

Altrincham and District Astronomy Society

Meeting number **610** held on 4th October at 8pm

At Timperley Village Club

Apologies: None

Members Present (in person): 20

PRESENTATION

The meeting began with a presentation given by Chris Suddick aimed at members who were new to astronomy entitled "Introduction into Astronomy – Part 1". The presentation provided an overview of the following;

- *Types of Telescope:* It was explained that there were two main types of telescope; refractors and reflectors. An overview of their respective construction, the pros and cons of each type and of their limitations was provided. Examples of both types had been brought into the meeting. It was also explained how to calculate the magnification of a telescope, how to increase it and in particular how to calculate the maximum useful magnification for any given telescope.
- *Co-ordinate Systems:* The two coordinate systems AltAz (Altitude/Azimuth) and RA+Dec (Right Ascension + Declination) were discussed, what they were, what each system was best used for plus examples given of their respective use.
- *Telescope Mounts:* In line with the two coordinate systems it was explained that there were two main classes of mounts; AltAz and Equatorial, which were further subdivided into different sub-types. Photos of each sub-type were shown and their respective positives and negatives discussed.
- *Setting up a GOTO:* As the setting up of a GOTO telescope was not intuitive and varied from model to model, an overview only of the generic principles and key aspects were described.
- *Distances:* The various units of measurement; astronomical unit (AU), light year and parsec were looked at in detail; how they were derived, how large each unit was and what they were useful to measure.
- *Meteors:* An overview was provided covering what they were, how meteor showers were formed, how to set up for a meteor watch and what the ideal conditions were (e.g. no moon, clear skies).
- *Comets:* A brief overview was provided covering what comets were, their size and the two types (periodic or one-off).

ITEMS OF BUSINESS

1) Events

a) 60th Anniversary Party

The Secretary reminded everyone of the planned Anniversary Party; that there was a subsidised buffet and that the cost was £5. If anyone wanted to pay by BACS they could contact him for the details. Celebration mugs would also be available to purchase at £5 each. The Secretary said that it was hoped to hold a raffle and that donations for raffle prizes would be welcome and could be brought to the next meeting.

b) Timperley Country Fair

It was reported that the stall at the country fair had been well supported and that once again children had enjoyed the word search and drawing aliens.

2) Any Other Business

- a) The Secretary had received an e-mail from a local person who had a 114mm telescope for sale, if anyone was interested they could contact the Secretary after the meeting and he would pass on details of the email.
- b) The meeting was informed of an aurora alert for that evening and for the following evening.
- c) The meeting was also informed of an up and coming presentation on the Square Kilometre Array that was going to be given at the next meeting of the West Didsbury Astronomical Society on the following Monday.

There was then a short break before the evening's second presentation.

PRESENTATION

Richard Bullock gave a presentation using Carte du Ciel (a free desk top planetarium) to illustrate what could be seen in the night sky over the coming months. Of particular interest was comet C/2023 A3 (Tsuchinshan-ATLAS): it was currently very low on the horizon and shining at magnitude +1 but from Wednesday onwards would start to get higher in the sky and be visible in the night sky in Virgo below Arcturus. The meeting was shown how the comet tracked through the sky; on 15th it would be by M5, on 20th it would have moved into Serpens and have faded to magnitude +3 and by the end of the month it would have faded to +5. Comet C/2023 A3 (Tsuchinshan-ATLAS) was a long period comet and photos taken to date were impressive.

Richard then moved onto the Moon; on 14/15th October there would be a close conjunction with Saturn, later in the month the Moon would move into the Pleiades and again in mid December (13th). On 18th December there would be a daylight opportunity to see a close conjunction with Mars (just after 9:00am).

Jupiter was reaching opposition (i.e. it would be rising as the sun set and setting just before the sun rises again) this would make it a very favourable apparition from December onwards, at which time Jupiter would be shining at magnitude -3.

Another planet at opposition at a similar time was Uranus, it would not be possible to see its moons (unlike Jupiter and Saturn) but the planet would be in a good position to spot the planet itself. It would be located on the edge of Taurus.

Venus was an evening object at -4 magnitude in December. Mercury would be a morning apparition, rising to 10° above the horizon at sunset mid-December (14th), shining at a magnitude of +1.

Finally the winter constellations e.g. Orion would start coming into view in the mornings.

Next meeting

The next meeting was on 4th November 2024