

Snake River Skies

The Monthly Newsletter of the Magic Valley Astronomical Society.

September 2026

Membership Meeting

Sept. 12th at the Herrett Center,
College of Southern Idaho main
campus at 7:00pm

Centennial Observatory

See Inside for Details

Faulkner Planetarium

See Inside for Details

Club Officers

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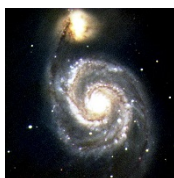
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M-51 imaged by
Rick Widmer & Ken Thomason
Herrett Telescope - Shotwell
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September 2026 Vice President's Message

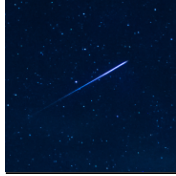
Looking forward to cooler weather and less smoke so we can have some better skies to get back to some nighttime viewing. Unfortunately, we did not get to see the lunar eclipse due to the cloudy sky. Hopefully, we will get to have a star party either in September or October. Our meeting will be on the 12th of September at 7:00 pm. Our presentation will be by Ken Thomason on title "How to Consolidate Neutrons."

Five best astronomical events in September 2026

- **September 8 — Lunar occultation of Jupiter:** The Moon will hide Jupiter from view across parts of Canada, Greenland, the United States, eastern Russia, and the North Pacific. And this one is worth catching it is the first lunar occultation of Jupiter since May 2023.
- **September 14 — Lunar occultation of Venus:** Just six days after Jupiter, the Moon will hide another bright planet — Venus. The occultation will be visible across parts of Europe, Africa, the Middle East, South and Southeast Asia, and western Russia. That makes it the second bright-planet occultation of the month.
- **September 20 — Moon in a line with Altair and Deneb:** The Moon will line up perfectly with Altair and Deneb, the brightest stars of Aquila and Cygnus — two of the best constellations to see in September. The whole pattern is easy to see with the naked eye — and far too wide to fit into binoculars anyway.
- **Late September — Venus at its brightest in the evening sky for all of 2026:** The brightest planet in the sky will reach its peak brightness for the year (mag -4.8). Venus is always hard to miss, but around this time it will be especially striking — and [most impressive sky sights of 2026](#).
- **September 26 — Harvest Moon:** This is an easy crowd-pleaser — bright, obvious, and requiring approximately zero astronomy skills to find. It is also a great excuse to photograph the Moon rising behind buildings, mountains, or anything else that makes it look enormous.

Snake River Skies is the Newsletter of the Magic Valley Astronomical Society and is published electronically once a month. Snake River Skies © 2026 by David Olsen for the Magic Valley Astronomical Society, All Rights Reserved. Images used in this newsletter, unless otherwise noted, are in the public domain and are courtesy of NASA, Wikimedia, or from MVAS File Photos. Full Moon names follow the traditional various First Nations history.

Monthly Event Calendar - September 2026

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 Aurigid meteor shower 2026 	2	3 Close approach of the Moon and M45 	4 Moon at Last Quarter Venus at aphelion	5
6 Conjunction of the Moon and Mars The Moon at perigee	7 Labour Day	8 Close approach of the Moon and M44 Conjunction of the Moon and Jupiter	9 September ε-Perseid meteor shower 2026	10 Uranus enters retrograde motion New Moon	11	12 MVAS Meeting 7:00p at the Herrett Center. Centennial Observatory Star Party 8:45 - 10:45 pm
13 The Moon at perihelion	14 Conjunction of the Moon and Venus Viewing in the Daytime - Early Dusk	15	16	17	18 Moon at First Quarter The Moon at apogee	19 Centennial Observatory International Observe the Moon Night 8:30-9:30 p.m.
20	21 Venus at greatest brightness On the 22 nd 	22 Autumnal equinox 	23 The Moon at aphelion	24	25 Neptune at opposition	26 Full Harvest Moon 
27 Conjunction of the Moon and Saturn Mercury at aphelion	28	29	30 Asteroid 192 Nausikaa at opposition Close approach of the Moon and M45			

The Harvest Moon refers to the Full Moon closest to the September equinox. [Read more about the Harvest Moon here.](#) Other names for this month's Moon used by indigenous people are: Autumn Moon (Cree), Falling Leaves Moon (Ojibwe), Leaves Turning Moon (Anishinaabe), Moon of Brown Leaves (Lakota), and Yellow Leaf Moon (Assiniboine) all speak to the leaf-changing season. Child Moon (Tlingit) occurs when young animals are weaned.

Herrett Center for Arts and Science

Centennial Observatory



Upcoming Events

All events are weather permitting

Event	Place	Date	Time	Admission(s)
Summer Solar Session #15	Centennial Observatory	Wednesday, September 2, 2026	1:30-3:30 p.m.	Free
Monthly Free Star Party	Centennial Observatory	Saturday, September 12, 2026	8:45-10:45 p.m.	Free
International Observe the Moon Night	Centennial Observatory	Saturday, September 19, 2026	8:30-9:30 p.m.	Free

Faulkner Planetarium

[Now Showing](#)



Find Current Shows following the link above. Admission: Adults (ages 18-59): \$7.50 Seniors (ages 60+): \$6.50 Children (ages 2-17): \$5.50 CSI students (w/ activity card): \$5.50 Children under age 2: FREE. Buy your [tickets](#) online.

*50% discount for Planetary Society members and families.

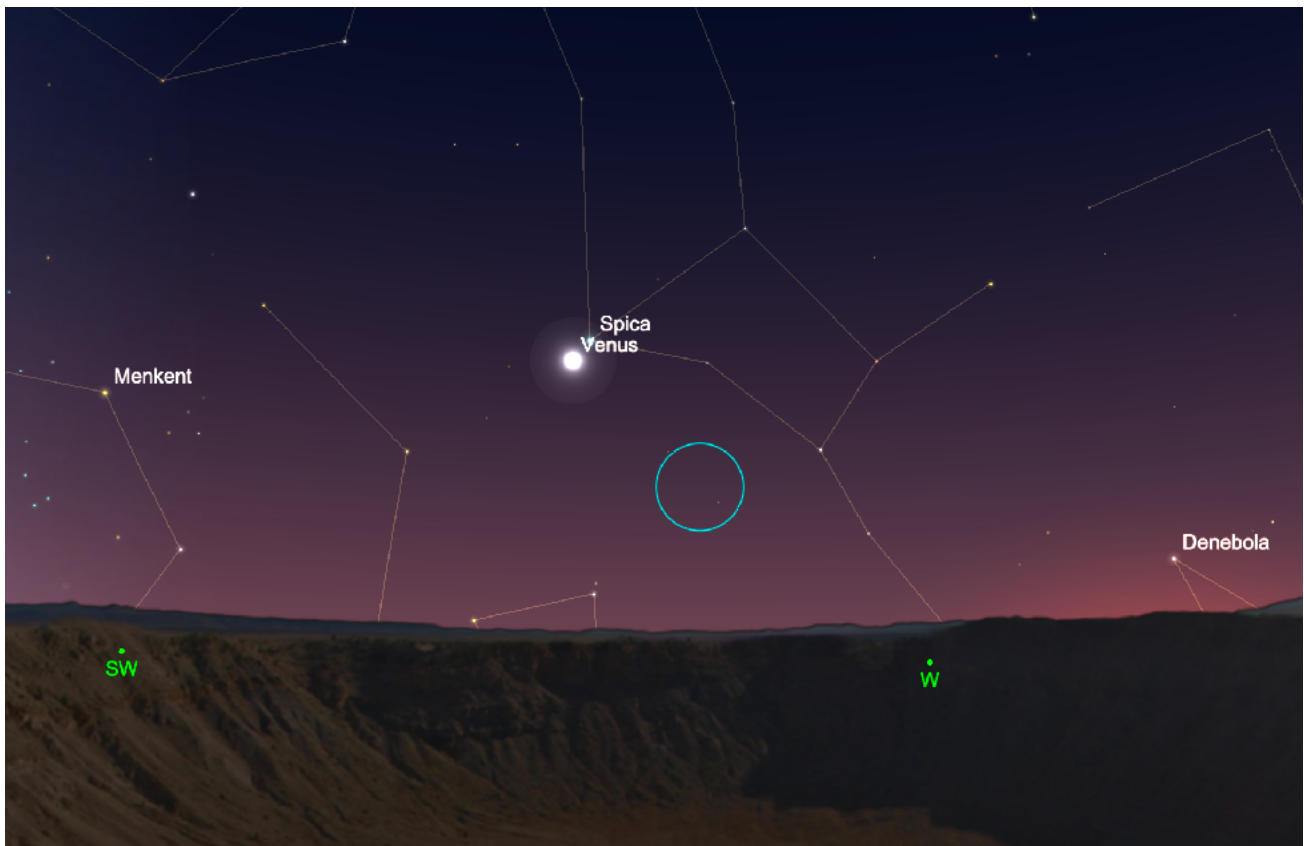
- Assistive listening devices available upon request.
- Open captioning available upon request for some shows.
- No food, drink, or late entry.
- Dark conditions and audio/visual effects may be too intense for younger children.

