

SKY GUIDE

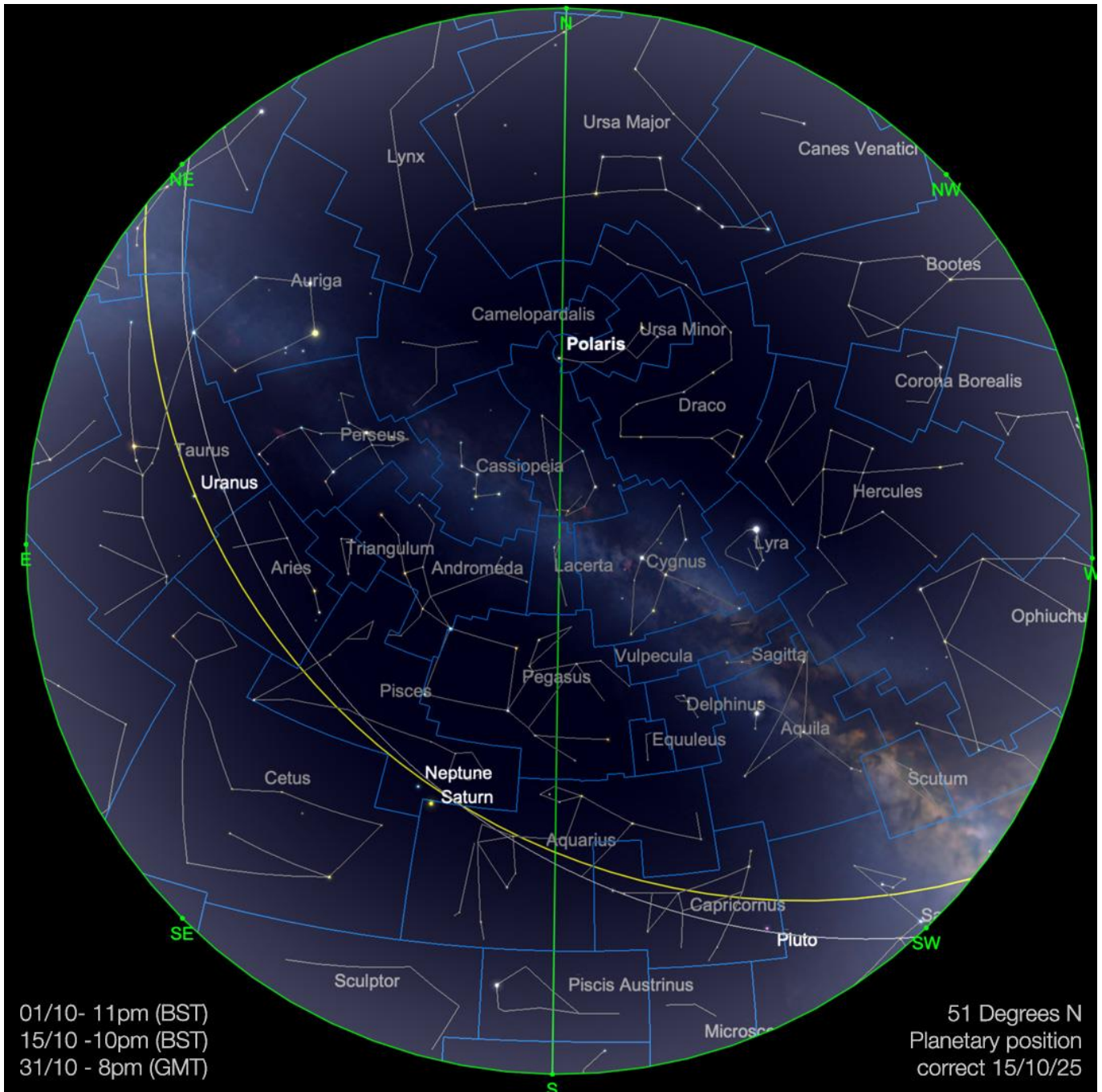
Astronomical guide for October 2025

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

Publisher: **Bresser GmbH**
Gutenbergstr. 2 · 46414 Rhede · Germany
+49 (0) 28 72 – 80 74 – 0
info@bresser.de · www.bresser.de

Original text: Kerin Smith
© 2025 – Bresser GmbH – Group of Companies

Expand your horizon



Readers in the Northern Hemisphere have now passed the autumnal equinox, which fell on 22nd September 2025. The Sun has crossed into the southern half of the sky, bringing the steady return of longer nights for those of us living at higher northern latitudes. This marks the height of the “observing season”, when dark skies are at their best for stargazing. That said, the rhythm is briefly interrupted in late October with the switch back to standard time across much of the Northern Hemisphere. In most European countries, the clocks will go back by one hour on 26th October 2025. For a short while, evenings will feel a little lighter, but the longer nights will soon reassert themselves.

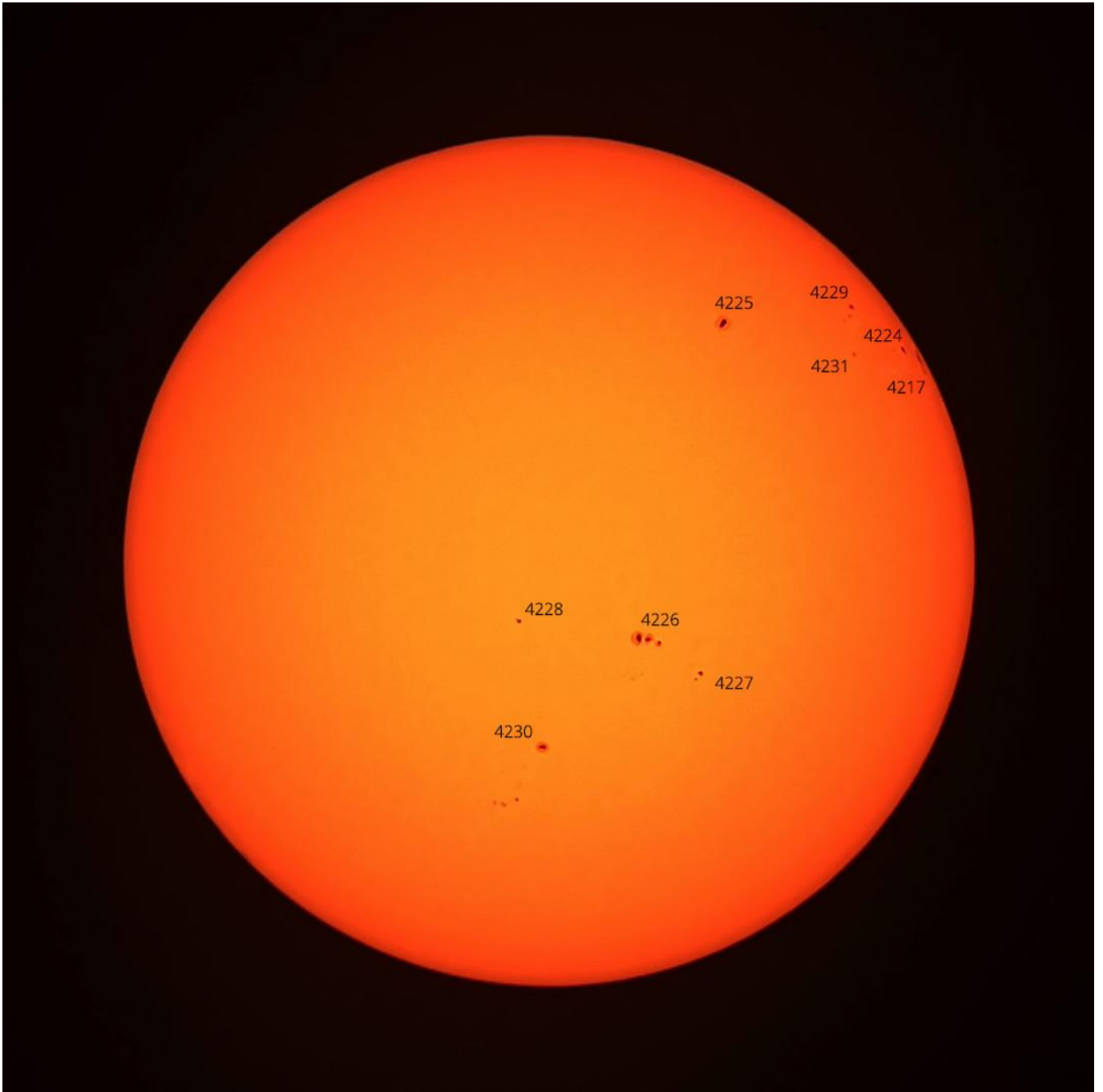
No matter where you are, there's plenty to observe in the skies above us this month. So, let's explore what's in store...

The Solar System

The Sun

The Sun's output of sunspots for August 2025 (the most complete recorded month available to us, at time of writing) was slightly up on predicted values, according to the US National Oceanic and Atmospheric Administration's Space Weather Prediction Centre. Although the Sun is still very active, 133 sunspots were recorded in July, as opposed to a predicted value of just over 130. This is in contrast with the previous few months figures, which have seen sunspot numbers lower than their predicted values. We speculated in last month's sky guide that this could be a sign that the solar peak has been reached. As we alluded to then, we will have to wait for further data to be able to establish this as fact. We can still expect a healthy number of sunspots and other solar activity to continue into the New Year and it is only after the end of 2026 that activity is predicted to tail off reasonably.

