3	E		89		

8
May 99

H α SOLAR FLARES

MAY 1999

Grp #	Sta	Start Day	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur Day	Imp (Min)	Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks
																Apparent (10-6 Disk)	Corr (Sq Deg)	
0100	HOLL	08	2156	2204	2221	N20 W77	8537	05	3.0	25	SF		3	E		83		
0101	HOLL	08	2226	2329	2444	N21 W78	8537	05	2.9	138	1F		3	E		107		
0102	HOLL	08	2255	2257	2259	S23 E27	8536	05	11.0	4	SF		3	E		63		
0103	HOLL	08	2343	2442	2543	N21 E68	8541	05	14.2	120	2N		3	E		260		
0104	LEAR	09	0004	0004	0027	N21 E69	8541	05	14.3	23	SF		4	E		13		E
0105	LEAR	09	0035	0044	0103	N21 E69	8541	05	14.3	28	1F		4	E		106		
0106	LEAR	09	0254	0256	0301	N21 E67	8541	05	14.2	7	SF		3	E		63		
0107		09	0604	0608	0616	N19 W78	8537	05	3.3	12	SN					33		DG
	URUM	09	0604	0612	0620	N21 W73	8537	05	3.6	16	SN			C		48		D G
	LEAR	09	0605	0608	0613	N17 W82	8537	05	3.0	8	SF		3	E		18		
0108	LEAR	09	0629	0629	0637	N21 E63	8541	05	14.1	8	SF		3	E		12		
0109	LEAR	09	0639	0642	0647	N18 W78	8537	05	3.3	8	SF		3	E		36		
		09	1008		1053	No Flare Patrol												
0110	RAMY	09	1150	1150	1156	N21 W46	8525	05	6.0	6	SF		3	E		17		
0111	HOLL	09	1355	1358	1402	N21 E62	8541	05	14.3	7	SF		2	E		14		
0112		09	1534	1534	1538	N20 W86	8537	05	3.1	4	SF					40		
	SVTO	09	1534	1534	1537	N20 W83	8537	05	3.3	3	SF		3	E		26		
	RAMY	09	1534	1535	1539	N19 W89	8537	05	2.8	5	SF		3	E		55		
0113	RAMY	09	1609	1609	1614	N20 W89	8537	05	2.9	5	SF		3	E		12		
0114	RAMY	09	1645	1645	1651	N20 E59	8541	05	14.2	6	SF		3	E		13		
0115	RAMY	09	1653	1653	1657	N12 W57	8538	05	5.4	4	SF		3	E		11		
0116		09	1754	1755	1806	N20 E29	8535	05	12.0	12	SF					20		
	HOLL	09	1754	1755	1803	N20 E29	8535	05	12.0	9	SF		3	E		21		
	RAMY	09	1754	1755	1808	N19 E29	8535	05	11.9	14	SF		3	E		18		
0117		09	1755	1756	1806	N21 E57	8541	05	14.1	11	SF					13		
	HOLL	09	1755	1800	1805	N21 E55	8541	05	14.0	10	SF		3	E		11		
	RAMY	09	1756	1756	1807	N21 E59	8541	05	14.3	11	SF		3	E		15		
0118	RAMY	09	1806	1806	1813	N18 W02	8531	05	9.6	7	SF		3	E		24		F
0119		09	1940	1945	1956	N21 E58	8541	05	14.3	16	SF					42		
	RAMY	09	1940	1945	1954	N20 E57	8541	05	14.2	14	SF		3	E		16		
	HOLL	09	1942	1945	1957	N22 E59	8541	05	14.3	15	SF		3	E		68		
0120		09	2106	2108	2121	N22 E56	8541	05	14.2	15	SF					11		
	RAMY	09	2106	2108	2119	N21 E55	8541	05	14.1	13	SF		3	E		11		
	HOLL	09	2107	2108	2123	N23 E56	8541	05	14.2	16	SF		3	E		11		
0121	HOLL	09	2116	2116	2122	N20 W89	8537	05	3.1	6	SF		3	E		13		
0122	HOLL	09	2223	2235	2259	N20 E51	8541	05	13.8	36	SF		3	E		17		F
0123	HOLL	09	2322	2327	2333	N21 E56	8541	05	14.3	11	SF		3	E		34		
0124	HOLL	09	2325	2325	2329	S29 E56	8540	05	14.4	4	SF		3	E		12		
0125	HOLL	09	2330	2332	2341	S29 E58	8540	05	14.5	11	SF		3	E		23		
		10	0010		0020	No Flare Patrol												
0126	HOLL	10	0043	0045	0054	N22 E52	8541	05	14.0	11	SF		3	E		13		

