



Newsletter March 2021

Next Meeting: **ZOOM Meeting - Monday 22 March 8pm**

Topic: AAS March Meeting - TBA

ZOOM Meeting Details:

<https://us02web.zoom.us/j/82091067684...>

Meeting ID: 820 9106 7684

Passcode: Astro

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President's Word

Well things are improving on the COVID front with many being vaccinated and depending on location, restrictions now being lifted to allow some travel. So we are definitely moving in the right direction.

AAS Virtual Zoom meetings have been well attended, with some excellent speakers giving talks about a variety of subjects from the solar cycle, supernovae right through to astronomy in Antarctica. So if you haven't made use of this very enjoyable and informative free benefit to date, we still have many interesting talks booked for future months.

News this month is that SpaceX has tested yet another rocket prototype with a similar ending to previous tests. All seemed to be going very well with takeoff, stabilisation and landing, then the rocket appeared to lift before detonating on the launch pad a few minutes later. SpaceX are hailing this as a success: "the key point of today's test flight was to gather the data on controlling the vehicle while reentering, and we were successful in doing so."

Fortunately there is SpaceX SN11 waiting in the wings for further testing.

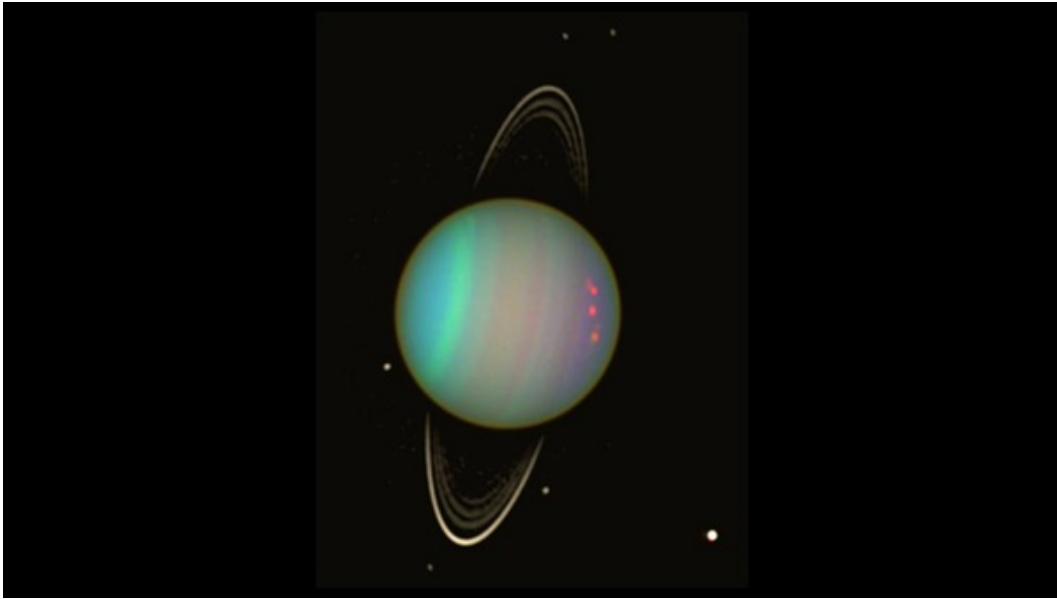
In other 'news'....

240 years ago the Solar System acquired a new planet. Obviously it had been there a lot longer than 240 years, but on the clear evening of Tuesday 13th March 1781, William Herschel first observed Uranus from his observatory in Bath, Somerset. Using a 6.2" Reflector made by both he and his sister Caroline, Herschel spotted something that was quite unusual, " while I was examining the small stars in the neighbourhood of H Geminorum," Herschel wrote, "[my attention was drawn to] one that appeared visibly larger than the rest."

Herschel first thought that he had identified a comet, but 4 nights later he observed the same object, and considered that it was unusual for a comet to have such a well defined disc and lack of any visible tail. He reported his findings to the Royal Society as well as Neville Maskelyne who replied, "I am to acknowledge my obligation to you for the communication of your discovery of the present comet, or planet, I don't know which to call it. It is as likely to be a regular planet moving in an orbit nearly circular round the Sun as a comet moving in a very eccentric ellipsis."

Interestingly, Herschel was not the first to see Uranus. This very faint object had been observed many times before, first by the original Astronomer Royal John Flamsteed in 1690 who catalogued it as a star, and then by french astronomer Pierre Lemonnier who reported observations a dozen times over several years starting in 1750.

We owe the name 'Uranus' to Johann Bode who in 1783 suggested that it would be appropriate that Uranus, Father of Cronus (Saturn), who fathered Jupiter, who in turn, fathered Mercury, Venus and Mars, should be used.



Wishing you all well and clear skies!

Roger



Member Articles

Alex's Space

First of all an apology to Alex and the readership, as I forgot to put in the title of Alex's article last month. It should have been titled: POET TO THE STARS

And now for Alex's next article, properly titled this time!