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 [Aquarellia Observatory Forecasts](#) also cover various aspects of solar observations and provide valuable insights into the current state of our parent star. Signing up for the AuroraWatch app, developed by Lancaster University in the UK, is also highly recommended for those seeking advance warnings of impending auroral events. There are still some significant CME events occurring, which can give rise to spectacular displays of Aurora. While lower latitude Aurora events have been something of a rarity of late, certainly compared to those we experienced during 2024, we never know what is waiting round the corner for us. Apps such as Aurora Watch give us very useful information and warnings.



The Sun, September 26th 2025. White light image, showing current sunspot groups. Image credit, Kerin Smith

The Moon

We begin October with the Moon in Capricornus. At roughly 68% illumination, our natural satellite is currently waxing and is visible in the evening sky, transiting at a little before 9 pm (BST). The Moon will rise up into the more northerly parts of the ecliptic over the first week of the month, travelling through Aquarius, where it joins both Saturn and Neptune in close proximity on the evening of the 5th.

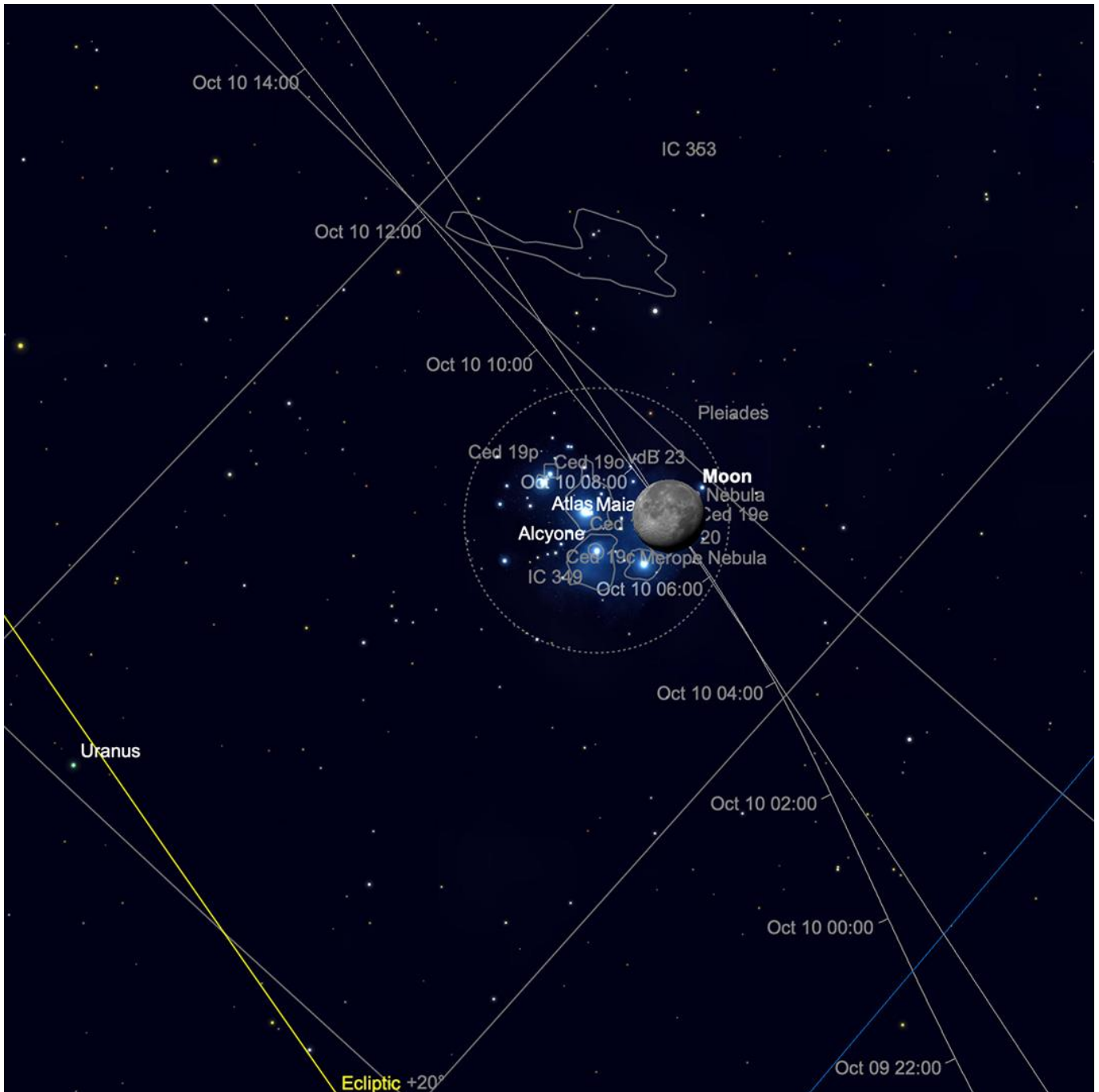
The Moon reaches full on the evening of the 7th, while in the constellation of Pisces. It is here that we give our customary warning that this part of the month will not be spectacular as far as deep sky observation or imaging is concerned.

The Moon then continues its progress through Pisces, on into Aries and Taurus, where, during the early hours of the 10th, it will occult the Pleiades Star cluster and will also serve as a useful way point for the outer planet Uranus, which sits 5° to the south of the Moon, as the occultation takes place.

Three days later, the Moon will reach last quarter phase in Gemini. Sitting a little adjacent to the bright planet Jupiter, which is also a resident of this constellation. The Moon will at this point rise a little after 11 pm, transiting at just after 6:46 am (BST).

The Moon continues its journey sunward over the next few days. It passes through Cancer, Leo and on into the expense of Virgo, where on the morning of the 19th, it will join the dazzlingly bright Venus in conjunction. By this point the Moon will be a tiny sliver of a crescent, only 4.4% illuminated. Naturally, it is this part of the month with the moon in close proximity to the Sun that will give the darkest conditions for imaging and observation of fainter deep sky targets.

New Moon occurs on October 21st, when the Moon will slide to the south of the Sun, while still in Virgo. After this, it will re-emerge as an evening target however, at this time of the year, the ecliptic plane has seen from the northern hemisphere sets at a very shallow angle. Subsequently the early crescent Moon, rising through the southern constellations of Libra, Scorpius, Ophiuchus and Sagittarius will not be exceptionally well placed for observers in the northern hemisphere. We find the Moon at the end of October, a resident of Aquarius and displaying a 71% illuminated gibbous phase.



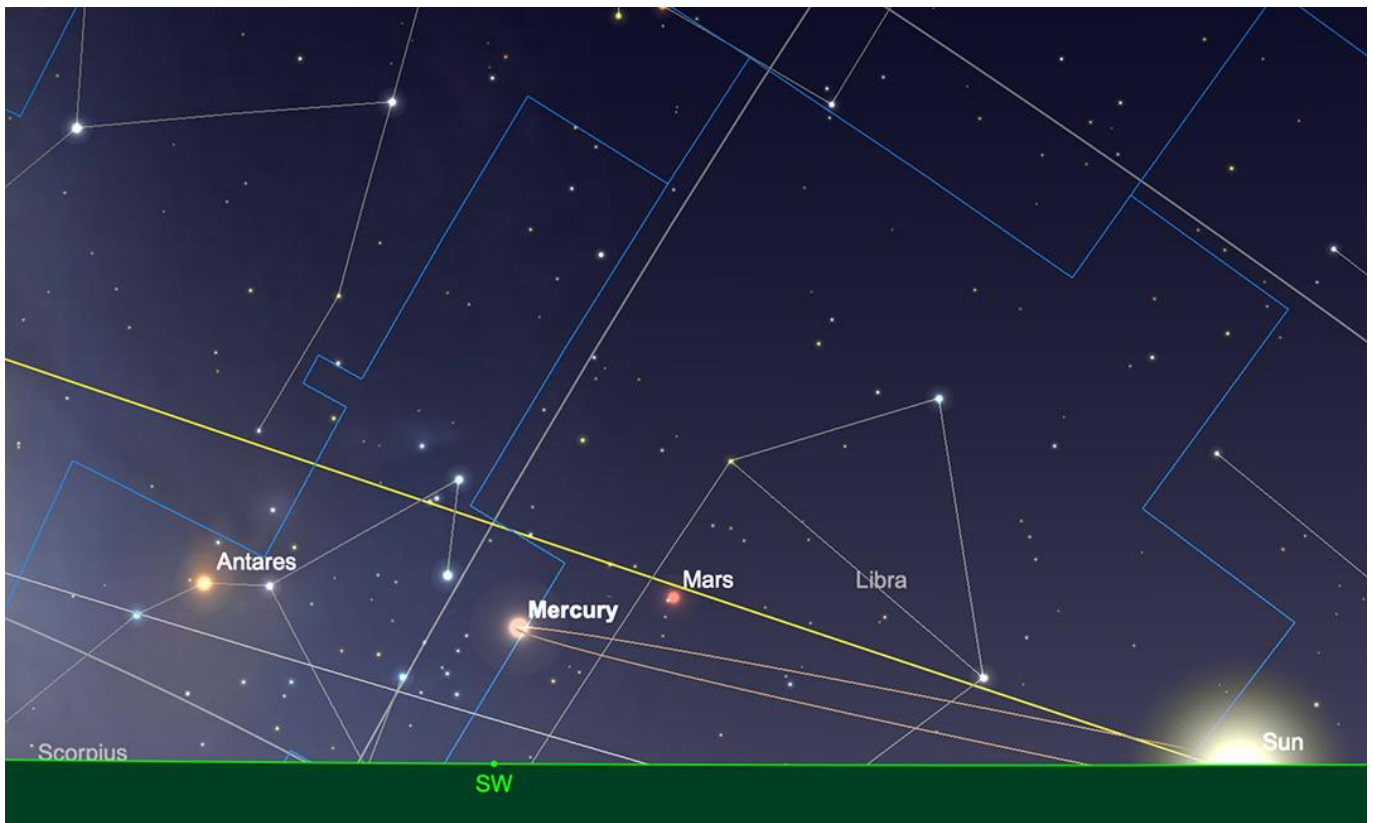
The Moon occults the Pleiades, early morning October 10th. Image created with SkySafari 6 for Mac OS X, ©2010-2024 Simulation Curriculum Corp., skysafariastronomy.com.

