

SKY GUIDE

Astronomical guide for June 2026

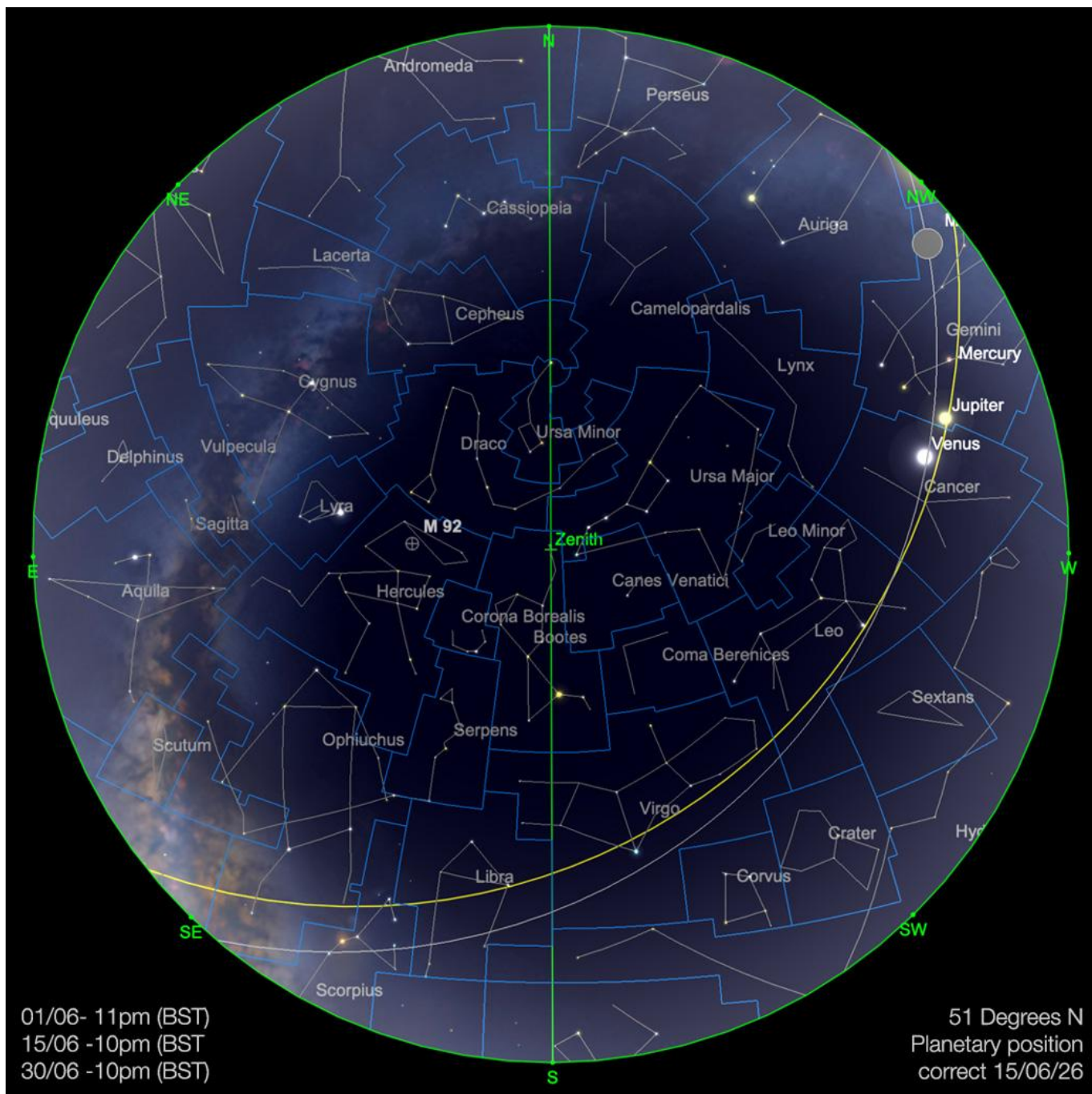
The most up-to-date guide to planetary and lunar activity, comet news and deep space wonders...

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Expand your horizon

Bresser UK June Sky Guide



June is significant for astronomers, particularly in the Northern Hemisphere where it marks the brightest part of the year - the Summer Solstice - which this year falls on June 21st. This event causes the Sun to reach its highest point in the sky, resulting in long days and short nights due to the Earth's 23.5-degree axial tilt. Conversely, this is when the Southern Hemisphere experiences Midwinter.

In Northern latitudes, this period leads to permanent Astronomical Twilight around the Solstice, meaning the sky never fully darkens. For instance, from late May to mid-July 2025, those around 50° north experience this continuous twilight, affecting deep sky observations. The duration of this twilight extends further, the further north you find yourself: Manchester experiences it from mid-May to late July, Edinburgh from early May to early August, and

Reykjavik from early April to early September. North of the Arctic Circle, the Sun does not set around the Solstice, while south of the Antarctic Circle, it does not rise at all. No matter where you find yourself in the world, as ever, there's plenty to see in the sky is above us this month... significant for astronomers, particularly in the Northern Hemisphere where it marks the brightest part of the year, due to the Summer Solstice, which this year falls on June 20th. This event causes the Sun to reach its highest point in the sky, resulting in long days and short nights because of Earth's 23.5-degree axial tilt. Conversely, the Southern Hemisphere experiences Midwinter.

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The Solar System

The Sun

Throughout the past month, the Sun has exhibited low levels of activity, as it enters a period of gradual decline following the recent solar maximum. Data from the National Oceanic and Atmospheric Administration confirms that the solar disk has contained a modest number of sunspot regions, with recent reports indicating approximately five active regions present at any one time. This reduction in the total number of sunspots is consistent with the anticipated downward trend of the current eleven-year solar cycle. Though the last full month's sunspot numbers (April 2026, at time of writing), indicated a 4th successive month where sunspot numbers were significantly down on predicted levels (79 in total, in comparison to 103.5 predicted). So far, 2026 has shown a significant downturn in sunspot numbers as a whole. As we've suggested, this has been anticipated, but while the overall frequency of intense solar events has diminished, the Sun continues to generate enough energy to influence space weather. Forecasters have monitored a persistent, albeit minor, potential for M-class solar flares, though the probability of X-class events remains notably low. This moderate solar environment has resulted in largely quiet geomagnetic conditions, with occasional shifts to active levels when solar wind speeds and magnetic field components align to interact with the Earth's magnetosphere.

Regarding aurora displays, these conditions have provided only periodic opportunities for viewing at lower levels. Notable instances during the past month included a geomagnetic event around 15th/16th May 2026, which offered observers in Northern Europe, the northern United States and parts of Canada the chance to witness the Aurora Borealis. While this was in no way as spectacular as peak events over the past couple of years, it was still visible from the latitudes of the southern parts of England.

Despite the transition away from the solar maximum, significant space weather events remain possible. While the solar cycle is currently on the gentle wane, the potential for sporadic, dynamic displays remains a distinct possibility.



NOAA Sunspot latest chart. Public Domain.

The Moon

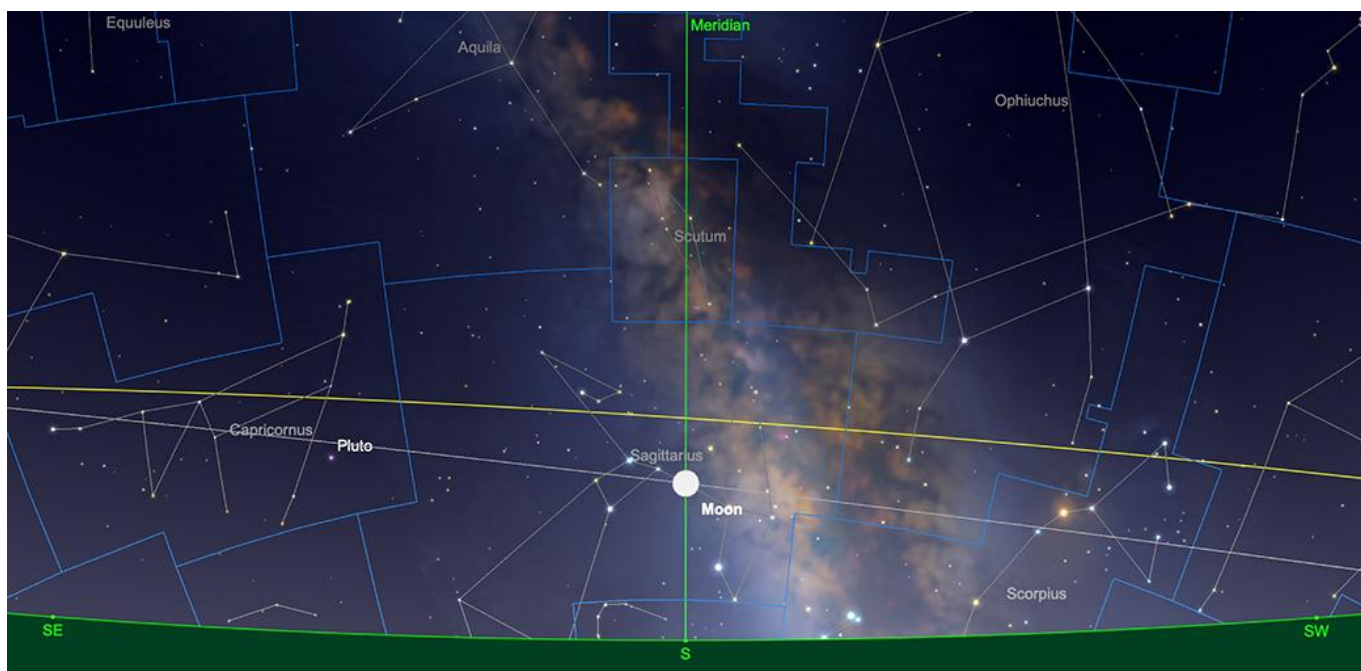
The Moon commences June 2026 in a Waning Gibbous phase, transitioning through the stars of Sagittarius. During the opening days of the month, it rises late in the evening and tracks across the southern reaches of the Ecliptic, moving from the Ophiuchus/Scorpius borders, through Sagittarius into Capricornus.

