

SOLAR FLARES Confirmed

JANUARY 1970

OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN.	IM-POR-TANCE	OBS. COND. TYPE	MEASUREMENTS					REMARKS
	DATE 1970 JAN	START	END	MAX. PHASE	APPROX.		CENTRAL DISTANCE	MCMAH PLAGE REGION	CMP DAY				TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	
					LAT.	MER. DIST.												
265 VORO	01	0034	0040	0036	N14	E27	.526	10508	3.0	6	--F	C	0036	.56	.60	101	D	2
	01	0400	0446	NO FLARE PATROL														
	01	0455	0547	NO FLARE PATROL														
266 MANI	01	0709E	07140	0710	N13	E17	.395	10508	2.6	50	--N	2	0710	.41	.45			1
	01	0714	0723	NO FLARE PATROL														
	01	0740	0802	NO FLARE PATROL														
	01	0828	0900	NO FLARE PATROL														
	01	0905	1010	NO FLARE PATROL														
267 CATA	01	1010E	1045	1010	S18	W23	.455	10503	30.7	350	--N		1010	.80	.91	199		1
GRP27269	01	1259	1438	1342	S17	W27	.500	10503	30.5	99	-N			1.62			2	1 1 2
SANM	01	1259	1438	1342	S17	W27	.500	10503	30.5	99	-N	2	C	1.62	1.89		E	
RAMY	01	1310	1452D	1331U	S19	W28	.526	10503	30.4	102D	1N		C	2.89			F	
GRP27270	01	1415	1510	1425	N15	W06	.325	10506	1.1	55	1N	2	C	2.59	2.73		2	1 1 2
SANM	01	1415	1510	1425	N15	W06	.325	10506	1.1	55	1N	2	C	2.59	2.73		E	
RAMY	01	1423	1510	1437	N14	W04	.300	10506	1.3	47	-N		C	1.86			US	
271 RAMY	01	1520	1540	1523	N06	E27	.476	10509	3.7	20	--N		C	.41			DE	3
GRP27272	01	1629	1638	1632	N13	E09	.315	10508	2.4	9	--F			.58			2	2 2 3
RAMY	01	1629	1641	1631	N12	E09	.300	10508	2.4	12	-N		C	.83			F	
SANM	01	1629	1635	1633	N13	E09	.315	10508	2.4	6	-F	2	C	.32	.33		D	
GRP27273	01	1638	1655	1641	S23	W42	.711	10503	29.5	17	1N	2	C	1.95	2.74		3	3 2 4
SANM	01	1638	1 54	1641	S22	W43	.717	10503	29.5	16	1N	2	C	1.94			E	
RAMY	01	1638	1655	1640	S23	W43	.721	10503	29.5	17	1N		C	1.96			S	
BOUL	01	1640E	1655	1641	S23	W41	.700	10503	29.6	15D	-N		S					
GRP27274	01	1934	1943	1937	N12	E09	.300	10508	2.5	9	--N			.37			3	3 2 4
RAMY	01	1934	1944	1937	N12	E08	.292	10508	2.4	10	-N		C	.52			F	
HUAN	01	1934	1942	1937U	N12	E08	.292	10508	2.4	8	-F	2	C	1937	.21	.20	D	
BOUL	01	1935	1943E	1937	N13	E10	.323	10508	2.6	8D	-N		V					
GRP27277	02	0017	0055	0025	N20	E15	.460	10508	3.1	38	1N		C	2.38			4	3 3 4
CULG	02	0012	0100	0021	N21	E16	.481	10508	3.2	48	1N		C	3.71	3.96		SUHL	
CRON	02	0019	0 49	0025	N19	E16	.456	10508	3.2	30	1N		C	2.40	2.60			
VORO	02	0019	0055	0028	N19	E14	.439	10508	3.1	36	-F		C	0028	1.02	1.10	97	EJ
MANI	02	0054E	0114		N18	E14	.426	10508	3.1	20D	-N	2		0056	.36	.40		
GRP27279	02	0057	0115	0100	N19	W33	.633	10504	30.6	18	--F			.49			2	2 2 5
VORO	02	0056	0108	0059	N18	W32	.615	10504	30.6	12	-F		C	0059	.46	.60	71	DG
MANI	02	0057	0121	0100	N19	W33	.633	10504	30.6	24	-F	2		0100	.52	.63		
3 STATIONS REPORTING GROUP 27282.											2 STATIONS OBSERVING AND NOT REPORTING.							
GRP27282	02	0606	0805	0649	N21	E53	.841	10512	6.2	119	2N			7.69			3	3 2 5
CRON	02	0510	0705D	0645	N20	E52	.829	10512	6.1	115D	2B							
MANI	02	0510E	0750		N22	E57	.875	10512	6.5	160D	2F	2		0649	6.29	10.86		
CULG	02	0606	0820D	0653	N20	E50	.811	10512	6.0	134D	3N		P	0653	9.08	14.08		UL
27282	02	0510	0705	0525	N20	E56	.862	10512	6.4	115	*1B			2.98			2	2 2 3
CULG	02	0509E	0640D		N20	E59	.885	10512	6.6	91D	1N		P	0526	2.06	4.00		L
CRON	02	0510	0705D	0525	N20	E52	.829	10512	6.1	115D	2B		C	3.90	7.00		K	
GRP27288	02	1351	1420	1355	N10	E17	.365	10509	3.9	29	-N			1.65			6	6 6 7
RAMY	02	1349	1415	1353	N15	E12	.369	10509	3.5	26	-N		C	1.86			F	
MONT	02	1350	1532D	1356	N06	E18	.345	10509	3.9	102D	-N		C	1.55				
LOCA	02	1350E	1420	1350	N10	E18	.378	10509	3.9	30D	1N		V	1350	2.53	2.70		
CAPE	02	1351	1415	1355	N08	E17	.347	10509	3.9	24	-N		C	1355	1.04	1.10		
HTPR	02	1352E	1400D		N15	E18	.429	10509	3.9	8D	-N		C	1356	1.03	1.10		
CATA	02	1355	1430D	1355	N08	E17	.347	10509	3.9	35D	-B			1355	1.86	1.97	335	
GRP27290	02	1659	1707	1700	S18	W45	.725	10503	30.3	8	--F			.21			2	2 1 3
BOUL	02	1659	1705	1700	S17	W45	.723	10503	30.3	6	-F		V				E	
HUAN	02	1659	1708D	1700U	S18	W45	.725	10503	30.3	9D	-N	2	P	1700	.21	.30		
GRP27291	02	1753	1812	1757	N15	W24	.498	10504	31.9	19	--F			1.34			2	1 1 2
RAMY	02	1753	1812	1757	N15	W24	.498	10504	31.9	19	-F		C	1.34			F	
BOUL	02	1754	1810	1757	N14	W21	.453	10504	1.2	16	-F		V					
292 BOUL	02	1754	1759	1755	S17	W45	.723	10503	30.4	5	--F		V					2

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	DATE	START	END	MAX. PHASE	APPROX.		CENTRAL DISTANCE	MATH PLAGE REGION	CMP DAY				MIN.	CORR. AREA Sq. Deg.	MAX. WIDTH Hg	MAX. INT. %		
					LAT.	MER. DIST.											TIME UT	
GRP27323 RAMY BOUL	05	1741	1753	1745	N11	W45	.732	10508	2.4	12	--F						2 2 1 2	
	05	1741	1756	1745	N09	W46	.737	10508	2.3	15	-N	C		.41			DE	
	05	1744E	1750	1745	N12	W44	.724	10508	2.4	6D	-F	V						
GRP27324 BOUL RAMY MOMA BOUL	05	1804	1823	1805	N14	W41	.698	10508	2.7	19	-B			1.03			3 3 2 3	
	05	1803	1815	1805	N13	W38	.658	10508	2.9	12	-B	V				F		
	05	1804	1829	1806	N12	W42	.701	10508	2.6	25	-B	C		1.34			EV	
	05	1804	1 25	1805	N15	W42	.713	10508	2.6	21	-B	C	18 05	.72	1.00			
	05	1804	1812	1806	N15	W39	.680	10508	2.8	8	-N	C		.70	1.00			
GRP27325 RAMY BOUL	05	1907	1935	1913	S18	W90	1.000	10503	30.0	28	-N						2 2 0 4	
	05	1906	1937	1913	S19	W90	1.000	10503	30.0	31	-N	C				DE		
	05	1907	1932	1913	S16	W90	1.000	10503	30.0	25	-N	V						
GRP27326 RAMY BOUL RAMY	05	2041	2049	2044	N12	W45	.735	10508	2.5	8	--F			1.08			2 2 1 5	
	05	2038	2050	2043	N10	W47	.751	10508	2.3	12	-N	C		.36			DE	
	05	2043	2048	2045	N13	W46	.750	10508	2.4	5	-F	V				F		
	05	2043	2058	2045	N11	W40	.674	10508	2.9	15	-F	C		.72				
GRP27328 BOUL HUAN	05	2150	2202	2152	N11	W40	.674	10508	2.9	12	--F			.25			2 2 1 4	
	05	2149	2 02	2152	N11	W40	.674	10508	2.9	13	-F	V				E		
	05	2150	2 156D	2151U	N11	W40	.674	10508	2.9	6D	-F	C	2151	.25	.30			
329 BOUL	05	2157	2210	2202	S16	W90	1.000	10503	30.2	13	-B	V					3	
GRP27333 RAMY CANR	06	1357	1512	1406	S20	E31	.565	10516	8.9	75	-F			1.65			2 1 1 6	
	06	1357	1512D	1406	S20	E31	.565	10516	8.9	75D	-F	C		1.65			DE	
	06	1405	1500	1418	S22	E30	.565	10516	8.8	55	1F	C		4.10	4.90		L	
334 BOUL	06	2050E	2058	2050	N28	E33	.704	10518	9.3	8D	-N	S					3	
GRP27336 CAPE CATA MANI	07	0854	0924	0900	N08	E12	.288	10517	8.3	30	--F			1.33			3 3 3 4	
	07	0852	0917	0855	N09	E12	.300	10517	8.3	25	-F	C	0855	.99	1.00			
	07	0855	0930D	0905	N08	E13	.300	10517	8.3	35D	-N		0905	1.39	1.45		178	
	07	0902E	0904D		N08	E12	.288	10517	8.3	2D	-F	1	0903	1.60	1.67			
338 SANM	07	1322	1338	1325	N27	E26	.638	10518	9.5	16	--F	1 C		.17	.21		E 3	
GRP27339 SANM CATA	07	1331	1354	1338	N11	W54	.826	10509	3.5	23	--F			.32			2 2 2 4	
	07	1331	1354	1337	N11	W55	.835	10509	3.4	23	-F	1 C		.17	.28		E	
	07	1338E	1345D	1338	N10	W52	.805	10509	3.7	7D	-N		1338	.46	.79		184	
	08	0012	0035		NO FLARE PATROL													
GRP27343 CULG MANI	08	0549	0647	0605	N28	E19	.597	10518	9.7	58	-F			1.70			2 2 2 5	
	08	0549	0 47		N29	E19	.609	10518	9.7	58	1N	P	0610	2.27	2.86		HSLRU	
	08	0601E	0613D	0605	N26	E18	.567	10518	9.6	12D	-F	2	0605	1.13	1.38			
348 CANR	09	1030	1100	1046	S09	E90	1.000	10525	16.2	30	--F	C		.30	1.20		4	
GRP27349 SANM RAMY BOUL	09	1517	1603	1528	S08	E57	.837	10522	13.9	46	--F			.29			3 3 2 7	
	09	1510	1617		S10	E57	.837	10522	13.9	67	-F	1 C	1527	.17	.30		D	
	09	1524	1548	1527	S08	E60	.864	10522	14.1	24	-F	C		.41			DE	
	09	1526E	1533E	1528	S07	E55	.817	10522	13.8	7D	-N	V						
GRP27350 UCCL SANM RAMY BOUL	09	1600	1617	1607	S08	E57	.837	10522	13.9	17	--F			.24			4 3 2 6	
	09	1455	1513	1458	S09	E60	.864	10522	14.1	18	1N	C	1458	1.03			D	
	09	1510	1617		S10	E57	.837	10522	13.9	67	-F	1 C	1603	.17	.30		D	
	09	1600	1619	1604	S07	E59	.855	10522	14.1	19	-F	C		.31			DE	
	09	1609E	1616	1609	S07	E55	.817	10522	13.8	7D	-N	V						
GRP27358 MOMA RAMY SANM	10	1632	1646	1636	S31	W34	.667	10514	8.1	14	--N			.55			3 3 3 5	
	10	1631	1633D		S32	W34	.674	10514	8.1	2D	-N	P	1633	.41	.60		EH	
	10	1632	1647D	1635	S31	W32	.648	10514	8.3	15D	-B	C		.93			DE	
	10	1632	1644	1636	S30	W36	.679	10514	8.0	12	-N	1 C		.32	.44		D	
359 SANM	10	1946	1949	1947	S30	W38	.698	10514	8.0	3	--N	1 C		.48	.68		E 2	
360 SANM	10	2025	2047	2029	S31	W39	.714	10514	7.9	22	1N	1 C		1.62	2.29		E 1	
	10	2108	2134		NO FLARE PATROL													
	10	2138	2250		NO FLARE PATROL													
GRP27361 MANI CULG	11	0123	0140	0128	S31	W40	.722	10514	8.1	17	-N			1.03			2 1 1 4	
	11	0123	0140	0128	S31	W40	.722	10514	8.1	17	-N	3	0128	1.03	1.52			
	11	0126E	0135D		S19	W42	.690	10514	7.9	9D	1N	P	0129	2.06	2.90			

