



# Newsletter November 2021

Next Meeting: **Monday 22<sup>nd</sup> November 7pm**

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

**Topics: AAS November Meeting - "Setting up a Telescope" By Stephen Wolohan  
- "Binoculars for Astronomy" by Graham Longbottom**

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# Presidents Word

November 2021

It seems to be a long time since I wrote this section although, in fact, it is only a couple of years and here I am back at it! Why? you might ask. Well, as you may recall from the last newsletter, our 2020-21 President, Roger Harman, resigned from the position due to having finally relocated to Wales. This situation had always been on the cards and it is probably only due to Covid19 that it did not happen sooner.

Normally, the Vice President would automatically step up until a new President was elected at either an EGM or an AGM. However our VP, Karen Smith, is unable to do so at the moment for a number of reasons, not the least of which her demanding job in the National Health Service. So, in order to help out and keep things running as the Society re starts after the Covid 19 lock downs, I have therefore “volunteered” to step up as Acting President in the short term. I say “in the short term” because that is what I intend, previously having been President of the Society for a term of some ten years or more before Roger took office. And now for the sermon.....

New blood is the source of new ideas and different ways of doing things which keeps clubs and Societies vibrant and interesting for their members. Within the membership itself , new members supplement existing members to bring different interests, skills and needs that sculpt the way that a club or society develops. It was therefore pleasing to be able to greet a number of potential new members at the last meeting and we look forward to them remaining with us and helping the society grow.

It is also worth thinking about what it is to be a member of a club or society. It is not merely to sit back passively and watch things develop around you, leaving all “the work” to others, although of course that may suit at least for a short time until you “find your feet”. Membership should mean joining in and contributing on however small or humble a level. You may think that everyone else is more experienced than you, or knows such a lot more, but that is not the case. Some members are of course very experienced and knowledgeable but even the total beginner can contribute by, for example, just standing up for a few minutes and saying what he or she hopes to gain from being a member. Is it specific knowledge, general help or a particular skill? That contribution will then allow other members and the society to fulfil that need and help the society grow together.

In a similar way any member could offer a few minutes on their views of a relevant astronomical topic or news item or raise a topic for discussion. Don't be afraid, shy or embarrassed at potential lack of knowledge or fear of “public speaking” just give it a go, treat it as a chat with friends. Don't just sit back and rely on others, get involved, as the most successful clubs and societies are those with active members.

If you would like to have a say just grab me at the start or a break in the meeting. Even better if you would like to stand for office or join the committee again let me know. If it is your first time help and guidance are available.

Here is looking forward to seeing you all again and to running the society up to full speed following the interruption of Covid 19.



## Member Articles

### Alex's Space

#### BEFORE THE 'BIG BANG'.....

There was no before because time did not exist. Time and space have always been together in what Albert Einstein called a space-time continuum. Once time came into being space could start to expand, equally, when space had been created time could start to flow.... Simple Really!!

#### EXPANDING UNIVERSE

Look into deep space and something very odd seems to be going on – in every direction distant galaxies are rushing away from us – and the further they lie the faster they are speeding away - - it would seem our poor old Milky Way is distinctly unpopular! In fact every galaxy is moving apart from every other – just like raisins in a cake move apart when it is baked. This expansion is useful to astronomers to help measure the speed and distance of these unsociable galaxies.

#### DID YOU KNOW...

Why “Milky Way”? The ancient Greeks called our galaxy – “Kiklos Galaxias” which means milky circle. They believed the Milky Way was a stream of milk from the Goddess Hera’s breast - - Cor Blimey!!

Alex Baillie

2021



## November / December Observing

### General

Last month I discussed how the weather had not been too cooperative, little did I know it would get worse! Well, hopefully it will improve soon. The winter sky is now virtually upon us with Orion beginning to make its presence in the late evening sky with Gemini following in close pursuit. Cassiopeia, Perseus, Pegasus and Taurus continue to dominate the night sky. Some interesting targets include M1, the Crab Nebula (difficult), M 31, the Andromeda Galaxy (easy), with its two companions M32 and M110. A somewhat trickier galaxy to find is M33, the Triangulum galaxy (medium), but it should be visible in binoculars or in a small telescope in a dark sky. As mentioned last month there are numerous open clusters to visit. If you are looking for a challenge, why not try these two in Perseus: the m & m Double Cluster NGC 1528,45 (less famous than the Double Cluster) mag 6.4, 6.2 resp., and the Little Scorpion Cluster (NGC 1342), mag 6.7.

