

Snake River Skies

The Monthly Newsletter of the Magic Valley Astronomical Society.

January 2026

Membership Meeting

January 10th 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

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Magic Valley Astronomical Society
is a member of the Astronomical
League



M-51 imaged by
Rick Widmer & Ken Thomason
Herrett Telescope - Shotwell
Camera

Visit our Website
www.mvastro.org

January President's Message

MVAS Astro members and friends...Hope you all had a Merry Christmas and Happy New Year. Our scheduled meeting is on January 10th will feature Nick Kirchner - "Building an Astrophotography and Telescope Control Setup around the Raspberry PI 5 and 4.

I will also mention that January is the time we all need to get caught up on your dues. Jim Tubbs will gladly accept your annual dues, which are still \$20 / member. Quite the bargain with everything rising.

January 3 - Full Moon, Supermoon. The Moon will be located on the opposite side of the Earth as the Sun and its face will be fully illuminated. This phase occurs at 10:04 UTC. This full moon was known by early Native American tribes as the Wolf Moon because this was the time of year when hungry wolf packs howled outside their camps. This moon has also been known as the Old Moon and the Moon After Yule. This is also the first of three supermoons for 2026. The Moon will be near its closest approach to the Earth and may look slightly larger and brighter than usual.

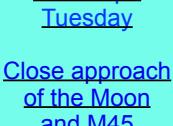
January 3, 4 - Quadrantids Meteor Shower. The Quadrantids is an above average shower, with up to forty meteors per hour at its peak. It is thought to be produced by dust grains left behind by an extinct comet known as 2003 EH1, which was discovered in 2003. The shower runs annually from January 1-5. It peaks this year on the night of the third and morning of the fourth. Unfortunately, the full moon will obscure all but the brightest meteors this year. But if you are patient, you may still be able to catch a few of the brighter ones. Best viewing will be from a dark location after midnight. Meteors will radiate from the constellation Bootes but can appear anywhere in the sky.

January 10 - Jupiter at Opposition. The giant planet will be at its closest approach to Earth, and its face will be fully illuminated by the Sun. It will be brighter than any other time of the year and will be visible all night long. This is the best time to view and photograph Jupiter and its moons. A medium-sized telescope should be able to show you some of the details in Jupiter's cloud bands. A good pair of binoculars should allow you to see Jupiter's four largest moons, appearing as bright dots on either side of the planet.

January 18 - New Moon. The Moon will be located on the same side of the Earth as the Sun and will not be visible in the night sky. This phase occurs at 19:53 UTC. This is the best time of the month to observe faint objects such as galaxies and star clusters because there is no moonlight to interfere.