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	DATE 1970 JAN	START	END	MAX. PHASE	APPROX.		CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY				TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha		MAX. INT. %	
					LAT.	MER. DIST.													
GRP27362	11 0314	0338	0317	S32	W41	.736	10514	8.1	24	-N									
CULG	11 0308	0335	0318	S20	W43	.704	10514	7.9	27	1N	C	0318	1.64	3.30				6 5 5 6	
MITK	11 0313	0329	0316	S32	W40	.727	10514	8.1	16	-N	C	0316	1.34	2.00					
KODA	11 0315E	0316D		S32	W42	.745	10514	8.0	10	-N	C	0316	1.89	1.90				R E BD	
CRON	11 0315	0325	0318	S31	W42	.740	10514	8.0	10	-F	P		1.30	1.80				H	
VORO	11 0316E	0346		S34	W42	.756	10514	8.0	30D	1F	C	0318	2.03	2.56				103	
MANI	11 0322E	0350D		S30	W41	.726	10514	8.1	28D	1N	1	0325	1.65	2.43				CEK	
GRP27364	11 0608	0631	0617	N22	W66	.937	10512	6.3	23	--F			.72						
MANI	11 0608	0632D	0619	N22	W67	.942	10512	6.2	24D	-N	2	0619	.83	1.14				2 2 2 3	
CRON	11 0608	0630	0614	N21	W65	.930	10512	6.4	22	-F	C		.60	1.30					
365 MANI	11 0609	0629	0612	S29	W44	.749	10514	8.0	20	-N	2	0612	.72	1.11				3	
GRP27366	11 0821	0851	0826	S11	E35	.578	10522	14.0	30	--F			1.10					2 2 1 3	
CRON	11 0821	0851	0826	S10	E33	.548	10522	13.8	30	-F	C		1.10	1.30				L	
ISTA	11 0830E	0850		S11	E36	.592	10522	14.1	20D	1N									
	11 1050	1100		NO FLARE PATROL															
	11 1120	1125		NO FLARE PATROL															
GRP27367	11 1125	1136	1126	S20	E59	.862	10525	15.9	11	-N			1.16					2 2 2 2	
CANR	11 1125E	1135D	1126U	S18	E60	.868	10525	16.0	10D	1N	C		1.80	3.60					
UCCL	11 1134E	1136D		S21	E57	.846	10525	15.8	2D	-N	P	1135	.52						
368 SANM	11 1459	1507	1501	S12	E57	.838	10525	15.9	8	--F	1	C	.32	.59				E 2	
369 SANM	11 1742	1804	1744	N10	E28	.519	10524	13.8	22	--F	1	C	.48	.57				E 3	
370 SANM	11 1913	1920	1914	S13	E55	.819	10525	15.9	7	--F	1	C	.48	.87				E 3	
GRP27371	11 1951	2015	1955	S17	E58	.850	10525	16.2	24	-F			1.94					3 2 1 4	
CULG	11 1943	2015	1952	S07	E51	.775	10525	15.6	32	1N	C	1952	1.96	3.04					
SANM	11 1948	2012	1953	S17	E55	.823	10525	16.0	24	1F	1	C	1.94	3.47				E	
BOUL	11 1954	2003E	1957	S16	E60	.866	10525	16.3	9D	-N	V								
372 CULG	11 2231	2246	2235	S12	E73	.954	10527	17.4	15	1N	C	2235	1.03					2	
GRP27373	12 0027	0052	0039	S13	E83	.991	10527	18.2	25	-F			.72					2 2 2 4	
CRON	12 0020	0054	0040	S12	E85	.995	10527	18.4	34	-N	C		.50	1.60					
MANI	12 0033	0050	0037	S13	E81	.986	10527	18.1	17	1F	1	0037	.93	2.40					
GRP27374	12 0203	0222	0205	S18	E55	.824	10525	16.2	19	--F			.83					2 1 1 5	
MANI	12 0203E	0222		S18	E55	.824	10525	16.2	19D	-F	1	0217	.83	1.45					
CRON	12 0204	0215	0205	S19	E51	.787	10525	15.9	11	-N	C		.70	1.10					
GRP27377	12 0257	0311	0259	S13	E73	.954	10527	17.6	14	-F			.74					3 2 2 4	
MANI	12 0238	0318D		S13	E80	.983	10527	18.1	40D	1N	2	0241	1.24	3.18					
CULG	12 0256	0314D		S12	E73	.954	10527	17.6	18D	1F	P	0301	.88						
CRON	12 0257	0308	0259	S14	E72	.948	10527	17.5	11	-N	C		.60	1.60					
GRP27379	12 0410	0424	0411	N15	E68	.940	10000	17.3	14	--F			.82					2 2 2 5	
CRON	12 0410	0424	0411	N15	E68	.940	10000	17.3	14	-N	C		.70	1.70					
MANI	12 0410E	0422D	0411	N14	E68	.939	10000	17.3	12D	-F	2	0411	.93	2.00					
382 CRON	12 0503	0511	0506	S12	E85	.995	10530	18.6	8	-N	C		.40	1.30				4	
GRP27384	12 0554	0627	0600	S18	E50	.775	10525	16.0	33	-N			1.48					2 2 2 3	
CULG	12 0552	0629	0600	S18	E49	.764	10525	15.9	37	1N	C	0600	1.86	2.88					
CRON	12 0555	0624	0600	S18	E50	.775	10525	16.0	29	-N	C		1.10	1.80					
GRP27387	12 0722	0756	0726	S29	W60	.882	10514	7.8	34	1F			1.24					2 1 1 6	
MANI	12 0722	0756	0726	S29	W60	.882	10514	7.8	34	1F	2	0726	1.24	2.30					
CULG	12 0723	0737	0730	S18	W62	.884	10514	7.7	14	1N	C	0730	1.03	2.10					
GRP27391	12 1350	1404	1355	S04	E85	.996	10530	19.0	14	-B			.70					5 5 4 5	
CANR	12 1345	1405	1355	S05	E85	.996	10530	18.9	20	1N	C		.60	2.00					
SANM	12 1350	1403	1355	S04	E82	.990	10530	18.7	13	-B	1	C	.32						
RAMY	12 1351	1402D	1354	S04	E84	.994	10530	18.9	11D	-B	C							D DE D	
UCCL	12 1351	1403	1356	S04	E89	1.000	10530	19.3	12	1B	C	1356	1.03						
CAPE	12 1352	1404	1356	S04	E86	.997	10530	19.0	12	-N	C	1356	.86						
GRP27393	12 1435	1459	1442	S14	E42	.676	10525	15.8	24	--F			.87					4 4 4 5	
SANM	12 1431	1459	1439	S16	E40	.656	10525	15.6	28	-F	1	C	1.13	1.55					
CANR	12 1436	1500	1440	S16	E43	.692	10525	15.8	24	-N	C		1.30	1.80				E	
UCCL	12 1438	1446D		S11	E43	.683	10525	15.8	8D	-N	P	1438	.72	1.30				E DE	
RAMY	12 1447E	1458	1447U	S12	E40	.647	10525	15.6	11D	-F	C		.31						

