BRESSER

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SKY GUIDE

Astronomical guide for January 2026

The most up-to-date guide to planetary and lunar activity, comet news and space wonders.

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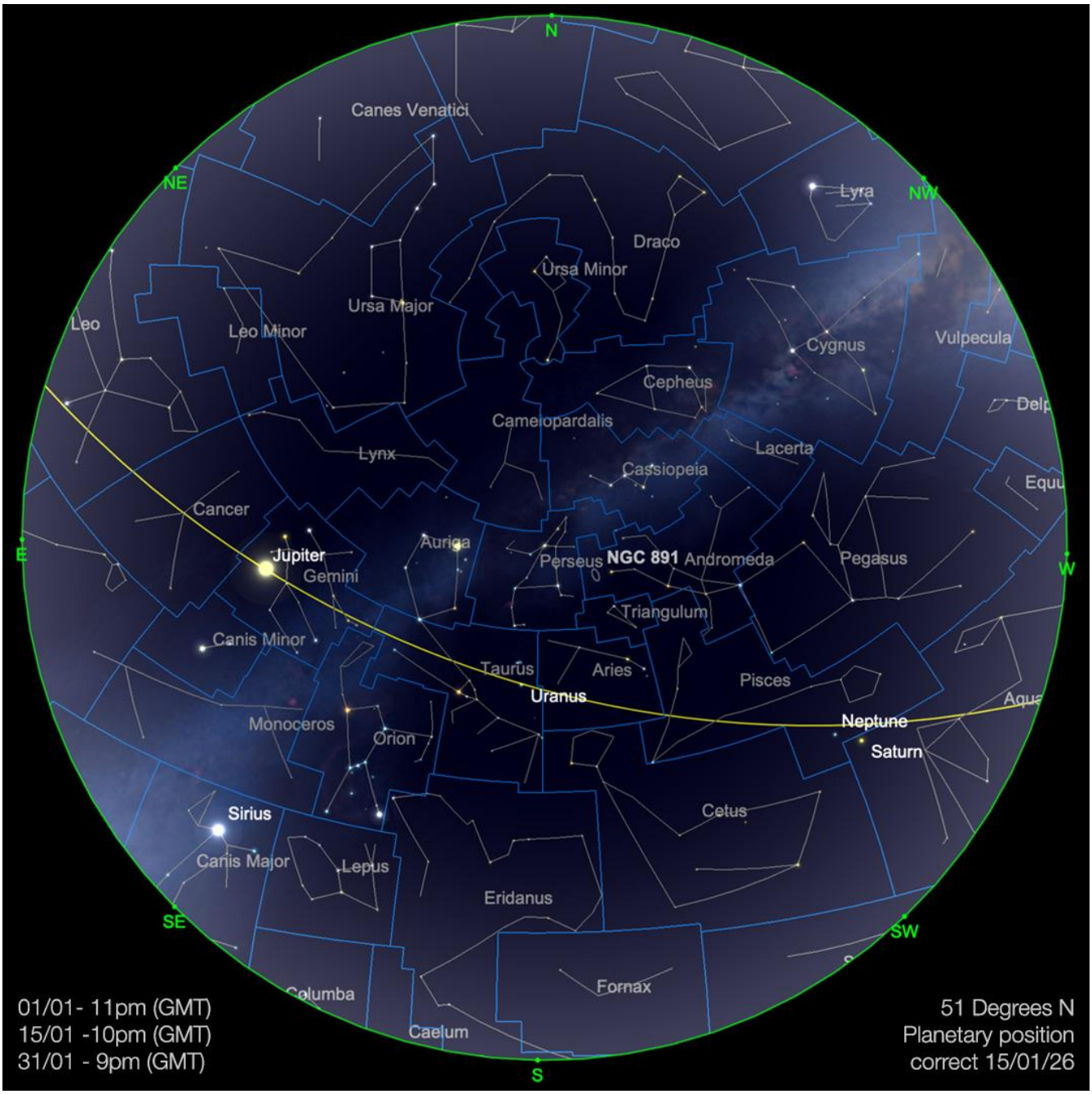
Expand your horizon



Bresser January 2026 Sky Guide

We wish a happy new year to all our readers. 2026 looks like a great year for astronomy, with a major Solar Eclipse visible as a total or partial event over a wide swathe of Europe, in August. But before this, we have a spectacular opposition of Jupiter this month, a few reasonable comets to look forward to and a lot more besides.

We now find ourselves on the downward path to Summer, having passed the Winter Solstice on Sunday 21st December 2025, marking the shortest day and longest night of the year. Early January will still be dark and the nights long, but by the end of the month, those of us in the median parts of the northern hemisphere will start to notice that it's becoming dark slightly later. Of course, readers in the southern hemisphere will be experiencing exactly the opposite, as midsummer is just past its peak.

Wherever you are in the world, there's some interesting sights to see in the skies above us this coming month.

The Solar System

The Sun

The Sun has remained very active and produced some high activity auroral events, the most recent of which being (at time of writing) on 3/12/25. This unfortunately coincided with a nearly full Moon, which otherwise would have more widely observed. Sunspot numbers remain a little down on predictions, but still within median ranges. Readers can browse the NOAA cycle progression here: https://www.swpc.noaa.gov/products/solar-cycle-progression# and websites such as www.spaceweather.com and Michel Deconinck's monthly newsletter: https://astro.aquarellia.com/doc/Aquarellia-Observatory-forecasts.pdf cover numerous facets of solar observations and are also sources of a great deal of useful overviews of the current situation with our parent star. Signing up to the AuroraWatch app, produced by Lancaster University in the UK, is also highly recommended for those looking for advanced warnings of impending auroral events.

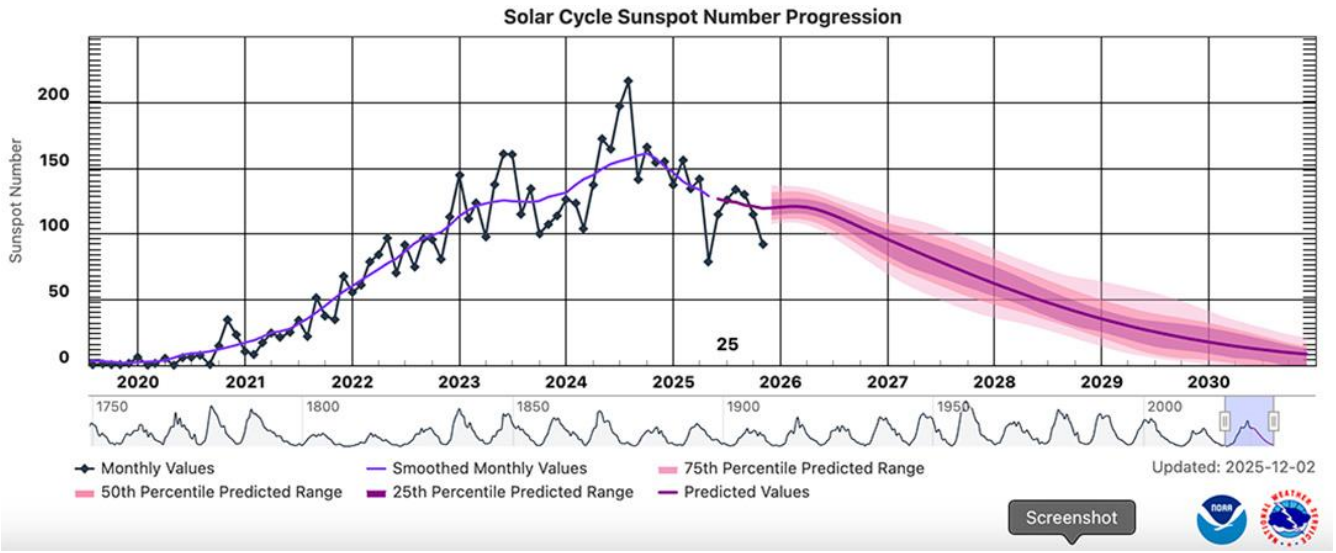


Image created by National Oceanic and Atmospheric Administration's Solar Cycle Progression Tool, showing this latest cycle's slightly lower than predicted activity peak. Public Domain.

