



## Newsletter September 2022

Next Meeting: **Monday 26<sup>th</sup> September at 7pm**

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

**Topics: "How Apollo Flew to the Moon" by David Woods**

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## Presidents Word

September in Scotland is often a good month in terms of day time weather with a few clear, but still a bit light, night skies. It also heralds the shortening of daylight hours, which to many, brings on the unpleasant thought of the long dark dreary winter just around the corner. Astronomers, on the other hand, smile to themselves and get out their star charts thinking of those beautiful clear, dark, and frosty nights also just around the corner.

Winter is a great time for observing, weather permitting of course, as the winter skies bring back the big flashy constellations, and many of the popular Messier objects. At the moment Jupiter is easily visible and even a small telescope or binoculars will allow you to see the four main moons. There is nothing quite like tracking them over a few nights or seeing Ganymede appear from behind the planet as you watch. Saturn too is visible but you will need a telescope or larger binoculars to confirm that it is Saturn that you are looking at. A large telescope will show the rings but probably only at a shallow angle

Of course the Society meetings also begin and we have an impressive list of speakers on the schedule already. To start us off, we have David Woods, a technical space author, who has written a number of very interesting and well researched books on the subject. David will be talking to us about “How Apollo Flew to the Moon” which is an excellent talk, full of detail and particularly relevant as NASA again prepares to go to the moon but with somewhat more advanced technology. He will have copies of his books available to buy, should you wish, and he may also give us a preview of his latest book.

Moving to more mundane things, during covid we waived the membership fee but now that we are again “live” and the new season is starting, we need to get back to normal so please make sure you fill in a membership form and give Stephen your form and £20.

In the past we have organised a Christmas Meal at a local restaurant instead of having a meeting in December. If you are interested, please tell Stephen when you pay your subs, and then, depending on numbers, we can decide on whether or not to make some enquiries. Oh yes, you will have to pay for it so an idea of what you would be prepared to pay would be useful as well.

With winter on its way and being an Astronomical Society, we should look at trying to arrange some observing sessions, maybe even a start camp. These are not the easiest of things to organise especially due to the vagaries of the Scottish weather. Again if you are interested, have any ideas, let me or Stephen know and we will see what can be done.

Oh yes! Don't forget that the Society has a number of telescopes available for member to use. If you would like to borrow one don't keep it secret, let us know.

I look forward to seeing you all again om Monday and catching up

P.S. Apologies to anyone who has being trying to contact me via the President's email. Our account was terminated by Google whilst I was away (as it monetised its platform) so we lost it. It is now up and running again on our own webhosting.



## Member Articles

### Alex's Space

There is a very strange yet fascinating story about the birth of Orion which may account for the early spelling of his name – Urion. There lived in the village of Thebes an old farmer named Hyrieus. One day he offered hospitality to three passing tired looking strangers who happened to be gods although Hyrieus was not aware of this. After the strangers had rested and eaten they asked Hyrieus if he had any wishes which the strangers promised to fulfil. The old farmer confessed he always wanted a son. One of the gods – Neptune told him to bring them the fleece of the sheep that had just been consumed. The three gods gathered around the fleece then Neptune urinated on it and told Hyrieus to lay the fleece in the warm sunshine. In due course a boy was born. Hyrieus named him Urion, presumably after his mode of conception!

Over the years his name evolved into Orion and grew up into a very handsome and brave hunter much admired by the ladies and was very much favoured by the archer goddess Diana who intended to marry him. When Diana's brother Apollo became aware of his sister's intentions he was not a happy chappy. He thought his sister should marry someone of higher status rather than a common hunter and told her so, but to no avail. Diana was determined to marry Orion and Apollo was equally determined to stop the marriage by fair means or foul. One day Apollo saw Orion wading into the sea with only his head above the water and quickly hatched a cunning plan. He dared his sister, the archer, if she could hit that "black object" in the sea. Diana always eager to show here prowess as an archer fitted an arrow to her bow and took careful aim and fired. Here aim was deadly accurate, as the wavers rolled around Orion's dead body onto the beach Apollo departed the scene with much haste, a wise move on his part. When Diana realised what she had done she shed many tears and placed Orion among the stars, and that folks, is how Orion became a constellation.

