Skylights

Newsletter of the Astronomical Society of Northern New England

MAR 2026

Skylights Editor:
Paul Kursewicz

Member of NASA's
Night Sky Network

Astronomical League
Member

ASNNE MISSION

ASNNE is an incorporated, non-profit, scientific and educational organization with three primary goals:

1) To have fun sharing our knowledge and interest with others.

2) To provide basic education in astronomy and related sciences to all who are interested.

3) To promote the science of Astronomy.

What's Up In March

By Bernie Reim

The month of March is named for Mars, the Roman god of war, but it is also known as the guardian of agriculture and as an ancestor of the Roman people. March was also the first month of the year on the early Roman calendar.

For us in the northern hemisphere, March always marks the beginning of spring. This year that will happen at exactly 10:46 a.m. on Friday, March 20. This is also called the vernal equinox, when the sun on the ecliptic crosses upward over the celestial equator as it is moving north. The days and nights will be exactly 12 hours long everywhere on earth except for the poles on this day as well as the autumnal equinox around September 21 each year. The 12 hour days and nights actually occur a few days before the equinoxes because we orbit the sun in ellipses and not perfect circles and we are tilted at 23.44 degrees.

The sun does rise exactly due east and sets exactly due west for only 2 days each year on the both equinoxes for everyone on Earth except for the poles. The very next day the sun will rise a little farther north of east as we continue to the summer solstice on June 21 when the sun will reach its highest point in our sky and rises the farthest north of east and set the farthest north of west, giving us 15 and a half-hour-long days. For us at this latitude the sun will reach about 67 degrees high in our sky at noon on the meridian. That is our latitude plus the tilt of the earth.

This has been a longer and colder winter than we have been used to, but it is always nice to welcome spring back to our part of the earth. There are several great highlights this month that will be well worth braving any remaining cold weather and getting up early to experience. The major highlight by far for this month will be a total lunar eclipse starting during the morning of Tuesday, March 3 at full moon at 4:50 am EST. The penumbral phase of the eclipse actually starts at 3:43 am, but that part of the earth's shadow is too faint to see.

You can start seeing the umbral part of our shadow crossing over the moon starting at 4:50 am. Then watch carefully as the moon goes deeper and deeper into our shadow and some colors start appearing on the moon. The moon will be completely immersed in our shadow at 6:04am, but the sun will rise a few minutes later at 6:15 am, and the full moon always sets as the sun rises. Twilight starts about 40 minutes before then, so the sky will be too bright already to really see any of the nice deep red and orange colors that the moon will turn. The farther west you live, the more of this total lunar eclipse you will be able to see.

I have seen dozens of lunar eclipses. They can appear very different and they are always well worth making the effort to see and photograph for yourself, even if they are just partial. You really get a good sense of the 3-dimensional nature of the sphere of the moon during the eclipse with the unique shading on it as it passes through different parts of our shadow that is always there and stretches nearly one million miles into space. You could look at it as if the earth were always wearing a very long and thin and dark wizard's cap. The moon also has a wizard's cap, but it only stretches 240,000 miles into space and barely reaches the earth during total solar eclipses. That is why the path of totality is only about 100 miles wide during a solar eclipse when you are right in the moon's shadow and it only lasts for a few minutes because the moon is moving so fast, but a total lunar eclipse always lasts about one hour because the earth's shadow or wizard's cap is quite wide where the moon passes through it about a quarter million miles away from us in space.

The deeper red and orange shades on the moon are actually the sunlight being curved around the earth by our atmosphere acting as a giant refracting lens, and reflected back to us by the moon. Otherwise, the moon would just go dark while it is deep in our umbral shadow for about an hour. What you are really seeing is the combined effect of all the sunrises and sunsets all around the earth happening simultaneously when you see that color.

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The exact hue of this color depends on how much particulate matter is in our atmosphere at the time. The less pollution and fewer particles, the lighter the shade of orange or red the eclipse will exhibit.

The opposite is true of a total solar eclipse. You can see a 360-degree twilight all around you as the moon's shadow races over you at about 2,000 miles an hour as it engulfs everything in its path very quickly. When I saw the August 21, 2017 total solar eclipse in Driggs, Idaho with the Grand Teton mountains in Wyoming as a backdrop, and the one on April 8 of 2024 from the specular Height of the Land overlook on the Appalachian Trail in Rangeley Maine, the moon's shadow raced across this entire country in just 90 minutes, much faster than any of our commercial jets, but not faster than some of our military jets. You can stretch a 3-minute eclipse into several hours if you can fly fast enough to stay directly in the shadow of the moon as it races across the earth at about 3 times the speed of sound.

The rest of the highlights for this month are less spectacular but still worth looking for if it is clear. They include Jupiter still being close to its best for the year as a bright evening planet in Gemini, Venus getting higher in our evening sky, a very close conjunction of Saturn and Venus low in our evening sky 40 minutes after sunset on Saturday night, March 7, Jupiter becoming stationary in our sky as it ends its retrograde motion on March 10, Mercury reappearing in our morning sky towards the end of this month, and Comet Wierzchos passing through Eridanus the River into Taurus the Bull. It should be around 8th magnitude, which is 6 times fainter than anything you can see without optical aid, but it should be visible in a good pair of binoculars.

There is an event called Earth Hour every last Saturday in March from 8:30 to 9:30 pm local time. This gives everyone a chance to do something very practical for the earth and to inspire others to be more aware of the man-made problems facing us and our precious little planet floating in the infinite black void of space. The only boundary that matters from space is the thin blue line of our atmosphere that supports all life on earth and separates us from the cold, unforgiving, and deadly space that we are always traveling through at great speeds.

Jupiter still dominates the evening sky, but it is rising and setting a little earlier each night as it is getting farther away from earth and slightly smaller. It will only fade from -2.4 magnitude to -2.2 magnitude this month. Notice that you can see all 4 of its large Galilean moons just with a pair of binoculars.

