

White light MDF, 1998 October

Observer	MDF				R		Q	
	North	South	Total	Days	Total	Days	Total	Days
J. Shanklin	-	-	3.50	16	47.00	16	-	-
P. Meadows	3.67	2.22	5.89	9	84.11	9	15.78	9
M.J. Hendrie	3.00	2.50	5.50	4	80.25	4	-	-
G. North	2.20	1.20	3.40	5	58.20	5	-	-
K. Medway	1.57	0.85	2.42	19	-	-	-	-
W.F. Heyes	1.67	0.67	2.33	6	-	-	7.33	6
G.F. Johnstone	3.00	1.20	4.20	5	-	-	-	-
E.H. Strach	2.24	1.38	3.62	21	56.76	21	11.00	21
MEANS	2.29	1.32	3.59	85	60.24	55	11.58	36

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

Sunspot Activity, 1998 October

The short days and poor weather during October conspired to reduce the number of reports by TA observers this month. Overall activity was lower than in recent months and the spots were smaller.

Strach's first observation of the month was on the 7th when he noted a well-defined Dso bipolar group with its leader at N18/190 and follower at N20/182. It crossed the CM on the next day and a new follower appeared at N20/176. On that date there were 26 small spots between the groups.

Meadows did not manage to make his first observation until the 11th and on that day he observed five groups. Of these only two consisted of any penumbral spots. One of these groups was the Cso group observed by Strach. Meadows reported its position as N20/180 with an area of 100 millionths. The other group was of type Dsi at S19/124 with an area of 90 millionths. This latter group consisted of a compact collection of two small symmetrical leading and following penumbral spots together with intermediate penumbral and other spots. By the time of the next observation, on the 15th, this group had decayed into type Bxo.

Strach noted that most spots in October were seen at mid-latitudes but that one high-latitude spot was seen on the 10th/11th at S34/101.

Meadows reported a further D type on the 15th at S17/107. This had an area of 250 millionths equally split between the two main penumbral spots. By the 18th, this group was of type Eao with an area of 360 millionths (to become the largest group seen during the month). The group was last seen on the 19th when it was near the W limb.

On the 18th Meadows reported a total of nine groups. These comprised the above E type group, three small D type groups, two A type groups and one C, B and H type groups. Six of these were in the northern hemisphere. The number of groups seen reduced to four on the 25th and down further to two on the 28th. On the 29th, the number of groups increased again to six including the return of the leading spot of the Cao group seen on the 11th. Now this group consisted of a single Hhx spot at N19/187. When this group was seen on the 30th, the main penumbral spot was accompanied by two small spots that changed the group into type Cho. On this date, all the other groups seen were small in size.

Prominence MDF, 1998 October

Observer	All Latitudes				0-40°			40-90°		
	North	South	Total	Days	North	South	Total	North	South	Total
E.H. Strach	4.55	4.05	8.60	20	2.15	1.75	3.90	2.40	2.30	4.70
K.J. Medway	5.38	2.50	7.87	7	3.00	1.62	4.62	2.38	0.87	3.25

Prominence activity, 1998 October

Both Medway and Strach report that prominence activity was maintained at a reasonably high level during the month. Medway observed prominences on seven days and noted that they were numerous on the NE limb on the 3rd. Strach particularly noted a short-lived eruption on the E limb at N51 on the 12th and an interesting filament/prominence which was observed between the 11th and the 29th. Prominences on the SE limb became filaments as they rotated onto the disk.

Flares, 1998 October

Date	Time	Lat	CMD	Type	Obs.
4	1135	N17	E45	Sn	KJM
7	0855	N19	E3	Sf	EHS
7	0915	N19	E14	Sf	EHS
8	1000-1050	N20	E46	2N	EHS
9	1004-1014	S17	E41	SB	KJM
11	1150	N21	W34	Sf	EHS
12	1115	N20	W47	2N	EHS
17	0910	N20	E33	Sf	EHS