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 - January 2026

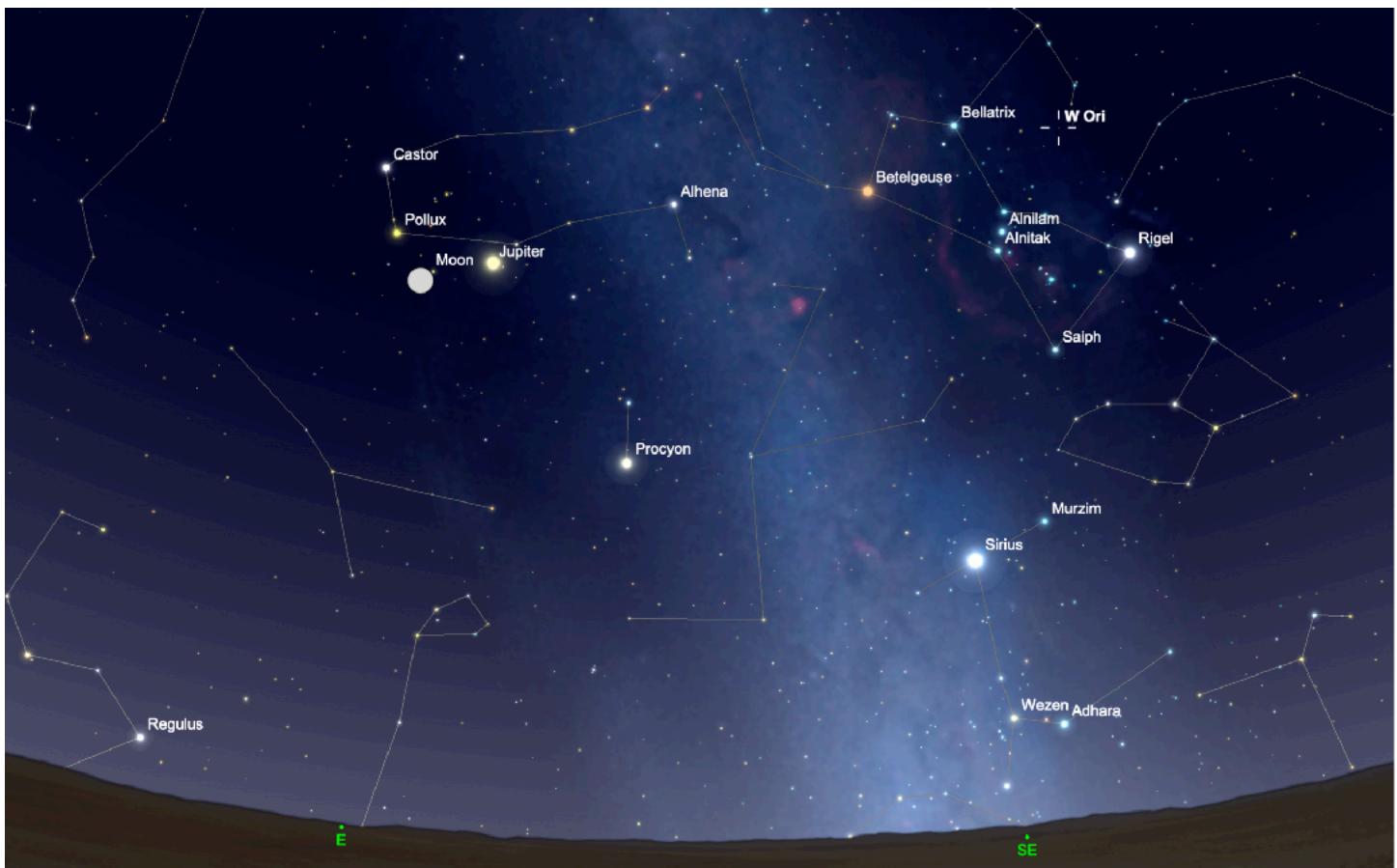
Sun	Mon	Tue	Wed	Thu	Fri	Sat
Also on the 3rd The Earth at perihelion The Moon at aphelion Conjunction of the Moon and Jupiter				1  The Moon at perigee	2 Asteroid 40 Harmonia at opposition The cluster Messier 41 is well placed	3  Full Wolf Moon Cabin Fever Day Solar Viewing
4 Comet 24P/ Schaumasse passes perigee Close approach of the Moon and M44	5 Venus at superior solar conjunction	6 Comet 24P/ Schaumasse reaches peak brightness	7 Comet 24P/ Schaumasse passes perihelion	8 Jupiter at perigee Mars at solar conjunction Last Quarter Moon on the 10th	9	10 MVAS General Mtg. 7:00p at the Herrett Center. Centennial Observatory Star Party
11	12  Telescope Tuesday	13  Telescope Tuesday	14	15 The cluster Messier 47 is well placed NGC 2403 is well placed	16	17 The Moon at perihelion
18 New Moon 	19 Martin Luther King Day 	20 η-Ursae Minorid meteor shower 2026 on the 19th	21 Mercury at superior solar conjunction	22 Venus at aphelion	23 Close approach of the Moon, Saturn and Neptune Asteroid 44 Nysa at opposition	24
25 Moon at First Quarter 	26  Telescope Tuesday Close approach of the Moon and M45	27  Telescope Tuesday Close approach of the Moon and M45	28	29 The Moon at perigee	30 Conjunction of the Moon and Jupiter	31  The Beehive (M44) cluster is well placed

January's [Full Super Moon](#) is most commonly known as the **Wolf Moon**. The howling of wolves was often heard at this time of year. The Cree names of **Cold Moon** and **Frost Exploding Moon** refer to the frigid temperatures of this season, as does the Algonquin name of **Freeze Up Moon**. Other names for this time include **Canada Goose Moon** (Tlingit), **Great Moon** (Cree), and **Spirit Moon** (Ojibwe).

Night Sky This Month – January 2026



The northern winter constellations over Cathedral Rock near Sedona, Arizona. Image credit: Brian Ventrudo
Below: The Full Moon and Jupiter lie near the bright stars Castor and Pollux on Jan. 3, 2026.