The Moon

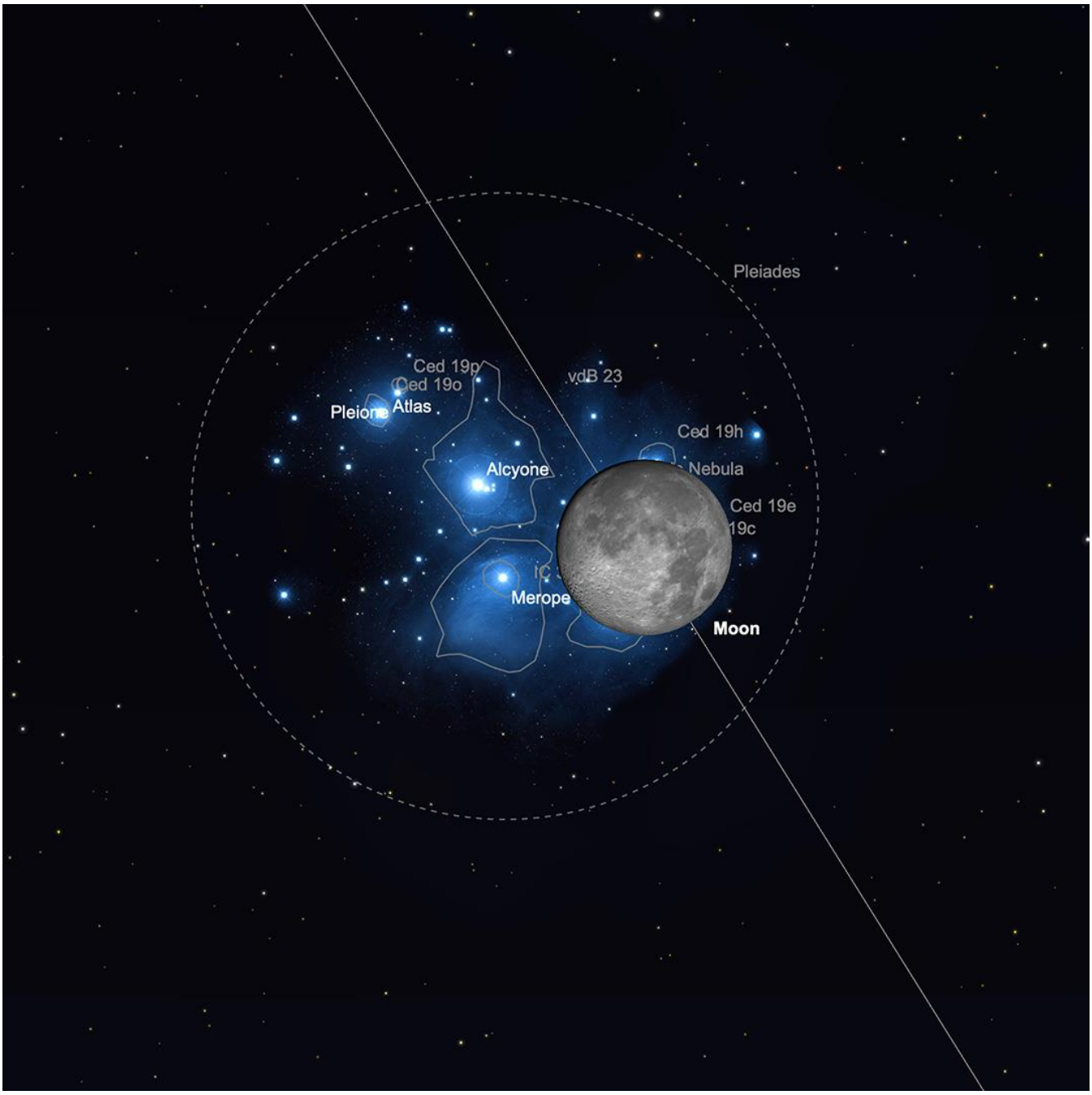
Our natural satellite starts the year riding high in the northern ecliptic, in Taurus, just a few days shy of Full, which it reaches on the 3rd. This is the most northerly Full Moon of the year, being situated in Gemini. This Full Moon is another so-called Supermoon (otherwise more correctly known as Perigee-Syzygy Moon), meaning the Moon is near its closest point to Earth and will appear slightly larger and brighter than average. As the Moon rises and sets, atmospheric lensing will make it appear even larger. Sadly, as we often point out, Full phase is actually the worst time to observe the Moon, with all of its fascinating and varied features bleached out (bar some interesting lighting effects around the extreme limb). The Full Moon will appear in close proximity to the very bright Jupiter, which is just approaching opposition. The two worlds forming a striking pair high in the sky. This will definitely not be a part of the month for deep sky observations or imaging (apart from with very narrowband filtration).

After Full Moon is over, the Moon glides down the ecliptic (as seen from a northern hemisphere perspective) passing through Cancer, Leo and on into Virgo, where it reaches Last Quarter on the 10th, sitting not far from Spica, Alpha Virginis - Virgo's principal star. The Moon then enters the Deep South of the ecliptic, running through Libra, Scorpius, Ophiuchus and Sagittarius, narrowing its phase as it travels east. It reaches New phase as it slides to the south of the Sun on the Sagittarius-Capricornus borders on the 18th.

After this point in the month, the Moon becomes an evening target, slowly rising up out of the evening twilight. The evening of the 23rd sees the Moon in close proximity to Saturn and Neptune in southerly Pisces.

After crossing Pisces, the Moon comes to First Quarter in neighbouring Aries on the 26th.

The Moon ends the month rising from much of Europe while occulting the Pleiades in Taurus at around 88% illumination.



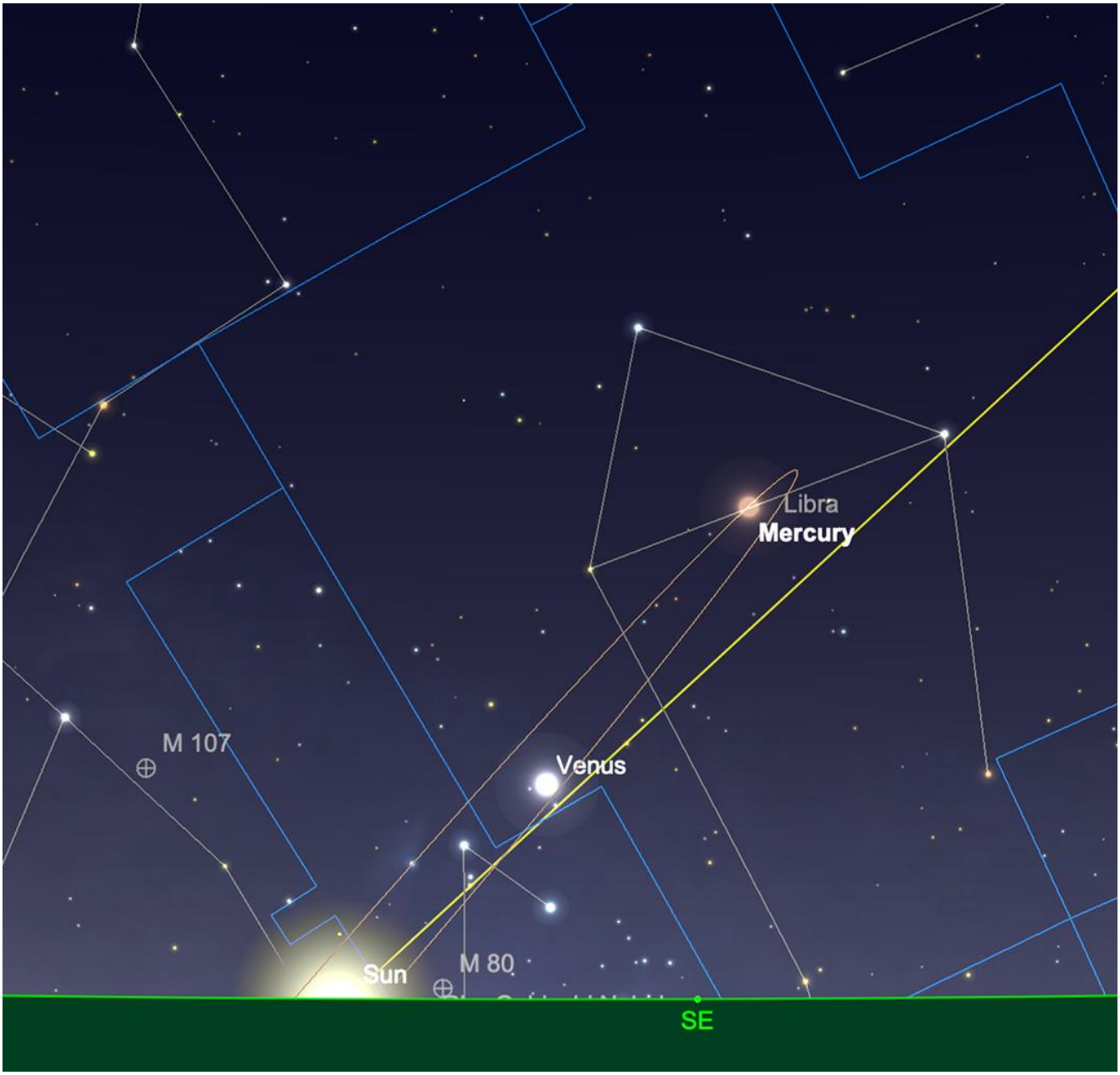
The Moon occults the Pleiades, early morning, Jan 4th. Image created with SkySafari 6 for Mac OS X, ©2010-2016 Simulation Curriculum Corp., skysafariastronomy.com.