We will finally lose Saturn in our evening sky about when spring starts on March 20. Notice that the ringed planet will first encounter brilliant Venus in the constellation of Pisces before we lose it for the season before it becomes a morning planet again in May. They will be less than one degree apart. The full moon covers half a degree of the sky. Venus will be very easy to see first. Then look for Saturn just to its left. Saturn is 100 times or 5 magnitudes fainter than Venus, so you may need binoculars to spot dim Saturn so close to brilliant Venus. Then Venus will keep climbing higher into Pisces and then Aries on its way to reaching its best in the evening sky for this year in late spring.

The only visible planet that we can't see this month is still Mars. It is still too close to the sun and it will not show up again until late April in our morning sky.

If you stay up all night around the vernal equinox, you can actually see the entire sky rotate around you. That is the ideal time to try to find all 109 celestial objects in the Messier catalog, developed by Charles Messier in late 1700's. He was a French comet hunter that did discover about 12 comets, but he catalogued other objects that did not move through our sky. These include open and globular star clusters, several kinds of nebulae, and several kinds of galaxies.

That is called the Messier Marathon, and it takes a lot of skill and good timing and perfectly dark and clear skies to actually find all 109 of these for yourself in an amateur telescope. I have attempted it a few times with friends from my astronomy club, but never got past 3 in the morning. In total over the years, I have seen about 70 of these 109 celestial objects and many more that are listed in other catalogues like NGC, the New General Catalogue.

The most practical event by far that happens every March and that everyone can participate in is called EARTH HOUR. It is always the last Saturday in March from 8:30 to 9:30 local time. This year that will happen on Saturday, March 28. This was started in 2007 and now 190 out of the 195 countries on Earth participate in some way. Some cities shut off many of their lights for this hour and there are many other creative ways to do something for the earth and to become more aware of all the man-made problems facing us than just to shut off your lights for an hour. That by itself will not save much energy, but it will give you ideas that you can then turn into ongoing new actions that you will take individually and collectively from that moment onward.

You are all invited to give one hour thinking about what you can do for the earth over the course of this next year. We all have 8765 hours every year, so we can surely afford to give one of those hours to a cause much greater than our limited selves. The earth works tirelessly 24/7/365 to provide us with everything we need not only to survive but to thrive during our lifetimes and we almost never think about what we owe the earth for providing us with oxygen from its plants and a good atmosphere to protect us from deadly cosmic rays to all of the other life-giving and life-sustaining tasks that the earth is always doing for us even if we are not aware of the great riches and potentials that are always all around us.

Use this one hour to reconnect to and help restore the earth to its potential and to inspire others to care more and become better stewards of our one and only precious planet. Unite with others to shine a spotlight on some of our major problems like the

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Moon Phases

Mar 3
Full

Mar 11
Last Quarter

Mar 19
New

Mar 25
First Quarter

Moon Data

Mar 2
1 hour before sunrise Moon close to Regulus

Mar 10
Moon at Apogee
251,273

Early Morning Moon
1 1/4° below Antares

Mar 22
Moon at Perigee
227,954

Crescent Moon to lower right of Pleiades

Mar 29
1 hour before sunrise Moon close to Regulus but not as close as on 3rd

What's Up "*Continued from page 2*"

loss of nature and climate change and discover new ways that you can individually contribute to solutions instead of unwittingly being part of the problem.

We can all play our part to help change the world for the better by changing some of our bad habits and becoming more aware of and implementing some of the many solutions already staring us in the face. Turn this one hour into millions of future hours that will continue to pay dividends as it improves the quality of life for billions of people on earth that are suffering right now through no fault of their own. We all have the power to do this and so much more as long as we start somewhere and have the right intentions. Help make this the BIGGEST hour for the earth and ultimately for our own higher selves. As several astronauts have remarked from their privileged view from 250 miles up in space, there are no passengers or free rides on our Spaceship Earth, only crew members with important jobs to do to maintain and sustain life and help it reach its greatest potential in all of its forms on our one and only precious planet Earth.

March 2. The moon passes just north of Regulus in Leo this morning.

March 3. Full moon is at 6:38 a.m. EST. A total lunar eclipse starts at 6:04 this morning, just before sunrise at 6:15. The partial phases start earlier, at 4:50 am. This is also called the Crow, Sap, Worm, or Lenten moon.

March 4. Sir Patrick Moore was born on this day in 1923. He was an English astronomer that has written over 70 books and he hosted the longest-running TV series with the same host on BBC, The Sky at Night. He also developed the Caldwell Catalogue, a list of an additional 109 celestial objects that are not in the more famous Messier Catalogue.

March 6. Joseph von Fraunhofer was born in Germany on this day in 1787. He was an optician who invented the spectroscope and the diffraction grating that breaks up light to study the spectra of different celestial objects. He discovered hundreds of dark lines in the spectra of the sun. Carolyn Porco was born on this day in 1953. She was the lead imaging scientist on the highly successful Cassini mission to Saturn. It was her idea to have Cassini take a picture looking back at the earth and moon, similar to Carl Sagans idea for the Pale Blue Dot image of Earth taken on February 14 of 1990 by the Voyager 1 spacecraft 6 billion miles away out beyond Pluto as part of a Family Portrait series of images of all the planets in our solar system. Saturn is much closer to us, just under 1 billion miles away or about an hour and a half at the speed of light.

March 7. John Herschel was born on this day in 1792. His father was William Herschel who discovered the planet Uranus. John named 7 of the moons of Saturn and 4 of the moons of Uranus and invented the blueprint process. Mercury is in inferior conjunction with the sun this morning. Saturn and Venus are less than one degree apart this evening low in the western sky.

March 8. Daylight Saving time starts at 2 am this Sunday morning.

March 10. The moon passes 0.7 degrees south of Antares in Scorpius this morning. Jupiter is stationary in Gemini, ending its westward or retrograde motion.

March 11. Last quarter moon is at 5:39 a.m. EDT. Urbain Joseph Le Verrier was born on this day in 1811. He was a French astronomer who mathematically showed exactly where Neptune would be found. He sent his coordinates to Johan Galle in Berlin who found Neptune that same night on September 24 of 1846 within one degree of where Le Verrier calculated it would be. The Englishman John Couch Adams also helped in the calculations, so this was a 3- person, 3- nation collaboration to discover our last planet 180 years ago. This was a major milestone in astronomy to be able to mathematically predict such an important discovery. As one astronomer said at that time, "He discovered a planet with the point of his pen." Neptune has only made just over one orbit around the sun since then since it takes Neptune 165 years to complete one orbit while traveling continuously 12,000 mph. By comparison the earth is always orbiting the sun at 67,000 miles per hour, over 5 times faster than our last planet.