Cosmic Pursuits - Night Sky this Month – September 2026

1. All five bright planets are visible this month, along with the ice giants Uranus and Neptune. Venus reaches peak brightness low over the western horizon after sunset, Mercury makes a fine evening apparition, and Mars and Jupiter brighten in the eastern morning sky. Once again, the zodiacal light emerges in the morning for observers with dark sky. [Here's what to see in the Night Sky This Month...](#)
2. Still nearly overhead in the mid-evening hours, brilliant Vega ([my favourite star](#)) conjures memories of pleasant summer stargazing and offers astronomers a remote stellar laboratory to help understand how stars evolve.
3. The next great space telescope launched successfully last weekend, on its way to map the cosmos and discover thousands of new exoplanets. Here's an overview of what to expect from the Nancy Grace Roman Space Telescope ([gift link at the NY Times](#))...
4. [Ed Ting gives a frank overview of where amateur astronomy is going](#) in this age of the smart telescope.
5. Finally, [have a look at this new image of the bubbling surface of Betelgeuse](#).

And the astronomy quote of the month: "One lesson astronomy tells us is that we're a tiny mote in a hostile void, and help is too far away." - Sandra Faber.

The starry band of the Milky Way in Scorpius and Sagittarius moves westward this month, but lengthening nights keep this vista accessible until the end of September before it disappears for the year. In the east, the relatively star-poor constellations of Pegasus, Capricornus, and Piscis Austrinus are moving into view along with hundreds of galaxies accessible with a small telescope. The latter constellation's lone bright star, Fomalhaut, shines alone in the southern sky for much of the night. All five bright planets are visible this month, along with the ice giants Uranus and Neptune. Venus reaches its brightest low over the horizon after sunset, Mercury makes a fine evening apparition in the south, and Mars and Jupiter brighten in the eastern morning sky. Once again, the zodiacal light emerges in the morning for observers in dark sky. Here's what to see in the night sky this month...



Venus

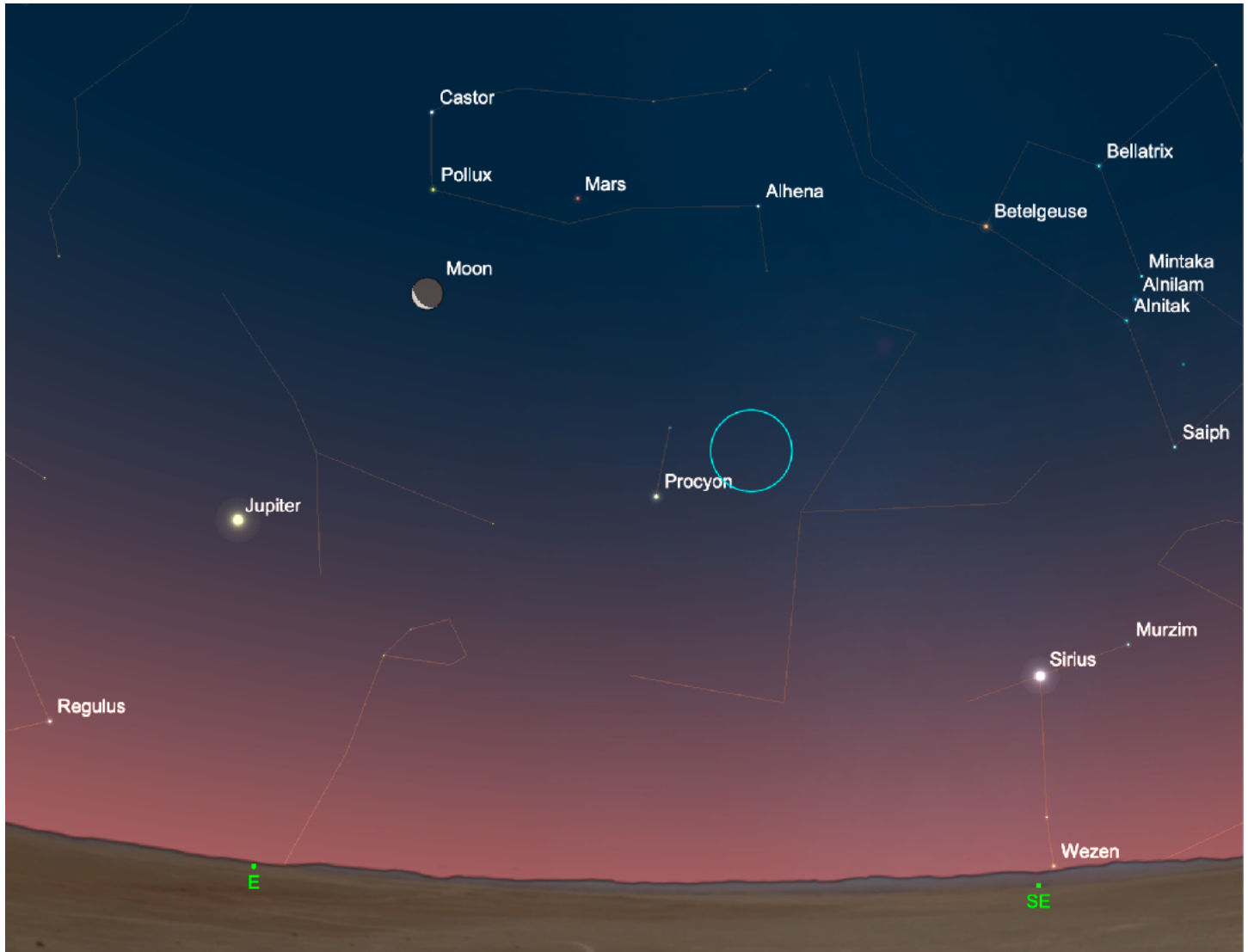
Spica low in the southwestern evening sky on Sept. 1, 2026. The cyan circle spans 5 degrees.
Click the arrow in the lower right corner for a larger online image.

and

1 September 2026. Venus lies about 1.7° south of Spica in the southwestern sky after sunset. The planet blazes away at magnitude -4.5 tonight and, in a telescope, shows a thick crescent about 38% illuminated and $31''$ across. The planet lies low over the horizon for northern observers, while southern-hemisphere stargazers get a better view because of the inclination of the ecliptic.

3 Sept. The waning gibbous Moon lies tangled in the stars of the Pleiades.

4 Sept. Last Quarter Moon, 07:51 UT



Jupiter and Mars lie among the stars of Cancer and Gemini on the morning of Sept. 7, 2026. The cyan circle spans 5 degrees.

6-7 Sept. The crescent Moon passes through Gemini on the 6th, forming a rectangle with Mars, Castor, and Pollux in the eastern pre-dawn sky. On the 7th, now a little thinner, the Moon lies nearly halfway between Mars and Jupiter. Jupiter itself shines at magnitude -1.9 and spans about $33''$, relatively dim and small, as it begins its long journey to opposition next year.

8 Sept. This morning, Jupiter sits less than a degree from a slender crescent Moon in the early-morning sky. The pair frame nicely in binoculars or a telescope at low magnification. Much of Canada and the U.S. will see the Moon occult the planet in daytime hours. You can find timing of the event [at this link](#).

9 Sept. Over the next two weeks, northern-hemisphere observers with very dark sky can see the zodiacal light in the east about 90-120 minutes before sunrise. This whitish wedge of light appears to thrust upward from the horizon towards the constellations Gemini and Cancer. The zodiacal light is simply sunlight reflected off tiny dust particles in the inner solar system. Look for a razor-thin Moon rising with Regulus low over the northeastern horizon before sunrise.

10 Sept. Uranus reaches its first stationary point and now begins retrograde motion. It lies about halfway between Aldebaran and the Pleiades.

11 Sept. New Moon, 03:27 UT

12 Sept. Look for Mercury about 4° north of the crescent Moon in the evening sky. Northern observers see the planet very low over the horizon as the Sun sets. But southern observers get a much better view of the planet over the next two weeks during its best evening apparition of the year in the southern hemisphere.

