Hα SOLAR FLARES

DECEMBER 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
		01	0000		0139	No Flare Patrol													
		01	0237		0314	No Flare Patrol													
0001	LEAR	01	0522	0527	0621	N10	W44	8782	11	28.0	59	SF		4	E		49		
0002	LEAR	01	0658	0703	0708	N10	W45	8782	11	28.0	10	SF		4	E		24		
0003		01	07541	07541	0802	N08	W46	8782	11	28.0	8	SF					31		F
	KANZ	01	0754	0754	0758D	N07	W45	8782	11	28.0	4D	SF		2	C				
	LEAR	01	0755	0755	0802	N10	W46	8782	11	28.0	7	SF		4	E		31		F
		01	1035		1041	No Flare Patrol													
		01	1207		1310	No Flare Patrol													
		01	1349		1408	No Flare Patrol													
		01	1423		1610	No Flare Patrol													
		01	1618		1625	No Flare Patrol													
		01	1636		1652	No Flare Patrol													
		01	1707		1718	No Flare Patrol													
		01	1755		2159	No Flare Patrol													
0004	HOLL	01	2252	2317	2323D	N08	W58	8782	11	27.7	31D	SF		3	E		41		
0005	LEAR	02	0113	0114	0122	N10	W55	8782	11	28.0	9	SF		3	E		17		
0006	LEAR	02	0143	0145	0149	N10	W55	8782	11	28.0	6	SF		3	E		21		
0007	LEAR	02	0150	0238	0246	N10	W56	8782	11	28.0	56	SF		3	E		63		
0008	LEAR	02	0250	0255	0258	N10	W56	8782	11	28.0	8	SF		3	E		23		
0009	LEAR	02	0326	0326	0331	N10	W56	8782	11	28.0	5	SF		3	E		31		
0010	LEAR	02	0336	0338	0341	N10	W57	8782	11	28.0	5	SF		3	E		21		
0011	URUM	02	0647E	0647	0647D	N23	W11	8786	12	1.4	5D	SF			P		32	0.4	D
0012	LEAR	02	0658	0709	0713	N10	W59	8782	11	27.9	15	SF		3	E		25		
0013	URUM	02	0754E	0806	0806D	N10	W64	8782	11	27.6	12D	SN			P		48	1.2	D
0014	LEAR	02	0900	0904	0911	N10	W60	8782	11	28.0	11	SF		3	E		33		H
0015	KANZ	02	0950	1002	1014	N09	W62	8782	11	27.8	24	SF		2	C				
0016	SVTO	02	1052	1054	1102	S10	W25	8781	11	30.6	10	SF		3	E		16		
		02	1201		1214	No Flare Patrol													
		02	1344		1401	No Flare Patrol													
		02	1726		2051	No Flare Patrol													
0017	HOLL	02	2304	2304	2309	N12	E76	8788	12	8.7	5	SF		3	E		18		
0018		03	0923	0927	0932	N08	E87	8788	12	9.9	9	SF					30		
	LEAR	03	0923	0926U	0932	N09	E89	8788	12	10.1	9	SF		3	E		30		
	KANZ	03	0923	0927	0931	N08	E85	8788	12	9.8	8	SF		2	C				
0019	HOLL	03	1530	1534	1537	N09	W78	8782	11	27.9	7	SF		3	E		80		H
		03	2108		2154	No Flare Patrol													
0020	LEAR	04	0254	0256	0259	N10	W83	8782	11	28.0	5	SF		4	E		20		
		04	1034		1129	No Flare Patrol													
		04	1233		1256	No Flare Patrol													
		04	1355		1408	No Flare Patrol													
0021		04	19062	1909	1914	N10	E58	8788	12	9.1	8	SF					16		
	HOLL	04	1906	1909	1912	N11	E57	8788	12	9.1	6	SF		3	E		16		
	RAMY	04	1908	1909	1915	N10	E59	8788	12	9.2	7	SF		3	E		17		

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0022		04	20051	2007	2014	N10	E56	8788	12	9.0	9	SF					23		
	HOLL	04	2005	2007	2016	N10	E57	8788	12	9.1	11	SF		3	E		28		
	RAMY	04	2006	2007	2011	N09	E56	8788	12	9.0	5	SF		3	E		18		
0023	HOLL	04	2118	2120	2143	N10	E56	8788	12	9.1	25	1F		3	E		125		
0024	LEAR	05	0923	0923	0930	N10	E55	8788	12	9.5	7	SF		3	E		15		
		05	1037		1406	No Flare Patrol													
		05	2347		2400	No Flare Patrol													
		06	0000		0003	No Flare Patrol													
		06	0445		0632	No Flare Patrol													
0025	KANZ	06	0718E	0718U	0750	N11	E42	8788A	12	9.5	32D	2F		1	C				
0026	KANZ	06	0834	0842	0850	N12	E56	8790	12	10.6	16	SF		2	C				
0027	KANZ	06	0942	0950	0958	N11	E55	8790	12	10.5	16	SF		2	C				
0028	KANZ	06	1114	1114	1118	N10	E41	8788	12	9.5	4	SF		2	C				
		06	1343		1551	No Flare Patrol													
		06	1629		1647	No Flare Patrol													
