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Oct 77

H α SOLAR FLARES

OCTOBER 1977

OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN	IMPOR- TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE OCT	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	GEOGRAPHIC PLAGE REGION	CNR DAY			COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg	
					LAT.	NER. DIST.											
723 CATA	01	0750	0755	0800D	N16	E01	.162	14963	1.4	10D	-N	2	0755	28	.3	Y5	
724 CATA	01	0935	0935	0955	N13	E04	.129	14963	1.7	20	-B	2	0935	56	.6	Y5	
725 KANZ	01	1142	1149	1206	N15	E01	.145	14963	1.6	24	-F	C				Y5	
	01	1948	1959	NO FLARE	PATROL												
	01	2018	2035	NO FLARE	PATROL												
726 CULG	02	0126	0148	0206	S25	W52	.863	14958	28.2	40	-F	C	0148	50	1.0	Y5	
727 CATA	02	0855	0855	0915	N14	W11	.226	14963	1.5	20	-B	2	0855	28	.3	Y5	
	02	1836	1845	NO FLARE	PATROL												
GRP64728	02	2132E	2132	2143D	N14	W18	.328	14963	1.5	11	-F			40	.4	H	
PALE	02	2132E	2132U	2137D	N13	W19	.338	14963	1.5	5D	-F	3	V	37		DE	
RAMY	02	2136E	2136U	2143D	N15	W17	.320	14963	1.6	7D	-N	3	C	40		H	
	02	2143	2245	NO FLARE	PATROL												
	02	2303	2318	NO FLARE	PATROL												
	02	2349	2356	NO FLARE	PATROL												
	03	0002	0008	NO FLARE	PATROL												
	03	0056	0215	NO FLARE	PATROL												
729 CULG	03	0256	0310	0345	N16	W20	.370	14963	1.6	49	-F	C	0310	20	.2	Y5	
730 KANZ	03	0716	0810	0813	N32	W17	.499	14967	2.0	57	-F	C				Y5	
GRP64731	03	0913>9	0915	0941	N32	W18	.506	14967	2.0	28	-F					E	
			0929+2														
MONT	03	0913	0915	0924	N31	W19	.503	14967	2.0	11	-F	C	0915	40		E	
MONT	03	0921	0929	0946	N33	W19	.526	14967	2.0	25	-N	C	0929	80		E	
KANZ	03	0928	0931	0935	N32	W17	.499	14967	2.1	7	-F	C				E	
GRP64732	03	0931+0	0933+2	0937	N17	W25	.447	14963	1.5	6	-F					E	
KANZ	03	0931	0935	0938	N17	W25	.447	14963	1.5	7	-F	C				O	
MONT	03	0931	0933	0936	N18	W25	.452	14963	1.5	5	-F	C	0933	40		O	
GRP64733	03	1014>9	1034+1	1045D	N13	W23	.399	14963	1.7	31	-F					D	
MONT	03	1014	1035	1045D	N14	W23	.403	14963	1.7	31D	-N	C	1035	110		D	
MEUD	03	1032	1034	1038D	N13	W24	.414	14963	1.6	6D	-F	C	1034	40	.4	D	
734 MCMA	03	1158E		1245D	N33	W18	.518	14967	2.1	47D	-N	C	1212	80	1.0	E	
735 MCMA	03	1710		1730D	N13	W30	.503	14963	1.5	20D	-F	P	1717	40	.5	EL	
736 MCMA	03	1717E		1718D	N32	W23	.548	14967	2.0	1D	-N	P	1717	40	.5	E	
GRP64737	03	2321+2	2325+0	2336	N13	W32	.532	14963	1.6	15	-N			60	.7		
CULG	03	2321	2325	2344	N13	W33	.546	14963	1.5	23	-N	C	2325	25	.3		
PALE	03	2323	2325	2335	N13	W30	.503	14963	1.7	12	-N	3	C	93		FDE	
HANI	03	2327E	2327U	2336	N12	W32	.530	14963	1.6	9D	-N	V	2327	60	.7		
738 PALE	03	2356	2357	0006	N13	W31	.518	14963	1.7	10	-F	3	C	55		F	
GRP64739	04	0800+2	0805+2	0817	N33	W28	.603	14967	2.2	17	-N			120	1.5	E	
BUCA	04	0800	0806	0820	N33	W28	.603	14967	2.2	20	-F	C	0806	128	1.7	CE	
CATA	04	0800	0805	0815	N32	W28	.594	14967	2.2	15	-B	2	C	0805	112	1.4	
KANZ	04	0802	0807	0817	N33	W27	.594	14967	2.3	15	-N	C					
740 HUAN	04	1434	1435	1437	N33	W31	.630	14967	2.3	3	-F	1	C	1435	20	.2	D
741 HUAN	04	1543		1548	N31	W33	.634	14967	2.2	5	-F	1	C				Y5
GRP64742	04	1606+8	1614+2	1623	N33	W33	.649	14967	2.2	17	-N						
MCMA	04	1606	1614	1625	N34	W34	.665	14967	2.1	19	-N	C	1614	80	1.1	E	
HUAN	04	1614	1616	1620	N33	W32	.638	14967	2.3	6	-N	1	C	1616	30	.4	D
743 MCMA	04	1823		1930D	N34	W37	.692	14967	2.0	67D	-F	C	1844	70	1.0	EK	
	05	0039	0045	NO FLARE	PATROL												
744 BUCA	05	0745E		0805	N31	W46	.760	14967	1.9	20D	-N	C	0745	53	.8	GD	

