

White light MDF, 1997 August

Observer	MDF				R		Q	
	North	South	Total	Days	Total	Days	Total	Days
W.F. Heyes	0.42	1.33	1.75	12	-	-	4.25	12
G. North	1.15	0.45	1.60	20	22.35	20	-	-
E.H. Strach	0.71	0.21	0.93	14	17.29	14	3.00	14
K. Medway	1.10	0.36	1.46	30	-	-	-	-
J.G. Gissing	0.54	0.15	0.69	13	-	-	0.92	13
P. Meadows	1.59	0.70	2.30	27	32.56	27	5.44	27
T. Tanti	1.42	0.52	1.94	31	27.30	31	4.40	31
J. Isles	1.60	0.90	2.50	10	33.20	10	-	-
CUAS	1.21	0.53	1.74	19	22.10	19	-	-
M. Gotz	-	-	1.00	11	17.10	11	-	-
MEANS	1.16	0.54	1.66	187	25.41	132	4.00	97

MDF = Mean Daily Frequency of active areas, R = sunspot number, Q = mean quality estimate (JBAA 98,6,pp282-286)

Sunspot Activity, 1997 August

August showed a marked increase in activity compared to the low levels experienced in previous months. The month started with very little activity. Meadows observed a single Axx spot on the 2nd at N7/53 enclosed in a area of faculae near the E limb. By the 3rd a small Cro group had developed on the disk at S19/72 which, by the 6th, had changed into a single Hsx spot before it had decayed on the disk by the 9th.

On the 5th another two groups had formed on the disk. The first of these started as a Bxo group (at N21/112) before developing into a Dso group by the following day with an area of 90 millionths. It disappeared around the W limb on the 9th. The other group started as an Axx spot surrounded by an area of faculae near the E limb. It then changed into a small Dso group at S18/26. On the 8th it had a longitudinal extent of some 8°.

On the 8th Meadows reports that another single Axx spot was seen near the E limb at N26/337. This turned into a Cro group and then a small Hsx spot before decaying on the disk by the 16th.

On the 11th two penumbral spots appeared close to the E limb at almost the same longitude. The N most of these, at N27/279, decayed slowly and was last seen near the central meridian as a single spot on the 17th. The S penumbral spot, at N16/282, proceeded across the disk as a Hsx spot and was last seen on the 21st. Its maximum area was 70 millionths when seen on the 15th.

Meadows reports that observations on the 23rd and 24th showed no spots but on the 24th an extensive area of bright faculae enclosed in an area 10° x 10° had appeared near the E limb. The location of this faculae was that of the Dso group which had passed around the limb on the 9th. By the following day a Cao group was seen in a N extension of the faculae. This group, at N29/109, rapidly grew into a Esi type. On the 29th it comprised a leading penumbral spot containing several umbra followed by 24 small penumbral and other spots and had a total area of 230 millionths. On the 31st Medway observed this group with the naked eye using a Solar Skreen filter. By this time the leading penumbral spot had reduced in size slightly but the longitudinal extent of the group had become 15°.

Prominence MDF, 1997 August

Observer	All Latitudes				0-40°			40-90°		
	North	South	Total	Days	North	South	Total	North	South	Total
E. Strach	1.60	1.00	2.60	10	0.60	0.50	1.10	1.00	0.50	1.50
K. Medway	2.05	1.14	3.19	21	1.66	0.67	2.33	0.38	0.48	0.86

Prominence activity, 1997 August

Strach reported that his prominence MDF was the lowest that he had recorded since 1995 November. The only prominence of note was seen on the 19th on the E limb from N35 to N43. Medway also reports that the limb was mostly quiet with small, insignificant prominences. He also observed the prominence on the NE limb on the 18th and 19th and describes it as a tall pillar. Medway notes that filaments were seen quite

frequently during the month. One seen on the 18th extended from the CM to the NW limb at mean latitude N50. Three filaments were seen on the disk on the 23rd.

Flares, 1997 August

Date	Time	Lat	CMD	Type	Obs.
9	1538	N32	W75	Sf	KJM
25	1040	N30	72E	Sf	EHS