



The British Astronomical Association

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BAA Solar Section Newsletter

Sunspot data 2026 April

Day	g	R
1	10	131
2	9	118
3	7	102
4	6	93
5	6	88
6	6	88
7	5	70
8	5	64
9	5	52
10	2	28
11	3	36
12	2	34
13	3	46
14	4	49
15	3	47
16	3	47
17	3	44
18	3	40
19	2	36
20	2	35
21	3	48
22	4	65
23	4	65
24	5	88
25	6	112
26	6	106
27	6	103
28	6	112
29	6	112
30	7	125

Monthly Means

MDFg:	4.72	(42 observers)
MDFNg	3.12	(36 observers)
MDFSg	1.70	(36 observers)
Mean R:	72.80	(43 observers)

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Images for the web should be sent to
Peter Meadows: peter@petermeadows.com and
copied to me. All digital images must be in "JPEG"
format with the same orientation as naked eye
orientation. Include initials, date and time in the
file name. Keep each image file to less than 1Mb.

On-line Reporting:

<https://britastro.org/solarwl>
<https://britastro.org/solarha>

Observers:

R S Armas, Cuba	S Jenner, Kent
J Arnold, Leeds	A Johnston, Denbighshire
C Bailey, Suffolk	S L Karl, Aberdeen
R Battaiola, Milan, Italy	D Keep, Lincoln
M Boschat, Canada	M Kinder, Cheshire
C F Bowron, South Yorks	C Longthorn, Rugby
A Bowyer, Epsom Downs	L Macdonald, Berkshire
S Brown, Leicestershire	R Mackenzie, Kent
M Buck, Bristol	J McClean, London
L Cambon, France	P Meadows, Essex
I Chouinavas, Greece	A Mengus, France
G Clarke, Australia	H Meyerdierks, Germany
E Colombo, Italy	L Morrone, Italy
J Cook, Wolverhampton	M Nicholls, Sheffield
A Coombs, Vic, Aust	P Norman, Worcester
P Curtin, USA	R Samworth, Leicestershire
S Dawes, London	J D Shanklin, Cambridge
A Devey, Spain	D Smith, Essex
R Dryden, Oxon	L Smith, Angus
F Dubois, Belgium	T Tanti, Malta
T Emmett, Cambs	P Taylor, Coventry
E Fabrigat, France	D Teske, Mississippi, USA
M Giuntoli, Italy	C B Thielke, Denmark
D Glover, Essex	SOS PTMA, Poland
S Green, Lancs	TOS, Poland
K Hall, Warrington	S Ove Thimm, Denmark
B Halls, W Sussex	P Urbanski, Poland
K Hay, Canada	G Vargas, Bolivia
R Heard, Suffolk	D Vidican, Romania
J Janssens, Belgium	S Viney, Cheshire

The Sun in White Light – April

Activity in April was similar to that seen the previous month although there was a slight decrease across all categories. Interestingly, a minor short-lived sunspot was reported on the 26th at S30°/158° which displayed reversed polarity for southern hemisphere groups during Cycle 25. This could be due to being the follower of a larger group where the leader had dissolved during the previous rotation.

Most activity was seen early and late in the month with a definite lull during the middle of the month. Twenty-nine sunspot groups were allocated Boulder numbers during the month, the largest/most active are reported below.

AR14405 S26°/173° survived on the disk from the previous month, still with a pronounced tilt of 30° towards the equator, leading to a spread of sunspots from latitude S31° to S22° within the group. Now straddling the central meridian (CM), the group was type Eac and the largest visible on the disk. The group had an area of 390 millionths on the 2nd with the following sunspot being the largest. Once into the SW quadrant, the group began to decay particularly within the leading sunspots. By the 5th only two minor Axx sunspots led the group and by the 6th only one remained. The length of the group exceeded the BAA 10° degree rule between the leading Axx sunspot and the Hsx type follower and could be counted as two separate groups. The follower Hsx type sunspot of this group was close to the SW limb on the 8th.

AR14409 N03°/156° also survived from the previous month when it was an insignificant collection of minor sunspots. By the 2nd the group had started to grow having an area of 230 millionths and being type Dac, quite close to the equator in the NE quadrant. The group had extended by the 4th being type Eai when it crossed the CM. The largest sunspots were in the leading section of the group and by the 6th was type Esc. A bright area of Photosphere cut the leading sunspot into two sections with several smaller sunspot to the east, some with partial penumbra. The following day, the leader sunspot was nearly circular in shape, still displaying a light bridge. The group was nearing the NW limb on the 9th with sinuous faculae seen within the group.