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	DATE OCT	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MCNATH PLAGE REGION	CMP. DAY			COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg	
					LAT.	MER. DIST.											
GRP64745	05	0805+5	0813+2	0824	N10	E90	1.000	14979	12.1	19	-N						
KANZ	05	0805	0813	0824	N09	E90	1.000	14979	12.1	19	-F						
CATA	05	0810	0815	0815D	N11	E90	1.000	14979	12.1	50	1N	2	C	0815	112		
GRP64746	05	1007+1	1009	1030	N31	W47	.769	14967	1.9	23	-F					D	
ZURI	05	1007	1009	1033	N31	W47	.769	14967	1.9	26	-F		P	1009	20	.3	
KANZ	05	1008	1018	1026	N32	W48	.781	14967	1.8	18	-F		C				
GRP64747	05	1203	1219	1231	N31	W48	.778	14967	1.9	28	-N					E	
ZURI	05	1203	1219	1231	N31	W48	.778	14967	1.9	28	-N		C	1219	60	1.0	
HUAN	05	1219E		1224D	N31	W49	.787	14967	1.8	50	-N	1	P	1220	30	.4	
748 ZURI	05	1255	1317	1329	N31	W48	.778	14967	1.9	34	-N		C	1317	40	.7	
GRP64749	05	1315+4	1325+5	1342	N08	E90	1.000	14979	12.3	27	-N						
CATA	05	1315	1330	1330D	N07	E90	1.000	14979	12.3	150	1N	2	C	1330	56		
KANZ	05	1319	1325	1342	N09	E90	1.000	14979	12.3	23	-N						
RAMY	05	1323E	1326	1334D	N09	E90	1.000	14979	12.3	110	-N	4	C			FDE	
GRP64750	05	1333+2	1337+2	1354	N16	W54	.805	14963	1.5	21	-N						
ZURI	05	1333	1337	1401	N18	W55	.817	14963	1.4	28	-N		C	1337	40	1.0	
KANZ	05	1335	1339	1353	N15	W54	.805	14963	1.5	18	-N						
RAMY	05	1335E	1337	1354	N15	W54	.805	14963	1.5	19D	-N	4	C		80	FDE	
GRP64751	05	1353+4	1359+6	1416	N31	W50	.795	14967	1.8	23	-N						
ZURI	05	1353	1359	1415	N31	W49	.787	14967	1.9	22	-N		C	1359	70	1.2	
KANZ	05	1357	1405	1416	N32	W51	.807	14967	1.8	19	-N		C				
GRP64752	05	1446+1	1449	1501	N30	W50	.792	14967	1.9	15	-F						
HUAN	05	1446		1453D	N30	W51	.801	14967	1.8	70	-F	1	P				
ZURI	05	1447	1449	1501	N31	W49	.787	14967	1.9	14	-N		C	1449	50	.8	
GRP64753	05	1528+7	1539+4	1551	N31	W51	.804	14967	1.8	23	-N						
KANZ	05	1528	1543	1551	N32	W52	.815	14967	1.7	23	-B		C				
ZURI	05	1535	1539	1543D	N31	W50	.795	14967	1.9	80	-N		P	1539	50	.8	
	05	1551	1713	NO FLARE PATROL													
754 PALE	05	1713	1715	1722D	N30	W50	.792	14967	2.0	90	-F	3	C		42	DE Y5	
	05	1918	2121	NO FLARE PATROL													
	05	2209	2215	NO FLARE PATROL													
	05	2223	2230	NO FLARE PATROL													
755 CULG	05	2235E	2243	2317	N17	W59	.853	14963	1.5	420	-F		P	2243	30	.6	
GRP64756	05	2242+3	2246+1	2252	N30	W54	.827	14967	1.9	10	-N						
CULG	05	2242	2247	2253	N31	W55	.837	14967	1.8	11	-N		C	2247	25	.5	
VORO	05	2245	2246	2251	N30	W54	.827	14967	1.9	6	-B		C	2246	72	1.3	
757 CULG	05	2316	2340	2350	N03	E90	1.000	14979	12.7	34	-F		C	2340	10		
GRP64759	06	0023+4	0031+6	0040	N30	W55	.835	14967	1.9	17	-N						
CULG	06	0023	0037	0058	N31	W55	.837	14967	1.9	35	-N		C	0037	70	1.3	
VORO	06	0026	0032	0038	N30	W58	.859	14967	1.7	12	-B		C	0032	99	1.9	
MITK	06	0027	0031	0039	N30	W55	.835	14967	1.9	12	-N		C	0031	100	1.9	
MANI	06	0028E	0031	0040D	N30	W53	.819	14967	2.0	120	-N		V	0031	80	1.4	
759 MANI	06	0215E	0215U	0223D	N06	E85	.995	14979	12.5	80	-F		V	0215	30	.8	
760 MITK	06	0248	0251	0258	N30	W57	.851	14967	1.8	10	-F		C	0251	60	1.2	
GRP64761	06	0425+2	0432	0500	N31	W59	.868	14967	1.8	35	1N						
VORO	06	0425		0430D	N31	W60	.875	14967	1.7	50	-B		C	0429	81	1.7	
CULG	06	0425	0444	0503	N32	W58	.862	14967	1.8	38	1N		C	0444	115	2.2	
MITK	06	0427	0432	0457	N30	W58	.859	14967	1.8	30	1N		C	0432	140	2.9	
GRP64762	06	0459+5	0502+6	0517	N32	W59	.870	14967	1.8	18	1N						
MITK	06	0459	0502	0517	N33	W58	.864	14967	1.9	18	1N		C	0502	190	4.0	
MANI	06	0500	0503	0509D	N31	W60	.875	14967	1.7	90	-N		V	0503	80	1.5	
CULG	06	0500	0502	0520	N34	W58	.866	14967	1.9	20	1N		C	0502	160	3.2	
TACH	06	0504	0508	0514	N31	W60	.875	14967	1.7	10	-B		C	0508	80	1.5	
763 ABST	06	0643E	0646	0648D	N33	W59	.871	14967	1.9	50	-F		P	0646	79	1.6	

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN	IMPOR- TANCE	OBS. COND TYPE	MEASUREMENTS			REMARKS		
	DATE OCT	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MCNATH PLAGE REGION	CNR DAY				TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq Deg			
					LAT.	HER. DIST.												
764 ABST	06	0651E	0651	0657D	N31	W59	.868	14967	1.9	60	-F	P	0651	87	1.8	EJ Y5		
GRP64765	06	0801+5	0805+5	0822	N06	E81	.986	14979	12.4	21	-N						E	
BUCA	06	0801	0805	0829	N07	E80	.983	14979	12.3	28	-B		0805	64		E		
TEHR	06	0805E	0809	0831	N06	E82	.989	14979	12.5	26D	-F	3	C	95				
ZURI	06	0805E	0805	0813	N06	E81	.986	14979	12.4	8D	-N		P	0805	10			
KANZ	06	0806	0810	0815	N06	E82	.989	14979	12.5	9	-N		C					
GRP64766	06	0907+3	0908+5	0915	N32	W63	.897	14967	1.7	8	-N						DJ	
ABST	06	0907E	0908	0913	N32	W65	.909	14967	1.6	6D	1N		P	0913	96	2.3	DJ	
KANZ	06	0910	0913	0917	N32	W61	.884	14967	1.8	7	-F		C					
GRP64767	06	0940+1	0941	0945	N09	E85	.995	14979	12.8	5	-F						D	
BUCA	06	0940		0945	N09	E85	.995	14979	12.8	5	-F		C	0941	43		D	
KANZ	06	0941	0941	0945	N09	E85	.995	14979	12.8	4	-F		C				D	
GRP64768	06	0941+7	0951+5	0958	N33	W62	.892	14967	1.8	17	-F						DJ	
KANZ	06	0941	0956	0956	N32	W62	.890	14967	1.8	15	-F		C					
ABST	06	0948	0951	0959	N34	W63	.899	14967	1.7	11	-N		C	0951	79	1.9	DJ	
GRP64769	06	1051+4	1053	1105	N06	E82	.989	14979	12.6	14	-N						EJ	
			1101															
ABST	06	1051	1053	1056	N06	E85	.995	14979	12.8	5	1N		C	1053	70	3.0	EJ	
TEHR	06	1055	1101	1113	N07	E80	.983	14979	12.5	18	-F	3	C	127				
GRP64770	06	1215>9	1223	1405D	N31	W63	.896	14967	1.8	110	-N						K	
			1348															
MCMA	06	1215E	1223	1405D	N32	W62	.890	14967	1.9	110D	-N		C	1223	75	1.5	EK	
LVOV	06	1342	1348	1415	N30	W64	.901	14967	1.8	33	1F		C	1348	100	2.6	D	
GRP64771	06	1406	1413	1547D	N32	W64	.903	14967	1.8	101	-N						EMK	
			1437															
MCMA	06	1406	1437	1547D	N32	W64	.903	14967	1.8	101D	-N		C	1437	80	1.9	EHK	
MCMA	06	1406	1413	1547D	N32	W64	.903	14967	1.8	101D	-N		C	1413	50	1.4		
772 MCMA	06	1420	1423	1500	N05	E74	.959	14979	12.1	40	-N		C	1423	40	1.5	E Y5	
773 MCMA	06	1548	1552	1604D	N32	W64	.903	14967	1.9	160	-N		C	1552	60	1.5	E Y5	
774 MCMA	06	1605	1608	1700D	N32	W65	.909	14967	1.8	550	1B		C	1608	90	2.2	E Y5	
775 PALE	06	1821	1826	1837	N29	W64	.900	14967	2.0	16	-N	3	C		79		FDE Y5	
776 PALE	06	1946	1950	2001	N29	W66	.913	14967	1.9	15	-B	3	C		119		FDE Y5	
	06	2020	2047	NO FLARE PATROL														
777 CULG	06	2104	2107	2117	N30	W70	.937	14967	1.6	13	-F		C	2107	40	1.0	Y5	
	06	2138	2146	NO FLARE PATROL														
778 CULG	06	2345	2348	2355	N20	W78	.973	14963	1.1	10	-F		C	2348	25		Y5	
GRP64779	06	2345+1	2348+1	2357	N21	W23	.448	14969	5.3	12	-F				30	.3	D	
CULG	06	2345	2349	0002	N22	W23	.455	14969	5.3	17	-F	*	C	2349	20	.2		
VORO	06	2346	2348	2352	N20	W24	.453	14969	5.2	6	-F	*	C	2348	36	.4	D	
780 CULG	07	0030	0037	0050	N20	W23	.440	14969	5.3	20	-F		C	0037	50	.6	Y5	
GRP64781	07	0124+7	0133+6	0206	N20	W25	.467	14969	5.2	42	-N				100	1.1	EJ	
VORO	07	0124	0133	0206	N21	W24	.461	14969	5.3	42	1N		C	0137	251	2.7	EJ	
MITK	07	0130E	0139	0148	N20	W25	.467	14969	5.2	18D	-N		C	0139	100	1.2	E	
CULG	07	0131	0136	0215	N20	W25	.467	14969	5.2	44	-N		C	0136	90	1.0		
GRP64782	07	0353+1	0355+0	0400	N08	E65	.902	14979	12.0	7	-N						D	
CULG	07	0353	0355	0401	N08	E65	.902	14979	12.0	8	-N		C	0355	30	.7	D	
VORO	07	0354	0355	0358	N09	E65	.902	14979	12.0	4	-B		C	0355	90	2.0	D	
783 CULG	07	0414	0423	0434	N30	W70	.937	14967	1.9	20	-F		C	0423	60	1.4	Y5	
784 KANZ	07	0801	0805	0816	N19	W79	.976	14963	1.4	15	-F		C				D Y5	
785 MONT	07	0803E	0806	0814	N06	E67	.917	14979	12.4	110	-F		C	0806	20		D Y5	
786 MONT	07	0813	0816	0819	N12	E65	.901	14979	12.2	6	-F		C	0816	20		Y5	
787 MONT	07	0815	0822	0829	N07	E69	.930	14979	12.5	14	-F		C	0822	40		E Y5	