Happy New Year! The year 2026 arrives with a promising but brief meteor shower and a meeting of the full Moon and Jupiter in the evening sky. Jupiter reaches opposition this month, shining at magnitude -2.7 and presenting a nice fat disk for telescopic observation. Venus and Mercury lie on the other side of the Sun and obscured from view. Saturn lingers in the southwest. And the Sun continues intermittent activity that may trigger auroral displays. Here's what to see in the night sky this month!

3 January 2026. Full Moon, 10:03 UTC (the 'Full Wolf' Moon). Jupiter and the full Moon congregate just east of Castor and Pollux. The Earth reaches perihelion, its closest point in its orbit to the Sun at a distance of 147,099,894 km.

3-4 Jan. The brief but sometimes intense Quadrantid meteor shower peaks. The Quadrantids average about 25-40 meteors in dark sky. The predicted time of the peak of the shower is 22h Universal Time on January 3, a time which favors observers in Europe. But look anytime on the early morning of the 4th, especially when the radiant is higher in the sky. The Quadrantids take their name from the defunct northern constellation Quadrans Muralis. They can appear anywhere in the sky, but the radiant lies just north of the bright star Arcturus in the northeastern sky in the pre-dawn hours or just over the north-northwestern horizon after evening twilight. This year, a full Moon obscures all but the brightest meteors. The Quadrantids strongly favor northern-hemisphere observers.

5-6 Jan. A fat gibbous Moon passes close to Regulus in the constellation Leo during the night and morning. **6th** Venus reaches superior conjunction with the Sun.

9-10 Jan. Jupiter reaches opposition, rising in the east as the sun sets in the west. The planet lies at a distance of about 4.23 AU (632.8 million kilometers). Jupiter shines at a dazzling magnitude -2.7 tonight, brighter than anything else in the night sky except for the Moon and Venus. Its disk spans nearly 47". The big planet lies in Gemini, north of celestial equator, ideal for northern observers but still low over the horizon for those in the southern hemisphere. Jupiter's four largest moons – the Galilean moons – are also at their brightest and largest near opposition, and all four resolve into tiny disks in a telescope at moderate magnification. Jupiter stays well positioned for viewing for the in the coming months as it moves into the evening sky. [Learn more about how to observe Jupiter here...](#) **10 Jan.** Last Quarter Moon, 15:48 UTC The thinning Moon passes under Spica in the constellation Virgo in the early-morning sky.

14 Jan. The waning crescent Moon lies low in the southeast before dawn. The ghostly band of the Milky Way follows behind giving us a taste of the spring and summer evening skies to come. Observers in Australia, the south island of New Zealand, and a small band across southern Chile and Argentina see the Moon occult Antares. [Detailed timing at this link](#).

18 Jan. New Moon, 19:52 UTC

21 Jan. Mercury reaches superior conjunction with the Sun.

22 Jan. Saturn lies low in the southwestern evening sky with the waxing crescent Moon. The planet is heading out of the sky for the year and looks fainter and smaller in a telescope. Its rings are slowly opening up to about 2° and will continue to do so in the coming years

26 Jan. First Quarter Moon, 04:47 UTC

27 Jan. Look high in the south and east to see the waxing gibbous Moon near the Pleiades.

Phil Harrington's Cosmic Challenge

NGC 2261



This month's suggested aperture range:
Giant Binoculars, 3" to 6" (7.6 - 15.24 cm) telescopes
Featured telescope Meade ETX-LS6

Target	Type	RA	DEC	Constellation	Magnitude	Size
NGC 2261	Reflection Nebula	06h 39.2m	+08° 45'	Monoceros	9	2'

Among the many curiosities that the winter sky has to offer, few are as mysterious, or as dynamic, as **NGC 2261** in Monoceros. This small reflection nebula, known as **Hubble's Variable Nebula**, is one of the most intriguing challenges for observers.

NGC 2261 lies within the northern reaches of the faint constellation Monoceros, the Unicorn. More precisely, it lies about 1° south of the star 15 Monocerotis, which marks the heart of open cluster NGC 2264, home of the famous Cone Nebula and Christmas Tree Cluster.