AR14416 N19°/049° first seen as an Axx sunspot on the 10th in the NE quadrant approaching the CM, developed into a small Dsi type group by the following day with an area of 120 millionths. The group continued to develop as it crossed into the NW quadrant achieving 320 millionths in area on the 13th. The leading sunspot was the largest member of the group, being a near circular penumbral sunspot. The leader appeared isolated from the decaying followers on the 14th. The followers continued to decay as the group approached the NW limb and was last seen on the 18th, very close to rotating out of view, but with bright faculae associated with it.

AR14419 N15°/313° was first reported rotating into view on the NE limb on the 13th amidst faculae. By the following day the sunspot was clearly on the disk, type Hsx. On the 15th the leader displayed a light bridge and the group had developed several small followers, the group being type Cai with an area of 410 millionths. Several following minor sunspots developed penumbrae by the 16th when the group had an area of 580 millionths. The group remained of similar size as it progressed towards the CM but extended in longitude to become type Eac on the 19th. A pronounced gap between the leader and the followers was also noted. The group began to decay when crossing the NW quadrant, particularly in the following section. The group was last reported close to the NW limb on the 24th comprising of a distinct penumbral sunspot with a smaller sunspot preceding it and a single pore trailing. The group was seen amidst bright faculae at the limb.

AR14420 N17°/227° first seen as a Bxo type group over the NE limb on the 21st, quickly developed into Dai group on the 22nd with an area of 220 millionths and an Eac group with an area of 500 millionths by the 23rd. The growth in the following part of the group continued developing into two large penumbral sunspots by the 24th giving the group an estimated area of 630 millionths. With the group near to the CM on the 25th, the following penumbral sunspot became quite irregular and contained many umbrae. The small leading sunspot appeared to be in a state of decay but nonetheless the group increased to an area of 800 millionths and was type Ekc. The group increased in longitudinal extent and by the 27th

was type Fkc. Thereafter the group gradually reduced as it progressed towards the limb. On the 29th the group was type Eac with an area of 420 millionths with smaller penumbral sunspots and a more pronounced separation between the leading and following elements. The group was approaching the NW limb on the 30th displaying two small leading sunspots and a partially decayed follower with intermediate small sunspots and bright areas of faculae within the group.

AR14424 N17°/192° formed on the disk over the NE limb to the east of AR14420 on the 24th type Cro amidst an area of faculae. The group had grown overnight with a small sunspot leading and a slightly larger sunspot following with pores in-between. The follower grew again on the 26th with the group now type Dsi. The group reached the CM on the 28th and extended in longitude to type Eao. The group was of similar appearance on the 29th but showing signs of decay. By the 30th the group was type Eac with the leading sunspots quite elongated and displaying two light bridges. The group had developed a small asymmetric penumbral sunspot in the centre of the group with a small penumbral sunspot at the rear.

AR14425 N05°/161° was first reported near to the NE limb on the 25th as a Dso type group. By the 27th the group had become type Dkc with an area of 560 millionths mainly due to the development of an irregular penumbral sunspot near the centre of the group. The central sunspot reduced in size on the 28th. The decay continued as the group approached the CM and by the 30th, it had reduced to type Dac with an area of 330 millionths.

23 observers reported a Quality number of **Q = 15.86** for April.

The Sun in H-alpha **Prominences**

20 observers reported a prominence MDF of **7.19** for April.

Few prominences of note were reported during the first week of the month. Several small prominences were seen on the E limb on the 2nd.

A detached prominence was seen on the 7th above the NE limb at a height of about 50,000 km. Two faint spray type prominences were also reported on the same limb with an active prominence located between the two.

The NW limb was active on the 12th with three prominences, one of which was an arch shape rising to 40,000 km.

On the 12th the W limb contained several medium-sized prominences including a pair of nearby tree-shaped prominences.

A double partial-arch prominence was reported on the 14th on the SE limb having been sourced from smaller prominences the previous day. A pillar prominence with a height of about 70,000 km was also noted near the north pole.

