

Chagrin Valley Astronomical Society

Sky Report March 2026 – by Laz Ilyes

Note: Be aware, in NE Ohio, the start of **Daylight Time will be Sunday, March 8, 2026** (clocks move 2am to 3am). At that time, we will be on EDT which is equivalent to UTC -4.

Comets and Meteor Showers

Here is some interesting news! A new “**sungrazing**” comet designated **C/2026 A1 MAPS** could put on a fine show in **April 2026**, but it will first have to survive a blazing close passage near the **Sun**. **Comets** are, at best, very unpredictable so we’ll have to keep our fingers crossed. The new sungrazer comet was discovered on the night of **January 13th, 2026** by four astronomers at the **AMACS1 Observatory** in **San Pedro de Atacama, Chile**, and given the tentative designation of **6AC4721**. It soon received a formal name as the first comet of **2026, C/2026 A1 MAPS**. **C/2026 A1 MAPS** could put on a memorable if brief show in early **April**, if it doesn’t join the long list of comets that failed to live up to expectations.

Not only was **C/2026 A1 MAPS** soon confirmed to be a large **Kreutz sungrazer**, but it became the earliest-discovered inbound **Kreutz comet** ever, found **11.5 weeks prior to perihelion**. **Kreutz comets** (or **Kreutz sungrazers**) are members of a rare group of **comets** characterized by very peculiar orbits that bring them incredibly close to the **Sun's** surface. They are believed to be fragments of a single, giant “parent” **comet** that broke up centuries earlier.

During this month, **Comet C/2026 A1 (MAPS)** is projected to reach between **magnitude +13 to +10**. It can be observed later in the month, low in the western evening sky before it approaches the **Sun**. It may become a naked-eye object by **early April** if it survives its close, toasty approach. For an up-to-date ephemeris, refer to <https://cobs.si/comet/2688/>

In the month of **March 2026, Comet 24P/Schaumasse** will be moving away from both the **Sun** and the **Earth**. It is expected to have a magnitude of **~+8.5** at the beginning of the month and diminish in brightness to around magnitude **~+10** as we enter **April**. The **comet** will appear to hang relatively stationary in the constellation **Serpens** throughout the month, relatively near the alpha star **Unukalhai**. The **comet** may still retain its tail but it will be very dim. For up-to-date ephemeris, please refer to the **Comet Observation Database** at the following link: <https://cobs.si/comet/56/>

Comet 3I/ATLAS will be too distant for practical viewing by amateurs, at a distance of more than 4 AU by **March 1st**. However, due to the interesting scientific nature of this interstellar visitor, scientists will continue to monitor the comet using the best observational equipment available on Earth and in space until at least early spring **2026**.

This **March 2026**, observers in the Northern Hemisphere can continue to look for **C/2024 E1 (Wierchoś)**, but it will have dimmed to mag +10.5 early in the month. You’ll recall from last month’s Sky Report, **C/2024 E1 (Wierchoś)** is a **hyperbolic comet** discovered in **March 2024** by **Kacper Wierchoś**,

reaching its closest point to the **Sun** (perihelion) on **January 20, 2026**. The **comet** has a unique hyperbolic orbit likely ejecting it from the **Solar System**. The **comet** will begin the month in the constellation **Eridanus** and end in **Orion** by **April**. For an up-to-date ephemeris of this **comet**, please refer to the following link: <https://www.cobs.si/comet/2513/> and for a star atlas showing its position in the night sky, follow this link: TheSkyLive.com

Comet 88P/Howell will make its closest approach to the **Sun** on **March 18**, at a distance of **1.36 AU** with apparent **magnitude +9**. From **NE Ohio**, it will not be observable at this time reaching its highest point in the sky during daytime and will be only **1° above the horizon at dawn**. Best viewed from the Southern hemisphere, during the remainder of this comet's current visit to the inner solar system, it will unfortunately never exceed an altitude of **7°** in our NE Ohio skies. **88P/Howell** is a **periodic comet** with a **5.5-year** orbital period. It was discovered on **August 29, 1981**, by **Ellen Howell**. For an up-to-date ephemeris, please refer to <https://cobs.si/comet/74/>

Do not expect to see any **meteor showers** in the month of **March**. Unfortunately, the next **major meteor shower** in **2026** is the **Lyrid shower** which will not peak until **April 22, 2026**.

Moon



March 2026						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Waxing gibbous 96.3% 12 days 	2 Waxing gibbous 99.3% 13 days	3 Full Moon 6:39 A.M. 14 days  Total Lunar Eclipse	4 Waning gibbous 98.3% 15 days	5 Waning gibbous 94.6% 16 days	6 Waning gibbous 89.2% 17 days 	7 Waning gibbous 82.4% 18 days
8 Waning gibbous 74.8% 19 days	9 Waning gibbous 66.2% 20 days 	10 Waning gibbous 57.0% 21 days	11 Last Quarter 5:41 A.M. 22 days 	12 Waning crescent 38.2% 23 days	13 Waning crescent 29.1% 24 days	14 Waning crescent 20.5% 25 days 
15 Waning crescent 13.0% 26 days	16 Waning crescent 6.8% 27 days	17 Waning crescent 2.4% 28 days	18 New Moon 9:26 P.M. 0 days 	19 Waxing crescent 0.5% 1 day	20 Waxing crescent 3.4% 2 days	21 Waxing crescent 8.9% 3 days 
22 Waxing crescent 16.7% 4 days	23 Waxing crescent 26.3% 5 days 	24 Waxing crescent 37.0% 6 days	25 First Quarter 3:19 P.M. 7 days 	26 Waxing gibbous 59.6% 8 days	27 Waxing gibbous 70.3% 9 days 	28 Waxing gibbous 79.8% 10 days
29 Waxing gibbous 87.7% 11 days	30 Waxing gibbous 93.8% 12 days 	31 Waxing gibbous 97.9% 13 days				

Moon Visualization:

[Almanac.com/Astronomy](https://www.almanac.com/astronomy)

[Daily Moon Guide | Observe – Moon: NASA Science](#)

