

June was a particularly wet and cloudy month in Southern England. Despite this our British contributors observed the Sun on a surprisingly large number of days. Activity was still at a low level but most of the groups were of the new cycle. Despite the low level of white-light activity the Sun was still an interesting object in H α .

White light MDF, 1997 June

| Observer | MDF | | | | R | | Q | |
|----------------|-------|-------|-------|------|-------|------|-------|------|
| | North | South | Total | Days | Total | Days | Total | Days |
| J.G. Gissing | 0.10 | 0.40 | 0.50 | 10 | - | - | 1.50 | 10 |
| G. North | 0.45 | 0.73 | 1.09 | 11 | 15.18 | 11 | - | - |
| P. Meadows | 1.23 | 0.31 | 1.54 | 13 | 20.62 | 13 | 2.85 | 13 |
| K. Medway | 0.31 | 0.38 | 0.69 | 26 | - | - | - | - |
| W. Heyes | 0.30 | 0.40 | 0.70 | 10 | - | - | 2.10 | 10 |
| G.F. Johnstone | 0.40 | 0.60 | 1.00 | 10 | 11.80 | 10 | - | - |
| E.H. Strach | 0.65 | 0.60 | 1.25 | 20 | 16.90 | 20 | 3.35 | 20 |
| M. Götz | - | - | 0.12 | 17 | 5.34 | 17 | - | - |
| CUAS | 0.50 | 0.62 | 1.12 | 16 | 13.75 | 16 | - | - |
| J. Isles | 0.72 | 0.39 | 1.11 | 18 | 14.61 | 18 | - | - |
| T. Tanti | 0.64 | 0.36 | 1.00 | 25 | 14.40 | 25 | 2.20 | 25 |
| MEANS | 0.55 | 0.46 | 0.92 | 176 | 14.04 | 130 | 2.50 | 78 |

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 May | 1.74 | 1.08 | 23.19 | 15.10 |

Sunspot Activity, 1997 June

Activity levels were broadly similar to those in the previous month. Strach reported a total of six different groups during June while Meadows reported seven. All of these groups were of relatively high latitude and can be presumed to be of the new cycle. All spots were small with none having an area larger than 30 millionths.

The month started with the N27 group which had been visible at the end of May still on the disk but Heyes reports that this was no longer visible on the 2nd.

The only significant group seen during the month was a bipolar one at S29/188. This was first seen by Strach as a plage on May 31. It crossed the CM on the 4th as a

Dso type and faded as it approached the W limb on June 8/9. It finally crossed the W limb on the 10th.

On the 8th Meadows reported two Axx groups, each consisting of a single spot, at N22/132 and N28/67. The first of these groups had disappeared by the following day while the second was seen up to and including the 16th during which time it had only developed into a small Bxo group.

Between the 12th and 18th Meadows reported another small group at N19/29. This was initially of type Bco before developing into type Cro. When seen on the 16th a small penumbral spot was seen together with 13 other spots.

On the 18th and 20th Meadows reported a small Bxo group at S27/322. This was followed by a blank disk on the 21st. On the 22nd yet another small Bxo spot was seen at N16/291 while only an Axx group at N18/284 was seen on the 28th.

No polar faculae were seen during the month.

Prominence MDF, 1997 June

| Observer | All Latitudes | | | | 0-40° | | | 40-90° | | |
|-------------|---------------|-------|-------|------|-------|-------|-------|--------|-------|-------|
| | North | South | Total | Days | North | South | Total | North | South | Total |
| E.H. Strach | 3.60 | 1.67 | 5.27 | 15 | 2.00 | 0.87 | 2.87 | 1.60 | 0.80 | 2.40 |
| K.J. Medway | 1.00 | 1.64 | 2.64 | 14 | 0.64 | 1.00 | 1.64 | 0.36 | 0.64 | 1.00 |

Prominence activity, 1997 June

Medway reported that the H α Sun in June continued the activity of May with many filaments visible on the disk. He counted no less than 11 on the 1st. Also on the 1st Strach reported a 15° long filament aligned N-S which

preceded the bipolar group at S29/188. It was not visible on the following day.

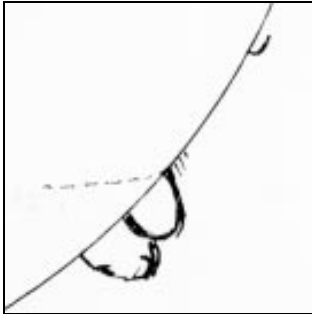
Strach noted tightly packed hedgerow forms on the 17th and 18th on the NE limb from N34 to N41. On the 20th he saw two curious high arches in the E between S40 and S51 (see sketch).

A filament was seen straddling the N40 parallel at the CM on the 18th. Strach followed it until the 20th when it was approaching the W limb. As it crossed the W limb it was projected onto the sky and became the fine set of prominences seen by Medway and Strach on the 22nd-24th.

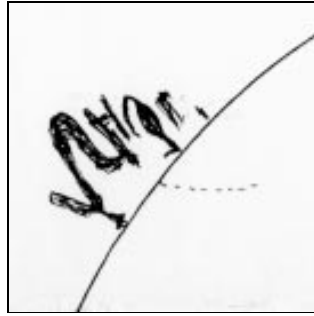
Medway notes that several beautiful and interesting prominences were seen during the month. Most notable was a multi-stranded arch prominence seen on the NW

limb on the 22nd. The following day an impressive row of tall pillars was seen on the NW limb. These features were also observed by Strach. On the 23rd and 24th he observed high formations in the W extending from N35 to N44 (see sketches). These reached a height of 100,000 km.

Both Medway and Strach report that no flares were seen in June.



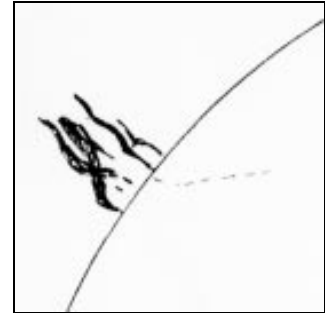
1997 June 20. 0645.



1997 June 23. 0915.



1997 June 23. 1530.



1997 June 24. 0730.

H α drawings by Eric Strach.