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					LAT.	NER. DIST.												
788 MONT	07	0855	0859	0904	S34	E13	.672	14982	8.3	9	-F	C	0859	20		D	Y5	
789 KANZ	07	0909	0909	0916	N19	W79	.976	14963	1.5	7	-F	C				E	Y5	
790 MONT	07	1015	1021	1025	N29	W78	.972	14967	1.6	10	-F	C	1021	40		D	Y5	
791 MONT	07	1134	1135	1136	N12	E64	.893	14979	12.3	2	-F	C	1135	20		D	Y5	
GRP64792	07	1137+3	1141+6	1159	N06	E66	.910	14979	12.4	22	-F					D		
MONT	07	1137	1141	1156	N06	E65	.903	14979	12.4	19	-F	C	1141	20		D		
LVOV	07	1140	1147	1201	N06	E68	.924	14979	12.6	21	-F	C	1147	100		D		
GRP64793	07	1253>9	1310	1310D	N03	E58	.847	14979	11.9	17	-N					EW		
MCMA	07	1253	1313	1430D	N03	E58	.847	14979	11.9	97D	-N	C	1313	40	.8	EW		
KANZ	07	1306	1310	1310	N03	E59	.856	14979	12.0	4	-N	C						
794 MCMA	07	1425	1428	1434	N18	W88	.998	14963	1.0	9	-F	C	1428			D	Y5	
GRP64795	07	1548+1	1550+0	1557	N05	E62	.880	14979	12.3	9	-N			50	1.1	OH		
MCMA	07	1548	1550	1559	N05	E62	.880	14979	12.3	11	-N	C	1550	60	1.3	OH		
HUAN	07	1549	1550	1555	N05	E63	.888	14979	12.4	6	-N	1	C	1550	50	1.0		
	07	1656	1710	NO FLARE PATROL														
796 PALE	07	1752	1756	1839	N07	E56	.825	14979	11.9	47	-F	3	V		43		FDE	Y5
	07	1808	1835	NO FLARE PATROL														
797 HUAN	07	1848E		1907D	N05	E56	.826	14979	12.0	190	-F	1	P				E	Y5
798 HUAN	07	1848E		1855	N14	E70	.934	14979	13.0	70	-F	1	P					Y5
	07	1934	1956	NO FLARE PATROL														
	07	2031	2038	NO FLARE PATROL														
GRP64799	07	2208	2211	2240	N04	E57	.837	14979	12.2	32	-N						L	
CULG	07	2208	2211	2240	N03	E58	.847	14979	12.3	32	-N	C	2211	70	1.3	L		
PALE	07	2223E	2223U	2224D	N06	E57	.835	14979	12.2	10	1N	3	V	153			FDE	
800 CULG	08	0005	0027	0036	N05	E58	.845	14979	12.4	31	-F	C	0027	25	.5			Y5
GRP64801	08	0055E	0105	0127	N07	E52	.784	14979	11.9	32	-F							
			0126															
PALE	08	0055E	0105	0127	N07	E52	.784	14979	11.9	32D	-F	3	V		49		FDE	
PALE	08	0055E	0126	0127	N07	E52	.784	14979	11.9	32D	-F	3	V		22		FDE	
GRP64802	08	0231	0232	0310	N05	E56	.826	14979	12.3	39	-N			80	1.4		F	
			0252+3															
PALE	08	0231	0255	0300D	N06	E55	.816	14979	12.2	29D	-N	3	V		98		FDE	
PALE	08	0231	0232	0300D	N06	E55	.816	14979	12.2	29D	-N	3	V		63		FDE	
CULG	08	0237E	0252	0310	N05	E57	.836	14979	12.4	33D	-N	C	0252	55	.9		F	
803 ABST	08	0551	0552	0553	N08	E52	.784	14979	12.1	2	-F	C	0552	87	1.3	DJ	Y5	
804 ABST	08	0736	0737	0740	N03	E48	.742	14979	11.9	4	-F	C	0737	70	.9	DJ	Y5	
GRP64805	08	1230+5	1241+4	1402	N06	E44	.691	14979	11.8	92	1N						EIJSU	
			1301+1															
MONT	08	1217	1241	1315D	N05	E43	.679	14979	11.7	58D	1N	C	1241	250		F		
KHAR	08	1230E	1245	1320D	S00	E44	.695	14979	11.8	50D	1N	C	1230	165	2.4	E		
LVOV	08	1230	1301	1410	N07	E45	.703	14979	11.9	100	2N	C	1301	400	5.8	EJ		
TEHR	08	1235	1242	1326	N08	E43	.678	14979	11.7	51	-N	2	C	190			U S	
TEHR	08	1235	1242	1326	N08	E43	.678	14979	11.7	51	-N	3	C	160			U S	
KIEV	08	1235E	1302	1400D	N05	E44	.692	14979	11.8	85D	2N	C	1302	360	5.2	EI		
HUAN	08	1250E		1403	N05	E43	.679	14979	11.8	73D	-N	1	P	1250	120	1.6	E	
	08	1420	1429	NO FLARE PATROL														
	08	1630	1703	NO FLARE PATROL														
	08	1839	1922	NO FLARE PATROL														
	08	2013	2037	NO FLARE PATROL														
GRP64806	08	2044	2050+1	2053D	N07	E44	.691	14979	12.2	9	-F			80	1.1	S		
CULG	08	2044	2050	2140	N07	E46	.715	14979	12.3	56	-N	C	2050	75	1.0	FS		
PALE	08	2050E	2051	2053	N07	E43	.678	14979	12.1	30	-F	3	V	80			FDE	
807 CULG	09	0445	0448	0501	N07	E43	.678	14979	12.4	16	-F	C	0448	20	.4			Y5