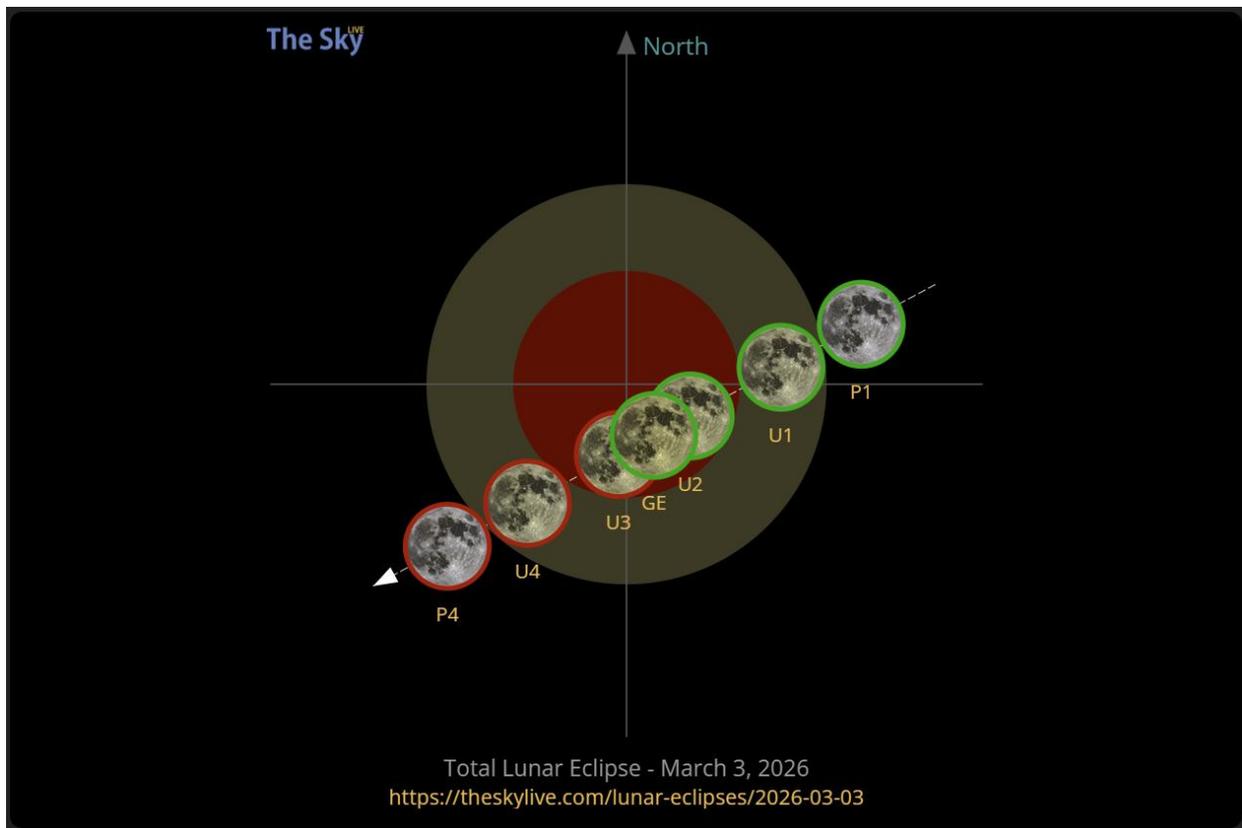
[Moon Atlas](#)

Occultations and Conjunctions:

The most significant **lunar event** in the month of **March 2026** will be a **total lunar eclipse**, occurring on **March 3, 2026**. This will be the last total lunar eclipse visible from the northern hemisphere until 2028. Unfortunately, the entire event from beginning to end will not be visible to observers in **NE Ohio**, but those with a good view of the low western horizon will see the **lunar eclipse reach totality**.

The **eclipse will begin with first penumbral contact (P1)** at **03:44 EST** on **March 3, 2026**. At this time, the moon will be at an **altitude of approximately 35°**. Subsequently, the **partial lunar eclipse (U1)** will **begin at 04:49 EST** at which time the **Moon** will be at an **altitude of about 23°**. Finally, the **total lunar eclipse (U2)** will **begin at 06:03 EST** at a **very low altitude of 9.6°** above the **western horizon**. And while **totality** should last for just under **one hour (GE – U3)**, we will not be able to see it because the **Moon** will set for us before then.

After this, the **next total lunar eclipse** will not occur until **December 31, 2028**.



The Total Lunar Eclipse of March 3, 2026 from NE Ohio – by [TheSkyLive.com](https://theskylive.com)

There will be no **lunar occultation** of any planet or bright, principal star visible from NE Ohio this month. However, as usual, there will be a number of **close approaches**.

On the evening of **Sunday, March 23, 2026**, there will be a close approach of the **Moon** and **M45 (The Pleiades Star Cluster)**. In **NE Ohio**, the pair will become visible at around **21:23 (EDT)**, **46°** above our

western horizon, as dusk fades to darkness. They will then sink towards the horizon, setting soon after **midnight**.

During the nights **Wed-Thu, March 25-26, 2026**, there will be a **close approach** of the **Moon** and **Jupiter** coming within less than **4°** of one another. In **NE Ohio**, the pair will be visible in the evening sky, becoming visible around **21:01 (EDT)**, **71°** above the **southern horizon**, as **dusk fades to darkness**. They will then reach their highest point in the sky at **21:14 EDT**, reaching an altitude of **71°** and continue to be observable until around **3am**, when they sink low in the northwestern sky. If the sky is clear, this will be an excellent opportunity to view either (or both) of these celestial bodies. They are both so bright, that they can both be observed without significant interference from the other.

On the evening, on **Friday, March 27, 2026**, there will be a close approach of the **Moon** and **M44 (The Beehive Star Cluster)** passing within **1.5°** of each other. In **NE Ohio**, the pair will become visible in the evening sky after sunset at an altitude of **64°** and reach meridian about an hour later (**68° above the southern horizon**). The pair will continue to be observable until around **3am**, when they sink low in the western horizon

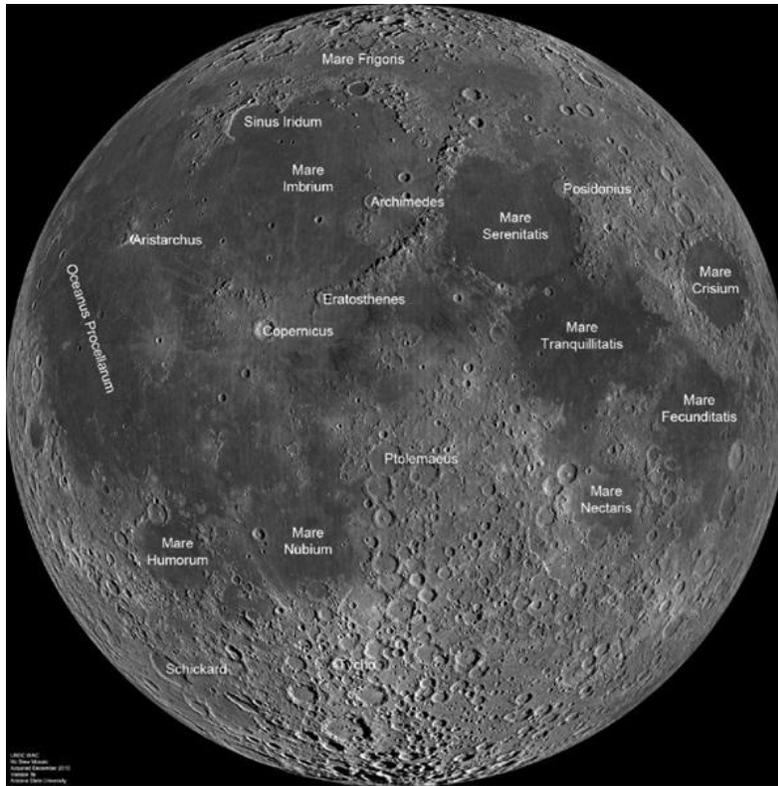
Lunar Features:

