

Issue: June 2018



Ayrshire Astronomical Society Newsletter

Inside this Issue:

Meeting	Cover
President's Word	Page 2
News and Events	Page 2/3/4
Graham's Article	Page 5
Alex's Article	Page 6
AAS Library	Page 7

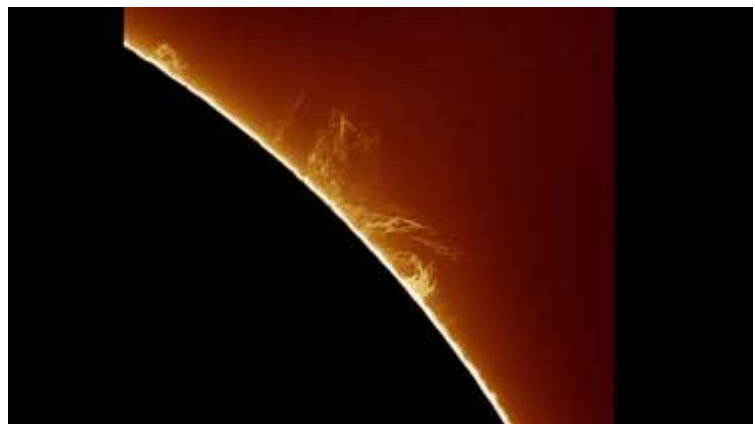
Moon Phases May /June 18

28th June Full moon
3rd quarter: 6th July
New Moon: 13th July
1st quarter: 19th July
Full moon: 27th July

Astronomy Picture of today by NASA

18th June

An active prominence on the Sun



Noctilucent Clouds photographed by Dave Hancox, Dalmellington on the 11th June 2018

President's Word

Well, after many years of holding off, I have finally succumbed, standing for the role of 'President of the Society'. It wasn't an easy decision to take up this office as our previous president, Graham Longbottom has passed on pretty large shoes to fill, but I will do my very best to continue to promote and run the society in the same vein as has been done during his tenure.

We have an exciting year ahead of us, with many committee members taking up new offices, and some making the leap from member to some very important posts on the committee. To all who have taken up new offices and all those who are continuing to serve on the committee, I thank you, and look forward to working with you over the next year. I also thank all members for their continued support of the society. It is your society, and while we do have the committee to organise events and themes/subjects for meetings and observing sessions, your attendance and input is essential to ensure that we continue to keep things interesting, on-topic and current with the leaps in progress made in the science of astronomy, continuing to make the AAS a very successful society.

It has been heartening to see astro activities continue throughout the summer season, with several views of noctilucent clouds and some earlier auroral activity. I was personally treated to some wonderful views of the Summer Triangle, Venus, and Saturn with its moons while on holiday in the Canary Islands. I have never seen Jupiter look so bright and the near- perfectly horizontal terminator on the moon left no doubt as to where on the earth I was viewing!

So here's to the year ahead and I look forward to seeing you all at observing sessions, meetings and outreach events all over Ayrshire!

Best Regards and Clear Skies Roger Harman

News and Events



16th June

Valentina Tereshkova became the first woman in space when she launched on Vostok 6 from Baikonur in 1963.

Continuing with the subject of female pioneers... 18th June 1983
Happy Launchaversary to the STS-7 crew which includes Sally Ride. She was the first American woman in space launching on Challenger.



Opportunity Rover is stuck!

Opportunity has fallen silent because he is smack dab in the middle of a massive dust storm which covers about one quarter of the planet. Sunlight which he desperately needs for power is completely blocked out. The mission team is crossing their fingers, as do we, that the little rover will survive and continue trekking across the Red Planet for many more thousands of miles.



Outreach Events Dates

We are looking for volunteers to participate at various events.