The Last Quarter phase occurs on 8th June while the Moon is situated in Aquarius. It subsequently wanes further, into a thin crescent as it draws closer to the Sun, traversing through the constellations of Pisces (where it passes Neptune and Saturn on the mornings of the 9th and 10th) and on into Aries.

The New Moon takes place on 15 June, with Moon meeting the Sun as it rides high in the northern ecliptic in Taurus. As this is the closest New Moon to the Summer Solstice in the northern Hemisphere, this will be the most northerly New Moon of the Year.

Re-emerging into the evening sky, the Moon begins its ascent through Gemini. The evenings of 16th and 17th June, sees the Moon passing there prominent Jupiter and Venus. Our natural satellite will be visible as a Waxing Crescent, climbing higher each night as it passes through Gemini and on into Cancer. As it progresses through the third week of the month, the Moon becomes a prominent fixture higher in the evening sky, moving through the stars of Leo and Virgo. The Moon's First Quarter phase arrives on 21st June while the Moon in Virgo. It spends the latter portion of the month traversing the extensive regions of Virgo and on into Libra and Scorpius.

The lunar journey for June concludes with a Full Moon on 30th June, which appears low in the sky amongst the stars of Sagittarius. Just as the year's most northerly New Moon occurred this month, so does its most southerly Full Moon. This will be seen riding high in the sky from the southern hemisphere, but will be very low from the temperate and upper regions of the northern hemisphere.



Full Moon in Sagittarius, 30th June. Image created with SkySafari 6 for Mac OS X, ©2014-2018 Simulation Curriculum Corp., skysafariastronomy.com.

Mercury

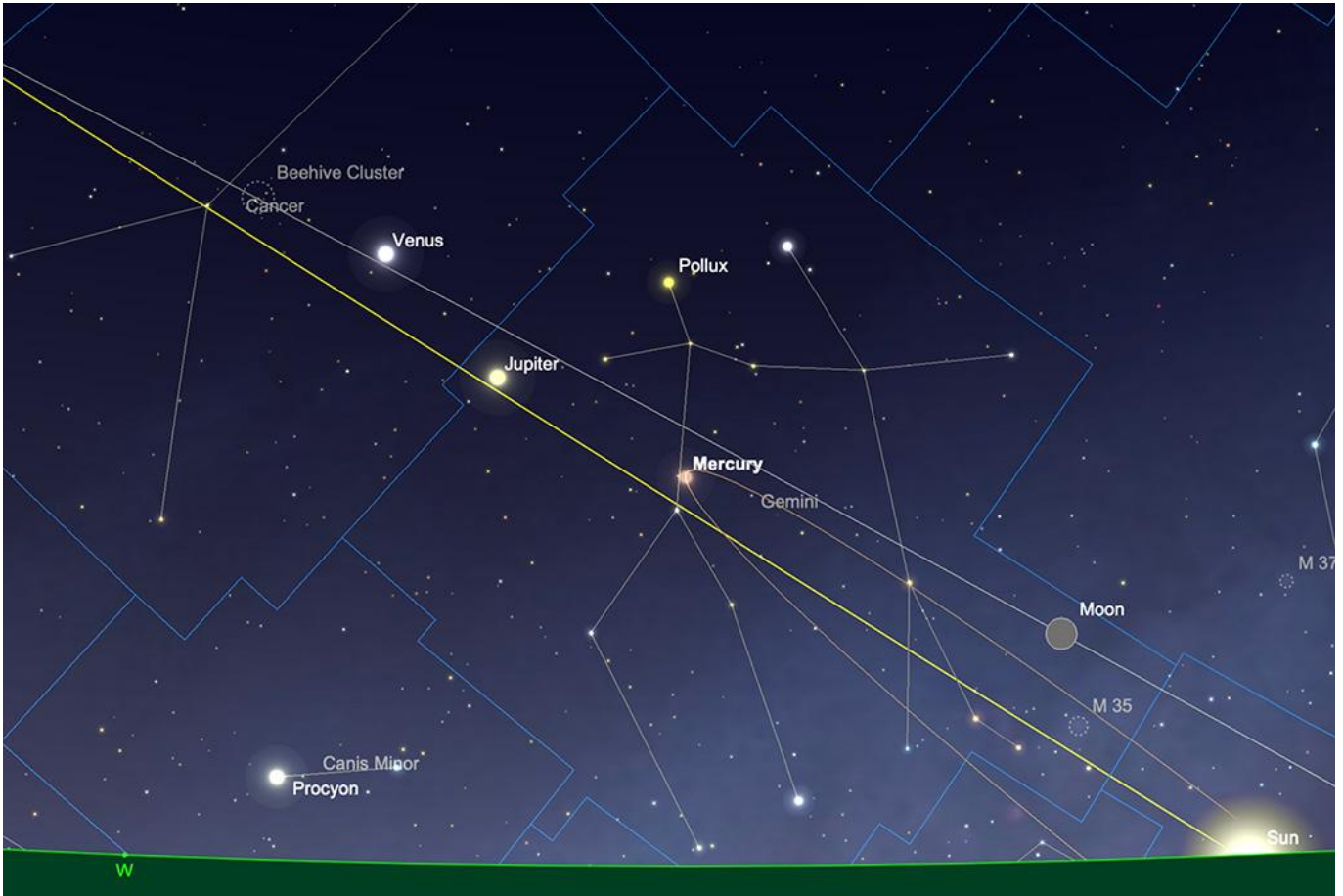
Early June 2026 offers an excellent opportunity to observe Mercury, as the planet reaches its greatest eastern elongation on the 15th. During this apparition, Mercury appears in the western sky shortly after sunset, making it a very worthy target for early evening observers

Because Mercury orbits closer to the Sun than any other planet, it never ventures far from the solar glare. Consequently, the window for observation is brief, occurring only during the twilight period before the planet dips below the horizon. For the best chance of success, observers should begin looking west as soon as the Sun has set, ideally from a location with an unobstructed view of the horizon. The early part of the month, although the planet is found closer to the Sun, is actually when we will find Mercury at its brightest. It is -0.5 magnitude on the evening of the 1st, displaying a 6.2 arc 2nd diameter disc, standing around 13 degrees high at sunset (as observed for 51° N)

Throughout the middle of the month, Mercury shares the western evening sky with two other prominent planets, Venus and Jupiter. This creates a rare planetary gathering that serves as an ideal guide for locating the elusive Mercury. Venus, shining at -4.0 magnitude, acts as a brilliant anchor point, while Jupiter, at -1.8, provides a secondary reference. On 16th June, the Crescent Moon will also pass near Mercury, providing a helpful visual marker, as it sits just under 2 degrees to the north of the planet, as the Sun goes down. At this point Mercury will

be +0.7 magnitude and will have increase its size to 8.4 arc seconds, though its phase has decreased significantly to just over 36%.

As the month progresses, Mercury will fade significantly and drop back towards the Sun. After its peak separation from the Sun on the 15th, the planet will drop rapidly toward the horizon each subsequent evening. While it may be visible to the unaided eye under clear conditions, using binoculars can significantly aid in spotting Mercury against the lingering glow of the sunset. By the beginning of the last week in June, the planet will be much fainter as it transitions toward mid-July's inferior conjunction and will fade from view.



Mercury greatest eastern elongation, 15th June. Image created with SkySafari 6 for Mac OS X, ©2014-2018 Simulation Curriculum Corp., skysafariastronomy.com.