In a continuing effort to acquaint ourselves with our only natural satellite, we again consider some of the more interesting lunar features. You can look these up by name and explore the surrounding terrain using the **Moon** atlas compiled from the images taken by **NASA's Lunar Reconnaissance Orbiter Camera (LROC)** at the link: [Moon Atlas](#)

In this issue, we look at **Moon's Ocean** and its **Seas**. Despite the lack of water on the **Moon**, these features are so-named because early astronomers, including **Galileo**, mistook the dark, smooth basaltic plains for actual oceans when observing with early telescopes. These expansive, low-lying regions are actually ancient, solidified lava flows, and not water.

The lunar seas formed during a period known as the "**Heavy Bombardment**" between approximately **3.1 and 3.9 billion years ago**, with some lava flows lasting until **1-2 billion years ago**. These dark, basaltic plains were created when large meteorite impacts formed basins that subsequently flooded with magma from the **Moon's** mantle. The **Seas** are dark in coloration primarily because they are composed of ancient, iron-rich basaltic lava material.

The **Moon** has 20 major features named "Seas" (or maria), mostly located on the near side. Along with the maria, the lunar surface features 14 **bays** (sinus), 20 **lakes** (lacus), and one **ocean (Oceanus Procellarum, or the Ocean of Storms)**. The key seas that we find on the near side of the Moon are **Mare Imbrium (Sea of Showers)**, **Mare Serenitatis (Sea of Serenity)**, **Mare Tranquillitatis (Sea of Tranquility)**, featured in last month's Sky Report), **Mare Crisium (Sea of Crises)**, **Mare Nubium (Sea of Clouds)**, and **Mare Frigoris (Sea of Cold)**.



Oceanus Procellarum, or the "**Ocean of Storms**," is the largest lunar mare, covering over **4 million km²** on the western edge of the near side. Stretching over **2,500 km** north-to-south, it is unique for its immense size and high concentration of radioactive elements (uranium, thorium, potassium). Early theories suggested the craggy outline of a region of the **Ocean of Storms**, was caused by an asteroid impact. If this theory had been correct, the basin it formed would be the largest asteroid impact basin on the moon. However, mission scientists studying data from the [Gravity Recovery and Interior Laboratory \(GRAIL\)](#) believe they have found evidence the craggy outline of this rectangular region is actually the result of the formation of ancient rift valleys. **Mare Imbrium** is the name, Latin meaning "**Sea of Showers**." The word "**mare**" is a two-syllable word pronounced similar to "**MAWR-ay**" rather than being pronounced like the English word for a female horse.

Mare Imbrium formed when a huge impact basin was filled by a subsequent lava flow. It's loaded with interesting craters, mountain ranges, and individual peaks.

One of the most picturesque regions on the **Moon**, **Mare Imbrium** is an impact basin over 700 miles wide, filled by ancient lava flows. It's surrounded by mountains that are its original crater walls, and has a number of large impact craters formed after the **mare**.

As an example, the lunar crater **Plato** (lower left-hand corner in image below) is one of the superstars for observers of the **Moon**. It is big (101 kilometers wide), conspicuous with its dark, lava-flooded floor, ringed by a bright rim, and long a subject of detailed scrutiny, speculation, and controversy. One **Plato** mystery with a simple solution is its lack of a central peak. Compared to other craters of similar size, **Plato** should have a 2.2-km-high mountain rising from its floor. However, since **Plato** is filled with an estimated 2.6-km layer of lava, the peak is almost certainly buried.



Image of Lunar Craters **Plato** and Anaxagoras – by Laz Ilyes

Some **craters** around the edges of **Mare Imbrium** are partially flooded on one side, for example (**Archimedes** and **Cassini**), an indication that the **mare** floor subsided just before, or during, the **magmatic events** filling of the basin **3.8 billion** years ago.

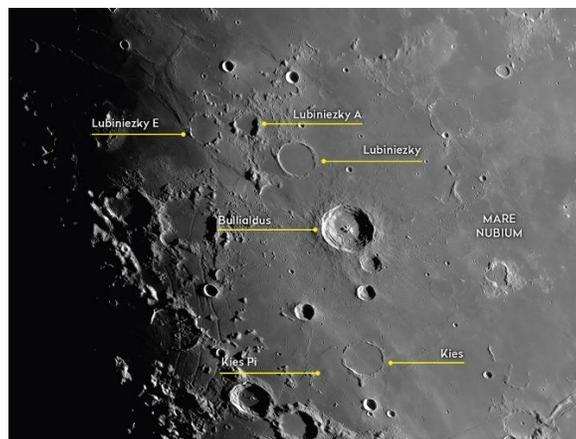
Mare Serenitatis (Sea of Serenity) is a **~674 km diameter** lunar **mare** in the **Moon's northeastern quadrant**, formed **3.9–3.8 billion years ago** within a **multi-ringed basin**. Located **east of Mare Imbrium**, it features a distinct **dark annulus**, significant **mascon**, and was visited by **Apollo 17** and **Luna 21**.

The **Mare Tranquillitatis (Sea of Tranquility)** is a dark, basaltic lunar mare, renowned as the site of the first human landing (**Apollo 11**) in **1969**. This lunar mare formed **3.5–3.8 billion years ago** during the **Late Imbrian epoch**. It resulted from ancient basaltic lava flows filling a **pre-Nectarian impact basin**. The region is characterized by **iron-rich, dark, titanium-rich basalts** that produce a slight blue tint. One of the major reasons this **mare** was

selected for the first manned lunar landing mission was that this feature is relatively smooth with few lunar features that would have made the landing on the surface more dangerous or risky.