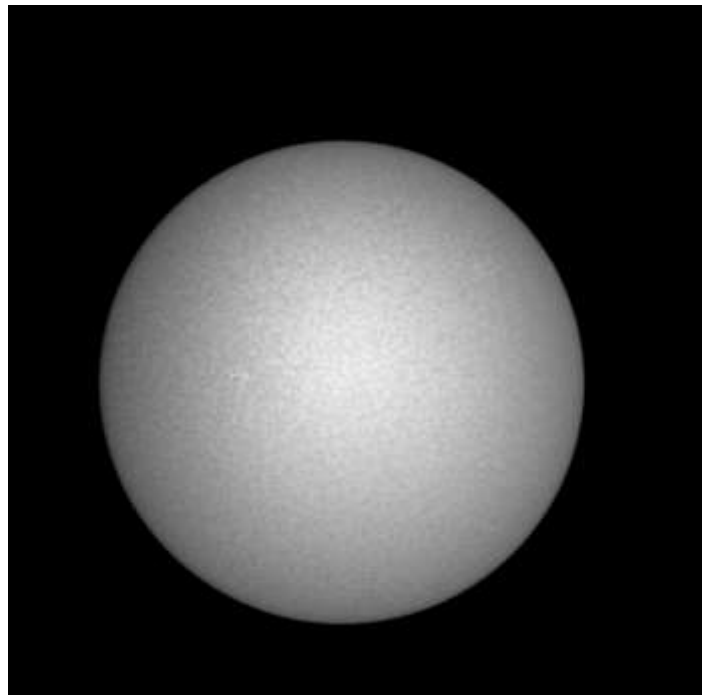
27th July Dumfries House

These are fun days out where you interact with people of all ages. We have a range of telescopes set up, books and all sorts of accessories on display. Speak to one of the committee members if you are interested. Everybody is welcome!

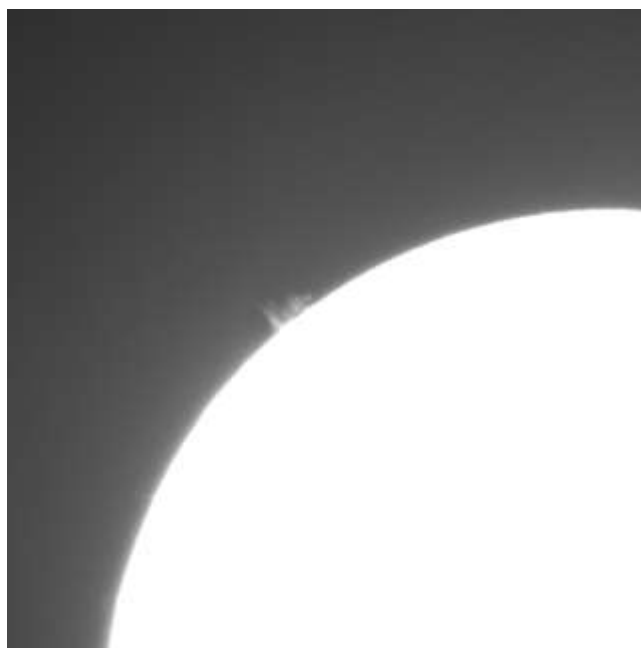
Solar Days

Keep your eyes peeled for more solar event days in June/July and August at the seafront. I have now two solar telescopes to use! The Lunt 152 and a Coronado Solarmax 60. Will be great fun!!

Solar events in May



Full solar disk imaged on 23rd May with Coronado 60mm, ASI174MM



Big Solar Prominence and two smaller ones taken on 28th May, Lunt 152, ASI174MM

Graham's Article

An opportunity to see Mars up close



As many of you will already know, the planet Mars will be at opposition in July of this year, the 27th to be precise, and reputedly will afford the best viewing opportunity for some 15 years, assuming of course that the glorious Scottish summer allows a few gaps in the clouds!! What is more, the club telescope, the 125mm TMB APO Triplet, is not only a high quality piece of kit, it is specifically a planetary telescope. So there is an opportunity a cracking view of Mars through a top quality scope using the equally high quality televue eyepieces one of which is a 2".