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OBSERVATORY	OBSERVED UT				LOCATION				DURATION MIN.	IM-POR-TANCE	OBS. COND. TYPE	MEASUREMENTS					REMARKS	
	DATE	START	END	MAX. PHASE	APPROX.		CENTRAL DISTANCE	MCMA PLAGE REGION				CMP DAY	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha		MAX. INT. %
					LAT.	MER. DIST.												
GRP27396	12 1914	1919	1915	S11	E19	.342	10522	14.2	5	--B						2 2 1 3		
BOUL	12 1914	1919	1915	S11	E18	.327	10522	14.2	5	-B	V							
RAMY	12 1914	1919	1915	S11	E19	.342	10522	14.2	5	-B	C		.41			DE		
GRP27397	12 1937	2000	1940	S13	E38	.623	10525	15.7	23	--N						3 3 2 5		
BOUL	12 1936	2000	1940	S12	E40	.647	10525	15.8	24	-N	V							
MCMA	12 1937	1946D		S13	E37	.610	10525	15.6	9D	-N	C	1940	.41	.50		E		
RAMY	12 1939E	1952D	1940U	S13	E38	.623	10525	15.7	13D	-N	C		.46			F		
GRP27398	12 1949	1955	1952	S11	W01	.119	10522	12.8	6	--F			.66			4 4 3 6		
SANM	12 1947E	1956		S10	E04	.122	10522	13.1	9D	-F	1 P	1951	.80	.81		E		
SANM	12 1947E	2019		S13	E06	.184	10522	13.3	32D	-F	1 P	1953	.17	.21		D		
SANM	12 1947E	2019		S13	E06	.184	10522	13.3	32D	-N	1 C	2008	.80	1.00		O		
RAMY	12 1949	1952D	1952U	S11	W03	.129	10522	12.6	3D	-N	C		.67			F		
BOUL	12 1950	1954	1951	S10	W02	.106	10522	12.7	4	-F	V							
MCMA	12 1951E	1955D		S10	W03	.113	10522	12.6	4D	-F	P	1951	.52	.50		D		
GRP27399	12 2006	2022	2010	S14	E37	.612	10525	15.6	16	--N			.52			3 3 2 6		
MCMA	12 2006	2011D	2007	S16	E37	.618	10525	15.6	5D	-N	P	2007	.62	.80		DV		
BOUL	12 2006	2018	2008	S13	E38	.623	10525	15.7	12	-N	V							
RAMY	12 2013E	2025	2014U	S13	E37	.610	10525	15.6	12D	-N	C		.41			F		
GRP27400	12 2020	2037	2024	S12	E01	.136	10522	12.9	17	--N			.71			3 3 2 6		
SANM	12 2018	2050	2024	S12	E02	.139	10522	13.0	32	-F	1 C		.80	.81		E		
BOUL	12 2021	2032	2024	S12	E00	.135	10522	12.8	11	-N	V							
RAMY	12 2021	2029	2023	S12	E02	.139	10522	13.0	8	-N	C		.62			F		
GRP27403	12 2148	2209	2152	S13	E38	.623	10525	15.8	21	--N			.77			2 2 1 4		
RAMY	12 2148	2159D	2151	S13	E36	.596	10525	15.6	7D	-N	C		.77			F		
BOUL	12 2148	2209E	2153	S12	E39	.634	10525	15.8	21D	-N	V							
GRP27406	13 0052	0118	0057	S05	E76	.969	10530	18.7	26	1B			1.22			4 4 4 5		
VORO	13 0051	0105	0056	S02	E76	.970	10530	18.7	14	1F	C	0056	.93	2.90	97	D		
MITK	13 0051	0101	0055	S05	E75	.965	10530	18.7	10	1B	C	0055	.83			E		
MANI	13 0052	0132	0056	S06	E79	.980	10530	19.0	40	1B	2	0056	1.24	3.12				
CULG	13 0052	0135	0059	S05	E75	.965	10530	18.7	43	1B	C	0059	1.86			HR		
GRP27408	13 0152	0236	0207	S10	W04	.120	10522	12.8	44	1N			2.81			6 5 5 6		
CULG	13 0128	0240	0208	S09	W03	.096	10522	12.8	72	1N	C	0208	3.71	3.60		RHL		
MANI	13 0147E	0213D	0211	S12	W05	.158	10522	12.7	26D	1N	1	0211	3.09	3.12				
MITK	13 0155	0247	0209	S11	W03	.127	10522	12.9	52	1N	C	0209	2.27	2.30		E		
VORO	13 0155	0230	0159	S08	W02	.073	10522	12.9	35	1F	C	0159	2.77	2.76	97	EFHJ		
KODA	13 0155E	0231D		S12	W04	.150	10522	12.8	36D	1N	C	0227	2.60	2.60		CF		
CRON	13 0203	0225	0210	S11	W05	.144	10522	12.7	22	1F	C		2.20	2.20		L		
413 CRON	13 0902	0 20	0907	S05	E75	.965	10530	19.0	18	-B	C		.50	1.40		3		
GRP27415	13 1335	1405	1347	S11	E29	.492	10525	15.7	30	-N			1.19			3 2 2 4		
HTPR	13 1335	1405	1341	S10	E30	.504	10525	15.8	30	-N	C	1341	1.55	1.60				
MCMA	13 1341E	1345D		S12	E28	.481	10525	15.7	4D	-N	C	1341	.83	.90		E		
CATA	13 1353E	1400D	1353	S14	E28	.488	10525	15.7	7D	-B		1353	1.22	1.41	285			
	13 1650	1700	NO FLARE PATROL															
	13 1705	1710	NO FLARE PATROL															
	13 1711	1722	NO FLARE PATROL															
	13 1723	1818	NO FLARE PATROL															
416 SANM	13 1926	1937	1927	S12	E21	.377	10525	15.4	11	--N	1 C		.80	.87		E 1		
417 SANM	13 1953	2010	1959	S12	W13	.258	10522	12.9	17	-N	1 C		1.13	1.17		E 3		
418 BOUL	13 2050	2119	2108	S12	E24	.422	10525	15.7	29	-N	V					2		
GRP27423	14 0133	0202	0136	S11	W14	.265	10522	13.0	29	1F			2.43			2 2 2 6		
CULG	14 0132	0213	0137	S10	W15	.274	10522	12.9	41	1N	C	0137	2.27	2.31		SFHLR		
VORO	14 0133	0150	0134	S12	W13	.257	10522	13.1	17	1F	C	0134	2.59	2.60	109	EJL		
GRP27425	14 0320	0335	0324	S13	E21	.382	10525	15.7	15	--F			1.20			3 3 3 8		
VORO	14 0319	0336	0322	S12	E22	.391	10525	15.8	17	1F	C	0322	2.12	2.30	83	EJL		
MANI	14 0320	0337	0325	S14	E21	.388	10525	15.7	17	-F	2	0325	.77	.83				
MITK	14 0321	0332	0325	S13	E21	.382	10525	15.7	11	-F	C	0325	.72	.80		E		
428 SANM	14 1237	1253	1239	S14	E76	.968	10532	20.2	16	--F	1 C		.32			E 4		

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OBSERV- ATORY	OBSERVED UT				LOCATION				DURA- TION MIN.	IM- POR- TANCE	OBS. COND. TYPE	MEASUREMENTS					REMARKS	
	DATE	START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MC MATH PLAGE REGION				CMP DAY	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H α		MAX. INT. %
1970 JAN																		
GRP27429	14	1241	1310	1245	S09	E38	.616	10527	17.4	29	-N			2.33				4 4 3 5
WEND	14	1238	1306		S09	E38	.616	10527	17.4	28	1N			4.13				
CAPE	14	1241	1325	1247	S09	E38	.616	10527	17.4	44	-N	C	1247	1.56	2.00			
SANM	14	1242	1315	1243	S08	E36	.587	10527	17.2	33	-N	1 C		1.29	1.61			E
NERA	14	1244	1252		S09	E38	.616	10527	17.4	8	1N	2						
GRP27430	14	1534	1603	1548	S34	W87	.996	10514	8.1	29	1N			.92				3 3 2 4
SANM	14	1533	1603	1547	S34	W86	.995	10514	8.2	30	1N	1 C		.97				D
BOUL	14	1534E	1558E	1546	S32	W88	.998	10514	8.0	24D	1N	S						
CAPE	14	1535	1600D	1550	S35	W86	.995	10514	8.2	25D	-F	P	1550	.86				
GRP27431	14	1909	1924	1910	S08	E38	.615	10527	17.6	15	--F			.53				2 2 2 2
MCMA	14	1908	1925	1910	S08	E39	.628	10527	17.7	17	-F	C	1910	.41	.50			EL
SANM	14	1909	1 22	1910	S08	E37	.601	10527	17.6	13	-F	1 C		.65	.82			U
GRP27432	14	2019	2046	2025	S10	W12	.227	10522	13.9	27	--F			.41				2 2 1 4
MCMA	14	2017	2028D		S10	W12	.227	10522	13.9	11D	-F	C	2019	.41	.40			E
BOUL	14	2020	2046	2025	S10	W11	.212	10522	14.0	26	-F	V						
GRP27433	14	2142	2200	2149	S10	W12	.227	10522	14.0	18	--F			.37				2 2 1 4
HUAN	14	2138	2156D	2147U	S10	W12	.227	10522	14.0	18D	-F	2 C	2147	.37	.40			E
BOUL	14	2146	2200	2150	S10	W11	.212	10522	14.1	14	-F	V						
434 MANI	14	2314	2326		S12	E36	.593	10527	17.7	12	1F	2	2318	1.86	2.30			3
437 MANI	14	2348	0003	2350	S10	E67	.918	10530	20.0	15	-N	2	2350	.93	1.89			4
GRP27440	15	0047	0125	0102	S36	W88	.997	10514	8.4	38	1F			1.29				2 2 2 3
CULG	15	0044	0 27D	0102	S36	W89	.998	10514	8.4	43D	1N	P	0102	1.03				AF
MANI	15	0050	0 22D		S35	W86	.995	10514	8.6	32	1F	3	0059	1.55	4.50			
GRP27442	15	0127	0 51	0140	S15	E70	.937	10532	20.3	24	-N			1.24				2 2 2 4
CULG	15	0127E	0148D		S15	E70	.937	10532	20.3	21D	1N	P	0143	1.55				
MANI	15	0136E	0 151	0140	S14	E70	.937	10532	20.3	15D	-N	2	0140	.93	1.99			
GRP27444	15	0308	0332	0311	N16	E68	.941	10531	20.2	24	1N			.96				2 2 2 5
CULG	15	0308	0329		N15	E69	.946	10531	20.3	21	1N	P	0313	.88				
MANI	15	0310E	0 34	0311	N16	E67	.936	10531	20.2	24D	1N	3	0311	1.03	2.20			
GRP27448	15	0542	0 13	0548	S12	E06	.166	10525	15.7	31	1N			2.39				3 3 3 6
CRON	15	0541	0600	0548	S12	E06	.166	10525	15.7	19	-F	C		2.00	2.00			
MANI	15	0542	0620	0547	S13	E05	.170	10525	15.6	38	1N	3	0547	2.58	2.60			
CULG	15	0546E	0619		S11	E06	.153	10525	15.7	33D	1N	P	0546	2.58	2.50			
GRP27450	15	0614	0630	0617	N15	E67	.935	10531	20.3	16	-F			.93				2 2 2 8
MANI	15	0612	0632	0617	N16	E67	.936	10531	20.3	20	1N	3	0617	1.13	2.40			
ABST	15	0615	0628	0617	N14	E67	.933	10531	20.3	13	-F	C	0617	.72			59	EJK
GRP27452	15	1107	1129	1113	N16	E64	.917	10531	20.3	22	-F			.76				2 2 2 6
SANM	15	1106E	1138		N15	E63	.909	10531	20.2	32D	-F	1 P	1111	.48	1.14			E
UCCL	15	1108	1120	1113	N17	E65	.925	10531	20.3	12	1N	C	1113	1.03				D
GRP27453	15	1140	1158	1146	S13	E59	.855	10530	19.9	18	--F			.62				2 2 2 5
SANM	15	1140	1 58	1146	S13	E58	.846	10530	19.8	18	-F	1 C		.65	1.30			E
CATA	15	1145E	1150D	1145	S12	E60	.864	10530	20.0	5D	-N		1145	.58	1.16		186	
GRP27454	15	1258	1323	1301	S17	E07	.246	10525	16.1	25	--F			1.84				3 2 2 4
CAPE	15	1256	1325	1300	S18	E07	.261	10525	16.1	29	-N	C	1300	1.73	1.80			
UCCL	15	1258	1320	1300	S05	E08	.139	10525	16.1	22	-F	C	1300	1.55	1.70			E
SANM	15	1259	1320	1301	S15	E07	.217	10525	16.1	21	-F	1 C		1.94	2.00			E
455 SANM	15	1641	1703	1647	S08	E23	.393	10527	17.4	22	1F	1 C		1.94	2.10			E 2
456 SANM	15	1751	1801	1755	S09	E46	.718	10530	19.2	10	--F	1 C		.65	.92			EU 2
GRP27457	15	1944	1952	1948	N16	E57	.866	10531	20.1	8	--N			.29				3 3 3 4
SANM	15	1943	1953	1947	N14	E56	.853	10531	20.0	10	-N	1 C		.32	.60			D
MCMA	15	1944	1951		N15	E58	.872	10531	20.2	7	-N	C	1947	.31	.60			D
HUAN	15	1944	1953	1948U	N18	E57	.871	10531	20.1	9	-F	2 C	1948	.25	.50			D
GRP27459	15	2013	2046	2029	N16	E13	.410	10524	16.8	33	--F			.92				2 2 2 3
SANM	15	2010	2050	2031	N15	E15	.415	10524	17.0	40	-F	1 C		1.62	1.79			E
HUAN	15	2015	2042	2026U	N16	E11	.395	10524	16.7	27	-F	2 P	2026	.21	.20			E
GRP27460	15	2025	2046	2029	S14	W04	.178	10525	15.6	21	--F			.51				2 2 2 3
HUAN	15	2024	2042	2030U	S13	W03	.156	10525	15.6	18	-N	2 P	2030	.37	.40			E
SANM	15	2026	2049	2028	S14	W04	.178	10525	15.6	23	-F	1 C		.65	.66			EU
461 SANM	15	2116	2121D	2118	S08	E24	.408	10527	17.7	5D	--F	1 P		.32	.35			D 2