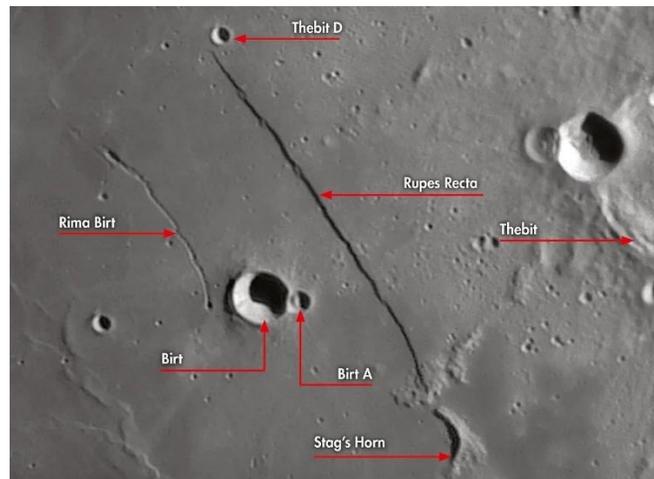
Mare Crisium, known in English as **Sea of Crises**, is located to the northeast of **Mare Tranquillitatis**. The **Sea of Crises** was formed by the lava flood, which occurred following an asteroid impact in the **Nectaris period (roughly 3.9–4 billion years ago)**. Though smaller than most of the other mare (with a diameter of roughly about **700km**) **Mare Crisium** is one of the most easily identified features on the **Moon**, large, dark, and appearing to be nearly circular near the northeastern edge of the near side.

Mare Nubium (Latin for "**Sea of Clouds**") is an ancient, **roughly 750 km diameter**, impact-created lunar mare located in the southern part of the **Moon's** near side. This mare features numerous "**ghost**" **craters** and geological features like the *Rupes Recta* (Straight Wall). **Ghost craters** are ancient lunar impact craters almost completely submerged by lava flows, leaving behind only faint, circular outlines or arcuate ridges. These features, such as *Kies*, *Lubniezky*, and *Opelt*, are best observed near the terminator when low-angle sunlight highlights their subtle, low-relief rims against the surrounding **mare** surface.



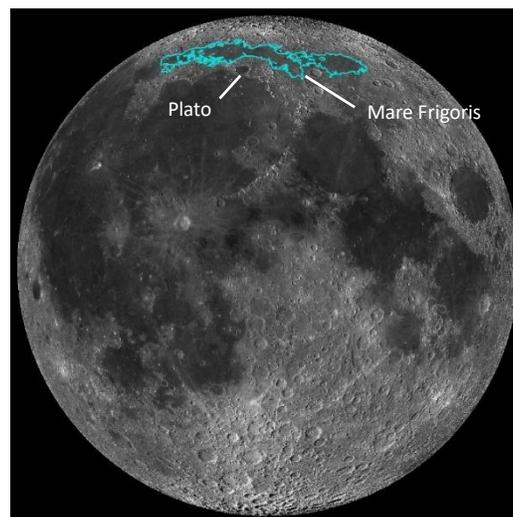
Ghost Craters in Mare Nubium – by [Pete Lawrence](#)

Rupes Recta, the ‘**Straight Wall**’, is neither straight nor a wall – it’s a linear fault in the **Moon’s** surface. Approximately **110km long** and 300m high, the feature **formed approximately 3.2 billion years ago**, with a sinking on the western side of the fault line as the **mare basalt cooled and subsided**.



Rupes Recta (Straight Wall) Feature in Mare Nubium – by Pete Lawrence

Mare Frigoris (Sea of Cold) is a long, narrow **lunar mare** stretching roughly **1,400–1,596 km east-to-west** across the **Moon's far northern latitudes**. Situated north of **Mare Imbrium** and **Mare Serenitatis**, this ancient volcanic plain is characterized by its light grey, highland-surrounded, and relatively flat terrain. Lighter than other typically dark, smooth, mare, **Mare Frigoris** can be more difficult to immediately identify. This “sea” is separated from **Mare Imbrium** by the peaks of the **lunar Alps (Montes Alpes)** and the prominent straight feature known as the **lunar Alpine Valley (Vallis Alpes)**. The lunar crater **Plato** (see above) is a nice landmark for finding this lunar boundary between **Mares Frigoris** and **Imbrium**.

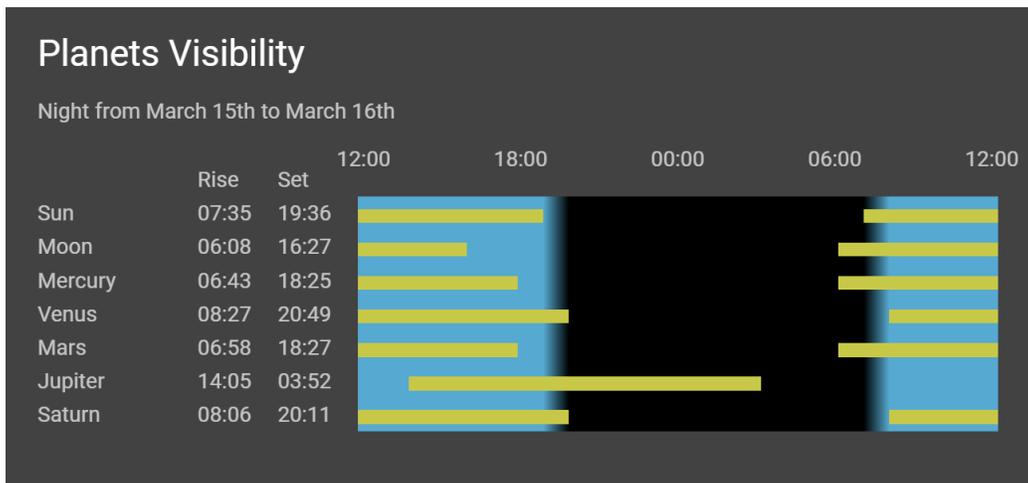


If you enjoyed this brief summary and you’d like to acquaint yourself with a more comprehensive list of **lunar mare**, consider the following online article by **BBC’s “The Sky at Night”**:

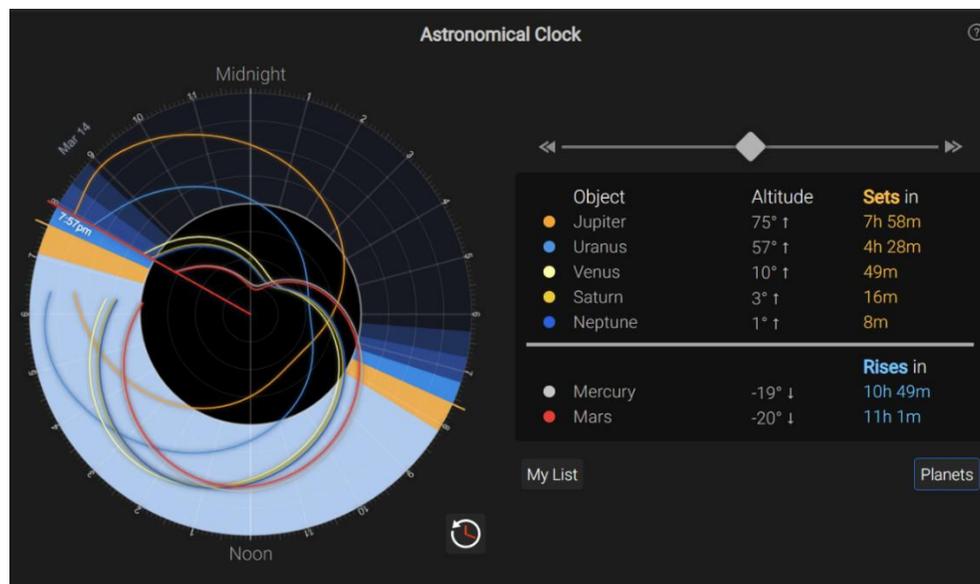
<https://www.skyatnightmagazine.com/space-science/lunar-maria-guide-list-seas-moon>