March 13. Sir William Herschel discovered the planet Uranus on this day in 1781. He first named it George in honor of the King, but it was soon renamed to Uranus after the Greek Father of the Titans, whose name also means "the heavens". Percival Lowell was born on this day in 1855. He thought he saw canals on Mars and he founded the Lowell Observatory where Clyde Tombaugh would discover Pluto on February 18 of 1930. Pluto is now only classified as a dwarf planet.

March 14. Albert Einstein was born on this day in 1879. He made 5 or 6 major discoveries that all could have won the Nobel prize in physics. He only got one Nobel for the photoelectric effect, not for special and general relativity. He also discovered the principles that led to the making of lasers which now have millions of practical uses.

March 16. Caroline Herschel was born on this day in 1750. She was the younger sister of William Herschel and they were both accomplished musicians. Caroline also discovered 8 comets.

March 18. New moon is at 9:23 p.m.

March 19. Mercury is stationary, ending its retrograde motion today at 4 pm.

March 20. The moon passes 5 degrees north of Venus. The vernal equinox is at 10:46 am EDT.

March 22. Neptune is in conjunction with the sun this morning.

March 23. The moon passes 5 degrees north of Uranus in Taurus this morning. Pierre-Simon LaPlace was born on this day in 1749. He was the French Isaac Newton and made many discoveries in celestial mechanics.

March 25. Saturn is in conjunction with the sun this morning. First quarter moon is at 3:18 pm.

March 26. Mars is at perihelion or closest to the sun at 128 million miles this morning. It is very far from Earth now at just over 219 million miles and is not even visible for us for another couple of months. Mars can get as close to us as 35 million miles, or over 6 times closer than it is now. That will happen at its next opposition on February 19 of 2027. Nathaniel Bowditch was born on this day in 1773. He was the founder of modern ocean navigation.

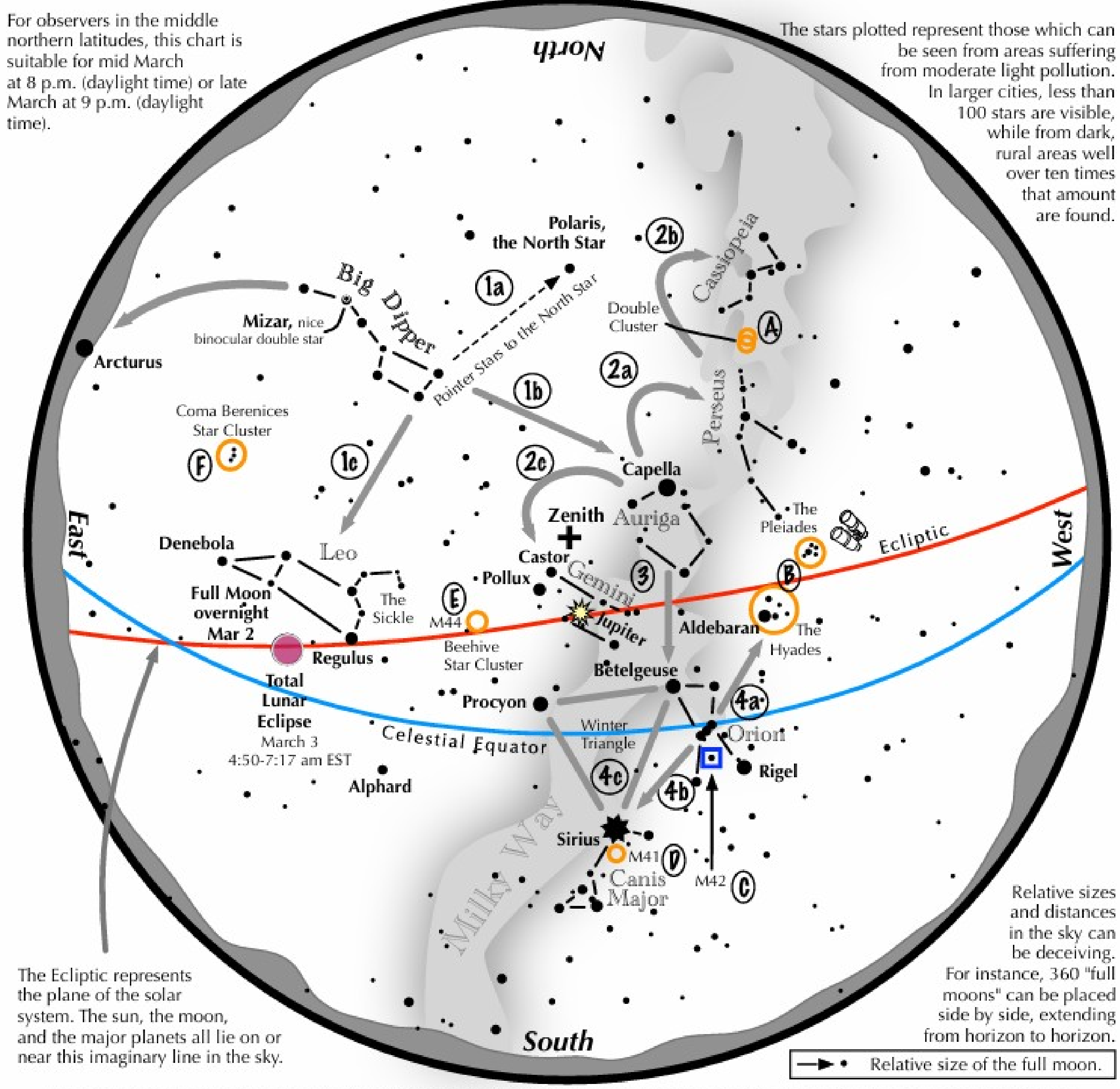
March 28. EARTH HOUR is this Saturday night from 8:30 to 9:30 pm local time.