Venus

Throughout June 2026, Venus remains a brilliant fixture in the west-northwestern sky, acting as a beacon that becomes visible shortly after sunset. The planet begins the month a resident of Gemini, tracking steadily eastward and crossing into the constellation of Cancer on the 11th.

Venus' brightness remains exceptionally consistent. In early June, Venus shines at magnitude -4.0, which increases slightly to a peak of -4.1 by mid-month and carries through to the end of

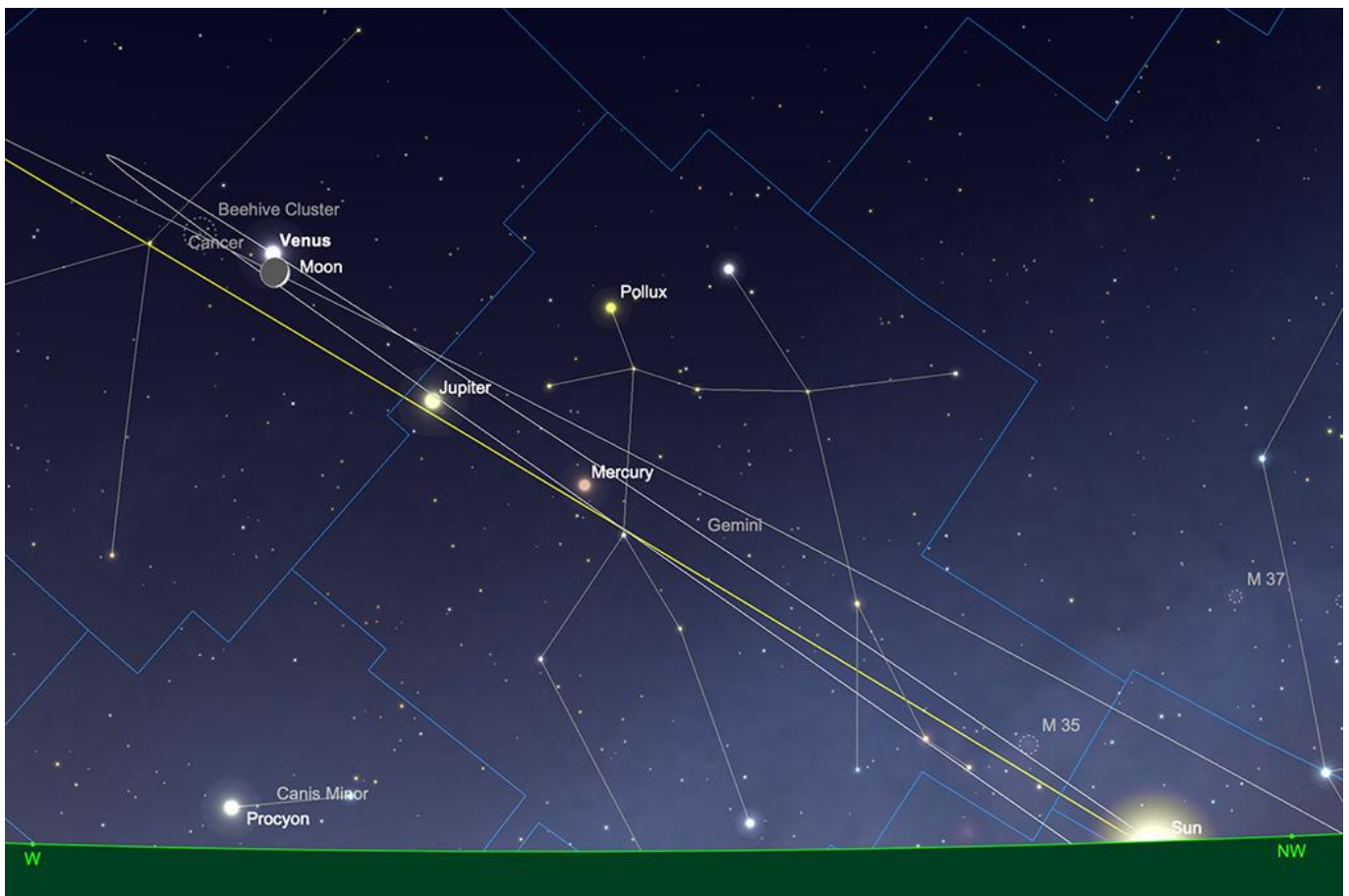
June. The planet's intense luminosity allows it to penetrate the bright twilight, long before any stars appear.

The defining feature of June is a series of close celestial encounters. During the first ten days, Venus draws remarkably close to Jupiter in Gemini, culminating in a spectacular close approach on the evenings of the 8th and 9th, when the two brightest planets sit a mere 1.5 degrees apart.

By mid-month, specifically around 12th June, this pairing expands into a compact alignment as Mercury emerges lower on the horizon, creating a striking planetary trio along the setting ecliptic.

A final solar system close approach highlight occurs on the evening of 17th June, when a slender, waxing crescent Moon hangs just above Venus. This striking pairing offers an ideal opportunity for binocular users to observe the two in close proximity - the separation from each other is under a degree.

In the 29th, Venus crosses over the borders from Cancer into neighbouring Leo and ends the month just under 41 degrees separation from the Sun, sitting at an altitude of 19 degrees above the horizon at sunset (as observed for 51° N).



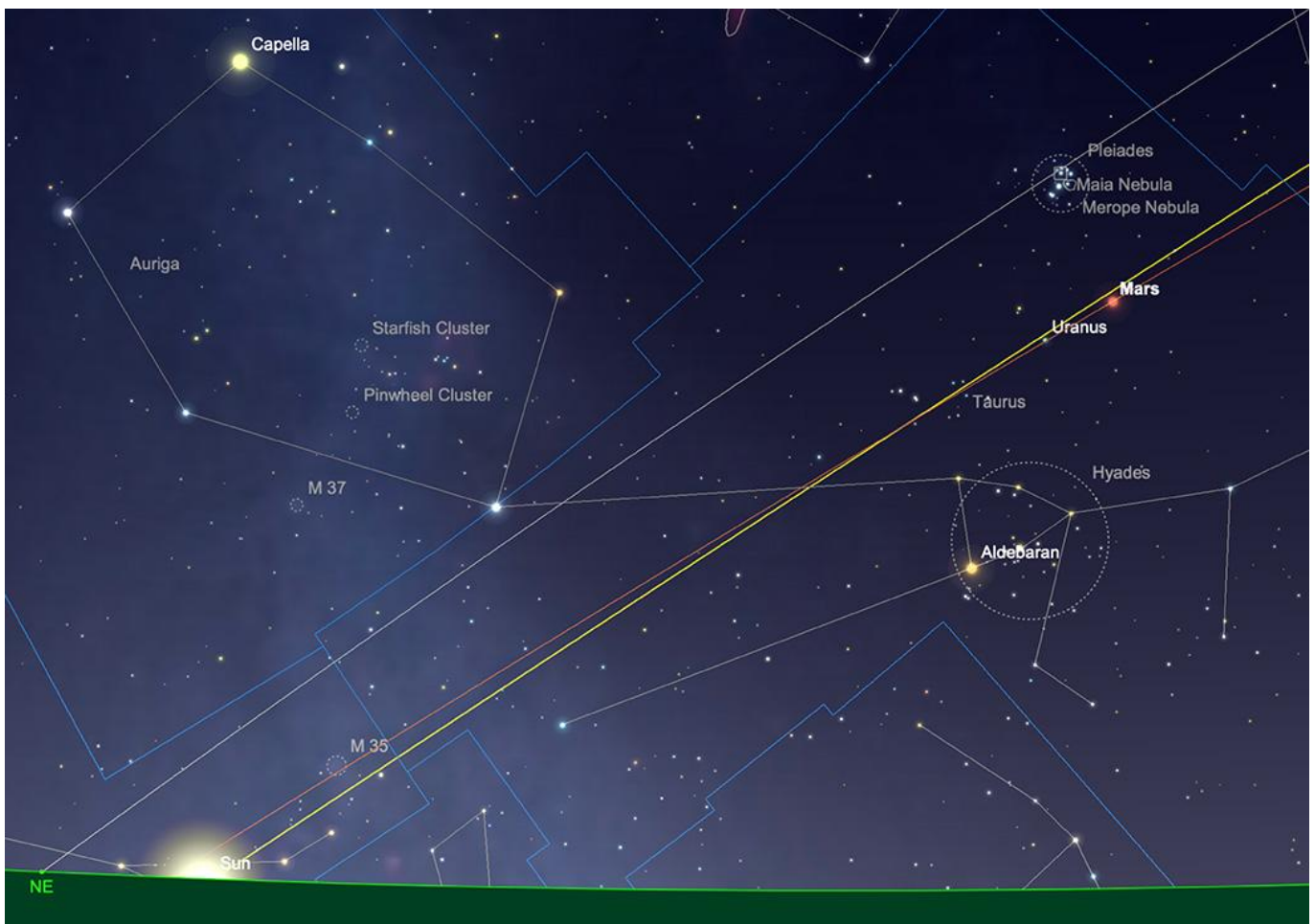
Venus and Crescent Moon, sunset, 17th June. Image created with SkySafari 6 for Mac OS X, ©2014-2018 Simulation Curriculum Corp., skysafariastronomy.com..