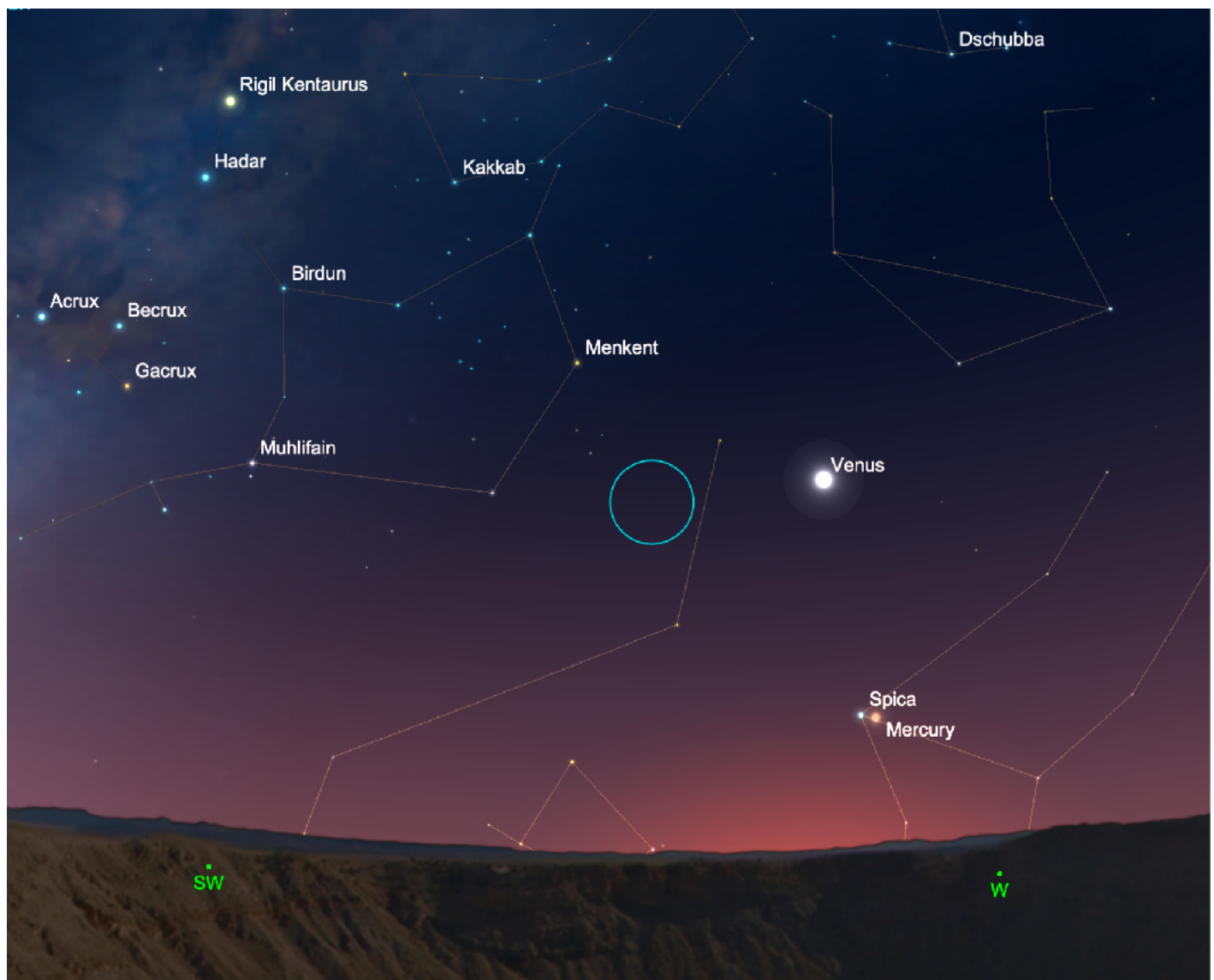
14 Sept. A thickening crescent Moon comes within 0.5° of Venus low in the evening sky after sunset. Observers in Europe see the Moon occult Venus in the morning daylight hours. [This link has more details](#) on the timing of the event.

17 Sept. A nearly first-quarter Moon trails Antares by about 5° in the southwestern sky in the early evening.

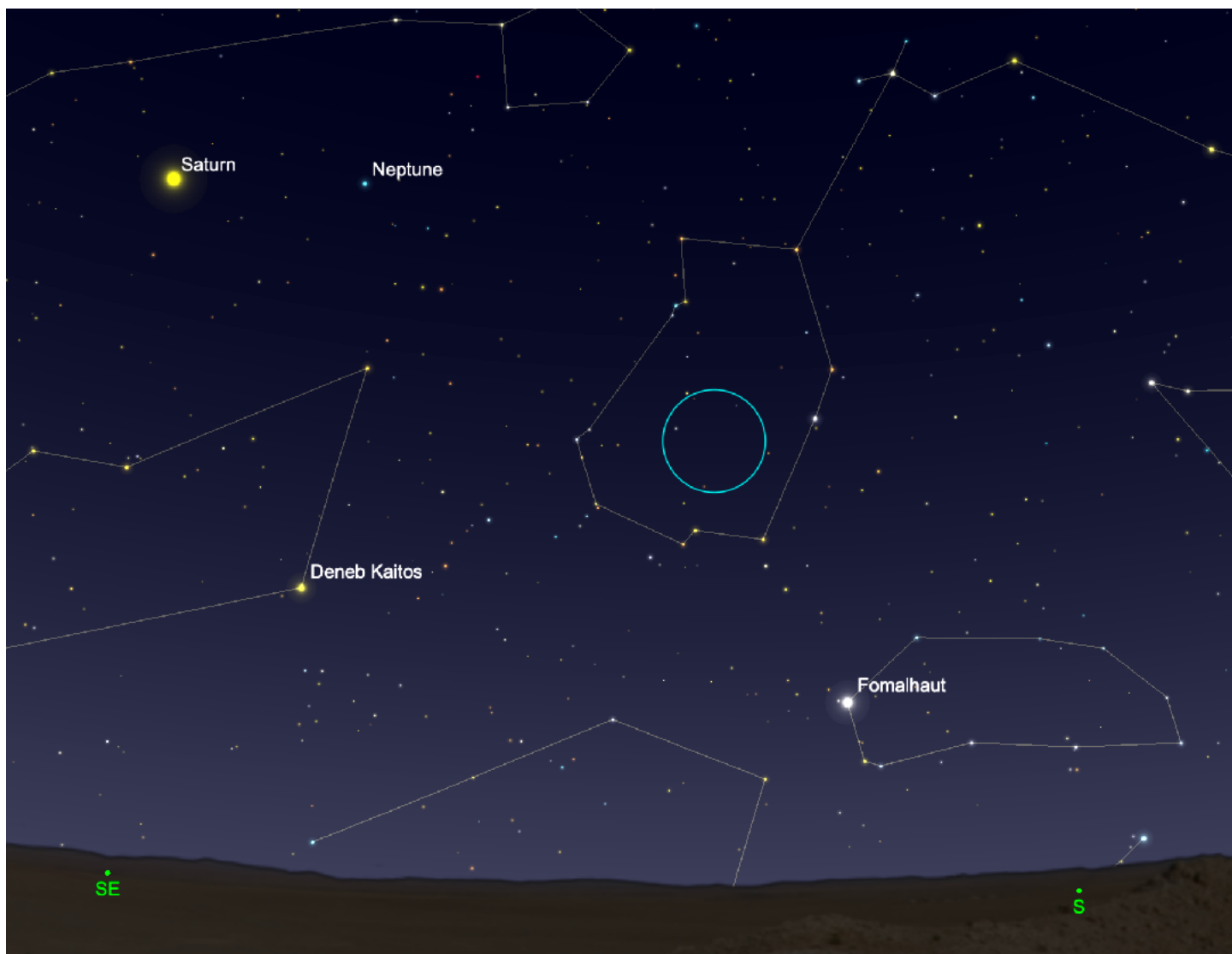
18 Sept. First Quarter, 20:44 UT. Venus reaches its greatest illuminated extent. In a telescope, the planet appears about 26% lit and spans about $39''$ from tip to tip. It shines tonight at a blazing magnitude -4.6 , though it still lies low over the horizon for northern observers.

22 Sept. The September Equinox arrives at 18:05MDT (0:05 UT) marking the beginning of autumn in the northern hemisphere and spring in the southern hemisphere.