9
May 99

1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/	CMP	Dur	Imp	Obs	Time	Area Measurement		Corr	Remarks		
								USAF						Region	Mo			Day	(Min)
0127	LEAR	10	0524	0529	0605	N16	E19	8539	05	11.7	41	2N		3	E		286	U	
0128	KANZ	10	0755	0755	0807	N28	W14		05	9.2	12	SF		2	C				
0129	KANZ	10	0915	0919	0947	S25	E06	8536	05	10.8	32	SF		2	C				
		10	1000		1012	No Flare Patrol													
		10	1018		1044	No Flare Patrol													
0130	RAMY	10	1155	1156	1207	N20	E48	8541	05	14.2	12	SF		3	E		13		
0131		10	1250E	13092	1332	N20	E46	8541	05	14.0	42D	SF					34	FH	
	SVTO	10	1250E	1301U	1324D	N19	E46	8541	05	14.0	34D	SF		3	E		29		
	HOLL	10	1308E	1309	1329	N20	E46	8541	05	14.1	21D	SF		3	E		29		
	RAMY	10	1310E	1311	1334	N20	E47	8541	05	14.1	24D	SF		3	E		44	FH	
0132	KANZ	10	1346	1346	1350	N25	E70		05	16.0	4	SF		2	C				
0133		10	14066	14121	1426	N20	E47	8541	05	14.2	20	SF					16	FH	
	RAMY	10	1406	1412	1423	N20	E46	8541	05	14.1	17	SF		3	E		21	FH	
	HOLL	10	1412	1413	1430	N21	E48	8541	05	14.3	18	SF		3	E		12		
0134		10	1543*	15507	1607	N20	E46	8541	05	14.2	24	SF					24		
	RAMY	10	1543	1550	1612	N19	E46	8541	05	14.2	29	SF		3	E		29		
	HOLL	10	1554	1557	1602	N21	E47	8541	05	14.3	8	SF		3	E		18		
0135	HOLL	10	2021	2021	2027	S24	E33	8540	05	13.4	6	SF		3	E		10		
		10	2144		2227	No Flare Patrol													
		10	2237		2244	No Flare Patrol													
0136	HOLL	10	2314	2321	2346	N22	E44	8541	05	14.3	32	SF		3	E		17		
		10	2323		2344	No Flare Patrol													
		11	0222		0239	No Flare Patrol													
		11	0245		0414	No Flare Patrol													
0137	SVTO	11	0425	0425	0432	N24	E12	8535	05	12.1	7	SF		3	E		19		
0138	SVTO	11	0931	0933	0945	N21	E37	8541	05	14.2	14	SF		3	E		38	F	
0139	SVTO	11	0952	0956	1002	N20	E37	8541	05	14.2	10	SF		3	E		34	F	
		11	1038		1100	No Flare Patrol													
		11	1107		1144	No Flare Patrol													
		11	1311		1329	No Flare Patrol													
		11	1459		1503	No Flare Patrol													
		11	1509		1802	No Flare Patrol													
		11	1812		1837	No Flare Patrol													
0140	HOLL	11	1906	1906	1914	N20	E02	8535	05	11.9	8	SF		3	E		20	F	
0141	HOLL	11	1910	1911	1914	N21	E31	8541	05	14.2	4	SF		3	E		25	F	
		11	1930		1942	No Flare Patrol													
0142	HOLL	11	2025	2040	2127	N22	E31	8541	05	14.2	62	1F		3	E		166		
0143	HOLL	11	2042	2042	2101	S26	E22	8540	05	13.6	19	SF		3	E		10		
0144	HOLL	11	2143	2146	2208	S19	E79	8542	05	17.9	25	SF		3	E		45		
0145	HOLL	11	2145	2146	2300	N21	E30	8540	05	14.2	75	SF		3	E		71		
0146	HOLL	11	2228	2231	2248	N21	E28	8541	05	14.1	20	SF		3	E		24		
		12	0113		0227	No Flare Patrol													
		12	0345		0457	No Flare Patrol													

10
May 99

H α S O L A R F L A R E S

MAY 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks
						Lat	CMD	Region									Apparent (10-6 Disk)	Corr (Sq Deg)	
0147	HOLL	12	1928	1930	1938	S16	W18	8534	05	11.4	10	SF		3	E		27		
		13	0148		0425	No Flare Patrol													
		13	0712		0753	No Flare Patrol													
0148	SVTO	13	1203	1205	1210	N20	E04	8541	05	13.8	7	SF		3	E		14		
0149	SVTO	13	1312	1312	1326	S16	W28	8534	05	11.4	14	SF		3	E		40	F	
0150	SVTO	13	1328	1328	1332	N03	E54	8543	05	17.6	4	SF		3	E		11		
0151	SVTO	13	1336	1338	1342	N20	E03	8541	05	13.8	6	SF		3	E		23		
0152	SVTO	13	1625	1625	1634	N18	W53	8531	05	9.6	9	SF		3	E		19		
		13	1745		1823	No Flare Patrol													
		13	1906		1929	No Flare Patrol													
		13	1936		2125	No Flare Patrol													
		13	2133		2237	No Flare Patrol													
0153	HOLL	13	2345	2347	2354	S25	W38	8536	05	11.0	9	SF		3	E		21		
		14	0007		0016	No Flare Patrol													
		14	0148		0409	No Flare Patrol													
0154	SVTO	14	0925	0928	0942	S18	W36	8534	05	11.6	17	SF		3	E		42		
0155	RAMY	14	1623	1634	1639	S22	E65	8544	05	19.7	16	SF		3	E		19		
0156	RAMY	14	1804	1807	1812	S22	E64	8544	05	19.7	8	SF		3	E		27		
0157	HOLL	14	2201	2201	2224	S25	W53	8536	05	10.8	23	SF		3	E		21	F	
0158	HOLL	14	2226	2229	2248	S28	W16	8540	05	13.7	22	SF		3	E		44	F	
0159	HOLL	15	0031	0031	0043	S19	E63	8544	05	19.8	12	SF		3	E		14		
0160	HOLL	15	0056	0058	0102	S19	E61	8544	05	19.7	6	SF		3	E		17		
0161	HOLL	15	0108	0112	0121	S19	E61	8544	05	19.7	13	SF		3	E		26		
		15	0341		0416	No Flare Patrol													
0162	SVTO	15	0747	0756	0832	S19	E59	8544	05	19.8	45	SF		3	E		12		
0163	SVTO	15	0759	0807	0843	N21	W09	8541	05	14.6	44	SF		3	E		11		
0164		15	08376	08376	0850	N21	W10	8541	05	14.6	13	SF					17		
	LEAR	15	0837	0837	0842	N21	W11	8541	05	14.5	5	SF		3	E		19		
	SVTO	15	0843	0843	0857	N21	W09	8541	05	14.7	14	SF		3	E		15		
0165	LEAR	15	0904	0905	0908	S19	E56	8544	05	19.6	4	SF		3	E		17		
0166		15	0843*	0920	1049	S20	E56	8544	05	19.6	126	SF					26		
	SVTO	15	0843	0921U	1049	S22	E57	8544	05	19.7	126	SF		3	E		14		
	LEAR	15	0918	0920	0927D	S19	E55	8544	05	19.6	9D	SF		3	E		38		
0167	SVTO	15	1120	1121	1128	S19	E56	8544	05	19.7	8	SF		3	E		12		
0168	SVTO	15	1131	1134	1140	S20	E56	8544	05	19.8	9	SF		3	E		13		
0169	RAMY	15	1635	1639	1643	S25	W61	8536	05	11.0	8	SF		3	E		11		
0170	SVTO	15	1645	1646	1648	S22	E53	8544	05	19.8	3	SF		3	E		12		
0171	RAMY	15	1740	1743	1745	S25	W61	8536	05	11.0	5	SF		3	E		21		
0172	LEAR	16	0320	0324	0325	S28	W34	8540	05	13.5	5	SF		3	E		27		
		16	0726		0735	No Flare Patrol													