Planets

For this month, here is chart summarizing the visibility of those planets visible to unaided observers on the night of March 15, 2026. <https://stellarium-web.org/>



And here is a graphical representation from astrospheric.com summarizing the planets' relative altitudes at dusk on the night of March 15, 2026:



Note: On March 8, 2026, a prominent conjunction of Venus and Saturn will occur, with the two planets appearing very close together, extremely low (~ 7° altitude) in the western sky shortly after sunset. While a rare, closer conjunction of Saturn and Neptune occurred on February 20, 2026, the March 8 event highlights the brighter Venus-Saturn pair. To observe this conjunction, be sure to find a place in advance where you can confidently see sky at an altitude of 6°-7°.

Mercury remains well-placed for viewing shortly after sunset in the western sky early in **March**. It can best be observed during the **first week of March**, as it just concluded its greatest elongation of the year in **late February**.

Venus will appear in March as a bright "evening star." On **March 8, 2026**, **Venus** and the planet **Saturn** will experience a **prominent conjunction** with the two planets appearing **roughly 1° from one another**. Visible to the naked eye shortly after sunset, the brilliant, white-colored **Venus** will act as a beacon near the fainter, yellow-tinted Saturn, offering a dramatic celestial pairing near the western horizon.

Mars will be challenging to observe during **March 2026**. The planet is just emerging from behind the **Sun** and will be extremely close to the horizon in a very bright sky to allow for practical observation.

Jupiter will still present itself very well for observation in **March, 2026**. It remains a brilliant object in the night sky, passing through the meridian around **21:15 EDT**.



Image of Jupiter— by Laz Ilyes (Feb 21, 2026 @ 21:11 EST)

In addition to the interesting tool made available online by “**Sky and Telescope**®” magazine described in many past issues of the sky report (https://skyandtelescope.org/wp-content/plugins/observing-tools/jupiter_moons/jupiter.html), another excellent free online tool is available at TheSkyLive.com to track the four Galilean Moons as well as the Great Red Spot (GRS) at the following link: <https://theskylive.com/galilean-moons>

Saturn is best observed during the **first week in March**, appearing in the constellation **Pisces**, low in the west shortly after sunset before disappearing into the **Sun's** glare around mid-month. A key highlight is the **close conjunction** with **Venus** on **March 8**, where they appear **about 1° apart**.

Uranus, appears in the western sky after dusk throughout the month, setting well before midnight as the month progresses. Located in the constellation **Taurus**, **roughly 5° south** of the **Pleiades Star Cluster**, which acts as a convenient guide. If the sky is sufficiently dark in your location, **Uranus** can be spotted using a pair of good binoculars by aiming toward the **Pleiades** cluster; **Uranus** will be located to the lower left of the **Pleiades**.

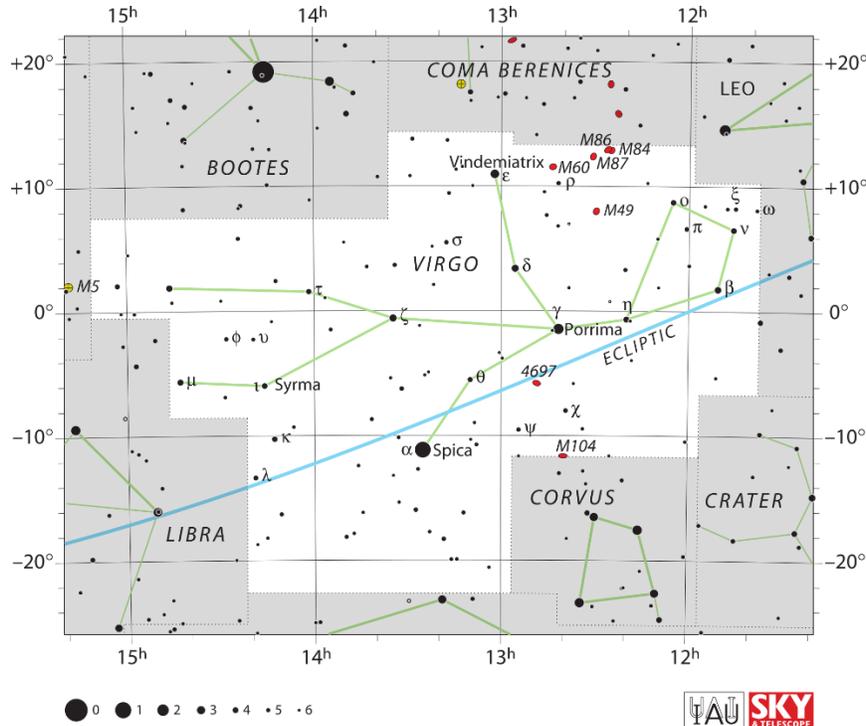
Neptune will be challenging to observe this month, as the planet approaches **solar conjunction** on **March 22, 2026**. Early in the month, **Neptune** is very low on the western horizon after sunset, quickly becoming lost in twilight near **Saturn**. A telescope or good binoculars are required to spot the faint (**magnitude +7.8**) planet, but **for your own safety** these aids should only be used after **Sun (apparently quite near) has completely set**.

Constellations



Once again, we find ourselves in “Galaxy Season.” This is a time when the position of the Earth is higher above the plane of the Milky Way Galaxy and we have a better view of our intergalactic neighborhood. Conversely, the nebula that we normally look for in our galactic plane are less available to us. So, in that light, let us look at some constellations that offer us the opportunity to observe our galactic neighbors!

Virgo (Vir)



Virgo is the second-largest constellation in the sky and the largest constellation of the Zodiac. **Virgo** means "the virgin" in Latin, and contains **Spica**, a bright blue binary star system – one of the brightest in our night sky. This constellation is famous for containing the **Virgo Cluster**, the closest large cluster of galaxies to **Earth**, which acts as the gravitational center of the **Local Supercluster** (including our Milky Way). The **Local Supercluster** is comprised of possibly up to 2,000 galaxies.