Next month you can read about Pegasus the winged horse, he also like Orion had a very strange birth.



## September-October Observing

### General

Now is the time to observe and photograph the Milky Way in all its glory on those clear moonless nights. As for photographing it, all you need is a camera, with a reasonably wide angle lens (kit lens is fine), and a tripod, even some smartphones are capable of doing it. Early in the evening is also a good time to look for objects in Cygnus (Veil and North American Nebulas), Hercules (globular clusters M13, M92) , Lyra (Ring Nebula M57), Vulpecula (Dumbbell Nebula M27), as well as the numerous objects in Scutum, though they will be fairly close to the horizon. Later in the evening Pegasus and Andromeda become prominent making it easy to find the Andromeda Galaxy, which is even viewable in a pair of binoculars.

### Planets

The location of the inner planets is not great, Mercury reaches its greatest western elongation on 8th October, but will be still low in the sky in the morning. Venus will be passing behind the sun so is not easily observable in this period. It is, however, a good time to observe the outer planets who are all well placed to see. Mars will be moving further into the evening sky it continues to brighten as it heads to its opposition on the 8<sup>th</sup> December. Jupiter reaches opposition the 26<sup>th</sup> of September and is ideally placed for observation. It will be at its closest point to Earth in the last 59 years. From our location it gets relatively high in the sky, reaching 34° as it passes the meridian. Saturn reached its opposition on the 14<sup>th</sup> of August and reaches its highest point in the sky, at 18°, during the evening, while fine for viewing it makes imaging it challenging. Uranus will reach opposition on the 9<sup>th</sup> of November so is well placed in Aries for observation. Neptune also passed opposition on the 17<sup>th</sup> of September and is just south west of Jupiter making it easy to find and observe.

### Comets

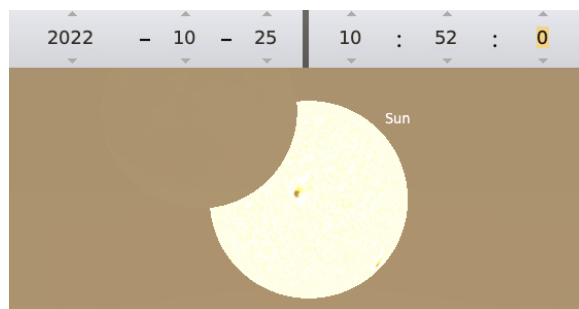
There is no easily observable comets for this period.

### Meteor Showers

There are two minor meteor showers, the Draconids which peaks on 7 October, and the Orionids which peaks on 21-22 October.

### Partial Solar Eclipse

There is a partial solar eclipse on the 25<sup>th</sup> of October, from Scotland and the UK we will see a notch taken out of the sun weather permitting. First contact at about 10:04, midpoint at 10:52 and last contact at 11:45.



### 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

By Marc Charron

A few images taken over the summer. Given the weather there is not much to show for it!

M13 taken with TMB 130/1200, stack of 98 frames, 25 sec each at ISO 4000.



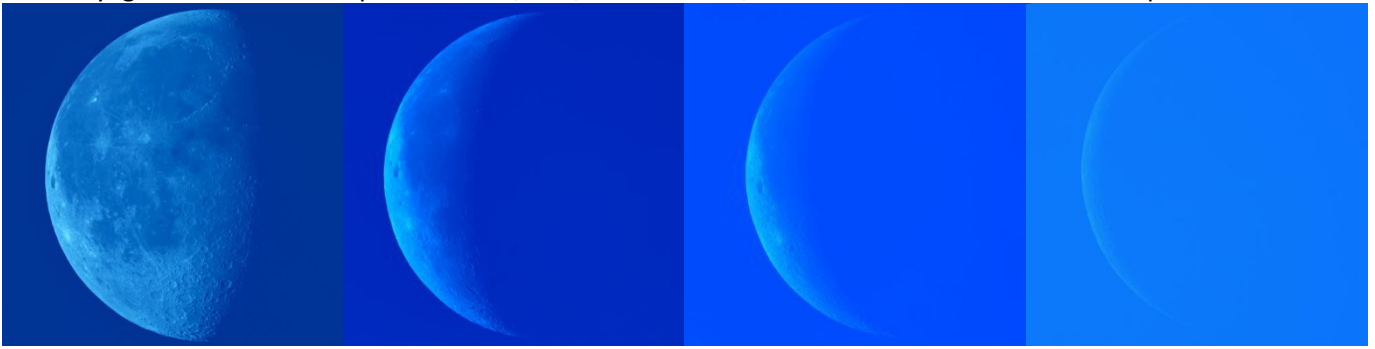
Dumbbell Nebula taken with 86mm f5.3 refractor