Mercury

Mercury is a morning target during the early part of January and can be found in Sagittarius at -0.5 magnitude, displaying a disc just under 5 arc seconds diameter, 94% illuminated phase on the 1st. Rising at around 3/4 of an hour before the Sun and attaining a height above the horizon of around 4 3/4 degrees (as observed from 51° N) as the Sun rises, it will be a challenging target to find.

As Mercury is heading sunwards from our perspective here on Earth, the observational situation gets more challenging as the month progresses. Mercury reaches Superior Conjunction on the 21st January, when it reaches the other side of the Sun to Earth.

After this point Mercury begins to emerge as an evening object, though even towards the end of the month, despite appearing quite bright at -1.2 magnitude, will be a little too close to the Sun to observe. However, Mercury's evening apparition in February will be a particularly good one for northern hemisphere observers, so patience is required for now.

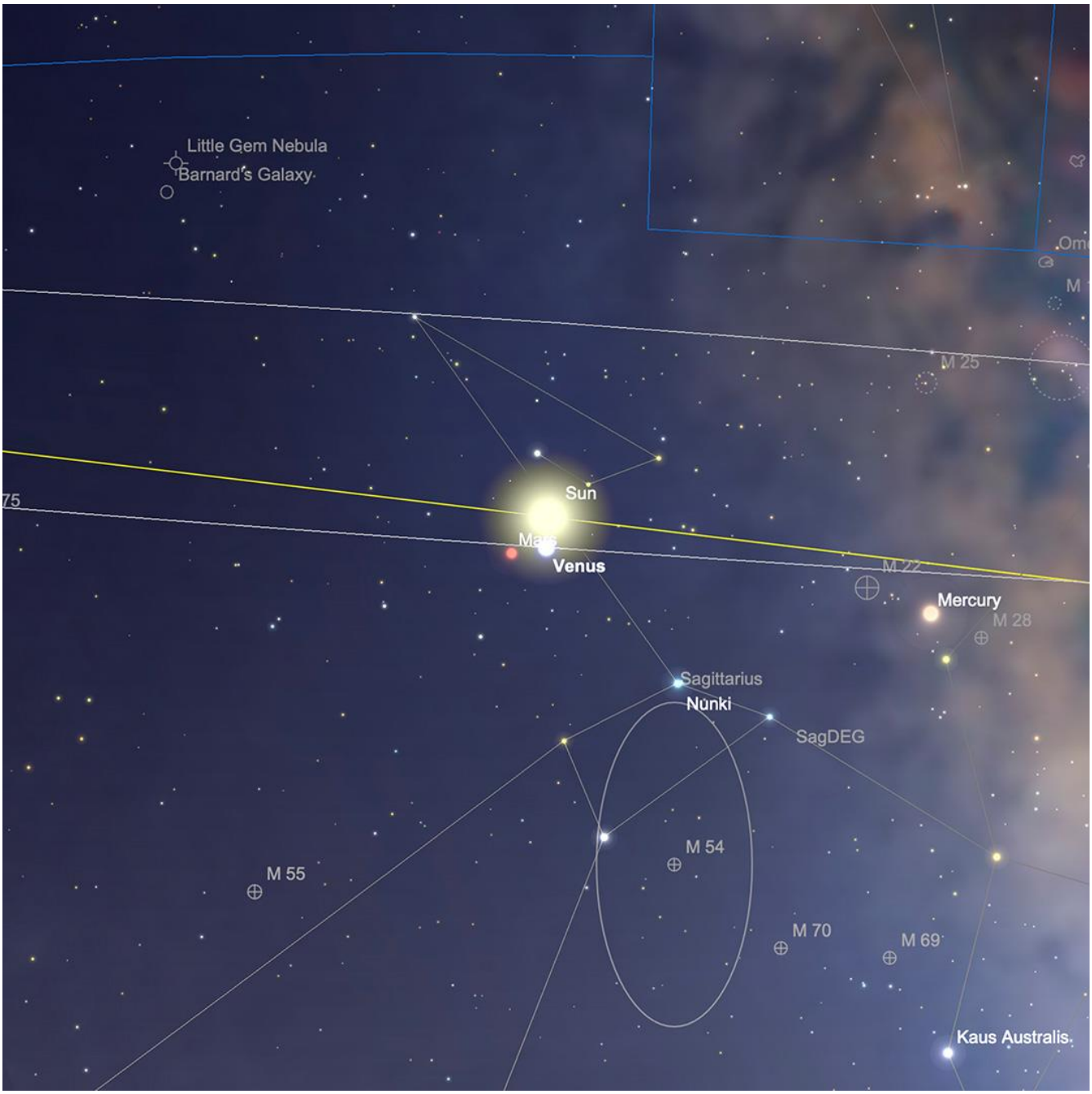


Mercury at sunrise, 1st January. Image created with SkySafari 6 for Mac OS X, ©2010-2016 Simulation Curriculum Corp., skysafariastronomy.com.

Venus

Venus is technically a morning target at the beginning of the month, but similarly to its neighbour Mercury, reaches Superior Conjunction in the early part of January - on the 6th. Unlike Mercury, Venus is somewhat slower moving and is overtaken by Mercury in its reemergence as an evening object. The end of January sees the two worlds in close proximity, though, while it will be possible to see Venus just after sunset, it will be a challenge.

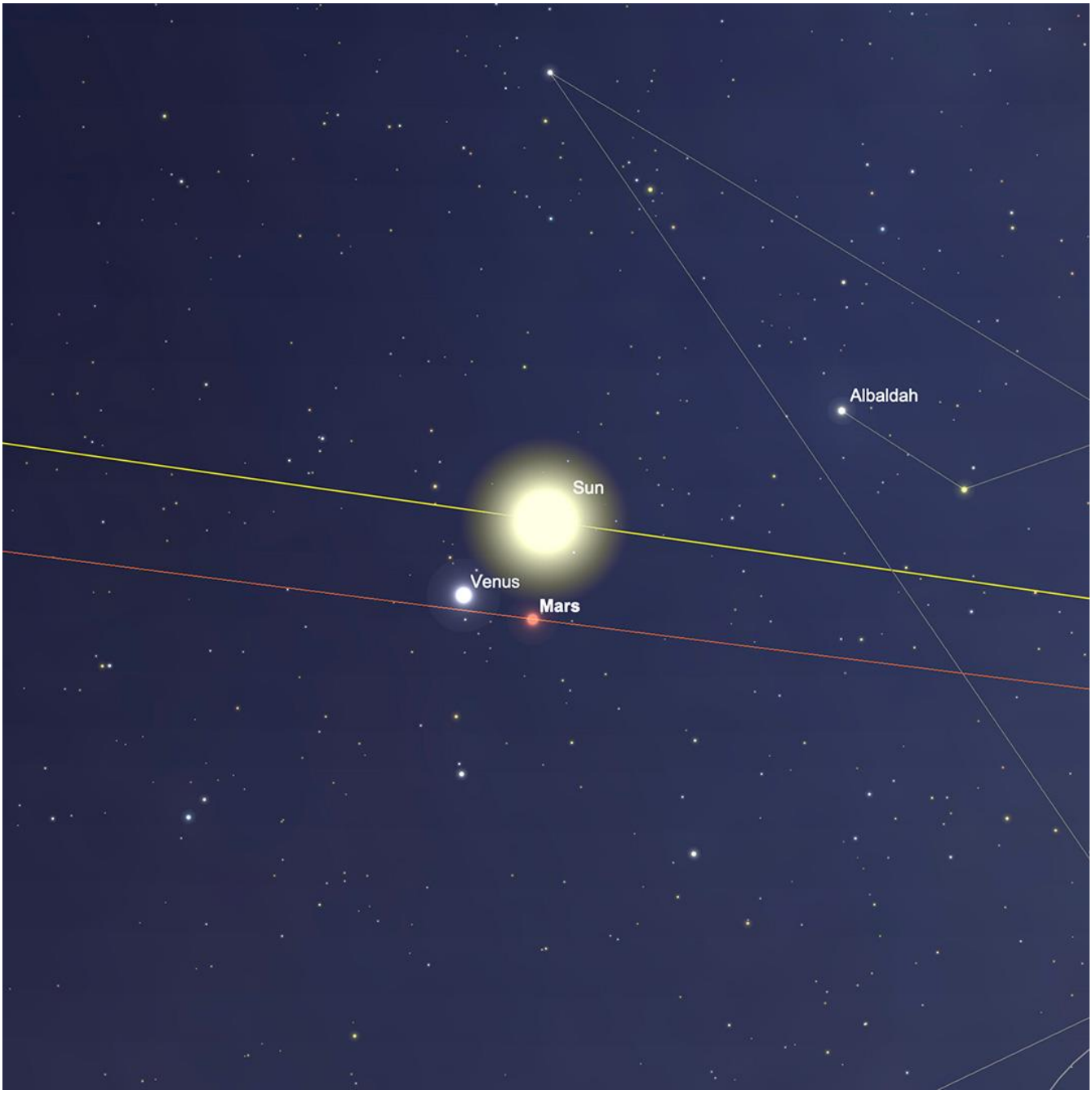
Just like Mercury though, Venus will put on an excellent display in the evenings in the next few months, as it climbs higher in the sky for those of us in the northern hemisphere.



