

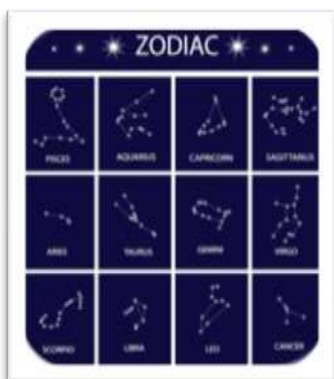
Issue: March 2017



>>> **Ayrshire Astronomical Society Newsletter**

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Forthcoming Events:

**Meeting 27th March about
Prestwick Spaceport**

Next Meeting:

27th March

At Prestwick Academy

Guest Speaker Richard Jenner

Prestwick Spaceport

Cosmic Calendar for the next month:

20th March Spring Equinox, 10.28am GMT UK

21st March: Arcturus, the 'Spring Star' now rises above the east northeast horizon

25th March: Jupiter's moon Io disappears into eclipse by Jupiter's shadow

10th April: Moon meets Jupiter. The largest planet will pair up with the full moon. They rise together in the east moments after the sun sets.

Moon phases March 2017:

2nd April: First quarter

10th April: Full moon

18th April: Last quarter

25th April: New moon

News

A surprise announcement was made by Space X beginning March that by late 2018 humans could be travelling beyond the low Earth orbit.

Two, as yet unnamed, individuals have approached Space X about a possible mission to slingshot around the moon and return to Earth.

Names will be announced later in the year.



Happy 30th Birthday, Supernova 1987A

A month late, but still worth mentioning. The first naked eye supernova since the invention of the telescope lit up the global astronomy world in the morning of 23rd February 1987. Supernova 1987A in the Large Magellanic Cloud eventually reached magnitude 2,9, before beginning a long fade and cascade of unexpected developments that continues to this day.

Events: Past and Forthcoming

Meeting 27th February



Roger Harman with the guest speaker Mark Klimek who gave us an interesting talk about Light sources and their emission spectra and problems it can cause for Astronomy

3rd / 4th March Starcamp, Walled Garden Camping and Caravan Park



10th March, Science Day at Willowbank School with KESS



11th March Netherthirds School, Cumnock



No outreach is planned in April. But do get in contact with Graham if you fancy joining in. There will be plenty more opportunity in future and it is very rewarding.

President's Word



No further comments needed ☺

Alex's Space

First of the many

After 4th October 1957, the world was never the same again. Before this date, most people regarded space travel as 'science fiction'. Those who kept up with the news knew that the Americans were planning to launch a small satellite, but it was not a topic of conversation in the pubs or elsewhere. The event that did make headlines however, was the launch of **Sputnik I**, not by the Americans, but by the Soviet Union. 1957 was the **International Geophysical Year** and scientists across the world were encouraged to use whatever methods they could to learn more about our planet such as the Earth's crust, the behaviour of volcanos, the composition of the atmosphere and detection of Cosmic rays. Observations from above the atmosphere are extremely useful for studying the Earth. The scientists of 1957 knew this but were yet to develop the technology.

At this time the Soviet Union and the United States were 'engaged' in the Cold War where they 'jostled' for the position of the most powerful country in the world. Part of this 'contest' involved science and technology and what better demonstration than launching the first man-made object into space? The first ever man-made satellite Sputnik I shot into space from what is now Kazakhstan on 4th October 1957. This satellite was about the size of a beach ball and had two pairs of antennas to transmit the famous beeps back to Earth. Sputnik I was a very basic piece of kit, even by 1957 standards. But it still sent back lots of useful information during its 92 day mission. Sputnik 2 was launched a short time later and achieved another milestone by launching the first living animal into space – a dog called Laika. The American public were furious that their government had let the Soviets beat them into space. What was to stop the Soviets from dropping atomic bombs onto the USA from space? The result of this rage and panic was the formation of NASA – The National Aeronautics and Space Administration. The rest, as they say, is history.

Sputnik I



Isabelles' Solar Corner



Spring Equinox (Vernal Equinox)

On 20th March 2017, 10.29am in Prestwick is the March Equinox. Equal Day and Night... Nearly.

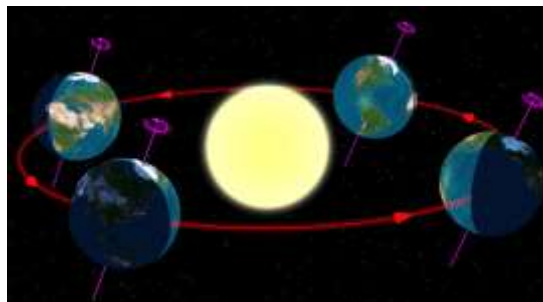
We understand that the two equinoxes per year happen around the same time 20th March and 23rd September. We normally associate that with equal time of day and night. After the Spring Equinox, the days are getting longer. Well, technically not quite true.

An equinox simply refers to the fact when the axis of Earth is neither tilted towards nor away from the sun. But the length of the day and night depends on two factors which can influence the time it happens.

First, from the Earth, the Sun appears as a disc rather than a point of light, so when the centre of the Sun is below horizon, its upper edge is visible. Sunrise, which begins daytime, occurs when the top of the Sun's disk rises above the eastern horizon. At that instant, the disk's centre is still below horizon.

Second, Earth's atmosphere refracts sunlight. As a result, an observer sees daylight before the top of the Sun's disk rises above the horizon. Even when the upper limb of the Sun is 0.4 degrees below the horizon, its rays curve over the horizon to the ground.

This year, equal day and night happened on the 17th March.



Aurora Group

Members photos 1st March



Roger Harman



Robin Scott

NEW!! Fancy a little quiz? Here are some clues about a scientific person. Can you guess who it is?

Answer from February: Isaac Newton

Good luck with this one:

- I studied Medicine but didn't like it (my father pushed me to study it)
- I then changed to Cambridge University to become a Minister
- But all I really wanted to do is being outdoors
- My father once asked me to count the peony blossoms in the garden. There were 384 flowers!
- At Cambridge University I met Professor Henslow which will change my life.
- I got the opportunity to travel around the world – for five years (longer than initially expected)
- I married my cousin in 1839 and we had 10 children.
- I was buried in Westminster Abbey in 1882

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.....

