



Newsletter March 2024

Next Meeting: **Monday 25th March at 7pm**

Location: **Kyle Academy,
Overmills Road,
Ayr KA7 3LR**

Topic: **"Wernher von Braun - From Nazi to NASA"**

By: **Colin Barbour**

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Presidents Word

Well! here it is the almost penultimate newsletter from me as President. Only two months, including this one, are left to our AGM in May at which time I can retire into the background (maybe). We have several vacancies still unoccupied, in particular a Treasurer and general committee members and we cannot operate successfully without those post being filled. So get involve, you do not need to commit a lot of time or be an “experienced committee person” in fact its better if you are not! It is all very informal and straight forward you just need enthusiasm and common sense. What is more, if the committee meeting is held at Stephens house, you might get one of his excellent cups of coffee – now there's an incentive. So come on! Stop hiding at the back and get your name put forward by speaking to me , Stephen or Paul at the next meeting. “YOUR SOCIETY NEED YOU”

On another front, Paul has postulated some potential dates for observing nights, the first being at the end of this month on Saturday the 30th. His old nemesis, The Moon should not be around to disturb things (Paul in particular) and all we need then is clear skies. The probable location will be the car park at Fisherton Parish Church on the Ayrshire coastal road between Fisherton and Dunure. So if you are interested speak to Paul so that we can gauge numbers before we speak to the church elders to ask if we can use the car park.



Alex's Space

Let There Be Light

Astronauts have described the Earth as a multi-coloured jewel in the sky, but where do all these colours come from? The answer has to do with the nature of light and how it interacts with different surfaces. Sunlight usually appears white to our eyes, however white light can be “separated” into all of the colours of the visible spectrum from red, longwave low frequency to blue, shortwaves high frequency. Most objects contain chemicals called pigments that absorb certain wavelengths (colours) 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 be green and a piece of iron or lead would be grey,

Beautiful colours can also 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 the 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 but the long wavelengths pass straight through and adorn the sky with golden and crimson hues. Yes, planet Earth is indeed a colourful jewel in the sky.

Alex Baillie
March 2024



March/April Observing

General

Spring is for galaxies and there are plenty to see in Leo, Coma Berenices, and Virgo. It is a good time to spy Markarian's Chain that crosses from Coma Berenices into Virgo. Orion is shifting to the west and is visible in the early evening before setting later on. Globular clusters make a comeback with M3 in Canes Venatici, on the border of Boötes and with M13 and M92 in Hercules becoming more visible. Later on M57 the Ring Nebula in Lyra will get higher in the sky making viewing easier. For double star watchers there are two in Leo of particular interest, the first is Regulus which is a four star system, though only two A and B are visible with modest equipment Regulus A is mag 1.4 and Reg B is mag 8.2 or about 500 times dimmer than its companion. They are also separated by 177 arc seconds, or almost 3 arc minutes, which is about 10% the diameter of the moon. The next is Algieba (aka Gamma (γ) Leonis), which might be considered a more normal double star, with A component being about mag 2.3 and its B companion being mag 3.5, they are about 4.7 arc seconds apart so are more challenging to see, but should be visible in a small refractor or reflector.



Planets

There is not much to see with the planets as most are lost in the solar glare. Jupiter is also shifting west and getting lower in the sky making viewing more difficult. Of the remaining planets Mercury is in the western sky in late March, however, the rest are pretty much stuck in the glare of the sun and not readily visible.

Comets

Comet 12P/Pons-Brooks (mag 5.5 and brightening) is in Andromeda and moves into Ares at the end of March, and should be visible at least until about mid-April when it becomes too low in the sky and the later sunset interferes with its visibility. There are no other bright comets about.

To find out more about observable comets you can visit is Seiichi Yoshida's weekly update on observable comets, which can be found here: <http://aerith.net/index.html>.

Supernovae

There are no readily visible supernovae present at the moment, for information about current supernovae, please visit: <https://www.rochesterastronomy.org/snimages/>.

Meteor Showers

The main meteor shower for the month of April is the Lyrids that peak on the evening of the 22nd to 23rd of April. Unfortunately, the moon will be full that night making them difficult to see.

ISS

Consult <https://www.heavens-above.com> for specific times and location. Check out <https://transit-finder.com/> for details and any possible solar and lunar transits.



Member Images

Paul Cameron

Deep sky and lunar Images taken from his "Darvel Droid Observatory" using a Dwarf II Smart Telescope.