Venus at Superior Conjunction, 6th January . Image created with SkySafari 6 for Mac OS X, ©2010-2016 Simulation Curriculum Corp., skysafariastronomy.com.

Mars

The incredibly long evening apparition of Mars ends in January, on the 9th when it too reaches Superior Conjunction. Unlike Venus and to a lesser extent, Mercury, Mars is faint at present, being the opposite side of its orbit to the Earth. So even when it begins to torturously re-emerge from solar conjunction as a morning object, it will be unobservable for a while. We are still over a year from Martian opposition, which occurs in February 2027, so we've still some time to go before we see Mars approaching its best again.

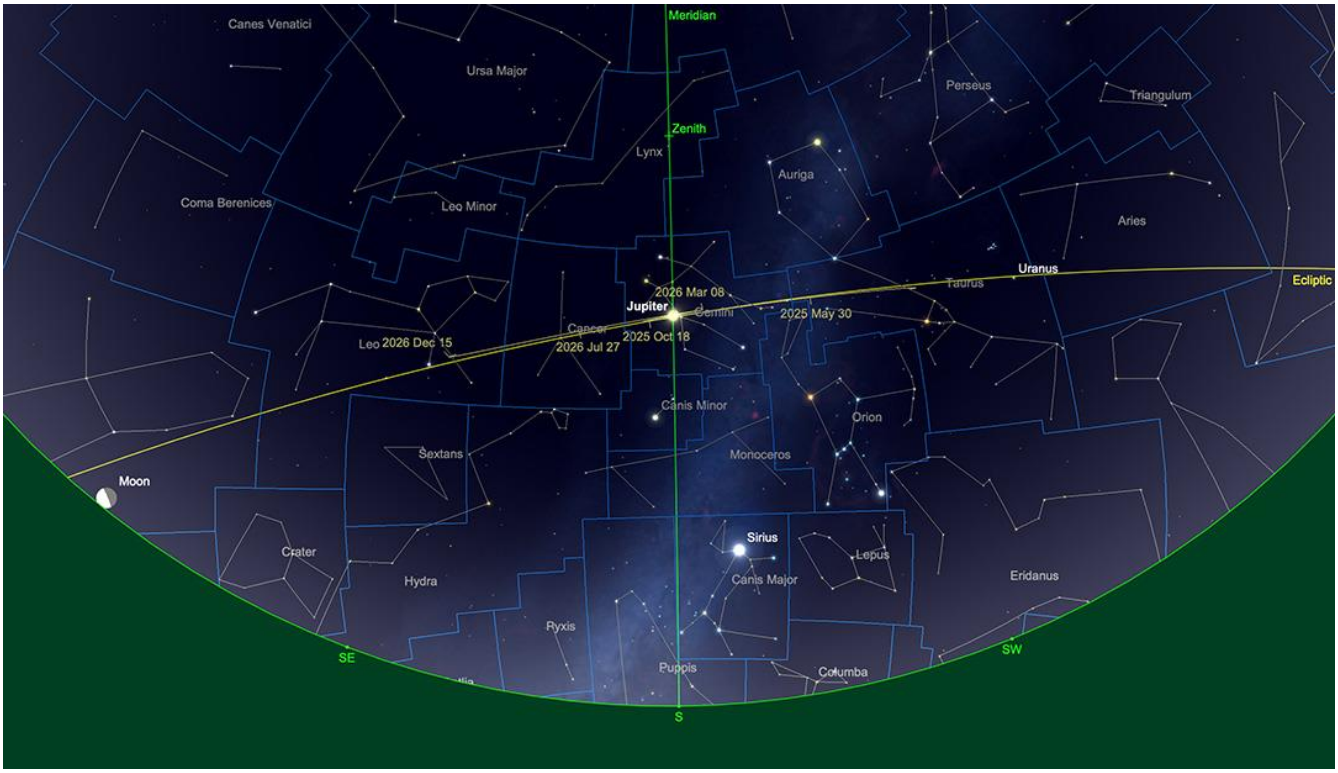


Mars at Superior Conjunction, 9th January. Image created with SkySafari 6 for Mac OS X, ©2010-2016 Simulation Curriculum Corp., skysafariastronomy.com.

Jupiter

The undoubted observing highlight of January is the annual opposition of Jupiter, which occurs on January 10th this year. While we say “annual”, strictly speaking, this isn’t true for last year. Jupiter did not come to opposition in 2025, as its last opposition was December 7th 2024. Jovian opposition tend to advance by just over a year and one month each year, meaning every now and then, Jupiter does not come to opposition in a single calendar year. 2025 was one such year. However, as Jupiter is always a great target for observations, it hardly matters. But this year’s opposition is a particularly strong one for northern hemisphere residents, as Jupiter reaches a near maximum brightness of -2.7 magnitude and an impressive 46.6 arc seconds diameter.

Transiting at a little after local midnight for most observers on opposition night, Jupiter is in Gemini and will stand just over 61° high, as observed from 51° N, putting it in an excellent position in the sky, about as far away as possible from the more disappointing and deleterious aspects of Earth’s atmosphere. Observers are encouraged to wait for Jupiter to attain near maximum elevation from their partial site before engaging in higher power observations and imaging. While this means braving the midnight hour around opposition, the rewards will be more than noticeable.

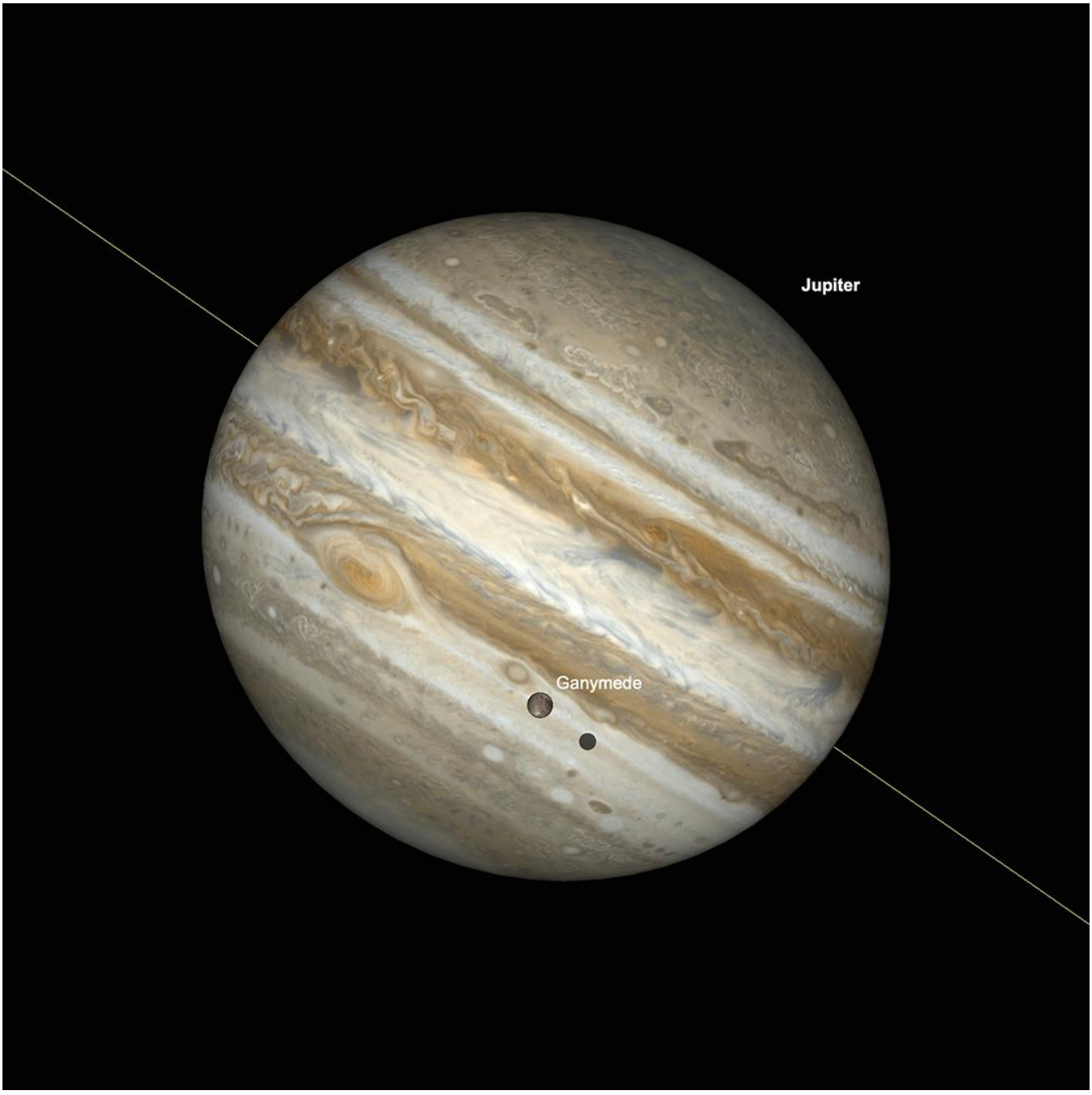


Jupiter at transit, Opposition night. Image created with SkySafari 6 for Mac OS X, ©2010-2016 Simulation Curriculum Corp., skysafariastronomy.com.