0029	HOLL	06	2219	2220	2231	N11	E34	8788	12	9.5	12	SF		3	E		34		F
0030	LEAR	07	0202	0204	0208	N10	E28	8788	12	9.2	6	SF		3	E		17		
0031	LEAR	07	0647	0648	0650	N10	E30	8788	12	9.5	3	SF		4	E		11		H
0032		07	10143	10174	1025	S15	E75	8791	12	13.1	11	SF					22		
	SVTO	07	1014	1018	1025	S14	E74	8791	12	13.0	11	SF		3	E		10		
	LEAR	07	1014	1021	1025	S16	E74	8791	12	13.0	11	SF		2	E		33		
	KANZ	07	1017	1017	1025	S15	E78	8791	12	13.3	8	SF		2	C				
		07	1503		1513	No Flare Patrol													
0033	HOLL	07	1612	1613	1618	N15	E39	8790	12	10.6	6	SF		3	E		43		
		07	1646		1741	No Flare Patrol													
		07	1841		2029	No Flare Patrol													
0034	HOLL	07	2117	2119	2137	S13	E66	8791	12	12.9	20	SN		3	E		40		
0035	LEAR	08	0232	0240	0317	N10	E29	8790	12	10.3	45	SF		3	E		46		F
0036	URUM	08	0246	0254	0321	N10	E27	8790	12	10.1	35	SN			C		161	1.9	E
0037	LEAR	08	0531	0531	0542	S16	E64	8791	12	13.1	11	SF		3	E		23		
0038	LEAR	08	0622	0624	0641	N15	E30	8790	12	10.5	19	SF		4	E		53		U
		08	1947		2058	No Flare Patrol													
		08	2105		2206	No Flare Patrol													
0039	LEAR	09	0603	0603	0612	N15	W22	8785	12	7.6	9	SF		3	E		20		
0040	LEAR	09	0935	0944	0958	N12	E13	8790	12	10.4	23	SF		2	E		13		
		09	1053		1100	No Flare Patrol													
		09	1114		1122	No Flare Patrol													
		09	1154		1155	No Flare Patrol													
		09	1345		1355	No Flare Patrol													
		09	1420		1522	No Flare Patrol													
		09	1543		1603	No Flare Patrol													
		09	1815		1925	No Flare Patrol													
0041	HOLL	09	1952	1953	2005	S13	E69	8794	12	15.0	13	SF		3	E		25		

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0042	HOLL	09	2014	2015	2021	S11	E40	8791	12	12.8	7	SF		3	E		17		
		09	2142		2205	No Flare Patrol													
0043	LEAR	10	0208	0210	0215	N17	E58	8792	12	14.5	7	SF		3	E		30		
0044	LEAR	10	0516	0522	0530	N16	E05	8790	12	10.6	14	SF		3	E		19		F
0045	LEAR	10	0737	0743	0751	S12	E63	8794	12	15.1	14	SF		3	E		26		
		10	1043		1046	No Flare Patrol													
		10	1128		1133	No Flare Patrol													
		10	1331		1436	No Flare Patrol													
		10	1503		1655	No Flare Patrol													
		10	1724		1745	No Flare Patrol													
		10	1757		1854	No Flare Patrol													
		10	2350		2400	No Flare Patrol													
		11	0000		0021	No Flare Patrol													
0046		11	03244	0329	0355	N09	W12	8790	12	10.2	31	1N					104	0.2	DU
	LEAR	11	0324	0329	0420	N09	W12	8790	12	10.2	56	1F		3	E		187		U
	MITK	11	0328	0329	0330	N09	W12	8790	12	10.2	2	SN			C	0329	20	0.2	D
		11	0647		1021	No Flare Patrol													
0047	LEAR	11	0733	0740	0749	S14	E51	8794	12	15.2	16	SF		3	E		58		FH
		11	1029		1102	No Flare Patrol													
		11	1201		1311	No Flare Patrol													
		11	1335		1703	No Flare Patrol													
		11	1727		1749	No Flare Patrol													
		11	1757		1823	No Flare Patrol													
		11	1937		1957	No Flare Patrol													
		11	2005		2022	No Flare Patrol													
		11	2135		2236	No Flare Patrol													
		11	2240		2254	No Flare Patrol													
		11	2309		2400	No Flare Patrol													
		12	0000		0000	No Flare Patrol													
		12	0139		0226	No Flare Patrol													
0048		12	0534	05371	0541	N14	E25	8792	12	14.1	7	SF					73	1.5	E
	LEAR	12	0534	0537	0541	N13	E27	8792	12	14.3	7	SF		3	E		17		
	URUM	12	0534	0538	0538D	N14	E23	8792	12	14.0	4D	SF			P		129	1.5	E
		12	0607		0612	No Flare Patrol													
		12	1441		1452	No Flare Patrol													
		13	1037		1040	No Flare Patrol													
		13	1222		1233	No Flare Patrol													