Mars

A resident of Aries in early June, Mars is still at a rather lowly +1.3 magnitude and sits just over 11° high at sunrise (as observed from 51° north). As such, the 4.3 arc second diameter disc will not be very high on anybody's observing list at this present time.

By midmonth, not much has changed. Mars remained static at 1.3 mag but sits a little higher in the sky at just under 15° above the horizon.

By the time we get to the end of June, Mars has crossed over the borders into Taurus, but is no brighter. It will now sit just under 20° above the horizon (as observed from 51° north) at sunrise and will sit just a little to the west of the much fainter Uranus. Both planets sit just under Taurus' famous Pleiades Star cluster at the month's end.



Mars at sunrise, 30th June. Image created with SkySafari 6 for Mac OS X, ©2014-2018 Simulation Curriculum Corp., skysafariastronomy.com.

Jupiter

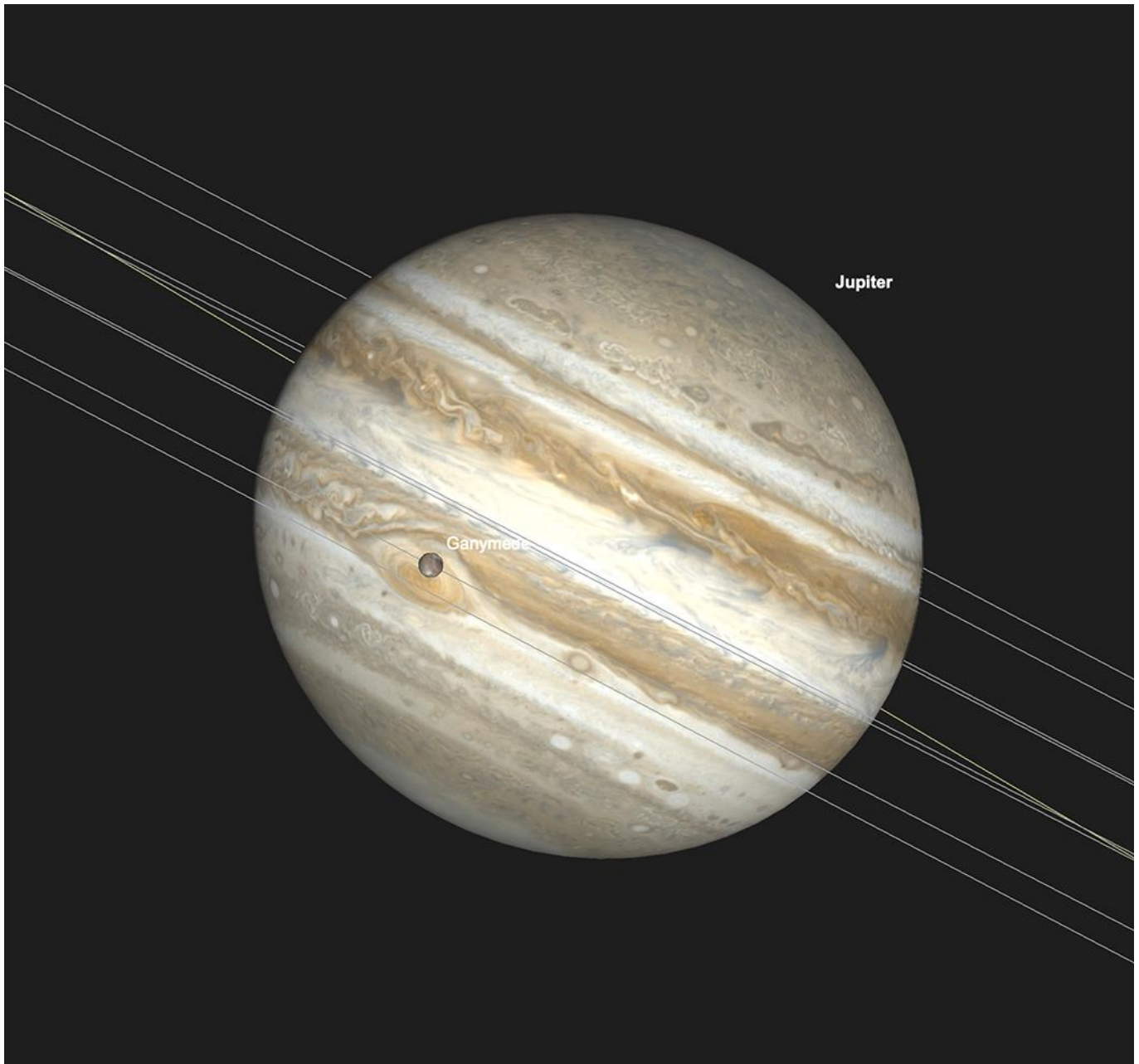
June presents a compelling, yet sadly brief, window for observing Jupiter, as the giant planet begins its final descent into the evening twilight, ahead of its summer conjunction. For the first half of the month, the planet serves as a brilliant point of light low on the west-northwestern horizon, making it an excellent target for observers shortly after sunset. Although the planet is now below the prerequisite minimum altitude of 30 degrees above the horizon, as the Sun sets, it is still worth observing telescopically, though magnifications will have to be tempered somewhat to reflect this.

Jupiter begins the month residing in the constellation of Gemini, positioned just below the prominent twin stars Castor and Pollux. Shining at a very reasonable magnitude of -1.9, the planet is easily bright enough to pierce through the bright summer dusk, significantly before any background stars become visible. This brightness ensures it remains an effortless naked-eye target, even when viewed from light-polluted areas.

The absolute highlight of the month occurs during the opening week, as Jupiter participates in a spectacular close pairing with Venus. As previously mentioned, on the evenings of the 8th and 9th June, these two brightest planets engage in a dramatic conjunction, separated by a mere one and a half degrees, which is roughly equivalent to the width of a little finger held out at arm's length. Looking towards the west as darkness begins to fall, brilliant white Venus will appear first, with the creamier, slightly dimmer Jupiter positioned just below it. This tight configuration provides a magnificent view through standard binoculars, which will easily reveal both worlds within the same field of view.

By mid-month, the observational challenge increases. Around 12th June, the pairing evolves into a compact three-planet alignment, as Mercury emerges lower down, closer to the horizon. Shortly after this, on 16th June, a delicate, thin crescent Moon joins the scene, forming a beautiful celestial triangle with Jupiter and Mercury in the fading twilight.

As the second half of June progresses, Jupiter becomes increasingly difficult to observe. The planet moves from Gemini into Cancer on 22nd June, but by this stage, it is tracking steadily closer to the glare of the Sun. Each subsequent evening finds it lower in the sky at dusk, giving observers less than an hour between sunset and the planet dropping below the horizon. By the end of the month, Jupiter will effectively fade into the solar glare, and although it does not reach Superior Conjunction until late July, this low setting in the sky effectively concludes its time as an observable evening object, before eventually re-emerging as an observable object in the morning sky, later in the autumn.



Jupiter, Great Red Spot and Ganymede mutual transit, sunset, 20th June. Image created with SkySafari 6 for Mac OS X, ©2014-2018 Simulation Curriculum Corp., skysafariastronomy.com.

Saturn

June 2026 offers a reasonable opportunity to observe Saturn, though doing so requires an early morning awakening. Having recently emerged from its annual conjunction behind the Sun, the Ringed Planet is now firmly established as a morning object, gradually increasing its separation from the solar glare each day.