As usual there are a few interesting mutual transits of Jupiter’s Great Red Spot, and the Galilean Satellites and their shadows to observe. There’s a good GRS, Ganymede and Ganymede shadow transit on the morning of the 7th, starting at around 3am. There’s a brief mutual GRS and Io transit that starts around midnight on the 15th. There’s another GRS and

Io transit starting a little before 2am on the 22nd. There's a relatively rare GRS and Callisto transit at around midnight on the 27th.

Get out and enjoy Jupiter at its best this January.



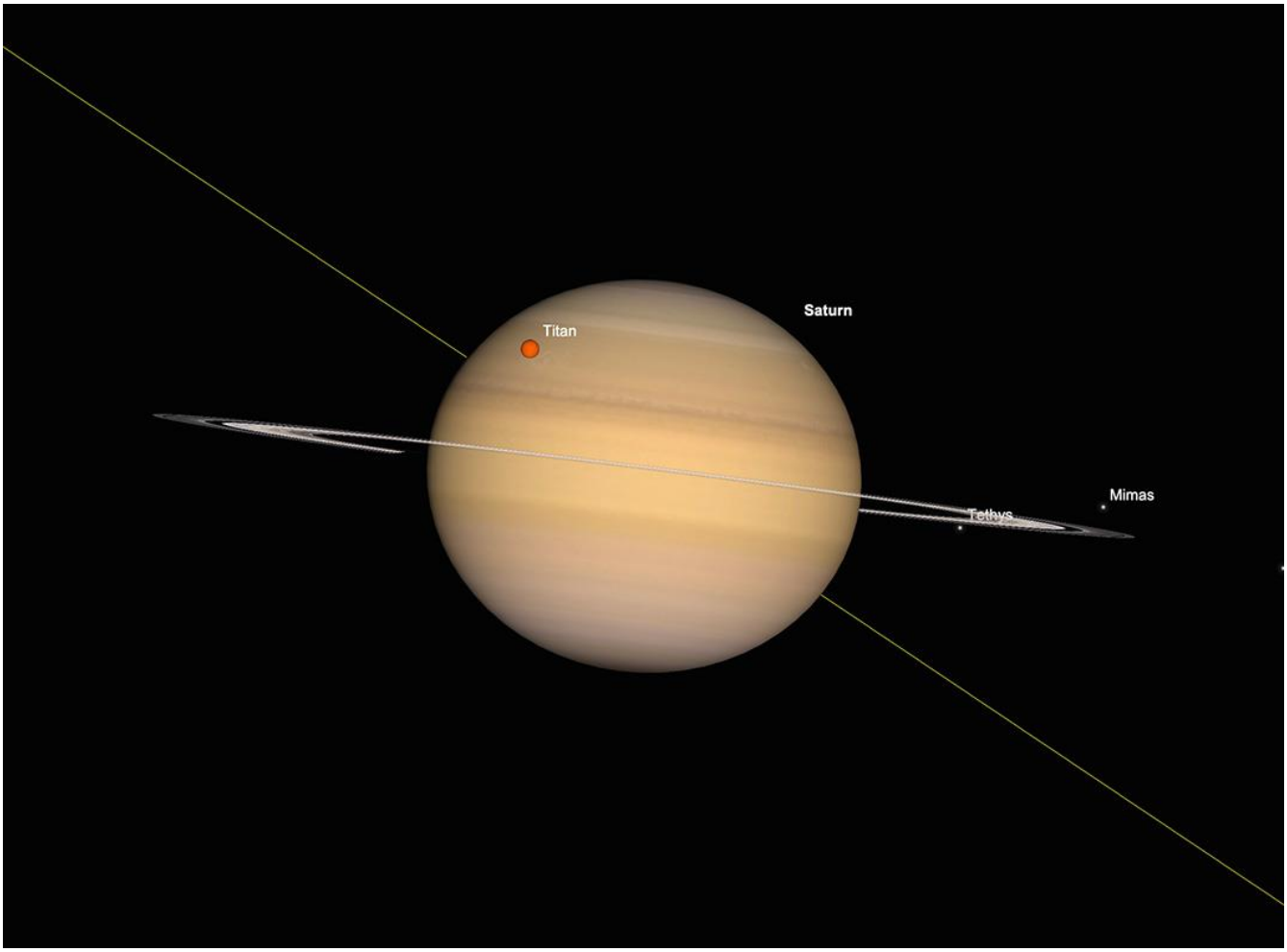
Jupiter, GRS, Ganymede and Ganymede Shadow transit, 4.22am (GMT), 7th January. Image created with SkySafari 6 for Mac OS X, ©2010-2016 Simulation Curriculum Corp., skysafariastronomy.com.

Saturn

Saturn is still visible in the early evening, reaching transit at just after 5pm (GMT) on the 1st. A resident of Aquarius at present, at +1.2 magnitude, Saturn is by no means in the same league as Jupiter in brightness. But it is the brightest target in the rather dim part of the ecliptic that it currently finds itself in. Easily found by tracing a line down from the centre of the Square of Pegasus, the Ringed Planet is the brightest star like point below Pegasus. At transit point, Saturn sits around 35° above the horizon (as observed from 51° N). This just briefly puts it into the area of sky with statistically better seeing conditions. The planet sets a little before 11pm, so the window for observation at the beginning of the month is still quite reasonable.

As we are currently quite close to Saturn's ring plane crossing, we currently have quite a few opportunities to observe the transit of its moons across the face of the planet. Most of these are invisible to al but the largest amateur telescopes, but the transit of Titan, Saturn's largest satellite, is more easily accessible to those with smaller telescopes. We experience the first Titan transit starting at a little after 5pm (GMT) on the evening of the 9th January. The transit will last until around 10pm - by which time Saturn will be close to setting. So try and catch this as early as possible. Another Titan transit occurs on the 25th, starting at around 6pm (GMT). This will be less favourable than the 9th's event though, as by this part of the month, Saturn will transit during daylight at around 3.30pm (GMT) and will set at a little before 9.30pm.

By the end of January, Saturn will set around 9pm (GMT), so the window for evening viewing is definitely closing. Make the most of Saturn's showing early in the month to maximise your observations.



Saturn and Titan transit, 5.47pm (GMT) January 9th. Image created with SkySafari 6 for Mac OS X, ©2010-2016 Simulation Curriculum Corp., skysafariastronomy.com.