H α SOLAR FLARES11
May 99

MAY 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Apparent (10-6 Disk)	Measurement Corr (Sq Deg)	Remarks
			16 0758		0859		No Flare Patrol											
			16 0931		1025		No Flare Patrol											
			16 1036		1045		No Flare Patrol											
			16 1050		1129		No Flare Patrol											
			16 1153		1221		No Flare Patrol											
0173	HOLL	16	1346	1350	1359	S17 W75	8534	05	10.9	13	1N		3	E		121		
0174	HOLL	16	1654	1655	1658	S17 W76	8534	05	10.9	4	SF		3	E		26		
0175		16	1723	1725	1733	S16 W76	8534	05	11.0	10	SF					65		H
	RAMY	16	1721E	1725U	1731D	S16 W75	8534	05	11.0	10D	SF		2	E		60		H
	HOLL	16	1723	1725	1733	S17 W76	8534	05	10.9	10	SF		3	E		70		
0176		16	20091	2012	2024	S16 W76	8534	05	11.1	15	1F					123		H
	RAMY	16	2009	2011U	2026D	S15 W74	8534	05	11.2	17D	1F		2	E		118		H
	HOLL	16	2010	2012	2024	S16 W77	8534	05	11.0	14	1F		3	E		128		H
0177	HOLL	16	2227	2237	2240	S17 W78	8534	05	11.0	13	SF		3	E		20		H
0178	HOLL	16	2233	2235	2248	N22 W37	8541	05	14.1	15	SF		3	E		37		F
0179	HOLL	17	0020	0025	0034	S16 W79	8534	05	11.0	14	SF		3	E		59		H
0180	URUM	17	0148	0152	0212	S16 W77	8534	05	11.2	24	SN			C		32		DG
0181	URUM	17	0450	0454	0510	S14 W78	8534	05	11.3	20	1B			C		209		EG
0182	URUM	17	0502	0510	0518	N24 W55	8535	05	13.0	16	1N			C		161	3.3	E
0183	LEAR	17	0905	0907	0909	S16 W86	8534	05	10.8	4	SF		3	E		16		
			17 1118		1130		No Flare Patrol											
			17 1141		1146		No Flare Patrol											
			17 1155		1203		No Flare Patrol											
0184	HOLL	17	1306	1307	1319	N21 W43	8541	05	14.2	13	SF		3	E		33		
0185	HOLL	17	1437	1437	1442	N35 E44	8545	05	21.1	5	SF		3	E		13		
0186		17	1703	1706	1732	N20 W48	8541	05	14.0	29	1F					96		F
	HOLL	17	1703	1706	1731	N20 W49	8541	05	14.0	28	1F		3	E		101		F
	RAMY	17	1706E	1707U	1732	N20 W48	8541	05	14.0	26D	SF		2	E		90		F
0187		17	17544	17592	1803	S16 W88	8534	05	11.1	9	SF					20		
	RAMY	17	1754	1759	1759D	S16 W85	8534	05	11.3	5D	SF		3	E		22		
	HOLL	17	1758	1801	1803	S16 W91	8534	05	10.8	5	SF		3	E		19		
0188	HOLL	17	2004	2015	2032	N22 W54	8541	05	13.7	28	SF		3	E		86		F
0189	RAMY	17	2015E	2015U	2030	N21 W46	8541	05	14.3	15D	SF		3	E		86		F
0190		18	0359	03591	0418	N20 W50	8541	05	14.3	19	1N					104	2.1	E
	URUM	18	0359E	0359	0418	N21 W47	8541	05	14.6	19D	1N			P		129	2.1	E
	LEAR	18	0359	0400	0418	N19 W52	8541	05	14.2	19	SF		3	E		79		
0191	LEAR	18	0543	0544	0554	S28 W72	8540	05	12.6	11	SF		3	E		35		
0192	URUM	18	0546E	0546	0550D	S29 W58	8540	05	13.7	4D	SB			P		80	1.7	EG
0193	LEAR	18	0654	0655	0716	N39 E35	8545	05	21.1	22	SF		3	E		14		
0194	LEAR	18	0718	0718	0730	N19 W57	8541	05	13.9	12	SF		3	E		18		
			18 0859		0949		No Flare Patrol											
0195	KANZ	18	1042	1047	1055	S15 W78	8534	05	12.5	13	SF		2	C				
0196	KANZ	18	1306E	1306U	1315D	S21 E43	8548	05	21.8	9D	SF		2	C				