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN.	IMPORTANCE	OBS. COND. TYPE	MEASUREMENTS			REMARKS		
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MATH PLAGE REGION	CNR DAY				TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.			
					LAT.	MER. DIST.												
GRP64808	09	0546+0	0553+4 0616	0619D	N06	E42	.666	14979	12.4	33	-F						FJS	
CULG	09	0546E	0623U	0702D	N07	E43	.678	14979	12.5	760	-F	P	0623	140	1.8		FS	
ABST	09	0546	0553	0607	N06	E46	.716	14979	12.7	21	-F	C	0553	79	1.1		DJ	
ABST	09	0553	0557	0607	N04	E43	.680	14979	12.5	14	-F	C	0557	87	1.2		DJ	
ABST	09	0615	0616	0619	N07	E39	.626	14979	12.2	4	-F	C	0616	79	1.0		DJ	
809 CULG	09	0547	0550	0558	N18	W15	.321	14975	8.1	11	-F	C	0550	20	.2		Y5	
810 KANZ	09	0921	0921	0945	N10	E34	.557	14979	11.9	24	-F	C					Y5	
	09	1416	1435		NO FLARE PATROL													
	09	1453	1919		NO FLARE PATROL													
	09	1923	2049		NO FLARE PATROL													
811 VORO	09	2303	2304	2309	N06	E28	.467	14979	12.1	6	-B	C	2304	72	.9		JL Y5	
812 VORO	10	0006	0014	0025	N06	E32	.527	14979	12.4	19	-B	C	0014	161	1.9		EL Y5	
	10	1759	1812		NO FLARE PATROL													
	10	1814	1821		NO FLARE PATROL													
	10	1838	1843		NO FLARE PATROL													
	10	1918	2027		NO FLARE PATROL													
GRP64813	10	2027E	2027	2120	N06	E10	.173	14979	11.6	53	-N						E	
CULG	10	2027E	2027E	2120	N06	E11	.190	14979	11.7	530	-N	P	2027	130	1.3			
MCHA	10	2040E		2100D	N06	E10	.173	14979	11.6	200	-N	P	2042	100	1.0		E	
814 CULG	10	2107	2110	2134	N20	E70	.934	14984	16.1	27	-F	C	2110	50	1.1		F Y5	
815 CULG	10	2203	2207	2225	N20	E65	.902	14984	15.8	22	-F	C	2207	30	.7		Y5	
816 CULG	11	0550	0559	0625	N20	E66	.909	14984	16.2	35	-N	C	0559	50	1.1		Y5	
817 ABST	11	0636E	0654	0702D	N19	E63	.887	14984	16.0	260	-F	P	0654	87	1.8		DJK Y5	
GRP64818	11	0735E	0735	0748	N16	E60	.862	14984	15.8	13	-N						DJ	
			0744															
GATA	11	0735E	0735	0740D	N17	E60	.862	14984	15.8	50	-N	1	0735	84	1.7			
ABST	11	0740E	0744	0748	N15	E61	.870	14984	15.9	80	-F	P	0744	105	2.0		DJ	
819 ZURI	11	0916E	0916	0942	N19	W46	.726	14975	7.9	260	-F	P	0916	20	.3		Y5	
820 ABST	11	0925	0934	0942D	N22	E60	.865	14984	15.9	170	-F	P	0934	105	2.3		DJ Y5	
		IMP. 1 NO	MEUD2	ZUR12	KHAR1	KTEV1	CATA1											
821 ZURI	11	1144E	1146	1150	N19	W47	.737	14975	8.0	60	-F	P	1146	20	.3		Y5	
	11	1352	1402		NO FLARE PATROL													
	11	1508	1510		NO FLARE PATROL													
	11	1515	1742		NO FLARE PATROL													
	11	1752	1819		NO FLARE PATROL													
	11	1825	1926		NO FLARE PATROL													
	11	1943	2029		NO FLARE PATROL													
822 CULG	11	2102	2116	2130	N13	E02	.124	14979	12.0	28	-F	C	2116	40	.4		Y5	
GRP64823	11	2301E	2301	2309	N14	E02	.140	14979	12.1	8	-B			90	.9		H	
PALE	11	2301E	2301U	2309	N14	E02	.140	14979	12.1	80	-B	3	C	89			DE H	
PALE	11	2301E	2301U	2309	N06	E02	.035	14979	12.1	80	-B	3	V	89			DE H	
CULG	11	2304E	2304E	2309	N14	E02	.140	14979	12.1	50	-N	P	2304	20	.2			
824 VORO	11	2355E		0000	N15	E03	.162	14979	12.2	50	-N	C	2357	27	.3		Y5	
GRP64825	12	0003+1	0007+2	0015	N14	E01	.138	14979	12.1	12	-N						D	
VORO	12	0003	0007	0015	N15	E01	.156	14979	12.1	12	-E	C	0007	90	.9		O	
CULG	12	0004	0009	0015	N14	E02	.142	14979	12.2	11	-F	C	0009	20	.2			
GRP64826	12	0020	0034+5	0042	N10	E01	.070	14979	12.1	22	-N			60	.6			
CULG	12	0020	0036	0103	N08	W02	.048	14979	11.9	43	-N	C	0036	20	.2			
CULG	12	0027	0037	0040	N14	E01	.138	14979	12.1	13	-N	C	0037	25	.3			
HANI	12	0030E	0034U	0039	N14	E01	.138	14979	12.1	90	-N	V	0034	90	.9		E	
PALE	12	0033	0039	0042	N06	E01	.017	14979	12.1	9	-F	3	V	38			FOE	

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OBSERVATORY	OBSERVED UT				LOCATION				DURATION MIN.	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS		
	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	McMATH PLAGE REGION			CNR DAY	COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk		CORR AREA Sq. Deg.	
					LAT.	MER. DIST.												
GRP64827	12	0150	0152	0215	N06	W02	.035	14979	11.9	25	1B							
CULG	12	0150	0152	0215	N07	W03	.054	14979	11.9	25	1B	C	0152	260	3.2		VZ	
MITK	12	0155E		0202D	N04	E02	.050	14979	12.2	7D	1N	P	0155	390	2.6		VZ	
PALE	12	0209E	0209U	0210D	N06	W02	.035	14979	11.9	10	-N	V		65	4.0		FDE	
828 CULG	12	0200	0204	0210	N14	E01	.138	14979	12.2	10	-N	C	0204	20	.2		Y5	
829 CULG	12	0402	0408	0435	N20	E90	.999	14991	18.9	33	?N	C	0408	60			Y5	
		IMP. 1 NO	MITK1															
830 CULG	12	0420	0433	0500	N22	E53	.804	14984	16.2	40	-F	C	0433	60	1.0	L	Y5	
GRP64831	12	0618+9	0642+3	0732	N06	W08	.138	14979	11.7	74	-F			80	.8		DJ	
CULG	12	0618	0642U	0732D	N06	W09	.156	14979	11.6	74D	-F	C	0642	60	.6			
ABST	12	0636	0645	0732	N06	W08	.138	14979	11.7	56	-F	C	0645	105	1.1		DJ	
GRP64832	12	0755	0755	0809	N22	E90	.999	14991	19.1	14	-N							
CATA	12	0755	0755	0810	N22	E90	.999	14991	19.1	15	1N	2	0755	45				
MGNT	12	0803E	0803	0807	N22	E90	.999	14991	19.1	4D	-F	C	0803	40				
833 ABST	12	0800	0802	0808	N23	E50	.777	14984	16.1	8	-F	C	0802	114	1.8	EJ	Y5	
834 KHAR	12	0825	0830	0835	N24	E50	.779	14984	16.1	10	-F	C				D	Y5	
GRP64835	12	0943+9	0952+3	1001	N07	W02	.038	14979	12.3	18	-N			45	.5		E	
MGNT	12	0943	0952	1004	N06	W03	.052	14979	12.2	21	-N	C	0952	60		E		
ZURI	12	0945	0955	1001	N06	W02	.035	14979	12.3	16	-F	C	0955	30	.3			
WEND	12	0952		1001	N08	W01	.037	14979	12.3	9	-N							
836 ABST	12	1102	1105	1108	N16	E45	.709	14984	15.8	6	-F	C	1105	87	1.1	D	Y5	
837 ZURI	12	1147	1153	1201	N20	W60	.864	14988	8.0	14	-F	C	1153	40	.8		Y5	
GRP64838	12	1211+0	1211+3	1224	N06	W03	.052	14979	12.3	13	-F			50	.5		E	
MGNT	12	1211	1214	1225D	N06	W04	.069	14979	12.2	14D	-F	C	1214	40		E		
ZURI	12	1211	1211	1223	N06	W03	.052	14979	12.3	12	-F	C	1211	60	.6		E	
839 CATA	12	1250E	1250	1250D	N22	E90	.999	14991	19.3		-N	1	1250	28			Y5	
GRP64840	12	1313+1	1315	1329	N06	W04	.069	14979	12.3	16	-F			45	.5		E	
ZURI	12	1313	1315	1329	N06	W04	.069	14979	12.3	16	-N	C	1315	60	.6		E	
MEUD	12	1314		1328	N07	W04	.071	14979	12.3	14	-F	C	1320	30	.3		E	
GRP64841	12	1431+4	1441	1448	N06	W03	.052	14979	12.4	17	-F							
ZURI	12	1431	1441	1445	N06	W04	.069	14979	12.3	14	-F	C	1441	50	.5			
WEND	12	1435		1451	N07	W03	.054	14979	12.4	16	-F							
842 ZURI	12	1501	1511	1517	N06	W05	.087	14979	12.3	16	-N	C	1511	60	.6		Y5	
843 HUAN	12	1542E		1600D	N20	E88	.998	14991	19.3	18D	-F	1	P	1548	20		D	Y5
	12	1610	1937	NO FLARE PATROL														
	12	1943	2031	NO FLARE PATROL														
844 CULG	12	2033	2039	2057	N06	W09	.156	14979	12.2	24	-F	C	2039	30	.3		Y5	
845 CULG	12	2146	2149	2213	N06	W11	.190	14979	12.1	27	-F	C	2149	30	.3	F	Y5	
846 VORO	12	2243	2243	2249	N07	W09	.156	14979	12.3	6	-B	C	2246	99	1.0	D	Y5	
	12	2246	2250	NO FLARE PATROL														
847 VORO	12	2257	2258	2304	N07	W12	.207	14979	12.1	7	-B	C	2258	108	1.1		Y5	
848 VORO	12	2312	2313	2315	N07	W12	.207	14979	12.1	3	-B	C	2313	63	.7	D	Y5	
GRP64849	13	0004+2	0005+2	0015	N07	W09	.156	14979	12.3	11	-N							
CULG	13	0004	0005	0015	N07	W09	.156	14979	12.3	11	-N	C	0005	20	.2		E	
VORO	13	0006	0007	0015	N07	W10	.173	14979	12.3	9	-B	C	0007	116	1.1		E	
GRP64850	13	0033+2	0036+1	0047	N06	W09	.156	14979	12.3	14	-N							
CULG	13	0033	0036	0050	N06	W09	.156	14979	12.3	17	-N	C	0036	35	.4		F	
VORO	13	0035	0037	0043	N06	W09	.156	14979	12.3	8	-B	C	0037	108	1.1		E	