LET THERE BE LIGHT

Each artist's work is a personal expression of skill and imagination, but are these expressions limited to human works of art, or are they also found in the natural world? The answer has to do with the nature of light and how it interacts with different surfaces. Light usually appears white to our eyes, however, white light can be separated into all the colours of the visible spectrum, each colour being a different wavelength. Most objects contain chemicals called pigments that absorb certain wavelengths and reflect others. These are the colours we see, for example a ripe tomato would be red, the rest of the colours having been absorbed into the pigment, a ripe banana would be yellow – and so on. Even solid hard objects such as a piece of Jade would show a lovely shade of green. Beautiful colours also can be seen above us as well, when sunlight travels to Earth it strikes molecules and dust in the atmosphere, the blue waves are scattered throughout the atmosphere. That is why we see a blue sky in summer or winter – providing there are no clouds around!! When the Sun rises in the morning or sets in the evening the light has to travel through much thicker layers of the atmosphere, the blue waves are completely absorbed, the longer wavelengths pass straight through and adorn our sky with golden and crimson hues, what a rich diversity of colours have been used to 'paint' our worldly home, yes, Planet Earth is indeed a jewel in the universe.

And finally: What was the name of the first colour programme to be shown on British TV?

It was "The Black and White Minstrel Show"!!

Take care and keep safe in these challenging times.

- Alex Baillie 2021



March / April Observing

General

We have now definitively entered Galaxy Season with Leo rising high in the sky earlier in the evening, followed by Coma Berenices and Virgo. It is also the last chance to glimpse Orion as it moves further in the west setting earlier and earlier. March and April are still pretty good for having dark skies, which we lose in May when astronomical darkness disappears until August, so it is best to make the most of it.

Planets

Mercury and Venus: For the most part are too close to the sun to be seen, both move into the evening sky in late April

Mars: Remains the best of the planets to observe, as it hangs around the western sky after sunset, however, it continues to shrink and will be just under five arc seconds across by the end of April

Jupiter and Saturn: They are visible in the morning sky though they will be affected by the dawn light.

Uranus and Neptune: Uranus remains in Ares, getting more distant from Mars, and is reasonably placed for observation. Neptune is lost in the glare of the morning sun.

Three Planet Conjunction: On the 22nd of April Venus and Uranus will be less than 22 arc minutes apart in the early evening with Mercury about two degrees to the right of the pair. On the 23rd Uranus will be right between the two others. Due to the brightness of the sky and how low they are they may be hard to see, but it is worth a go if it is clear. It is a rare chance to see three planets in a wide field telescope!

Vesta: OK, it is not a planet, but at magnitude 6.4 it is currently visiting the body of Leo for this period, and should be visible with binoculars or a modest telescope

Meteor Showers

Meteors may have a comeback with the Lyrid Meteor shower which runs from about the 16th to the 25th of April, peaking on the 22nd. The only fly in the ointment is that there is a 10 day old waxing gibbous moon in Leo that evening which will make fainter meteors harder to see.

Notable Double Stars

Castor or αGem (Gemini): Mags 1.6 and 2.6, separation 3.9"

Zubaneh or ι Cncrri (Cancer): Mag 4.2 and 6.6, 30.5" separation (top left of constellation)

Tegmine or ζ Cncrri (Cancer): Triple system Mag 5.6, 5.9, and 6.0, separations 1" and 6" respectively 6 inch or larger to split all three.

Algieba or γ Leo (Leo): Mags 2.6 and 3.8, separation 4.5"

Cor Caroli or αCvn (Canis Venatici): Mags 2.9 and 5.4, separation 19.6"

Comets

There are no easily observable comets visible present during this period.

ISS

The ISS will be visible in the evening sky until the 1st of April, returning in the morning sky on the 30th of the month. Consult <https://www.heavens-above.com> for specific times and locations.