Some of the better-known galaxies in the **Virgo Cluster** are **M87** (a giant elliptical galaxy at the center of the cluster that contains a supermassive black hole), **M86** (a bright elliptical galaxy), **M84** (another bright elliptical galaxy), and also **M49**, **M58**, **M59**, **M60**, **M61**, **M85**, **M88**, **M89**, **M90**, **M91**, **M98**, **M99**, **M100**, **M104**, **NGC 4660**, **NGC 4458**, and **IC 3506**. For astrophotographers, a popular galactic group within the **Virgo Cluster** is a portion known as the **Markarian Chain**. The **Markarian Chain**, a string of galaxies named after Armenian astrophysicist **Benjamin Markarian** who discovered in the early 1960s that the galaxies in this chain share a common motion. The apparent size of the **Markarian Chain** spans roughly **1.5°**, with individual galaxies within the chain ranging from 1.5 to 7.5 arc-minutes in size. It is relatively easy to image a large number of galaxies in a single frame by targeting this chain of DSOs.

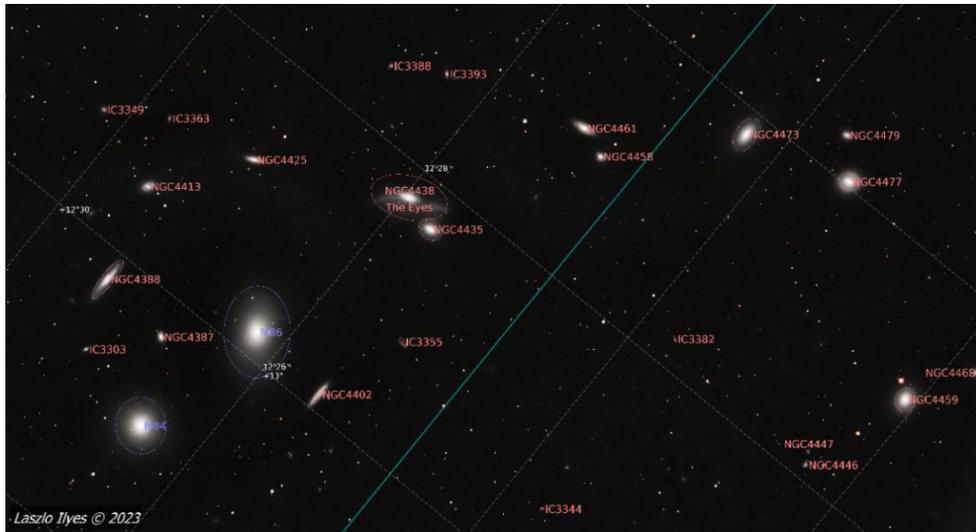


Image of the Markarian Chain of Galaxies (with Annotation) by Laszlo Ilyes

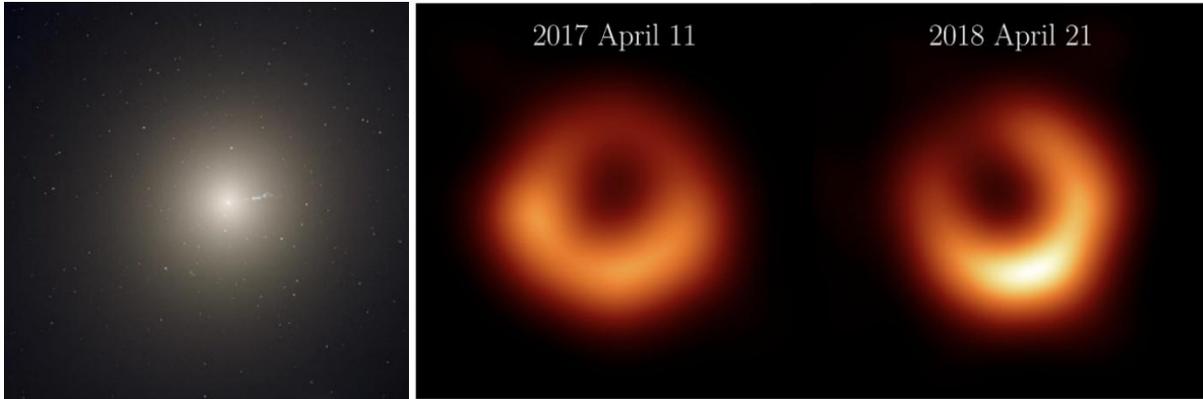
The so-called “**Eyes**” of the **Markarian Chain** are galaxies **NGC 4438** and **NGC 4435**. These two galaxies are very near the center of the massive **Virgo Cluster**, and are found at a distance of around **54 million light-years from Earth**.

One of the largest galaxies in the **Virgo Cluster** is **M104**, also known commonly as the **Sombrero galaxy**. **M104** has an apparent **magnitude of ~+8**, and an **apparent size of around 9 x 4 arc-minutes**. It is unusual in that there is still debate on how the galaxy is to be classified. Some believe it to be a spiral galaxy while other astronomers classify it as an elliptical galaxy.



Image of **M104** by Robert L. Beers – [Courtesy of Facebook](#)

Located in **Virgo** is the galaxy **M87** which has been of particular interest lately. At the center of this galaxy is one of the largest supermassive black holes yet discovered. The black hole (which is estimated at an astonishing 2,400 billion solar-masses) was imaged using the Event Horizon Telescope (EHT). The EHT is a global networked array of radio telescopes spanning the Earth. In the left image below, we see a Hubble image of **M87** and its visible “jet” of material which is now known to be active stream of high velocity particles ejected from the accretion disc surrounding the black hole, and driven far into space by an unbelievably powerful magnetic field.



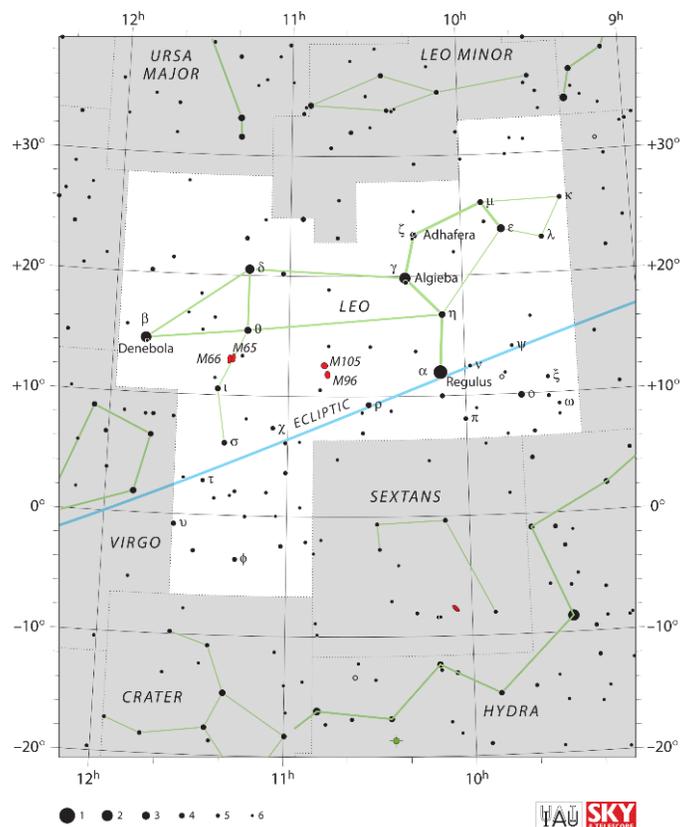
Hubble Image of M87 by [NASA](#)

M87's Supermassive Black Hole Courtesy of [Harvard University](#)

The image on the right shows two images taken of **M87's** supermassive black hole using the EHT, the latter, includes an additional telescope that was added in Greenland. What we are actually seeing is not the black hole itself, but the accretion disc of accelerated material swirling around the black hole.

