

White light MDF, 2000 August

Observer	MDF				R		Q	
	North	South	Total	Days	Total	Days	Total	Days
G. North	3.9	3.5	7.4	18	113.4	18	-	-
W. Heyes	3.7	3.4	7.1	11	-	-	18.3	11
L. Smith	2.9	3.9	6.8	8	92.5	8	-	-
K. Medway	3.8	3.7	7.5	30	-	-	-	-
M. Hendrie	5.1	5.1	10.1	14	133.2	14	-	-
G. Johnstone	5.4	4.4	9.9	9	-	-	-	-
R. Dryden	4.3	4.6	8.9	19	126.5	19	-	-
P. Meadows	4.9	4.0	8.9	16	127.4	16	24.7	16
J. Shanklin	3.8	4.9	8.7	28	119.0	28	-	-
D. Storey	3.8	3.3	7.2	12	-	-	-	-
T. Tanti	4.6	4.1	8.7	31	121.2	31	21.8	31
A. Ibrahim	-	-	7.1	20	82.6	20	-	-
E. Strach	3.2	3.3	6.5	15	95.6	14	19.3	15
MEANS	4.1	4.1	8.1	231	114.1	168	21.4	73

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

White light activity, 2000 August

August showed a marked decrease in activity after the very high levels seen in July. Strach reports that his MDF of 6.5 is the lowest of the year so far and that other parameters such as the quality of sunspots confirm the impression of reduction of activity. He notes that many spots were small and devoid of penumbrae.

Strach comments that there were a number of high latitude spots in the S hemisphere. During the first two days of August a single spot of type Hsx was seen approaching the W limb at S29/129. On the 20th he saw a similar spot in the E at S30/121. Strach speculates that it may have survived the passage over the averted hemisphere having retrograded in longitude from 129° to 121°. On the 21st it started to fade but it revived into a penumbral spot passing the CM on the 25th. It was no longer visible on and after the 29th.

Meadows' first observation of the month was on the 9th. This showed a type Eac group which had just passed the CM at N9/334. The largest spot of this group was an asymmetrical penumbral spot located towards the centre of the group. When seen on the 11th the group appeared more compact as some of the following small penumbral spots had disappeared but four small penumbral spots had appeared just to the S. The group had a similar appearance on the 12th when its total area was 420 millionths. Meadows comments that this was the largest group that he saw during the month. He last saw the group on the 13th as it neared the W limb.

Between the 9th and 13th Meadows reported a high latitude Dso group at S32/325. This consisted of two equally sized penumbral spots with a total area of 90 millionths. Another high latitude group was first seen on the 11th at the even higher latitude of S37/270 and Meadows recorded it as a Dso group. On the 12th this group had decayed to type Cso and Meadows did not see it on the 13th. Unusually the group reappeared on the

15th as a Dao group with an area of 110 millionths. By the 19th just a single Hsx spot was seen. On this date Strach recorded the position as S39/260 with the spot approaching the W limb. Heyes also noted the large number of high latitude spots.

Meadows comments that several low latitude groups were seen during the month. A spot classified as Hax was seen at S4/205 between the 13th and 24th and this attained a maximum area of 150 millionths on the 21st.

On the 11th Meadows reported a small Dso group at N25/237. By the following day the number of spots within this group increased substantially and by the 13th a number of these had developed into small penumbral spots. When the group was seen on the 15th, the penumbral spots had increased in size to give a total area of 210 millionths and a classification of type Dac. Subsequent observations between the 19th and 22nd showed the group gradually decaying such that on the 22nd only a Bxo group was seen near the W limb.

Activity between the 15th and 19th decreased from 12 to nine groups and the majority of these were in the W hemisphere. This meant that activity continued to reduce with only five groups being seen on the 22nd. Meadows noted that the largest group seen on this date was of type Dai situated at S8/150 with an area of 150 millionths. Activity then increased slowly. By the 28th, for example, ten groups were seen and the largest two groups were both of type Eac. One was at N26/90 with an area of 220 millionths and the other was at S17/47 with an area of 210 millionths.

H α activity, 2000 August

The large prominence on the NE limb reported by Strach and Medway at the end of last month was still present at the start of August. It extended from N38 to N61 on the 1st August when its S portion lifted off the solar limb. On the 2nd its extent had diminished to 18°

but its height had increased. On the next day there remained a single low, curved “whisk” at N42.

On the 17th Medway reported a loop prominence on the SW limb. Over the following ten days many large spikes and loops were seen.

Strach reports that two remarkable prominences were seen on the 25th. One, on the E limb, extended from N5 to N21. At the northerly end a streamer emerged from the top-most part leading to a small prominence at N33. When this area was scrutinised two days later the main body of the prominence was no longer visible but a dense filament was on the disk close to the E limb. This filament remained very much in evidence and dominated the solar disk beyond the end of the month.

The other remarkable prominence of the 25th August was on the W limb at N20 to N28. Strach comments that it was very dense and had a striking resemblance to a giant crab.

Both Strach and Medway reported that the disk was very active in H α . Medway reported that no less than 20 filaments were seen on the 6th with most located along the S20 parallel. Strach observed three almost parallel filaments during their passage across the visible N hemisphere from the 19th onwards. The leading filament lay on the CM on the 23rd. On the 24th it became very dense. He recorded it on the 25th up to 0805 UT. When resuming observations at 1215 UT it had completely disappeared.

A very noticeable filament was seen by Medway, close to the E limb on the 27th.

Major flares, 2000 August

Date	Time	Lat	CMD	Type	Obs.
12	1240	N12	W49	1n	KJM
29	1515-1528	S4	E71	1B	KJM

Prominence MDF, 2000 August

Observer	All Latitudes				0-40°			40-90°		
	North	South	Total	Days	North	South	Total	North	South	Total
K. Medway	6.2	3.5	9.7	21	3.9	2.8	6.7	2.3	0.6	2.9
M. Hendrie	9.0	6.0	15.0	2	4.0	4.0	8.0	5.0	2.0	7.0
E. Strach	6.0	6.4	12.4	14	3.2	3.1	6.3	2.8	3.2	6.0