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OBSERVATORY	OBSERVED UT				LOCATION				DURATION MIN.	IMPOR- TANCE	OBS.		MEASUREMENTS			REMARKS			
	DATE OCT	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MCMATH PLAGE REGION			CMP. DAY	COND	TYPE	TIME UT	MEAS. AREA		CORR AREA		
					LAT.	MER. DIST.												MIH of Disk	Sq. Deg.
GRP64851	13	0109+3	0110+0 0118+5	0126	N06	W12	.207	14979	12.1	17	-F							K	
CULG	13	0109	0123	0140	N06	W11	.190	14979	12.2	31	-F	C	0123	40	.4				
PALE	13	0109	0110	0124	N05	W14	.241	14979	12.0	15	-F	3 V		45				F0E	
PALE	13	0109	0110	0124	N05	W14	.241	14979	12.0	15	-F	3 C		45				F0E	
VORO	13	0110	0120	0129	N07	W11	.190	14979	12.2	19	-B	C	0120	63	.6			OK	
MANI	13	0112	0118	0124	N05	W11	.191	14979	12.2	12	-F	P	0118	50	.5			F	
GRP64852	13	0747+0	0750+0	0753	N07	W19	.324	14979	11.9	6	-F							DHJ	
ABST	13	0747	0750	0752	N06	W20	.340	14979	11.8	5	-F	C	0750	87	1.0			DJ	
MONT	13	0747	0750	0753	N08	W18	.309	14979	12.0	6	-F	C	0750	20				DH	
853 ABST	13	0852	0853	0900	N05	W19	.325	14979	11.9	8	-F	C	0853	131	1.4			EJK Y5	
854 KANZ	13	0955	0958	1002	N22	E81	.983	14991	19.5	7	-N	C						D Y5	
GRP64855	13	1030+5	1035+2	1043	N22	E80	.980	14991	19.4	13	-N							D	
CATA	13	1030E	1035	1035D	N25	E78	.973	14991	19.3	5D	1B	1	1035	50				D	
KANZ	13	1033	1037	1043	N22	E80	.980	14991	19.4	10	-N	C		56				D	
ABST	13	1033E	1036	1046	N22	E88	.997	14991	20.0	13D	1F	P	1036	96				D	
MONT	13	1034	1036	1044	N22	E79	.977	14991	19.4	10	-N	C	1036	40				D	
MEUD	13	1034	1036	1043	N22	E78	.973	14991	19.3	9	-F	C	1036	30				D	
KHAR	13	1035	1035	1043	N23	E85	.993	14991	19.8	8	-F	C						D	
856 ZURI	13	1433	1435	1449	N06	W17	.291	14979	12.3	16	-F	C	1435	40	.4			Y5	
	13	1638	1645	NO FLARE PATROL															
GRP64857	13	1706+5	1712+0	1807	N05	W22	.373	14979	12.1	61	-N								
MCMA	13	1706		1820	N05	W20	.341	14979	12.2	74	-B	P	1715	100	1.1			E	
PALE	13	1711	1712	1753	N05	W23	.389	14979	12.0	42	-N	3 V		99				F0E	
PALE	13	1711	1712	1753	N05	W23	.389	14979	12.0	42	-N	3 C		99				F0E	
PALE	13	1711	1712	1728D	N05	W23	.389	14979	12.0	17D	-N	3 V		99				F0E	
GRP64858	13	1844+1	1850+0	1955	N29	W14	.446	14990	12.7	71	-N							U	
MCMA	13	1844	1850	1927	N30	W14	.460	14990	12.7	43	-B	C	1850	110	1.2			EU	
PALE	13	1845	1850	1955	N29	W14	.446	14990	12.7	70	-N	3 V		100	1.1			F0E	
PALE	13	1845	1850	1955	N29	W14	.446	14990	12.7	70	-N	3 C		135				F0E	
FUAN	13	1847E		1857D	N29	W15	.454	14990	12.7	18D	-F	1 P	1847	135				F0E	
	13	1939	1954	NO FLARE PATROL															E
GRP64859	13	2224+2	2228+0	2242	N06	W24	.405	14979	12.1	18	-N								
CULG	13	2224	2228	2248	N07	W22	.373	14979	12.3	24	-N	C	2228	60	.7				
PALE	13	2226	2228	2236	N05	W26	.437	14979	12.0	10	-N	3 V		40	.4			F0E	
GRP64860	14	0123+0	0125+2	0158	N06	W26	.436	14979	12.1	35	-N								
CULG	14	0123	0127	0205	N07	W26	.436	14979	12.1	42	-N	C	0127	90	1.0			F	
PALE	14	0123	0125	0150	N05	W27	.452	14979	12.0	27	-N	3 V		70	.8			F0E	
GRP64861	14	0300+9	0303+7	0320	N06	W27	.452	14979	12.1	20	-N								
CULG	14	0300	0308	0325D	N07	W28	.467	14979	12.0	25D	-N	C	0308	60	.7			FJ	
VORO	14	0302	0303	0320	N07	W25	.420	14979	12.3	18	1N	C	0303	55	.6			F	
MANI	14	0304E	0306U	0315D	N06	W27	.452	14979	12.1	11D	-F	V	0306	206	2.3			J	
PALE	14	0309	0310	0319	N05	W28	.468	14979	12.0	10	-N	3 V		50	.5			F	
	14	0330	0331	NO FLARE PATROL											68				F0E
862 CULG	14	0350	0403	0433	N07	W25	.420	14979	12.3	43	-F	C	0403	35	.4			F Y5	
GRP64863	14	0605+9	0640+3	0649	N07	W29	.482	14979	12.1	44	-F								
9UCA	14	0605		0627	N08	W28	.467	14979	12.2	22	-F	C	0610	86	1.0			DJK	
ABST	14	0625	0640	0649	N06	W30	.497	14979	12.0	24	-F	C	0640	175	2.0			D	
CULG	14	0637	0643U	0710D	N07	W28	.467	14979	12.2	33D	-F	P	0643	30	.3			OK F	
864 ABST	14	0707	0708	0725	N07	W28	.467	14979	12.2	18	-F	C	0708	114	1.3			DJ Y5	
865 MONT	14	0804	0807	0831	N07	W30	.497	14979	12.1	27	-N	C	0807	80				Y5	
GRP64866	14	0947+3	0956+1	1016	N06	W28	.467	14979	12.3	29	-F								
MONT	14	0947	1005	1059	N07	W31	.512	14979	12.1	72	-N	C	1059	80				K	
MEUD	14	0950	0956	1005	N06	W28	.467	14979	12.3	15	-F	C	0956	40	.4			FK	
KHAR	14	0950	0957	1007	N06	W28	.467	14979	12.3	17	-F	C						E	
CATA	14	1015E	1020	1025D	N07	W27	.452	14979	12.4	10D	-N	2	1020	56	.6			D	
867 KANZ	14	1309	1309	1312	N07	W31	.512	14979	12.2	3	-N	C						Y5	