Mercury

The innermost planet begins October, a resident of Virgo. While technically an evening object, separated from the Sun by $13\frac{1}{2}^\circ$, Mercury sits very low to the horizon at sunset for observers in the northern hemisphere and will be extremely challenging if not impossible to find as a result. The planet sits just under 3° high in the west as the Sun sets on the evening of the first, as observed from 51° north. This rather sorry state of observation does not improve much as time progresses.

While Mercury is increasing its separation from the Sun, its low lying place in the ecliptic plane (from a northern hemisphere perspective) will make it still extremely challenging to find at all.

Mercury reaches maximum elongation from the Sun in Scorpius on the 29th. By this point, it will stand just 4° high above the horizon (as observed from 51° north), as the Sun sets. at -0.1 magnitude and displaying a 6.6 arc second diameter disc, the planet will be a great target for those in the equatorial regions of the planet and those readers in the southern hemisphere, where it will appear to be much higher in the sky. However, for those of us of a slightly more northerly location, the general prognosis as far as observation of Mercury is concerned, is relatively disappointing. After reaching great separation from the Sun on the 29th, Mercury appears from our perspective here on Earth to dip even further south, which will make observations from the northern hemisphere (already very challenging) even more difficult.



Mercury, greatest eastern elongation, 29th October Image created with SkySafari 6 for Mac OS X, ©2010-2024 Simulation Curriculum Corp., skysafariastromy.com.

Venus

The planet Venus is a reasonable target for astronomers around the world at present. Appearing in the morning skies, in the constellation of Leo, Venus presents a -3.9 magnitude, 11.1 arc second diameter disc at the beginning of the month. The planet stands at around 20° elevation (as observed from 51° north) as the Sun rises on the 1st.

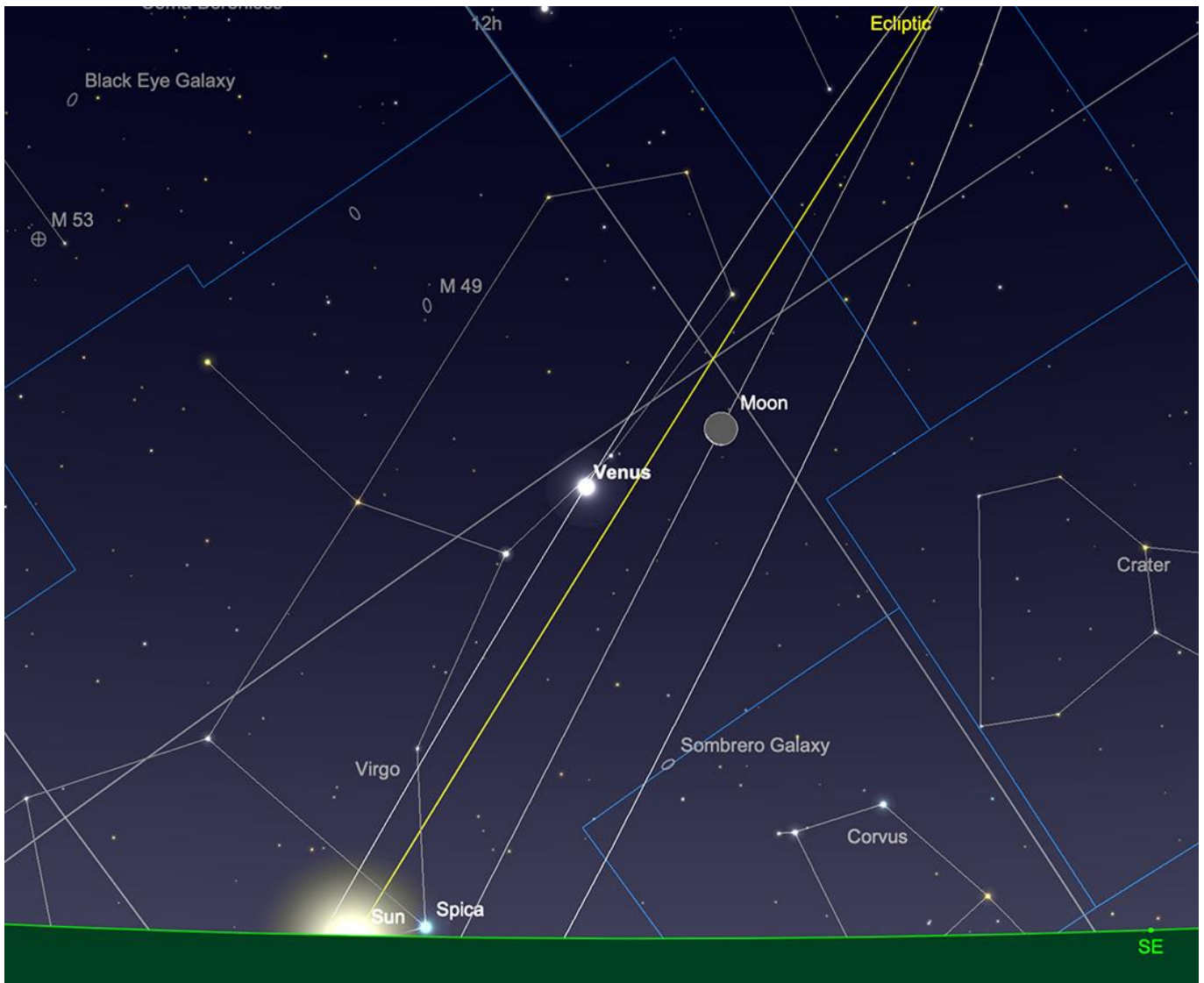
Venus is heading towards the Sun from our perspective here on planet Earth, though it does this in a much more leisurely fashion when compared to its neighbour Mercury. Mercury's

year is 88 days long, whereas Venus' year is 224.7. Subsequently, there are not the much more sudden changes in Venus' location in the sky, compared to the much faster orbiting Mercury.

By mid month, Venus' brightness has not changed, though the planet sits a little lower in the sky at sunrise, at around 17 and three-quarter degrees above the horizon (again, as observed from 51° north). At 93% illumination, and an apparent size of a little under 11 arc seconds diameter, telescopic observation will need steady atmospheric conditions to make much use of Venus as a viable target. Venus often rewards the use of pretty harsh filters. A neutral density filter will deaden down its brightness and glare significantly and will often make observations of Venus' phase much more obvious. The even harsher dark violet Wratten #47 Filter can reveal subtle, atmospheric shading and cloud banding. However, the observer requires a reasonable aperture telescope for such a deep filter to work well in this regard.

As previously mentioned, the thin sliver of a very old crescent Moon will join Venus in reasonably close conjunction in the dawn sky on the morning of the 19th. The two very different bodies will form a striking pair and will be separated from each other by around 5 1/2° as the Sun rises.

By the time we get to the end of October, Venus has not changed at all in brightness and is still -3.9 magnitude. Its disc is still around the 10 arc second diameter, though by this point the planet sits a little above 13 1/2° high in the sky as the Sun rises (as viewed from 51° north). This will make observations of any form of detail and even ascertaining Venus' phase (which by this point in time is 96%) rather challenging.