March 29. The moon passes 0.3 degrees north of Regulus in Leo this afternoon.

March 31. Rene Descartes was born on this day in 1596.

★

Navigating the mid March Night Sky



Navigating the March night sky: Simply start with what you know or with what you can easily find.

1 Above the northeast horizon rises the Big Dipper. Draw a line from its two end bowl stars upwards to the North Star. Its top bowl stars point west to Capella in Auriga, nearly overhead. Leo reclines below the Dipper's bowl.

2 From Capella jump northwestward along the Milky Way to Perseus, then to the "W" of Cassiopeia. Next jump southeastward from Capella to the twin stars of Castor and Pollux in Gemini.

3 Directly south of Capella stands the constellation of Orion with its three Belt Stars, its bright red star Betelgeuse, and its bright blue-white star Rigel.

4 Use Orion's three Belt stars to point northwest to the red star Aldebaran and the Hyades star cluster, then to the Pleiades star cluster. Travel southeast from the Belt stars to the brightest star in the night sky, Sirius. It is a member of the Winter Triangle.

Binocular Highlights

A: Between the "W" of Cassiopeia and Perseus lies the Double Cluster. **B:** Examine the stars of the Pleiades and Hyades, two naked eye star clusters. **C:** M42 in Orion is a star forming nebula. **D:** Look south of Sirius for the star cluster M41. **E:** M44, a star cluster barely visible to the naked eye, lies to the southeast of Pollux. **F:** Look high in the east for the loose star cluster of Coma Berenices.

NOTE: The Mar 2026 Sky Object of the Month was previously featured as the Mar 2011 issue.

Sky Object of the Month – March 2026
Alpha (α) Geminorum (Castor)
by Glenn Chaple

Are you looking for something new and different to add to your late winter/early spring star party repertoire – a cosmic showpiece guaranteed to elicit a gasp of surprise and wonder from anyone who peers into your telescope? I suggest the double star alpha (á) Geminorum, better know as Castor. One glance at these sparkling magnitude 2.0 and 2.9 diamonds and it's easy to understand why William Herschel's son, John, considered Castor the finest double star in the northern sky.

Castor's duplicity was discovered by the English astronomers Bradley and Pound in 1718, although evidence exists that it may have been observed by Cassini forty years earlier. Based on his own observations and those of other astronomers in previous decades, William Herschel announced in 1803 that Castor was, in fact, a true binary system and not a chance alignment of widely separated stars. Castor A (the brighter component) and Castor B (the companion) have yet to undergo a complete orbit since their discovery, but calculations point towards an orbital period of 467 years.

At the time of its discovery, Castor was an easily-resolved pair separated by a comfortable 4 arc-seconds. Throughout the 19th century and early decades of the 20th, it remained a readily accessible small-scope target. But as the pair approached periastron (the point in a binary orbit when the stars are closest together), they became harder and harder to split. By the mid-1960s, Castor had dropped off the backyard astronomer's radar. Since then, however, Castor A and B have rapidly separated. Today, the two are nearly 5 arc-seconds apart – once again an easy split for the smallest of telescopes.

The sight of this binary pair is so spell-binding that the observer may fail to notice a 9th magnitude companion 73 arc-seconds away. Though distant both in angular and physical separation (100 billion miles), Castor C is nonetheless gravitationally bound to the main pair, orbiting them in a period that probably exceeds 10,000 years.

There's more! Spectroscopic studies reveal that each of Castor's components is a tight binary pair. Castor A and B are both comprised of almost identical A-type main sequence stars with orbital periods of 9.2 days and 2.9 days, respectively. C is also a binary twin set, this time made up of low-mass red dwarfs locked in a 19.5-hour orbit. What the unaided eye sees as a single star is actually a triplet of twins!

Besides its value as a "wow" object, there's another good reason for adding Castor to your star party repertoire. Bright double stars aren't as adversely affected by haze or light-polluted skies as are deep-sky objects like nebulae and galaxies. Can't get out to your dark-sky observing site in the country? No problem! Castor is waiting for you.

**Castor: (L) April 7, 1976 and (R) April 18, 2008. South is up.
(Observations made by the author, using a 3-inch f/10 reflecting telescope)**

Spider Nebula

Write up and Images By Marty Burgess

In what we now call the Auriga constellation (on the edge of the Perseus arm of the Milky Way), a group of stars began illuminating and exciting the gases amongst them. The gases glowed in the light of the nearby stars and continue to do so. The light seen today began its journey towards earth some 7100 years ago. At that time, the collective progenerators of life were surviving the aftermath of a super volcano, which had reduced sunlight, and covered the earth with a layer of soot and ash. This nearly killed those predecessors, who had just started to wander around, far beyond their homelands.

Pointing a Dwarf 3 and Seestar 50 smart telescopes towards the constellation of Auriga, aka the Charioteer, I tap a few buttons, and the wiz bang machines take pictures of the sky. The photons are weakened by time and distance, yet they are still passing by at an amazing pace. Unseen by my eyes, yet bright enough for the two cameras to record!

The light reflected by planets, our moon, and the light emitted by stars in the night sky, are the adornments available for our eyes. Each light left its source at different times, to arrive, on any night, in any moment, for those who look.

The Spider nebula (an emission nebula), aka IC (Index Catalogue) 417, shows up on a tablet screen. The image faint, stars all around, other nebulas lighting up the edges. The image is new. The photons are old, 7100 years old, as they land on the cameras chip. They've been streaming towards this place, which did not exist when the cluster of stars began some 10 million years ago, to be captured in this moment.

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The first picture is a mosaic of the region around the Spider Nebula taken by the Dwarf 3, 1 hour 37 min duration with 60 sec exposures. In center IC 417 Spider Nebula; to the right IC 405 Flaming Star Nebula and IC 410 Tadpole Nebula on lower right, Open cluster M38 above and open cluster M36 to the lower left.

This picture is of the Spider Nebula, IC 417captured by the dwarf 3 one hour and 16 minute duration of 15 second exposures.