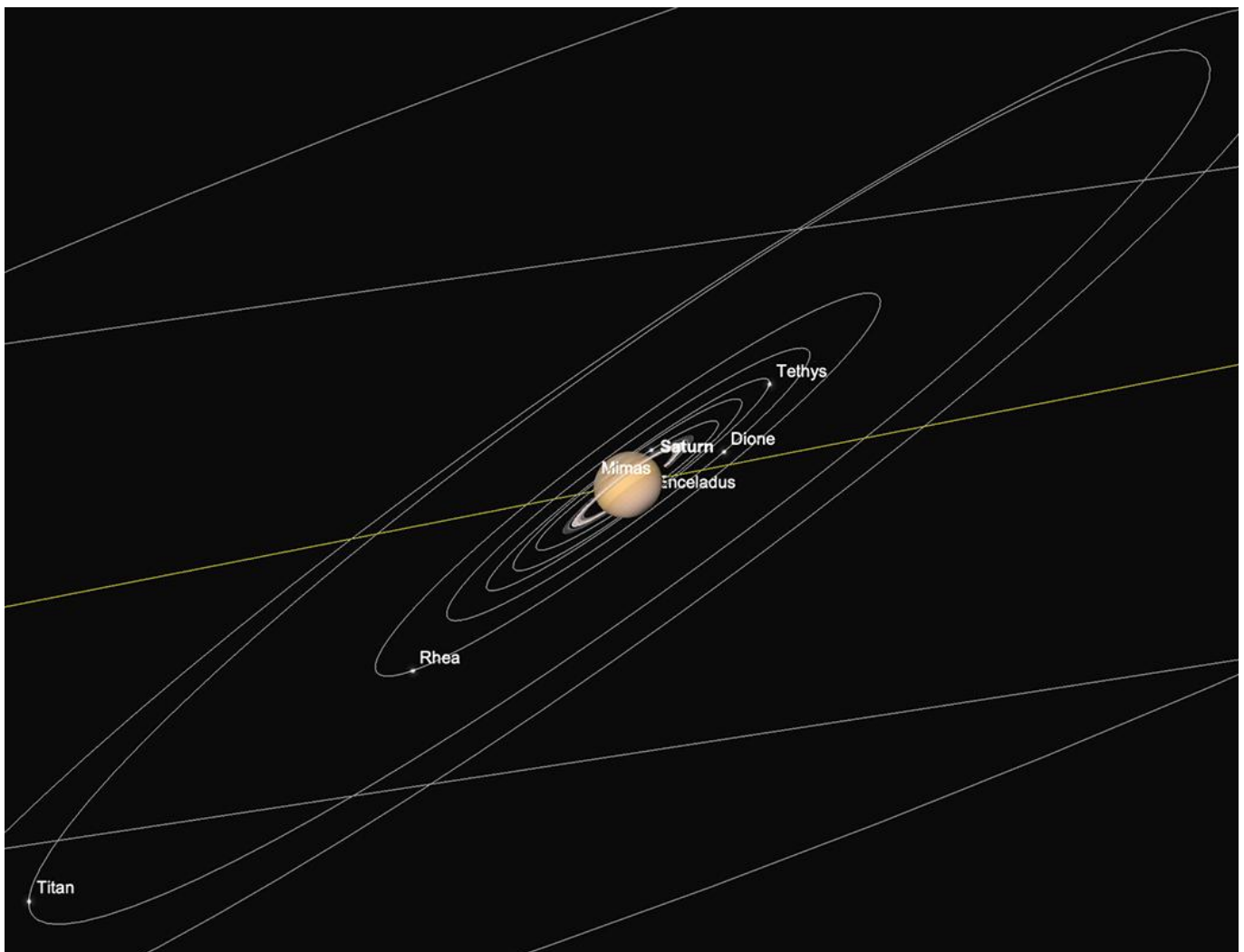
To locate Saturn, observers should look towards the eastern horizon, a little before sunrise. The planet begins the month at the very edge of the non-zodiacal constellation of Cetus, rising at just after 3am (BST), at +0.9 magnitude and will have attained an elevation above the horizon of around 18 degrees (as observed from 51° north), as the Sun comes up. Saturn crosses the celestial border into Pisces on 3rd June, where it will remain for the until it starts

to go retrograde in the run up to October's opposition. Shining steadily, Saturn appears as a yellowish star - which is brighter than any other in this area of sky. While it is not quite as brilliant as Jupiter or Venus, it easily outshines the faint background stars of Pisces, making it simple to identify with the naked eye.

The observational highlight of the month occurs on the morning of 10th June, when a Waning Crescent Moon passes reasonably close to the planet - the two bodies being separated by just under 6 1/2 degrees. Looking east in the predawn sky, the distinct curve of the crescent Moon will sit just above Saturn, making it incredibly simple to identify the planet, even for those unfamiliar with the regular ebb and flow of planetary sky positions.

For those observing Saturn through a telescope, June presents an interesting period in the planet's orbital cycle. The famous ring system, which has been tilted nearly edge-on, from our perspective on Earth over the past year-or-so, is beginning to open up again. By mid-June, the rings are tilted at an angle of roughly nine degrees, allowing observers using moderate magnification to clearly distinguish the ring structure from the disc of the planet itself.

As June progresses, Saturn's visibility steadily improves. As the planet rises approximately four minutes earlier each night, it will rise at around 1.15am (BST) by the end of the month. This gradual shift marks the beginning of its transition into the evening sky, setting the stage for its peak visibility later in the autumn. By the end of the month, the planet will stand over 33 degrees high in the SE at dawn, having brightened very fractionally to +0.8 magnitude.

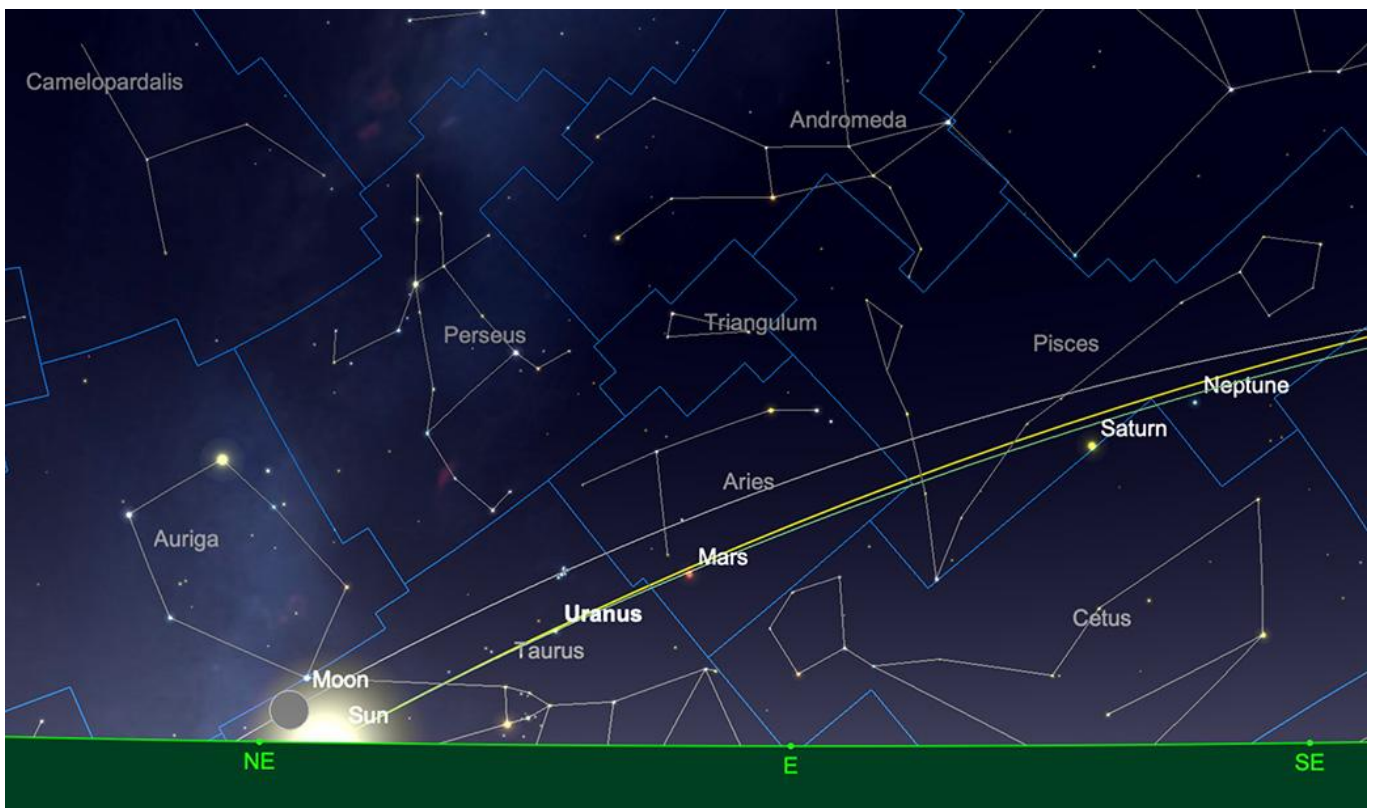


Saturn at sunrise, 15th June. Image created with SkySafari 6 for Mac OS X, ©2014-2018 Simulation Curriculum Corp., skysafariastronomy.com.

Uranus and Neptune

The two outer gas giants are still reasonably poorly placed. Uranus is the most problematic, observationally-speaking, just emerging from Superior Conjunction in late May. It will take another couple of months before the combination of separation from the Sun, reasonable altitude and darker skies make it a truly worthwhile telescopic target again.

Neptune, further west in Pisces is technically a much easier target, though its inherently fainter aspect and lighter skies will still make it tricky in the brightening morning skies. Again, a few months further down the line will see the planet attain a better position in the sky for more meaningful observations.



Uranus and Neptune relative positions, 15th June 2026. Image created with SkySafari 6 for Mac OS X, ©2014-2018 Simulation Curriculum Corp., skysafariastronomy.com.