### Planets

Mercury and Venus: Mercury is currently moving from the morning to the evening sky. It might be visible later in December, however, it remains very close to the horizon and will be difficult to see. Venus is visible in the evening sky however it is placed fairly low down for viewing from our location. It will remain in the evening sky through this period, becoming harder to see as it moves towards the sun in the sky.

Mars: too close the sun in the sky to be observed early in this period, though it may become visible low in the morning sky before sunrise later in December.

Jupiter and Saturn: Both planets continue to drift westwards in the early evening sky, both setting well before midnight. As the December rolls on they will only be readily visible in the early evening.

Uranus and Neptune: Uranus is well placed to observe in the lower part of Aries, while Neptune is further south and west in top eastern side of the constellation Aquarius, though it is also well placed for observing in the early evenings, but will become less so as December rolls on.

### Comets

Comet C2021 A1 (Leonard) was discovered early on the 3<sup>rd</sup> of January this year and may reach naked eye brightness in early December, current estimates are from mag 5 - 2.6, though the consensus is mag 4. Unusually, it will be visible in both the early evening and morning skies for much of this period. There are two other comets about, though they are both far from naked eye visibility. The first is 67P/Churyumov–Gerasimenko, which is about mag 10, and is in Cancer, the other, 29P/Schwassmann–Wachmann which had undergone a major outburst, though now fading (mag 11+), it is located at the bottom right of Auriga (morning sky) and heading to Perseus. See the Comet Locator on pages 8-9 below.

### Meteor Showers

Arguably, the best and most reliable meteor showers, the Geminids, peak between the 13<sup>th</sup> and 14<sup>th</sup> of December, unfortunately, there is a waxing gibbous moon which will interfere with their observation. The early is probably the best time to view them after the moon has set.

### ISS

The ISS is visible early in the evening sky until the 10<sup>th</sup> of December, then returns to the morning sky on the 19<sup>th</sup> of December. Consult <https://www.heavens-above.com> for specific times and locations. If you are interested in ISS lunar or solar transits here is another site where you can obtain predictions: <https://transit-finder.com/>.



## Member Images

Contributions are welcome from all our members, so if you have something you want to show please do send it in so that it can be included in the Newsletter.

### Marc Charron

Moon on Nov 1<sup>st</sup> (70mm f 6 apo at prime focus and with 2x barlow respectively, AA 178C camera)



Moon on Nov 2<sup>nd</sup> (same setup as above)



Moon Nov 3<sup>rd</sup> (Nikon D750 with 70-300mm lens at 300mm)





M 31 taken on Nov the 3rd (70mm f6 apo with 0.8x reducer, Nikon D750, Star Adventurer for tracking)



67P/Churyumov–Gerasimenko (same setup as above) taken in the morning of Nov 10.

