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Jan 03

H $\alpha$  SOLAR FLARES

JANUARY 2003

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)	
0001	LEAR	01	0752	0752	0802	N19	W22	10234	12	30.7	10	SF		3	E		14		F
			01 1036		1118		No Flare	Patrol											
0002	KANZ	01	1203	1208	1216	S08	E00	10239	01	1.5	13	SF		2	E				
0003	KANZ	01	1238	1258	1306	S08	E00	10239	01	1.5	28	SF		2	E				
			01 1329		1343		No Flare	Patrol											
			02 1521		1523		No Flare	Patrol											
			02 1603		1628		No Flare	Patrol											
0004	HOLL	02	2337	2338	2343	S08	E56	10242	01	7.2	6	SF		3	E		16		
0005	LEAR	03	0005	0005	0012	S08	E57	10242	01	7.3	7	SF		3	E		22		F
0006	LEAR	03	0450	0451	0457	S09	E57	10242	01	7.5	7	SF		3	E		15		F
0007		03	10322	10341	1040	S08	E52	10242	01	7.3	8	SF					25		F
	KANZ	03	1032	1035	1040	S08	E53	10242	01	7.4	8	SF		2	E				
	LEAR	03	1034	1034	1039	S09	E51	10242	01	7.3	5	SF		2	E		25		F
0008	KANZ	03	1042	1054	1100	S23	E60	10244	01	8.1	18	SF		2	E				
0009	KANZ	03	1234	1243	1249	S23	E60	10244	01	8.1	15	SF		2	E				
0010	RAMY	03	1309E	1312U	1318	S23	E68	10244	01	8.8	9D	SF		3	E		42		F
0011	KANZ	03	1309	1313	1317	S23	E60	10244	01	8.2	8	SF		2	E				
0012	KANZ	03	1329	1330	1343	S23	E60	10244	01	8.2	14	SF		2	E				
			03 1336		1337		No Flare	Patrol											
			03 1344		1350		No Flare	Patrol											
			03 1352		1434		No Flare	Patrol											
			03 1436		1439		No Flare	Patrol											
0013	HOLL	03	1440	1442	1453	N18	W51	10234	12	30.8	13	SF		3	E		99		FH
0014	HOLL	03	1454	1458	1500	N19	W51	10234	12	30.8	6	SF		3	E		60		F
0015	HOLL	03	1541	1542	1547	S07	E50	10242	01	7.4	6	SF		3	E		19		F
0016	RAMY	03	1652E	1654U	1700D	S20	W31	10243	01	1.3	8D	SF		3	E		12		
0017	HOLL	03	1734	1734	1739	S22	E54	10244	01	7.9	5	SF		3	E		14		F
0018	HOLL	03	1858	1859	1901	S20	W32	10243	01	1.3	3	SF		3	E		13		F
0019		03	1936	1938	1948	S19	W31	10243	01	1.4	12	SF					53		FH
	HOLL	03	1936	1938	1946	S19	W31	10243	01	1.4	10	SF		3	E		88		FH
	RAMY	03	1939E	1939U	1950	S19	W31	10243	01	1.4	11D	SF		3	E		18		
0020		03	1953	1959	2011	S23	E56	10244	01	8.1	18	SF					14		
	RAMY	03	1953E	1956U	2012	S24	E55	10244	01	8.1	19D	SF		3	E		17		
	HOLL	03	1953	1959	2010	S22	E56	10244	01	8.1	17	SF		3	E		12		
0021	HOLL	03	2046	2050	2108	S19	W31	10243	01	1.5	22	SF		3	E		27		
0022	HOLL	03	2110	2111	2122	S23	E56	10244	01	8.2	12	SF		3	E		23		
0023	HOLL	03	2151	2159	2215	S22	E55	10244	01	8.1	24	SF		3	E		16		
0024		03	2240	22402	2304	S20	W32	10243	01	1.5	24	SF					47		F
	HOLL	03	2240	2240	2300	S20	W34	10243	01	1.3	20	SF		3	E		37		
	LEAR	03	2240	2242	2308	S19	W31	10243	01	1.6	28	SF		3	E		57		F
0025	LEAR	04	0002	0003	0008	S23	E51	10244	01	7.9	6	SF		3	E		23		F



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Grp #	Sta	Start Day (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	Dur (Min)	Imp Opt	Xray	Obs See	Type	Area Measurement		Remarks
														Time (UT)	Apparent (10-6 Disk)	
0051	RAMY	07 1308	1312	1329	S22	E04	10244	01	7.8	21	SF	3	E	24		F
		07 1404		1415	No Flare	Patrol										