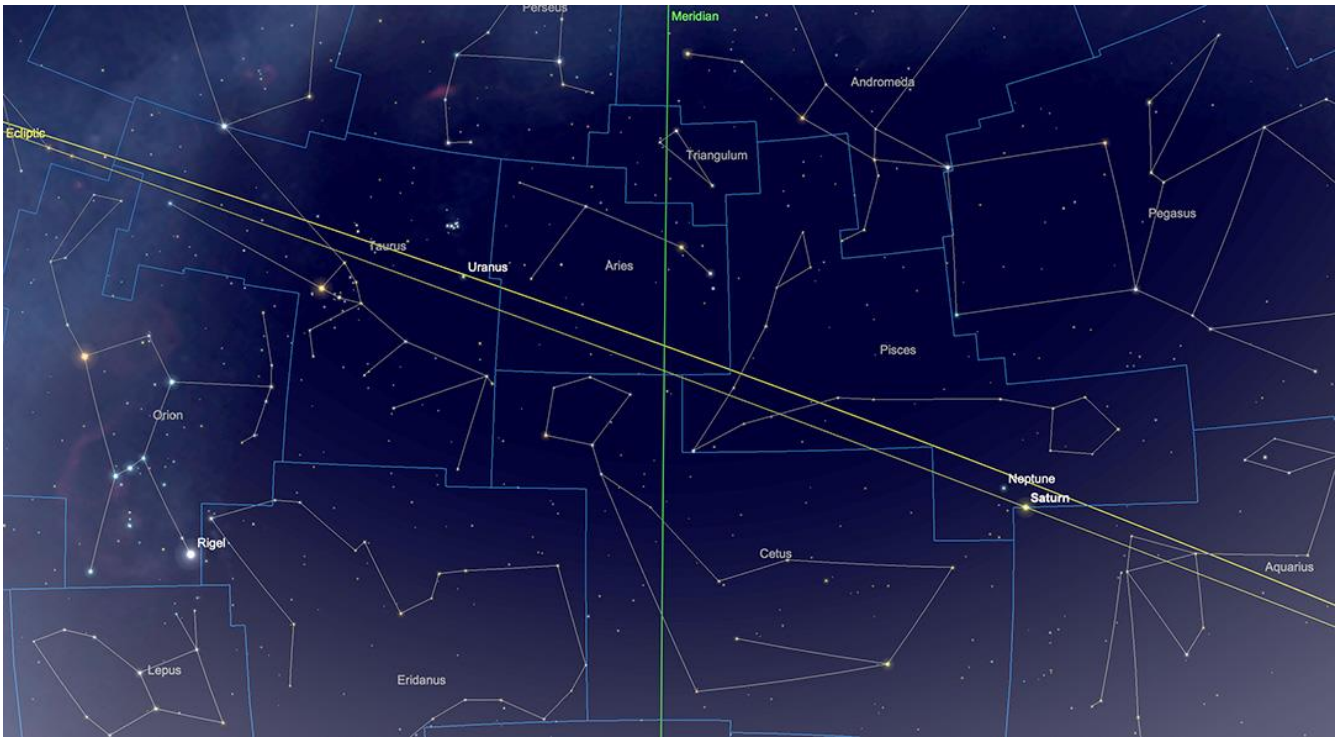
Uranus and Neptune

Of the two outer gas giants, Neptune is worth mentioning just after Saturn, as it sits just under 3 degrees to the north east of the Ringed Planet. Take a pair of binoculars, from a reasonable observing site and place Saturn in the bottom right hand corner of the field of view and Neptune will appear in the top left hand quarter of the field of view. At +7.9 and just 2.3 arc seconds across, Neptune will be hardly bright, but those with reasonable colour sensitivity will notice its slightly blue hue. Telescopes with reasonable magnification will be needed to resolve it as a definitive planet.

As with Saturn, we are losing the window for Neptunian observations, as the planet appears to track sunward from our perspective here on Earth - so early observations are encouraged. Uranus is further east in the ecliptic than Neptune and is currently in Taurus. Sitting around 5 degrees south of the Pleiades,

Uranus, at +5.7 magnitude, is easily identified and may just be visible to the naked eye from darker locations - though observers will have to wait until the arrival of true astronomical darkness to make the attempt to find it without optical assistance.

Along with Jupiter, Uranus is the most northern planet in the ecliptic, so in an ideal position for observing from a northern hemisphere perspective. Transiting at around 8pm (GMT), mid month, it is a worthy addition to anyone’s observing list - though you will need a very large telescope and good seeing to witness any albedo features on its small 3.7 arc seconds diameter disc.



Uranus and Neptune relative positions, mid-January. Image created with SkySafari 6 for Mac OS X, ©2010-2016 Simulation Curriculum Corp., skysafariastronomy.com.

Comets

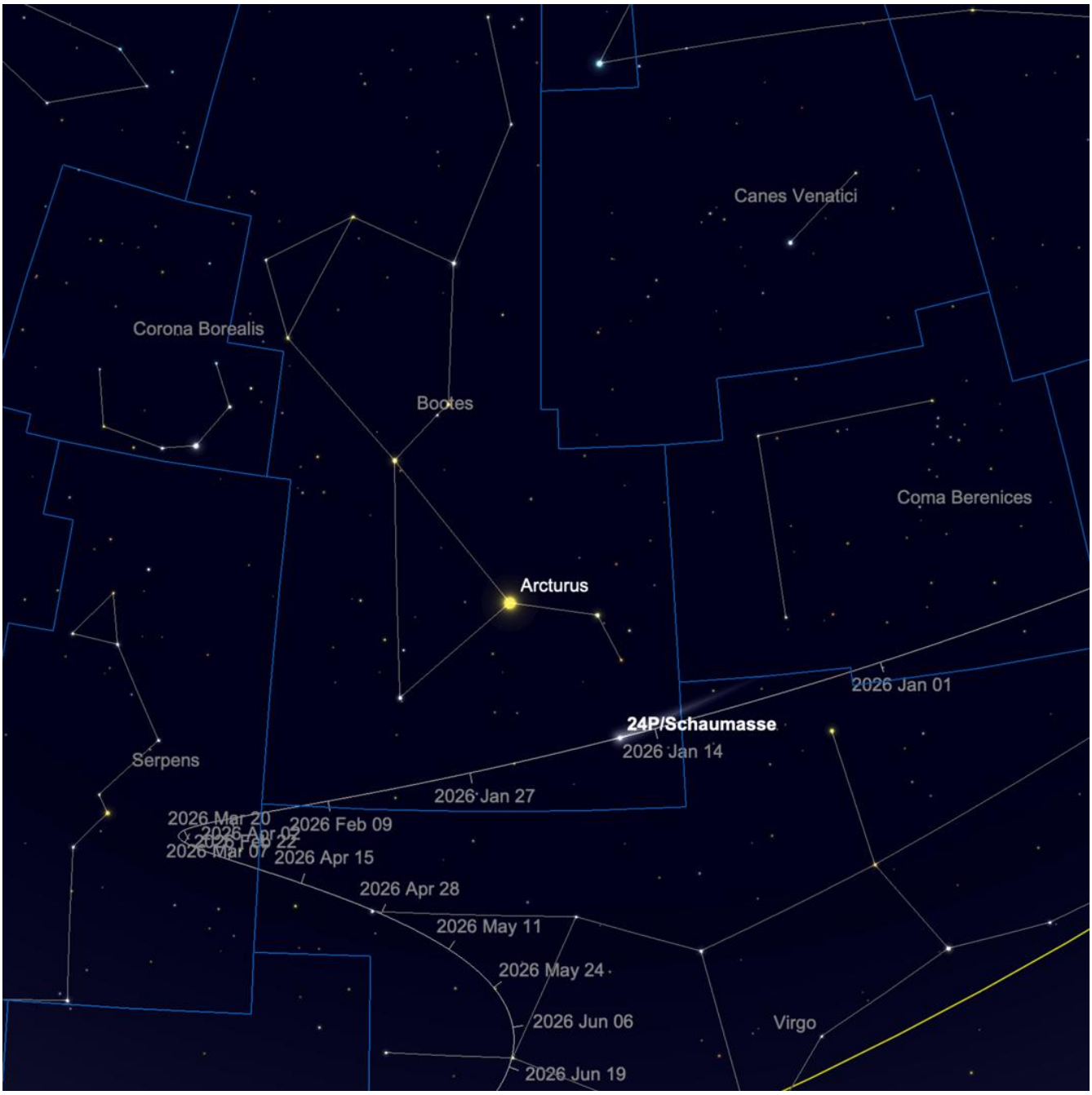
The periodic comet 24P/Schaumasse is probably the best of the comets on display to northern hemisphere observers during January. Tracking through Coma Berenices, Virgo and Bootes during January, it will reach around the 8th magnitude, so will be the preserve of telescopic and larger binocular observations.

C/2025 K1 (ATLAS) has disintegrated and is fading, but still a telescopic or large binocular target. It is moving slowly through Andromeda and into northern Pisces during the latter part of the month.

The now infamous interstellar comet 3I Atlas will be tracking through Leo, Cancer and on into Gemini during January and while not very bright may be worth a look for. However, it has passed its closest approach to Earth and is fading.

C/2024 E1 (Wierzchos) will emerge from solar conjunction as a southern hemisphere object only and will be the brightest comet on show this month. Tracking through Sagittarius, on into the very southerly Microscopium and Grus, this comet should reach around 5-6th magnitude during January - but will only be visible to those in the southern hemisphere at its best. By early March, this comet will start being visible to those of us in the northern hemisphere, though will by then be fading quite dramatically.

C/2025 T1 (ATLAS), which put on a good show during 2025 has now faded significantly and while technically still visible in Aquarius in early January, will be difficult to find.