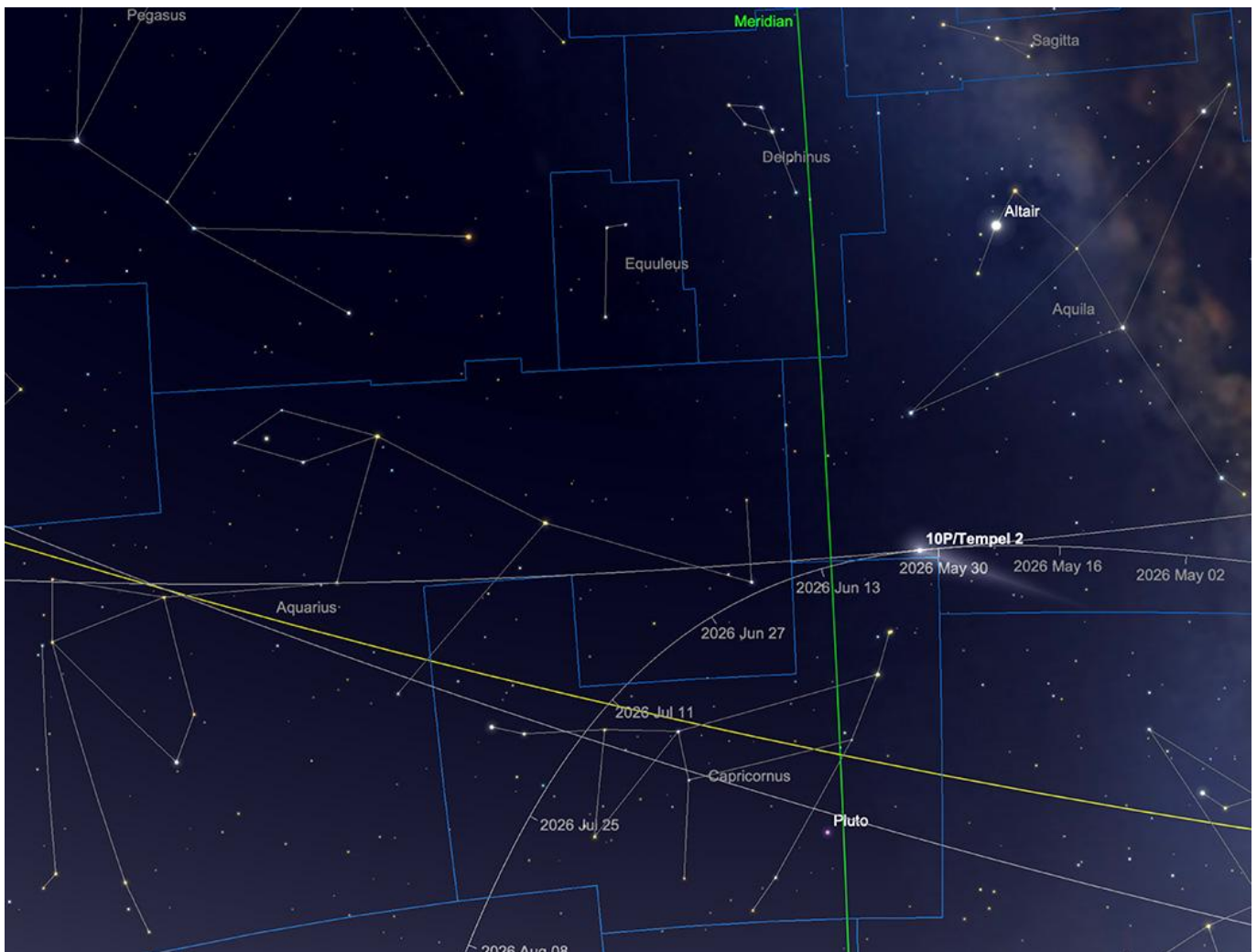
Comets

Comet C/2025 R3 put on quite a display for some during April and early May but although it is increasing its separation from the Sun is now fading rapidly and (as reported in last month's Sky Guide) is really the preserve of those in the southern hemisphere and equatorial regions of the planet. This comet is found in early June in Monoceros and tracks south into Canis

Majoris during June. This means it will have long since set from a temperate and higher northern hemisphere perspective by the time the sky gets dark.

The next comet of potential note is the periodic 10/P Tempel 2. This comet has been around for a while in the inner solar system and has a short orbital period of just over 5 years, going out to just beyond the orbit of Jupiter, before returning to the inner solar system. At perihelion, the comet is around 1.4 AU (1.4x the distance of the Earth to the Sun). This summer is its latest return and the comet has been seen over 30 times since its discovery in 1873 by the German astronomer Ernst Wilhelm Leberecht Tempel. Tempel was a fairly prolific comet and asteroid hunter and shared the discovery of 55P Temple-Tuttle, the comet that seeds the famous Leonid meteor shower.

This return of 10/P Tempel 2 will see the comet reaching a modest +7 magnitude, which should occur in early August. Before then the comet will track through Aquila, where it is to be found at the start of the month, on into Capricornus and Aquarius, then back into Capricornus again, before it heads south. The comet will remain the preserve of binoculars and telescopes throughout its current apparition.



Comet Tempel 2, showing its path through June 2026 (comet position shown 1st June). Image created with SkySafari 6 for Mac OS X, ©2014-2018 Simulation Curriculum Corp., skysafariastronomy.com.

Meteors

June is traditionally seen as being a quiet time for meteors, but actually features two major daylight meteor showers that peak in the direction of the Sun. The Arietids reach maximum activity around 10th June 2026, producing 60-200 radar-detected meteors per hour, from a radiant in the constellation of Aries. This puts the shower at the same level of potential intensity as the Perseid and Geminid showers of August and December respectively. However, as the radiant approaches Earth from the direction of the Sun, very few of this shower are ever seen by the human eye.

This shower could be seeded by asteroid 1566 Icarus, although the orbit also matches that of periodic comet 96P/Macholz. The Beta Taurids, originating from Comet Encke, follow with a peak on 28th June in Taurus. Because both streams cross the sky during the day, they are primarily studied via radio equipment. Visual observers can only spot them by looking toward the eastern horizon during the brief hour of darkness just before dawn.

Noctilucent Clouds

Noctilucent Clouds are often seen in June - their bright gossamer/web-like structures can normally be seen low on the northerly horizon, between latitudes of 50-65 degrees, when the Sun is between 6 and 16 degrees below the horizon. These clouds are mysterious - there were no recorded sightings of them before 1885. Some researchers believe they are formed as a result of volcanism, human-induced atmospheric pollution, or even the condensation of water vapour along the trails of meteors. Interestingly, a significant link between the power of the Northern Polar Stratospheric Vortex and the production of NLCs in the Southern Polar Mesosphere (the atmospheric layer above the Stratosphere) has been found by analysis of ground based data and that gleaned from NASA climate satellites. It would appear that when the Northern Polar Vortex is particularly strong, this negatively affects the production of NLCs over the Southern pole over 12,000 miles away. These interconnections are a sure sign of how little we truly understand the mechanics of the atmosphere of our home planet and how much is still potentially to be uncovered.