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN.	IM-POR-TANCE	OBS. COND. TYPE	MEASUREMENTS					REMARKS																						
	DATE	START	END	MAX. PHASE	APPROX.		CENTRAL DISTANCE	MCARTHUR PLAGE REGION	CMP DAY				TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %																							
					LAT.	MER. DIST.																																		
462 BOUL	15	2149	2201	2151	S09	E52	.786	10530	19.8	12	--F	V													2															
	15	2215	2315	NO FLARE PATROL																																				
464 VORO	16	0110	0121	0113	N16	E52	.823	10531	19.9	11	--F	C	0113	.65	1.09											79	EJ	3												
GRP27465 MANI VORO	16	0209	0235	0211	S22	W25	.497	10529	14.2	26	--F			1.33																2 2 2 4										
	16	0208	0237	0211	S21	W23	.465	10529	14.4	29	-F	1	0211	.72	.83																									
	16	0209	0232	0210	S22	W26	.509	10529	14.1	23	1F	C	0210	1.94	2.20																82	EJ								
GRP27466 CRON MANI VORO	16	0216	0242	0223	S18	E19	.389	10527	17.5	26	-N			2.69																	3 3 3 4									
	16	0216	0240	0222	S19	E17	.374	10527	17.4	24	-N	C		1.70	1.90																									
	16	0216E	0245D		S17	E20	.393	10527	17.6	29D	-N	1	0227	1.55	1.70																									
	16	0217	0242	0224	S17	E19	.380	10527	17.5	25	1N	C	0224	4.82	5.03																	79	EJ							
GRP27468 VORO CRON MANI	16	0313	0333	0317	S22	W25	.497	10529	14.3	20	-N			1.28																			3 3 3 4							
	16	0313	0331	0315	S23	W26	.517	10529	14.2	18	-F	C	0315	1.11	1.25																		83	EJ						
	16	0313	0330	0318	S21	W26	.501	10529	14.2	17	-N	C		1.60	1.80																									
	16	0313	0338	0317	S22	W23	.473	10529	14.4	25	-N	2	0317	1.13	1.30																									
GRP27469 MANI TACH	16	0552	0603	0554	S21	W27	.513	10529	14.2	11	--F			.86																			2 2 2 3							
	16	0551	0605	0554	S20	W26	.494	10529	14.3	14	-N	3	0554	.72	.84																									
	16	0552	0600	0554	S22	W27	.521	10529	14.2	8	-F	C	0554	1.00	1.20																			100	D					
GRP27475 SANM HTPR	16	1236	1246	1237	N15	E45	.751	10531	19.9	10	--F			.66																					2 2 2 3					
	16	1235	1250	1236	N14	E45	.747	10531	19.9	15	-F	1	C		.80	1.18																								
	16	1237	1 42	1238	N15	E45	.751	10531	19.9	5	-F	C	1238	.52	.80																									
GRP27476 SANM HTPR CAPS	16	1236	1257	1245	S12	E58	.846	10532	20.9	21	--F			.58																					3 3 3 4					
	16	1234	1257	1244	S13	E57	.837	10532	20.8	23	-F	1	C		.32	.57																								
	16	1237	1256	1246	S13	E57	.837	10532	20.8	19	-F	C	1246	.52	.90																									
	16	1244E	1255D		S10	E59	.854	10532	21.0	110	-N	3	S	1251	.90	1.70																				165				
GRP27477 HTPR SANM	16	1310	1330	1314	S14	E21	.386	10527	18.1	20	--F			.92																					2 2 2 4					
	16	1310	1330	1315	S14	E22	.401	10527	18.2	20	-N	C	1315	1.03	1.10																									
	16	1311E	1 30	1312	S13	E20	.366	10527	18.0	19D	-F	1	P		.80	.86																								
480 SANM	16	1705	1715	1713	S05	E29	.483	10530	18.9	10	--F	1	C		.32	.36																					D	2		
481 SANM	16	1751	1758	1752	S05	E29	.483	10530	18.9	7	--F	1	C		.32	.36																							D	2
482 SANM	16	1809	1830	1816	S05	E29	.483	10530	18.9	21	--F	1	C		.65	.73																							E	2
483 RAMY	16	1810	1830	1815	N01	E81	.988	10536	22.8	20	--F	C		.36																								DE	2	
484 RAMY	16	1903	1918D	1908	N13	E90	1.000	10537	23.5	15D	-N	C		1.03																									F	3
GRP27487 CULG MANI CRON CRON KODA MANI	17	0152	0252	0203	N14	E38	.670	10531	19.9	60	1N			2.59																								4 4 4 4		
	17	0152	0301	0204	N15	E39	.687	10531	20.0	69	1N	C	0204	2.58	3.37																								LR	
	17	0152E	0236		N15	E39	.687	10531	20.0	44D	1N	2	0209	1.75	2.50																									
	17	0153	0300	0201	N12	E37	.648	10531	19.9	67	1N	C		2.50	3.40																									EK
	17	0153	0214D	0214	N12	E37	.648	10531	19.9	21D																														
	17	0207E	0226D		N13	E38	.665	10531	19.9	19D	1N	P	0207	3.52	3.50																								BE	
	17	0245	0309D	0249	N15	E35	.641	10531	19.7	24D	-F	2	0249	.93	1.22																									
GRP27491 MANI CAPE CRON CULG TACH	17	0726	0758	0732	S18	W40	.660	10529	14.3	32	-N			1.57																										5 4 4 5
	17	0724	0758	0730	S17	W37	.619	10529	14.5	34	-N	2		1.24	1.60																									
	17	0725	0805	0734	S18	W42	.684	10529	14.2	40	-N	C	0734	1.17	1.60																									
	17	0727	0752	0732	S19	W40	.663	10529	14.3	25	-N	C		1.40	1.90																									
	17	0728	0808	0735	S13	W38	.621	10529	14.5	40	1N	C	0735	1.75	2.21																									
	17	0728	0756	0733	S19	W42	.686	10529	14.2	28	1F	C	0733	2.48	3.40	1.60	100																						E	
GRP27500 SANM RAMY	17	1408	1416	1409	S08	E17	.296	10530	18.9	8	--F			.59																										2 2 2 5
	17	1407	1414	1409	S08	E16	.279	10530	18.8	7	-F	1	C		.65	.67																								