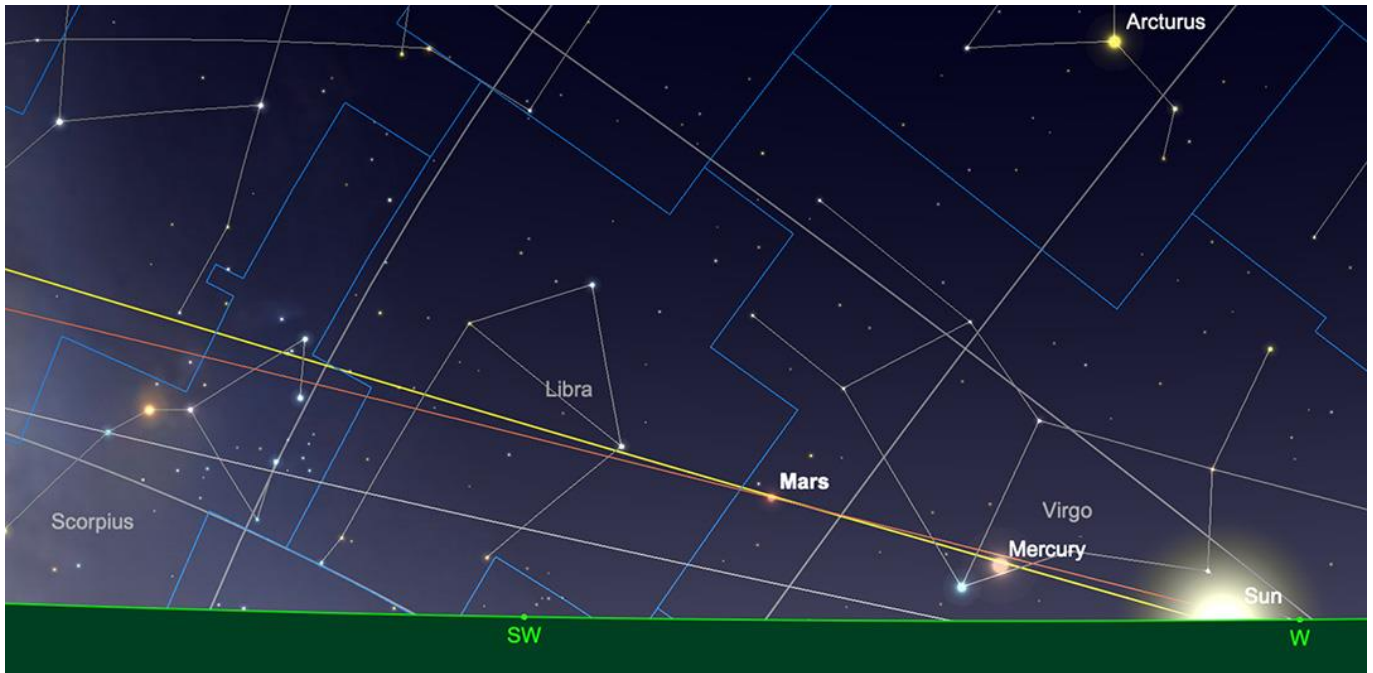


Venus and the thin Crescent Moon at sunrise, 19th October. Image created with SkySafari 6 for Mac OS X, ©2010-2024 Simulation Curriculum Corp., skysafariastromy.com.

Mars

The Red Planet is given full marks for persistence, still a resident of the evening sky after many, many months of being so. However, being a resident of Virgo and about as far away from us as it is possible to be on its orbit, Mars is a very diminutive +1.6 magnitude and presents a 4 arc second diameter disc at the beginning of October. Standing at around 6 1/2° elevation at sunset, means it will be a very difficult and disappointing target for those who do try and find it. Mercury is its neighbour on the evening of the 1st and a full two magnitudes brighter by way of comparison.

Amazingly, Mars will not reach superior conjunction until January 2027, so will be a resident of the evening sky (albeit technically, rather than observably) until then. We have many months to go until it is at its best again, in early 2027.



Mars 1st October. Image created with SkySafari 6 for Mac OS X, ©2010-2024 Simulation Curriculum Corp., skysafariastronomy.com.

Jupiter

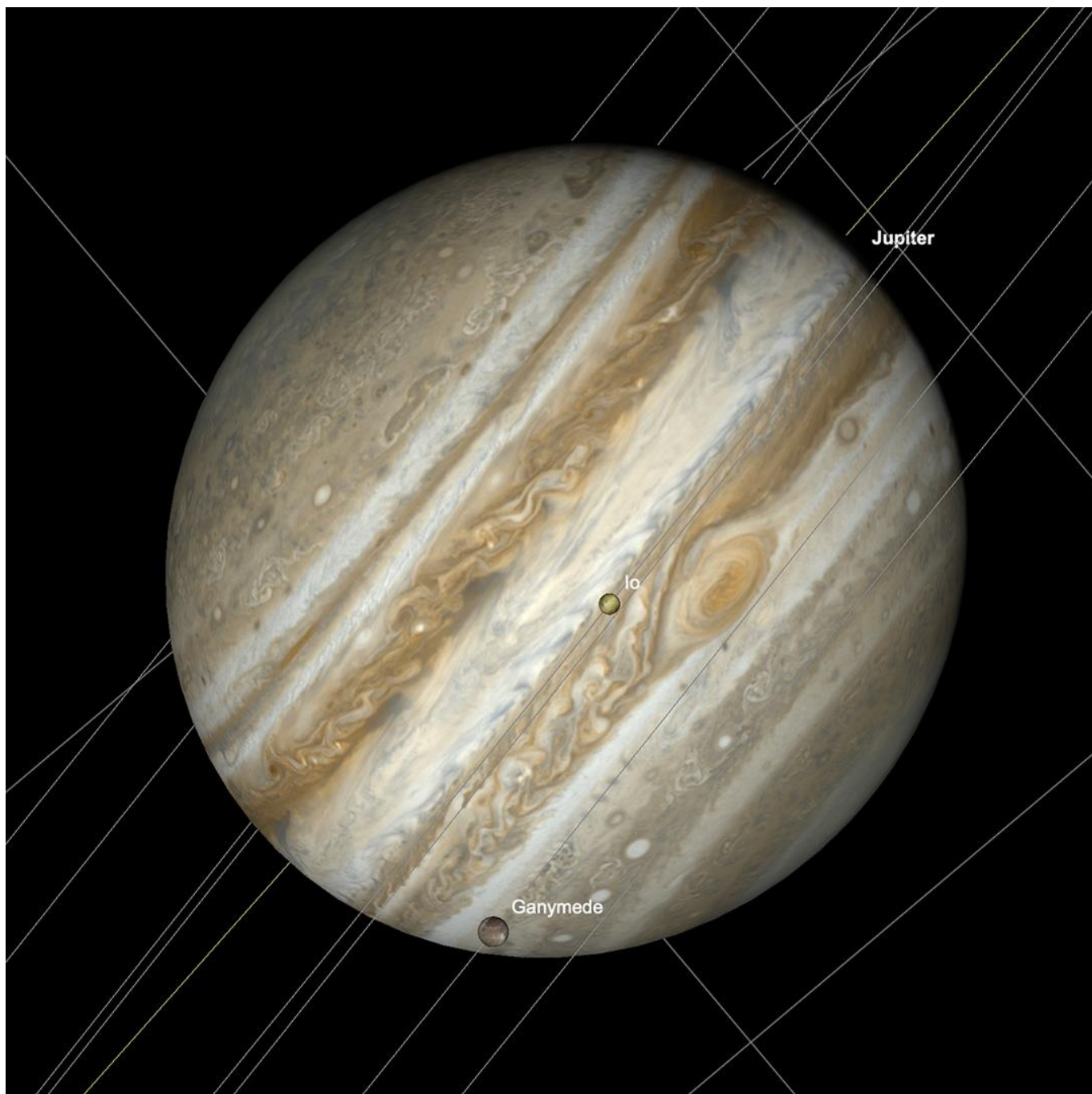
The King of the Planets is a resident of Gemini at present and will rise a little after midnight in early October. Jupiter won't transit in the south at its highest point until after sunrise in the early part of the month, but still retains a respectable height above the horizon of just under 59° (as observed from 51° north) on the morning of the first. Displaying a 37 arc second diameter disc and shining at a brilliant -2.1 magnitude, Jupiter will be easy to pick out with the naked eye, with only the Moon, Sun and Venus being any brighter.

By mid month, Jupiter will have brightened very fractionally to -2.2 magnitude and now displays a 38.5 arc second diameter disc.

By the end of October, Jupiter will have brightened yet further to -2.3 magnitude and now displays a 40 arc second diameter disc. The reason for this gradual brightening is that the distance between planet Earth and Jupiter is decreasing. The end of October sees Jupiter about to enter its retrograde path in the sky. This retrograde motion always heralds an opposition of an outer planet, as the Earth "catches up" with an outer world on its faster interior orbit. In Jupiter's case, this next opposition won't be until early January 2026, but the trend is definitely upwards as far as Jovian observations are concerned.

By the end of the month, Jupiter will rise a little after 9 pm (GMT), though it will still be past midnight until the planet has achieved significant separation from the horizon (over 30° altitude). There are some decent mutual transit events observable in the early hours of the morning from Europe, during October. October 6th sees a Great Red Spot, Ganymede and Io transit peeking at around 4:30 am (BST). October 13 sees a mutual GRS and Io/Io shadow

transit starting at around 5:30 am. There is a mutual Io and Europa transit, which occurs at around 3:30 am on October 22nd. The morning of the 29th sees an Io and Io and Europa shadow transit, starting at a little before 3 am. This is followed by a Europa and GRS transit, which begins at around 5:20 am.