0049	KANZ	13	1302	1306	1314	S14	E22	8794	12	15.2	12	SF		2	C				
		13	1348		1411	No Flare Patrol													
		13	1625		1702	No Flare Patrol													
		13	1708		1713	No Flare Patrol													
0050	HOLL	13	1924	1924	1928	N16	W59	8788	12	9.3	4	SF		3	E		22		
0051	HOLL	13	2145	2147	2150	N13	W60	8788	12	9.4	5	SF		3	E		31		
		13	2309		2337	No Flare Patrol													
		13	2356		2400	No Flare Patrol													
0052	URUM	14	0553	0557	0557D	N12	W65	8788	12	9.3	4D	SN			P		80		E
		14	1215		1222	No Flare Patrol													
		14	1309		1412	No Flare Patrol													
		14	1423		1441	No Flare Patrol													
0053	HOLL	14	1503	1504	1506	S13	E63	8798	12	19.4	3	SF		3	E		13		

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0054	HOLL	14	1649	1657	1713	S14	E63	8798	12	19.5	24	SF		3	E		38		
0055	HOLL	14	1901	1907	1913	S14	E62	8798	12	19.5	12	SF		2	E		59		
0056	HOLL	14	1923	1925	1928	S14	E62	8798	12	19.5	5	SF		2	E		26		
		14	2137		2254	No Flare Patrol													
0057	LEAR	15	0307	0318	0328	S15	E61	8798	12	19.7	21	SF		3	E		30		
		15	0520		1127	No Flare Patrol													
		15	1205		1256	No Flare Patrol													
0058	RAMY	15	1415	1416	1439D	S15	E51	8798	12	19.4	24D	SF		3	E		44		
		15	1418		1421	No Flare Patrol													
0059		15	1521	1530	1535	S14	E51	8798	12	19.5	14	SF					54		
	HOLL	15	1521	1530	1536	S14	E52	8798	12	19.6	15	SF		3	E		77		
	RAMY	15	1529E	1530U	1534	S15	E50	8798	12	19.4	5D	SF		3	E		30		
0060	HOLL	15	1622	1626	1639	S14	E53	8798	12	19.7	17	SF		3	E		19		
0061	HOLL	15	1641	1644	1650	S14	E53	8798	12	19.7	9	SF		3	E		19		
0062	HOLL	15	1702	1703	1706	S14	E53	8798	12	19.7	4	SF		3	E		11		
0063	HOLL	15	1829	1831	1835	S14	E52	8798	12	19.7	6	SF		3	E		13		
		15	2156		2200	No Flare Patrol													
0064	LEAR	16	0249	0251	0306	S15	E49	8798	12	19.8	17	SF		4	E		17		
0065	LEAR	16	0311	0313	0332	S15	E48	8798	12	19.8	21	SF		4	E		52		
0066	LEAR	16	0723	0723	0734	S13	E46	8798	12	19.8	11	SF		4	E		13		F
0067	LEAR	16	0833	0836	0851	S15	W17	8794	12	15.1	18	SF		3	E		44		F
0068	LEAR	16	0838	0838	0844	S14	E46	8798	12	19.8	6	SF		3	E		12		F
		16	1021		1559	No Flare Patrol													
0069	HOLL	16	1715	1722	1748	S13	E37	8798	12	19.5	33	SF		3	E		16		
		16	2152		2226	No Flare Patrol													
0070	LEAR	17	0121	0127	0138	S13	E35	8798	12	19.7	17	SF		4	E		31		
0071	LEAR	17	0238	0239	0252	S13	E34	8798	12	19.7	14	SF		4	E		39		F
0072	LEAR	17	0344	0349	0355	S12	E30	8798	12	19.4	11	SF		3	E		23		
0073	LEAR	17	0358	0403	0415	S11	E34	8798	12	19.7	17	SF		3	E		36		
0074	LEAR	17	0526	0537	0603	S13	E31	8798	12	19.6	37	1N		3	E		113		F
0075	LEAR	17	0738	0739	0747	S12	E28	8798	12	19.4	9	SF		3	E		19		F
0076		17	0757	07574	0803	S11	E29	8798	12	19.5	6	SF					64	0.8	D
	KANZ	17	0757	0757	0801	S12	E29	8798	12	19.5	4	SF		2	C				
	URUM	17	0757	0801	0805	S10	E29	8798	12	19.5	8	SF			C		64	0.8	D
0077		17	09321	09352	0944	S12	E29	8798	12	19.6	12	1N					109		F
	LEAR	17	0932	0935	0946	S13	E28	8798	12	19.5	14	1F		3	E		109		F
	KANZ	17	0933	0937	0941	S12	E30	8798	12	19.6	8	SN		2	C				
0078	KANZ	17	0957	1009	1017	S13	E30	8798	12	19.7	20	SF		2	C				
		17	1342		1414	No Flare Patrol													

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0079	HOLL	17	1749	1750	1759	S15	E15	8803	12	18.9	10	SF		3	E		15		
0080	HOLL	17	1845	1845	1849	S14	E23	8798	12	19.5	4	SF		3	E		17		
0081		17	1856	18585	1922	S12	E22	8798	12	19.4	26	1N					111		
	HOLL	17	1856	1858	1925	S12	E23	8798	12	19.5	29	1N		3	E		167		
	RAMY	17	1903E	1903	1919	S13	E20	8798	12	19.3	16D	SF		3	E		55		
