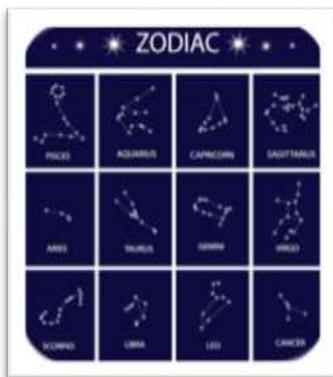




>>> **Ayrshire Astronomical Society Newsletter**

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DON'T FORGET

The September meeting:

Bring along your telescope or accessories if you need help on how to use it or set it up.

Next Meeting:

26th September

At Prestwick Academy

Equipment and Beginners Night and Workshop

August Night Sky

Perseid meteor shower

Perseid Meteor Shower will be increasing in number from early August on. The peak will happen during the evening of the 11th to the morning of the 12th. The prediction is for up to 200 meteors per hour to be seen on the peak night. Fingers crossed for good weather.

But you don't have to wait for the peak night, to watch for meteors. Whether you see an outburst or not, the shower is always fun to watch.



The Moon this month:

2nd New Moon

10th First Quarter

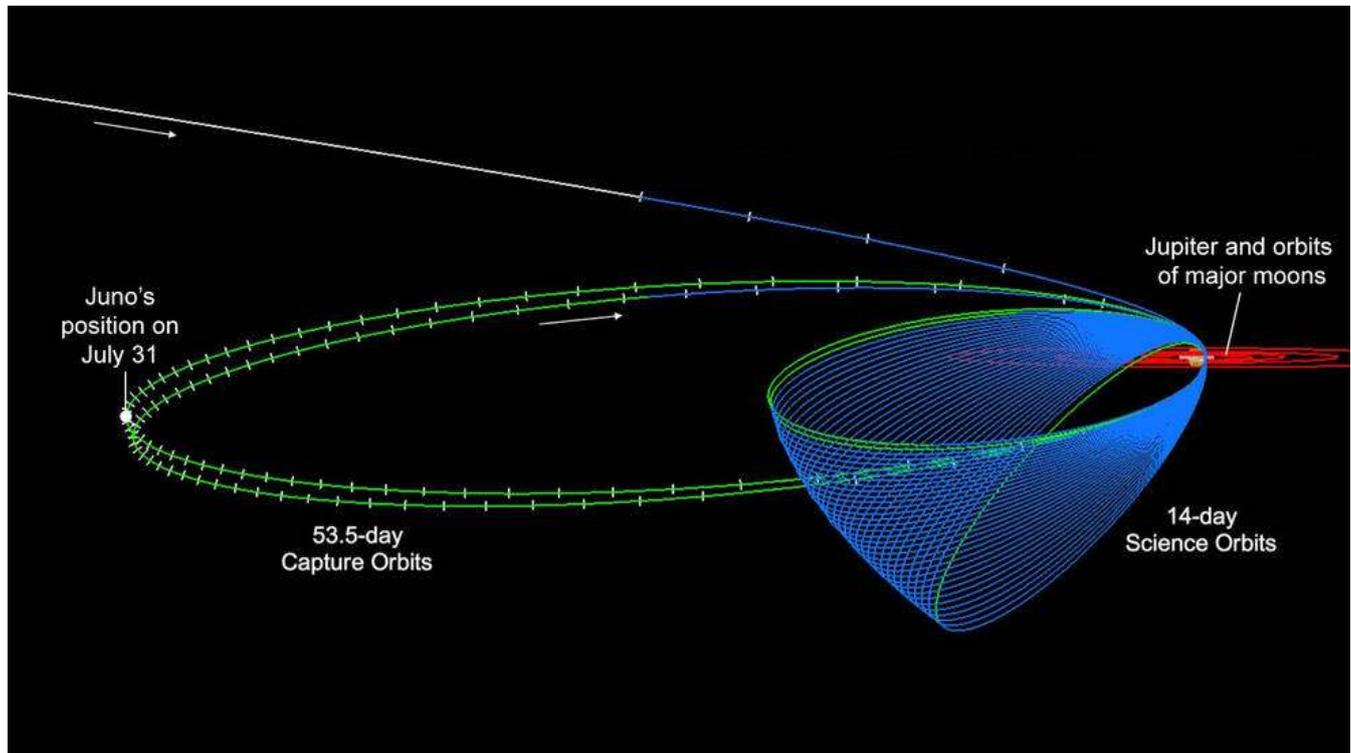
18th Full moon

24th Last quarter

Update on Juno Mission

On 31st July, Juno reached the farthest point in its orbit of Jupiter for the first time, known as “apojove”, and is 5 million miles from the giant planet. After that point, Jupiter’s gravitational grip on Juno will cause the spacecraft to begin falling back toward the planet for another pass, this time with its scientific eyes wide open.