Jupiter, mutual Great Red Spot, Io and Ganymede transit, 4.37am, October 6th. Image created with SkySafari 6 for Mac OS X, ©2010-2024 Simulation Curriculum Corp., skysafariastronomy.com.

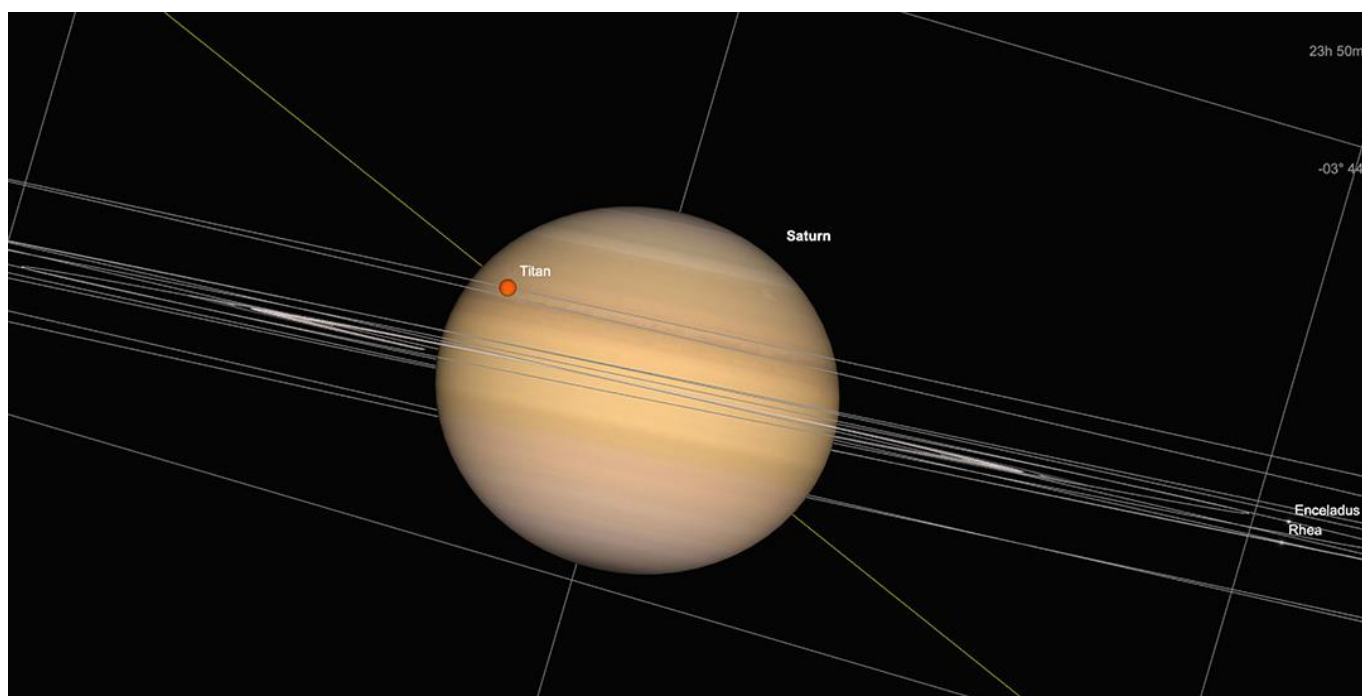
Saturn

At just past opposition, Saturn is excellently placed for observation during October. On the evening of the 1st, Saturn will rise at a little after 6:30 pm (BST) and transit at around 12:30 am the following morning. The Ringed Planet presents a +0.7 magnitude brightness, 19.4 second diameter disc at the month's beginning. Saturn can be easily found in the Pisces/Aquarius borders by locating the square of Pegasus and tracking south from this. The brightest object underneath the square is Saturn, which is significantly brighter than any star in this part of the sky.

By the middle of October, Saturn will have dimmed fractionally to +0.8 magnitude and now displays a 19.3 arc second diameter disc.

Probably the observational highlights of the month come on the mornings of the 6th and 22nd of October, when Saturn's largest moon, Titan, makes a rare transit across Saturn's disc. With Saturn's rings and orbital plane almost edge onto us, at present we are experiencing many more transit events of Saturn's moons than would normally be observable from Earth. However, unlike the Galilean satellites of Jupiter and their transit events, the moons of Saturn are much harder to observe. It is Titan, the largest of all of Saturn's family of satellites that presents observers with the best opportunity to catch one of these events. The 6th's event occurs around 3 to 3 1/2 hour after transit of Saturn takes place in the south, so is not quite as well situated for observations from Europe, but should still be visible. As the Titan transit of the 22nd occurs a little after Saturn's transit in the south, as observed from much of Europe, this presents observers in this part of the world a prime opportunity to see it (as long as the weather is kind and cooperative).

The end of October sees Saturn at a visual magnitude of +0.9, and presenting an 18.9 arc second diameter disc. By this point, Saturn will rise at around 3:40 pm (GMT) and will transit in the south at a little before 9.30 in the evening. Although the view of Saturn's rings is still quite truncated at present, as they begin to open up again, recent views of the planet at transit point have been very pleasing, in comparison to recent years. We urge all those with the telescopic means to do so, to make the most of observing Saturn at this point in time.

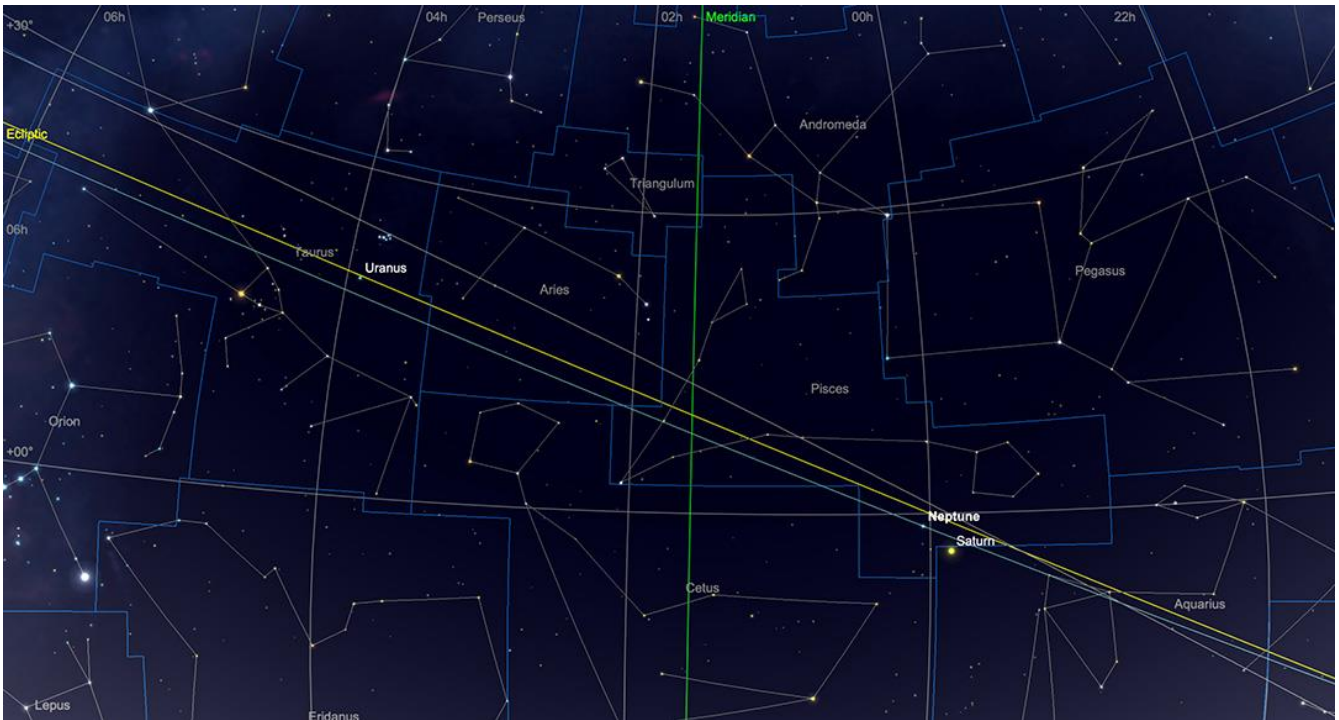


Saturn and Titan in transit, 2.29am, 22nd October. Image created with SkySafari 6 for Mac OS X, ©2010-2024 Simulation Curriculum Corp., skysafariastronomy.com.

Uranus and Neptune

The outer planets are both well placed for later evening/early morning observation during October. Uranus is a resident of Taurus and is technically a naked eye object at +5.6 magnitude. The planet shows a rather diminutive 3.8 arc second diameter disc at present, but its proximity to the easily identifiable Pleiades star cluster, which sits just 4° to the north of the planet at present, give observers a very useful signpost to its location.