0082	LEAR	17	2205E	2206U	2214	S13	E19	8806	12	19.3	9D	SF		2	E		70		FY
		17	2346		2400	No Flare Patrol													
		18	0000		0002	No Flare Patrol													
0083	LEAR	18	0120	0127	0144	N19	E82	8806	12	24.3	24	1F		4	E		243		F
0084		18	0249	0304	0313	S13	E16	8798	12	19.3	24	SN					121	1.9	EF
	LEAR	18	0249	0304	0314	S13	E18	8798	12	19.5	25	SF		4	E		65		F
	URUM	18	0304E	0304	0312	S13	E15	8798	12	19.2	8D	SN			P		177	1.9	E
0085	LEAR	18	0343	0345	0357	N16	E70	8806	12	23.5	14	SF		3	E		38		
0086		18	0350*	0405*	0433	S08	E20	8798	12	19.6	43	1N					126	2.3	EF
	LEAR	18	0350	0405	0434	S08	E20	8798	12	19.6	44	SF		3	E		43		F
	URUM	18	0409	0424	0432	S08	E19	8798	12	19.6	23	1N			C		209	2.3	E
0087	LEAR	18	0410	0430	0435	N18	E72	8806	12	23.6	25	SF		3	E		82		
0088	URUM	18	0420	0432	0436	N20	E84	8806	12	24.6	16	1B			C		64		D
0089	LEAR	18	0744	0744	0747	N18	E70	8806	12	23.6	3	SF		3	E		15		
0090		18	0836	0841	0850	N18	E74	8806	12	24.0	14	SF					27		
	LEAR	18	0836	0841	0850	N18	E69	8806	12	23.6	14	SF		3	E		27		
	KANZ	18	0837E	0841	0849	N19	E78	8806	12	24.3	12D	SF		2	C				
0091	KANZ	18	1032	1032	1306	N21	E72	8806	12	23.9	154	SF		2	C				
		18	1148		1153	No Flare Patrol													
		18	1155		1228	No Flare Patrol													
0092	RAMY	18	1317	1317	1324	N20	E78	8806	12	24.5	7	SF		3	E		22		H
0093	RAMY	18	1344	1344	1353	S14	E13	8798	12	19.5	9	SF		3	E		21		
0094	HOLL	18	1429E	1444U	1511	N20	E73	8806	12	24.2	42D	SF		2	E		21		
0095	HOLL	18	1514	1519	1528	N20	E73	8806	12	24.2	14	SF		3	E		42		
0096		18	15356	15412	1602	N20	E74	8806	12	24.3	27	SF					57		
	HOLL	18	1535	1541	1606	N20	E73	8806	12	24.2	31	SF		3	E		71		
	RAMY	18	1541	1543	1558	N19	E76	8806	12	24.4	17	SF		3	E		43		
0097	HOLL	18	1629	1651	1655	N20	E73	8806	12	24.3	26	SF		3	E		21		
0098		18	17142	17242	1742	S10	E13	8798	12	19.7	28	1F					112		F
	HOLL	18	1714	1726	1746	S11	E13	8798	12	19.7	32	1F		3	E		148		F
	RAMY	18	1716	1724	1738	S10	E13	8798	12	19.7	22	SF		3	E		76		
0099		18	18061	18104	1824	N19	E68	8806	12	23.9	18	1N					112		H
	HOLL	18	1806	1814	1824	N20	E70	8806	12	24.1	18	1N		3	E		139		
	RAMY	18	1807	1810	1824	N18	E67	8806	12	23.8	17	SF		3	E		85		H
0100		18	18264	18341	1846	N20	E69	8806	12	24.0	20	1N					86		
	RAMY	18	1826	1834	1847	N19	E69	8806	12	24.0	21	SN		3	E		68		
	HOLL	18	1830	1835	1845	N20	E69	8806	12	24.0	15	1N		3	E		104		
0101		18	1911	1912	1942	N20	E69	8806	12	24.1	31	1N					106		
	RAMY	18	1911	1912	1937	N19	E69	8806	12	24.1	26	SN		3	E		98		
	HOLL	18	1911	1912	1948	N20	E69	8806	12	24.1	37	1N		3	E		115		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0102	HOLL	18	1949	1954	1959	N21	E68	8806	12 24.0	10	SF		3	E		34		
0103	HOLL	18	2017	2018	2028	S11	E10	8798	12 19.6	11	SF		3	E		27		
0104	HOLL	18	2250	2251	2310	N20	E66	8806	12 24.0	20	SF		3	E		34		
0105	LEAR	19	0100	0106	0113	N18	E60	8806	12 23.6	13	SF		3	E		21		
0106	URUM	19	0653	0701	0701D	S10	E06	8799	12 19.7	8D	SN			P		129	1.4	E
0107	LEAR	19	0916	0917	0920	N17	E63	8806	12 24.2	4	SF		3	E		12		F
		19	1048		1206	No Flare Patrol												
		19	1459		1559	No Flare Patrol												
0108	RAMY	19	1622	1622	1635	N19	E58	8806	12 24.1	13	SF		3	E		21		
		19	1704		1737	No Flare Patrol												
		19	1748		1757	No Flare Patrol												
		19	1823		1919	No Flare Patrol												
0109	RAMY	19	1915	1915	1925	N19	E57	8806	12 24.1	10	SF		3	E		23		
0110	RAMY	19	1929	1929	1937	S14	W68	8794	12 14.7	8	SF		3	E		45		
0111	HOLL	19	2001	2001	2005	N11	E61	8807	12 24.4	4	SF		3	E		17		
0112	HOLL	19	2017	2018	2021	S15	W03	8798	12 19.6	4	SF		3	E		11		