		07 1516		1641	No Flare	Patrol										
0052	HOLL	07 1753	1754	1757	S07	W05	10242	01	7.4	4	SF	3	E	14		F
0053	HOLL	07 1930E	1932U	1941D	S21	E02	10244	01	8.0	11D	SF	3	E	21		F
0054	HOLL	07 2233	2233	2237	S11	W07	10242	01	7.4	4	SF	3	E	10		F
0055	HOLL	07 2331E	2342U	2350D	S18	E14	10251	01	9.0	19D	SF	3	E	96		
		08 0005		0011	No Flare	Patrol										
		08 0024		0034	No Flare	Patrol										
0056	LEAR	08 0134	0136	0142D	S13	E83	10251	01	14.3	8D	SF	3	E	76		
0057	LEAR	08 0543	0550	0637	S22	W05	10244	01	7.8	54	1F	3	E	116		F
0058	LEAR	08 0613	0618	0626	S13	W12	10242	01	7.3	13	SF	3	E	20		F
0059	LEAR	08 0729E	0730U	0738	S14	W11	10242	01	7.5	9D	SF	2	E	15		F
		08 0844		1115	No Flare	Patrol										
0060	RAMY	08 1430E	1430U	1449	S13	E76	10251	01	14.3	19D	SF	3	E	30		
		08 1516		1555	No Flare	Patrol										
0061	RAMY	08 1555	1559	1610D	S16	E52	10247	01	12.6	15D	SF	3	E	63		FH
0062	RAMY	08 1558	1558	1601	N11	E13	10245	01	9.6	3	SF	3	E	14		
0063	RAMY	08 1618E	1649U	1731	S16	E53	10247	01	12.7	73D	SF	2	E	64		FH
0064		08 1611E	1624U	1702D	S06	W18	10242	01	7.3	51D	SF			58		FH
	RAMY	08 1611E	1631U	1702D	S08	W18	10242	01	7.3	51D	SF	2	E	65		FH
	HOLL	08 1624E	1624U	1628D	S05	W19	10242	01	7.3	4D	SF	2	E	52		
		08 1637		1649	No Flare	Patrol										
0065	RAMY	08 1704E	1713U	1724D	S08	W17	10242	01	7.4	20D	SF	2	E	14		F
0066	RAMY	08 1854	1855	1902	S25	W09	10244	01	8.1	8	SF	3	E	13		
0067	RAMY	08 1909	1925	1929	S16	E52	10247	01	12.7	20	SF	3	E	17		FH
		08 2137		2216	No Flare	Patrol										
0068	LEAR	08 2304	2323	2351	S16	E49	10247	01	12.7	47	SF	3	E	29		FH
0069	LEAR	09 0026	0031	0038	S13	E68	10251	01	14.1	12	SF	3	E	50		H
0070	LEAR	09 0034	0039	0110	S06	W23	10242	01	7.3	36	SF	3	E	37		F
0071	LEAR	09 0118	0119	0123	S18	W18	10244	01	7.7	5	SF	3	E	15		
0072	LEAR	09 0130	0135	0232	S07	W24	10242	01	7.3	62	1F	3	E	151		FU
0073	LEAR	09 0446	0448	0453	S12	E65	10251	01	14.1	7	SF	3	E	18		
0074	LEAR	09 0454	0459	0503	S12	E65	10251	01	14.1	9	SF	3	E	17		
0075	LEAR	09 0514	0514	0532	S09	W26	10242	01	7.3	18	SF	3	E	25		F
0076	LEAR	09 0533	0535	0616	S14	E64	10251	01	14.1	43	1N	3	E	149		EF
0077	LEAR	09 0628	0631	0633	S15	E45	10247	01	12.7	5	SF	3	E	15		F

H $\alpha$  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/ USAF Region	CMP Mo	Day	Dur (Min)	Imp Opt	Xray	Obs See	Type	Time (UT)	Area Measurement		Remarks
																	Apparent (10-6 Disk)	Corr (Sq Deg)	
0078	LEAR	09	0845	0849	0851	S19	E41	10247	01	12.5	6	SF		3	E		31		F
0079	LEAR	09	0912	0912	0915	S04	W30	10242	01	7.1	3	SF		3	E		16		FH
0080	LEAR	09	0934	0934	0939	S16	E41	10247	01	12.5	5	SF		3	E		14		
			09 1036		1120	No Flare Patrol													
0081	RAMY	09	1145E	1145U	1151	S13	E65	10251	01	14.4	6D	SF		3	E		18		F
0082	RAMY	09	1321E	1321U	1326	S12	E60	10251	01	14.1	5D	SF		3	E		23		H
			09 1342		1355	No Flare Patrol													
			09 1402		1410	No Flare Patrol													
0083	RAMY	09	1512E	1512U	1518	S12	E59	10251	01	14.1	6D	SF		3	E		21		F
0084		09	15551	15571	1603	S16	E62	10251	01	14.4	8	SF					36		
	RAMY	09	1555	1557	1605	S17	E61	10251	01	14.3	10	SF		3	E		46		