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	DATE	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	McMATH PLAGE REGION	CMP. DAY			MIN.	COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk			CORR. AREA Sq. Deg.
					LAT.	MER. DIST.													
868 KANZ	14	1411	1415	1419	N17	E01	.192	14993	14.7	8	-F						D	Y5	
	14	1940	2243																
	14	2248	2254																
	14	2257	2307																
	14	2315	2330																
	14	2341	2358																
	15	0015	0022																
	15	0029	0034																
	15	0135	0137																
	15	0210	0217																
	15	0224	0225																
	15	0235	0244																
GRP64869	15	1015+5	1022+1	1032	N18	W10	.268	14993	14.7	14	-F								
MONT	15	1018	1022	1029	N18	W10	.268	14993	14.7	11	-F	C	1022	40			E		
KHAR	15	1023	1023	1035	N19	W10	.281	14993	14.7	12	-F	C					D		
	15	1521	1700																
	15	1810	1821																
	15	1956	2120																
	15	2124	2132																
	16	0252	0253																
870 KANZ	16	1308		1402	N19	W27	.491	14993	14.5	54	-F	C					H	Y5	
GRP64871	16	1427+9	1430	1456	N19	W28	.504	14993	14.5	29	-F								
			1448																
KANZ	16	1427	1430	1452	N20	W28	.510	14993	14.5	25	-F	C							
ZURI	16	1440	1448	1500	N19	W29	.518	14993	14.4	20	-F	C	1448	30	.4				
	16	1654	1716																
	16	1918	2019																
	16	2026	2035																
GRP64872	16	2219+0	2220	2227	N23	E34	.602	14991	19.5	8	-N								
VORO	16	2219E		2226	N24	E35	.619	14991	19.6	70	-B	C	2220	108	1.3		E		
CULG	16	2219	2220	2227	N23	E34	.602	14991	19.5	8	-F	C	2220	20	.2		E		
873 VORO	16	2249	2251	2258	N25	E35	.624	14991	19.6	9	-B	C	2251	99	1.2		E	Y5	
	17	1938	2018																
874 VORO	18	0031	0032	0041	N19	W45	.717	14993	14.6	10	-N	C	0032	72	1.0		J	Y5	
875 VORO	18	0103	0105	0110	S25	E46	.811	14995	21.5	7	-N	C	0105	99	1.6		OG	Y5	
	18	0215	0234																
876 CULG	18	0600	0622	0647	S23	E47	.810	14995	21.8	47	-F	C	0622	40	.6			Y5	
GRP64877	18	0808+1	0811+1	0817	N25	W22	.479	14984	16.7	9	-F								
MONT	18	0808	0811	0818	N25	W23	.490	14984	16.6	10	-F	C	0811	40			E		
KANZ	18	0809	0812	0816	N25	W22	.479	14984	16.7	7	-F	C					E		
878 MCHA	18	1749E		18180	N26	E16	.430	14991	19.9	290	-N	C	1754	50	.6		E	Y5	
	18	1818	2020																
879 CULG	18	2024	2027	2038	S22	E40	.742	14995	21.9	14	-F	C	2027	15	.2			Y5	
GRP64880	19	0036+7	0040+5	0056	N23	E07	.320	14991	19.5	20	-F								
CULG	19	0036	0040	00450	N23	E07	.320	14991	19.6	90	-F	C	0040	35	.4		EJ		
VORO	19	0043	0045	0056	N24	E08	.341	14991	19.6	13	-N	C	0045	116	1.2		EJ		
881 CULG	19	0108	0139	03010	S28	E27	.676	14995	21.1	130	?F	C	0139	240	3.1		SF	Y5	
	IMP.	1 NO	VORO2	MITK1															
GRP64882	19	0216+1	0218+1	0228	N21	W33	.581	14984	16.6	12	-F								
CULG	19	0216	0219	0230	N22	W32	.574	14984	16.7	14	-F	C	0219	45	.6		E		
MITK	19	0217	0218	0226	N21	W35	.605	14984	16.5	9	-F	C	0218	40	.5		E		
883 CULG	19	0541	0545	0607	S24	E28	.646	14995	21.3	26	-F	C	0545	30	.4			Y5	
GRP64884	19	0719+1	0720	0742	S25	E28	.655	14995	21.4	23	-F								
HTPR	19	0719E	0720	0738	S25	E27	.647	14995	21.3	190	-F	C	0720	30	.4		D		
BUCA	19	0720		0745	S25	E29	.664	14995	21.5	25	-N	C	0725	43	.6		D		

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OBSERVATORY	OBSERVED UT				LOCATION				DURATION MIN	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS			
	DATE OCT	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	HEMISPHERE PLAGE REGION			CMP. DAY	COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk		CORR. AREA Sq. Deg.		
					LAT.	MER. DIST.													
GRP64885	19	1105	1114	1159	N20	W66	.910	14993	14.5	54	-N						E		
LVOV	19	1105	1114	1159	N20	W68	.923	14993	14.4	54	-F						E		
CATA	19	1130E	1130	11450	N20	W65	.904	14993	14.6	150	-E	2	C	1114	100				
														1130	73	1.8			
886	LVOV	19	1156	1202	S25	E26	.638	14995	21.4	19	-F		C	1202	150	2.0	D	Y5	
887	ZURI	19	1442	1456	N21	W42	.688	14984	16.5	24	-F		C	1456	40	.6		Y5	
888	ZURI	19	1512	1512	S25	E25	.630	14995	21.5	4	-N		C	1512	60	.8		Y5	
		19	1556	1638	NO FLARE PATROL														
		19	1639	1745	NO FLARE PATROL														
		19	1757	1808	NO FLARE PATROL														
		19	1904	1928	NO FLARE PATROL														
		19	2203	2212	NO FLARE PATROL														
GRP64889	19	2212	2230	2310	S26	E16	.576	14995	21.1	58	-N								
			2242																
CULG	19	2212	2230	23220	S27	E17	.595	14995	21.2	700	-N		C	2230	140	1.8			
PALE	19	2219E	2242	2258	S26	E15	.570	14995	21.1	390	-N	3	V		137				
	19	2321	2332	NO FLARE PATROL															
GRP64890	20	0032E	0035+1	0058	N23	W44	.718	14984	16.7	26	-F				30	.4			
PALE	20	0032E	0036	0058	N24	W44	.721	14984	16.7	260	-F	3	V		32			DE	
MANI	20	0035E	0035U	00550	N23	W45	.728	14984	16.6	200	-F		V	0035	25	.3			
891	CULG	20	0224	0232	S26	E16	.575	14995	21.3	18	-F		C	0232	20	.2		Y5	
892	MITK	20	0617	0629	N22	W52	.797	14984	16.4	27	-N		C	0629	50	.8	D	Y5	
893	ZURI	20	1352E	1358	N20	W69	.930	14984	15.4	80	-N		P	1358	50			Y5	
894	CATA	20	1405E	1405	N21	W70	.936	14984	15.3	200	-9	2		1405	56			Y5	
895	ZURI	20	1444	1446	N23	W66	.912	14984	15.7	6	-N		C	1446	40			Y5	
GRP64896	20	1541+2	1554	1700	S26	E04	.526	14995	21.0	79	1B				200	2.3		KLU	
			1605																
MCMA	20	1541	1554	1700	S26	E04	.526	14995	21.0	79	1B								
MCMA	20	1541	1605	1700	S26	E04	.526	14995	21.0	79	1B		C	1554	225	2.7		KLU	
MEUD	20	1543		15510	S26	E05	.528	14995	21.0	80	1N		C	1551	18	2.1		U	
	20	1734	1741	NO FLARE PATROL															
	20	1946	2035	NO FLARE PATROL															
	20	2204	2220	NO FLARE PATROL															
GRP64897	21	0048+2	0052+1	0059	N25	W20	.460	14991	19.5	11	-N							J	
VORO	21	0048	0053	0058	N26	W22	.491	14991	19.4	10	-N		C	0053	134	1.5		J	
CULG	21	0050	0052	0100	N25	W19	.450	14991	19.6	10	-N		C	0052	20	.2			
898	CULG	21	0141	0146	N21	W70	.936	14984	15.8	16	-F		C	0146	30			Y5	
899	KANZ	21	0713	0750	N20	W88	.998	14984	14.7	44	-F		C					Y5	
GRP64900	21	0813+3	0834+3	0932	S25	W07	.518	14995	20.8	79	-N				110	1.3		EI	
			0845																
MONT	21	0813	0834	0933	S24	W04	.495	14995	21.0	80	-N		C	0834	80			E	
KANZ	21	0816	0837	0928	S25	W06	.515	14995	20.9	72	-N		C					E	
CATA	21	0830E	0845	0935	S25	W08	.521	14995	20.8	650	-B	2		0845	84	1.0			
KHAR	21	0830E	0835	0930	S24	W07	.503	14995	20.8	600	-F		C	0835	110	1.3		E	
KIEV	21	0839E	0839	09360	S26	W08	.535	14995	20.8	970	1F		C	0839	200	2.5		BEI	
ATHN	21	0904E	0907	0922	S24	E01	.491	14995	21.5	160	-N	1			80	.8			
GRP64901	21	0948+3	0950+1	1005	S26	W07	.532	14995	20.9	17	-F				25	.3			
MONT	21	0948	0951	1009	S26	W07	.532	14995	20.9	21	-F		C	0951	20			D	
MEUD	21	0949	0950	1005	S26	W08	.535	14995	20.8	16	-F		C	0950	30	.3		E	
KANZ	21	0951	0951	1005	S26	W07	.532	14995	20.9	14	-N		C						
902	KHAR	21	0950	0950	N22	W89	.999	14984	14.7	7	-F		C					DT	Y5
GRP64903	21	1030+1	1043+1	1051	N21	W89	.999	14984	14.8	21	-F							D	
KHAR	21	1030	1043	1050	N22	W89	.999	14984	14.8	20	-F		C					DT	
KANZ	21	1031	1044	1051	N20	W90	.999	14984	14.7	20	-N		C						