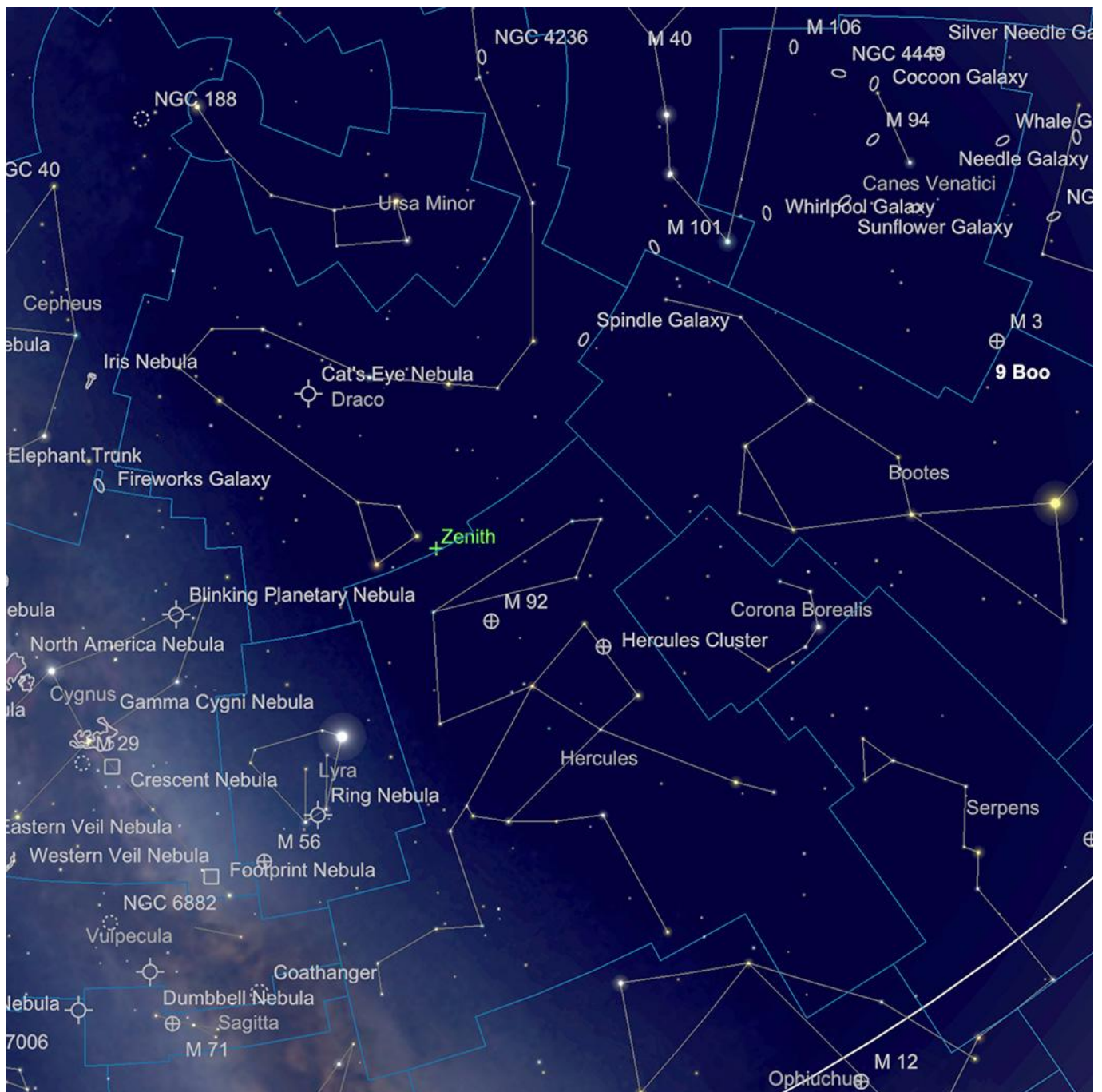
Whatever their origins, now is the best time to see NLCs from Northern latitudes. Interestingly, whilst Noctilucent Clouds have been observed in the Southern Hemisphere, their incidence appears much fewer than their Northern Hemispherical counterparts.



A spectacular NLC display as shown above was captured by Bresser's Anke Morbitzer. Image used with kind permission.

Deep Sky Delights in Draco and Hercules

June is not the best time for observing really challenging Deep Sky objects from the Upper Northern Hemisphere, due to the Summer Solstice and the lack of true astronomical darkness, but there's still plenty to see, even if the sky is not at its darkest. Those readers in the Southern Hemisphere will have to forgive this rather Northerly-biased guide this month - rest assured, there's plenty of Southerly objects coming in July's guide!

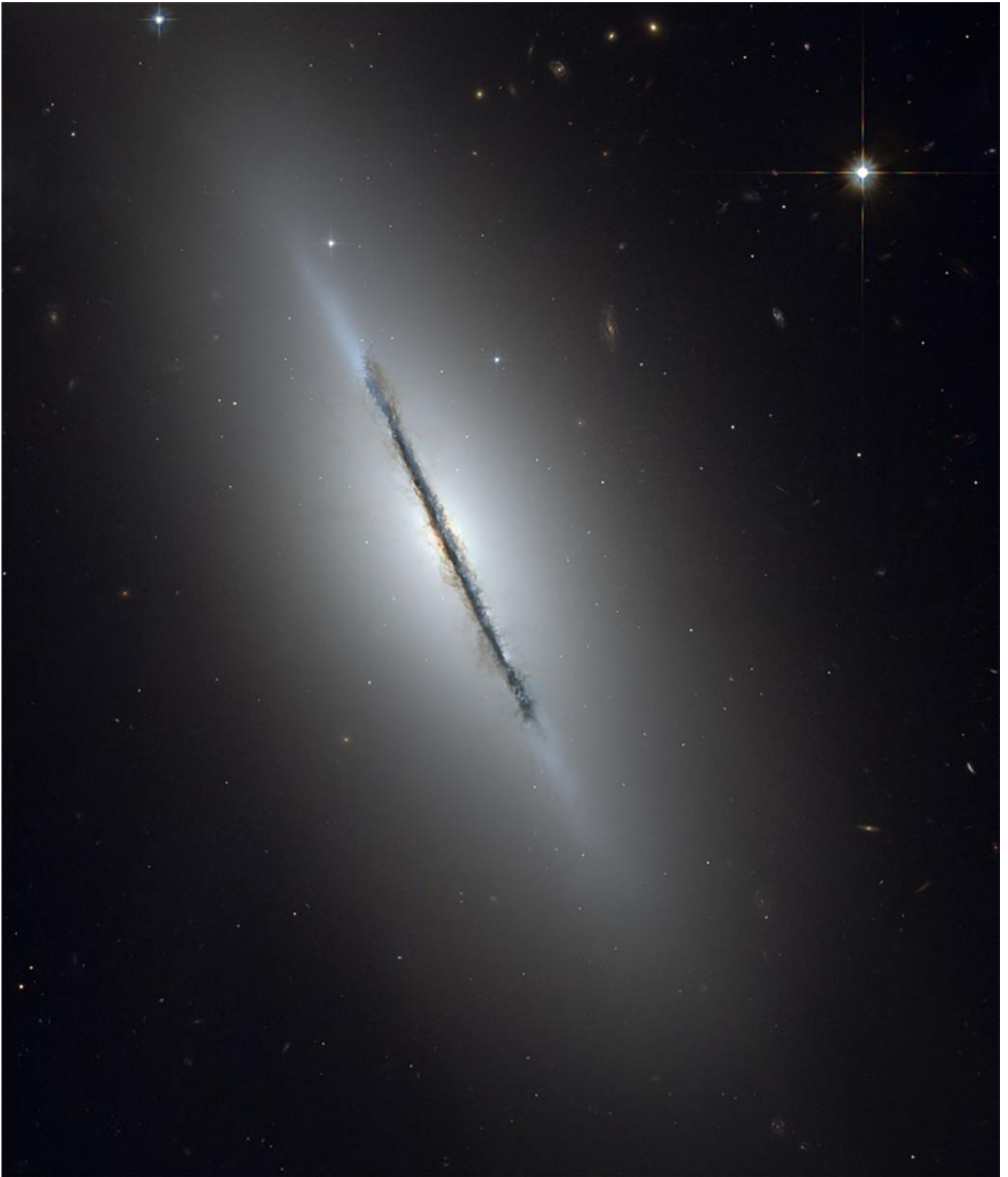


Draco and Hercules. Image created with SkySafari 6 for Mac OS X, ©2014-2018 Simulation Curriculum Corp., skysafariastronomy.com.

We start almost as Northerly as one can get in the heavens, in Draco, the constellation of the Dragon, which winds its serpentine way around its polar neighbour, Ursa Minor. As many readers will no doubt be aware, the Pole Star of both hemispheres shifts due to the precessionary wobble of our Earth's axis. Whereas Polaris is now the closest visible star to the Northern Celestial Pole, in times past - around 6000-4100 years ago, Thuban, Alpha Draconis was. Thuban is one of those seemingly disappointing Alpha-classed stars, as it is clearly fainter than others within Draco. It's possible that the fact that it was a Pole star is the reason it was treated with such reverence - it may be possible it was once brighter, though this in itself is less likely.

Despite being a large constellation, Draco has few Deep Sky highlights, in comparison to those that seemingly litter the constellations surrounding it. But those that it does have are interesting ones and well worth seeking out. The first of these is M102 or NGC5866, otherwise known as the Spindle Galaxy. The popular name is somewhat misleading as there are two other popularly-named "Spindle" galaxies, one in neighbouring Ursa Major and another in Sextans - though it definitely appears spindle-like in telescopes. M102 is an edge-on spiral galaxy, of +9.9 mag brightness and occupying an area of 6.5 x 3.1 arc minutes. Although it may not seem especially bright, its condensed nature means it can be found in relatively small telescopes and is excellently-seen in medium and large instruments, which can resolve the dark lane bisecting its core with ease. In this respect, M102 is very similar to NGC891 in Andromeda and NGC4565 in Coma Berenices.

M102 is one of the latter controversial Messier objects and its discoverer, Pierre Mechain later rather dismissively recanted its classification, claiming that the object in question was a mistaken duplication of the nearby M101. However, if we examine Mechain's original notes and the exact position of M102 as described by Messier himself, then it is clear M101 cannot match the reported object in question. Messier expert and Harvard Emeritus Professor of Astronomy Owen Gingerich put forward NGC5866 as a worthy "best fit" candidate for M102 after extensive study of Messier's original notes and the correspondence with Mechain. Thus, we now have a M102 to seek out and study ourselves. M102 lies around 40 million light years away from our galaxy.