A distinctive prominence on the SE limb on the 18th was described as “wing-shaped” and as an active double arch with a height of about 50,000 km and a base of 130,000 km. This feature was reduced the following day and described as a flat arch. Also on the 19th, an unconnected arch prominence with a height of 50,000 km was on the W limb with a base of about 60,000 km.

A large active spray type prominence was on the NW limb on the 24th in the region of the approaching AR14419. This dynamic prominence was reported to comprise of several regions of hydrogen above the limb.

A small double arch prominence was noted on the SE limb on the 29th.

Filaments & Plage

18 observers reported a filament MDF of **8.16** and 17 observers reported a plage MDF of **4.15** for April.

On the 5th a thin filament was seen extending from the SE limb inwards across the disk, just south of a small prominence hearth. The filament extended in length the following day and by the 7th had a broken element to its eastern end. On the 8th this detached element had reattached to the main filament making an extended east/west feature across the SE quadrant, estimated to be around 300,000 km long. The following day, the filament was broken in the central section which remained the case as it entered the SW quadrant. The filament took on a distinct “C” shape and by the 15th as it was approaching the SW limb,

both eastern and western elements broadened and darkened. As the filament crossed the limb, it was responsible for some minor prominence activity along the limb.

Filaments were seen in association with an area of plage on the 18th at co-ordinates N0°/E42°, one arcing north the other arcing south.

A dark, barbed filament extended inwards from the SE limb on the 21st estimated to be around 100,000 km in length. By the 23rd the filament had moved away from the limb and extended across the SE quadrant, now around 320,000 km in length. The filament remained on the disk throughout its passage to the SW limb, in various shapes and lengths. When last reported on the 30th it took the form of a large patch of plasma very close to the limb.

A long, broken north/south aligned filament was reported in the NE quadrant to the east of AR14425 on the 29th. The filament was still visible the following day with a distinctive dark bar around half way down its length. The filament was estimated at 250,000 km in total length.

Polar Faculae

Brian Halls reported a high latitude polar faculae MDF of **0.61** for April.

Flares

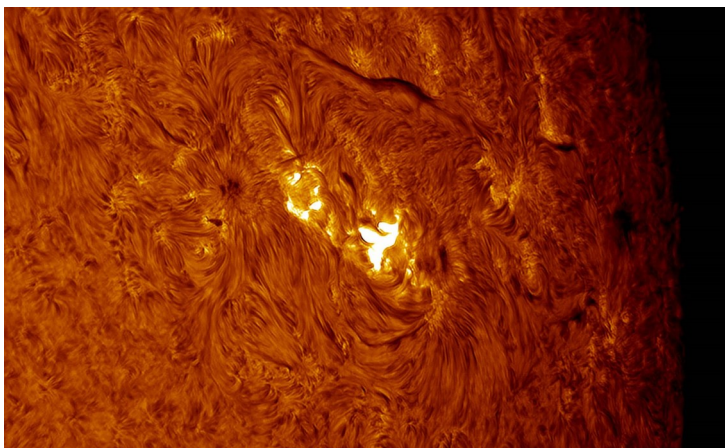
Several B and C class flares were reported throughout the month. M1 class flares were reported by Andy Devey on the 4th at 1227 UT associated with AR14408; at 1437 UT on the 26th associated with AR14425 and at 0944 UT on the 28th associated with AR14420. Peter Meadows and Brian Halls both recorded an M1.9 flare associated with AR14423 at 0910 UT on the 24th. Peter commented that a group that had rapidly developed from a single Axx sunspot the previous day into a Dsc group and produced a flare first seen at 0910 UT as a north/south bright finger-shaped region just south of the northernmost sunspot within the group. By 0925 UT, the flare had reduced in brightness and merged into an extensive region of plage in the southern part of the group. This extensive plage region was also visible on the 25th but with reduced brightness.