26 Sept. Full Harvest Moon, 10:49 MDT (16:49 UT)



Mercury lies close to Spica with Venus above in the western evening sky on Sept. 26, 2026, as seen from 35 degrees south latitude. The cyan circle spans 5 degrees.



Neptune at opposition in late September 2026. The cyan circle spans 5 degrees.

26 Sept. Neptune reaches opposition between Saturn and the 'Circlet of Pisces'. The slow-moving planet, which lies today at a distance of 4.3 billion kilometers, shines at magnitude 7.8 and spans a diameter of just 2.4". You can spot the planet in binoculars, but you need a telescope at about 150x or more to reveal its pale blue-green disk.

Wishing you clear skies! Brian Ventrudo, Publisher
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International Observe the Moon Night

Observe the Moon with NASA

[International Observe the Moon Night](#) is a time to come together with fellow Moon enthusiasts and curious people worldwide. Everyone on Earth is invited to learn about lunar [science](#) and [exploration](#), take part in celestial observations, and honor cultural and personal connections to the Moon. We encourage everyone to [interpret “observe” broadly!](#)

International Observe the Moon Night occurs annually in September or October, when the Moon is around first quarter — a great phase for evening observing. A first quarter Moon offers excellent viewing opportunities along the terminator (the line between night and day), where shadows enhance the Moon’s cratered landscape.

You can join International Observe the Moon Night from wherever you are. Attend or [host](#) a virtual or in-person [event](#), or observe the Moon [from home](#). Connect with fellow lunar enthusiasts around the world by using #ObserveTheMoon on your preferred social media platform and visiting the International Observe the Moon Night [Flickr group](#).

Outdoors, at home, online, or wherever you may be, we’re glad to have you with us. However you choose to observe, please follow local guidelines on health and safety.

Goals of International Observe the Moon Night:

1. **Unite people across the globe** in a celebration of lunar observation, science, and exploration.
2. Provide information, a platform, and resources in order to:
 - **Raise awareness** of NASA’s lunar science and exploration programs.
 - **Empower people to learn more** about the Moon and space science and exploration, using Earth’s Moon as an accessible entry point.
 - **Facilitate sharing** of Moon-inspired stories, images, artwork, and more.
 - **Inspire continued observation** of the Moon, the sky, and the world around us.
 - **Support all people** who are interested in learning more about, and connecting to, the Moon.

International Observe the Moon Night is sponsored by NASA’s Lunar Reconnaissance Orbiter mission and the Solar System Exploration Division at NASA’s Goddard Space Flight Center, with many contributors.

If you want to participate please look over the Moon Maps by NASA and download your copy here. <https://tinyurl.com/mrycdeah> Observational Journal is here. <https://tinyurl.com/3r78dcrk>

See you at the Centennial Observatory on the 19th 8:30 - 9:30pm



Phil Harrington's Cosmic Challenge

Veil Nebula



This month's suggested aperture range:
Binoculars and Small Telescopes
Featured Telescope: Tele Vue TV-85 (Editor's Scope)



Target	Type	RA	DEC	Constellation	Magnitude	Size
NGC 6960	Supernova remnant	20h 45.9m	+30° 43.0'	Cygnus	--	60.0'x9.0'
NGC 6992	Supernova remnant	20h 57.0m	+31° 30.0'	Cygnus	--	80.0'x26.0'

Floating among the myriad points of light in eastern Cygnus is all that remains of a once mighty superstar. About 10,000 years ago, that stellar giant exploded as a cataclysmic supernova, briefly becoming one of the brightest objects in Earth's sky.

When we swing our telescopes and binoculars its way today, we find the ethereal echo of that once mighty star. The star's dense core has never been found, but its cloud of stellar shrapnel continues to expand from the site of the explosion. That debris field is known as the *Cygnus Loop*.

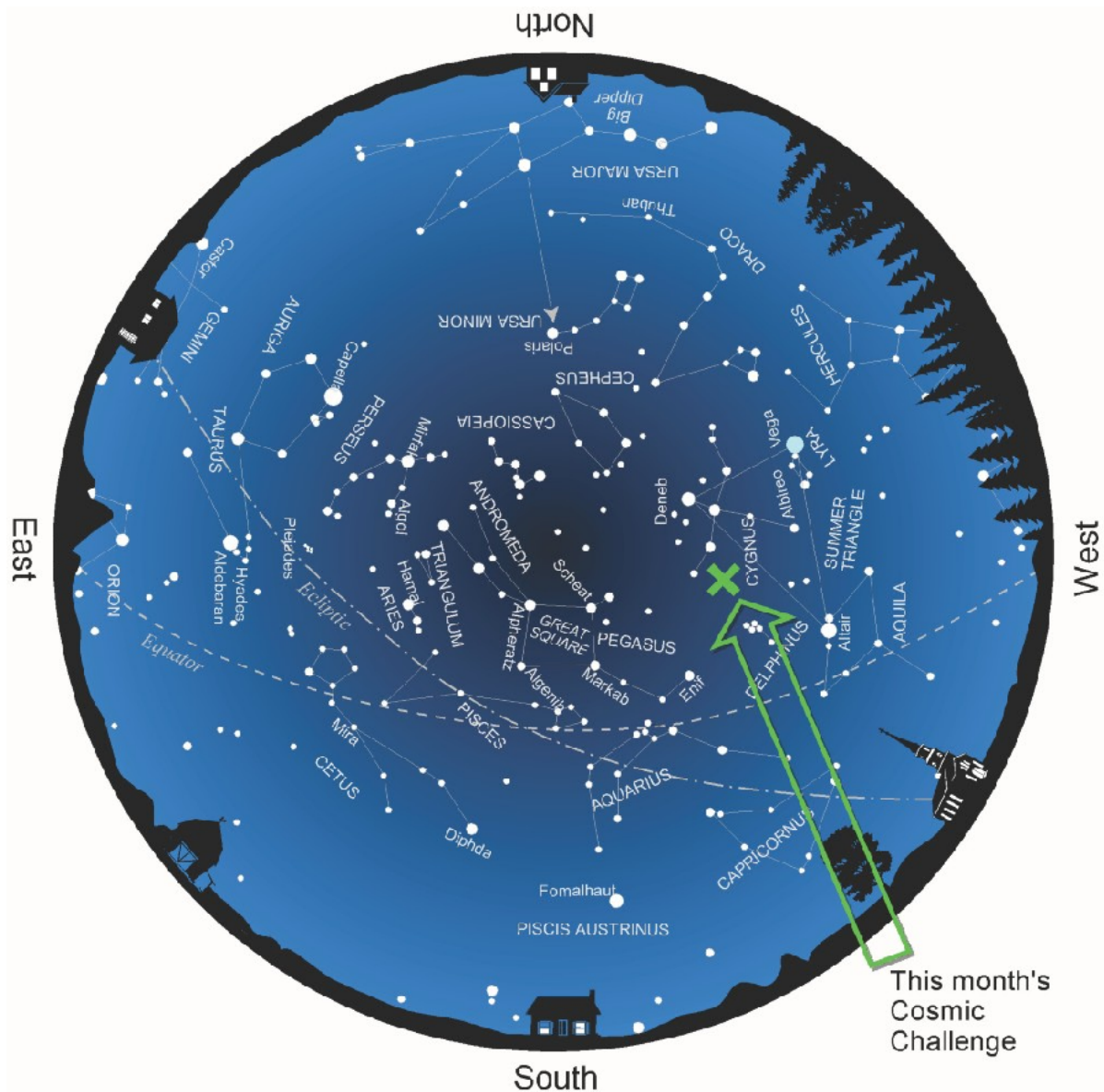
The Cygnus Loop refers to the entire expanding supernova remnant. Today, the Loop spans nearly 3° across the sky, about six times the apparent diameter of the Full Moon. Modern measurements place the Cygnus Loop about 2,400 light years away, giving it a true diameter of roughly 120 light years. The blast wave is still racing outward, compressing and heating surrounding interstellar gas until it glows. Despite decades of study, however, astronomers have yet to identify with confidence the compact stellar remnant left behind by the explosion.

The **Veil Nebula** is the brightest visible portion of the Cygnus Loop. Its lace-like appearance results because we view the shock front nearly edge on, where our line of sight passes through much more glowing gas than elsewhere in the remnant.

The brightest sections were discovered by William Herschel on September 5, 1784, using his 18.7-inch (47.5-cm) reflector. Because the nebula extends over such a wide area, its brightest portions received separate New General Catalogue designations. The graceful eastern arc is **NGC 6992**, with its southern continuation **NGC 6995**, together often called the **Eastern Veil Nebula** or the **Network Nebula**. The western arc, **NGC 6960**, is also known as the **Witch's Broom**. It appears to cross the foreground star 52 Cygni, although the two are unrelated and nowhere near one another in space.