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OBSERVATORY	OBSERVED UT				LOCATION				DURATION MIN.	IM- POR- TANCE	OBS. COND. TYPE	MEASUREMENTS					REMARKS	
	DATE	START	END	MAX. PHASE	APPROX.	CENTRAL DISTANCE	MCARTHUR PLAGE REGION	CMP DAY				TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %		
					LAT. MER. DIST.													
GRP27510 HUAN HUAN	17	1828	1850	1841	S12	W32	.537	10525	15.4	22	--F			.31				1 1 1 2
	17	1828	1850	1841U	S12	W32	.537	10525	15.4	22	-F	2 C	1841	.31	.40			D
	17	1828	1848	1843U	S12	W32	.537	10525	15.4	20	-F	2 C	1843	.14	.20			O
GRP27511 SANM HUAN	17	1908	1927	1915	S22	W47	.750	10529	14.3	19	--F			.67				2 2 2 3
	17	1903	1931	1914	S20	W47	.745	10529	14.3	28	-N	1 C		.97	1.51			E
	17	1913	1922	1915U	S23	W47	.753	10529	14.3	9	-F	2 C	1915	.37	.60			E
512 RAMY	17	1913	1930	1919	S23	E47	.753	10534	21.3	17	--F	C		.52				F 3
GRP27513 SANM RAMY	17	1955	2008	1958	S21	W47	.748	10529	14.3	13	--F			.88				2 2 2 4
	17	1954	2005	1957	S20	W47	.745	10529	14.3	11	-N	1 C		1.29	2.00			D
	17	1955	2010	1958	S22	W47	.750	10529	14.3	15	-F	C		.46				DE
GRP27514 SANM RAMY HUAN	17	2001	2018	2006	N17	E31	.610	10531	20.2	17	--N			.56				3 3 3 5
	17	2000	2020	2002	N17	E32	.621	10531	20.2	20	-B	1 C		.97	1.20			E
	17	2002	2014	2004	N16	E31	.602	10531	20.2	12	-N	C		.41				DE
	17	2007E	2020	2012U	N18	E30	.606	10531	20.1	13D	-F	2 C	2012	.31	.40			E
GRP27515 RAMY SANM CULG HOUT	17	2036	2105	2044	S23	W47	.753	10529	14.3	29	-N			1.29				4 4 4 4
	17	2034	2100D	2047	S23	W48	.763	10529	14.3	26D	-N	C		.93				F
	17	2035	2105D	2038	S22	W48	.761	10529	14.3	30D	-N	1 P		1.29	2.00			E
	17	2036	2106	2047	S22	W46	.740	10529	14.4	30	1N	C	2047	1.55	2.25			U
	17	2039	2105	2045U	S24	W46	.746	10529	14.4	26	1N	C		1.40	2.10			U
GRP27523 CRON MITK	18	0505	0540	0510	S11	W76	.968	10522	12.5	35	1F			.92				2 2 2 6
	18	0505	0540	0511	S10	W76	.968	10522	12.5	35	1N	C		1.00	2.80			
	18	0505	0514D	0509	S11	W75	.963	10522	12.6	9D	1F	C	0509	.83				D
GRP27526 CAPE CATA	18	0805	0850	0824	S13	W37	.607	10525	15.6	45	-B			.93				2 2 2 7
	18	0800	0855	0822	S12	W38	.619	10525	15.5	55	-N	C	0822	.99	1.30			F
	18	0810	0845	0825	S14	W35	.583	10525	15.7	35	-B		0825	.87	1.08	219		
GRP27527 CATA CRON CRON	18	0840	1010	0853	N12	W36	.637	10524	15.7	90	1F			1.84				2 2 2 6
	18	0840	1010D	0855	N11	W36	.632	10524	15.7	90D	1N	C	0855	1.68	2.13	176		
	18	0840	0915D	0851	N12	W36	.637	10524	15.7	35D	1F	C		2.00	2.60			K
	18	0840	0915D	0901	N12	W36	.637	10524	15.7	35D	1F	C						
GRP27529 CAPE MCMA RAMY	18	1421	1452	1427	S14	W39	.636	10525	15.7	31	-N			1.17				3 3 3 5
	18	1421	1455	1427	S14	W39	.636	10525	15.7	34	1N	C	1427	1.64	2.10			H
	18	1421	1445	1427	S14	W39	.636	10525	15.7	24	-N	C	1427	1.03	1.40			EH
	18	1421	1456	1427	S15	W40	.651	10525	15.6	35	-F	C		.83				DE
531 RAMY	18	1610	1655	1616	S01	E49	.756	10536	22.3	45	--F	C		.52				DE 2
GRP27532 RAMY MCMA	18	1640	1700	1642	S18	W35	.597	10525	16.1	20	-N			1.11				2 2 2 2
	18	1639	1700	1642	S18	W35	.597	10525	16.1	21	-N	C		1.55				DE
	18	1640	1659	1642	S17	W34	.580	10525	16.1	19	-N	C	1642	.67	.80			E
GRP27534 RAMY BOUL	18	2041	2104	2044	N15	E12	.393	10531	19.8	23	-N			1.03				2 2 1 4
	18	2041	2051D	2044	N15	E11	.385	10531	19.7	10D	-N	C		1.03				DE
	18	2041	2104	2044	N15	E12	.393	10531	19.8	23	1N	V						
536 MITK	19	0315	0326	0317	S00	E58	.849	10536	23.5	11	-N	C	0317	.52	1.00			D 2
GRP27539 HTPR CATA MONT WEND	19	0925	1019	0937	N17	E03	.377	10531	19.6	54	--N			.61				4 3 3 7
	19	0924	1021	0938	N18	W01	.390	10531	19.3	57	-F	C	0938	.31	.30			E
	19	0925	1040	0940	N16	E04	.363	10531	19.7	75	-B	C	0940	.69	.76	229		T
	19	0930E	0946	0934	N17	E04	.379	10531	19.7	16D	-N	C	0934	.83				
	19	1009E	1029D		N15	E05	.351	10531	19.8	20D	1F	V		3.09				
GRP27543 RAMY SANM	19	1237	1301	1246	S13	W52	.787	10525	15.6	24	--F			.75				2 2 2 7
	19	1234	1302	1245	S13	W52	.787	10525	15.6	28	-F	C		.52				DE
	19	1240	1259	1247	S13	W52	.787	10525	15.6	19	-F	1 C		.97	1.54			E
GRP27548 HTPR MONT CAPS CATA	20	0835	0843	0838	N09	W11	.306	10531	19.5	8	--N			.50				4 4 4 10
	20	0833	0844	0838	N08	W14	.327	10531	19.3	11	-F	C	0838	.62	.60			
	20	0835	0845	0840	N11	W10	.323	10531	19.6	10	-N	C	0840	.77				H
	20	0835	0844		N07	W09	.259	10531	19.7	9	-N	3 V	0838	.20	.20			E
	20	0835	0840	0835	N11	W11	.332	10531	19.5	5	-N		0835	.40	.43	178		
GRP27550 CATA MONT CAPS	20	0927	0940	0933	S23	W49	.772	10525	16.7	13	--N			.70				3 3 3 7
	20	0925	0935	0930	S23	W50	.782	10525	16.6	10	-B	C	0930	.46	.74	209		TZ
	20	0927	0946	0935	S24	W49	.774	10525	16.7	19	-N	C	0935	1.13				
	20	0928	0940D		S22	W48	.759	10525	16.8	12D	-F	3 V	0933	.50	.70	158		L

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN.	IM- POR- TANCE	OBS. COND. TYPE	MEASUREMENTS					REMARKS			
	DATE	START	END	MAX. PHASE	APPROX.		CENTRAL DISTANCE	MCMATH FLAGE REGION	CMP DAY				TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H α	MAX. INT. %				
					LAT.	MER. DIST.															
608 RAMY	24	1900	1922	1904U	S01	W19	.333	10536	23.4	22	--F	C		.41					DE	1	
609 RAMY	24	2055	2059D	2056	S01	W20	.349	10536	23.4	40	--F	C		.26					DE	3	
	24	2113	2122	NO FLARE PATROL																	
	24	2123	2130	NO FLARE PATROL																	
	24	2150	2200	NO FLARE PATROL																	
GRP27613 MITK CULG	25	0425	0451	0438	S07	E13	.228	10542	26.2	26	-N			2.27					2 2 2 3		
	25	0425	0443	0438	S08	E13	.228	10542	26.2	18	-F	C	0438	1.86	1.90				E		
	25	0426	0500		S07	E13	.225	10542	26.2	34	1B	P	0439	2.68	2.60				LTSH		
614 MITK	25	0446	0519	0449	S09	E11	.199	10542	26.0	33	-N	C	0449	.72	.70				DH	4	
5 STATIONS REPORTING GROUP 27619. 2 STATIONS OBSERVING AND NOT REPORTING.																					
GRP27619	25	1351	1429	1356	S08	E08	.145	10542	26.2	38	--F			.81					3 3 3 5		
	25	1351	1433D	1354U	S08	E08	.145	10542	26.2	42D	-F	2	P	1354	.31	.30			E		
	25	1351	1412	1355	S08	E08	.145	10542	26.2	21	-N	C		.83					DE		
	25	1352	1443	1400	S08	E08	.145	10542	26.2	51	-F	1	C	1.29	1.30				E		
27619 CATA	25	1410	1431	1415	S11	E05	.129	10542	26.0	21	*-B			.17					2 2 1 7		
	25	1410	1420D	1415	S10	E04	.105	10542	25.9	100	-B			1415	.17	.18			260		
	25	1414E	1431D		S11	E06	.141	10542	26.0	17D	-B	1	S						D E		
GRP27621	25	1455	1511	1457	S06	E34	.557	10544	28.2	16	--F			.61					2 2 2 5		
	25	1455E	1502D	1457	S05	E34	.557	10544	28.2	7D	-F			.41					DEH		
	25	1455	1511	1457	S06	E34	.557	10544	28.2	16	-F	1	C	.80	.97				E		
GRP27622	25	1525	1610	1530	S08	E06	.113	10542	26.1	45	--F			1.62					4 3 3 5		
	25	1525	1610	1530	S08	E06	.113	10542	26.1	45	-F	1	C	1.62	1.63				E		
	25	1529	1556	1536	S06	E08	.139	10542	26.2	27	-F			.41					DE		
	25	1535	1548	1543U	S08	E06	.113	10542	26.1	13	-N	2	P	1543	.37	.40			E		
GRP27623	25	1637	1647	1639	S10	E02	.086	10542	25.8	10	--F			.42					3 3 3 4		
	25	1636	1655	1639	S10	E01	.081	10542	25.8	19	-F			.36					DE		
	25	1637	1644	1638	S10	E03	.094	10542	25.9	7	-F	1	C	.65	.65				D		
	25	1640E	1643	1640U	S10	E03	.094	10542	25.9	3D	-N	2	C	1640	.25	.25			E		
624 HUAN	25	1659	1705	1700U	S10	E03	.094	10542	25.9	6	--F	2	C	1700	.31	.30			E	3	
625 HUAN	25	1710	1720	1713U	S08	E06	.113	10542	26.2	10	--F	2	C	1713	.21	.20			D	3	
626 SANM	25	1750	1812	1759	S09	E06	.120	10542	26.2	22	--F	1	C	.97	.97				E	3	
627 HUAN	25	1841E	1944	1845U	S09	E05	.106	10542	26.2	63D	--F	2	C	1845	.21	.20			E	3	
628 RAMY	25	1844	1900	1847	S14	W68	.923	10532	20.7	16	--F			.67					F	3	
629 RAMY	25	2016	2043	2022	S05	W36	.586	10536	23.1	27	--F			.83					F	2	
630 RAMY	25	2137	2149	2141	S08	E04	.082	10542	26.2	12	--F			.52					DE	2	
631 RAMY	25	2151	2205D	2155	S09	E03	.080	10542	26.1	14D	-N			1.13					FH	1	
	25	2205	2252	NO FLARE PATROL																	
GRP27632	25	2323	2332	2325	S09	E05	.106	10542	26.3	9	--N			.91					3 3 3 3		
	25	2322E	2334	2325	S09	E06	.120	10542	26.4	12D	-F			1.02	1.00				E		
	25	2323	2330	2325	S09	E05	.106	10542	26.3	7	-N			1.00	1.00				98		
	25	2323	2332	2324	S10	E05	.117	10542	26.3	9	-N	2	C	2324	.72	.72					
633 VORO	26	0003	0015	0007	S09	E02	.069	10542	26.2	12	--F			.65	.64				97	E	3
GRP27636	26	0409	0819	0414	S07	E29	.483	10544	28.3	250	-N			1.50					2 2 2 3		
	26	0409E	0624D		S05	E29	.483	10544	28.3	135D	1N			0515	2.58	2.60			BF		
	26	0409	0421	0414	S08	E28	.468	10544	28.3	12	-N	2		0414	1.13	1.29					
	26	0444	0503	0448	S08	E28	.468	10544	28.3	19	-N	2		0448	.41	.47					
	26	0615	0819	0617	S08	E35	.571	10544	28.9	124	-N	2		0617	.26	.32					
637 CATA	26	0835	0910	0845	S06	W48	.740	10536	22.8	35	-B			0845	.87	1.30			209	3	
	26	1458	1501	NO FLARE PATROL																	

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Note:

A line of explanation has been added before each flare event having more than one maxima. The total number of stations reporting some part of the event is given. The number of stations observing at the time of the principal maximum but not reporting the event is given in the second statement. Care should be exercised in utilizing the numbers in the remarks column. The first number is the number of stations reporting the individual maximum, and not the total number of stations reporting some part of the flare event. The last number is the number of stations reporting at the time of the individual maximum and not necessarily the total number of stations observing during the flare event. GRP numbers may appear several times in order to indicate secondary maxima. An asterisk beside an importance indicates a secondary maximum. The word "GRP" has also been omitted to aid in pointing to this condition.

When it is impossible to determine the time of Maximum Phase from the individual reports the time of Area Measurements is used. This time appears in parentheses. For Flares reported by only one station the last 3 digits of the group number appear to the left of the station code.

"Remarks":

- | | |
|---|--|
| <p>A = Eruptive prominence, base at >90°.
 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 spots visible in the neighborhood.
 H = Flare with high velocity dark surge.
 I = Very extensive active region.
 J = Plage with flare shows marked intensity variations.
 K = Several intensity maxima.
 L = Filaments show effects of sudden activation.
 M = White-light flare.</p> | <p>N = Continuous spectrum shows effects of polarization.
 O = Observations have been made in the calcium II lines H or K.
 P = Flare shows helium D₃ in emission.
 Q = Flare shows the Balmer continuum in emission.
 R = Marked asymmetry in Hα line.
 S = Brightening follows disappearance of filament (same position).
 T = Region active all day.
 U = Close and somewhat parallel bright filaments (or Y shape).
 V = Occurrence of an explosive phase.
 W = Great increase in area after time of maximum intensity.
 X = Unusually wide Hα emission.
 Y = Onset of a system of loop-type prominences.
 Z = Major sunspot umbra covered by flare.</p> |
|---|--|

In the importance column "-" signifies the subflare has been confirmed by the ESSA grouping program but is not included in the I.A.U. Quarterly Bulletin on Solar Activity nor are these subflares included in the Flare Index below.