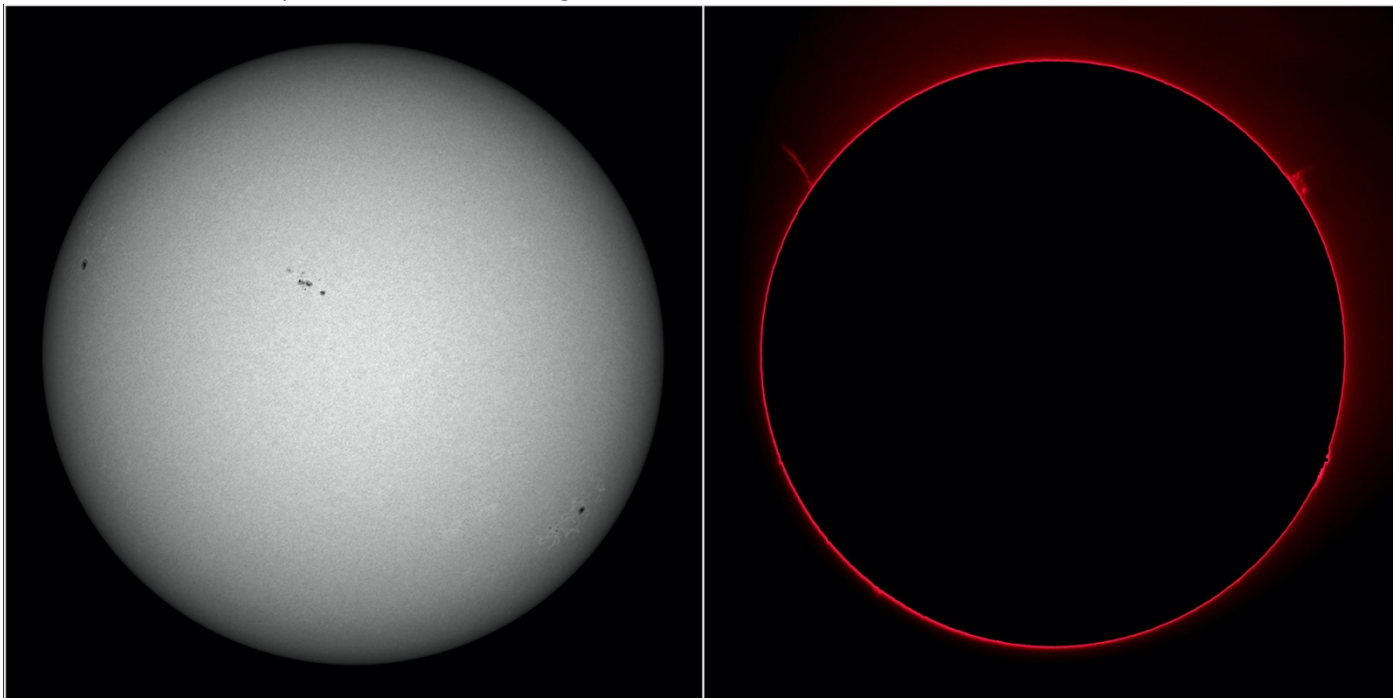


Comet 29P/Schwassmann-Wachmann (Morning of the 10<sup>th</sup>, same setup)