Between them lies **Pickering's Triangle**, (**Simeis 3-188**), an even tougher challenge. Herschel did not record it, however. This segment was discovered photographically by [Williamina Fleming](#) in 1904, although it subsequently became known by the name of [Edward C. Pickering](#), director of the Harvard College Observatory. It might more appropriately be called *Fleming's Triangle*.

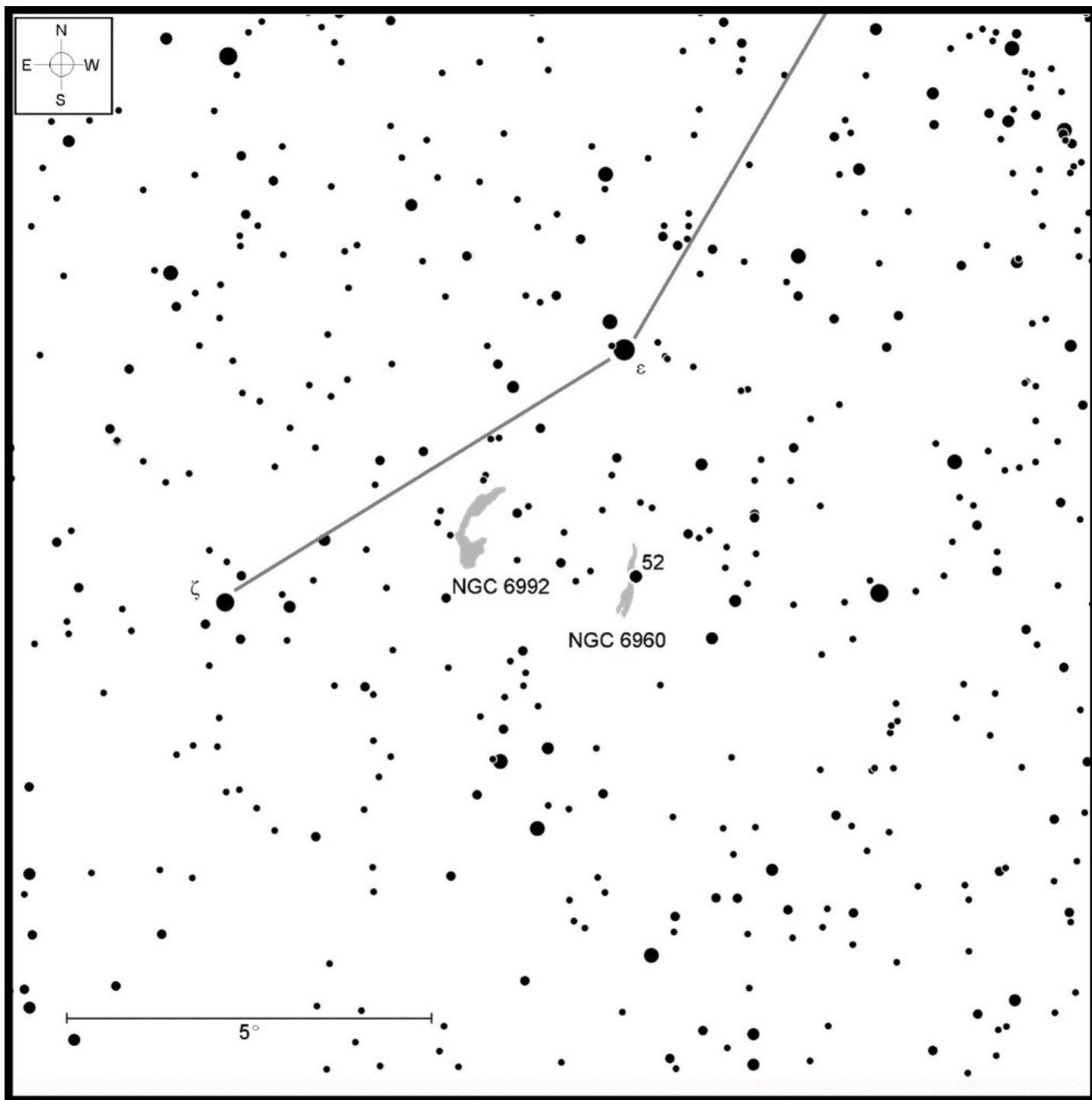
One reason the Veil photographs so beautifully is its vivid colors, although they are far too dim for our eyes to appreciate directly. Doubly ionized oxygen produces much of the familiar blue-green glow outlining the nebula's intricate filaments, while ionized hydrogen contributes red emission along portions of the shell. At the eyepiece, however, nearly all observers see only varying shades of gray.



Timetable			
July 1	5 a.m.	October 1	11 p.m.
August 1	3 a.m.	November 1	9 p.m.
September 1	1 a.m.	December 1	7 p.m.

All times are standard time. Add 1 hour for Daylight Saving Time.

Above: Autumn star map showing the location of this month's Cosmic Challenge.
Credit: Map adapted from [Star Watch](#) by Phil Harrington.



Finder chart for Phil Harrington's Cosmic Challenge, September 2026
 Chart © 2026 by Philip Harrington and adapted from Cosmic Challenge.

The Veil lies about 3° south of Epsilon (ϵ) Cygni. Its enormous size favors low magnification and wide fields of view. The real challenge is surface brightness, not aperture. Binoculars and telescopes under 4 inches (10 cm) are surprisingly effective because they preserve the nebula's sweeping form.

Begin with the Eastern Veil Nebula, NGC 6992. You'll find it just southwest of a small triangle of 7th- and 8th-magnitude stars between Epsilon and Zeta (ζ) Cygni. Sweep slowly and use averted vision. At first the nebula may appear as only a slight brightening of the background before gradually resolving into a long, graceful arc.

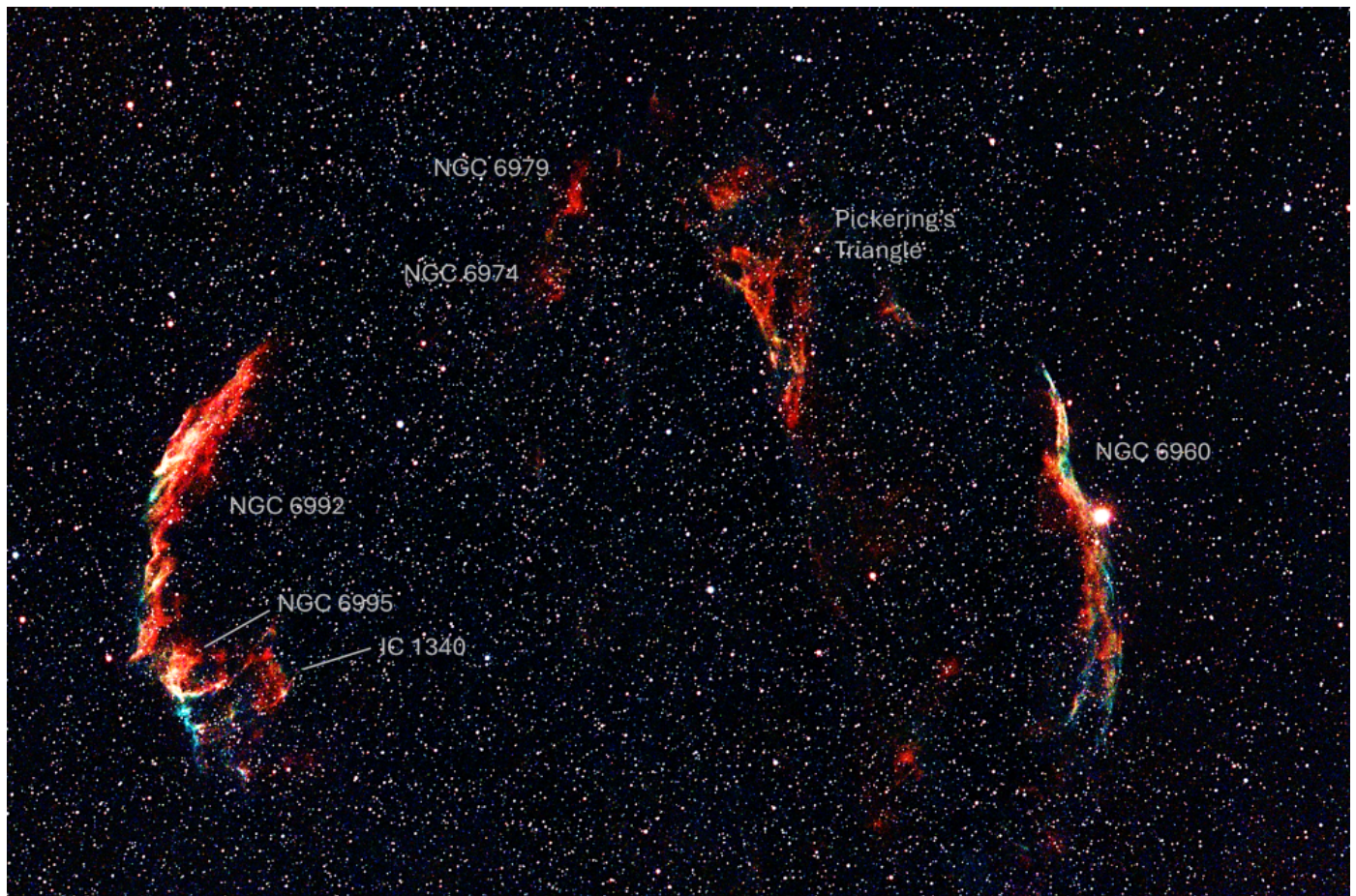
Through 10×50 binoculars, NGC 6992 resembles a soft elongated streak. Under excellent skies, NGC 6995 extends the view farther south. Mounting binoculars on a tripod or other support greatly improves the view by holding the faint glow steady against the background stars.