DAILY FLARE INDICES

Date	Flare Index	HR OBS	Date	Flare Index	HR OBS	Date	Flare Index	HR OBS
700101	69.81	20.2	700113	70.88	22.6	700122	14.71	23.9
700102	359.50	24.0	700114	87.11	24.0	700124	0.00	23.6
700103	73.66	23.7	700115	81.02	23.0	700125	37.21	23.2
700104	27.43	23.6	700116	52.44	24.0	700126	56.49	23.9
700105	288.63	24.0	700117	70.54	24.0	700127	43.65	23.8
700106	16.27	24.0	700118	46.23	24.0	700128	539.63	23.9
700108	15.25	23.6	700119	1.43	24.0	700129	203.80	24.0
700110	14.39	22.4	700120	30.48	24.0	700130	139.15	24.0
700111	55.09	23.8	700121	28.01	24.0	700131	204.79	24.0
700112	28.73	24.0						

When no Flare Index is given, it is 0 for that day.

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SOLAR FLARES Unconfirmed

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN.	IM- POR- TANCE	OBS.		MEASUREMENTS					REMARKS		
	DATE	START	END	MAX. PHASE	APPROX.		CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %			
					LAT.	MER. DIST.															
268 SANM	1970 JAN 01	1138E	1146		S05	W67	.919	10510	27.5	80	1F	2	P	1138	.97					E	3
GRP27275	01	2100	2120	2107	N13	E09	.315	10508	2.6	20	-N				.41						
RAMY	01	2059	2120	2110	N12	E08	.292	10508	2.5	21	-N		C		.41						2 2 1 6
BOUL	01	2100	2120	2103	N13	E09	.315	10508	2.5	20	-N		V								
276 VORO	01	2346	2351	2347	N13	E09	.315	10508	2.7	5	-F		C	2347	.93	.96		83		EJ	4
278 VORO	02	0056	0101	0058	S10	W86	.997	10510	26.6	5	-F		C	0058	.28	1.90		63		D	5
280 CULG	02	0324	0340	0330	S08	W87	.998	10510	26.6	16	1F		C	0330	.62						4
281 MANI	02	0346	0412D		N10	E23	.445	10509	3.9	260	-F	2		0352	.72	.81					4
283 MANI	02	0717E	0741D		S09	W89	1.000	10510	26.6	240	-N	1		0722	.31	.98					5
284 CATA	02	0745	0815	0800	N13	E03	.282	10508	2.5	30	-N			0800	.29	.30		164			7
285 MANI	02	0756	0813	0803	S15	W90	1.000	10510	26.6	17	-N	1		0803	.36	1.10					7
286 CATA	02	0915	0935	0925	N13	E03	.282	10508	2.6	20	-N			0925	.29	.30		168			4
287 CATA	02	0950	1105	1010	N13	E02	.280	10508	2.6	75	-N			1010	.23	.24		166			3
289 BOUL	02	1554E	1604	1555	N13	W02	.280	10508	2.5	100	-F		V								4
294 BOUL	02	2123	2132E	2129	S19	W41	.683	10503	30.8	90	-N		S								3
295 MANI	03	0142E	0144D		N11	W02	.248	10508	2.9	20	-F	1		0143	1.24	1.70					6
301 BOUL	03	2022	2026	2023	N14	W14	.377	10508	2.8	4	-F		V								3
304 CRON	04	0250	0332	0255	N18	W16	.447	10508	2.9	42	-F		C		1.00	1.10					5
305 MANI	04	0750E	0802D	0759	S18	W70	.939	10503	30.1	120	-N	1		0759	.62	1.31					5
306 ISTA	04	0919	1012	0922	S19	W70	.940	10503	30.1	53	-N										5
307 RAMY	04	1214	1227	1216	N10	W21	.420	10508	2.9	13	-F		C		.31					DE	4
311 RAMY	04	1848	1855		S18	W75	.965	10503	30.2	7	-N		C							DE	4
314 CRON	05	0029E	0030	0029E	S16	W85	.995	10503	29.6	10	1F		C		.70	2.30					4
315 CRON	05	0040	0105	0055	N13	W39	.670	10508	2.1	25	-F		C		1.40	1.70					4
317 VORO	05	0258	0309	0302	N12	W33	.592	10508	2.6	11	-F		C	0302	.93	1.10		74		D	5
321 MONT	05	1050	1056	1052	S18	W88	.999	10503	29.9	6	-N		C	1052	1.55						6
322 RAMY	05	1159	1215	1203	N08	W36	.611	10508	2.8	16	-F		C		.31					DE	4
327 RAMY	05	2107	2123	2112	N12	W39	.666	10508	3.0	16	-F		C		.31					DE	5
330 BOUL	05	2215	2228	2220	S16	W90	1.000	10503	30.2	13	-F		V								3
331 MANI	06	0016	0040	0019	N13	W45	.739	10508	2.6	24	-F	1		0019	.62	.92					5
332 MANI	06	0615	0631D	0618	N11	W46	.744	10508	2.8	160	-F	1		0618	.83	1.20					6
335 MANI	07	0806	0830	0812	N08	W82	.992	10506	1.2	24	-N	2		0812	.46	1.20					6
337 CATA	07	1310	1320D	1315	N12	W90	1.000	10504	31.8	100	-N			1315	.14			190			5
340 BOUL	07	1623	1643	1633	N08	W90	1.000	10504	31.9	20	-F		V								7
341 BOUL	07	1651	1730E	1653	N08	W90	1.000	10506	1.0	390	-F		V								6
342 BOUL	07	1840	1902	1849	N11	W90	1.000	10506	1.0	22	-N		C		.50	2.00					5
344 VORO	09	0321	0348	0327	S32	W16	.528	10514	7.9	27	-F		C	0327	.84	.97		75		EJ	5
345 MITK	09	0446	0451	0447	N10	E57	.852	10524	13.5	5	-F		C	0447	.72	1.40				G	5
346 CULG	09	0703	0719D	0717	S10	E87	.998	10525	15.8	160	1N		P	0715	.62					R	4
347 CATA	09	0855E	0905	0900	S29	W22	.539	10514	7.7	100	-N			0900	.17	.21		178			7
351 MANI	10	0421E	0439		S10	E50	.765	10522	13.9	180	-F	3		0427	.93	1.45					5

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN.	IM- POR- TANCE	OBS.		MEASUREMENTS					REMARKS	
	DATE	START	END	MAX. PHASE	APPROX.		CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY			COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hc	MAX. INT. %		
					LAT.	MER. DIST.														
352 CULG	1970 JAN 10	0503	0531	0512	S28	W32	.626	10514	7.8	28	1N	C	0512	2.89	3.50			S	4	
353 MANI	10	0758	0820	0800	N11	E55	.836	10524	14.5	22	-F	1	0800	.83	1.38				5	
354 MANI	10	0831	0849	0835	N02	W44	.699	10515	7.1	18	-F	1	0835	.72	.97				5	
355 CANR	10	1111	1120	1115	N19	E80	.990	10524	16.5	9	-N	C		.50	1.50			H	4	
356 CANR	10	1205	1230	1215	S18	E73	.954	10525	16.0	25	1N	C		1.40	3.60			L	3	
357 RAMY	10	1417	1446	1422	S30	W35	.670	10514	8.0	290	-N	C		1.13				DE	3	
363 MANI	11	0531	0550	0535	S31	W39	.713	10514	8.3	19	-F	2	0535	.52	.73				4	
375 MANI	12	0215	0252	0218	S11	E27	.463	10522	14.1	370	-F	2	0218	.93	1.05				5	
376 MANI	12	0239	0251	0244	N11	E70	.947	10000	17.4	120	-F	2	0244	.62	1.30				5	
378 MANI	12	0410	0428		S17	E54	.813	10525	16.2	180	1F	2	0411	1.44	2.41				5	
380 CRON	12	0419	0427	0420	S12	E85	.995	10530	18.6	8	-N	C		.40	1.30				5	
381 MANI	12	0424	0439	0431	S12	E27	.467	10522	14.2	150	-F	2	0431	.83	.94				5	
383 CRON	12	0535	0547	0537	N13	E65	.919	10524	17.1	12	-F	C		.70	1.50				5	
385 MANI	12	0633	0652		S12	E26	.452	10522	14.2	190	-N	2	0636	.62	.70				6	
GRP27386	12	0657	0721	0704	N10	E22	.440	10524	13.9	24	-F			.99				2 2 2	7	
MANI	12	0656	0727		N10	E22	.440	10524	13.9	31	-F	2	0705	.93	1.05					
CAPE	12	0658	0715	0704	N09	E22	.432	10524	13.9	17	-F	C	0704	1.04	1.20			H		
388 MANI	12	0742	0756	0748	N14	E64	.914	10524	17.1	140	1F	1	0748	1.13	2.18				7	
389 CATA	12	1155	1200	1155	S28	W62	.894	10514	7.8	50	-N		1155	.34	.76			195	9	
390 CATA	12	1310	1315	1310	S10	E20	.353	10522	14.0	50	-N		1310	.58	.62			178	7	
392 UCCL	12	1433	1446		S16	E49	.761	10525	16.3	130	-N	P	1438	.52	1.10			D	4	
394 BOUL	12	1731	1736	1731	S11	E39	.632	10525	15.7	50	-F	V							4	
395 BOUL	12	1828	1837	1830	S12	E38	.621	10525	15.6	9	-N	V							4	
GRP27401	12	2036	2051	2038	S12	E01	.136	10522	12.9	15	-F			.72				2 2 1	6	
RAMY	12	2033	2051	2036	S12	E02	.139	10522	13.0	18	-F	C		.72				F		
BOUL	12	2039	2050	2040	S12	E00	.135	10522	12.9	11	-N	V								
402 RAMY	12	2139	2155	2142	S14	E13	.278	10522	13.9	160	-N	C		.41				DE	4	
404 MANI	13	0012	0027		S31	W72	.953	10514	7.6	150	-N	2	0015	.52	1.16				6	
405 MANI	13	0028	0051		S11	E12	.236	10522	13.9	230	-F	2	0032	1.24	1.27				7	
GRP27407	13	0116	0127	0116	S07	E32	.529	10525	15.5	11	-F			.84				2 2 2	6	
MANI	13	0115	0132	0117	S08	E32	.530	10525	15.5	170	-N	2	0117	.93	1.11					
VORO	13	0116	0122	0118	S06	E32	.529	10525	15.5	6	-F	C	0118	.74	.86			76	EH	
409 CULG	13	0308	0432	0329	S10	E22	.383	10522	14.8	84	1F	C	0329	2.48	2.40				6	
410 MANI	13	0352	0427		S09	E24	.411	10525	15.0	350	-F	2	0352	.83	.90				7	
411 MANI	13	0512	0522	0514	S12	E34	.566	10525	15.8	100	-F	1	0514	.72	.88				7	
412 MANI	13	0547	0604	0550	S13	E33	.555	10525	15.7	170	-F	2	0550	.83	1.00				6	
414 CATA	13	1305	1315	1310	S13	E05	.173	10522	13.9	100	-N		1310	.52	.53			178	3	
419 BOUL	13	2147	2157	2150	S11	E22	.387	10525	15.6	10	-N	V							3	
420 MANI	13	2335	2358	2339	S11	E02	.121	10522	14.1	230	-F	2	2339	.62	.62				4	
421 MANI	14	0000	0026	0003	S12	E23	.406	10525	15.7	26	-N	3	0003	.88	.90				4	
422 MANI	14	0022	0029	0023	S06	E71	.944	10530	19.3	7	-F	2	0023	.26	.55				6	
424 CULG	14	0141	0158	0149	S11	E85	.995	10532	20.4	17	1F	C	0149	.57					6	
426 MANI	14	0618	0630		S13	E43	.686	10527	17.5	120	-F	2	0618	1.13	1.64				7	

