Ayrshire Astronomical Society Newsletter April 2015

Please send articles to newsletter@ayrastro.com

Loudoun Hall Feedback

Please continue to let us know your thoughts, both positive and negative, on the new venue. Any of the committee members can be approached at the meetings, or just e-mail. president@ayrastro.com.

Next Month meeting :

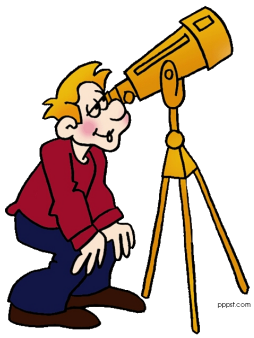
27th April, Speaker : Alisdair Gow. Clyde Space. Subject to be arranged.

If there are any newsletter articles please send them to the usual e-mail : newsletter@ayastro.com

Or by "snail mail" to George Corner,

101 Lynn Drive,

Kilbirnie. KA25 7HL.



May Sky,

Saturn will be well placed for observation, in the constellation Libra. It will be visible for much of the night, reaching its highest point in the sky at around midnight local time. From Ayr , it will be difficult to observe as it will appear no higher than 16° above the horizon. It will be visible between 23:07 and 03:21. It will become accessible at around 23:07, when it rises 11° above the South-Eastern horizon, and then reach its highest point in the sky at 01:16, 16° above your southern horizon. It will become inaccessible at around 03:21 when it sinks to 11° above your south-western horizon.

Tuesday 5th May, 17:26 hr. Conjunction between Moon and Saturn.

Wednesday 6th May, Aquarid meteor shower.

Thursday 7th May, Mercury is at greatest elongation East.

Monday 11th May, Moon is at last quarter.

Tuesday 12th May, M5 is well placed for deep sky observers.

Monday 18th May, New Moon.

Saturday 23rd May, Saturn at opposition.

Sunday 24th May, Conjunction between Moon and Jupiter.

Monday 25th May, Moon first quarter.

NAME AN EXOPLANET

Naming of Exoplanets Update 22 April 2015 Stage two

You may recall that AAS selected twenty exoplanet systems and entered them into the IAU selection process to establish a final list from which each registered body could select one system to name.

Last month we received an email from the IAU with that final list of systems, two of the systems selected by AAS are on the list. The next part of the process is that AAS may select one system from the final list and name the host star to that system plus all the expolanets. The final list of names selected by the IAU will then be put to a public vote. No guidance has been given by the IAU on the selection of the list to be put to Public vote nor how the Public voting process will operate, this "is still under consideration" by the IAU!

The AAS Committee considered our options and decided that we should select a system from the final list that had the most naming options AND met our original criteria for selection namely; visible from Scotland and visible with the naked eye or binoculars. This would give us the best chance of having a name selected in the final public vote. The systems from the AAS original list that made it through onto the IAU final list were both single star, single exoplanet systems.

The system from the final list that was chosen by the Committee is upsilon Andromedae. This system has the host star and three exoplanets and is visible to the naked eye. We therefore can submit four names.

Consideration was given to a naming strategy in the absence of any guidance from the IAU other than that names should have a brief (not more than 250 words) justification and shall comply with the rules for selecting names. On the basis that we can provide justification for some of the names on our list but probably not all, the Committee decided that we should use" justified" names for the host star and the other names for the exoplanets. In each category we have more names available for selection than are required.

The Committee also decided that the selection of the names should be by an open vote of AAS Members at the 24th of May AAS meeting by means of a simple scored list approach. The May meeting date allows a further time for Members to submit names and should allow us to complete the process by the IAU deadline

of the 31st May.

THE FINAL DATE FOR THE SUBMISION OF NAMES FOR THE AAS SELECTION PROCESS WILL BE SUNDAY THE 10TH OF MAY.

Names (plus any justification) should be emailed to president@ayrastro.com or otherwise communicated to the AAS President in writing.

A final list will be drawn up thereafter and emailed to Members so that they can consider their selection before the meeting in May.

Alex's Space. (On hold)

Editors bit

Dear club members,

This month I have only received 1 (one) Yes 1, newsletter item, and that came from our illustrations president (Graham). I am holding out for the last minute in hopes of Alex Baillie (a staunch regular) coming through with his latest article.

There is so much talent in our club, there must be someone out there with something they want to say or contribute. I will look forward to hearing from you all soon. It's your newsletter, please feel free to use it.

In the meantime you will have to put up with my ramblings to fill up space.

George.

Telescopes

Telescopes are the primary tool of astronomers and have been in use since the days of Galileo to study objects in the sky. But as there are different types of light, there are also different types of telescopes. Regardless of the differences, telescopes have three purposes: The primary purpose is

To collect light.

This is the most important purpose of the telescope. As astronomers like to say "Size does matter - the bigger, the better." In fact, size can make all the difference. A telescope can be thought of as a "light bucket" and the more light it collects, the better the view. The amount of light a telescope collects depends directly upon the size of the light collecting surface (the part of the telescope that gathers up the light). The light gathering ability can be expressed as the radius of the light gathering surface squared, since telescopes usually have a circular light gathering surface (mirror) and the size of this surface is a function of radius squared (Area of a circle = R2). If you were to double the

radius of the mirror, you would increase the light gathering area by a factor of four.

This means you would gather four times more light. However, bigger also comes with some disadvantages. The bigger the telescope, the bigger the machinery to operate the telescope has to be, as well as a very large bank account to cover the cost of the thing.

To see fine detail, to resolve features.

The ability to see things more clearly, or to have better resolution, is usually measured in arcseconds, and the smaller the resolution, the better. This just means that you can see things that are pretty close together or that you can see small details clearly. Resolution is important since it helps us astronomers get a better idea about what is going on out there, (small details could provide a great deal of information about objects and the processes that affect them). Unfortunately, the resolving ability of a telescope depends upon the type of light (wavelength) you are using and the size of the telescope being used. For the best resolution, a very large telescope is needed, and in many cases this is difficult to manufacture (or afford). In some cases having a large telescope doesn't really help. The reason being, the Earth has this annoying atmosphere that not only blocks our view of some things (especially on cloudy days) but also blurs our views of objects. There are some ways to get around these problems, which we can look at later.

To magnify objects.

While many people think that this is what telescopes mainly do, it is usually not a major feature. If you were to sit two inches from your television everything would look bigger, agreed? How is the quality of the picture? Pretty poor, isn't it? Often when the magnification is increased the image looks pretty blurry and poorly defined, so sometimes a lower magnification is better. A high magnification is usually only used when looking at nearby object like planets or the Sun.