Member Images

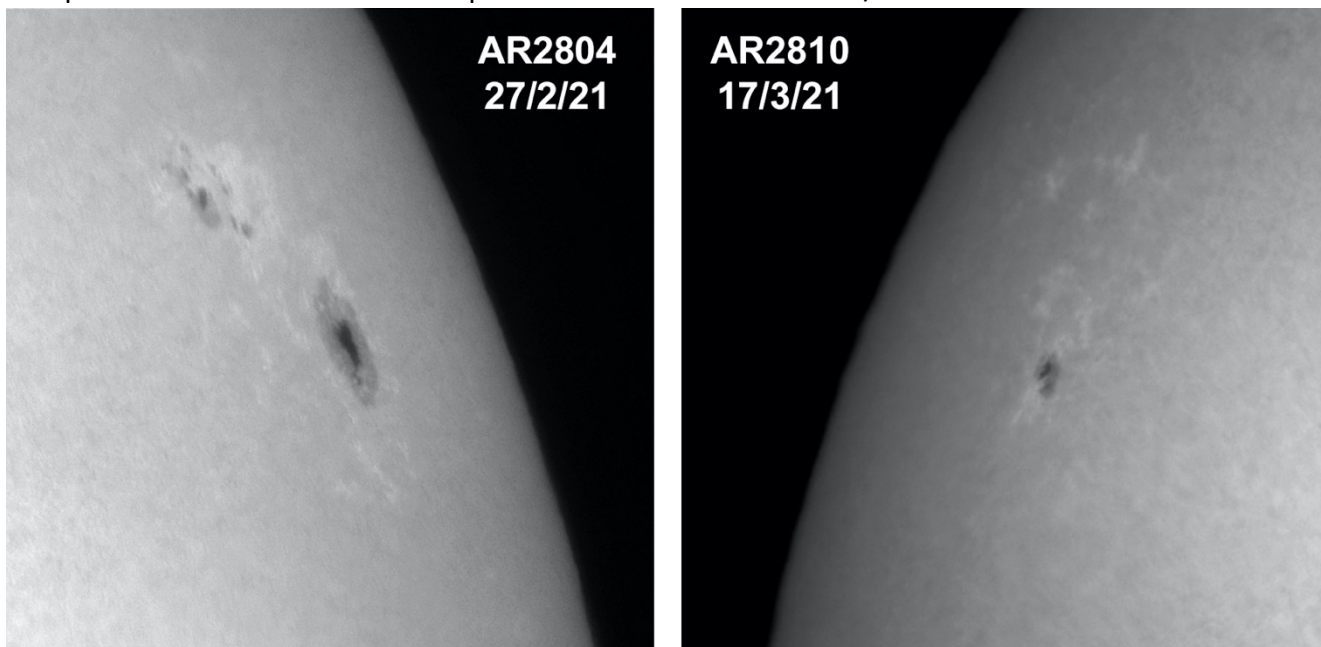
Marc Charron

The weather has been consistently poor with only a few breaks for observing. Here are few images that I was able to capture over this period.

Mars and the Hyades and Pleiades on the 2nd of March a day prior to their closest encounter, unfortunately it was cloudy that day! Image on right shot with telephoto, on right 70mm f6 triplet at f4.8 (0.8x reducer)



Sunspot AR2804 and AR2810 on respective solar limbs – TMB 130/1200 with 2x Barlow.



TMB 130/1200 using 2x Barlow - Plato and Alpine Valley



TMB 130/1200 using 2x Barlow – Tycho and Bailly



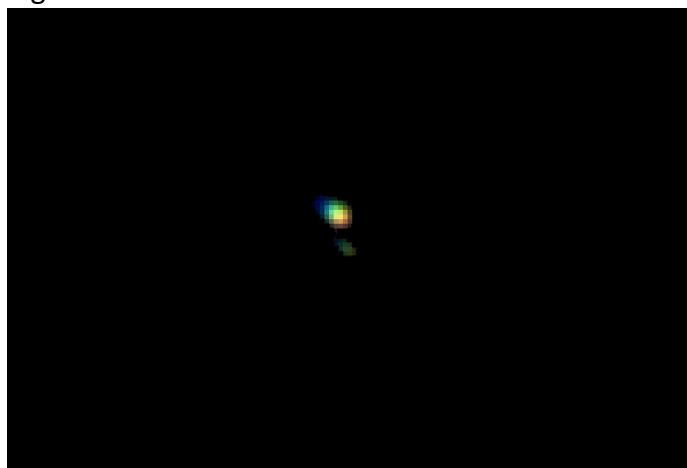
Moon over four days 16-19 March



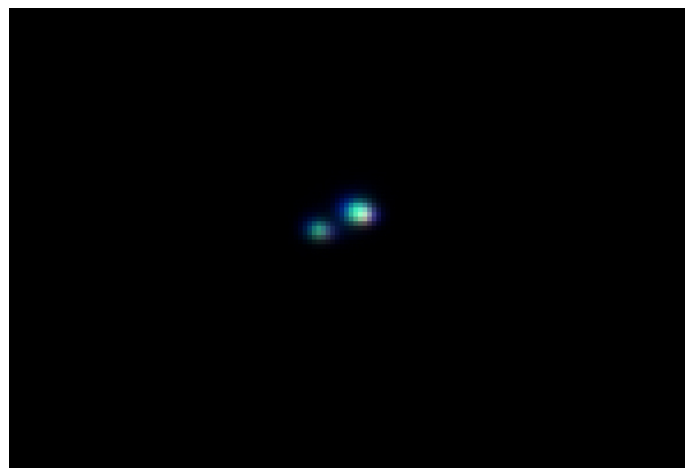
A Pair of Double Stars

As seen and taken with a 70mm refractor

Algeiba in Leo



Castor in Gemini

































Therefore proving that you don't need a big scope to see some spectacular double stars!



Moon Phases

April 2021

Mo	Tu	We	Th	Fr	Sa	Su
			1 	2 	3 	4 
5 	6 	7 	8 	9 	10 	11 
12 	13 	14 	15 	16 	17 	18 
19 	20 	21 	22 	23 	24 	25 
26 	27 	28 	29 	30		



April Sky Chart