12
May 99

H α SOLAR FLARES

MAY 1999

Grp #	Sta	Start Day	Start (UT)	Max (UT)	End (UT)	NOAA/USAF			CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks			
						Region	Mo	Day									Apparent (10-6 Disk)	Corr (Sq Deg)				
		18	1840		1843	No Flare Patrol																
0197		18	1954	1954	2005	N38	E30	8545	05	21.2	11	SF					18					
	HOLL	18	1954	1954	2005	N38	E31	8545	05	21.3	11	SF			3	E	16					
	RAMY	18	1957E	1958U	2007D	N39	E30	8545	05	21.3	10D	SF			3	E	21					
		19	0151		0155	No Flare Patrol																
		19	0202		0216	No Flare Patrol																
		19	0308		0444	No Flare Patrol																
		19	0458		0459	No Flare Patrol																
		19	0521		0544	No Flare Patrol																
		19	0600		0605	No Flare Patrol																
		19	0641		0740	No Flare Patrol																
		19	0754		0948	No Flare Patrol																
		19	0950		1000	No Flare Patrol																
		19	1002		1008	No Flare Patrol																
		19	1010		1102	No Flare Patrol																
	0198	HOLL	19	1446	1448	1451	N20	W70	8541	05	14.3	5	SF			3	E	30				
0199	URUM	20	0702	0706	0718	N24	W53	8549	05	16.2	16	1N				C	193	3.7	EG			
		20	1233		1241	No Flare Patrol																
		20	1252		1306	No Flare Patrol																
0200	HOLL	20	2029	2031	2033	N26	W64	8549	05	15.9	4	SF			3	E	26					
0201	HOLL	20	2124	2125	2131	N27	W65	8549	05	15.8	7	SF			3	E	24					
0202	HOLL	20	2224	2224	2228	N27	W65	8549	05	15.9	4	SF			3	E	19					
0203	HOLL	20	2240	2241	2244	N26	W66	8549	05	15.8	4	SF			3	E	16					
0204	HOLL	20	2256	2257	2301	N26	W66	8549	05	15.8	5	SF			3	E	17					
0205	HOLL	20	2331	2331	2338	N27	W67	8549	05	15.7	7	SF			3	E	52		F			
0206	URUM	21	0146	0154	0200	N24	W63	8549	05	16.2	14	1N				C	241		E			
0207		21	0213	0221	0231	N26	W64	8549	05	16.1	18	SN					50		E			
	URUM	21	0213	0221	0229	N25	W63	8549	05	16.2	16	SN				C	80		E			
	LEAR	21	0224E	0226U	0233	N26	W66	8549	05	16.0	9D	SF			3	E	20					
0208	URUM	21	0241	0245	0252	N26	W59	8549	05	16.5	11	SN				C	32	0.7	D			
0209	URUM	21	0458	0506	0518	N25	W60	8549	05	16.5	20	SN				C	80	1.9	E			
0210	LEAR	21	0507	0508	0512	N24	W70	8549	05	15.8	5	SF			3	E	39					
0211		21	0745I	07443	0756	N26	W66	8549	05	16.2	11	SF					26		D			
	URUM	21	0744E	0744	0756	N23	W62	8549	05	16.5	12D	SN				P	32		D			
	SVTO	21	0745	0747	0751	N27	W68	8549	05	16.0	6	SF			3	E	16					
	LEAR	21	0746	0747	0801	N27	W68	8549	05	16.0	15	SF			3	E	29					
0212	SVTO	21	0941	0942	0944	N24	W68	8549	05	16.1	3	SF			3	E	14					
0213	SVTO	21	1107	1107	1120	N26	W71	8549	05	15.9	13	SF			3	E	11					
		21	1200		1212	No Flare Patrol																
0214	HOLL	21	1240E	1241U	1300	N26	W75	8549	05	15.7	20D	SF			3	E	51		F			
0215	SVTO	21	1426	1431	1438	N27	W68	8549	05	16.3	12	SF			3	E	15					
0216	SVTO	21	1649	1649U	1651D	N25	W69	8549	05	16.3	2D	SF			2	E	12					
0217	RAMY	21	1814	1815	1818	N26	W72	8549	05	16.2	4	SN			3	E	25					
		21	2025		2046	No Flare Patrol																
		21	2159		2207	No Flare Patrol																

H α SOLAR FLARES13
May 99

MAY 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0218	HOLL	21	2316	2317	2321	S13	E55	8550	05 26.1	5	SF		3	E		26		
		22	0025		0032	No Flare Patrol												
0219		22	0251*	0256*	0321	S14	E51	8550	05 26.0	30	SN					48	1.0	E
	URUM	22	0251	0256	0320	S13	E49	8550	05 25.8	29	SN			C		64	1.0	E
	LEAR	22	0318	0318	0322	S14	E53	8550	05 26.1	4	SF		3	E		31		
0220	LEAR	22	0743	0744	0753	S19	W40	8544	05 19.3	10	SF		3	E		13		
		22	1116		1216	No Flare Patrol												
0221	HOLL	22	1912	1912	1919	N40	W19	8545	05 21.2	7	SF		3	E		11		
		22	2213		2400	No Flare Patrol												
		23	0000		0017	No Flare Patrol												
0222	LEAR	23	0317	0317	0323	N41	W25	8545	05 21.1	6	SF		3	E		13		
0223		23	0738	07393	0758	N40	W26	8545	05 21.2	20	SF					18		
	KANZ	23	0738E	0742	0758D	N41	W25	8545	05 21.3	25D	SF		2	C				
	LEAR	23	0738	0739	0758	N40	W27	8545	05 21.1	20	SF		4	E		18		
0224		23	07547	0805	0824	N38	W26	8545	05 21.2	30	SN					66	1.7	E
	URUM	23	0754	0805	0825	N39	W25	8545	05 21.3	31	SB			C		113	1.7	E
	LEAR	23	0801	0805	0822	N36	W27	8545	05 21.2	21	SF		4	E		18		
0225	URUM	23	0805	0810	0814	S14	E32	8550	05 25.7	9	SN			C		80	1.0	E
0226	URUM	23	0849E	0849	0857	S15	E30	8550	05 25.6	8D	SB			P		48	0.6	D
		23	0932		1009	No Flare Patrol												
0227	RAMY	23	1030E	1040	1107	N30	E40	8551	05 26.6	37D	SF		3	E		50		F
0228		23	14084	14122	1420	S16	E29	8550	05 25.8	12	SF					24		FH
	RAMY	23	1408	1412	1422	S15	E29	8550	05 25.8	14	SF		3	E		32		
	SVTO	23	1412	1414	1417	S16	E29	8550	05 25.8	5	SF		3	E		17		FH
0229		23	14261	14381	1511	N30	E40	8551	05 26.7	45	SF					84		F
	SVTO	23	1426	1439	1509	N29	E41	8551	05 26.8	43	SF		3	E		93		F
	RAMY	23	1427	1438	1513	N30	E38	8551	05 26.6	46	SF		3	E		74		F
		23	1719		1758	No Flare Patrol												
		23	1804		1915	No Flare Patrol												
		23	1948		2019	No Flare Patrol												
		23	2038		2340	No Flare Patrol												
		23	2347		2358	No Flare Patrol												
0230		24	06182	06198	0636	N29	E30	8551	05 26.6	18	SF					25	0.4	DF
	SVTO	24	0618	0619	0631	N31	E32	8551	05 26.8	13	SF		3	E		18		F
	URUM	24	0619	0627	0646	N28	E29	8551	05 26.5	27	SF			C		32	0.4	D
	KANZ	24	0620	0620	0632	N28	E30	8551	05 26.6	12	SF		2	C				
0231		24	0632	06275	0638	S14	E21	8550	05 25.8	6	SN					80	0.9	D
	URUM	24	0627E	0627	0639	S14	E18	8550	05 25.6	12D	SN			P		80	0.9	D
	KANZ	24	0632	0632	0636	S14	E24	8550	05 26.1	4	SF		2	C				
0232		24	0628	06283	0636	S14	E22	8550	05 25.9	8	SN					48	0.6	D
	KANZ	24	0628	0628	0632	S15	E18	8550	05 25.6	4	SF		2	C				
	URUM	24	0631E	0631	0639	S13	E25	8550	05 26.1	8D	SN			P		48	0.6	D
0233		24	0722	0722	0730	S15	E17	8550	05 25.6	8	SN					64	0.7	D
	KANZ	24	0722	0722	0729D	S15	E17	8550	05 25.6	7D	SF		2	C				
	URUM	24	0722E	0722	0730	S15	E17	8550	05 25.6	8D	SN			P		64	0.7	D