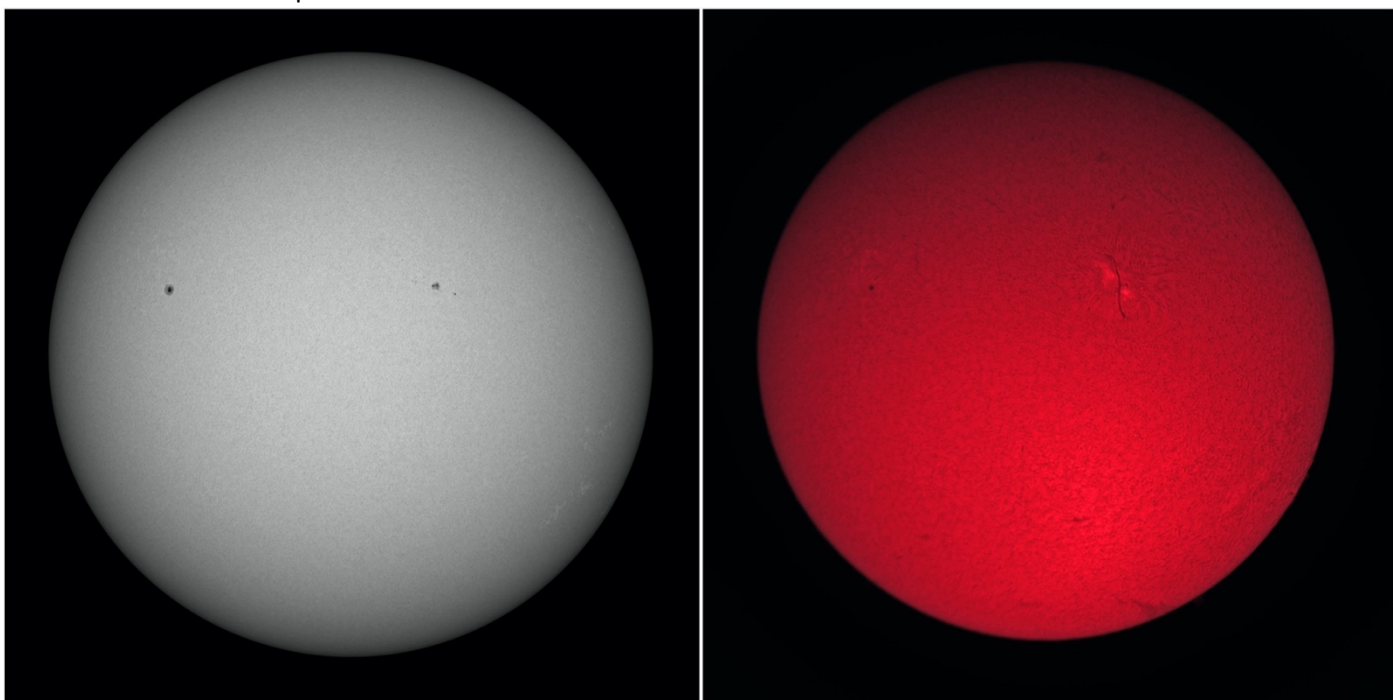


Lastly some solar images

Taken Nov 1<sup>st</sup> 70mm at prime focus for white light and PST for Ha.



Taken Nov 2<sup>nd</sup> same setup



## Photo Challenge

Asterisms are groups of stars, usually smaller in area than a constellation, that form a recognisable shape, such as The Plough, The Little Dipper or Coat Hanger. One pretty example in the winter sky is Kemble's Cascade in Camelopardalis. Let's see who can photograph it for the next issue of the newsletter!