Leo (Leo)

Leo is a prominent, ancient constellation of the zodiac located in the Northern celestial hemisphere. Its name is Latin for "lion," and to the ancient Greeks, represented the Nemean Lion killed by the mythical Greek hero Heracles as one of his twelve labors.



One of the 48 constellations described by the 2nd-century astronomer Ptolemy, **Leo** remains one of the 88 modern constellations today, and one of the most easily recognizable due to its many bright stars and a distinctive shape that is reminiscent of the crouching lion it depicts.

Leo contains many bright galaxies. These include **M65**, **M66**, **NGC 3628**, **M95**, **M96**, and **M105**, the first three comprising the so-called "**Leo Triplet**," also known as the **M66 Group** of galaxies. The other three galaxies were all discovered by Charles Messier's colleague **Pierre Méchain** within days of one another in **1781** and subsequently added to Messier's famous catalog.

The **Leo Triplet** is estimated to be about **35 million light-years** from **Earth**. It is a popular grouping of galaxies to astrophotographers. The maximum **apparent separation** between the galaxies is only about **30 arc-minutes**, making it possible to image the triplet in a single frame. The brightest of these galaxies is **M66** (lower right side in the image below). This intermediate spiral galaxy has an apparent magnitude of 8.9 and can be located with good binoculars in a dark sky. However, a much larger telescope or time exposure astrophotography is required to see the details of its distorted, hooked spiral arms that are shaped by the gravitational interaction between the three galaxies. The unbarred spiral **NGC 3628** (bottom left in the image below), also known as the **Hamburger galaxy**, or also **Sarah's galaxy** is the next brightest, with an apparent magnitude of around +10. This galaxy, oriented on-edge to us has a dust lane across its plane giving it a very distinctive appearance. And finally, the barred spiral galaxy **M65** (topmost in the image below) has an apparent magnitude of +10.3.



Image of the Leo Triplet by Laszlo Ilyes

To locate **M66**, start by finding the star **Chertan (θ Leonis)** and then move about one third of the way toward **ι Leonis**. **M66** will appear as a hazy patch between these two stars. (Refer to the illustration below).

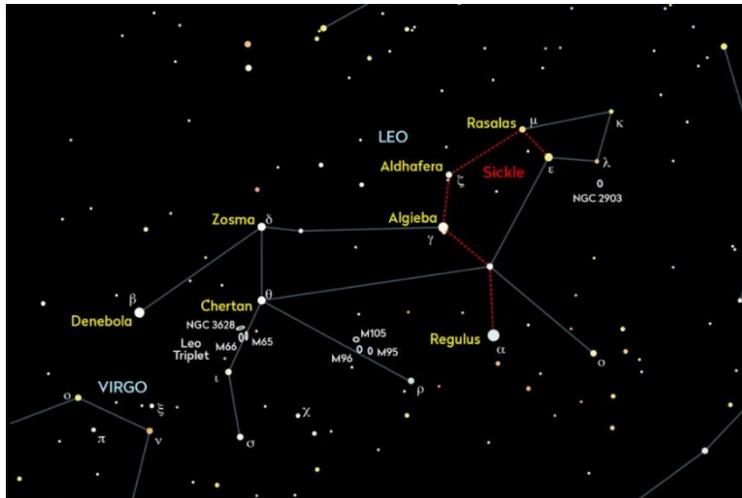


Illustration by Pete Lawrence Courtesy of [BBC "Sky at Night" Magazine](#)

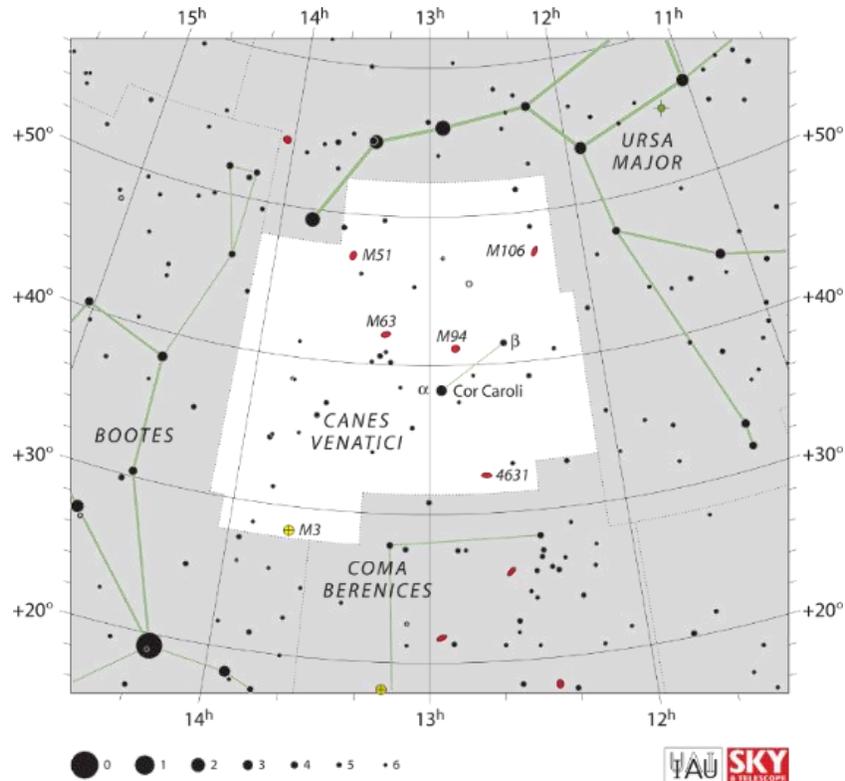
As for **M95**, **M96**, and **M105**, they are also observed rather close to one another, however not nearly as tightly as the **Leo Triplet**. **M95** (seen in the upper right-hand corner of the image below) is observed about 40 arc-minutes from **M96** (bottom center). And **M105** (left) is also about 40 arc-minutes to the other side of **M96**. Amazingly, even though these galaxies are seen together in the constellation **Leo**, they are still considered to be part of the massive **Virgo supercluster** of galaxies. This grouping is found to be about 2/3 of the way from the star **Chertan (θ Leonis)** toward **ρ Leonis**. (Refer to the star map above). The three galaxies are sometimes collectively referred to as the **M96 Group**.