Giant binoculars offer a noticeable step upward. The eastern Veil appears more continuous, NGC 6995 becomes easier to distinguish, and subtle variations in brightness begin to emerge. A sturdy mount is essential.

A 3- to 4-inch (76 to 100mm) refractor at low power will reveal more structure than binoculars under a transparent, moonless sky. A wide-field eyepiece preserves the sweep of the eastern arc, while a good UHC or similar narrowband filter can improve the Veil's contrast by suppressing much of the background sky while preserving a reasonably bright view. Under especially favorable conditions, portions of the Veil's uneven, filamentary structure may begin to emerge.

Sidebar: An O III filter may increase contrast further, but it is very dense and can darken the field excessively in 4-inch (100 mm) and smaller instruments. In my experience, O III filters are generally more effective with telescopes of 8 inches (20 cm) or larger. For the small instruments, a UHC-type filter usually offers the better balance between contrast and image brightness.

One memorable summer evening several years ago beneath the exceptionally dark skies of New York's Catskill Mountains, I spotted both NGC 6992 and NGC 6995 through my 10×50 binoculars. Together they resembled a faint wisp



of smoke rising from an invisible chimney. It remains one of my favorite binocular observations.

Above: Veil Nebula. Mosaic by the author using a [ZWO Seestar S30 Pro](#).

The Witch's Broom, NGC 6960, proved much more difficult. The glare of 52 Cygni complicates the view. Try placing the star near the edge of the field to reduce its glare. During that Catskills observation, the northern portion eventually revealed itself, but the southern half stubbornly refused to appear, even after I jury-rigged narrowband filters over my binocular eyepieces. **Pickering's Triangle** is subtler still and is best attempted only after the two principal arcs have been identified. Under excellent conditions it appears as a faint, irregular wedge between the eastern and western Veil. Even under the exceptional Catskill skies, I couldn't make it out through the 10x50s.

Experiences like these are part of the Veil Nebula's enduring appeal. Each section presents a different level of difficulty, from the relatively accessible eastern arc to the elusive Pickering's Triangle. The next time you find yourself beneath a dark summer sky, pause in eastern Cygnus and look for those delicate filaments, the lingering remains of a stellar explosion that illuminated our corner of the Milky Way thousands of years before recorded history.



Above: Digitized sketch of the Veil through the author's 10x50 binoculars from the Catskill Mountains.

Have a favorite challenge object of your own? I'd love to hear about it, as well as how you did with this month's challenge. Contact me through my [website](http://www.philharrington.net) or post to this month's discussion forum.

Until next month, remember that half of the fun is the thrill of the chase. Game on!

About the Author:



Phil Harrington is a contributing editor to Astronomy magazine and is the author of 9 books on astronomy. Visit www.philharrington.net to learn more. *Phil Harrington's Cosmic Challenge* is copyright 2026 by Philip S. Harrington. All rights reserved. No reproduction, in whole or in part, beyond single copies for use by an individual, is permitted without written permission of the copyright holder. This newsletter editor has received the authors permission to use this article.

Astronomers Catch Massive Star's Death from the First Explosive Moment

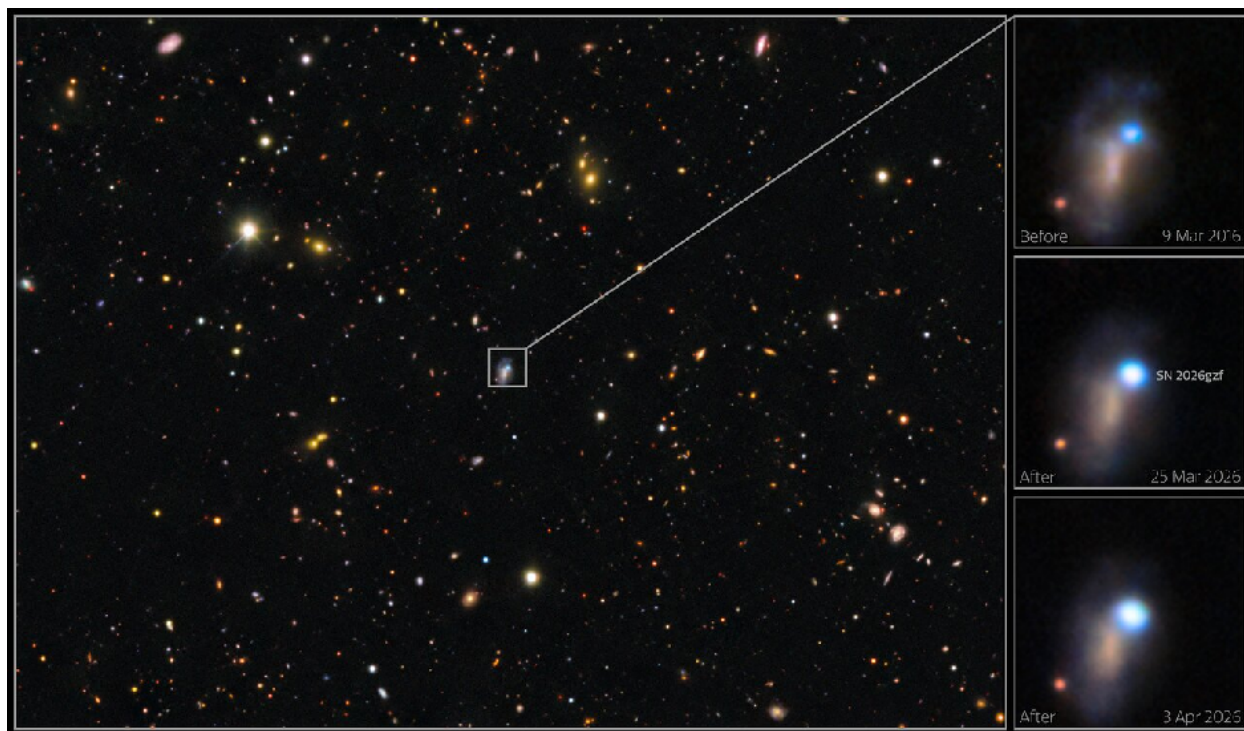
A rare cosmic explosion has given astronomers an unprecedented view of a massive star in its final moments, revealing a previously missing link between ordinary supernovae and the most energetic explosions in the universe.

In March 2026, the Einstein Probe detected a brief flash of soft X-rays emitted from a galaxy about 500 million light-years away. The flash, dubbed EP260321a, immediately triggered a worldwide observing campaign. Within an hour, ground-based telescopes — including the [Hobby-Eberly Telescope](#) at McDonald Observatory — began monitoring the source, revealing a rapidly brightening supernova later designated SN 2026gzf.

Two teams of scientists spearheaded this observing campaign. Both were able to independently identify the initial burst of X-rays as a “shock breakout” — the moment when the powerful shock wave from a stellar explosion bursts through the star’s surface and releases the first light of a [supernova](#).

Although shock breakouts are expected to occur in all supernova explosions, they are notoriously difficult to observe. In the past two decades, astronomers have confidently identified only [one other clear X-ray shock breakout event](#), making EP260321a an exceptionally rare discovery.