0113	HOLL	19	2118	2120	2133	N13	E60	8807	12 24.4	15	SF		3	E		11		
0114	HOLL	19	2209	2210	2218	N19	E55	8806	12 24.1	9	SF		3	E		15		
0115	HOLL	19	2213	2214	2219	S15	W67	8794	12 14.8	6	SF		3	E		17		
0116	HOLL	19	2225	2228	2306	N21	E52	8806	12 23.9	41	SF		3	E		40		
0117	HOLL	19	2231	2234	2241	S15	W04	8798	12 19.6	10	SF		3	E		20		
0118	HOLL	19	2250	2251	2254	S15	W05	8798	12 19.6	4	SF		3	E		14		
0119	HOLL	19	2312	2312	2319	N09	E56	8807	12 24.2	7	SF		3	E		37		
0120	LEAR	20	0104	0108	0116	S15	W06	8798	12 19.6	12	SF		3	E		45		EH
0121	LEAR	20	0126	0130	0133	N23	E52	8806	12 24.1	7	SF		3	E		42		FH
0122		20	0143	0144	0146	N19	E50	8806	12 23.9	3	SN					90	1.6	DEF
	MITK	20	0143	0144	0145	N20	E53	8806	12 24.1	2	SN			C	0144	86	1.6	D
	LEAR	20	0143	0144	0148	N18	E47	8806	12 23.6	5	SF		3	E		93		FE
0123	LEAR	20	0154	0157	0201	N18	E55	8806	12 24.3	7	SF		3	E		42		H
0124	LEAR	20	0206	0207	0210	N18	E52	8806	12 24.0	4	SF		3	E		19		
0125	LEAR	20	0223	0224	0230	N18	E52	8806	12 24.0	7	SF		3	E		14		
0126	LEAR	20	0242	0242	0257	S13	W17	8803	12 18.8	15	SF		3	E		34		F
0127	LEAR	20	0413	0416	0420	N18	E49	8806	12 23.9	7	SF		3	E		30		
0128	URUM	20	0414E	0414	0438	S14	W12	8798	12 19.3	24D	1N			C		370	4.0	E
0129	LEAR	20	0435	0437	0442	N18	E45	8806	12 23.6	7	SF		3	E		24		
0130	LEAR	20	0816	0819	0829	N18	E43	8806	12 23.6	13	SF		3	E		41		
0131	LEAR	20	0820	0823	0828	S13	W11	8798	12 19.5	8	SF		3	E		15		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0132	LEAR	20	0856	0907	0931	N10	E54	8807	12	24.4	35	1F		3	E		162		F
		20	1044		1055	No Flare Patrol													
0133	RAMY	20	1325	1326	1331	N22	E45	8806	12	24.0	6	SF		3	E		40		
0134	HOLL	20	1509	1510	1518	S16	W16	8798	12	19.4	9	SF		3	E		20		
0135		20	1512	1520	1529	N10	E50	8807	12	24.4	17	SF					35		
	HOLL	20	1512	1520	1529	N10	E49	8807	12	24.3	17	SF		3	E		38		
	RAMY	20	1513E	1513U	1527D	N10	E50	8807	12	24.4	14D	SF		2	E		32		
0136	HOLL	20	1604	1606	1617	N18	E44	8806	12	24.0	13	SF		3	E		97		
		20	1628		1754	No Flare Patrol													
		20	1803		1829	No Flare Patrol													
		20	1839		1924	No Flare Patrol													
0137	HOLL	20	1924	1937	1954	N20	E42	8806	12	24.0	30	SF		3	E		30		
0138	HOLL	20	1950	1953	2000	S12	W16	8798	12	19.6	10	SF		3	E		43		
0139	HOLL	20	2027	2038	2058	S12	W18	8798	12	19.5	31	SF		3	E		83		
		20	2105		2113	No Flare Patrol													
0140	HOLL	20	2113	2116	2120	N20	E41	8806	12	24.0	7	SF		3	E		15		
0141	HOLL	20	2230	2231	2240	N20	E40	8806	12	24.0	10	SF		3	E		82		
0142	LEAR	21	0102	0108	0109	N18	E34	8806	12	23.6	7	SF		3	E		78		
0143	LEAR	21	0239	0241	0246	N10	E44	8807	12	24.4	7	SF		4	E		44		
0144		21	0734*	08322	0850	N19	E36	8806	12	24.1	76	SF					21		
	KANZ	21	0734	0834	0850	N19	E36	8806	12	24.1	76	SF		1	C				
	LEAR	21	0830	0832	0849	N19	E36	8806	12	24.1	19	SF		2	E		21		
0145		21	07362	0738	0746	N18	E36	8806	12	24.0	10	SF					28		
	LEAR	21	0736	0738	0747	N18	E36	8806	12	24.0	11	SF		2	E		28		
	KANZ	21	0738	0738	0746	N19	E36	8806	12	24.1	8	SF		1	C				
0146		21	1034	1038	1042	S16	W26	8798	12	19.5	8	SF					20		F
	LEAR	21	1032E	1035U	1041	S15	W26	8798	12	19.5	9D	SF		2	E		20		F
	KANZ	21	1034	1038	1042	S16	W26	8798	12	19.5	8	SF		1	C				
0147	KANZ	21	1342	1350	1358D	N12	E34	8807	12	24.1	16D	SF		2	C				
0148	KANZ	21	1354	1358U	1358D	N19	E33	8806	12	24.1	4D	SF		2	C				
		21	1359		1416	No Flare Patrol													
0149	HOLL	21	1522	1524	1541	N20	E32	8806	12	24.1	19	SF		3	E		57		
0150	HOLL	21	1714	1719	1805	N24	E34	8806	12	24.3	51	1N		3	E		105		
		21	1722		1803	No Flare Patrol													