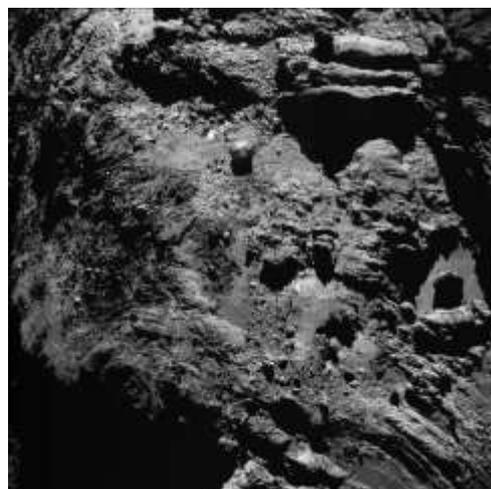
On 27th August, Juno will finish its first lap – the finish line represents the mission’s closest pass over the gas giant. During that pass, Juno will skim past Jupiter at a mere 2600 miles above cloud tops.



Farewell, Silent Philae

On 27th July, the Electrical Support System Processor Unit (ESS) on Rosetta has been switched off. There has been no communication between the lander, Philae, and Rosetta since 9th July 2015. As the comet and Rosetta travel further away from the sun and so, receives less solar power, it was necessary to switch off the connection in order to save power to continue scientific operations for the next two month. Rosetta’s planned descent onto the comet to join Philae will happen on the 30th September.

This image was taken with Rosetta’s Navcam on 9th July, when the spacecraft was 11.7 km from Comet 67P/Churyumov-Gerasimenko



Events:

Here are the next meetings in 2016:

26th September 2016

24th October 2016

28th November 2016

December: Christmas Meal TBC

Don't forget:

7th September

Book launch "The Elements of Time" by Duncan Lunan . RSAS Barassie Works Club, Troon, 7pm where Sydney Jordan will be present too

27th October

Detection of Gravitational Waves by Prof. Martin Hendry at the RSAS Barassie Works Club, Troon

19th May 2017

Prof Brian Cox tours the UK with his live show to explore the wonders of the universe. He is at the SSE Hydro on the 19th May 2017. It is still far away, but tickets do sell quickly.

Presidents' Word

Sat here outside the caravan (9:35 at night shirt and T shirt weather, glass of wine in hand) in the middle of France with clear skies, Mars and Saturn clearly in view it's hard to believe I hardly got out in the obsy last year. I suppose it's always better at some place other than where you are but I think good old Scotland does take the prize for making astronomy difficult. Maybe I should add a nice cosy warm room with bed and toilet facilities to the obsy, put up an all sky camera and some automation plus get into radio astronomy - then I might be better placed and more motivated. Alternatively I could just move!

Joking aside, when we do get a clear night it is well worth getting out there and I really did try last year and actually made some progress with my Meade camera. This year's target is to continue the effort and get some deep sky images taken. That is going to need help and guidance and that is where the Society comes in. With our widely varying membership we have strengths in all area and members able and willing to help those trying to get started in almost any aspect of astronomy. In most cases it's just a matter of finding the right person and asking, or suggesting the issue as the subject of a short talk.

Our beginner nights at the start of each season have been quite popular and continue this year. However, "beginner" is a relative term, so don't think it's not for you if you have some experience. Use the session to take the next step and ask for guidance from someone further ahead than you are. If you don't know who that might be just ask around or ask one of the committee members. Better still if you are that person with more knowledge, come out from the shadows and volunteer to help. Don't worry about making the odd mistake in your advice or help – it's all experience for you and the other person. Let's have an especially good beginner's night this time with a view to moving everyone forward or into a new area of astronomy - see you in September - that is unless I decide to stay here in France - then it might be a Skype session. ;-)

Alex's Space

Have you ever wondered where the planets in our Solar System got their names from? Here you go:

Mercury is named after the Roman messenger god, his Greek counterpart is Hermes.

Venus is named after the Roman Goddess of love and beauty; her Greek equivalent was Aphrodite.