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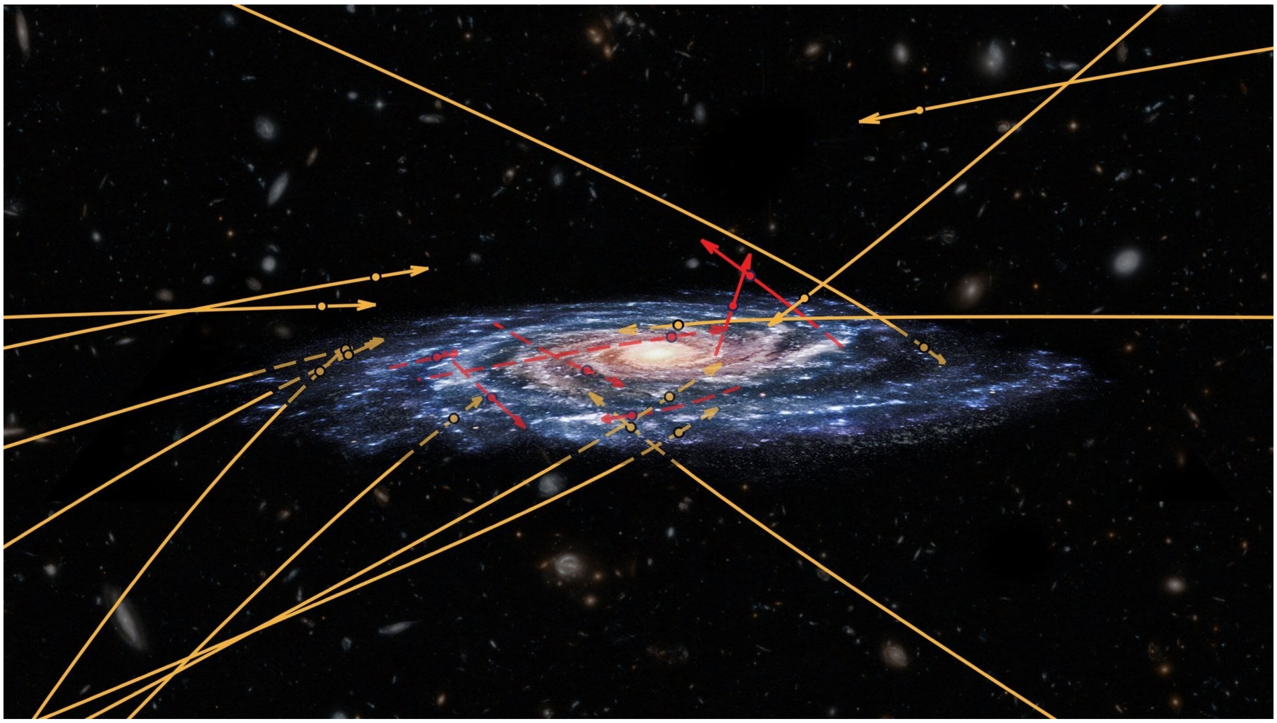
And with the Seestar 50, the Spider Nebula IC 417, 52-minute duration of 20 second exposures.

Universe Today

Researchers Conduct the Largest Study of Runaway Stars in the Milky Way

By Matthew Williams



The positions and trajectories of 20 hypervelocity stars as reconstructed from data acquired by the Gaia satellite, overlaid on top of an artistic view of the Milky Way. Credit: ESA/Marchetti et al 2018/NASA/ESA/Hubble

In the early 1960s, Dutch astronomer Adriaan Blaauw observed stars moving at unusually high speeds moving through the Milky Way. These stars, as it turned out, were unbound objects that had been kicked out of the Milky Way and periodically looped back and forth through the disk. Blaauw proposed that these stars originated in binary systems and were ejected when the companion star collapsed and exploded off its outer layers in a supernova. By 2005, even faster runaway stars were observed, leading to the designation "hypervelocity stars."

In January, researchers from institutes across Spain announced the completion of the most extensive observational study to date of runaway massive stars. Using data from the ESA's *Gaia Observatory* and high-quality spectra from the IACOB Spectroscopic Database, the team analyzed 214 O-type stars, the brightest and most massive class of stars in the galaxy. Their results shed new light on how these stellar objects are ejected into space and their origins. In particular, they show that the majority of runaway stars did not begin as binary companions.

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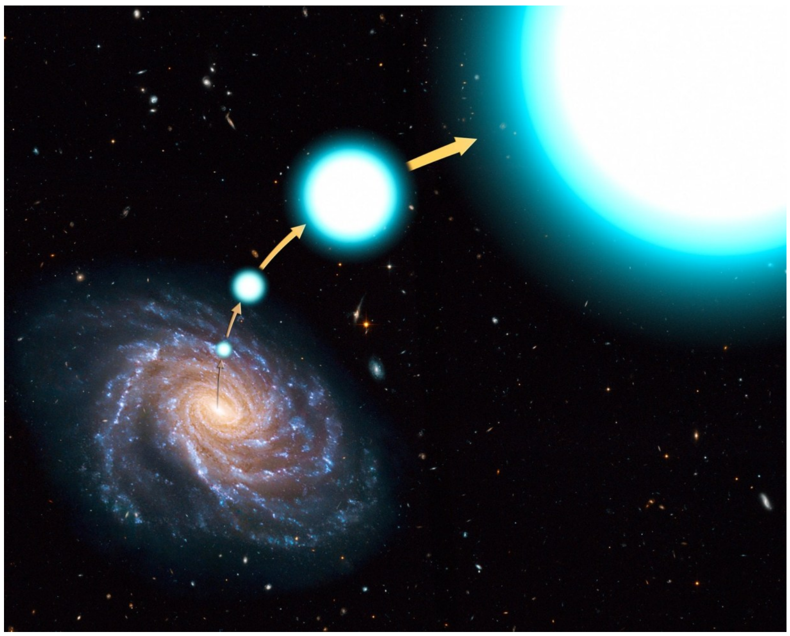
These stellar runaways are of interest to astronomers because of the influence they have on the evolution of galaxies. By escaping their systems of origin, they irradiate gas and dust in the interstellar medium (ISM), eventually seeding it with heavy elements after they go supernova. This, in turn, affects how future stars and planets will form in the ISM. Understanding the origins of runaway massive stars will lead to refined models of stellar evolution, as well as new models on how binary systems, star clusters, and supernovae affect galactic evolution.