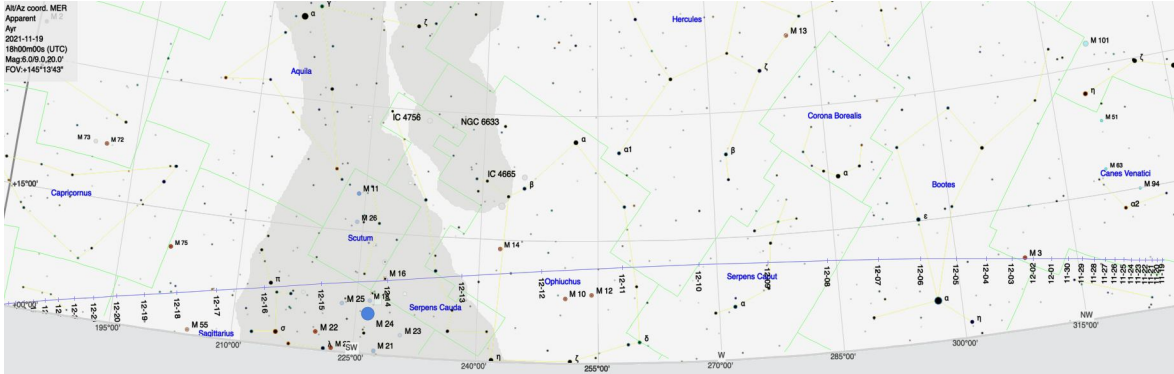




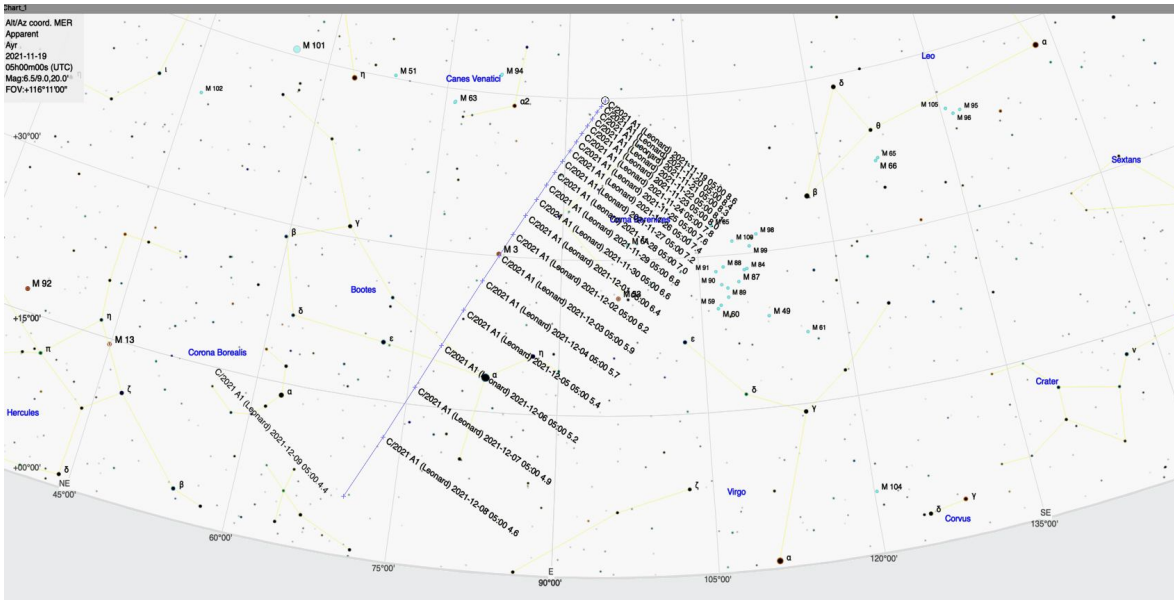
# Comet Finder

Here are some charts showing where the three comets mentioned above.

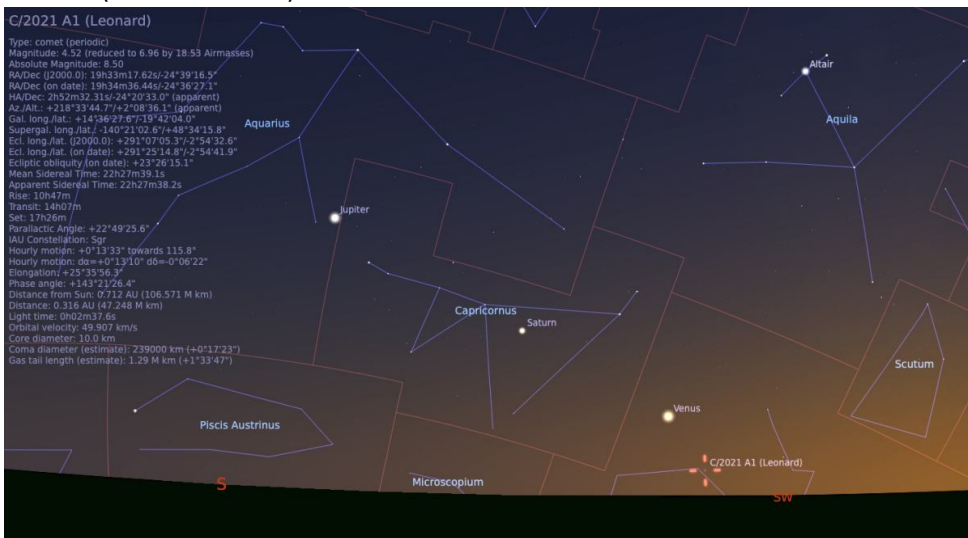
The comet C/2021 A1 will be visible near the Western horizon just after sunset throughout this period, but you will need a clear horizon to see it, and it sets quickly. The chart was made with the time set to 5PM



The comet is more readily visible in the morning early one, later it becomes hard to see as it descends in the sky, the time is 12 hours earlier than above, set to 5am.