14
May 99

H α SOLAR FLARES

MAY 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/USAF		Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
								Region	Mo						Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0234		24	08066	08103	0816	N31	E30	8551	05	26.7	10	SF				52	1.6	EF
	URUM	24	0806	0810	0814	N31	E32	8551	05	26.9	8	SN		C		113	1.6	E
	SVTO	24	0809E	0810U	0818D	N29	E29	8551	05	26.6	9D	SF	3	E		28		F
	LEAR	24	0810	0813	0817	N32	E29	8551	05	26.6	7	SF	3	E		15		E
	KANZ	24	0812	0812	0816	N31	E30	8551	05	26.7	4	SF	2	C				
0235	URUM	24	0814E	0814	0814D	S14	E18	8550	05	25.7	4D	SN		P		48	0.5	D
0236		24	08593	09011	0912	N21	E72	8552	05	29.9	13	SN				32		D
	SVTO	24	0859	0902	0906	N21	E75	8552	05	30.1	7	SF	3	E		43		
	LEAR	24	0900	0902	0905	N21	E71	8552	05	29.8	5	SF	3	E		21		
	URUM	24	0901E	0901	0917	N20	E68	8552	05	29.6	16D	SB		P		32		D
	KANZ	24	0902	0902	0918	N21	E74	8552	05	30.0	16	SF	2	C				
0237	SVTO	24	0909	0913	0919	N20	E74	8552	05	30.0	10	SF	3	E		16		
0238	SVTO	24	1004	1006	1011	S13	E17	8550	05	25.7	7	SF	3	E		16		
0239		24	1022	10221	1026	N20	E72	8552	05	29.9	4	SF				33		
	KANZ	24	1022	1022	1026	N20	E70	8552	05	29.8	4	SF	2	C				
	SVTO	24	1022	1023	1025	N20	E73	8552	05	30.0	3	SF	3	E		33		
0240	SVTO	24	1328	1328	1333	N33	E30	8551	05	26.9	5	SF	3	E		29		
0241		24	1354	1354	1358	S14	E15	8550	05	25.7	4	SF				46		F
	SVTO	24	1351E	1354U	1403D	S14	E15	8550	05	25.7	12D	SF	3	E		46		F
	KANZ	24	1354	1354	1358	S14	E15	8550	05	25.7	4	SF	2	C				
		24	1451		1454	No Flare Patrol												
0242		24	17092	1711	1722	N20	E70	8552	05	30.1	13	SF				20		
	RAMY	24	1709	1711	1722	N20	E72	8552	05	30.2	13	SF	3	E		26		
	SVTO	24	1711	1711U	1718D	N19	E68	8552	05	29.9	7D	SF	3	E		13		
0243	RAMY	24	1741	1741	1756	S13	E16	8550	05	25.9	15	SF	3	E		47		
		24	1741		1749	No Flare Patrol												
		24	1921		1923	No Flare Patrol												
		24	2026		2400	No Flare Patrol												
0244		25	06023	06041	0610	S14	E06	8550	05	25.7	8	SF				10		FH
	SVTO	25	0602	0604	0612	S14	E06	8550	05	25.7	10	SF	3	E		10		FH
	KANZ	25	0605	0605	0609	S15	E06	8550	05	25.7	4	SF	2	C				
0245	KANZ	25	0657	0705	0713	N13	E16		05	26.5	16	SF	2	C				
0246		25	07071	07102	0716	N24	E68	8552	05	30.5	9	SF				14		
	SVTO	25	0707	0712	0716	N24	E69	8552	05	30.6	9	SF	3	E		13		
	LEAR	25	0708	0710	0716	N23	E67	8552	05	30.4	8	SF	4	E		14		
0247	KANZ	25	0753	0757	0801	S16	E03	8550	05	25.5	8	SF	2	C				
0248		25	0833	08331	0842	S15	E03	8550	05	25.6	9	SF				23		H
	KANZ	25	0833	0833	0845	S15	E03	8550	05	25.6	12	SF	2	C				
	SVTO	25	0833	0834	0839	S15	E03	8550	05	25.6	6	SF	3	E		23		H
0249	KANZ	25	0913	0913	0917	S15	E03	8550	05	25.6	4	SF	2	C				
0250	SVTO	25	1238	1239	1241	N18	E62	8552	05	30.2	3	SF	3	E		16		
0251	RAMY	25	1300	1301	1307	N21	E58	8552	05	30.0	7	SF	3	E		15		
		25	1943		1952	No Flare Patrol												
0252	HOLL	25	2249	2249	2252	N38	W55	8545	05	21.5	3	SF	3	E		19		
0253	HOLL	25	2316	2316	2324	S23	W56	8548	05	21.6	8	SF	3	E		19		
0254	HOLL	25	2356	2359	2405	N38	W57	8545	05	21.4	9	SF	3	E		16		