MAGNETOMETER REPORT

2026 APRIL

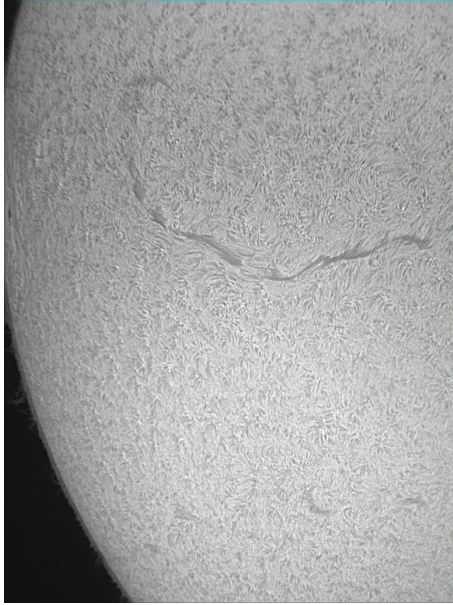
DATE	DURATION (UT)		ACTIVITY
2-4	00:30	04:00	Disturbed
4/5	19:00	4:00	Disturbed
6/7	19:15	01:30	Disturbed
9/10	23:00	22:00	Disturbed
11	2:00	13:00	Disturbed
12	03:00	22:00	Disturbed
17/18	23:30	12:00	Disturbed
18/19	19:00	07:00	Disturbed
20/21	14:00	04:30	Disturbed
21	16:00	21:30	Disturbed
24/25	20:00	02:00	Disturbed
25/26	19:00	09:00	Disturbed
26/27	21:30	00:45	Disturbed

Solid-state magnetometer,
Uncalibrated
John Cook



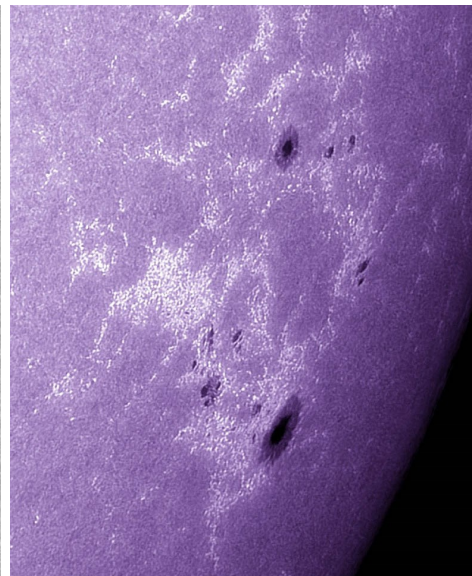
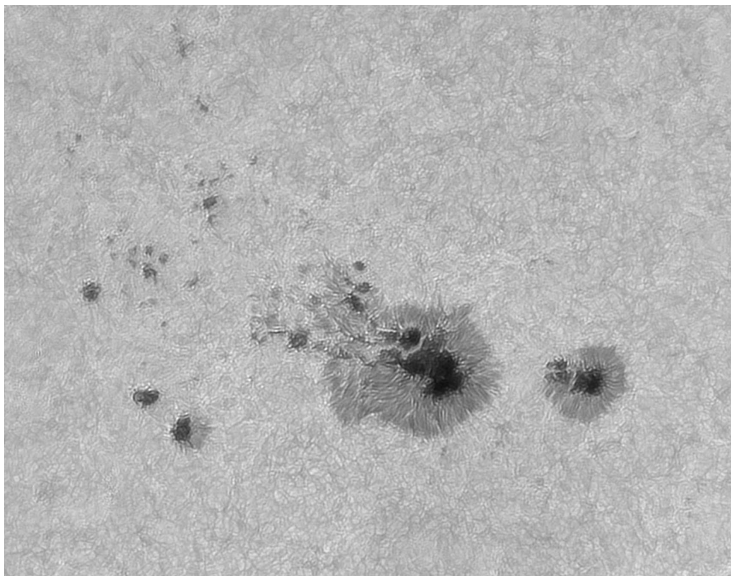
Left:

AR14420 imaged in mid-flare
by Stuart Green at 0724 UT
on the 29th



Above Left: Large filament across the SE quadrant on the 8th imaged by Brian Halls at 0835 UT

Above: Long “C” shaped filament in the SW quadrant on the 14th imaged by Dave Smith at 0921 UT