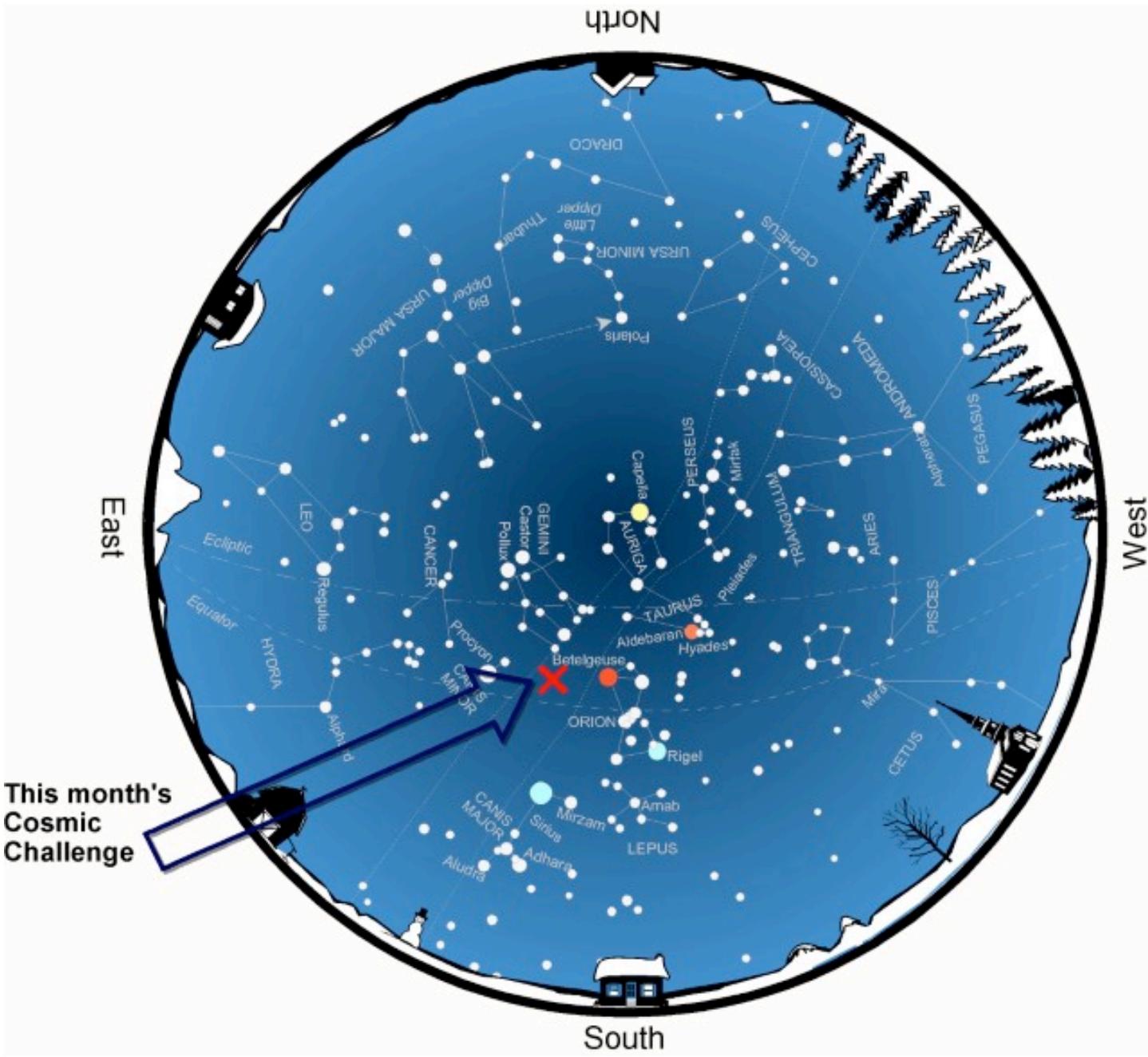
NGC 2261 was discovered on December 26, 1783, by William Herschel during his systematic sweeps of the sky. More than a century later, it gained its enduring nickname thanks to Edwin Hubble, who studied photographs of the nebula taken from 1900 to 1916. Hubble noticed that its shape changed over time, as if shifting dust clouds were altering the reflection of its embedded star, R Monocerotis. His detailed investigation made NGC 2261 one of the first deep-sky objects known to vary in appearance, permanently linking it with his name.