In this illustration, the hot, blue star HE 0437-5439 has been tossed out of the center of our Milky Way galaxy with enough speed to escape the galaxy's gravitational clutches. Credit: NASA/ESA/STScI/CfA

Since their discovery, astronomers have wondered how these stars acquire such high velocities and considered two possible scenarios: explosive ejection by supernovae in binary systems or gravitational ejection from close encounters with star clusters. However, the relative contributions of these mechanisms for turning giant stars into runaways in our Milky Way remained unknown. In short, scientists could not say which of the possible scenarios was the most likely and the most common. To shed light on this, the team of Spanish researchers analyzed Gaia and IACOB data to characterize these stars.

Between 2013 and 2025, the Gaia Observatory measured the proper motion, luminosity, temperature, and composition of over 2 billion stars in the Milky Way - a process known as astrometry. This data will be used to create the most precise three-dimensional map of the Milky Way to date, addressing many unanswered questions about the origin, structure, and evolution of our galaxy. The IACOB project, meanwhile, is a long-term observational campaign aimed at providing a comprehensive overview of the physical properties and evolution of massive OB-type stars in the Milky Way.

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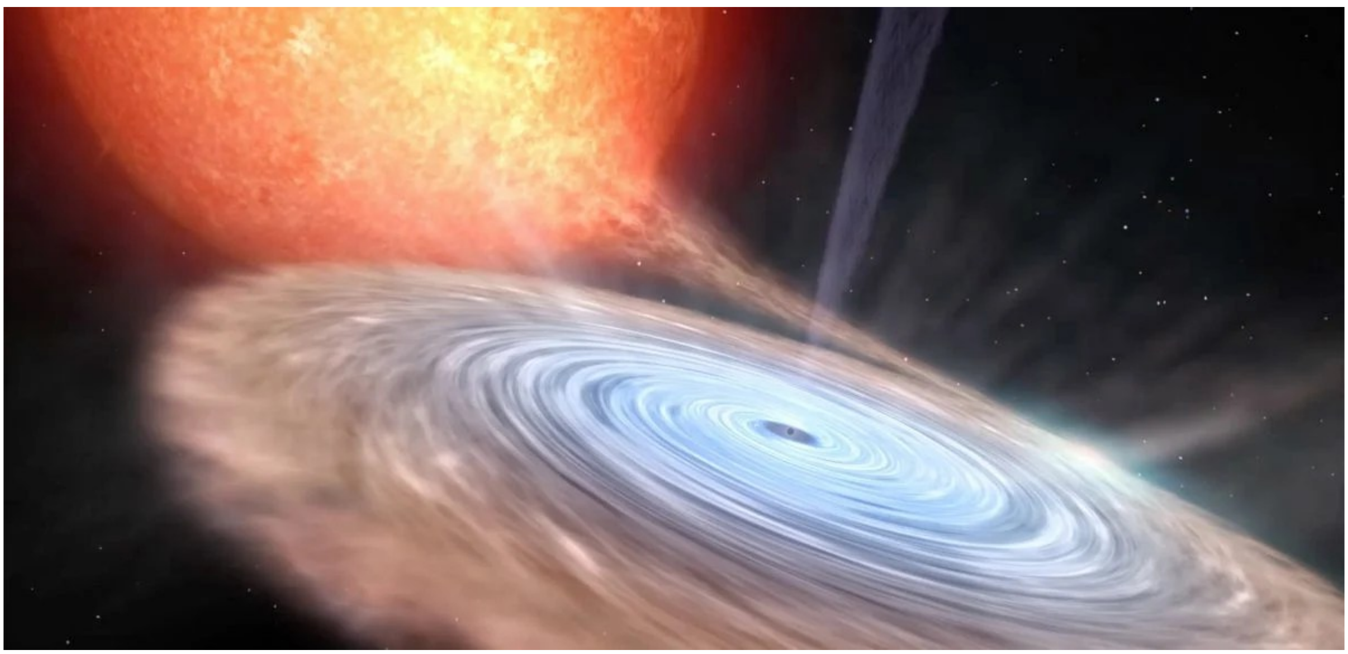
By combining these two sources of data, the team was able to measure the rotation speed and the point of origin for the largest sample of galactic O-type runaway stars to date. By definition, this term applies to stars that have velocities that often exceed 700 km/s (435 mi/s)—fast enough to escape the Milky Way's gravity. The results reveal that most runaway stars rotate slowly, while those that rotate faster are more likely to be linked to supernova explosions in binary systems. They also found that the highest-velocity stars tend to be single, suggesting that they were ejected from young clusters through gravitational interactions.

The team also identified 12 runaway binary systems, including three X-ray binary sources that contain neutron stars or black holes, and three additional systems that are likely candidates for hosting black holes. "This is the most comprehensive observational study of its kind in the Milky Way," said lead author Mar Carretero-Castrillo, a member of the ICCUB and IEEC, currently at the European Southern Observatory. "By combining information on rotation and binarity, we provide the community with unprecedented constraints on how these runaway stars are formed."



Artistic view of the accretion disc surrounding the black hole V404 Cygni, where the intense wind detected by GTC becomes evident. Credit: Gabriel Pérez, SMM (IAC).

Lastly, the team found that virtually no stars in their study exhibited high velocities and rapid rotation. This was the strongest evidence that multiple mechanisms are responsible for ejecting stars from their systems. Future Gaia data releases and ongoing spectroscopic studies will help astronomers trace these stars to their birthplaces within the Milky Way. This will allow them to confirm which mechanism was responsible and could lead to the discovery of more exotic binary systems, including those that still have gravitationally bound systems of planets.