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	DATE OCT	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	NORTH PLAGE REGION	CMP DAY			COND	TYPE	TIME UT	MEAS. AREA MIL of Disk	CORR AREA Sq. Deg	
					LAT.	MER. DIST.											
GRP64904	21	1127+0	1127+3	1135	N21	W87	.997	14984	15.0	8	-F					D	
KANZ	21	1127	1130	1137	N20	W85	.993	14984	15.1	10	-F	C				DT	
KHAR	21	1127	1127	1133	N22	W89	.999	14984	14.8	6	-F	C					
GRP64905	21	1239+1	1240+4	1248	S27	W06	.544	14995	21.1	9	-F	C	1244	50	.6	E	
MONT	21	1239	1244	1248	S27	W06	.544	14995	21.1	9	-F	C	1244	40		E	
KANZ	21	1240	1243	1246	S27	W06	.544	14995	21.1	6	-F	C					
CATA	21	1240	1240	1305	S26	W06	.529	14995	21.1	25	-N	1	1240	67	.8		
MEUD	21	1240	1244	1248	S27	W07	.546	14995	21.0	8	-F	C	1244	50	.6	E	
GRP64906	21	1505+2	1508+1	1518	S25	W09	.525	14995	21.0	13	-F			50	.6	E	
MCMA	21	1505	1508	1520	S25	W09	.525	14995	21.0	15	-N	C	1508	45	.5	E	
MEUD	21	1507	1509	1516	S26	W09	.539	14995	21.0	9	-F	C	1509	50	.6	E	
907 MCMA	21	1536	1555	1640	S26	W09	.539	14995	21.0	64	-N	C	1555	75	.9	EL Y5	
	21	1946	2015	NO FLARE PATROL													
908 CULG	21	2125	2145	2255	S25	W15	.555	14995	20.8	90	-N	C	2145	160	1.9	SF Y5	
GRP64909	21	2127E	2143+0	21480	N29	W14	.455	14996	20.8	21	-N			40	.5	Z	
PALE	21	2127E	2143U	21480	N29	W14	.455	14996	20.8	210	-N	3	C	39		OE	
PALE	21	2127E	2143U	21480	N29	W14	.455	14996	20.8	210	-N	3	V	39		OE Z	
GRP64910	22	0050+3	0054+1	0103	N22	W78	.974	14984	16.2	13	-N					OJ	
CULG	22	0050	0055	0103	N21	W78	.974	14984	16.2	13	-N	C	0050	20			
MITK	22	0052	0055	0105	N23	W77	.970	14984	16.3	13	-N	C	0055	50		D	
VORO	22	0053	0054	0100	N23	W78	.974	14984	16.2	7	-N	C	0054	90	1.9	J	
GRP64911	22	0406+1	0410+2	0425	N21	W77	.970	14984	16.4	19	1N			90			
CULG	22	0406	0410	0427	N20	W78	.974	14984	16.3	21	1N	C	0410	60			
MITK	22	0407	0412	0422	N22	W79	.977	14984	16.2	15	1B	C	0412	130			
HANI	22	0410E	0412U	04160	N20	W75	.962	14984	16.5	60	-N	V	0412	80	1.9		
GRP64912	22	0514+3	0518+1	0532	N22	W34	.600	14991	19.7	18	-F					EG	
CULG	22	0514	0519	0526	N18	W37	.620	14991	19.4	12	-F	C	0519	20	.2		
MITK	22	0517	0518	0537	N26	W32	.600	14991	19.8	20	-N	C	0518	60	.8	EG	
GRP64913	22	0850+2	0852+1	0905	N23	W78	.974	14984	16.5	15	-N			60		E	
MONT	22	0850	0853	09000	N23	W79	.977	14984	16.4	100	1N	C	0853	220			
ZURI	22	0850	0852	0858	N23	W76	.966	14984	16.7	8	-B	C	0852	60			
BUCA	22	0850		0912	N22	W80	.981	14984	16.4	22	-N	C	0856	64		E	
KANZ	22	0852	0852	0910	N23	W78	.974	14984	16.5	18	-N	C					
914 KANZ	22	0907	0910	0913	N18	E90	1.000	15006	29.1	6	-F	C				Y5	
GRP64915	22	1048+0	1051+1	1101	S26	W19	.593	14995	21.0	13	-F					E	
MONT	22	1048	1052	1100	S26	W19	.593	14995	21.0	12	-N	C	1052	80		E	
KANZ	22	1048	1051	1101	S26	W19	.593	14995	21.0	13	-F	C					
916 CATA	22	1130	1130	11450	S29	W17	.616	14995	21.2	150	-N	2	1130	28	.4	Y5	
917 LVOV	22	1213	1216	1304	S27	W18	.598	14995	21.2	51	?F	C	1216	200	2.6	Y5	
	IMP	1 NO	CATA1														
	22	1527	1735	NO FLARE PATROL													
	22	1745	2045	NO FLARE PATROL													
	22	2104	2115	NO FLARE PATROL													
918 CULG	22	2346	2352	2357	N23	W90	.999	14984	16.2	11	-N	C	2352	25		Y5	
GRP64919	23	0028+9	0040	00470	N24	W44	.722	14991	19.7	19	-N					G	
CULG	23	0028	0057U	0145	N25	W43	.715	14991	19.8	77	-N	C	0057	100	1.5	F	
VORO	23	0037	0040	0047	N23	W45	.730	14991	19.7	10	-B	C	0045	125	1.8	EG	
	23	0314	0329	NO FLARE PATROL													
	23	0335	0342	NO FLARE PATROL													
	23	0443	0448	NO FLARE PATROL													
	23	0450	0509	NO FLARE PATROL													
	23	0513	0522	NO FLARE PATROL													
	23	0525	0700	NO FLARE PATROL													
GRP64920	23	1140+5	1143+2	1155	S27	W23	.632	14995	21.8	15	-F			100	1.3		
CATA	23	1140	1145	1210	S27	W22	.624	14995	21.8	30	-N	2	1145	112	1.5		
KHAR	23	1143	1143	1150	S27	W24	.639	14995	21.7	7	-F	C	1143	90	1.2		
KANZ	23	1145	1145	1155	S26	W24	.629	14995	21.7	10	-F	C					