The scope comes with its own tripod, EQ6 mount and power pack and, if you fancy some simple photography there is a webcam and of course the club laptop. So! What are you waiting for? If don't feel comfortable using the scope, then either ask one of the committee to arrange some tuition or, better still, get a group together which includes an experienced user and have a viewing night. Someone might even put together a BBQ. All you need to do is start the ball rolling and then make sure it doesn't stop. It would be a shame to miss such an opportunity.

Did you Know?



I came across an interesting website a while back on Telescope Equations and always meant to put together a short talk using the plethora of information that it provides. I found, in fact, that the site owner had anticipated my thoughts and had provided a power point presentation on the site and yet I never did knuckle down and do it.

So, as an alternative, here are a few “did you know” snippets – without the maths and the equations you will be pleased to know. They might even form the basis of a new newsletter series.....

Did you know that the “f number” of a telescope is simply the focal length of the telescope divided by the diameter of the objective (the big lens at the front)? So, if you have a 1000 mm focal length and a 100mm objective then the scope is an f/10. With the same focal length and a 200mm objective, the scope is f/5.

Did you know that if you have the “f number of the scope say f/4, then the eyepiece which gives you the “maximum” magnification is a 4mm focal length eyepiece? If it is an f/10 then it is a 10mm focal length eyepiece and so on. In this context the “maximum” magnification is that after which you gain little or no benefit from further magnification even though the scope will take smaller focal length eyepieces.

Did you know that the magnification given by an eyepiece is to be found by dividing the focal length of the telescope by the focal length of the eyepiece? So if the focal length of the scope is 1000mm and the eyepiece is a 20mm focal length the the magnification is 50.

Did you know that the focal length and f number of a telescope are normally written on the metal ring retaining the objective, or the focal length at least but possibly not the f number, on the tube of the scope.

Alex's Article

What's in a name?

Star patterns from European mythology have become the official constellations of the sky, but different cultures see different patterns in the same stars.

Ancient Egyptians recognised Orion as the God of Light, while today South American Indians see the same stars as a giant crocodile. Among the Inuit of the Arctic, the stars of the Big Dipper are seen as caribous. In Greenland however, these same stars become a Kayak! To the Aztecs the Dipper was a God that stirred up trouble as he circled the pole.

The Coalsack nebula, next to the Southern Cross is seen as an Emu by Australian Aborigines, while the same is seen as a Llama by the Inca.



Emu as seen by the Aborigines (The Emu's head is the Coalsack)



A Llama as seen by the Incas.

Some fun facts:

1. Lucy, a star in the Centaurus constellation is a white dwarf with a crystallised core. This makes it the biggest diamond we know of, a mere 500 billion-trillion-trillion carats.
2. All the coal, gas, oil, wood and peat on Earth would only keep the Sun burning for 2 days plus only one billionth of the energy released by the Sun reaches Earth.
3. If you stand at the equator with the Moon directly above your head, you would 1kg lighter than usual... Instant diet!!

Back next month.
Alex Baillie

Open for business!

THE LIBRARY IS A RESOURCE FOR MEMBERS -PLEASE SUPPORT IT AND MAKE USE OF IT

The Library list is also available on the website under “links” and can be downloaded



The library is now full up - if you would like to obtain a list or borrow an item

– contact Alex at the next meeting or give him a call on 01563 520887.

Unfortunately Alex does not have email, however messages via library@ayrastros.com will reach him the old fashioned way after a short delay but please contact him directly if at all possible.

THE LIBRARY IS WAITING FOR YOUR CALL!! There are a lot of interesting items to borrow

And finally....

Q: Where does an astronaut dock his spacecraft?

A: At a parking meteor.

I'm reading a book about anti-gravity.. it's impossible to put down!

Q: What did Mars say to Saturn?

A: Give me a ring sometime!

Q: what do you call a tick on the moon?

A: A luna-tick.

Q: What do you call a crazy spaceman?

A: An astro-nut