Astro-Imaging with a Dwarf3

Submitted by Paul Kursewicz

Witch Head Nebula (IC 2118)

Mosaic consisting of two frames.
Used Dwarf's "Stella Studio" to combine each frame into one frame.
Photo Editing Software Used: PixInsight, Photoshop, Siril, AstroSurface.

60sec, 120gain, Average of 50subs per frame, Astro Filter 1-16-26

Extremely faint reflection nebula resembling a profile of a witch's head. Located just to the right of the star Rigel in the constellation Orion. My SX50 camera could not flesh out this nebula. And although the Dwarf3 fleshed it out, to have it look like this, meant spending much time in the digital darkroom. The Dwarf3 rejected about half of my photos. Having 50 more minutes of exposure time would have provided much more detail.

Point and Shoot Camera Astro-Imaging (no telescope)

Canon PowerShot SX50 HS

Submitted By Paul Kursewicz

The Gibbous Moon

Hand-held, Single JPEG Widefield Image, FL 96mm (digital zoom), Manual Focus, 1-30-26

The Gibbous Moon shines amidst Jupiter, Pollux, and Castor in the constellation Gemini. That's their order of brightness, from brightest to faintest. It's challenging to get an image like this one, that shows them this well, despite their vast brightness differences. Your difficulty doing this will show what a wide working range of brightnesses ("dynamic range") your eyes have in a given scene, compared to most cameras. Castor (our sky object of the month) is the far left star (upper left of Pollux). I took over 30 images just to get this one. And, had to over expose the Moon in order to pick up Castor and Pollux.

Point and Shoot Camera Astro-Imaging (no telescope)

Canon PowerShot SX50 HS

Submitted By Paul Kursewicz

Sunspot Archipelago AR4366

Hand-held, Single JPEG Image, FL 1200mm, Manual Focus, 2-2-26
Thousand Oaks Solar Filter

Sunspots are buoyant concentrations of magnetism that float on a sea of solar plasma. Sunspot AR4366 is a complete archipelago. A magnetic island chain more than 200,000 miles long. Archipelago AR4366 consists of one big island twice as wide as Earth plus dozens of lesser isles ranging in size from US states to small planets. With my camera and solar filter combination I was also able to capture the fainter veined penumbra encircling the dark umbra.

Point and Shoot Camera Astro-Imaging (no telescope)

Canon PowerShot SX50 HS

Submitted By Paul Kursewicz

Snow Moon

Hand-held, Single JPEG Image, FL 2400mm (digital zoom), Auto Focus, 2-2-26

The Moon was officially Full at 5:09 p.m. EST on February 1st. I got clouded out on that night. However, the Moon also appeared bright and Full on February 2nd. This Snow Moon was the second of 13 full moons for 2026. February's full moon is traditionally known as the Snow Moon because more snowfall occurs during February than during any other month in winter.

Club Meeting & Star Party Dates

Date	Subject	Location
Mar 6	**<u>ASNNE Club Meeting:</u>** **Business Meeting starts prior to Club meeting.** **Club Meeting (In House & on Zoom) 7:30-9:30PM** **Zoom Link: https://us06web.zoom.us/j/5631683325** **Guest Speaker:** **Paul Kursewicz** will be our guest speaker. The subject will be the Triangulum Galaxy. His presentation will begin with a video. An amateur astronomer travels to the Cannery Islands and uses his homemade 8-inch telescope to go head-to-head with a professional telescope. Who gets the best image of the galaxy? Paul will then share his most recent image of the galaxy and compares it with the two other telescopic images. **Bernie Reim** - "What's UP" **Astro Shorts:** (news, stories, jokes, reports, questions, photos, observations etc.)	**The New School, Kennebunk, Me.**
Last Month	**Last month we had our meeting at The New School. There was a business meeting before the meeting. We hosted a Zoom presentation by the teem producing a NOVA program: Touching the Sun.**	
TBD	**Club/Public Star Party: Weather permitting.**	**Talmage Observatory at Starfield West Kennebunk, Me.**

Directions to ASNNE event locations

Directions to The New School in Kennebunck [38 York Street (Rt1) Kennebunk, ME]

For directions to The New School you can use this link to the ASNNE NSN page and then click on "get directions" from the meeting location. Enter your starting location to generate a road map with complete directions. It works great. http://nightsky.jpl.nasa.gov/club-view.cfm?Club_ID=137

Directions to Talmage Observatory at Starfield [Alewive Road, Kennebunk, ME]

From North:
Get off turnpike at exit 32, (Biddeford) turn right on Rt 111. Go 5 miles and turn left on Rt 35. Go 2 miles on Rt 35 over Kennebunk River to very sharp 90 degree left turn. The entrance to the Starfield Observatory site is at the telephone pole at the beginning of the large field on the left. Look for the ASNNE sign on the pole.

From South:
Get off the turnpike at exit 25 in Kennebunk. After toll both turn right on Rt 35. Go up over the turnpike and immediately turn right on Rt 35. About 4 miles along you will crest a hill and see a large field on your right. Continue until you reach the end of the field. Turn right into the Starfield Observatory site at the last telephone pole along the field. Look for the ASNNE sign on the pole. If you come to a very sharp 90 degree right turn you have just passed the field.

Principal Meteor Showers in 2026

January 4
Quadrantids

April 22
Lyrids

May 6
Eta Aquarids

July 30
Delta Aquarids

August 12
Perseids

October 9
Draconid

October 21
Orionids

November 9
Taurids

November 18
Leonids

November 26
Andromedids

December 14
Geminids

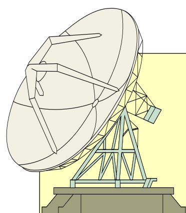
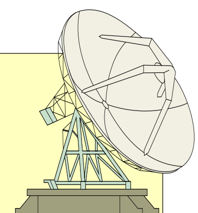
December 22
Ursids

Note: Dates are for maximum

MEMBERSHIP DUES

Membership fees are for the calendar year beginning in January and ending in December. Dues (see page 19 for prices) are payable to the treasurer during November for the upcoming year. New members who join during or after the month of July shall pay half the annual fee, for the balance of the year. Checks should be made payable to the Astronomical Society of Northern New England (A.S.N.N.E). If you would like to mail in your dues, use the form on page 19. Or you can use PayPal via asnne.astronomy@gmail.com

A Member who has not paid current dues by the January meeting will be dropped from membership, (essentially a two-month grace period.) Notice of this action shall be given to the Member by the Treasurer. Reinstatement shall be by payment of currently due dues.