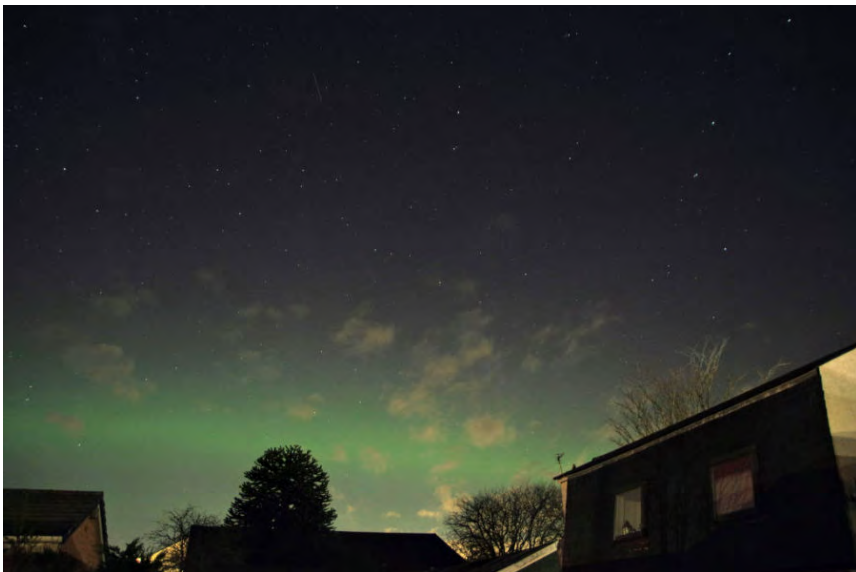
M33



Bodes and Cigar Galaxies (M81 and 82 right to left on left)



Aurora



Gibbous Moon



Tom McCorie

Here are two fantastic images taken by Tom of the centre of Orion Nebula.

Bow shock of gas and dust around a star seen here



Proplyds (star forming regions) near the Trapezium



Here are more images Tom has taken recently:

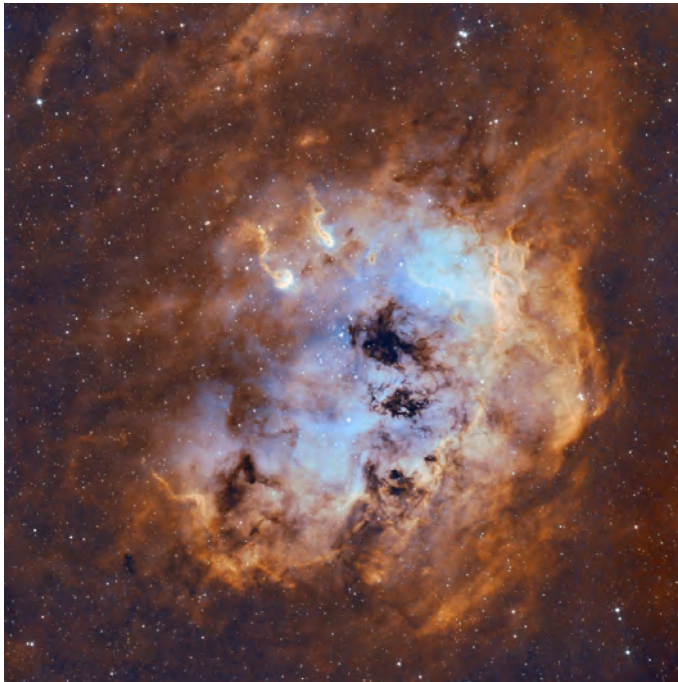
Detail near the centre of the Rosetta Nebula



Whirlpool Galaxy M51 with IC4263 at lower left.



Tadpole Nebula IC410



Tom with his scope



Some notes from Tom on the images:

M51a or NGC 5194

is a grand design interacting spiral galaxy with over 100 billion stars and is in the constellation of Canes Venatici. The interacting galaxy colliding with this galaxy is NGC 5195 and are colliding and will continue to do so till the eventually combine to form one galaxy. Like most galaxies this one also has a black hole at the centre. maybe one day someone will invent a filter that will allow amateur astronomers to image them, LOL. This image is a combined exposure of 7.5 hours and I really want to get 10 times this amount to reveal even more of the dust and IFN (integrated flux nebula) around this amazing galaxy.

Tadpoles nebula:

is a dusty emission nebula, mainly made up of HII and OIII, and is star making factory in the constellation of Auriga. It's about 12,000 light years from us. I took this over a session of about five nights with combined data from this year and last year, with two different focal lengths. it is totalling about 16hrs of integration time.