H α SOLAR FLARES15
May 99

MAY 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Area Measurement			Remarks
																Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0255	HOLL	26	0007	0008	0014	S15	W03	8550	05	25.8	7	SF		3	E		19		F
0256		26	0016	00231	0028	N40	W54	8545	05	21.6	12	SF					40		F
	HOLL	26	0016	0023	0027	N39	W57	8545	05	21.4	11	SF		3	E		36		F
	LEAR	26	0016	0024	0028	N40	W52	8545	05	21.8	12	SF		3	E		45		
0257	LEAR	26	0032	0036	0039	N39	W56	8545	05	21.5	7	SF		3	E		34		
0258		26	0228	02293	0238	N22	E40	8554	05	29.2	10	1N					96	2.3	EH
	LEAR	26	0228	0229	0235	N22	E41	8554	05	29.2	7	SF		4	E		31		EH
	URUM	26	0232E	0232	0240	N21	E39	8554	05	29.1	8D	1B			P		161	2.3	E
0259	URUM	26	0304E	0304	0315	S15	W07	8550	05	25.6	11D	SN			P		80	0.9	E
0260	URUM	26	0323	0335	0347	N37	W58	8545	05	21.5	24	1B			C		96		E
0261	URUM	26	0423	0427	0446	N38	W56	8545	05	21.6	23	2N			C		241	5.8	E
0262		26	04531	04557	0520	S14	W06	8550	05	25.8	27	SN					79	1.7	EF
	LEAR	26	0453	0455	0515	S14	W07	8550	05	25.7	22	SF		3	E		33		F
	SVTO	26	0453	0457	0514	S14	W06	8550	05	25.8	21	SF		3	E		43		
	URUM	26	0454	0502	0530	S13	W05	8550	05	25.8	36	SB			C		161	1.7	E
0263		26	0822	0826	0829	N38	W60	8545	05	21.5	7	SF					16		
	LEAR	26	0822	0826	0830	N40	W61	8545	05	21.4	8	SF		3	E		16		
	KANZ	26	0824E	0824U	0828	N37	W60	8545	05	21.5	4D	SF		2	C				
0264		26	08552	0857	0908	N18	E47	8552	05	29.9	13	SF					43		
	LEAR	26	0855	0857	0907	N18	E46	8552	05	29.9	12	SF		3	E		43		
	KANZ	26	0857	0857	0909	N18	E48	8552	05	30.0	12	SF		2	C				
0265	RAMY	26	1149	1149	1157	N31	E05	8551	05	26.9	8	SF		3	E		12		
0266		26	14055	1412	1416	N18	E44	8552	05	29.9	11	SF					17		
	RAMY	26	1405	1412	1418	N19	E44	8552	05	29.9	13	SF		3	E		19		
	HOLL	26	1410	1412	1415	N18	E44	8552	05	29.9	5	SF		3	E		15		
0267	HOLL	26	1427	1428	1431	N18	E46	8552	05	30.1	4	SF		3	E		20		
0268	SVTO	26	1549	1551	1605	N16	E49	8552	05	30.4	16	SF		3	E		12		F
0269		26	1550*	1550*	1612	N18	E47	8552	05	30.2	22	SF					51		F
	RAMY	26	1550	1550	1604	N19	E48	8552	05	30.3	14	SF		3	E		13		F
	HOLL	26	1556	1611	1615	N19	E50	8552	05	30.5	19	SF		3	E		70		
	SVTO	26	1609	1610	1615	N17	E45	8552	05	30.1	6	SF		3	E		57		
	RAMY	26	1609	1610	1616	N18	E44	8552	05	30.0	7	SF		3	E		65		F
0270		26	17459	17479	1812	N24	E28	8554	05	28.9	27	SF					14		
	RAMY	26	1745	1747	1813	N24	E27	8554	05	28.8	28	SF		3	E		15		
	HOLL	26	1754	1756	1812	N25	E30	8554	05	29.1	18	SF		3	E		12		
0271	HOLL	26	1900	1901	1903	S20	W93	8544	05	19.7	3	SF		3	E		82		
0272	RAMY	26	1908	1912	1915	N24	E26	8554	05	28.8	7	SF		3	E		11		
0273	RAMY	26	1917	1921	2026	N17	E46	8552	05	30.3	69	2N		3	E		316		FU
0274	LEAR	27	0113	0116	0122	N18	E40	8552	05	30.1	9	SF		3	E		10		F
0275	SVTO	27	0533	0536	0555	N24	E21	8554	05	28.8	22	SF		3	E		60		F
0276	KANZ	27	0748	0748	0752	N15	E48	8559	05	30.9	4	SF		2	C				
0277	KANZ	27	0848	0848	0852	S27	E16		05	28.6	4	SF		2	C				
0278		27	09231	09241	0929	N31	W06	8551	05	26.9	6	SF					16		F
	SVTO	27	0923	0925	0930	N31	W07	8551	05	26.8	7	SF		3	E		16		F
	KANZ	27	0924	0924	0928	N31	W06	8551	05	26.9	4	SF		2	C				