Image of the **M96 Group** by [Antoine and Dalia Grelin](#) - Courtesy of [Galactic-Hunter.com](#)

Coma Bernices (Com)

Coma Berenices ("Berenice's Hair") is a faint, ancient northern constellation representing the sacrificed hair of Egyptian **Queen Berenice II**. According to myth, **Queen Berenice II** of Egypt (c. **243 BC**) offered her long hair to the goddess **Aphrodite** to ensure her husband, **Ptolemy III**, returned safely from war. When the hair vanished from the temple, court astronomer claimed the gods placed it in the sky as a new constellation.



Canes Venatici contains one of the more interesting nearby galaxies, **M51**, also known as the **Whirlpool galaxy**. The **Whirlpool galaxy**, is an interacting **grand-design spiral galaxy**, estimated to be about **23 million light-years away**. It was observed and cataloged by famous astronomer **Charles Messier** in **1773**. Though relatively bright, at mag +8.4, the apparent size of **M51** is rather small, at about 11×7 arc-minutes.

M51 is located at the coordinates **RA: 13h 29m 53s, Dec: +47° 11' 43"**. It can be spotted in a dark sky with a pair of binoculars by moving from the bright star **Alkaid** in **Ursa Major**, towards **Cor Caroli** in **Canes Venatici**.

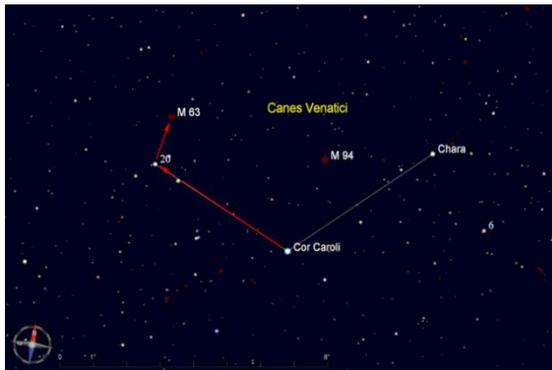


Star map courtesy of AstroBackyard.com



Image of M51 – by Jeff Ratino

Another less distinctive, but nevertheless noteworthy galaxy in **Canes Venatici** is the **M63**, also known as the **Sunflower galaxy**. It lies about 37 million light-years from Earth. At apparent magnitude 8.6, it can still be viewed through good binoculars in a dark sky but is better seen in a larger telescope. It can be found by moving from the star **Cor Caroli** in **Canes Venatici** towards the bright star **Alkaid** in **Ursa Major**. If you can find the 4.7 magnitude star **20 Canes Venatici**, **M63** is found only 1.5° away as shown in the figure below. The apparent size of **M63** is about 13×7 arc-minutes.



Star map courtesy of Starledge.net



Image of M63 by Rob Beers

Of final note in **Canes Venatici**, is the barred spiral galaxy **M94**, or the **Cat's Eye** or **Croc's Eye galaxy**. It was discovered by Pierre Méchain in 1781 and cataloged by Charles Messier. It has an apparent magnitude of 8.2 and an apparent size of 7×3 arc-minutes.



Image of **M94** by Laszlo Ilyes



Hubble Image of M94 - [NASA](#)

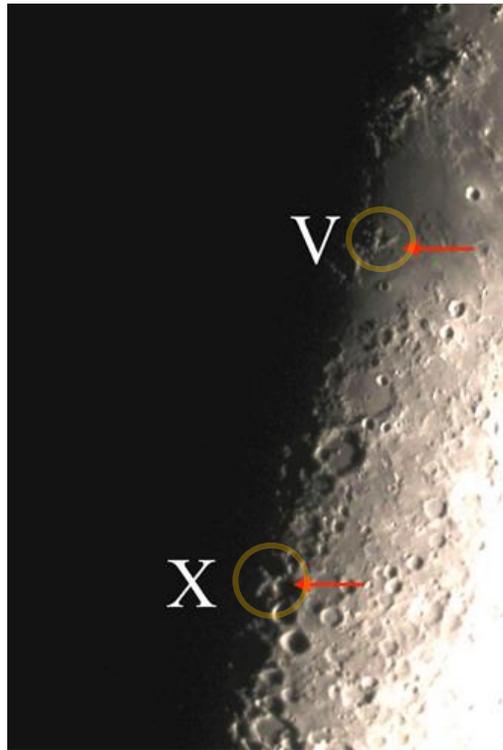
Detailed Hubble images of **M94** clearly reveal an elliptical region of around the hub exhibiting extremely active new star formation. This region of bright stars is commonly referred to as the “[Starburst Ring.](#)”

Note: (The summary of Ursa Major will not be redundantly repeated in this edition of the Sky Report). As already summarized in the recent January edition of the Sky Report, the constellation **Ursa Major**, which continues to be easily observable throughout **March**, contains many additional galaxies of interest to observers. The include **Bode’s galaxy (M81)**, the **Cigar galaxy (M82)**, the **Pinwheel galaxy (M101)**, and spiral barred galaxies **Messier 108**, and **Messier 109**.

Winter Observing Challenge

If you read the section in the past months' Sky Report regarding the **Moon**, you'll have seen a description of the lunar features known as the **Lunar 'X' and 'V'**.

The challenge for this winter will be to observe and/or image these unusual shadow features on the **Moon's** surface. The **Lunar 'X'** and **'V'** become visible only for a few hours during the transitioning phase of the **First Quarter Moon**. Look for them along the terminator (the line between light and dark) in the southern lunar region. Reference a [Moon Atlas](#) to learn where to find the relevant craters.



'X' and 'V' Mark the Spot!

If you succeed in imaging the **Lunar 'X' or 'V'**, I'll be happy to feature it in an upcoming issue of the **Sky Report**. Either send it to me by email, or post it on our Facebook group page and I'll make sure that it gets into an upcoming issue.

Epilogue



Please consider taking a look at the Astrospheric phone/web app to help you plan your observing.

The tool is available for download to iPhone or Android smartphones. Or you can use the web-based application directly on your personal computer. If you go ahead and create an account, feel free to join our Astrospheric CVAS Group by clicking on the “Subspace” tab in the upper right corner of the app and entering the following code in the entry field prompted: **S_f83fdd4f**

Interested in Making More Observations?

Take a look at the list of programs and awards that are available through your membership in the league! Here is a [link to an alphabetical list](#) of available programs. Talk to other members about your interests. It's always fun to observe together! Ask an officer in our club if you need help getting started.

Special thanks to **Jeff Ratino** and **Rob Beers** for their images featured in this month's issue of the **Sky Report**. Thanks to **Conny Meier**, **Russ Swaney**, and **Eric Wright** for getting the report out to all of you.

Clear Skies and Excellent Observing!

Laz