

White light MDF, 1998 June

Observer	MDF				R		Q	
	North	South	Total	Days	Total	Days	Total	Days
CUAS	1.50	2.40	3.80	19	48.00	19	-	-
M.J. Hendrie	2.00	2.71	4.71	7	63.43	7	-	-
K. Medway	1.25	2.39	3.64	28	-	-	-	-
G. North	1.75	2.12	3.87	8	56.60	8	-	-
G.F. Johnstone	1.60	2.20	3.80	5	-	-	-	-
E.H. Strach	1.67	2.40	4.07	15	58.60	15	12.27	15
W.F. Heyes	1.43	2.86	4.29	7	-	-	10.57	7
P. Meadows	2.00	2.92	4.92	12	72.17	12	10.67	12
MEANS	1.57	2.48	4.03	101	58.26	61	11.36	34

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

BAA/TA Comparison

Month	Active areas		Spot numbers	
	BAA	TA	BAA	TA
1998 May	3.12	2.86	56.09	47.89

Sunspot Activity, 1998 June

To say that June was a particularly cloudy month would be a severe understatement but TA observers still managed to achieve reasonable coverage. The following notes are from Peter Meadows' monthly e-mail report:

The first observation of the month, on the 7th, showed a Chi group approaching the CM at S20/351. This group comprised a moderately size penumbral spot (area 370 millionths) with 12 small following spots. By the next day, the number of following spots had reduced to 10 and then to five by the 10th when the group became type Hhx.

Also on the 7th a small Csi group was seen at N21/23 (area 50 millionths) and a small Dai group at S20/41 (area 90 millionths). The number of spots in the Csi group reduced slightly by the 8th and only a single Axx spot was seen on the 10th. The Dai group had decayed into type Cso by the 8th. It was not seen on the 10th as it would have been near the limb.

On the 10th, two small Cso groups were seen at S22/15 and S25/316. On the 12th, the W of these groups had grown into type Eso but was very close to the W limb. Meanwhile, the other group had decayed to a Bxo group on the 12th and it had decayed on the disk by the 14th. An Hsx spot was seen near the E limb on the 12th at S20/238. This spot was of type Hax with an area of 90 millionths on the 14th. It had decayed to an Axx spot by the 19th. The Dsi group last seen on 28th May returned on the 14th as an Hsx spot with an area of 160 millionths. Observations on the 16th, 17th and 19th

Prominence MDF, 1998 June

Observer	All Latitudes				0-40°			40-90°		
	North	South	Total	Days	North	South	Total	North	South	Total
K. Medway	2.29	3.80	6.09	21	1.24	1.90	3.14	1.05	1.90	2.95
E. Strach	5.31	6.69	12	13	2.15	2.85	5.00	3.15	3.85	7.00

showed a few accompanying spots but, on the 20th, the number had increased to 10 and the classification of the group changed to Cai (area now 190 millionths and at N17/212). On the 21st some of the accompanying spots developed penumbra and the group became type Dso with an area of 300 millionths. The group had a similar appearance on the 22nd. By the 24th, only the leading penumbral spot and two small spots were seen as the group neared the W limb.

A high latitude Bxo group at N34/349 developed on the disk near the CM between the 14th and 16th. The group gradually decayed and it was last seen on the 20th. Also on the 16th a single Hsx spot was seen near the E limb at S27/178. Observations between the 17th and 21st showed no change in the appearance of this spot. On the 22nd two small spots were seen near the penumbral spot. These were absent on the 24th.

On the 19th an Axx group appeared on the disk at N16/225. By the 21st a leading penumbral spot had developed and by the 22nd the group was of type Dso but it has an area of only 50 millionths. It was not seen on the 24th when it would have been close to the limb. On the 24th an irregular Hax spot appeared near the E limb. The main penumbral spot was quite elongated in the longitude direction and it included several umbra.

During the month an additional 12 Axx or Bxo groups were seen. The Axx groups were seen on the 7th at N16/340, on the 8th at N30/348, on the 8th and 10th at S18/341. on the 14th at S21/250 and on the 24th at S22/70. The Bxo groups were seen on the 7th and 8th at S23/290, on the 12th at S24/290, N24/279 and 33/254, on the 14th at 28/262, on the 17th at 24/225 and on the 20th and 21st at 29/190.

Medway reports that the large spot seen near the CM on the 6th and 7th was visible with the naked eye.

Prominence activity, 1998 June

Strach reports a steep rise in the number of prominences recorded this month. His prominence MDF is the highest since 1990 September but since the figure is derived from only 13 days' observation it should be treated with caution.



Hedgerow prominence. 1998 Jun 4. 1145. EHS

On the 1st Strach reported a lofty prominence on the SW limb from S51 to S54. An extensive hedgerow prominence was seen on the SE limb on the 4th stretching from S38 to S62. Loop prominences were seen in the NE on the 11th at N18 to N23 in advance of the spot at N17/217.

Medway also reports that prominence activity was high during the month, although lower than in May. On the 9th he reports an extensive hedgerow between S40 and

S70 on the SE limb. He also observed an impressive arch and loop prominence system on the NE limb on the 15th.

Both Strach and Medway report extensive filaments with Medway seeing no less than nine on the 21st.

Flares, 1998 June

Date	Time	Lat	CMD	Type	Obs.
2	1605	S24	W70	SF	KJM
4	1120	S20	E50	SF	EHS
7	1125	N19	W15	SF	EHS
7	1101-1120	N24	W10	Sn	KJM
7	1324-1332	N24	W10	SB	KJM
7	1448-1510	S24	E16	2B	KJM
12	0725	S23	W75	SF	EHS
13	1800	S14	E46	SB	KJM
19	1355	N15	W1	SF	KJM
19	1430	N15	W1	SF	KJM
19	1815	N15	W1	Sn	KJM
20	1420	N15	W19	1B	KJM
20	1700	N11	W24	1B	KJM
21	1005-1047	N17	W25	SF	EHS
21	1805	N17	W32	SF	EHS