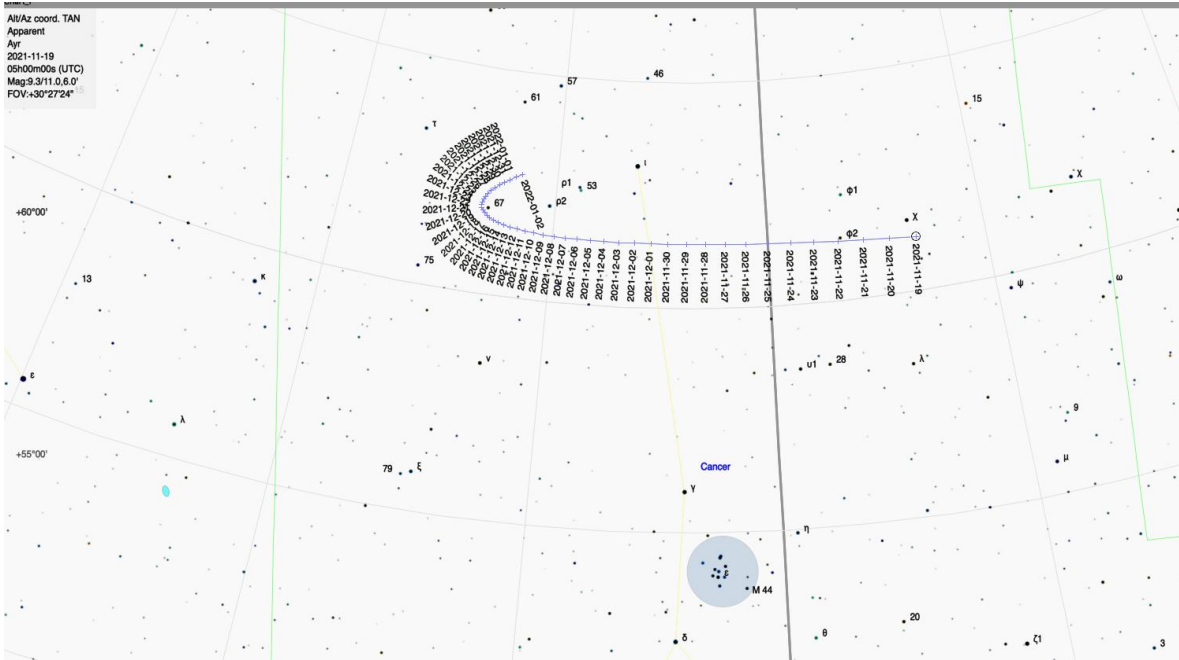


On the evening of December the 17<sup>th</sup> it will form nice line with Venus, Saturn and Jupiter, but will be very close to the horizon. (from Stellarium)