The Ring Nebula M57 amongst the stars, between Sulafat and Sheliak, taken with 86mm F5.3 refractor



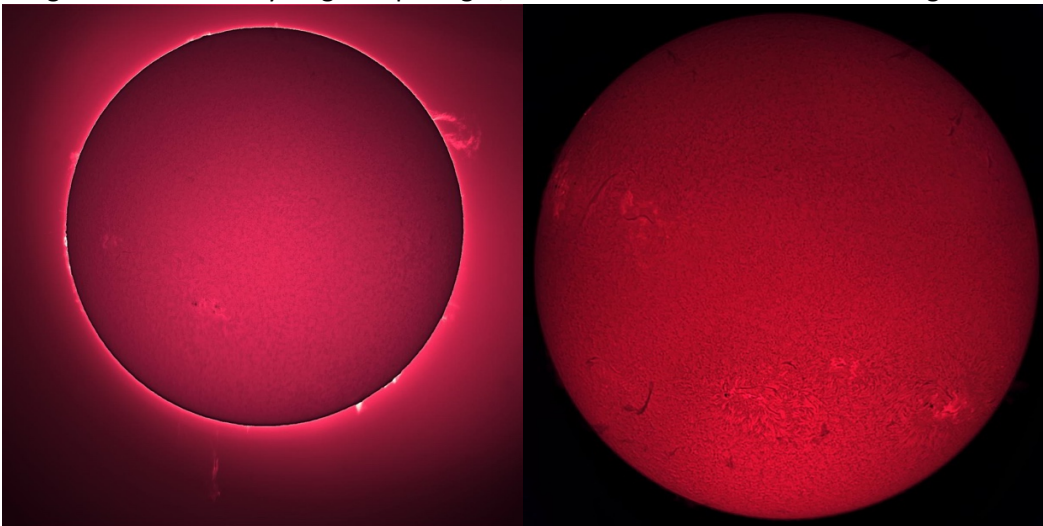
Four Daylight Moons taken September 16<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup> and 23<sup>rd</sup>, taken with 70mm f6 refractor at prime focus.



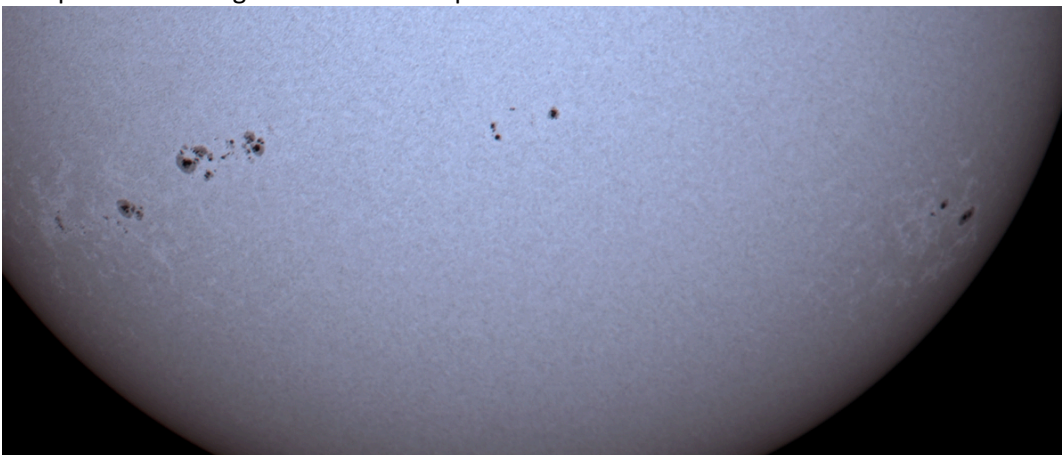
Jupiter taken with moons Io and Ganymede respectively, taken on 16 Sept with TMB 13/1200 with 2.5x barlow



Images of the sun in Hydrogen Alpha light, taken with Coronado PST on 30 Aug and 15 Sept respectively.