The more challenging Neptune sits in Pisces, just $3\frac{1}{2}^\circ$ to the east of the much brighter naked eye planet, Saturn. At +7.8 magnitude and just 2.4 arc seconds diameter, Neptune will need binoculars (at the very least) to be able to identify. However just like its neighbour Uranus, Neptune has a readily identifiable waypoint nearby, making it a much easier planet to find at present.



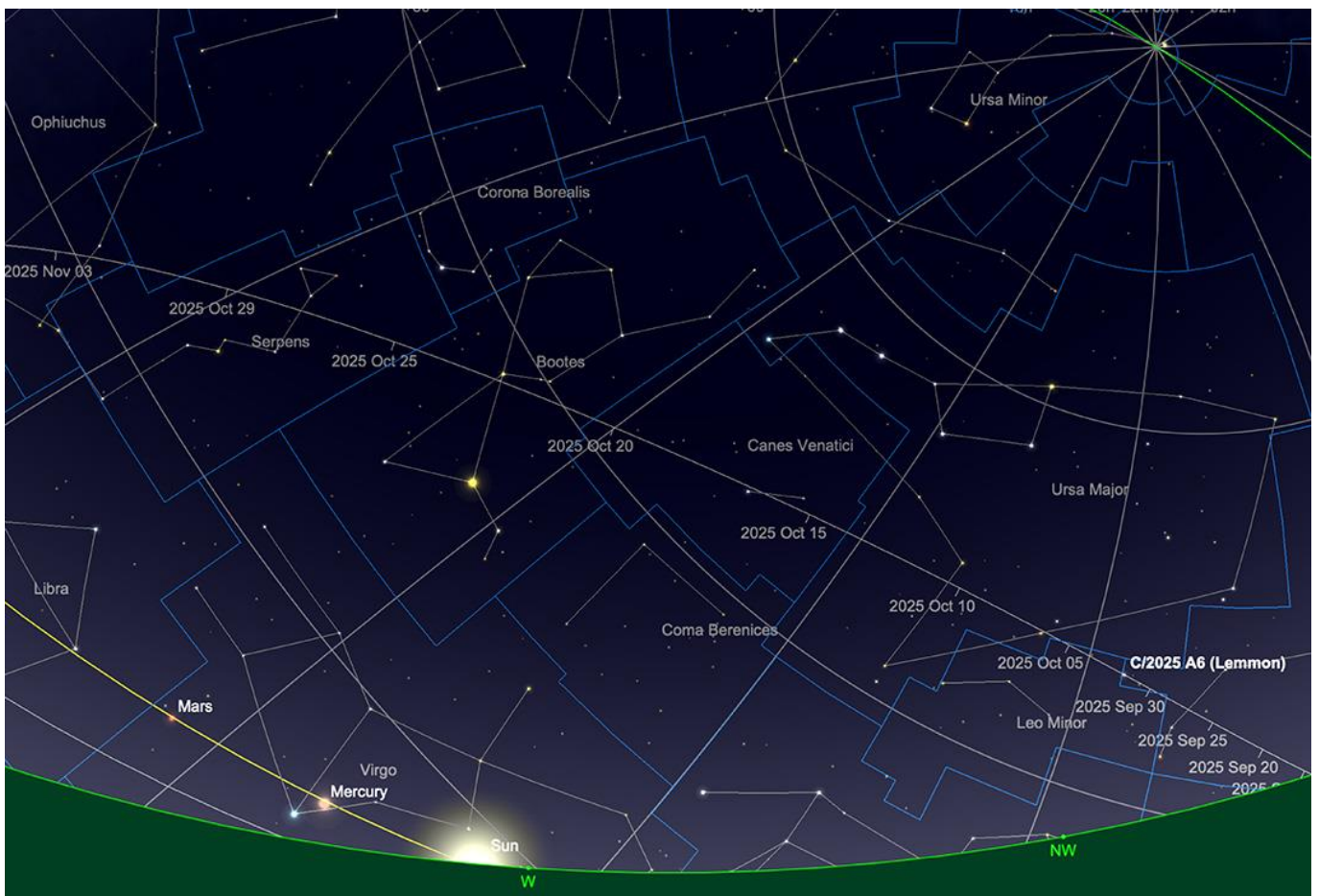
Uranus and Neptune, relative sky positions, mid-October. Image created with SkySafari 6 for Mac OS X, ©2010-2024 Simulation Curriculum Corp., skysafariastronomy.com.

Comets

While it has been a comparatively quiet time for comets in recent months, we now have a couple of extremely interesting objects - one only just discovered - to observe.

The first of these is C/2025 A6 (Lemon), which we previewed in previous sky guides. This comet will be tracking through the constellations of Lynx, Leo Minor, the southern part of Ursa Major, Canes Venatici, Bootes and Serpens during October and will make its closest approach to Earth on the 21st of October. If the comet continues to build on its already promising brightness measurements, it is possible that it may reach naked eye brightness during the latter part of the month and early November 2025, when it will be at perihelion, its closest approach to the Sun. The median brightness predicted is +0 magnitude (the top possibility is an impressive, but highly unlikely, -8.5 magnitude!). However, a note of caution must be sounded here, as there is also the possibility it could remain fairly static in brightness and not reach anywhere near even median predictions.

C/2025 A6 (Lemon) will reach its closest point to earth on the 21st of October, at which point it would lie around 90,000,000 km (0.6 AU) from us. At this point, the comet will really appear to be motoring through the sky and will cover several degrees a day in terms of apparent motion. The fact it is moving through northern hemisphere constellations for most of October means that it will be very well situated for observers in the northern hemisphere.



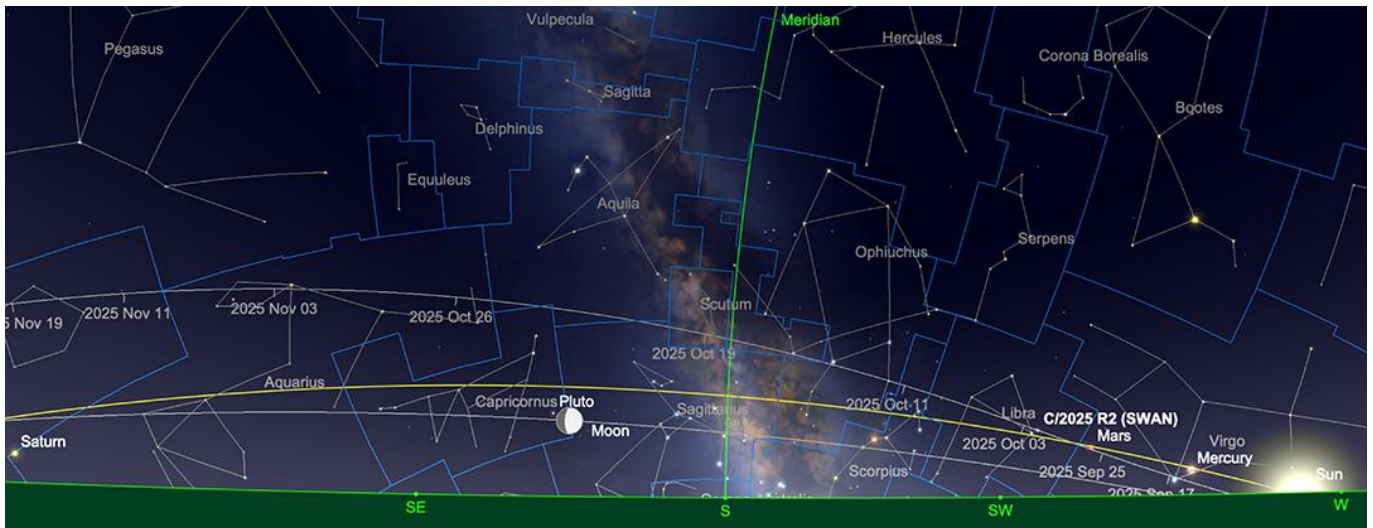
C/2025 A6 path through October (comet position shown at 1st October). Image created with SkySafari 6 for Mac OS X, ©2010-2024 Simulation Curriculum Corp., skysafariastronomy.com.

Not content with one potentially impressive comet, we also have another to consider. This is the recently discovered C/2025 R2 (Swan). This comet was first discovered in SOHO images of the Sun's atmosphere, taken on September 11th 2025. By this point it was already well within the inner solar system and had not been spotted earlier due to its close proximity to our parent star, as seen from our perspective here on planet Earth.

Interestingly, this comet will make its closest approach to Earth at almost exactly the same time as C/2025 A6 (Lemon) and may well be of similar brightness. The comet has already been imaged by professional and amateur instruments and at time of writing was around 6th magnitude. At its closest approach, the comet will be 39,000,000 km (0.26 AU) from us. Again, much as with C/2025 A6 (Lemon), this could potentially be quite an impressive target (though unlikely to be quite as bright). Some sources suggest that Earth will cross the comets potential meteoroid stream path on or around October 5th, which may produce an unscheduled meteor shower. However, as we have only scant knowledge of this object, it is impossible to say how densely this debris may be packed within its orbital plane. The fact that the comet has already survived perihelion is a positive sign.