		21	1833		1836	No Flare Patrol													
		21	1843		1849	No Flare Patrol													
0151	RAMY	21	1854E	1854U	1907D	N22	E37	8806	12	24.6	13D	SF		2	E		36		H
		21	1855		1857	No Flare Patrol													
		21	1910		1935	No Flare Patrol													
		21	2002		2119	No Flare Patrol													
		21	2127		2211	No Flare Patrol													
0152	LEAR	21	2332	2333	2342	S13	W43	8803	12	18.7	10	SF		3	E		43		F

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0153	LEAR	21	2358	2359	2408	N18	E21	8806	12 23.6	10	SF		3	E		59		
0154	LEAR	22	0001	0009	0015	S13	W43	8803	12 18.7	14	SF		3	E		28		
0155	LEAR	22	0112	0121	0133	N10	E27	8807	12 24.1	21	SF		3	E		29		F
0156		22	0156	0208	0236	N30	E28		12 24.3	40	1N					123	0.7	EFU
	LEAR	22	0147E	0155U	0300	N29	E29		12 24.3	73D	1F		3	E		193		UF
	MITK	22	0156	0208	0213	N32	E27		12 24.2	17	SN			C	0208	53	0.7	E
0157	LEAR	22	0207	0213	0306	N10	E30	8807	12 24.3	59	2B		3	E		282		FU
0158	LEAR	22	0236	0238	0250	N19	E26	8806	12 24.1	14	SF		3	E		76		EF
0159	URUM	22	0345	0349	0357	S06	E49		12 25.8	12	SN			C		32	0.5	D
0160		22	04081	04111	0418	N18	E22	8806	12 23.8	10	SN					78	1.3	E
	URUM	22	0408	0412	0420	N17	E24	8806	12 24.0	12	SN			C		113	1.3	E
	LEAR	22	0409	0411	0416	N18	E19	8806	12 23.6	7	SF		3	E		42		
0161		22	04287	04394	0512	N17	E17	8806	12 23.5	44	SF					86	1.5	EF
	LEAR	22	0428	0439	0533	N19	E18	8806	12 23.5	65	SF		4	E		44		F
	URUM	22	0435	0443	0451	N15	E16	8806	12 23.4	16	SF			C		129	1.5	E
0162	URUM	22	0432	0435	0435D	N24	E27	8806	12 24.3	3D	SN			P		32	0.4	D
0163	LEAR	22	0445	0506	0520	S13	W46	8803	12 18.7	35	SF		4	E		54		F
0164	LEAR	22	0501	0512	0527	S14	W39	8798	12 19.3	26	SF		4	E		30		F
0165	LEAR	22	0642	0643	0659	N15	E18	8806	12 23.6	17	SF		3	E		23		
0166	LEAR	22	0843	0843	0847	S14	W38	8798	12 19.5	4	SF		3	E		14		
0167	KANZ	22	0918	0918	0926	N15	E15	8806	12 23.5	8	SF		2	C				
0168	KANZ	22	1054	1054	1110	N23	E25	8806	12 24.4	16	SN		2	C				
0169	RAMY	22	1222E	1416	1422	N31	E22	8806	12 24.2	120D	SF		3	E		20		F
0170		22	13482	13526	1412	S15	W52	8803	12 18.6	24	SF					87		
	KANZ	22	1348	1352	1356D	S15	W51	8803	12 18.7	8D	SF		2	C				
	RAMY	22	1350	1358	1412	S15	W53	8803	12 18.6	22	SF		2	E		87		
		22	1357		1451	No Flare Patrol												
0171	RAMY	22	1415	1416	1422	N24	E22	8806	12 24.3	7	SF		3	E		20		F
		22	1540		1549	No Flare Patrol												
0172	LEAR	23	0033	0033	0036	N23	E16	8806	12 24.2	3	SF		3	E		15		F
0173	LEAR	23	0109	0112	0120	S13	W51	8798	12 19.2	11	SF		3	E		13		
0174	LEAR	23	0126	0126	0133	S13	W51	8798	12 19.2	7	SF		3	E		13		
0175	LEAR	23	0132	0132	0138	S18	W34	8808	12 20.5	6	SF		3	E		30		
0176	URUM	23	0253E	0253	0300	N22	E14	8806	12 24.2	7D	SN			C		64	0.7	D
0177		23	0314	03155	0328	N24	E14	8806	12 24.2	14	SB					48	0.6	DEF
	LEAR	23	0314	0315	0325	N24	E15	8806	12 24.3	11	SN		3	E		48		FE
	URUM	23	0320E	0320	0330	N23	E14	8806	12 24.2	10D	SB			P		48	0.6	D
0178		23	03397	03409	0356	S16	W60	8803	12 18.6	17	SN					37	0.7	D
	LEAR	23	0339	0340	0400	S14	W59	8803	12 18.7	21	SF		3	E		42		
	URUM	23	0346	0349	0353	S17	W61	8803	12 18.5	7	SB			C		32	0.7	D
0179	LEAR	23	0420	0421	0426	N33	E17		12 24.5	6	SF		3	E		16		

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Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Corr (Sq Deg)	Remarks
0180	LEAR	23	0432	0435	0454	S13	W59	8803	12	18.7	22	SF		4	E		30		
0181	LEAR	23	0506	0507	0515	N20	E07	8806	12	23.7	9	SF		4	E		21		
0182	LEAR	23	0546	0551	0558	N33	E15		12	24.4	12	SF		4	E		15		
0183	LEAR	23	0627	0628	0634	N20	E06	8806	12	23.7	7	SF		4	E		15		