Got any News?

Skylights Welcomes Your Input.

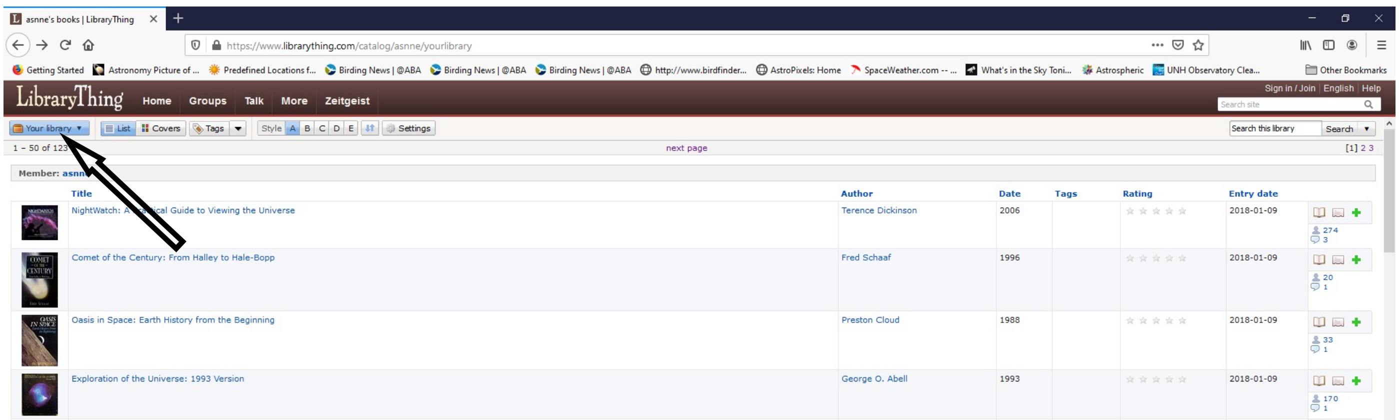
Here are some suggestions:

Book reviews -- Items for sale -- New equipment --

Ramblings -- Star parties -- Observing -- Photos.

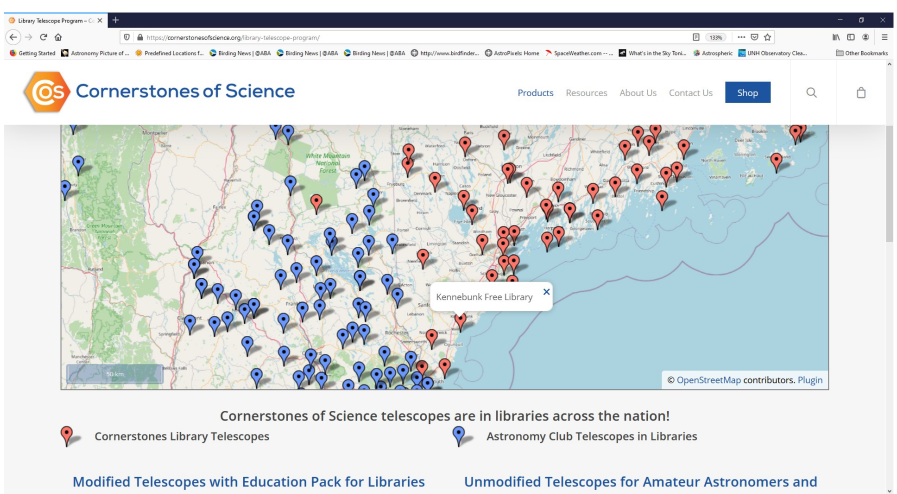
Astronomy Club & Library Resources

Our club has a library of astronomy books which are stored at The New School in Kennebunk, Maine (our monthly club meeting location). To request a book(s), contact one of the club officers. A listing of books is provided here: https://www.librarything.com/profile/asnne . After clicking on the link, a window will open. Click on "Your library" near the upper left corner (as shown by the arrow below). Then scroll down to the end of the page to go to the next page.



Would you like to borrow a telescope? While many astronomy clubs may have a scope to lend out, there are also many libraries which have telescopes for their guests to use. Here are a couple of links.

The following link will bring up an active map (see screen shot below) of the USA showing the libraries which have telescopes to lend out: https://cornerstonesofscience.org/library-telescope-program/



The below link will show a list of known participating library locations for the state of Maine.
https://www.librarytelescope.org/locations/usa/maine

To join **ASNNE**, please fill out the below membership form. *Checks should be made payable to: Astronomical Society of Northern New England (A.S.N.N.E).* For more details, please visit our website: **http://www.asnne.org**

Astronomical Society of Northern New England
P.O. Box 201
Kennebunk, ME 04043-1338

2026 Membership Registration Form

(Print, fill out and mail to address above) or Use PayPal via asnne.astronomy@gmail.com

Name(s for family): ____

Address: ____
City/State: ________________________ Zip code: ___________________

Telephone # ____

E-mail: ____

Membership (check one):
Individual $50 _____ Family $ 60 _____ Student under 21 years of age $10 _____ Donation________

Total Enclosed____________

Tell us about yourself:
1. Experience level: Beginner____ Some Experience ____ Advanced______

2. Do you own any equipment? (Y/N) And if so, what types?

____

3. Do you have any special interests in Astronomy?

____

4. What do you hope to gain by joining ASNNE?

____

5. How could ASNNE best help you pursue your interest in Astronomy?

____

6. ASNNE's principal mission is public education. We hold many star parties for schools and the general public for which we need volunteers for a variety of tasks, from operating telescopes to registering guests to parking cars. Would you be interested in helping?
Yes_____ No_____

7. ASNNE maintains a members-only section of its web site for names, addresses and interests of members as a way for members to contact each other. Your information will not be used for any other purpose. Can we add your information to that portion of our web site?

Yes_____ No_____