“These events have historically been difficult to detect because they are brief and because this part of the transient sky has lacked sensitive, wide-field monitoring,” explained Greg Zeimann, an astronomer at McDonald Observatory and co-author on [one of the recent studies](#) about the supernova. “Observing both the initial X-ray flash and the supernova that followed gives us a much better understanding of how massive stars end their lives.”



These images show the evolution of supernova SN 2026gzf, which was first detected by the Einstein Probe on 21 March 2026. Images taken on 25 March and 3 April 2026 show the supernova brightening. An archival image of the host galaxy from 9 March 2016 reveals a bright blue source at the location of the supernova, which scientists say likely represents a compact, extreme star-forming region in the host galaxy, combined with pre-explosion activity of the progenitor star before its death. Credit: [CTIO / NOIRLab / DOE / NSF / AURA](#).

Each team was able to independently confirm that the explosion was a broad-lined Type Ic (**Ic-BL**) supernova. These supernovae typically possess jets of relativistic material — material that is moving close to the speed of light — and they are commonly linked to [gamma-ray bursts](#), which are the brightest and most powerful class of explosions in the universe. However, SN 2026gzf stands out as a unique case for multiple reasons. First, the initial shock breakout is the faintest to ever be associated with a Ic-BL supernova, even though the explosion itself was not similarly weak. Additionally, researchers were surprised to find no evidence of a gamma-ray burst following the supernova, despite the event appearing to match other Ic-BL supernovae that were followed by gamma-ray bursts.

“SN 2026gzf looks remarkably similar to other energetic supernovae that have been previously linked to gamma-ray bursts. Yet multi-wavelength follow-up observations using the most sensitive facilities found no evidence for a relativistic jet or an afterglow, which are typically seen in those events,” said Brendan O’Connor, an astronomer at Carnegie Mellon University and lead author on one of the papers. “One possibility is that the jet was ‘choked,’ either by the surface of the star or by circumstellar material surrounding the star.”

For their investigation into the event, O’Connor and his team acquired deep imaging of the supernova as it brightened and reached peak luminosity using existing and new data from an impressive suite of observatories: [Cerro Tololo Inter-American Observatory](#), [Vera C. Rubin Observatory](#), [Kitt Peak National Observatory](#), [Chandra X-ray Observatory](#), the [Very Large Array](#), [Wendelstein Observatory](#), [Palomar Observatory](#), the [Southern African Large Telescope](#), and the [Hobby-Eberly Telescope](#) at McDonald Observatory.

The many observations allowed the team to watch SN 2026gzf evolve over time and confirm its nature as a Ic-BL supernova. “Capturing the earliest stages of a supernova requires telescopes that can respond quickly,” said Zeimann. “The Hobby-Eberly Telescope’s queue scheduling allowed the observations to be added rapidly after discovery, contributing an important piece to the international observing campaign.”

A second team, led by Jillian Rastinejad at the University of Maryland, College Park, simultaneously conducted a multi-wavelength follow-up investigation of the event using [Gemini North](#), [Gemini South](#), and the [SOAR 4.1-meter Telescope](#). They also used data from the Rubin Observatory, Palomar Observatory, and the Very Large Array. These observations helped confirm that SN 2026gzf was a Ic-BL supernova, determine the absence of relativistic jets, and understand the star’s structure and surroundings just prior to collapse.

“Our observations allowed us to study the physics of three pieces of this explosion: the X-ray shock breakout, the accompanying supernova, and the interaction of the supernova with material previously cast out by the dying star,” said Rastinejad. “With this information we were able to map out the structure of the material surrounding the star and understand the star’s violent lifestyle before it collapsed.” They determined that the progenitor is a [Wolf-Rayet star](#) — a star born with about 20 times the mass of the Sun that burns through its hydrogen early on in its life. They found that in the lead-up to its explosive death, the star underwent irregular episodes of mass loss, ejecting all of its hydrogen and helium and leaving behind a stripped star made mostly of carbon and oxygen. The turbulent mass loss created multiple shells of material around the star: a nearby, compact shell of low-mass material that emitted the initial X-ray signal, plus an extended, non-symmetric shell of material that emitted the optical supernova signal.

“This is the first time we’ve mapped out the pre-explosion environment of a star that has been stripped of hydrogen and helium,” says Gokul Srinivasaragavan, a recent Ph.D. graduate from the University of Maryland and a member of Rastinejad’s team. “Going forward, I’m excited to observe more shock breakout events in similar detail to test if all stripped stars have a similar ‘lifestyle’ prior to collapse and what, if any, differences we see.”

With an exceptionally faint X-ray shock breakout and no relativistic outflows, EP260321a/SN 2026gzf acts as a unique bridge between ordinary supernova shock breakouts and the more extreme explosions that generate low-luminosity gamma-ray bursts.

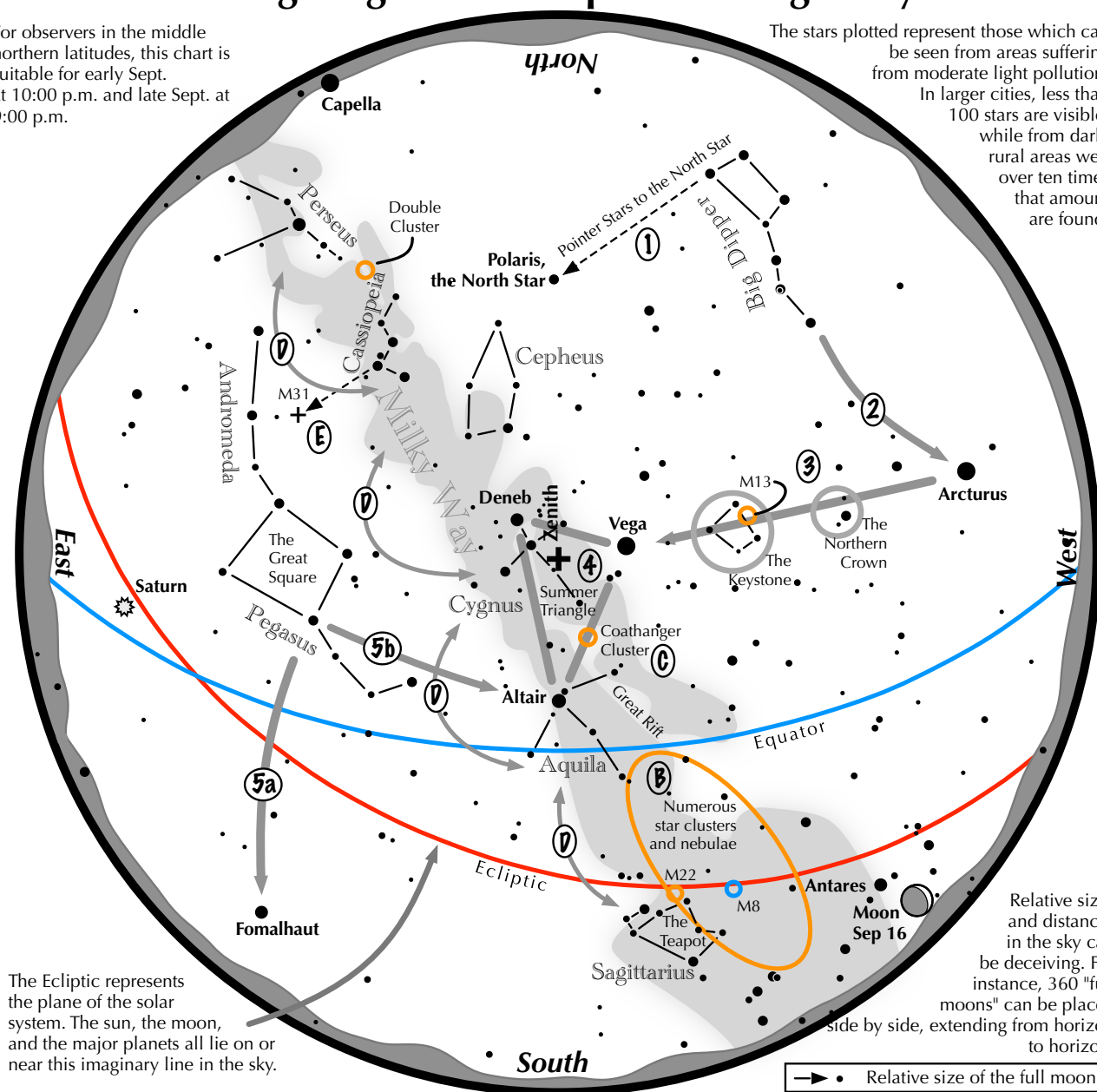
By establishing that energetic Ic-BL supernovae do not always produce a gamma-ray burst, relativistic outflows, or a long-lived afterglow, this discovery suggests that massive stars can die through a wider range of pathways than previously recognized. The result also demonstrates the growing power of coordinated time-domain astronomy, where space missions and ground-based observatories work together to capture short-lived cosmic events in real time. By combining observations from partner observatories around the world, researchers were able to reconstruct a rare explosion in unprecedented detail.