0184	LEAR	23	0809	0810	0822	S13	W51	8798	12	19.5	13	SF		3	E		24		
0185	LEAR	23	0842	0847	0900	S13	W51	8798	12	19.5	18	SF		4	E		34		
0186		23	10074	10083	1018	N23	E11	8806	12	24.3	11	SF					41		
	LEAR	23	1007	1008	1017	N23	E11	8806	12	24.3	10	SF		3	E		41		
	KANZ	23	1011	1011	1019	N23	E11	8806	12	24.3	8	SF		2	C				
0187	KANZ	23	1107	1107	1123	N23	E11	8806	12	24.3	16	SF		2	C				
0188	KANZ	23	1127	1131	1151	N11	E08	8807	12	24.1	24	SF		2	C				
		23	1356		1417	No Flare Patrol													
0189	HOLL	23	1521	1529	1533	S15	W58	8803	12	19.2	12	SF		3	E		21		
0190	HOLL	23	1725	1729	1825	S15	W58	8803	12	19.3	60	SF		3	E		32		
0191	HOLL	23	1726	1733	1739	S13	W55	8798	12	19.6	13	SF		3	E		16		
0192	HOLL	23	1921	1923	1940	S15	W71	8803	12	18.4	19	SF		3	E		23		
0193	HOLL	23	1933	1936	1946	N24	E06	8806	12	24.3	13	SF		3	E		62		
0194	HOLL	23	1954	1955	2000	S19	W45	8808	12	20.4	6	SF		3	E		41		
0195	LEAR	23	2358	2404	2422	N12	E01	8807	12	24.1	24	SF		3	E		21		F
0196	LEAR	24	0409	0409	0417	N11	W01	8807	12	24.1	8	SF		3	E		20		
0197		24	04235	0444	0447	N11	E00	8807	12	24.2	24	SF					55	0.8	E
	LEAR	24	0423	0431U	0442	N11	W01	8807	12	24.1	19	SF		3	E		30		
	URUM	24	0428	0444	0452	N11	E01	8807	12	24.3	24	SF			C		80	0.8	E
0198		24	04524	04556	0512	N10	W01	8807	12	24.1	20	SN					100	1.4	E
	URUM	24	0452	0455	0515	N10	E00	8807	12	24.2	23	SN			C		129	1.4	E
	LEAR	24	0456	0501	0508	N11	W02	8807	12	24.0	12	SF		3	E		70		
0199		24	0526	0530	0538D	N22	W03	8806	12	24.0	12D	SN					124	1.9	E
	URUM	24	0526	0530	0538D	N25	W00	8806	12	24.2	12D	SN			P		161	1.9	E
	LEAR	24	0530E	0532U	0538D	N20	W06	8806	12	23.8	8D	SN		3	E		86		
0200	MITK	24	0530	0534	0535	N14	E00	8807	12	24.2	5	SN			C	0534	60	0.7	H
		24	1111		1121	No Flare Patrol													
0201		24	12423	12466	1252	N14	W14	8806	12	23.5	10	SF					10		
	KANZ	24	1242	1246	1250	N14	W13	8806	12	23.5	8	SF		2	C				
	RAMY	24	1245	1252	1254	N15	W14	8806	12	23.5	9	SF		3	E		10		
0202	RAMY	24	1642	1643	1651	S15	W71	8798	12	19.3	9	SF		3	E		12		
0203	RAMY	24	1830	1831	1851	S16	W73	8798	12	19.2	21	SF		3	E		44		
		24	2142		2207	No Flare Patrol													
0204	LEAR	25	1005	1005	1009	N20	W22	8806	12	23.7	4	SF		3	E		18		
0205	LEAR	25	1014	1015	1025	N37	E68	8810	12	30.9	11	SF		3	E		24		
		25	1056		1120	No Flare Patrol													
		25	1130		1146	No Flare Patrol													

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0206	RAMY	25	1718	1732	1811	N21	W28	8806	12	23.6	53	SF		3	E		87		
0207	RAMY	25	1722	1722	1731	N38	E71	8810	12	31.5	9	SF		3	E		39		
		25	2038		2043	No Flare Patrol													
0208	RAMY	25	2052	2057	2121	N09	W29	8807	12	23.7	29	SF		3	E		77		
		25	2144		2204	No Flare Patrol													
		25	2215		2220	No Flare Patrol													
		25	2232		2330	No Flare Patrol													
0209	LEAR	26	0206	0207	0210	N20	W31	8806	12	23.7	4	SF		3	E		15		
0210	LEAR	26	0426	0427	0431	N19	W36	8806	12	23.4	5	SF		3	E		50		
0211	LEAR	26	0754	0756	0759	N36	E64	8810	12	31.5	5	SF		3	E		34		
0212	LEAR	26	0901	0901	0908	N36	E59	8810	12	31.1	7	SF		4	E		30		
0213	LEAR	26	0954	0956	1000	N22	W33	8806	12	23.9	6	SF		3	E		24		F
		26	1053		1201	No Flare Patrol													
		26	1238		1249	No Flare Patrol													
		26	1255		1259	No Flare Patrol													
		26	1323		1341	No Flare Patrol													
0214	RAMY	26	1616	1619	1625	N21	W26	8806	12	24.7	9	SF		3	E		20		
		26	2142		2220	No Flare Patrol													
0215	LEAR	27	0048	0048	0051	N24	W35	8806	12	24.3	3	SF		3	E		22		
0216	LEAR	27	0142	0143	0146	N23	W31	8806	12	24.7	4	SF		3	E		32		F
