

White light MDF, 1999 February

Observer	MDF				R		Q	
	North	South	Total	Days	Total	Days	Total	Days
G. Johnstone	-	-	4.5	8	-	-	-	-
K. Medway	2.5	1.5	4.1	18	-	-	-	-
E. Strach	2.5	1.8	4.4	22	65.0	22	12.6	22
W. Heyes	1.7	1.6	3.3	7	-	-	7.6	7
M. Hendrie	4.1	2.5	6.6	6	108.2	6	-	-
G. North	2.5	2.0	4.5	2	93.0	2	-	-
P. Meadows	3.5	2.8	6.3	6	92.7	6	17.3	6
J. Shanklin	1.4	1.6	2.9	16	35.0	16	-	-
MEANS	2.4	1.8	4.2	85	65.0	52	12.4	35

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

Sunspot Activity, 1999 February

Solar activity in February was at a similar level to that seen in January. Most observers reported that the N hemisphere was the most active. Activity was rather higher in the middle of the month.

Strach noted that the N hemisphere was devoid of spots for the first six days of the month. He reports that the largest sport of the month appeared over the E limb on the 8th at S23/274. It had survived its passage across the averted hemisphere having last rotated around the E limb on January 12. On the 10th it had a bipolar configuration with an area of approximately 500 millionths. By the 13th Meadows recorded a total of 10 groups and an R value of 177. The S group dominated but there was also a large N group at N15/277. Both were just to the E of the CM and both were easily visible to the naked-eye. In fact, on the 13th, Johnstone reports seeing no less than three naked-eye spots on the disk.

By the 20th, the large N group was close to the W limb and consisted of just the leading and following penumbral spots. The large S group changed slightly

into a Hkx penumbral spot and was also near the W limb. The other groups visible on this date were all small in size. On this date Strach observed a high latitude group at N36/258.

The number of groups seen reduced towards the end of the month and by the 23rd only five small group were seen. One of these, a small Cso group, was seen at the relatively high latitude of N30/99. By the 27th, this group had evolved into a Dao group with an area of 110 millionths. Also on the date two other groups were seen at high latitudes with positions N30/76 and N33/61 and of types Bxo and Axx respectively. By the next day, both of these groups were of type Cso. All the other groups seen on this date were small in size.

The more northerly declination of the Sun has helped some observers and we welcome Wilfred Heyes back after his enforced mid-winter break. The spring weather and an increase in the number of daylight hours will make solar observing easier for many of us in the coming months.

Prominence MDF, 1999 February

Observer	All Latitudes				0-40°			40-90°		
	North	South	Total	Days	North	South	Total	North	South	Total
E. Strach	4.7	5.7	10.4	13	2.8	2.8	5.6	1.9	2.8	4.7
K. Medway	5.2	4.4	9.6	5	2.4	1.0	3.4	0.8	2.2	3.0

Prominence activity, 1999 February

The prominence MDF remained at a relatively high level during February. On the 4th and 5th Strach observed high prominences on the SW limb at S48 to S57. Similar prominences were seen on the NE limb at N36 to N46. On the 7th and 8th two interactive prominences were seen in similar positions on the NE limb.

Medway comments that perhaps the most remarkable prominence of the month was seen on the 6th when a long loop dominated the NE limb at N35. A low, bright mound extended from its base to N15.

On the 20th Medway observed a tall, narrow arch prominence on the NE limb at N85 and noted that, as in previous months, filaments were very numerous. The disk was particularly active on the 13th when nine filaments were seen. Medway counted no less than 17 prominences on the 27th.

Flares, 1999 February

Date	Time	Lat	CMD	Type	Obs.
7	1520	N12	E70	Sf	KJM
13	1510	N21	W4	Sn	KJM
13	1515	S30	E14	Sn	KJM
20	0955	N19	60	Sf	EHS