Results of this research published in The Astrophysical Journal Letters ([O’Connor et al.](#), [Rastinejad et al.](#)).
Adapted from a press release by [NOIRLab](#)

Navigating the mid September Night Sky 2026

For observers in the middle northern latitudes, this chart is suitable for early Sept. at 10:00 p.m. and late Sept. at 9:00 p.m.

The stars plotted represent those which can be seen from areas suffering from moderate light pollution. In larger cities, less than 100 stars are visible, while from dark, rural areas well over ten times that amount are found.



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

- 1 Extend a line north from the two stars at the tip of the Big Dipper's bowl. It passes by Polaris, the North Star.
- 2 Follow the arc of the Dipper's handle. It intersects Arcturus, the brightest star in the September evening sky.
- 3 Nearly overhead shines a star of similar brightness as Arcturus, Vega. Draw a line from Arcturus to Vega. It first meets "The Northern Crown," then the "Keystone of Hercules." A dark sky is needed to see these two dim stellar configurations.
- 4 The stars of the summer triangle, Vega, Altair, and Deneb, shine overhead.
- 5 The westernmost two stars of the Great Square, which lies high in the east, point south to Fomalhaut. The southernmost two stars point west to Altair.

Binocular Highlights

- A: On the western side of the Keystone glows the Great Hercules Cluster.
- B: Between the bright stars Antares and Altair, hides an area containing many star clusters and nebulae.
- C: 40% of the way between Altair and Vega, twinkles the "Coathanger," a group of stars outlining a coathanger.
- D: Sweep along the Milky Way for an astounding number of faint glows and dark bays, including the Great Rift.
- E: The three westernmost stars of Cassiopeia's "W" point south to M31, the Andromeda Galaxy, a "fuzzy" oval.



Websites and Other Helpful Astronomy Links.

Information on passes of the ISS, the USAF's X-37B, the HST, the BlueWalker 3, and other satellites can be found at <http://www.heavens-above.com/>

Visit <https://saberdoesthe...does-the-stars/> for tips on spotting extreme crescent Moons and <https://curtrenz.com/moon.html> for Full Moon and other lunar data.

Go to <https://skyandtelesc...ads/MoonMap.pdf> and <https://celestron-si...RReeves-web.pdf> and <https://nightsky.jpl...ObserveMoon.pdf> for simple lunar maps. Click on <https://astrostrona.pl/moon-map/> for an excellent online lunar map. Visit <http://www.ap-i.net/avl/en/start> to download the free Virtual Moon Atlas. Consult <http://time.unitariu...moon/where.html> for current information on the Moon and <https://www.fourmila.../lunarform.html> for information on various lunar features. See <https://svs.gsfc.nasa.gov/4955> a lunar phase and libration calculator and <https://svs.gsfc.nasa.gov/5187/>

The Lunar Reconnaissance Orbiter Camera (LROC) quick map. <https://www.universa...ise-and-sunset/>

For more on the planets and how to locate them, browse <http://www.nakedeyeplanets.com/>

Summaries on the planets for each month can be found at <https://earthsky.org/astronomy-essentials/>

The graphic at <https://www.timeandd...lanets/distance> displays the apparent and comparative sizes of the planets, along with their magnitudes and distances, for a given date and time.

The rise and set times and locations of the planets can be determined by clicking on <https://www.timeandd...stronomy/night/>

Click on <https://www.curtrenz.../asteroids.html> for information on asteroid occultations taking place this month.

Visit <http://cometchasing.skyhound.com/> and <http://www.aerith.ne...t/future-n.html> and <https://cobs.si/> for additional information on comets visible this month.

A list of the closest approaches of comets to the Earth is posted at <http://www.cometogra.../nearcomet.html>

A wealth of current information on solar system celestial bodies is posted at <http://www.curtrenz.com/astronomy.html> and <http://nineplanets.org/>

Information on the celestial events transpiring each week can be found at <https://stardate.org/nightsky> and <http://astronomy.com/skythisweek> and <http://www.skyandtel...ky-at-a-glance/>

Free star maps for any month may be downloaded at <http://www.skymaps.com/downloads.html> and <https://www.telescop...thly-Star-Chart> and <http://www.kenpress.com/index.html>

Data on current supernovae can be found at <http://www.rochester...y.org/snimages/>

Finder charts for the Messier objects and other deep-sky objects are posted at <https://freestarcharts.com/messier> and <https://freestarcharts.com/ngc-ic> and http://www.cambridge..._april-june.htm

Telrad finder charts for the Messier Catalog are posted at <http://www.custerobs...cs/messier2.pdf> and <http://www.star-shin...ssierTelrad.htm>

Telrad finder charts for the SAC's 110 Best of the NGC are available at <https://www.saguaroa...k110BestNGC.pdf>

Information pertaining to observing some of the more prominent Messier galaxies can be found at <http://www.cloudynig...ur-astronomers/>

Author Phil Harrington offers an excellent freeware planetarium program for binocular observers known as TUBA (Touring the Universe through Binoculars Atlas), which also includes information on purchasing binoculars, at <http://www.philharrington.net/tuba.htm>

Stellarium and Cartes du Ciel are two excellent freeware planetarium programs that are available at <http://stellarium.org/> and <https://www.ap-i.net/skychart/en/start>

Deep-sky object list generators can be found at <http://www.virtualcolony.com/sac/> and <https://telescopius.com/> and <http://tonightssky.com/MainPage.php>

Freeware sky atlases can be downloaded at <http://www.deepskywa...-atlas-full.pdf> and <https://www.cloudyni...ar-charts-r1021> and <https://allans-stuff.com/triatlas/>

For current sky charts visit the NASA Night Sky Network <https://nightsky.jpl.nasa.gov/news/212/>

McDonald Observatory famous radio program stardate is now a podcast <https://stardate.org/podcast>

Magic Valley Astronomical Society

550 Sparks St.
Twin Falls, ID

The Magic Valley Astronomical Society (MVAS) was founded in 1976. The Society is a non-profit [501(c) 3] educational and scientific organization dedicated to bringing together people with an interest in astronomy.

In partnership with the Centennial Observatory, Herrett Center, College of Southern Idaho - Twin Falls; we hold regularly scheduled monthly meetings and observation sessions, at which we share information on current astronomical events, tools and techniques for observation, astrophotography, astronomical computer software, and other topics concerning general astronomy. Members enthusiastically share their telescopes and knowledge of the night sky with all who are interested. In addition to our monthly public star parties we hold members only star parties at various locations throughout the Magic Valley.

MVAS promotes the education of astronomy and the exploration of the night sky along with safe solar observing through our public outreach programs. We provide two types of outreach; public star parties and events open to anyone interested in astronomy, and outreach programs for individual groups and organizations (e.g. schools, churches, scout troops, company events, etc.), setting up at your location. All of our outreach programs are provided by MVAS volunteers at no cost. However, MVAS will gladly accept donations. Donations enable us to continue and improve our public outreach programs.

Membership is not just about personal benefits. Your membership dues support the work that the Magic Valley Astronomical Society does in the community to promote the enjoyment and science of astronomy. Speakers, public star parties, classes and support for astronomy in schoolrooms, and outreach programs just to name a few of the programs that your membership dues support.

Annual Membership dues will be:

\$20.00 for individuals, families, and \$10.00 for students.

Contact Treasurer Jim Tubbs for dues information via e-mail: jtubbs015@msn.com

Donations to our club are always welcome and are even tax deductible. Please contact a board member for details.

Lending Telescopes: The society currently has three telescopes for loan and would gladly accept others please contact President Robert Mayer, for more information on these and other benefits.



Telescopes are an individual thing and not practical for public use. However, everyone should have the experience of a good look at the Moon for at least 5 minutes in their life time. It is a dimension and feeling that is unexplainable. Pictures or TV can't give this feeling, awareness, or experience of true dimension. A person will not forget seeing our closest neighbor, the Moon.

Norman Herrett in a letter to Dr. J. L. Taylor, president of the College of Southern Idaho