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	DATE	START	END	MAX. PHASE	APPROX.		CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY				TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H α	MAX. INT. %	
					LAT.	MER. DIST.												
1970 JAN																		
427 MANI	14	0648	0658	0651	N13	E84	.996	10531	20.6	10	-N	2	0651	.26	.72			8
435 MANI	14	2323	2335	2326	S12	W13	.257	10522	14.0	12	-F	2	2326	1.24	1.30			3
436 MANI	14	2332	2350	2334	S12	E35	.580	10527	17.6	18	-F	1	2334	1.03	1.26			3
438 MANI	15	0001	0010	0003	S12	W15	.286	10522	13.9	9	-F	3	0003	.41	.43			5
439 MANI	15	0039	0110	0044	S13	E10	.225	10525	15.8	31	-N	3	0044	.93	.95			5
441 VORO	15	0101	0111	0102	N10	E04	.260	10524	15.3	10	-F	C	0102	.56	.57	71	EG	4
443 VORO	15	0308	0315	0310	N20	W70	.956	10518	9.9	7	1N	C	0310	.93	2.60	64	E	6
445 CRON	15	0310	0320	0311	N03	E26	.455	10524	17.1	10	-N	C		.80	2.00			6
446 MANI	15	0418E	0435		S12	W15	.286	10522	14.1	17D	-N	3	0418	.83	.86			4
447 MANI	15	0511E	0536		S11	W18	.325	10522	13.9	25D	-F	2	0514	.41	.44			5
449 CRON	15	0611	0622	0617U	N03	E26	.455	10524	17.2	11	-N	C		.80	2.00			8
451 MANI	15	0739	0752	0743	N15	E64	.916	10531	20.1	13	-F	2	0743	.72	1.47			4
458 HUAN	15	2009	2043D	2018U	N18	E57	.871	10531	20.1	34D	-F	2	P 2018	.37	.70		E	3
463 MANI	15	2354	0024	2359	S20	W23	.457	10529	14.3	30	-N	1	2359	.62	.70			3
467 VORO	16	0217	0221	0218	S16	W44	.703	10522	12.8	4	-F	C	0218	.74	1.02	78	D	4
470 MANI	16	0735	0804	0740	S13	E52	.788	10532	20.2	29	-N	1	0740	.83	1.33			5
471 MANI	16	0806	0832	0810	S15	E47	.735	10532	19.9	26	-N	2	0810	.72	1.06			5
472 MANI	16	0812	0830	0815	N15	E55	.847	10531	20.5	18	-N	2	0815	.72	1.25			5
473 HTPR	16	1028	1045	1032	S20	W28	.519	10529	14.3	17	-F	C	1032	.52	.60		H	4
474 SANM	16	1139E	1206		N15	E46	.762	10531	19.9	27D	-F	1	P 1141	.48	.66		E	3
478 RAMY	16	1311E	1340	1313	N12	E31	.574	10531	18.9	29D	-N	C		.46			H	4
479 CAPS	16	1409E	1427D		S10	E48	.742	10532	20.2	18D	-N	3	V 1416	.80	1.20			3
485 SANM	16	1904	1931	1908	S12	W52	.787	10522	12.9	27	1N	1	C	1.29	2.10		E	3
486 MANI	16	2306E	2316D		N15	E38	.675	10531	19.8	10D	-F	1	2309	1.34	1.80			3
488 CULG	17	0351	0449	0405	N14	E38	.670	10531	20.0	58	1N	C	0405	2.06	2.60			4
489 CRON	17	0455	0517	0500	S11	W58	.845	10522	12.9	22	-F	C		.90	1.60			5
490 MANI	17	0712	0730	0716	N15	E39	.687	10531	20.2	18	-F	1	0716	.62	.85			6
492 CATA	17	1035E	1040D	1035	S07	E22	.375	10530	19.1	5D	-B		1035	1.16	1.26	251		7
493 HTPR	17	1043	1102	1046	S04	E23	.390	10530	19.2	19	-F	C	1046	.52	.50		L	6
494 HTPR	17	1106	1110	1109	N19	E29	.604	10531	19.6	4	-F	C	1109	.21	.30			4
495 MONT	17	1148	1202	1155	S03	W53	.798	10522	13.5	14	-N	C	1155	2.06			H	6
496 RAMY	17	1217	1229	1219	S13	W25	.439	10525	15.6	12	-N	C		.31			DE	6
497 SANM	17	1218	1235	1225	S12	E44	.696	10532	20.8	17	-F	1	C	.32	.44		E	6
498 HTPR	17	1341	1359	1343	N20	E32	.643	10531	20.0	18	-F	C	1343	.21	.30			6
499 HTPR	17	1407	1448	1423	S30	W42	.731	10529	14.4	41	-F	C	1423	.41	.60		E	5
501 HTPR	17	1416	1425	1420	N20	E30	.622	10531	19.8	9	-F	C	1420	.31	.40			5
502 SANM	17	1436	1444	1438	S11	E43	.682	10532	20.8	8	-F	1	C	.80	1.34		E	4
503 RAMY	17	1437	1453	1439	S12	E55	.817	10534	21.7	16	-N	V		.46			DE	5
504 HTPR	17	1509	1526	1518	N21	E31	.641	10531	20.0	17	-F	C	1518	.41	.50			5
516 RAMY	17	2043	2100D	2047	S13	E41	.660	10532	20.9	17D	-F	C		.62			DE	5

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	DATE	START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY				TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	
517 MANI	1970 JAN 17	2309	2320	2311	S17	W45	.716	10522	14.6	11	-N	2	2311	.62	.91			4
518 MANI	18	0003	0011	0005	S20	W50	.776	10529	14.3	8	-N	1	0005	.52	.80			6
519 MANI	18	0026	0036	0028	S06	E11	.191	10530	18.8	10	-N	2	0028	.41	.42			6
GRP27520	18	0107	0115	0111	S21	W51	.788	10529	14.2	8	-F			.53				2 2 2 6
MANI	18	0107	0116	0110	S20	W51	.786	10529	14.2	9D	-F	3	0110	.31	.49			
VORO	18	0110E	0113	0111	S22	W51	.790	10529	14.2	3D	-F	C	0111	.74	1.20		80	D
521 MANI	18	0203E	0215		S17	E48	.749	10534	21.7	12D	-F	2	0205	.31	.47			7
522 MITK	18	0343	0356	0349	S11	W75	.963	10522	12.5	13	1F	C	0349	.93				E 6
524 CULG	18	0659	0725	0705	S06	E61	.872	10536	22.9	26	1F	C	0705	1.24	2.40			5
525 CULG	18	0744	0756	0748	S10	W75	.963	10522	12.7	12	1F	C	0748	.93				6
528 RAMY	18	1126	1144	1130	S12	W78	.975	10522	12.6	18	-N	C						DE 6
530 RAMY	18	1433	1452	1439	S12	W80	.982	10522	12.6	19	-N	C						DE 6
533 MCMA	18	1950	2007	1951	S05	E03	.052	10530	19.1	17	-F	C	1951	.26	.30			E 5
535 BOUL	18	2113	2125	2117	S20	W60	.868	10529	14.4	12	-N	V						3
537 CAPS	19	0823E	0836D		S12	W22	.389	10527	17.7	13D	1F	P	0828	2.00	2.20		152	BF 7
538 HTPR	19	0910	0925	0915	S18	W25	.465	10527	17.5	15	-N	C	0915	.83	.90			E 6
540 HTPR	19	1040	1125	1056	S16	W20	.383	10527	17.9	45	-N	C	1056	1.03	1.10			IT 7
541 MONT	19	1101	1149	1112	S10	W90	1.000	10522	12.7	48	-N	C	1112	.72				7
542 HTPR	19	1123	1130	1127	S16	W20	.383	10527	18.0	7	-F	C	1127	.31	.30			7
544 RAMY	19	1555	1617	1604U	S16	E90	1.000	10542	26.4	22	-F	C						4
545 VORO	20	0024	0032	0025	S14	W24	.427	10527	18.2	8	-F	C	0025	.93	.97		105	E 6
546 MITK	20	0040	0051	0042	N17	W13	.430	10531	19.1	11	-N	C	0042	.83	.90			E 5
547 CAPS	20	0810E	0825D		N15	W08	.367	10531	19.7	15D	-F	1	S					9
549 HTPR	20	0835	0927D	0920	S21	W28	.523	10527	18.3	52D	-F	C	0920	.62	.70			8
551 CATA	20	0930	0935	0930	N12	W11	.346	10531	19.6	5	-N		0930	.40	.43		174	8
559 BOUL	20	2030E	2035D	2030	S15	E72	.947	10542	26.3	5D	-N	S						5
560 BOUL	20	2158	2222	2203	S17	W50	.770	10527	17.2	24	-F	V						4
561 BOUL	20	2213	2219	2215	N17	W13	.430	10531	20.0	6	-N	V						5
562 BOUL	20	2250	2257	2252	S17	W50	.770	10527	17.2	7	-F	V						4
563 MANI	21	0023	0032	0028	S16	E66	.910	10542	26.0	9	-N	2	0028	.31	.63			4
564 MANI	21	0036	0047	0040	N18	W13	.445	10531	20.0	11	-N	2	0040	.36	.40			4
565 MANI	21	0235	0248	0241	S16	E67	.917	10542	26.1	13	-N	2	0241	.62	1.28			7
567 CRON	21	0651	0715	0657	N17	W20	.495	10531	19.8	24	-N	C		1.00	1.20			6
569 CATA	21	0755	0805D	0755	S14	W43	.685	10527	18.1	10D	-N		0755	.29	.40		195	6
570 CULG	21	0756	0806	0800	S22	W63	.892	10525	16.6	10	1N	C	0800	1.44	3.15			L 5
572 HTPR	21	1052	1106	1104	S25	W67	.921	10525	16.4	14	-F	C	1104	.41	.80			4
573 HTPR	21	1200	1225	1210	S08	W58	.845	10527	17.1	25	-F	C	1210	.31	.50			6
GRP27574	21	1421	1453	1426	S23	W70	.937	10525	16.3	32	-F			.21				2 2 2 7
HTPR	21	1421	1435	1424	S23	W70	.937	10525	16.3	14	-F	C	1424	.21	.40			
MCMA	21	1421	1510	1428	S23	W69	.932	10525	16.4	49	-F	P	1428	.21	.60			DHT
575 RAMY	21	1437	1454	1440	S14	E66	.910	10542	26.6	17	-F	C		.52				DE 7
577 MCMA	21	1517	1555D	1524	S23	W69	.932	10525	16.5	38D	-N	C	1524	.31	.90			E 5