Rosette nebula:

The rosette nebula is a staple of most astronomer and astrophotographers and site in the Monoceros region of our own milky way. It's a pretty bright nebula in our night skies and is a really easy target to image. it is also mainly made up of ionised hydrogen gases. The open cluster NGC2244 is the star forming region that is associated with the naming of the nebula. It is also sometimes called the Skull nebula because it looks a bit like a skull, but not to be confused with the actual skull and crossbones nebula, that looks nothing like a skull! LOL.

I took all of the images with my telescope set up as follows:

Skywatcher 200P with Starizona .75 reducer giving a fl of 750 at f4

ZWO 533MC Pro dedicated CMOS one shoot colour camera. with a mix of UV/IR cut and Optolong LExtreme filters for nebula

My guiding set up is a ZWO 224 MC sitting behind an SVBony60 guidescope with a focal length of 240mm. This is all sitting on an HEQ5Pro equatorial mount.

Marc Charron

Comet 12P/Pons-Brooks has been getting brighter and here are a few images I have taken recently.

The pink image was shot through Aurora! (6 inch Newtonian) The Aurora



Image shot from Dunure using Nikon Z8 with 85mm f1.8 lens at f2.8, showing the comet sitting below the Triangulum Galaxy M33 (left) and Andromeda Galaxy M31 (top right).

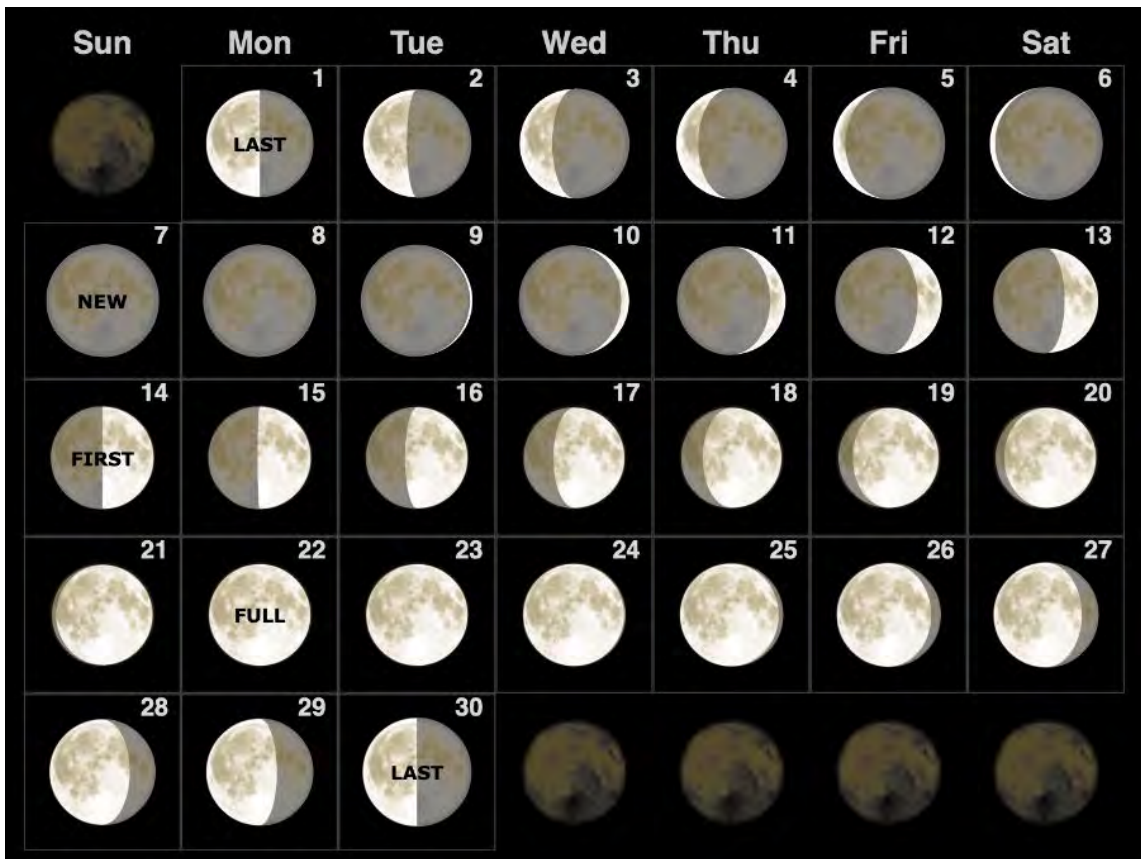


And lastly a couple of lunar shots, first with 600mm lens, the second with TMB130/1200



Moon Phases

April 2024



Credit: <https://www.moongiant.com/calendar/>



March 2024 Sky Chart



Taken from: Stellarium