	HOLL	09	1556	1558	1601	S16	E64	10251	01	14.5	5	SF		3	E		27		
0085		09	17221	17242	1730	S11	E58	10251	01	14.1	8	SF					30		F
	HOLL	09	1722	1724	1730	S10	E59	10251	01	14.1	8	SF		3	E		29		
	RAMY	09	1723	1726	1731	S12	E57	10251	01	14.0	8	SF		3	E		32		F
0086	RAMY	09	1822	1824U	1828D	S12	E59	10251	01	14.2	6D	SF		3	E		10		
0087		09	18411	18431	1902	S16	E70	10251	01	15.1	21	SF					18		
	HOLL	09	1841	1844	1908	S16	E71	10251	01	15.2	27	SF		3	E		20		
	RAMY	09	1842	1843	1855	S17	E68	10251	01	14.9	13	SF		3	E		16		
0088	RAMY	09	1921	1922	1930	S19	E36	10247	01	12.5	9	SF		3	E		19		F
			09 1938		2058	No Flare Patrol													
0089		09	2237	2237	2244	S06	W35	10242	01	7.3	7	SF					22		F
	HOLL	09	2237	2237	2243	S05	W37	10242	01	7.2	6	SF		3	E		28		F
	LEAR	09	2242E	2242U	2246	S08	W33	10242	01	7.5	4D	SF		2	E		16		F
			10 1033		1051	No Flare Patrol													
			10 1224		1317	No Flare Patrol													
0090	HOLL	10	2201	2203	2224	S09	W54	10242	01	6.9	23	SF		3	E		65		
0091		10	23363	2341	2351	S09	W54	10242	01	6.9	15	SF					52		F
	HOLL	10	2336	2341	2346D	S09	W54	10242	01	6.9	10D	SF		3	E		65		
	LEAR	10	2339	2341	2351	S09	W53	10242	01	7.0	12	SF		2	E		39		F
0092	LEAR	11	0031	0048	0101	S08	W54	10242	01	7.0	30	SF		3	E		25		F
0093	LEAR	11	1026	1031	1043D	S22	W49	10244	01	7.7	17D	SF		2	E		20		F
			11 1044		1123	No Flare Patrol													
0094	RAMY	11	1308	1319U	1345	S08	W56	10242	01	7.3	37	SF		3	E		67		F
0095	RAMY	11	1447	1454	1504	S13	E52		01	15.5	17	SF		3	E		28		F
0096	RAMY	11	1450	1450	1457	S16	E14	10247	01	12.7	7	SF		3	E		16		F
0097		11	1510	15121	1516	S12	E33	10251	01	14.1	6	SF					16		FH
	HOLL	11	1510	1512	1516	S11	E33	10251	01	14.1	6	SF		3	E		10		
	RAMY	11	1510	1513	1517	S12	E33	10251	01	14.1	7	SF		3	E		21		FH
0098		11	1605	16052	1614	S08	W56	10242	01	7.5	9	SF					19		F
	HOLL	11	1605	1605	1612	S09	W57	10242	01	7.4	7	SF		3	E		14		F
	RAMY	11	1606E	1607	1616	S08	W56	10242	01	7.5	10D	SF		3	E		24		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	Obs See	Type	Area Measurement			Remarks
															Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)	
0121	KANZ	16 1113	1200	1314	N09	E44	10259	01	19.8	121	1F		2	E				
		16 2332		2400	No Flare	Patrol												
		17 0726		0735	No Flare	Patrol												
		17 0841		0842	No Flare	Patrol												
0122		17 1726	17272	1733	N09	E30	10259	01	20.0	7	SF					32		F
	HOLL	17 1726	1727	1731	N09	E30	10259	01	20.0	5	SF		3	E		15		F
	RAMY	17 1726	1729	1735	N09	E30	10259	01	20.0	9	SF		3	E		48		F
		17 2354		2400	No Flare	Patrol												
		18 0012		0459	No Flare	Patrol												
		18 0506		0553	No Flare	Patrol												
		18 0652		0807	No Flare	Patrol												
		18 0823		0824	No Flare	Patrol												
0123	KANZ	18 0907	0918	0924	S29	W52	10250	01	14.3	17	SF		2	E				
		19 0013		0019	No Flare	Patrol												
		19 0707		0754	No Flare	Patrol												
		19 0803		0805	No Flare	Patrol												
0124		19 1242	1256	1316	N14	E30	10260	01	21.8	34	SF					18		F
	KANZ	19 1242	1256	1318	N15	E28	10260	01	21.6	36	SF		2	E				
