

# Altrincham and District Astronomy Society

Meeting number **608** held on 7<sup>th</sup> June at 8pm

At Timperley Village Club

**Apologies:** N/A

**Members Present (in person):** 19

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## **Presentation:**

There were three short presentations given during the meeting with a break after the first one.

The first presentation was given by Gary Gilbert and was entitled "Astrophotography from your back yard". Gary began by providing an overview of the key aspects to consider;

- Focal length – the most important one as it determined what could be seen in the field of view
- Aperture
- Exposure
- Focal ratio ( $FL \div A$ ): changing the aperture of a camera changed the focal ratio

Gary then went on to talk about magnitude, how it had been developed historically using a scale of 6 covering stars visible to the naked eye and how magnitude could be used to assess brightness.

It was also demonstrated how mobile phones had revolutionised photography: an example of a photo taken with a mobile phone from 10 years ago was compared to examples from the present day to show the full capability of modern day mobile phones. This was followed up by describing how to take photos of star trails. It was recommended that ideally lenses of 15-20mm should be used although it was also possible to use 30-50mm lenses. It was demonstrated what impact on the field of view the different lenses would have. There was also a 500 rule/limit used that determined when stars would start to trail e.g. with a 50mm lens star trails would appear after a 10 second exposure. The longer the exposure the longer the arcs and the more stars that would be seen (lower magnitudes).

The presentation finished by talking briefly about auto guiders e.g. Astrotracker and Seestar.

The second presentation was given by Colin Henshaw and was entitled "The Great Aurora of May 10<sup>th</sup> 2024". Colin began his presentation by giving some background on what led up to the aurora, what caused aurora and what the different colours meant. There had been a large sunspot group that could be seen by the naked eye on May 9<sup>th</sup> and this had resulted in a large auroral oval on the day in question, which Colin showed the meeting.

There had been an aurora alert on the day in question, which had then given Colin time to go to Devisdale in Bowden. At first there had been only faint green curtains but then Colin received a WhatsApp message 15 minutes later saying the aurora was directly overhead. The aurora had been so strong that it was detected in Gran Canaria/Algeria in the Northern Hemisphere and Namibia/Mauritius in the Southern Hemisphere. The aurora lasted for about an hour.

Colin then shared with the meeting the amazing photos he had been able to take.

The third presentation, entitled “Novae, Supernovae and T. Corona Borealis (T CrB) was given by Chris Suddick and was about the likelihood of T CrB going nova. Chris began by explaining the difference between supernovae and novae and the mechanisms that drove them. Type IIA supernovae were rare, Type IA supernovae were variable and then there were the recurrent novae. T CrB was a recurrent nova with a period of about 80 years. It had last flared up in 1946 so was due to become nova anytime. Chris advised attendees to familiarise themselves with the constellation of Corona Borealis so that if/when it happened they would be able to spot the “new” star. A star chart was shown giving the location of the constellation showing how Ursa Major and Arcturus could be used to locate Corona Borealis. There were seven stars in the constellation easily visible and the approximate location of T CrB was clearly indicated alongside those stars.

Chris then showed the light curve of T CrB from when it last went nova and compared it with its current light curve.. The current light curve clearly showed a similar drop off as the 1946 curve had shown just before T CrB went nova. From this it was predicated that the star could go nova anytime. When it happened it would be visible for only a couple of weeks, Chris therefore encouraged everyone to check on the constellation regularly and report back to the WhatsApp observers group, even if it was just to say “no change”.

#### **Items of Business:**

##### **1. Enquiry**

Chris reported that he had received an e-mail from someone in Oregon who had seen a YouTube video by Craig from Cheshire Astronomy Group and the person in Oregon wanted to know how to get in contact with Craig. Chris asked if anyone at the meeting had any contact details; no-one at the meeting was able to help.

##### **2. Events**

- a. The society were running their usual stall at the annual event in Worthington Park that weekend, mid-morning to 4pm.
- b. The following Sunday there was an astronomical feature in the Trafford Arts Association “Showcase 24”.
- c. On Monday there was a talk by Anna Scaife at the Waterside in Sale on the role of AI in the search for extraterrestrial life.

##### **3. 60<sup>th</sup> Anniversary**

It was 60<sup>th</sup> Anniversary of the formation of the Society this year and the Secretary asked for ideas for celebrating it. A couple of suggestions were made; a gathering at a local pub with food where members could also bring their partners or an extended meeting one Friday with three full length presentations/speakers instead of the normal one. The Secretary asked if any members knew someone who could help organise an event or who could help with the catering. All suggestions were welcome.

#### **Next meeting**

The next meeting was on September 02 2024 and would be the start of a new Society year, membership subscriptions would therefore become due.