In 2016, amateur astronomer Tom Polakis created a fascinating [time-lapse](#) of NGC 2261 that clearly shows a dark shadow drifting across the nebula. More recently, more than 20 amateurs working with the [Big Amateur Telescope](#) undertook a similar project from October 2021 until the nebula slipped into evening twilight in April 2022. The project resumed four months later after the nebula returned to the early morning sky. Their [results](#) reveal "light ripples" propagating at light speed from the central star as it fluctuates in brightness and illuminates the surrounding cloud.

To the eye, NGC 2261 appears comet-shaped, with the young variable star R Monocerotis forming the bright "head." R Mon cannot be seen in visible light directly, however. Only a few hundred thousand years old, it remains enshrouded in its natal cocoon of gas and dust. Its light escapes through gaps in this material, producing the striking "tail" of reflected starlight we see. The nebula spans about one light-year and lies roughly 2,500 light-years away.

Infrared observations can penetrate this dust and have revealed that R Mon is actually a binary system: a hot B8-type primary star accompanied by a smaller T Tauri companion. Studies with the Hubble Space Telescope and the Canada—France—Hawaii Telescope further reveal that the nebula is not truly comet-shaped but instead forms a hollow cone, fanned outward by a jet of hot gas emerging from the central system.

A study published just last year, [Hubble's Variable Nebula I: Ripples on a Big Screen](#) by John Lightfoot and Aleks Scholz (2025, *Monthly Notices of the Royal Astronomical Society*), presents an intensive seven-year photometric study of NGC 2261. Using twice-weekly robotic telescope imaging, the authors assembled over a thousand observations that reveal not only the well-known large-scale variations in the nebula's brightness but also continuous small-amplitude "ripples" that move through the nebula. These ripples arise from rapid illumination changes or shifting dust structures close to R Mon.



Above: Evening star map showing the location of this month's Cosmic Challenge.

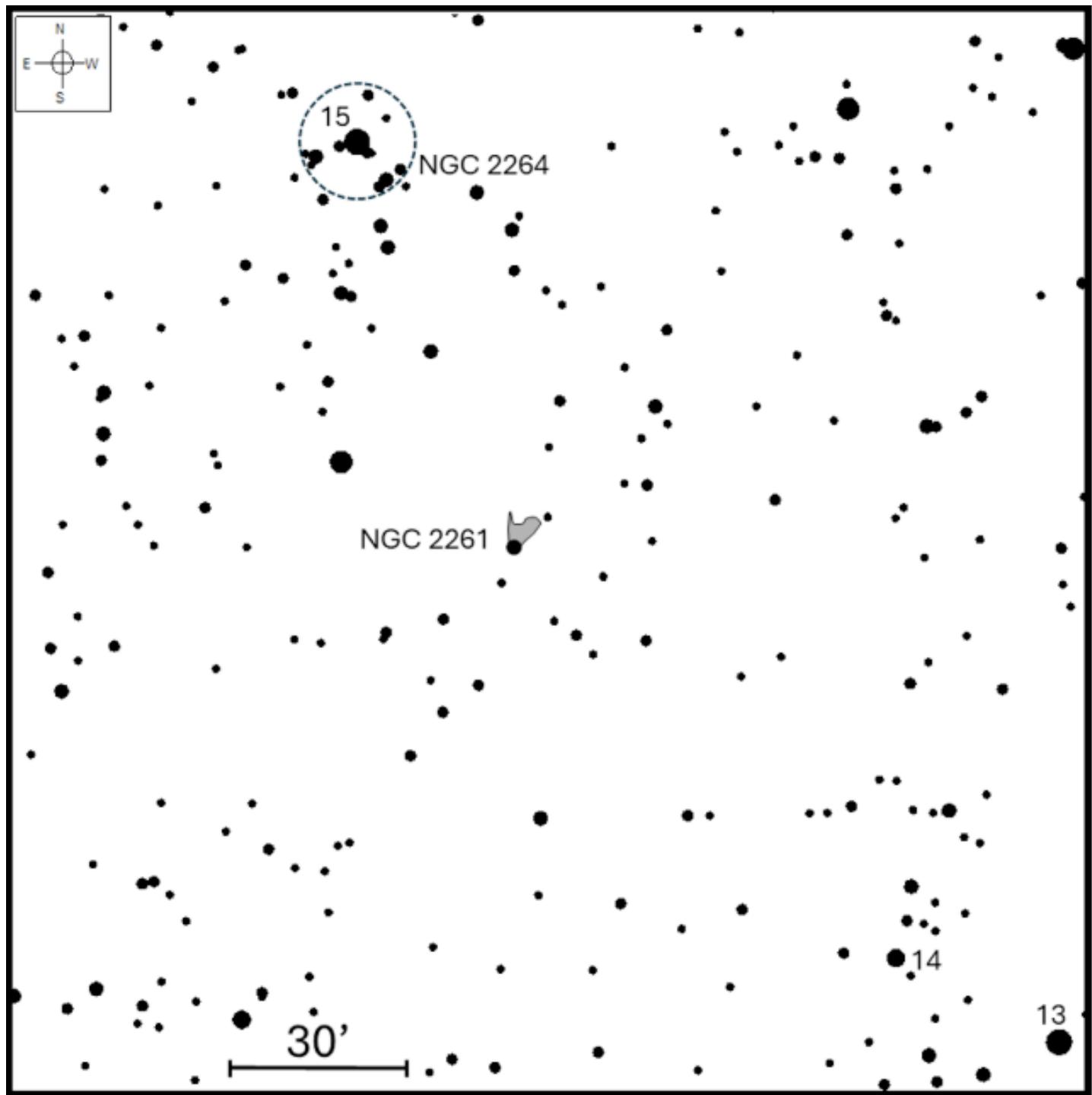
Credit: Map adapted from [Star Watch](#) by Phil Harrington