C/2025 R2 (Swan) is not quite as well situated for northern hemisphere observers, as it will be passing through the more southerly Libra, Scorpius, Ophiuchus, Sagittarius, Capricornus and Aquarius during October. It will certainly be interesting to discover how both of these comets develop.

As ever, with all cometary activity, we hope for the best, but prepare ourselves for disappointment!



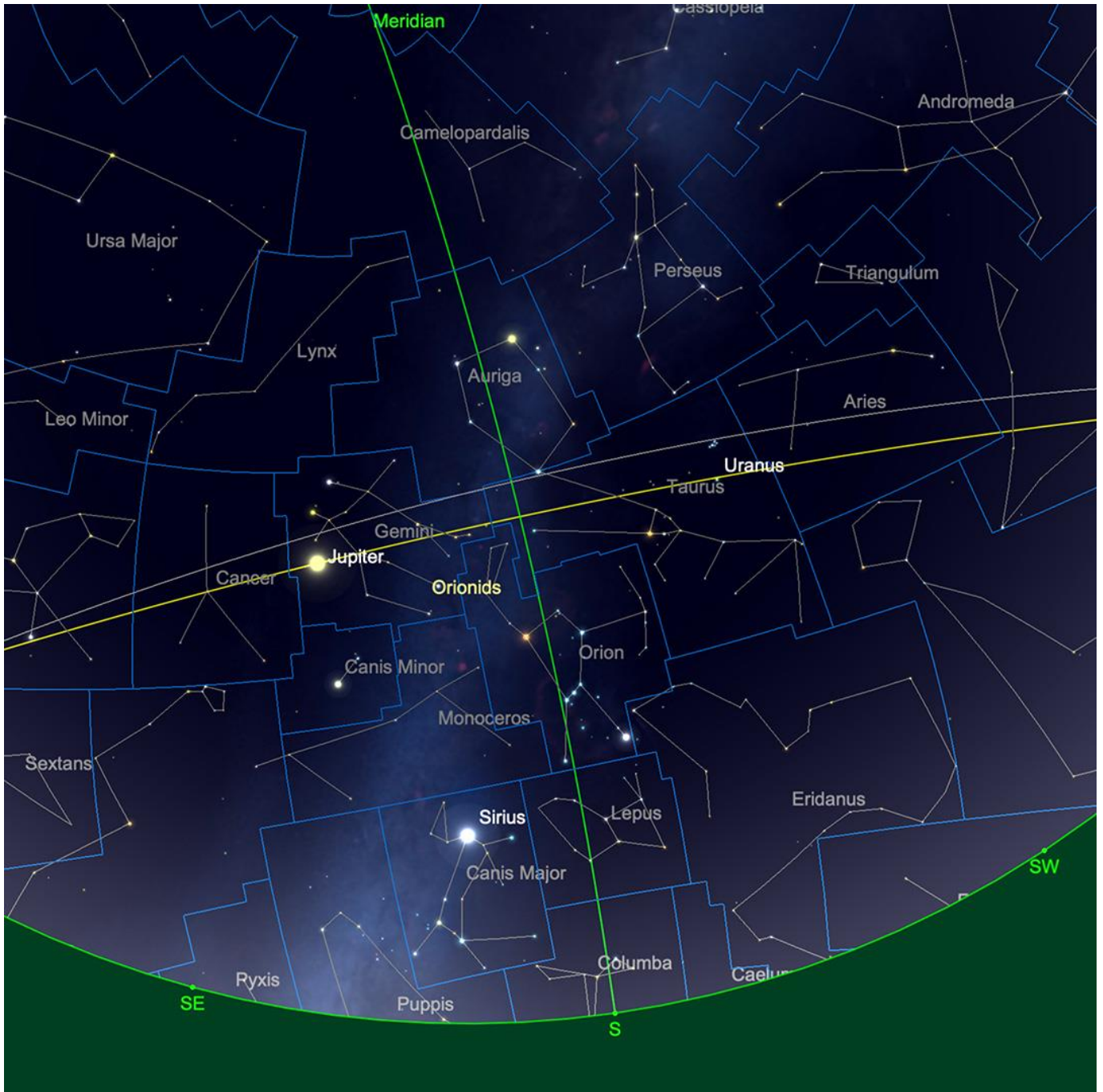
C/2025 R2 path during October (comet position shown at 1st October). Image created with SkySafari 6 for Mac OS X, ©2010-2024 Simulation Curriculum Corp., skysafariastronomy.com.

Meteors

The Orion meteor shower will be visible throughout October, but peaks this year on the 22nd, which neatly lines up with New Moon. This is one of the two showers of the year to be associated with the most famous comet of all, P/1 Halley. The other shower is the Eta Aquariids, which occur in early May.

While the shower sometimes peaks at near Perseid or Geminid levels of activity, this year is thought to be much more modest in numbers. The ZHR of the Orionids is for 2025 is thought to be around 15 meteors per hour. These meteors can occur at any point in the sky, but radiate from a point close to the northern border of Orion with Gemini.

With dark skies around the peak of the shower, this will be a reasonable event to try and observe visually and record photographically. A simple widefield camera, with a long duration exposure will catch a few meteors, if left long enough in a static position.

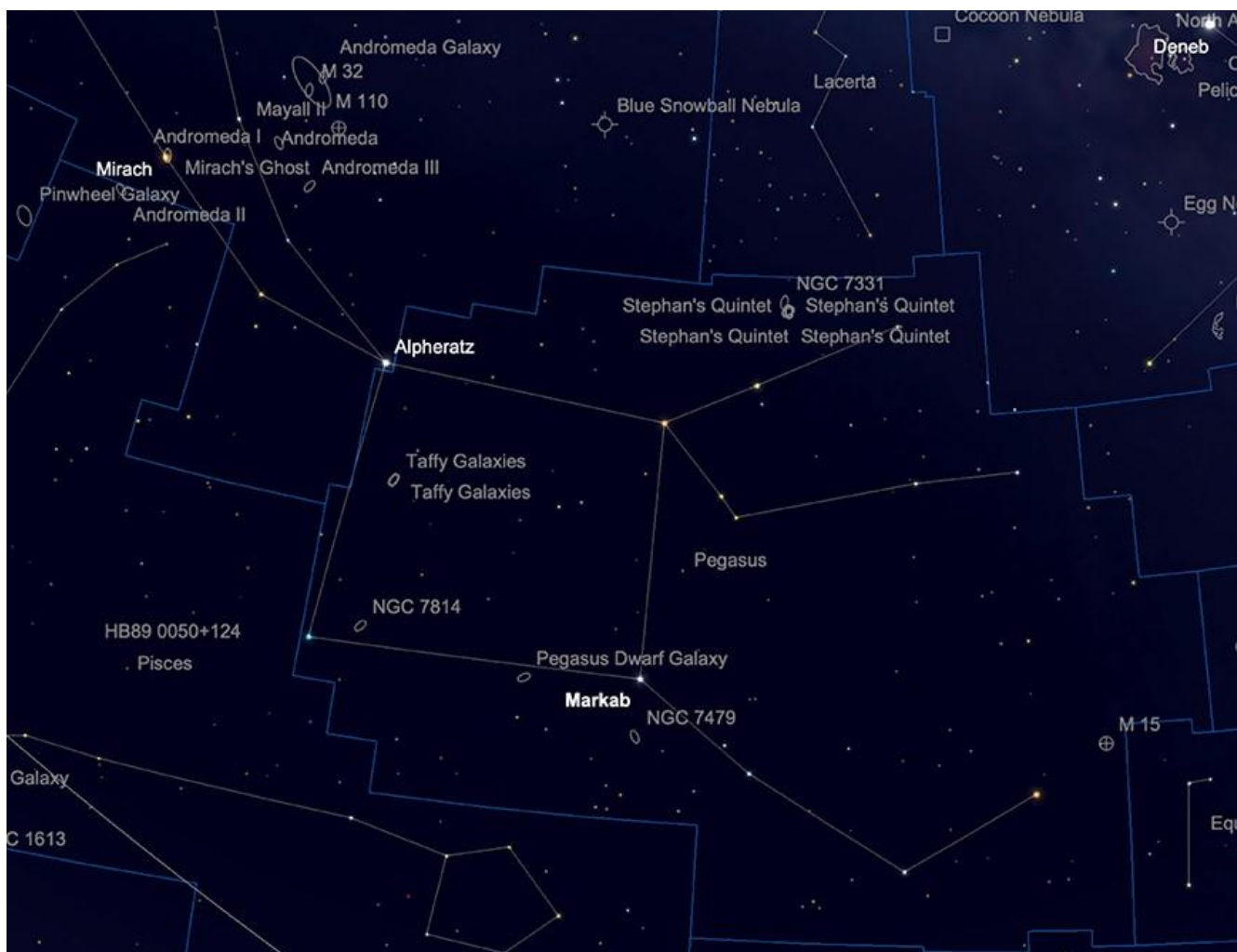


Orionids Radiant. Image created with SkySafari 6 for Mac OS X, ©2010-2024 Simulation Curriculum Corp., skysafariastronomy.com.