16
May 99

H α SOLAR FLARES

MAY 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt Xray	Obs See Type	Area Measurement			Remarks
													Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0279	RAMY	27	1106E	1107U	1112D	N19	E31	8552	05 29.8	6D	SF	3 E		27		F
0280		27	11401	11402	1147	S30	E78	8557	06 2.6	7	SF			22		
	RAMY	27	1140	1140	1147	S30	E78	8557	06 2.6	7	SF	3 E		18		
	SVTO	27	1141	1142	1147	S31	E77	8557	06 2.6	6	SF	3 E		25		
0281		27	1302	13021	1314	N18	E32	8552	05 30.0	12	1N			120		F
	SVTO	27	1302	1302	1313	N18	E32	8552	05 30.0	11	SN	3 E		83		F
	HOLL	27	1302	1303	1314	N18	E31	8552	05 29.9	12	1F	3 E		157		
0282		27	1417	14171	1423	S22	W78	8548	05 21.6	6	SF			14		
	RAMY	27	1417	1417	1423	S22	W76	8548	05 21.7	6	SF	3 E		17		
	SVTO	27	1417	1418	1423	S21	W80	8548	05 21.5	6	SF	3 E		11		
0283	RAMY	27	1426	1433	1436	N24	E15	8554	05 28.8	10	SF	3 E		17		
0284	SVTO	27	1428	1429	1440	S29	E76	8557	06 2.6	12	SF	3 E		12		
0285	RAMY	27	1432	1435	1440	N21	E73	8555	06 2.2	8	SF	3 E		20		H
0286	HOLL	27	1451	1452	1454	N20	E73	8555	06 2.2	3	SF	3 E		38		
0287	HOLL	27	1451	1453	1457	N24	E14	8554	05 28.7	6	SF	3 E		13		
0288	HOLL	27	1526	1528	1529	N17	E27	8552	05 29.7	3	SF	3 E		11		
0289		27	1528	1534	1606	S24	E79	8557	06 2.7	38	SF			41		F
	RAMY	27	1528	1534	1606	S24	E81	8557	06 2.9	38	SF	3 E		41		F
	KANZ	27	1534E	1534U	1538D	S23	E77	8557	06 2.6	4D	SF	2 C				
0290	SVTO	27	1535	1537	1538	S21	W81	8548	05 21.4	3	SF	3 E		16		
0291		27	15497	1549*	1606	S28	E78	8557	06 2.7	17	SF			25		F
	SVTO	27	1549	1549	1602	S29	E75	8557	06 2.5	13	SF	3 E		17		
	HOLL	27	1556	1559	1610	S26	E81	8557	06 2.9	14	SF	3 E		33		F
0292		27	16373	16521	1740	N24	E34	8552	05 30.3	63	1N			135		FH
	RAMY	27	1637	1653	1741	N24	E34	8552	05 30.3	64	1N	3 E		190		H
	HOLL	27	1639	1652	1739	N24	E34	8552	05 30.3	60	1F	3 E		114		
	SVTO	27	1640	1653	1736D	N24	E34	8552	05 30.3	56D	1N	3 E		101		FH
0293	RAMY	27	1647	1647	1652	N38	W76	8545	05 21.5	5	SF	3 E		26		
0294	HOLL	27	1837	1840	1842	N17	E30	8552	05 30.0	5	SF	3 E		18		
0295	HOLL	27	1844	1847	1855	N17	E29	8552	05 30.0	11	SF	3 E		16		
0296	HOLL	27	2146	2148	2153	N24	E40	8552	05 31.0	7	SF	3 E		26		
		27	2220		2227	No Flare Patrol										
0297	HOLL	27	2235	2249	2254	N18	E22	8552	05 29.6	19	SF	3 E		13		
		27	2309		2400	No Flare Patrol										
		28	0000		0417	No Flare Patrol										
0298	SVTO	28	0551	0552	0602	N12	E81	8558	06 3.3	11	SF	3 E		57		H
0299		28	09251	09262	0939	N26	E10	8554	05 29.2	14	SF			16		
	SVTO	28	0925	0928	0940	N26	E10	8554	05 29.2	15	SF	3 E		16		
	KANZ	28	0926	0926	0938	N25	E11	8554	05 29.2	12	SF	2 C				
0300		28	1157*	12125	1227	S28	E64	8557	06 2.5	30	SF			20		
	RAMY	28	1157	1212	1228	S28	E63	8557	06 2.4	31	SF	3 E		18		
	SVTO	28	1210	1217	1226	S28	E64	8557	06 2.5	16	SF	3 E		23		
0301	RAMY	28	1417	1417	1420	N39	W82	8545	05 21.9	3	SF	3 E		33		
0302	SVTO	28	1642	1643	1647	S30	E64	8557	06 2.7	5	SF	3 E		21		

