

**SOLAR NOTES**

**Edited by Nick James**

July was another month of very low solar activity. The low activity and the fact that several TA solar observers are away on holiday means that there are few observations to report this month.

**White light MDF, 1997 July**

Observer	MDF				R		Q	
	North	South	Total	Days	Total	Days	Total	Days
P. Meadows	0.71	0.25	0.96	28	12.86	28	2.04	28
G. North	0.17	0.00	0.17	18	2.67	18	-	-
E. Strach	0.41	0.17	0.59	29	8.38	29	1.17	29
W. Heyes	0.17	0.00	0.17	12	-	-	0.50	12
J. Isles	0.33	0.00	0.33	12	4.67	12	-	-
CUAS	0.36	0.18	0.55	22	7.10	22	-	-
M. Götz	-	-	0.00	22	0.00	22	-	-
MEANS	0.40	0.13	0.46	143	6.59	131	1.41	69

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 June	1.30	0.92	17.16	14.04

**Sunspot Activity, 1997 July**

Peter Meadows provides the following report:

The first spots of the month were seen on the 7th after five blank-disk observations. On this date three southern hemisphere groups were seen but all were small and short-lived. These were of type Bxo at S29/136, of type Bxo at S28/126 and of type Axx at S15/109. On the 9th another Bxo group was seen at the centre of the disk (at N4/82) but it appeared for only one day.

There were a further seven blank disks before an extensive area of faculae was seen near the eastern limb on the 18th which contained a single pore at N25/266. No other spots were seen from this region until the 22nd

**Prominence MDF, 1997 July**

Observer	All Latitudes				0-40°			40-90°		
	North	South	Total	Days	North	South	Total	North	South	Total
E. Strach	2.38	1.88	4.26	26	1.38	0.58	1.96	1.00	1.31	2.31

**Prominence activity, 1997 July**

Strach was the only H $\alpha$  observer this month. He provides the following report:

A spire-type prominence was seen in the SW spanning latitudes S44 to S48 from the 2nd to 7th July. Very similar prominences were seen in the SE from the 17th to 21st July. Strach suggests that the structure must have survived its passage on the averted hemisphere. Subsequently it was seen as a dark filament around the same latitudes and it crossed the CM between the 25th and 27th July. It finally passed over the W limb on the

when a single spot at N27/259 was seen. This developed into a Cro group on the 23rd before decaying on the disk (last seen on the 26th). Another short-lived Bxo group was seen at S24/299. On the 23rd a further Bxo group appeared around the eastern limb (at 24N/188) and this had decayed into a single spot by the 27th before growing into a collection of eight small spots stretching 8° in longitude on the 28th. It had subsequently decayed by the 29th and was not visible on the 30th.

On the 24th, a group of seven spots, some with rudimentary penumbra, appeared on the disk at N16/278. By the following day this had developed into a Dao bipolar group with two main penumbral spots and a total area of 80 millionths. This group was last seen on the 27th before passing around the limb. An Axx group was seen on the 26th and 27th only at 26N/152. The last observation of the month, on the 30th, showed a blank disk

30th. Most of the prominences seen during the month were at a high latitude, characteristic of solar minimum.

Plages were seen around most of the sunspot groups and in many instances were present for a few days before the actual spots appeared. This was particularly notable in the case of a small spot seen at S30/298 which was on the CM on the 20th. Although no spots were seen in its position on subsequent days plages were seen up to the 22nd.

**Flares, 1997 July**

Date	Time	Lat	CMD	Type	Obs.
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24	1530	N18	W36	Sf	EHS
25	0845	N18	W51	Sf	EHS