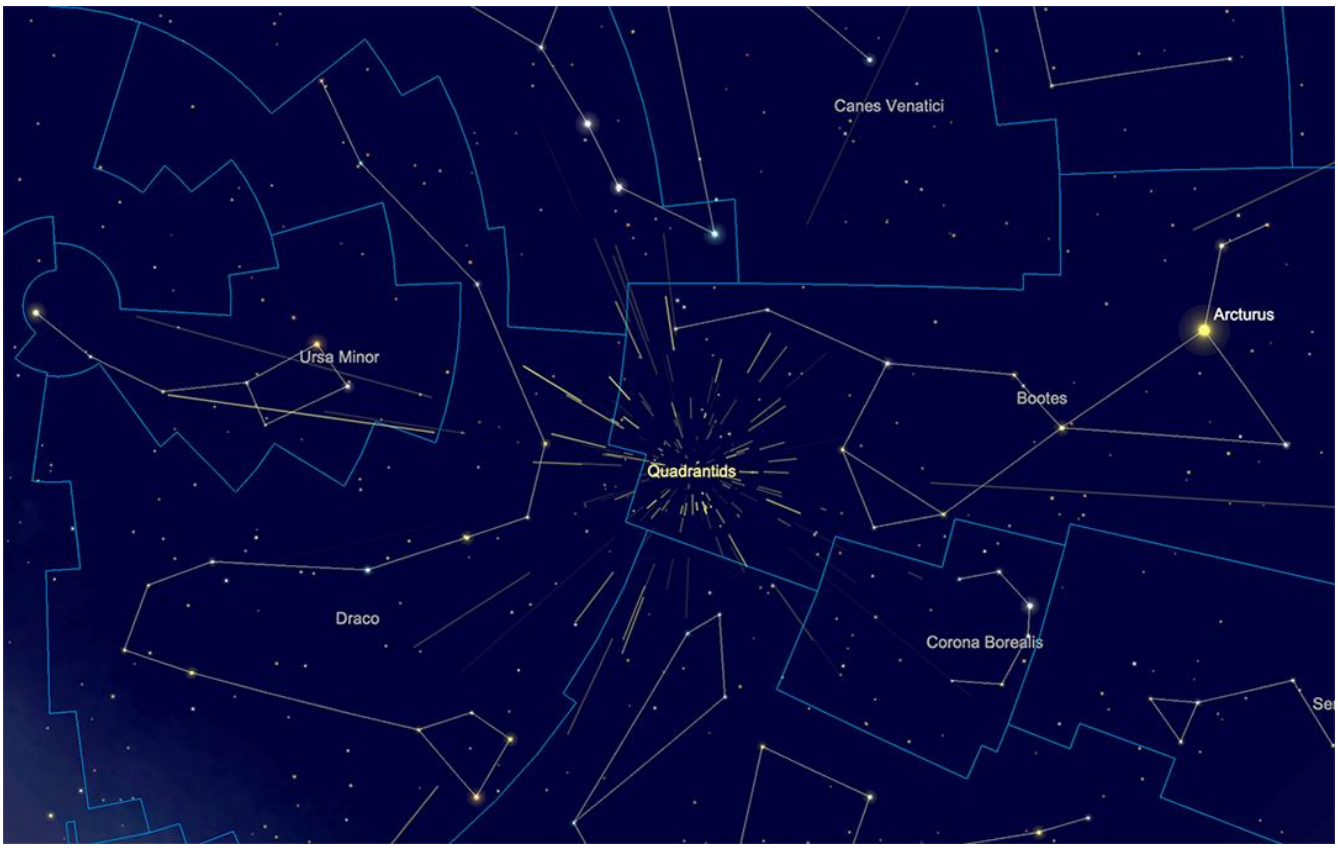


24P/Schaumasse path through January (comet position shown 15th January). Image created with SkySafari 6 for Mac OS X, ©2010-2016 Simulation Curriculum Corp., skysafariastronomy.com.

Meteors

The Quadrantids are the major shower of January and are normally fairly numerous in ZHR, yet rather muted brightness-wise in comparison with the major showers of the year. The Quadrantids emanate from the northern polar region of the sky around Bootes, Draco and Hercules, in an area of sky which used to contain the now-defunct constellation of Quadrans Muralis (the mural quadrant). Possibly seeded by Minor Planet 2003 EH1, which may well be

an extinct comet (first observed by Chinese astronomers around 500CE), the Quadrantids are numerous at their peak, sometimes reaching a Zenithal Hourly Rate in excess of 200 (though not all of these will be seen from a given location). Sadly, this year, the peak date of the Quadrantids - January 3rd/4th - coincides with a Full Moon, which will put quite an effective dampener on proceedings.



Quadrantid radiant Image created with SkySafari 6 for Mac OS X, ©2010-2016 Simulation Curriculum Corp., skysafariastronomy.com.

Deep Sky Delights in Auriga

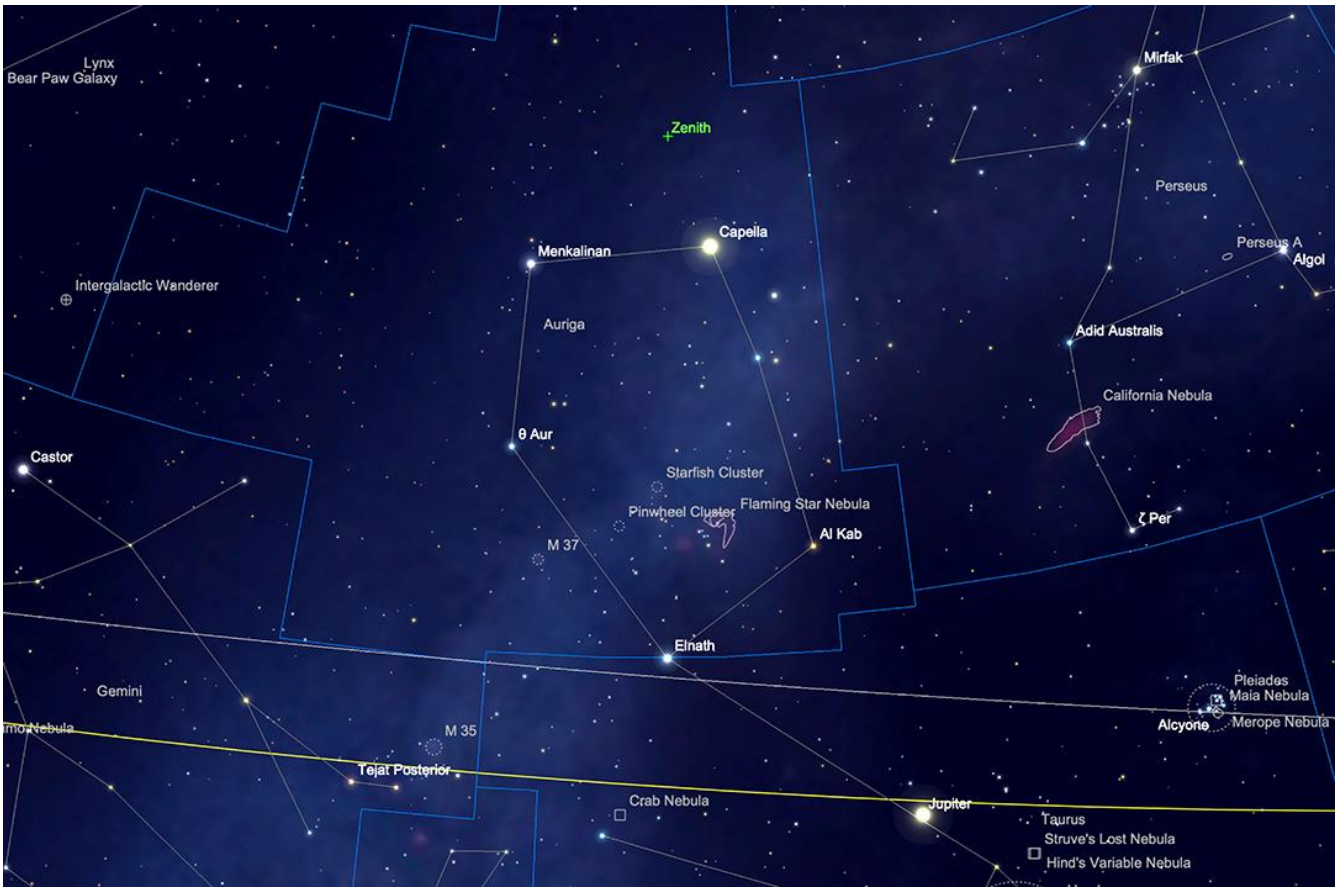


Image created with SkySafari 6 for Mac OS X, ©2010-2016 Simulation Curriculum Corp., skysafariastronomy.com.

Last month's Deep Sky section was a trek around the multiple delights of Taurus. This month we will examine the Taurus' "conjoined" constellation of Auriga.