	RAMY	19 1254E	1254U	1314	N14	E31	10260	01	21.9	20D	SF		4	E		18		F
0125	KANZ	19 1410	1413	1435	N15	E28	10260	01	21.7	25	SF		2	E				
		20 0014		0024	No Flare	Patrol												
0126	LEAR	20 0707	0709	0724	N16	E21	10260	01	21.9	17	SF		3	E		90		F
0127		20 14456	14457	1452	S23	E60	10266	01	25.2	7	SF					16		
	RAMY	20 1445	1445	1448	S24	E58	10266	01	25.1	3	SF		3	E		15		
	HOLL	20 1451	1452	1456	S22	E62	10266	01	25.4	5	SF		3	E		16		
0128	HOLL	20 2145	2146	2151	S19	E82	10267	01	27.2	6	SF		3	E		18		
0129	HOLL	20 2324	2325	2330D	N16	E10	10260	01	21.7	6D	SF		3	E		26		
		20 2331		2348	No Flare	Patrol												
0130	LEAR	21 0607	0607	0610D	N14	E08	10260	01	21.8	3D	SF		3	E		16		
0131	KANZ	21 0826	0828	0832	S19	E52	10266	01	25.3	6	SF		2	E				
		21 0929		0932	No Flare	Patrol												
		21 0938		0955	No Flare	Patrol												
		21 0959		1131	No Flare	Patrol												
0132	RAMY	21 1254	1310	1328	N15	E05	10260	01	21.9	34	SF		3	E		28		F
0133	RAMY	21 1305	1309	1317	S12	W38	10263	01	18.7	12	SF		3	E		31		
0134	RAMY	21 1824	1825	1901D	S12	W41	10263	01	18.7	37D	SF		3	E		23		FH
0135	HOLL	21 2137	2137	2155	N15	W01	10260	01	21.8	18	SF		3	E		12		F
		21 2336		2400	No Flare	Patrol												
		22 0000		0048	No Flare	Patrol												
		22 0247		0254	No Flare	Patrol												
		22 0328		0339	No Flare	Patrol												
		22 0414		0424	No Flare	Patrol												
0136	LEAR	22 0439	0442	0509	N15	W05	10260	01	21.8	30	1F		3	E		111		F
0137	RAMY	22 1220E	1220U	1228	S23	E36	10266	01	25.3	8D	SF		3	E		18		
0138	RAMY	22 1225E	1225U	1228	S11	W50	10263	01	18.7	3D	SF		3	E		13		



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														Time (UT)	Apparent (10-6 Disk)	Corr (Sq Deg)		
		27 0916		0928			No Flare	Patrol										
		27 0953		1049			No Flare	Patrol										
		27 1101		1111			No Flare	Patrol										
0158		27 1132	1150	1202	N06	W12	10273	01	26.6	30	SF					37		
	KANZ	27 1132	1150	1204	N05	W11	10273	01	26.6	32	SF	2	E					
	RAMY	27 1150E	1150U	1159	N06	W13	10273	01	26.5	9D	SF	3	E			37		
0159	RAMY	27 1601E	1601U	1611	S02	W37	10266	01	24.9	10D	SF	3	E			18		F
0160	HOLL	27 2149	2151	2222	S17	W23	10267	01	26.2	33	SF	3	E			18		F
		28 1343		1357			No Flare	Patrol										
		29 0010		0027			No Flare	Patrol										
		29 1033		1043			No Flare	Patrol										
		29 1045		1048			No Flare	Patrol										
		29 1108		1112			No Flare	Patrol										
		29 1115		1122			No Flare	Patrol										
0161	RAMY	29 1304	1304	1334	N09	W39	10273	01	26.6	30	SF	3	E			32		F
		29 1645		1649			No Flare	Patrol										
0162	HOLL	29 2016	2016	2019	S21	W63	10266	01	25.0	3	SF	3	E			12		
		29 2022		2029			No Flare	Patrol										
0163		29 2030	2035	2048	S20	W66	10266	01	24.8	18	SF					24		FH
	RAMY	29 2028E	2028U	2110D	S19	W67	10266	01	24.7	42D	SF	2	E			19		FH
	HOLL	29 2030	2035	2048	S22	W65	10266	01	24.8	18	SF	3	E			28		F
		29 2108		2129			No Flare	Patrol										
0164	LEAR	30 1026	1028	1030D	S11	E52	10274	02	3.3	4D	1F	1	E			133		
		30 1031		1134			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