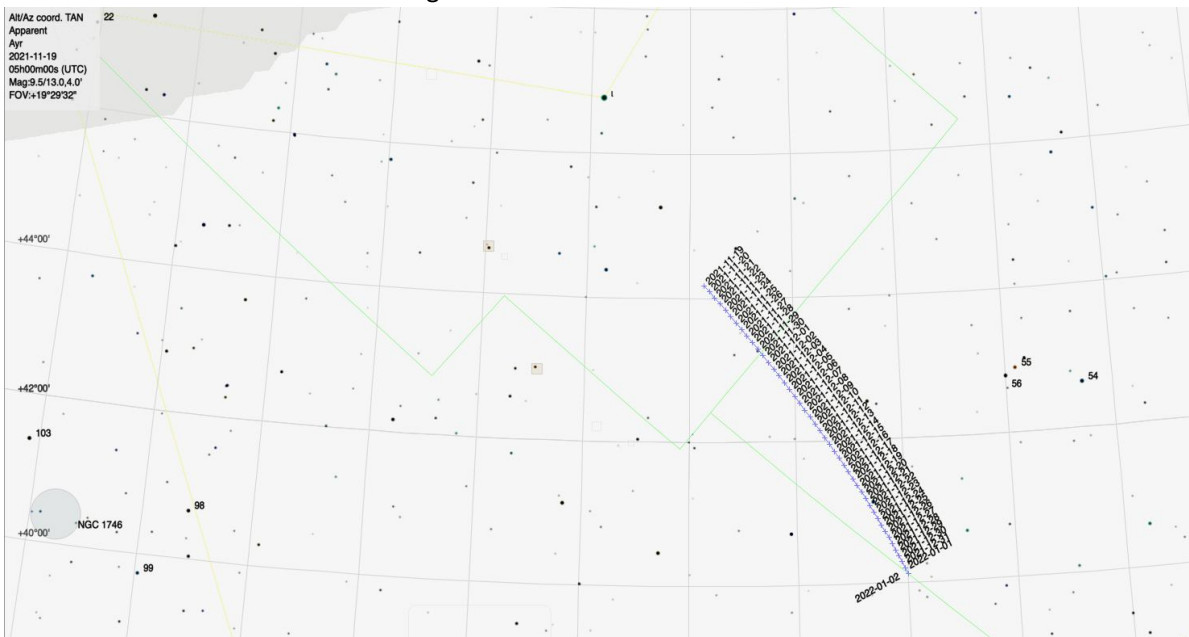




### Location of comet 67P in Cancer



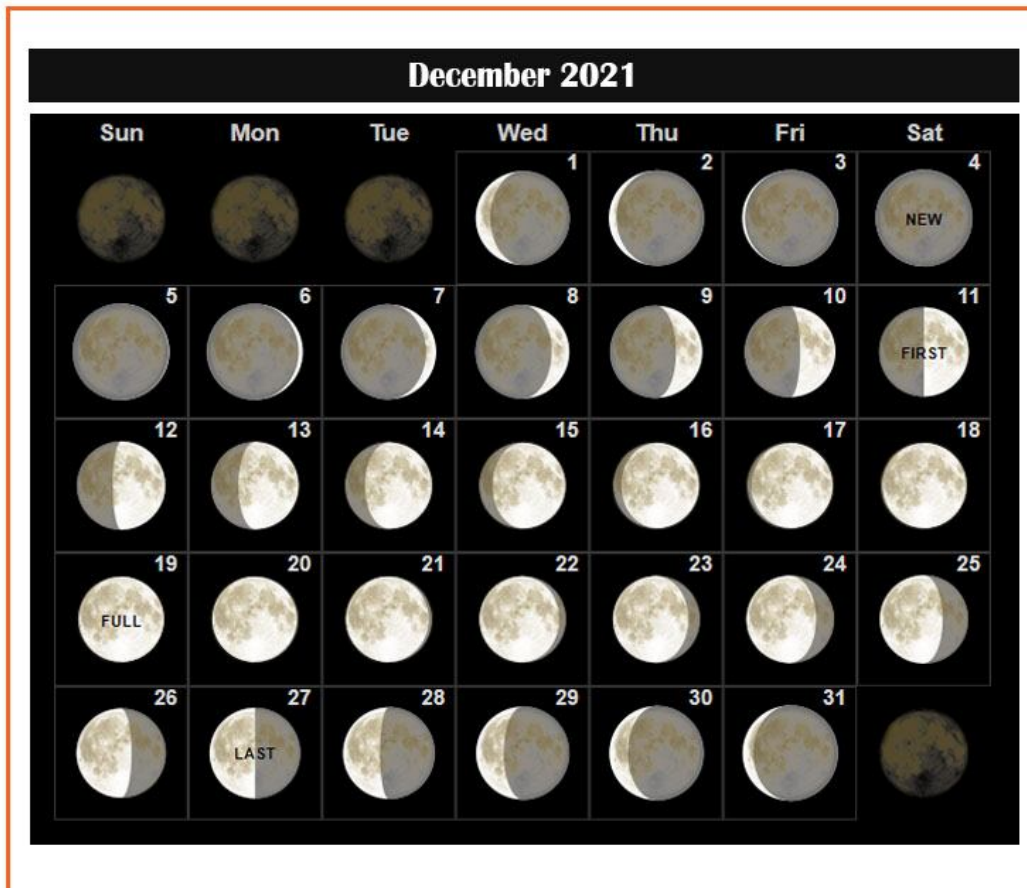
### Location of 29P as it moves from Auriga to Perseus



Unless otherwise stated the locations were done in Cartes du Ciel (Sky Chart) version 4.2.1.



## Moon Phases



# December Sky Chart