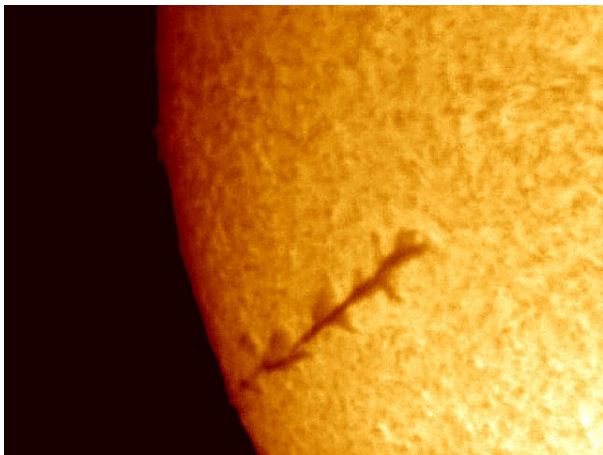


Above Left: AR14425 imaged by Stuart Green on the 29th at 0823 UT

Above Right: AR14408 & AR14409 imaged in CaK by Carl Bowron at 0949 UT on the 8th

Below Left: Dark barbed filament extending from the SE limb on the 21st imaged by Arthur Coombs at 2153 UT

Below Right: Long north/south aligned filament in the NE quadrant on the 39th imaged by Dave Smith at 1347 UT



Section News

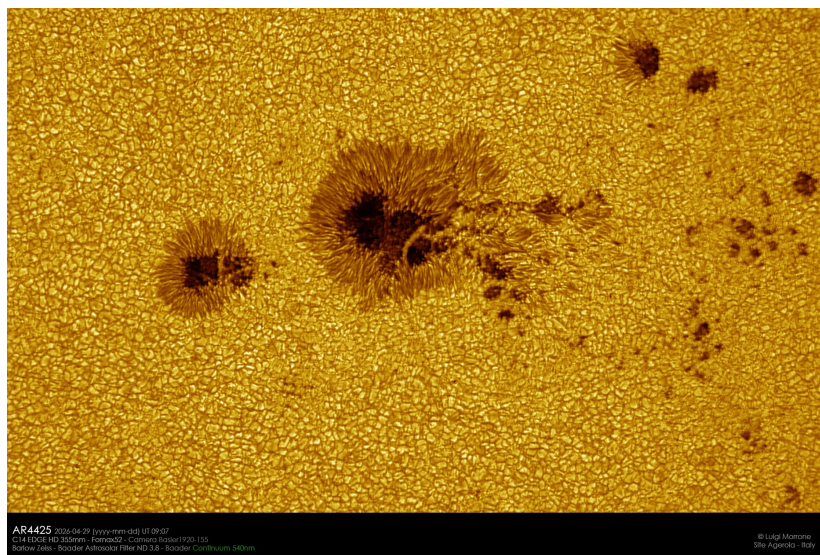
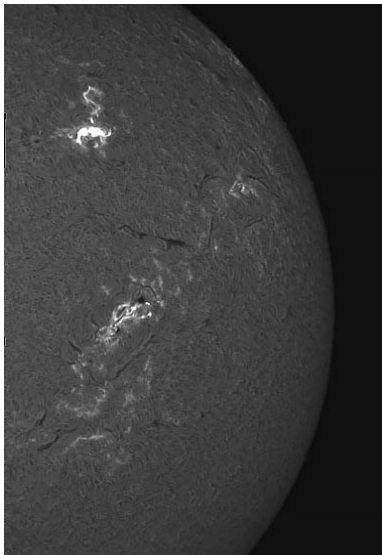
A huge thank you to everyone that has supported the Section with their images, reports and articles. Members are always eager to read about what other members are doing so if you would like to write a short article about yourself, your observing equipment, methodology etc, then please do so. Articles should be fairly concise as space in the newsletter is limited, preferably written on a Word doc and also please include an image or two to enhance your article.

A reminder that the BAA Spring Meeting will be held in Leicester from Friday 22nd May 2026 to Sunday 24th May. Pete Lawrence will be talking about observing the Sun during the session on Saturday 23rd. You can still book your place via the BAA website (BAA members £15) by cutting and pasting the link below into your browser

<https://britastro.org/event/spring-baa-meeting-leicester>

Below Left: Flares associated with AR14420 (north) and AR14423 (south) on the 24th imaged by Sheri Lynn Karl at 1259 UT

Below Right: White light image of AR14425 on the 29th imaged by Luigi Morrone on the 29th at 0907 UT using C14 EDGE HD 355 mm—Fornax 52-Camera Basler 1920-155



Below & Right:

Two images by Roger Samworth showing the large spray type prominence on the NW limb on the 24th and its subsequent decline from 0827 UT—0933 UT