H α SOLAR FLARES17
May 99

MAY 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Measurement (10 ⁻⁶ Disk)	Apparent	Corr (Sq Deg)	Remarks
0303	RAMY	28	1724	1724	1727	S29	E64	8557	06	2.7	3	SF		3	E		17			
0304	RAMY	28	1813	1813	1816	S29	E62	8557	06	2.6	3	SF		3	E		20			
		28	2114		2202			No Flare Patrol												
		28	2215		2400			No Flare Patrol												
		29	0000		0131			No Flare Patrol												
		29	0237		0357			No Flare Patrol												
0305	SVTO	29	0529	0529	0544	S26	E55	8557	06	2.5	15	SF		3	E		17			F
0306		29	0915	0915	0919	N24	W03	8554	05	29.1	4	SF					10			
	SVTO	29	0915	0915	0919	N24	W03	8554	05	29.1	4	SF		3	E		10			
	KANZ	29	0915	0915	0919	N24	W03	8554	05	29.1	4	SF		2	C					
0307	KANZ	29	1035	1035	1039	N18	E64	8558	06	3.3	4	SF		2	C					
0308		29	1303	1306	1310	N19	E05	8559	05	29.9	7	SF					19			
	KANZ	29	1303	1307	1311	N19	E05	8559	05	29.9	8	SF		2	C					
	RAMY	29	1304	1306	1310	N20	E05	8559	05	29.9	6	SF		3	E		26			
	SVTO	29	1304	1307	1309	N19	E05	8559	05	29.9	5	SF		3	E		12			
0309	RAMY	29	1324	1325	1330	N14	E62	8558	06	3.2	6	SF		3	E		11			
0310		29	1617	1618	1628	N25	W07	8554	05	29.1	11	SF					29			F
	RAMY	29	1617	1618	1628	N25	W07	8554	05	29.1	11	SF		3	E		30			
	HOLL	29	1617	1618	1629	N25	W06	8554	05	29.2	12	SF		3	E		35			
	SVTO	29	1618	1620	1626	N25	W07	8554	05	29.1	8	SF		3	E		21			F
0311		29	2007	2009	2020	N24	W12	8554	05	28.9	13	SF					48			H
	HOLL	29	2007	2009	2017	N24	W13	8554	05	28.8	10	SF		3	E		64			
	RAMY	29	2008E	2010U	2024	N24	W12	8554	05	28.9	16D	SF		3	E		33			H
0312	RAMY	29	2038E	2039U	2042	N19	E60	8560	06	3.4	4D	SF		3	E		16			
0313	HOLL	29	2038	2040	2043	S18	E58	8560	06	3.3	5	SF		3	E		47			
		29	2354		2400			No Flare Patrol												
		30	0000		0004			No Flare Patrol												
		30	0136		0403			No Flare Patrol												
0314	SVTO	30	0427E	0427U	0441	N15	E53	8558	06	3.2	14D	SF		3	E		68			H
0315	SVTO	30	0620	0621	0624	N31	W43	8551	05	26.9	4	SF		3	E		39			
0316		30	1152	1156	1214	N15	E52	8558	06	3.4	22	SF					20			H
	RAMY	30	1152E	1153U	1203D	N15	E52	8558	06	3.4	11D	SF		3	E		16			
	SVTO	30	1152	1156	1214	N15	E51	8558	06	3.3	22	SF		3	E		23			H
0317	HOLL	30	1323	1326	1338	N17	E47	8558	06	3.1	15	SF		3	E		26			
0318	HOLL	30	1623	1627	1640	N16	E49	8558	06	3.4	17	SF		3	E		11			
0319	RAMY	30	1816	1821	1833	N16	E45	8558	06	3.2	17	SF		3	E		25			
0320	RAMY	30	1818	1822	1835	N17	W18	8552	05	29.4	17	SF		3	E		19			
0321		30	1914	1917	1926	N14	E45	8558	06	3.2	12	SF					30			
	RAMY	30	1914	1917	1925	N13	E46	8558	06	3.3	11	SF		3	E		31			
	HOLL	30	1921	1924	1926	N15	E44	8558	06	3.1	5	SF		3	E		29			
		30	2330		2400			No Flare Patrol												
		31	0000		0034			No Flare Patrol												
0322		31	0807	0811	0823	S21	E30	8560	06	2.6	16	SF					46			
	KANZ	31	0807	0811	0823	S18	E31	8560	06	2.7	16	SF		2	C					
	SVTO	31	0808	0814	0823	S24	E30	8560	06	2.6	15	SF		3	E		46			

18
May 99

H α SOLAR FLARES

MAY 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement			Remarks
																Time (UT)	Apparent (10 ⁻⁶ Disk)	Corr (Sq Deg)	
0323		31	09351	09372	0950	N18	W27	8552	05	29.3	15	SF					67		F
	KANZ	31	0935	0939	0951	N17	W28	8552	05	29.3	16	SF		2	C				
	SVTO	31	0936	0937	0949	N19	W26	8552	05	29.4	13	SF		3	E		67		F
0324	RAMY	31	1202	1205	1212	S15	E31	8562	06	2.8	10	SF		3	E		14		
0325	HOLL	31	1421	1443	1458	S19	E29	8560	06	2.8	37	SF		3	E		28		
0326	RAMY	31	1627	1631	1640	S15	E26	8562	06	2.6	13	SF		3	E		24		
0327		31	1702	17021	1712	S14	E26	8562	06	2.7	10	SF					21		
	HOLL	31	1702	1702	1715	S14	E26	8562	06	2.7	13	SF		3	E		29		
	SVTO	31	1702	1703	1709	S15	E26	8562	06	2.7	7	SF		2	E		13		
0328	HOLL	31	1849	1852	1857	S19	E27	8560	06	2.8	8	SF		3	E		46		
0329	HOLL	31	1859	1859	1903	S24	E29	8560	06	3.0	4	SF		3	E		19		
		31	1942		1956	No Flare Patrol													
0330	HOLL	31	2023	2029	2037	S14	E24	8562	06	2.7	14	SF		3	E		41		
		31	2058		2329	No Flare Patrol													
		31	2357		2400	No Flare Patrol													

"Remarks"

A = Eruptive prominence whose base is less than 90 degrees from central meridian.
 B = Probably the end of a more important flare.
 C = Invisible 10 minutes before.
 D = Brilliant point.
 E = Two or more brilliant points.
 F = Several eruptive centers.
 G = No visible spots in the neighborhood.
 H = Flare accompanied by high-speed dark filament.
 I = Active region very extended.
 J = Distinct variations of plage intensity before or after the flare.
 K = Several intensity maxima.
 L = Existing filaments show signs of sudden activity.
 M = White-light flare.
 N = Continuous spectrum shows effects of polarization.

O = Observations have been made in the H and K lines of Ca II.
 P = Flare shows Helium D3 in emission.
 Q = Flare shows Balmer continuum in emission.
 R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
 S = Brightness follows disappearance of filament in same position.
 T = Region active all day.
 U = Two bright branches, parallel or converging.
 V = Occurrence of an explosive phase; important, expansion within roughly 1 minute that often includes a significant intensity increase.
 W = Great increase in area after time of maximum intensity.
 X = Unusually wide H-alpha line.
 Y = System of loop-type prominences.
 Z = Major sunspot umbra covered by flare.

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