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JANUARY 1970

OBSERVATORY	OBSERVED UT				LOCATION				DURATION MIN.	IM- POR- TANCE	OBS. COND. TYPE	MEASUREMENTS				REMARKS			
	DATE	START	END	MAX. PHASE	APPROX. LAT.	MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION				CMP DAY	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.		MAX. WIDTH Ha	MAX. INT. %	
578 RAMY	1970 JAN 21	1619	1635	1623	S26	E74	.958	10542	27.2	16	-F	C		.67				DE	4
579 MCMA	21	1949	1958	1950	S03	E90	1.000	10544	28.6	9	-F	C	1950					T	4
582 MANI	22	0231	0252	0235	N18	E19	.497	10537	23.5	21	-N	2	0235	.62	.71				8
584 MANI	22	0525E	0526D		S11	W88	.999	10525	15.6	10	-N	2	0526	.31	.96				7
585 CAPS	22	0837E	0849D		S04	E85	.996	10544	28.7	120	-N	2	S						9
586 RAMY	22	1206	1216D	1212	S10	W50	.763	10530	18.8	100	-F	C		.41				DE	7
587 SANM	22	1524	1547	1528	S10	W55	.816	10530	18.5	23	-N	1	C	1.13	1.88			EI	5
590 CULG	23	0518	0555	0526	S28	E51	.803	10542	27.0	37	1N	C	0526	1.65	2.72			SHU	5
591 MANI	23	0609	0633	0611	S13	W67	.917	10527	18.2	24	-F	2	0611	.72	1.50				5
592 MANI	23	0646	0719	0652	S14	W68	.923	10527	18.2	33	-N	3	0652	.83	1.71				8
593 ABST	23	0717E	0751D	0719	S23	W88	.998	10525	16.7	34D	1F	P	0719	.90				DH	8
594 CRON	23	0749	0758	0751	S05	E73	.955	10544	28.8	9	-N	C		.40	1.00				6
595 CRON	23	0755	0800	0756	S22	E49	.768	10542	27.0	5	-N	C		1.30	2.00				5
596 MONT	23	1247	1311	1302	S23	W90	.999	10525	16.8	24	-N	C	1302	.83					7
598 HUAN	23	2024	2045	2026U	S15	E37	.611	10542	26.6	21	-F	2	C	2026	.25	.30		E	5
599 HUAN	23	2237E	2251	2237U	S14	E34	.568	10542	26.5	14D	-F	2	C	2237	.21	.20		E	4
600 HUAN	23	2237E	2256D	2239U	S01	E63	.891	10544	28.7	19D	-F	2	C	2239	.21	.40		E	4
601 MANI	24	0602	0626	0607	S18	E32	.555	10542	26.7	24	-F	1	0607	.72	.88				4
602 CATA	24	1005	1020	1010	S14	E26	.454	10542	26.4	15	-N		1010	.29	.32		195		3
603 CATA	24	1055	1115D	1100	S14	W90	1.000	10527	17.7	20D	-N		1100	.23			186		2
605 BOUL	24	1535	1620D	1543	S13	W90	1.000	10527	17.9	45D	-N	V							3
606 BOUL	24	1627	1643	1631	S15	W90	1.000	10527	17.9	16	-F	V							3
610 CULG	24	2341	0018	2347	S13	W78	.975	10530	19.1	37	1N	C	2347	.67				R	3
611 MANI	25	0056E	0128	0059	S09	E12	.215	10542	25.9	32D	-N	2	0059	.62	.63				6
612 KODA	25	0208E	0246D	0221	S08	E14	.244	10542	26.1	38D	1N	C	0246	2.65	2.70	1.68		CHI	6
615 ZURI	25	0934	0951	0942	S08	E08	.145	10542	26.0	17	-B	C	0942	1.26	1.30				5
616 CATA	25	1110	1120D	1115	N11	W23	.473	10537	23.7	10D	-N		1115	.69	.78		199		5
617 CAPS	25	1206E	1213D		S11	E07	.154	10542	26.0	7D	-N	1	S					E	5
618 CATA	25	1300E	1305	1300	S10	E05	.117	10542	25.9	5D	-N		1300	.29	.29		191	H	6
620 CATA	25	1405E	1420D	1405	S06	E11	.190	10545	26.4	15D	-B		1405	.52	.53		243		6
634 MANI	26	0343	0404	0348	S20	E10	.299	10542	26.9	21	-N	2	0348	.52	.54				3
635 MANI	26	0402	0423	0409	S17	E02	.201	10542	26.3	21	-N	2	0409	.52	.52				3
638 CATA	26	0925	1020	0950	S16	E03	.188	10542	26.6	55	-B		0950	.69	.71		216		3
639 CAPE	26	1412	1436D	1421	S27	E10	.398	10542	27.3	24D	-F	P	1421	1.38	1.50			F	5
642 BOUL	26	1729	1735	1730	S06	E29	.483	10544	28.9	6	-N	V							3
645 MANI	27	0121	0148	0127	S16	W08	.225	10542	26.5	27	-N	4	0127	.52	.53				4
646 MANI	27	0401E	0425		S16	W08	.225	10542	26.6	24D	-N	3	0402	1.44	1.48				6
648 MITK	27	0522	0542	0524	S08	E13	.227	10544	28.2	20	-F	C	0524	1.44	1.50			E	4
651 HTPR	27	0947	1007	0953	N12	E56	.852	10549	31.6	20	-F	C	0953	.41	.70			E	6
652 HTPR	27	1101	1109	1103	S15	W16	.314	10542	26.3	8	-F	C	1103	.21	.20			E	4

SOLAR FLARES Unconfirmed

JANUARY 1970

OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN.	IM- POR- TANCE	OBS. COND. TYPE	MEASUREMENTS					REMARKS							
	DATE	START	END	MAX. PHASE	APPROX.		CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY				TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H α	MAX. INT. %								
					LAT.	MER. DIST.																			
653 HTPR	27	1112	1130	1118	S05	W15	.258	10545	26.3	18	-N	C	1118	.62	.60			E	5						
654 CAPE	27	1113	1130	1118	S15	W17	.328	10542	26.2	17	-N	C	1118	1.30	1.40				5						
*GRP27659	27	1840	1913	1845	S05	E14	.241	10544	28.8	33	-N			1.20				4	4	3	4				
BOUL	27	1839	1912	1843	S04	E15	.259	10544	28.9	33	-N	V													
RAMY	27	1840	1905	1846	S05	E15	.258	10544	28.9	25	-F	C		1.03							F				
SANM	27	1840	1919	1842	S05	E11	.190	10544	28.6	39	1N	1 C	1851	2.27	2.32										
SANM	27	1840	1919	1842	S05	E11	.190	10544	28.6	39	-N	1 C		.97	.99							L			
HUAN	27	1844E	1915	1846U	S06	E13	.224	10544	28.8	31D	-N	2 P	1846	.31	.30							E			
663 MANI	28	0244E	0255		N10	E50	.790	10549	31.9	11D	-F	2	0244	.31	.50							5			
664 MANI	28	0403E	0436		S15	W27	.471	10542	26.1	33D	-N	2	0407	1.65	1.90							4			
666 HTPR	28	0914	0920	0915	S07	E09	.157	10544	29.1	6	-F	C	0915	.21	.20							E	7		
669 HTPR	28	1224	1237	1227	S07	E08	.140	10544	29.1	13	-F	C	1227	.21	.20							E	6		
678 MANI	29	0048	0100	0051	S14	W32	.538	10542	26.6	12	-F	2	0051	.31	.37							3			
680 MANI	29	0238	0249	0244	S08	W08	.143	10544	28.5	11	-N	2	0244	.41	.41							4			
681 SIBE	29	0353	0400	0356	S14	W36	.593	10542	26.5	7	-F	C	0356	.83	1.10			55				EK	5		
682 MITK	29	0434	0440	0437	S15	W33	.555	10542	26.7	6	-N	C	0437	.83	1.00							D	5		
683 MANI	29	0444	0450		S13	W38	.617	10542	26.3	6	-N	2	0444	.62	.79							5			
685 MANI	29	0647E	0656D		S10	W55	.815	10542	25.2	9D	-F	2	0649	.52	.86							4			
GRP27687	29	0730	0807	0800	S09	W07	.133	10544	28.8	37	-N			.52								2	1	1	7
MANI	29	0730	0807	0800	S09	W07	.133	10544	28.8	37	-N	3	0744	.52	.52										
CATA	29	0750	0810	0800	S09	W07	.133	10544	28.8	20	-N		0800	.52	.53					186					
690 HTPR	29	1001	1005	1002	S29	W40	.699	10542	26.4	4	-F	C	1002	.52	.60								7		
691 UCCL	29	1002	1007	1002	S12	W45	.705	10542	26.0	5	1N	C	1002	1.03	2.10							DI	7		
693 HTPR	29	1127	1144	1133	S29	W37	.668	10542	26.7	17	-F	C	1133	.31	.40								6		
2 STATIONS REPORTING GROUP 27694. 5 STATIONS OBSERVING AND NOT REPORTING.																									
694 HUAN	29	1231	1245	1240U	S16	W46	.722	10542	26.1	14	-F	2 P	1240	.15	.20							E	7		
694 HTPR	29	1234	1246	1241	S30	W40	.704	10542	26.5	12	*-F	C	1241	.83	1.10							E	7		
698 RAMY	29	1738	1752	1742	S15	W48	.743	10542	26.1	14	-F	C		.72								DE	4		
702 MANI	30	0307	0311D	0308	N16	E16	.454	10549	31.3	4D	-F	1	0308	.41	.47							6			
706 MANI	30	0648	0718	0654	S06	W32	.527	10544	27.9	30	-N	1	0654	.62	.73							4			
708 MANI	30	0828	0844	0832	S11	W21	.365	10544	28.8	16	-N	2	0832	.52	.56							4			
709 MANI	30	0840	0904D	0848	S04	W21	.358	10544	28.8	24D	-N	2	0848	.83	.88							5			
710 CRON	30	0929	0949	0934	S16	W54	.807	10542	26.3	20	1N	C		2.30	3.70						E	5			
712 SANM	30	1306	1323		S15	W60	.862	10542	26.0	17	-N	1 C	1315	.48	.91							ET	4		
713 MCMA	30	1325E	1444D	1331	S17	W59	.854	10542	26.1	79D	-N	C	1331	.41	.80							EKL	5		
720 BOUL	30	2020	2031	2022	N13	E24	.506	10551	1.6	11	-N	V										6			
722 MANI	31	0422E	0439D		S12	W32	.532	10544	28.8	17D	-F	2	0431	.52	.61							5			
GRP27723	31	0557	0653	0622	S26	W73	.952	10542	25.8	56	1F			1.34								2	1	1	4
CULG	31	0557	0653D	0622	S26	W73	.952	10542	25.8	56D	1F	P	0622	1.34											
MANI	31	0558E	0605D		S14	W66	.909	10542	26.3	7D	-F	2	0559	.93	1.86									LRH	

* Belongs in confirmed list.