0217		27	01482	01501	0215	N23	W36	8806	12	24.3	27	1B					175	0.7	F
	LEAR	27	0148	0150	0227	N24	W36	8806	12	24.3	39	1N		3	E		160		F
	MITK	27	0150	0151	0203	N22	W35	8806	12	24.4	13	1B			C	0151	190	0.7	
0218	LEAR	27	0828	0832	0836	N20	W47	8806	12	23.7	8	SF		4	E		22		
0219	LEAR	27	0947	0948	0952	N20	W48	8806	12	23.7	5	SF		3	E		21		
		27	1055		1148	No Flare Patrol													
0220		27	11576	1205	1221	N22	W42	8806	12	24.3	24	SN					74		
	KANZ	27	1157	1205	1221	N22	W43	8806	12	24.2	24	SN		2	C				
	RAMY	27	1203	1205	1221	N22	W42	8806	12	24.3	18	SN		3	E		74		
0221	KANZ	27	1349	1349	1357D	N22	W40	8806	12	24.5	8D	SF		1	C				
0222		27	17087	17172	1732	N24	W42	8806	12	24.5	24	SF					30		F
	HOLL	27	1708	1719	1734	N25	W43	8806	12	24.4	26	SF		3	E		43		F
	RAMY	27	1715	1717	1731	N23	W42	8806	12	24.5	16	SF		3	E		18		
0223	HOLL	27	2144	2144	2147	N21	W54	8806	12	23.8	3	SF		3	E		12		
0224	HOLL	27	2159	2203	2206	S16	W62	8804	12	23.2	7	SF		3	E		10		
0225	HOLL	27	2229	2229	2244	N23	W62	8806	12	23.1	15	SF		3	E		33		
0226	LEAR	27	2233	2236	2243	N20	W55	8806	12	23.7	10	SF		4	E		32		F
0227	LEAR	28	0042	0044	0111	N20	W56	8806	12	23.7	29	2B		3	E		456		HU
0228	MITK	28	0113	0113	0114	N23	W49	8806	12	24.3	1	SN			C	0113	72	0.3	D
0229	LEAR	28	0447	0452	0503	N23	W52	8806	12	24.2	16	SF		4	E		73		F

Hα SOLAR FLARES

DECEMBER 1999

Grp #	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
0230	LEAR	28	0647	0657	0707	N22	W53	8806	12	24.2	20	SF		3	E		94		FH
0231	LEAR	28	0802	0804	0806	N19	W59	8806	12	23.8	4	SF		3	E		25		
0232	LEAR	28	0921	0921	0928	N37	E40	8810	12	31.6	7	SF		3	E		46		
0233	LEAR	28	0956	0958	1003	N19	W60	8806	12	23.8	7	SF		3	E		35		
0234		28	10411	1042U	1050	N20	W62	8806	12	23.7	9	SF					24		F
	LEAR	28	1041	1042U	1050	N21	W64	8806	12	23.5	9	SF		2	E		30		F
	SVTO	28	1042	1043U	1044D	N19	W59	8806	12	23.9	2D	SF		2	E		19		F
		28	1053		1148	No Flare Patrol													
0235	SVTO	28	1214	1217	1226	N24	W54	8806	12	24.3	12	SF		3	E		48		F
		28	1258		1302	No Flare Patrol													
		28	1545		1602	No Flare Patrol													
		28	1613		1620	No Flare Patrol													
		28	1703		1931	No Flare Patrol													
		28	2046		2119	No Flare Patrol													
		28	2127		2138	No Flare Patrol													
0236	HOLL	28	2140E	2141U	2204D	N39	E36	8810	12	31.8	24D	SF		2	E		40		
		28	2145		2214	No Flare Patrol													
0237	LEAR	29	0133	0138	0146	N20	W70	8806	12	23.7	13	SF		3	E		40		
0238	LEAR	29	0902	0902	0907	S28	W14	8812	12	28.3	5	SF		3	E		13		F
0239		29	0925	0926	0939	N24	W66	8806	12	24.3	14	1N					121		EH
	LEAR	29	0925	0926	0939	N22	W66	8806	12	24.3	14	1B		3	E		213		EH
	SVTO	29	0928E	0929U	0938D	N25	W66	8806	12	24.3	10D	SF		1	E		29		
		29	1059		1110	No Flare Patrol													
		29	1112		1119	No Flare Patrol													
		29	1226		1257	No Flare Patrol													
		29	1331		1337	No Flare Patrol													
		29	1347		1430	No Flare Patrol													
		29	1445		1528	No Flare Patrol													
0240	HOLL	29	2148	2152	2159	N23	W72	8806	12	24.4	11	SF		3	E		31		
		29	2254		2259	No Flare Patrol													
0241	LEAR	30	0634	0636	0643	N37	E07	8810	12	30.8	9	SF		3	E		55		
		30	1345		1405	No Flare Patrol													
		30	1423		1443	No Flare Patrol													
0242	KANZ	31	0936	0936	0944	N37	E04	8810A	12	31.7	8	SF		2	C				
		31	1446		1526	No Flare Patrol													
		31	1552		1557	No Flare Patrol													
		31	1641		1829	No Flare Patrol													
0243	RAMY	31	1846	1846	1911	N09	E64	8815	01	5.6	25	SF		3	E		13		
		31	1942		1950	No Flare Patrol													