We start in Auriga, the Charioteer, with its principle star, Capella, or Alpha Aurigae. This is the sixth brightest star in the sky at +0.08 magnitude and the brightest, most northerly star in the sky. Capella is actually a binary star and once of the first to be found by spectroscopic observation, where it was found to have two spectra, overlaid on top of each other, which appeared to doppler shift in relation to each other - hence it became known as a spectroscopic binary. The two stars in the system are orbiting each other by 0.75 AU - three quarters of the distance of the Earth to the Sun. As they are so close, even lying at a comparatively close 42 light years, they cannot be split, even with the largest telescopes on Earth. The system also comprises of two additional red dwarf stars lying much further out. The two main components are similar spectral class to our Sun (G class), but much bigger and classed as giants. They are thought to be much further along their lifespan than the Sun is and have run out of hydrogen as nuclear fuel and are now "burning" helium and in the case of one, carbon. Neither are thought to have enough mass to go supernova at the end of their lives and are likely to end up as planetary nebulae.

Moving to the southern part of the constellation, we find to the Flaming Star Nebula, IC405. Found just under 12 degrees almost due south of the Capella, this object is a partial emission, partial reflection nebula, meaning that one part of its structure glows under excitement from radiation, whereas the other part merely reflects light from the stars imbedded in the object. Measuring around 30 x 19 arc minutes, IC405 is centred around the star AE Aurigae, a star which was ejected from the nearby Orion Nebula under 3 million years ago. At +10 mag, it is not an intrinsically bright object, but condensed enough to be seen in small telescopes from a decent location. It is unsure if any of the material that makes up the Flaming Star Nebula was once a part of the Orion Molecular Cloud - it is more likely that it is material that the star is merely passing through. As previously mentioned, this is an area rife with gas and other star forming material. IC405 lies some 1500 light years from Earth.

The Flaming Star Nebula by Mark Blundell. Image used with kind permission.

Just under 3 degrees to the NE of the Flaming Star lies the first of Auriga's three great open star clusters, the lovely M38, otherwise known as the Starfish Cluster. It's difficult to see exactly what resemblance this +6.4 mag, 20 arc minute diameter collection of stars has to the titular marine invertebrate, but it is certainly a pretty sight in any sort of optical instrument. M38 was first recorded by the preeminent Sicilian astronomer Giavanni Batista Hordierna in 1654 and re-squired much later by French observer Le Gentil in 1749. Le

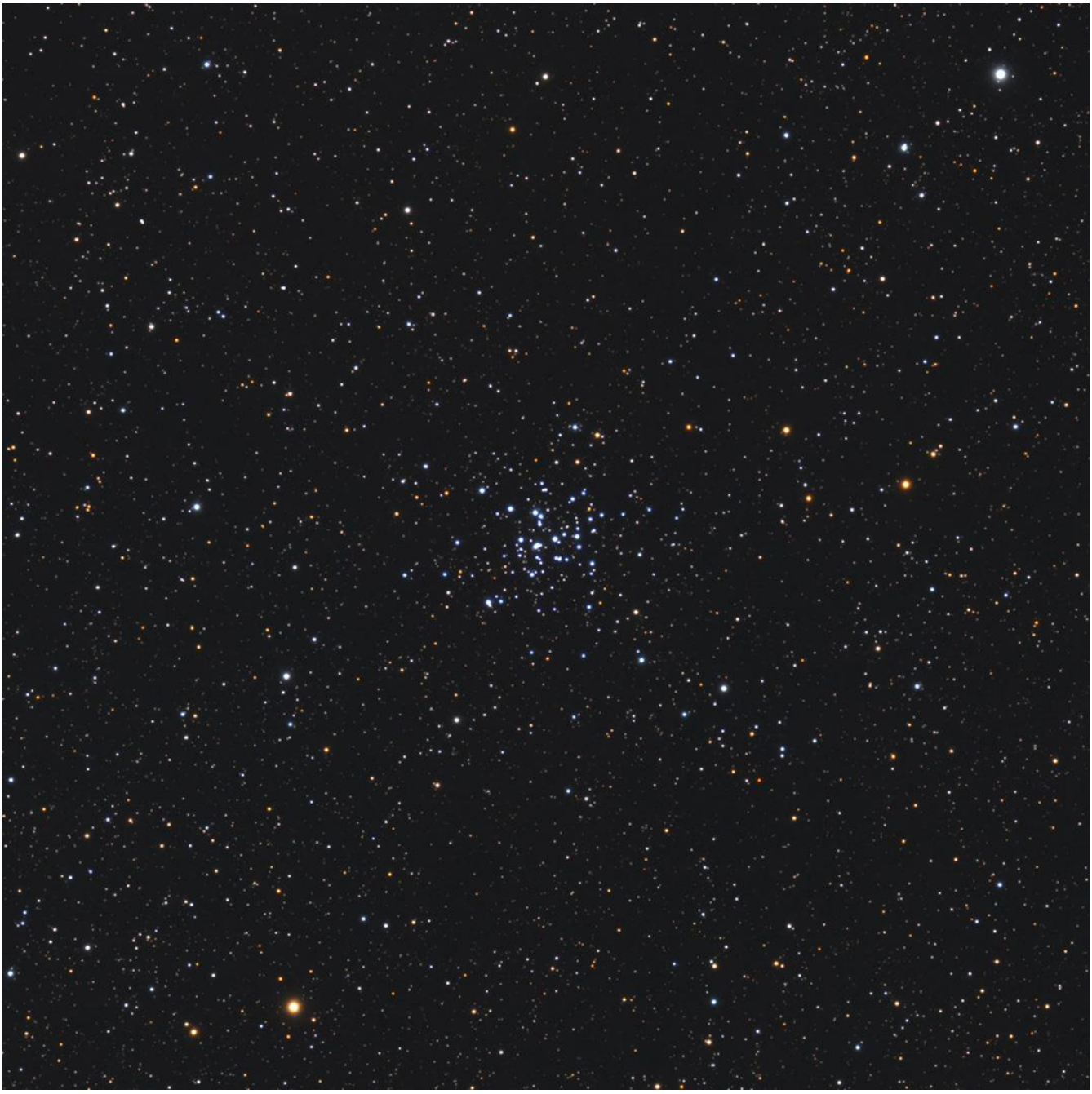
Gentil's observations alerted Charles Messier to M36's location and it was included in his original list in 1764.

At over a third of a degree angular diameter, M38 is ripe for observation in most telescopes and binoculars. Observers will note long chains of stars, many of which are blue, but there are also some lovely contrasting yellow and gold-coloured members. In total, M38 has around 100 stars as members and lies around 4200 light years from us. It is thought to be around 200-225 million years old.

M38 by Mark Blundell. Image used with kind permission.

2 and 1/3 degrees to the SE of M38 we come to the second of Auriga's great clusters, M36. This cluster is a good deal more compact than its neighbour at 10 arc minutes diameter and slightly brighter as a resultant +6 mag. Through a telescope, this collection of hot white stars can appear quite brilliant in comparison to M38 - indeed, it is said that if M36 were placed in the position of the Pleiades, it would outshine them by a factor of three. M36 was again discovered by Hordierna, in 1654, rediscovered by Le Gentil and added to the Messier list in 1764.

This cluster is a good deal younger than its neighbour and contains many young hot blue main sequence stars, of spectral type B2 and B3. There are no older population stars to speak of in M36, so it is thought to be just 25 million years old. Lying at around 4300 light years hence, M36 is one of the many objects that share the moniker "The Pinwheel" - though apart from a circular collection of stars to the NE side of the cluster, it is difficult to see why it has picked up such a name - especially in the light of the other "Pinwheels" in the sky. Perhaps we should come up with a new more original nickname for this great cluster - it deserves better.



M36. Image credit: ESO/Dss2, Giuseppe Donatiello. Creative Commons/Public Domain.

The last of Auriga's fine open clusters is its best - the spectacular M37. There are many great clusters in this area of sky: the much nearer Hyades, Pleiades, Beehive, the nearby M35 in Gemini and the Double Cluster in Perseus - but M37 is one the most beautiful of these and is a lovely sight is any telescope or binoculars. At a quarter of a degree in diameter, M37 is about the same angular size as the Full Moon in the sky. It is also the brightest of Auriga's "Trio" at +5.59 mag and the oldest at an estimated 300 million years of age. Like its neighbours, M37 contains many hot blue stars, but also significantly many more mature yellow , orange and red giant stars. This more evolved stellar population makes for some fine viewing for we astronomers here on Earth as the blues of the newer, hotter population contrast superbly with the warmer tones of the older stars.

M37 was again discovered by Hodierna, though almost inexplicably was missed by Le Gentil - Messier himself found it again at catalogued it in 1764. M37's total stellar population is thought to number in the 500+ levels, of which maybe 150-or-so are observable in amateur telescopes. It is the furthest lying of Auriga's clusters at 4500 light years distance and the largest at 25 light years across.

M37 by Jim Mazur https://www.skyledge.net/Messier37.htm Creative Commons.