

On February 26 those people lucky enough to be in the right place will have the chance of witnessing a total eclipse. I know that several TA solar observers are heading for the Caribbean and I look forward to publishing their results next month. Whilst some of our observers are out of the country it is particularly important that those who remain keep the Sun under observation.

White light MDF, 1998 January

Observer	MDF				R		Q	
	North	South	Total	Days	Total	Days	Total	Days
M. Hendrie	1.29	1.57	2.86	7	41.14	7	-	-
G. North	0.38	1.38	1.75	8	30.88	8	-	-
CUAS	0.61	1.00	1.61	18	22.05	18	-	-
K. Medway	0.25	0.87	1.12	16	-	-	-	-
E.H. Strach	0.90	1.45	2.35	20	37.95	20	5.85	20
J.G. Gissing	0.15	1.23	1.38	13	-	-	3.10	13
P. Meadows	0.70	0.90	1.60	10	24.40	10	4.70	10
MEANS	0.59	1.17	1.76	92	30.71	63	4.75	43

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
1997 December	2.77	2.52	44.19	42.10

Sunspot Activity, 1998 January

Activity in January was concentrated at the end of the month with Strach reporting six groups on the 24th and 25th. By contrast the Sun was spotless between the 5th and the 9th. Strach comments that he saw a total of 16 groups during January evenly split between the N and S hemispheres. Of these only five were of any significance.

The Hax spot within which Meadows had seen a light bridge on December 31 had almost separated into two penumbral spots by the 1st. Two days later several penumbral spots were seen to form a Dso group. The group was now near the W limb (at N21/306). The Eso group also seen on December 31 had decayed into type Cao by the 1st as it also approached the W limb (at S22/349). The third group seen on December 31 was similar in appearance on the 1st as a Dsi group near to the central meridian (at S28/279). The number of spots in this group had reduced by the 3rd.

Meadows reports that on the 10th only a single Axx spot was seen at S25/132. By the 12th Strach noted a Dro group at S11/122 just to the E of the CM. On the 14th Meadows classified it as a small Dai group with a total area of only 140 millionths. Also on this date, a small single Hsx spot was seen at S15/45 which had decayed into type Bxo by the 20th and was not seen on the 21st. Another Bxo spot was seen in the 20th and 21st at N27/346.

A small bipolar group was first seen by Strach on the 23rd at S19/347 straddling the CM. He notes that this was a reappearance of a much more significant group seen on December 26.

By the 24th the Sun had shown a marked increase in activity with six groups being reported by Strach. On the 26th Meadows reported five groups. The three N groups were all small (types Axx at 12N/279, Cro at 15N/267 and Bxo at 28N/266). The two S groups were of types Dso at 21S/350 with an area of 170 millionths and Fso at 36S/279 with an area of 270 millionths. Strach comments that this group spanned 115° of longitude when it was on the CM. Subsequently it lost all of its follower spots and when last seen on the 31st was of type Hsx.



Prominences drawn by Eric Strach. Left to right: 1998 January 7, 1210; January 8, 1250; January 10, 1020.

Prominence MDF, 1998 January

Observer	All Latitudes				0-40°			40-90°		
	North	South	Total	Days	North	South	Total	North	South	Total
E.H. Strach	3.56	1.50	5.06	16	1.56	0.81	2.37	2.00	0.69	2.69
K. Medway	2.83	1.33	4.16	6	1.33	1.17	2.50	1.50	0.16	1.66

Prominence activity, 1998 January

Strach writes that there was a marked predominance of prominences in the N hemisphere and on four successive days between the 7th and the 10th extensive hedgerow prominences were seen in the NW latitudes between N34 and N50. The features were gaining in height from day to day reaching 158,000 km on the 10th. The development is shown in Strach's drawings. This large event was also seen by Ken Medway and Mike Hendrie. Hendrie submitted a long sequence of drawings, one of which is shown here. He comments that the prominence was subject to continuous, rapid change and so it was difficult to record. Medway reports that nothing remained of this prominence by the 11th.

The majority of prominences seen during the month were high-latitude and Strach notes that this was reflected by the high latitudes of most of the filaments seen during the month. He points out that only a few filaments were associated with spot groups, the most obvious being the sinuous filament seen on the 24th/25th to the S of the group at S21/349. On the 24th Medway counted no fewer than ten filaments, mainly concentrated around the N40 parallel E of the CM.



1998 January 10, 1348. Mike Hendrie

Flares, 1998 January

Date	Time	Lat	CMD	Type	Obs.
15	1232	S23		Sf	EHS