The other shower associated most commonly with October is the northerly Draconids, associated with comet 21 P/Giacobini-Zinner. This shower can vary quite considerably in terms of ZHR, but is normally fairly weak. However, the shower's parent comet did return to the inner solar system this year, which means that there may be a chance of an outburst.

The last major peak occurred in 2018 where the ZHR range was measured by both visual and radar sources as being between 600-1500. An outburst event may occur this year, as the Earth is due to intercept the fresh 2012 train of debris from 21 P/Giacobini-Zinner. Sadly, we have no way of reliably predicting exactly when this event will take place and thus where on Earth it will be visually observed. This uncertainty is compounded by the peak of this year's event falling at around Full Moon - which will definitely negatively influence observations.

Deep Sky Delights In Pegasus



Pegasus. Image created with SkySafari 6 for Mac OS X, ©2010-2024 Simulation Curriculum Corp., skysafariastromy.com.

The arrival of Pegasus in the evening skies is a sure sign of the approach of Autumn in the northern hemisphere. This fairly large constellation shares a border with zodiacal Aquarius and Pisces to the south and east respectively, Andromeda to the northeast, with the faint Lacerta, the Lizard, to the north and the rich Cygnus, Vulpecula, Delphinus and the fainter Equuleus, the foal, to the west. Pegasus is home to some easy - and not-so-easy - deep sky targets.

Though lacking in major nebulae, Pegasus is a haven for galaxies - maybe not quite to the extent of the Virgo and Leo regions - but has many extra-galactic targets worth attention.

The most famous feature of Pegasus is readily observable without a telescope - this is, of course, the famous Square of Pegasus. Consisting of the stars Alpheratz (Arabic for "the navel"), Scheat ("the leg"), Algenib ("the flank"), Markab ("the saddle"), the Square of Pegasus dominates this area of sky and can be used as a useful "jumping off" guide for starhopping. However, the Square of Pegasus is not solely "of Pegasus", as Alpheratz is actually now officially a part of neighbouring Andromeda. This is a similar situation to Elnath (Beta Tauri) which is officially now part of Taurus, but has been shared as Gamma Aurigae with neighbouring Auriga. These constellations are rare as they are still shown on modern star charts as connected via their "shared" star.

A third of the way along the line between the lower stars of the Square, Markab and Algenib, lies an object not visible to the naked eye at all. This is the notable (if unspectacular) Pegasus Dwarf Galaxy, This is an associated galaxy with the nearby M31, the Andromeda Spiral and as such a neighbour of our own Milky Way. It's a rather faint object at +13.2 mag and spread out over a reasonable area of sky, so is only really detectable in long duration photos. Dwarf galaxies are often (though not always) older, more primitive than galaxies such as our own. However, whilst they are not brilliant in the conventional visual sense, dwarf galaxies such as the Pegasus Dwarf are havens for Dark Matter. The Pegasus Dwarf lies 3 million light years away from the Milky Way and is tidally interactive with M31.

Much more easily-observed and better-known is an object on the other side of Pegasus: the great globular cluster, M15. Found 4 degrees north-east of the star Enif (Arabic for "nose"), or Epsilon Pegasi, M15 is a glorious object in any telescope or binoculars and at +6.2 mag can be seen as a naked eye object from a reasonable site. This globular was discovered by Maraldi in September 1746 and catalogued 18 years later by Messier in 1764. Located about 33600 light years away, M15 contains around 100,000 stars. As a well-known object, it has been studied exhaustively and found to contain the first extra-galactic planetary nebula discovered: Pease 1, first identified in 1928. In addition to Pease 1, M15 has a pair of co-orbiting neutron stars, 8 pulsars and two strong X-ray sources. It has been postulated that one of these sources is in fact a Black Hole, to which has been attributed M15's relatively recent core collapse. Globular clusters are both beautiful and intriguing objects and M15 is almost certain to contain more as-yet-undiscovered features.



M15, pictured by the Hubble Space Telescope (showing Pease 1, upper left centre). Image Credit: NASA/ESA, Public Domain.

Back inside the Square of Pegasus lies the lovely NGC7814 - the “Little Sombrero” (so called because it resembles the Sombrero Galaxy, M104, in Virgo). NGC7814 is a Spiral, presented edge-on to our line of sight. This reveals a dark dust lane bisecting a bright core. At +10.6 mag this galaxy isn’t overly bright, but due to its compact nature, is still well-seen in small telescopes. NGC7814 is easily found due to its proximity to Algenib.



NGC7814. Image Credit: Hunter Wilson, Creative Commons.

Another galaxy near to a member of The Square is NGC7479, which lies just under 3 degrees south of Markab. This is one of the most photogenic Barred Spirals in the sky, lying almost face on to us. It was discovered in 1784 by William Herschel and is just slightly fainter than 7814 at +10.9 mag. NGC7479 is a very active galaxy - a so-called Seifert Type, in which enormous amounts of star formation are taking place. The serpentine structure of NGC7479 is beautifully depicted in long-duration photos - it almost seems to be slithering like a Sidewinder through space!



NGC7479, pictured by the Hubble Space Telescope. Image Credit: NASA/ESA, Public Domain.

Further north are a fascinating collection of galaxies: the NGC7331 group and Stephan's Quintet. These two groups of galaxies are separated by just half a degree of sky and can be found north of Matar (Eta Pegasi). Of the two groups, the NGC7331 group are the more conspicuous and their principle member was discovered first - by William Herschel - in 1784. This principle galaxy, NGC7331, was thought to be a very similar size, mass and taxonomy to our own Milky Way: a tightly-barred spiral. However, most up-to-date surveys of the Milky Way suggest that it may only have two massive spiral arms, whereas NGC7331 has more (NGC6744 in Pavo is now seen to be the nearest Milky Way analogue). Behind NGC7331 lie NGCs 7340, 7336, 7335, 7327 and 7338 - some of which can be seen with averted vision in reasonable-size telescopes. NGC7331 at +9.5 mag is by far and away the most prominent of

the group and can be seen in smaller scopes. The whole group is a great target for astrophotography as regular contributor Mark Blundell's picture below clearly shows.



NGC7331 and Stephan's Quintet. Image Credit: Mark Blundell.

The second of these two galaxy groups is the famous Stephan's Quintet. Discovered in 1877 at Marseilles Observatory by Eduoard Stephan, the Quintet consists of NGCs 7317, 7318, 7318A, 7318B, 7319 and 7320 (this is technically a Sextet as 7318A and B are separate galaxial cores). Stephan's Quintet occupies a tiny area of 3.5' x 3.5' of sky and is an area of both enormous destruction, as the component galaxies literally rip each other apart and massive areas of creation where the resulting gas-rich loops of material released by these dynamics leads to starbirth.



The interior of Stephan's Quintet, pictured by the Hubble Space Telescope. Image Credit: NASA/ESA, Public Domain.

Of the components of the Quintet, NGC7320 appears to be an unrelated foreground object - much closer to us at 39 million light years distance as opposed to the 210-350 million light years of the other members.

The last object - or pair of objects - we will cover in Pegasus are UGC 12914 and UGC 12915. These are two spiral galaxies undergoing a collision, much as it is speculated that our own Milky Way and the Andromeda Galaxy, M31 will do in around 2.8 billion years' time. Looking at these two objects interact, we can perhaps gain a taste of what is to come for our own galaxy and its neighbour, in the far future.

UGC 12914 and UGC 12915 are popularly known as the "Taffy Galaxies" - due to their similarity in shape to the popular North American confectionary of the same name. These two galaxies have collided, nearly head on and are now separating again, which is pulling loops of stars and gas out across the distance between them. Galaxy collision often triggers large amounts of stars to be born, as gas and interstellar dust is compressed by interactive tidal forces and collapses to start stellar ignitions. So while galaxy collision may seem catastrophic, the act of collision can also be extremely productive. Evidence of this can be seen in detailed images, produced by professional observatories, such as the truly remarkable example shown below, which was captured by the Gemini North Telescope and processed by members of the National Optical-Infrared Astronomy Research Laboratory. The red areas between the galaxies are huge hydrogen-rich areas of nebulosity, where new stars are being born.

Visually, UGC 12914 and UGC 12915 are not very bright - cumulatively being around 13th magnitude, so perhaps a little more challenging than the brighter members of Stephan's Quintet to observe. But those with larger instruments can take a look at these galaxies, some 180million light years away from us and speculate what lies in store for our own, in the far future.



The "Taffy Galaxies", UGC 12914 and UGC 12915. Image credit: International Gemini Observatory/NOIRLab/NSF/AURA Image Processing: M. Rodriguez (NSF's NOIRLab), T.A. Rector (University of Alaska Anchorage/NSF's NOIRLab), J. Miller (Gemini Observatory/NSF's NOIRLab), M. Zamani (NSF's NOIRLab) & D. de Martin (NSF's NOIRLab) Acknowledgment: PI: A. S. Castelli (Universidad Nacional de la Plata). <https://noirlab.edu/public/images/noirlab2308a/> - Creative Commons.