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Mar 77

# H $\alpha$ SOLAR FLARES

MARCH 1977

OBSERVATORY	OBSERVED UT				LOCATION				DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS		
	DATE 1977 MAR	START	MAX. PHASE	END	APPROX		CENTRAL DISTANCE	MCNATH PLAGE REGION			CNR DAY	MIN.	COND.	TYPE	TIME UT		MEAS. AREA Mill. of Disk	CORR AREA Sq. Deg.
					LAT.	MER. DIST.												
825 KHAR	01	0240	0314	NO FLARE	RE PATROL													
	02	1034E IMP 1 NO		11130 HTPR2 MONT2	N10 E90	1.000		9.2	390	? N		P	1037				Y5	
	02	2049	2148	NO FLARE	RE PATROL													
	03	2116	2123	NO FLARE	RE PATROL													
	03	2144	2345	NO FLARE	RE PATROL													
	03	2358	0002	NO FLARE	RE PATROL													
	04	0004	0019	NO FLARE	RE PATROL													
	04	1610	1801	NO FLARE	RE PATROL													
	04	1822	1835	NO FLARE	RE PATROL													
	04	1927	2119	NO FLARE	RE PATROL													
	04	2240	2330	NO FLARE	RE PATROL													
	06	1819	1825	NO FLARE	RE PATROL													
	06	1837	1840	NO FLARE	RE PATROL													
	06	1901	2250	NO FLARE	RE PATROL													
	07	0410	0416	NO FLARE	RE PATROL													
	07	1620	1652	NO FLARE	RE PATROL													
	07	1713	1725	NO FLARE	RE PATROL													
	07	2005	2007	NO FLARE	RE PATROL													
07	2011	2042	NO FLARE	RE PATROL														
07	2254	2315	NO FLARE	RE PATROL														
08	0335	0450	NO FLARE	RE PATROL														
08	0544	0700	NO FLARE	RE PATROL														
08	0740	0746	NO FLARE	RE PATROL														
08	0943	0945	NO FLARE	RE PATROL														
826 HTPR	08	1040	1047	1102	N20 E03	.460	14674	8.7	22	-F		C	1047	20	.2	E	Y5	
GRP63827 HTPR MCMA	08	1405+6	1423	1458	N20 00	.458	14674	8.6	53	-N				90	1.0	E		
	08	1405		1446D	N20 E01	.458	14674	8.7	41D	-N		C	1421	60	.6	E		
	08	1411	1423	1458	N20 E00	.458	14674	8.6	47	-B		C	1423	120	1.4	E		
828 MCMA	08	1852	1853	1857	N21 W14	.521	14674	7.7	5	-F		C	1853	25	.3	EH	Y5	
	08	2030	2040	NO FLARE	RE PATROL													
	08	2152	2227	NO FLARE	RE PATROL													
829 CULG	08	2236U		2300	N21 W03	.476	14674	8.7	24D	-F		C	2236	30	.3		Y5	
	09	0210	0307	NO FLARE	RE PATROL													
GRP63830 LOCA HTPR MEUD KHAR	09	0952+2	0954+1	1003	N17 W09	.436	14674	8.7	11	-F				40	.4	E		
	09	0952	0954	1003	N17 W08	.430	14674	8.8	11	-N		V	0954	61	.7	E		
	09	0952	0954	1002	N17 W10	.441	14674	8.7	10	-F		C	0954	20	.2	E		
	09	0954	0955	0959	N16 W09	.421	14674	8.7	5	-F		C	0955	40	.4	E		
	09	0958E		1005D	N17 W08	.430	14674	8.8	7D	-F		C				E	4	
GRP63831  ZURI HTPR MEUD CATA ATHN	09	1101+3	1106+3	1133	N21 W08	.490	14674	8.9	32	-F				50	.6			
			1117															
	09	1101	1109	1133	N21 W06	.482	14674	9.0	32	-F		C	1109	50	.6			
	09	1102	1106	1129	N22 W09	.508	14674	8.8	27	-N		C	1106	40	.4			
	09	1104	1108	1123D	N22 W08	.504	14674	8.9	19D	-F		C	1108	40	.4			
	09	1110E	1110	1125D	N21 W07	.486	14674	8.9	15D	-F			2	1110	56	.7		
	09	1112E	1117	1134	N20 W08	.475	14674	8.9	22D	-N		1		66	134.0			
832 HTPR	09	1153	1158	1202	N16 W10	.427	14674	8.7	9	-F		C	1158	20	.2	E	Y5	
833 HTPR	09	1311	1312	1317	N16 W11	.433	14674	8.7	6	-F		C	1312	20	.2	E	Y5	
834 MCMA	09	1707		1728	N22 W14	.534	14674	8.7	21	-B		C	1707	130	1.6	E	Y5	
	09	1754	1812	NO FLARE	RE PATROL													
	09	1824	1826	NO FLARE	RE PATROL													
	09	1831	1842	NO FLARE	RE PATROL													
	09	1907	1924	NO FLARE	RE PATROL													
	09	1936	2300	NO FLARE	RE PATROL													
	10	2007	2013	NO FLARE	RE PATROL													
	10	2135	2210	NO FLARE	RE PATROL													
835 MITK	11	0127	0127	0130	N28 W90	1.002	14566	4.3	3	-N		C	0127	50		D	Y5	
836 ATHN	11	1215E	1216	1231D	N21 W36	.710	14674	8.8	16D	-N	1		33	80.0			Y5	
837 MCMA	11	1750	1802	1822	N22 W37	.726	14674	9.0	32	-F		C	1802	60	.9	E	Y5	



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	DATE 1977 MAR	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.											
	30	1728	1737	NO FLARE	PATROL												
	30	2007	2016	NO FLARE	PATROL												
	30	2038	2225	NO FLARE	PATROL												
	31	0938	0951	NO FLARE	PATROL												
	31	1147	1201	NO FLARE	PATROL												
	31	1318	1325	NO FLARE	PATROL												
	31	1330	1342	NO FLARE	PATROL												
	31	1731	1748	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 D<sub>3</sub> in emission.
- Q = Flare shows the Balmer continuum in emission.
- R = Marked asymmetry in H $\alpha$  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 $\alpha$  line.
- Y = System of loop-type prominences.
- Z = Major sunspot umbra covered by flare.

MARCH 1977			DAILY FLARE INDICES			MARCH 1977		
Date	Flare Index	HR. OBS.	Date	Flare Index	HR. OBS.	Date	Flare Index	HR. OBS.
770301	0.00	23.4	770311	4.81	22.7	770321	.85	22.4
770302	0.00	23.0	770312	0.00	20.8	770322	0.00	23.9
770303	0.00	21.8	770313	0.00	19.7	770323	0.00	21.6
770304	0.00	19.0	770314	1.69	23.7	770324	.85	23.8
770305	0.00	24.0	770315	0.00	24.0	770325	0.00	23.6
770306	0.00	20.0	770316	0.00	23.6	770326	.84	24.0
770307	0.00	22.3	770317	0.00	21.5	770327	0.00	21.8
770308	14.87	20.6	770318	0.00	20.9	770328	0.00	21.1
770309	19.68	18.9	770319	0.00	23.6	770329	0.00	22.4
770310	0.00	23.3	770320	0.00	23.2	770330	0.00	20.0
						770331	0.00	23.0

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