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	DATE OCT	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MCMATH PLAGE REGION	CMR DAY			COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg	
					LAT.	MER. DIST.											
921 KANZ	23	1207	1211	1231	S24	E16	.547	15005	24.7	24	-N	C				Y5	
GRP64922	23	1243+7	1250+0	1305	N30	E87	.996	15008	30.1	22	-B						
KANZ	23	1243	1250	1305	N33	E85	.992	15008	29.9	22	-B	C					
CATA	23	1250	1250	1305	N28	E90	.999	15008	30.3	15	1N	2	1250	84			
	23	1430	1445		NO FLARE PATROL												
	23	1450	1704		NO FLARE PATROL												
	23	1905	2050		NO FLARE PATROL												
	23	2132	2147		NO FLARE PATROL												
	23	2209	2215		NO FLARE PATROL												
923 MITK	23	2336	2338	2346	N18	E63	.889	15006	28.7	10	-N	C	2338	50	1.1	DG Y5	
924 VORO	24	0038	0039	0041	N17	E62	.881	15006	28.7	3	-F	C	0039	72	1.5	DG Y5	
GRP64925	24	1428+3	1433+0	1459	S24	W43	.778	14995	21.4	31	-N			45	.7	E	
MCMA	24	1428	1433	1500	S25	W44	.791	14995	21.3	32	-N	C	1433	45	.8	E	
ZURI	24	1431	1433	1457	S24	W43	.778	14995	21.4	26	-N	C	1433	40	.7		
926 MCMA	24	1535	1537	1550	S25	W44	.791	14995	21.3	15	-F	C	1537	20	.3	D Y5	
927 MCMA	24	1650	1653	1707	S25	W44	.791	14995	21.4	17	-F	C	1653	15	.2	D Y5	
	24	2106	2215		NO FLARE PATROL												
	25	0100	0144		NO FLARE PATROL												
	25	0147	0156		NO FLARE PATROL												
	25	1435	1445		NO FLARE PATROL												
928 VORO	25	2348	2352	0000	S18	E42	.736	15011	29.1	12	-F	C	2352	54	.8	EGJ Y5	
	26	0241	0242		NO FLARE PATROL												
	26	0325	0343		NO FLARE PATROL												
929 KANZ	26	1153	1153	1203	N20	E40	.665	15009	29.5	10	-F	C				Y5	
	26	1602	1914		NO FLARE PATROL												
	26	1918	1927		NO FLARE PATROL												
GRP64930	26	1934E	1934	1941	N21	E44	.714	15009	30.1	7	-F			30	.4	F	
PALE	26	1934E	1934	1941	N21	E44	.714	15009	30.1	70	-F	3 C		31		F	
PALE	26	1934E	1934	1941	N21	E44	.714	15009	30.1	70	-F	3 V		31		F	
	26	1945	2020		NO FLARE PATROL												
	26	2206	2214		NO FLARE PATROL												
931 MITK	27	0209	0212	0231	N21	E43	.703	15009	30.3	22	-N	C	0212	80	1.1	DG Y5	
932 MITK	27	0507	0517	0530	N19	W33	.576	15015	24.7	23	-N	C	0517	60	.8	DG Y5	
933 PALE	27	2338	2338	2341	N22	E61	.877	15013	1.6	3	-F	3 V		19		DE Y5	
GRP64934	28	0042	0046	0100	N21	E24	.475	15009	29.8	18	-N						
PALE	28	0042	0046	0058	N21	E24	.475	15009	29.8	16	-N	3 V		101		FOE	
CULG	28	0050E	0050E	0101	N21	E24	.475	15009	29.8	110	-N	P	0050	20	.2		
935 CULG	28	0304	0317	0345	N20	E23	.455	15009	29.9	41	-F	C	0317	30	.3	Y5	
936 CULG	28	0355	0400	0417	S29	E90	1.001	15016	3.9	22	1N	C	0400	100		Y5	
937 CULG	28	0530	0538	0550	N21	E25	.488	15009	30.1	20	-F	C	0538	35	.4	F Y5	
GRP64938	28	0722+8	0730+2	07350	N21	W49	.768	15015	24.6	13	-N			45	.7		
CULG	28	0722	07320	07320	N22	W48	.760	15015	24.7	100	-N	P	0732	30	.8		
CATA	28	0730	0730	07350	N20	W50	.776	15015	24.6	50	-N	2	0730	56	.9		
GRP64939	28	0915+1	0915	0950	S26	E84	.998	15083	4.7	35	-N						
			0940+1														
CATA	28	0915E	0915	0925	S28	E90	1.001	15083	4.1	100	1N	2	0915	56			
KANZ	28	0916	0941	0949	S25	E84	.998	15083	3.7	33	-N	C					
CATA	28	0935	0940	0950	S28	E80	.994	15083	3.4	15	1F	2	0940	112			

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Oct 77

H α SOLAR FLARES

OCTOBER 1977

OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN.	IMPOR- TANCE	OBS.		MEASUREMENTS			REMARKS
	DATE OCT	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MCNATH PLAGE REGION	CNR DAY			COND	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR AREA Sec. Deg	
					LAT.	MER. DIST.											
961 CULG	29	2349	2353	0012	S18	E02	.387		30.1	23	-F		C	2353	15	.2	Y5
	30	0105	0235	NO FLARE PATROL													
GRP64962 PALE PALE	30	0223+0	0225+0	0230	N21	W01	.283	15009	30.0	7	-F				60	.6	F
	30	0223	0225	0230	N21	W01	.283	15009	30.0	7	-F	3	C		57		F
	30	0223	0225	0230	N21	W01	.283	15009	30.0	7	-F	3	V		57		F
	30	0320	0325	NO FLARE PATROL													
	30	0330	0359	NO FLARE PATROL													
	30	0706	0715	NO FLARE PATROL													
	30	0722	0725	NO FLARE PATROL													
963 HTPR	30	1154	1202	1240	S18	W22	.520	15018	28.8	46	-F		C	1202	10	.1	Y5
964 ZURI	30	1322	1323	1324	N20	W80	.982	15015	24.6	2	-F		C	1323	20		Y5
GRP64965 HTPR ZURI	30	1327+2	1328+1	1333	N18	E70	.937	15017	5.8	6	-N				50		
	30	1327	1328	1331	N19	E69	.931	15017	4.7	4	-N		C	1328	60	1.3	
	30	1329	1329	1335	N18	E71	.943	15017	4.9	6	-B		C	1329	50		
	30	1600	1621	NO FLARE PATROL													
	30	1625	1636	NO FLARE PATROL													
	30	1646	1718	NO FLARE PATROL													
966 PALE	30	1733	1734	1738	N19	E69	.931	15017	4.9	5	-F	3	C		46		HOE Y5
967 MITK IMP.1 NO	31	0132	0142	0221	N17	W90	1.000	15015	24.3	49	?N		C	0142	60		G Y5
			CULG2														
968 CULG	31	0340	0344	0352	N28	E85	.994		6.5	12	-F		C	0344	25		Y5
969 MITK	31	0411	0417	0430	N20	E70	.938	15017	5.4	19	-N		C	0417	80		H Y5
970 MITK IMP.1 NO	31	0437	0440	0456	S28	W90	1.001	15005	24.4	19	?N		C	0440	90		G Y5
			CULG2														
971 CULG	31	0508	0515	0525	N29	E80	.982		6.2	17	-F		C	0515	20		Y5
972 KHAR	31	0840E	0847	0917	N21	W90	1.000	15015	24.6	370	-F		C				DT Y5
GRP64973 KHAR KANZ	31	1043>9	1050	1110	N21	W90	1.000	15015	24.7	27	-F						D
	31	1100	1100	1117	N21	W90	1.000	15015	24.7	34	1F		C				DT
	31	1043	1050	1102	N21	W90	1.000	15015	24.7	5	-F		C				D
GRP64974 KHAR KHAR	31	1145	1150	1205	N21	W90	1.000	15015	24.7	20	-F		C				D
	31	1145	1150	1205	N21	W90	1.000	15015	24.7	20	-F		C				DT
	31	1145	1150	1205	N21	W90	1.000	15015	24.7	20	-F		C				DT
	31	1600	1654	NO FLARE PATROL													
	31	1943	2024	NO FLARE PATROL													
	31	2035	2043	NO FLARE PATROL													
	31	2053	2110	NO FLARE PATROL													
	31	2131	2133	NO FLARE PATROL													

"Remarks":

- A = Eruptive prominence whose base is less than 90° 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 a 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 calcium II lines H and K.
- P = Flare shows helium D₃ in emission.
- Q = Flare shows the Balmer continuum in emission.
- R = Marked asymmetry in H α line suggests ejection of high velocity material.
- S = Brightness follows disappearance of filament (same position).
- T = Region active all day.
- U = Two bright branches, parallel (||) or converging (Y).
- V = Occurrence of an explosive phase: important and abrupt expansion in about a minute with or without important intensity increase.
- W = Great increase in area after time of maximum intensity.
- X = Unusually wide H α line.
- Y = System of loop-type prominences.
- Z = Major sunspot umbra covered by flare.