To find NGC 2261, start at 3rd-magnitude Xi (x) Geminorum, marking the “toe” of the eastern brother, Pollux. From there, drop 3° south-southeast to 5th-magnitude 15 Monocerotis, the brightest star in open cluster NGC 2264 (aka the Christmas Tree Cluster). NGC 2261 is just 1.3° further southwest.

Visually, NGC 2261 is bright enough to be seen through a 3-inch (7.5 cm) telescope and 70mm binoculars under dark skies, appearing as a tiny comet-like glow tapering toward R Mon. From suburban locations, however, its faint triangular outline can be easily lost in background haze, making a dark site essential for the best results.

As aperture increases, the nebula's structure becomes progressively more intricate. Through a 4- to 6-inch (10—15 cm) instrument, it resembles a small wedge of light pointing toward its hidden star. With 8 to 10 inches (20—25 cm), its bright end takes on a knotted, textured appearance, while the fainter tail melts into the background.

Below: Finder chart for this month's [Cosmic Challenge](#).
Credit: Chart adapted from [Cosmic Challenge](#) by Phil Harrington





*Above: NGC 2261, as imaged through the author's [Celestron Origin](#) 6-inch (15 cm) f/2.2 astrograph.
For full tech specs, visit his [Astrobin page](#).*

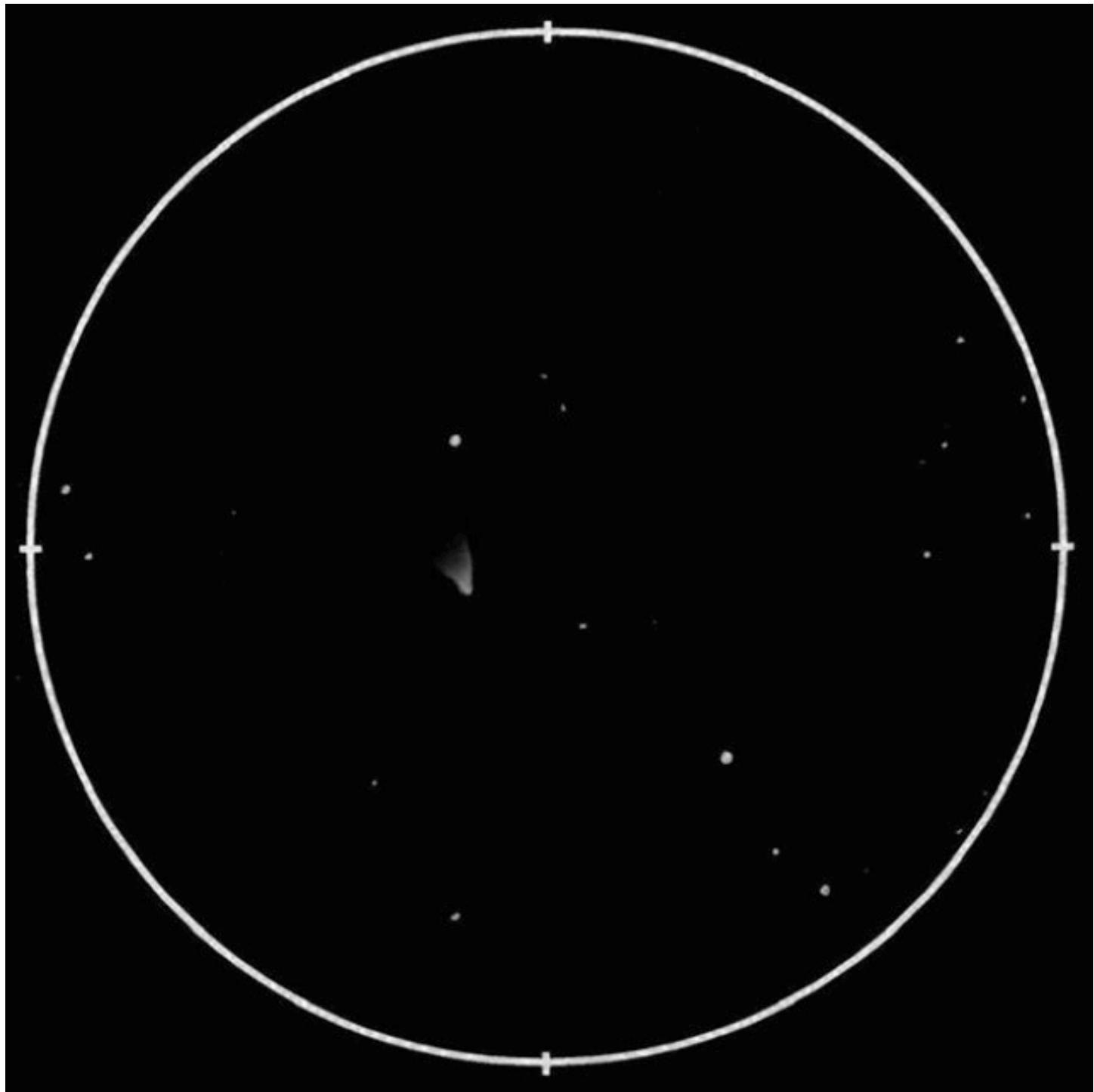
In still larger telescopes, NGC 2261 often appears almost three-dimensional, as though light were carving its way through shadowed clouds.

To draw out these details, begin at low magnification; the 40—75× range provides the best surface brightness and contrast for the faint outer glow. Increasing to 100—200× reveals subtle structural features closer to R Mon, which is where most observers notice