Mars is named after the Roman God of war whose Greek equivalent was Ares.

Jupiter – being the largest planet, was named for the leader of the Roman Gods whose Greek counterpart is Zeus.

Saturn – the second largest planet was named after Jupiter's father. His name in Greek was Cronos.

Uranus – is the only planet whose name is derived from Greek mythology Ouranos. His Roman counterpart was Caelus. Uranus was the father of the first generation of Titans.

Neptune was the Roman God of the seas, his Greek equivalent was Poseidon.

Pluto (dwarf planet) is named after the Greek God of the Underworld. His Roman equivalent was Dis Pater.

Recent discoveries show that life on Earth could have been started by a comet strike billions of years ago. This discovery was made by the European Space Agency spacecraft – Rosetta, which blasted off from Earth 12 years ago. It has been orbiting the comet 67P (Churyumov – Gerasimenko) since August 2014 after a four-billion-mile voyage through space. It now seems this mission has achieved its main objective – finding out if comets could indeed hold the secrets of life itself.

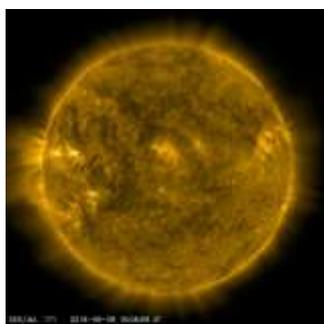
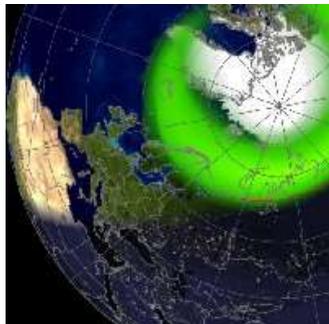
According to results published recently, Rosetta has discovered clear evidence of the amino acid Glycine, which is the basic component of proteins, and also the mineral phosphorus which helps to build DNA. Scientists said comets may have seeded other planets with the raw ingredients of life. This evidence was obtained by Rosina, the spectrometer on board Rosetta. This instrument is designed to 'sniff' the atmosphere around comets. Scientists had already found simple organic molecules but this is real evidence - that it also has chemicals suitable to build life, thus demonstrating comets are reservoirs of vital materials and could be transporting them around the universe.

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Isabelles' Solar Corner



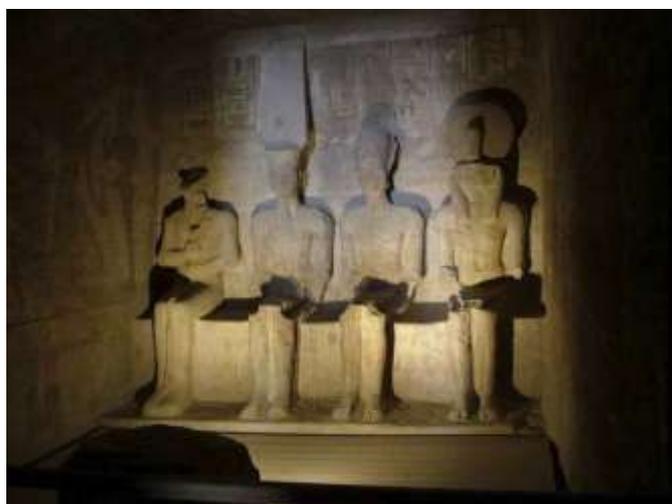
Current Aurora forecast for Europe, 8th August 2016



A current image of the Sun 8th August 2016, taken by the AIA (Atmospheric Imaging Assembly) which is a part of the SDO.

Abu Simbel

In the late 1960's when the construction of the Assuan Dam created Lake Nasser, the rising waters of the Nile threatened to swamp the area where the Great Temple at Abu Simbel stood. The four statues, all depicting Ramses II, front the Great Temple became an international icon. In a major feat of modern engineering, the entire temple was extracted from the cliff in blocks and hauled some 200m further away from the water. The Great Temple was constructed keeping in mind the position of the sun. On 22nd February and 22nd October, the sun penetrates 55m into the inner sanctuary and illuminates the statues at the back wall (Ramses II, Ptah, Ra and Amun) Only Ptha, the God of the Underworld remains in darkness all year around. The significance of these dates are not known. Some suggest it could be the celebration of the birthday and coronation of Ramses II.



AAS Library

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@ayraastro.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..... 😊