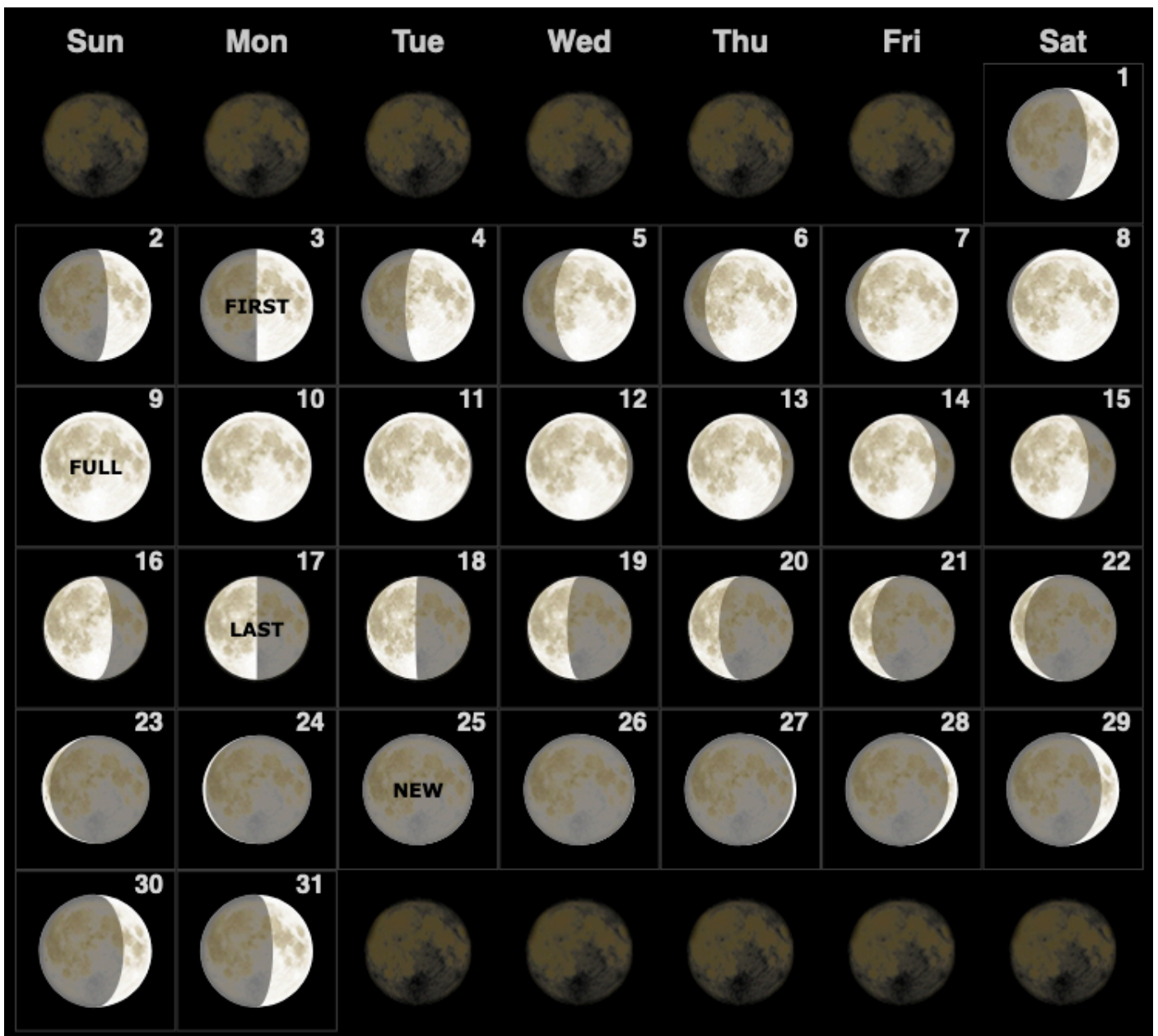


Sunspots in white light taken on 23 September



# Moon Phases

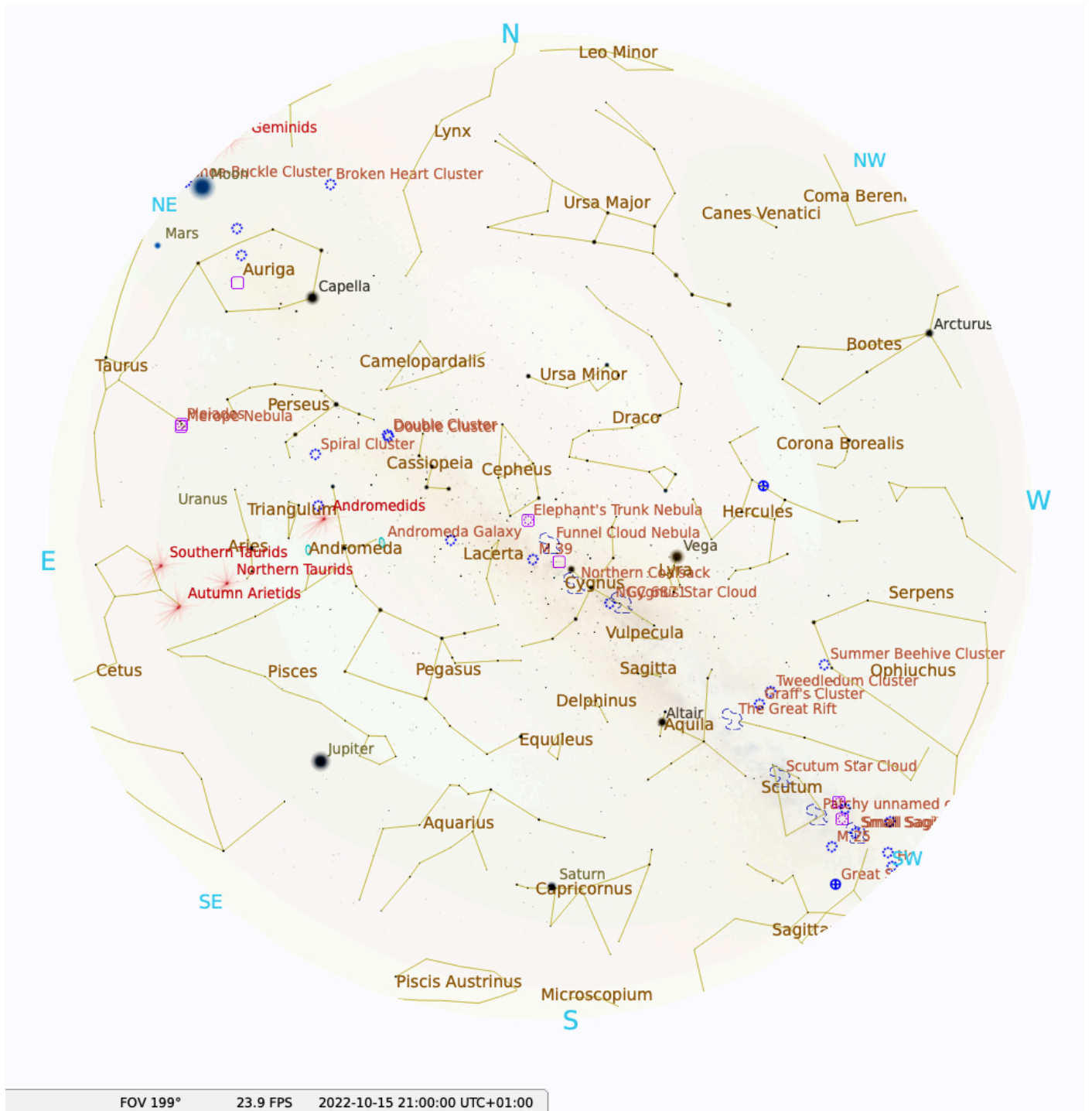
## October 2022



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



# October 2022 Sky Chart



Taken from: Stellarium