M102, HST image (NASA/ESA). Public Domain.

Tracing a line NE from M102, through the stars Edasich (Iota Draconis), Eta Draconis and Aldhibah (Zeta Draconis), we come to a lovely planetary nebula, NGC6543, otherwise known as the Cat's Eye Nebula. This object is +8.1 mag in brightness and very compact - some 0.4 x 0.3 arc minutes diameter. As such it is relatively easy, even in small telescopes - though larger scopes will be needed to show its intricate internal structure.

The Cat's Eye is a greeny-blue in hue, a colour which is quite prominent even in smaller instruments. It's often remarked that The Cat's Eye looks a little like the Outer Gas Giants, Uranus or Neptune. What really marks NGC6543 as definitively *not* planetary is its central star. This star is +11 mag and can be somewhat difficult to spot, due to the condensed and bright nature of the surrounding nebula. Telescopic observation of the central star with averted vision reveals this nebula to be one of the so-called "blinking" planetaries - when moving one's vision from one part of the field to another, the nebula appears to blink on and off - disappearing from view.

Higher magnifications with larger telescopes reveal the internal looped structure of the inner part of the nebula. Observations by the Hubble Space Telescope have revealed much more than ground-based telescopes ever can: NGC6543 has several concentric shells of gas (see image above), which suggest a series of layers have lived off the surface of the central star, which in turn have been whipped into two 180 degree spaced jets, which give the nebula its somewhat oval shape. It is theorised that these jets are actually a sign of an unseen secondary companion and represent the poles of its rotation. This cannot be confirmed as yet, but the Cat's Nebula gives astronomers the one of the best opportunities to study the dying phases of a star like our Sun. NGC6543 lies around 3000 light years away from us and as such is one of our closest planetary nebulae - and also one of the youngest: observations suggest that it has been undergoing expansion and formation over the past 1000 years.



The Cat's Eye Nebula, Hubble Space Telescope image, ESA/NASA. Public Domain.

Moving South - by just over 24 degrees - through Rastaban, Beta Draconis, one of the four stars which represent Draco's head, across the border into Hercules, we come to one of the finest Globular Clusters in the sky, M92.

Discovered in 1777 by Bode, Messier was to independently discover it and add it to his catalogue in 1781. While it is somewhat overlooked in favour of the more illustrious M13 (more of which later), M92 is a spectacular object in its own right and can be found in binoculars and small telescopes easily. Under very dark conditions, it can actually be seen which the naked eye - at +6.44 mag it is just within theoretical naked eye visibility, though this must surely only be possible with averted vision. It is well condensed as a target, being

around 2 arc seconds in diameter, which helps keep its surface brightness up. Binoculars of modest power will resolve the grainy texture of this globular extremely well - indeed, it is one of the best deep sky objects of its type for observation in binoculars. If the binocular view of M92 is excellent, then telescopically, M92 is spectacular. Small telescopes will resolve the cluster into individual stars relatively easily, whereas larger scopes will really do it justice.

Lying around 26,000 light years distance, M92 has a curious "part time" job - every 26,000 years, it becomes the marker for the Northern Celestial Pole. Our Earth's precession, causing the polar shift, next brings the pole to within a degree of M92 in 16,000 CE.



M92 by Mark Blundell. Image used with kind permission.

Those with larger telescopes may wish to try their luck with a much further globular cluster, NGC6229. This cluster is much fainter than its neighbour and is to be found just under 7 degrees to the NW of M92. This would be a similarly awesome sight as its neighbours, were it not for its distance - which is reckoned to be around 100,000 light years. NGC6229 was discovered by Sir William Herschel in 1787 and was initially thought to be a planetary nebula. 19th century observations proved it to be broader in spectral signature and thus a collection of stars. It will take a reasonably large scope to resolve NGC6229 into individual stars, but this will be a comparatively simpler task when imaging the object.



NGC6229 relative position in Hercules. Image created with SkySafari 6 for Mac OS X, ©2014-2018 Simulation Curriculum Corp., skysafariastromy.com.

Whereas NGC6229 is really the preserve of larger instruments or imagers, the next object on our list for observing is quite simply for everyone - quite simply the finest globular cluster in the Northern Hemisphere, the wonderful M13.

M13 is within naked eye reach at +5.78 mag and was first noted by Sir Edmund Halley in 1714 as "a nebula [which] shows itself to the naked eye when the sky is serene and the Moon

absent". Messier himself logged it in his catalogue in 1764 and Sir William Herschel wrote of M13 "[it is] a most beautiful cluster of stars, exceedingly compressed in the middle and very rich."

M13's popularity is not solely down to its beauty - it's also exceptionally easy to locate, lying as it does in the "Keystone" of Hercules. This central asterism of four stars, Zeta, Eta, Epsilon and Pi Herculis mark the Keystone, which represents the head of the Demigod. M13 can be found 2 1/2 degrees to the South of Eta, following the Western side of the Keystone down to Zeta. Once found, M13 will never be forgotten, as it is a marvellous object in both binoculars and any type of telescope. Larger instruments will be able to resolve M13 easily into individual stars and give an observer the chance to spot the "Propellor" feature. The Propellor is more easily seen in long duration photos and is common to a few globular clusters. It is an area on the cluster in which a simple line of sight effect emphasises a lower density concentration of stars. Human nature and cognition being what it is, this area is generally agreed to look like a three-bladed aircraft propellor, slightly silhouetted amongst the background stars.

The stars of M13 are very old, predominantly red stars, which have, in all probability, been gravitationally bound since just after the formation of the Milky Way itself. Globular clusters in general are very metal poor, being so ancient - and the Iron content of the cluster on average is just 5% that of our Sun. Our own Solar System, being barely more than a third of the age of M13 has benefitted immensely from the recycling of metals manufactured in the death throes of previous stars. Our own Earth's core being part of this process, along with a very large amount of Iron that goes into our own physical makeup. Any possible lifeforms which have evolved on planets around stars in clusters like M13 may well not have had access to metals in such abundance as life on our planet does, which would have required different biological strategies and processes to that which fuels a large amount of complex life on Earth. These potential inhabitants of M13 would have an amazing night time sky though, as the heavens would be littered with hundreds (if not thousands) of stars brighter than the 1st magnitude - quite a view!

At around 125 light years across, M13 is not the largest of our galaxy's Globular clusters (this prize must surely go to Omega Centauri), but nonetheless a very healthy size. It is so prominent from our neck of the cosmic woods simply because it is relatively close, at around 25,000 light years away. However, this is still not quite as nearby as Omega Centauri, which lies around 10,000 light years closer and the two closest Globulars, M4 in Scorpius and NGC6397 in Ara, both of which are found around 7,200 light years from us.

If you're a seasoned observer, the arrival of M13 overhead in the Summer evening sky is a welcome return of an old friend. If you're a beginner, this wonderful cluster awaits your discovery - it'll be an object you come back to time and time again, as it never disappoints.



M13 taken by Mark Blundell. Image used with kind permission.

The last of the objects on our wander around this area of sky is another Planetary nebula - NGC6210.

At +8.8 mag and 0.3 x 0.2 arc minutes diameter, this nebula is similar in brightness and dimension to the Cat's Eye Nebula in Draco, though is somewhat less well-known. This is a pity, as it's not a difficult object to pick up in small telescopes and rewards high magnification. This nebula can be found 4 degrees to the NW of Kornephoros, Beta Herculis, which at +2.77 mag is the brightest star in Hercules. NGC6210 has, like the Cat's Eye, high surface brightness, due to its compact nature and this manifests itself in a beautiful blue coloration. Like most planetary nebulae, this target is complimented greatly by observing it through an OIII filter, as the ionised Oxygen in its outer layers is easy to isolate and our mammalian eyes are most sensitive to greens and blues at low light levels. The nebula shows itself to be a distorted oval shape, though larger telescopes of the 10-inch + class may well be able to distinguish a larger faintly glowing outer halo of gas, if conditions are favourable. Like the Cat's Eye, NGC6210 has quite a complicated internal structure, which the Hubble Space Telescope's picture below aptly illustrates.

NGC6210 was first discovered by the German-Danish Astronomer Friedrich Georg Wilhelm von Struve in 1825, while working at the observatory at the Imperial University of Dorpat in Russia. Struve is best known for his immense work cataloguing double stars, many of which are still popularly referred to by their Struve classification. Mysteriously, despite this area of sky being surveyed by Mechain, Messier, both William and John Herschel and numerous other experienced observers, it was Struve who first noted this relatively easy-to-spot planetary. Although a challenge due to its diminutive size, NGC6210 is not a difficult target for anyone with a telescope - so why not have a go yourself?



NGC6210 - Hubble Space Telescope Image (NASA/ESA). Public Domain.