the richest detail. Higher powers (250—350× or more) can expose very fine features near the star, but only if seeing is steady and the aperture is at least 10 inches (25 cm). At those extreme magnifications, the nebula's surface brightness drops and the faintest outer regions fade from view.

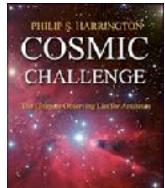
Have a favorite challenge object of your own? I'd love to hear about it, as well as how you did with this month's challenge. Contact me through my [website](#) or post to this month's discussion forum.

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

Below: Sketch of NGC 2261 by CN'er Chris Myers ([chrislon_geo](#)) through his Celestron 8SE using a 0.63x focal reducer and 12mm 60° Agena Starguider (160x, 0.37° FOV). Visit Chris's [CN profile](#) for more of his great sketches.



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.

Herrett Center for Arts and Science

Centennial Observatory



Upcoming Events

All events are weather permitting.

Cabin Fever Day Solar Viewing	Centennial Observatory	Saturday, January 3, 2026	11:00 a.m.-2:00 p.m.	Free
Closest approach of Jupiter in 2026	Centennial Observatory	Saturday, January 10, 2026	12:30-1:00 a.m.	Free
Monthly Free Star Party	Centennial Observatory	Saturday, January 10, 2026	6:30-9:00 p.m.	Free
Telescope Tuesday	Centennial Observatory	Tuesday, January 13, 2026	6:30-9:00 p.m.	\$1.50, ages 6 & under free, or free with planetarium admission
Telescope Tuesday	Centennial Observatory	Tuesday, January 27, 2026	6:30-9:00 p.m.	\$1.50, ages 6 & under free, or free with planetarium admission

Faulkner Planetarium

Now Showing

Find Current Shows following the (ages 18-59): \$7.50 Seniors (2-17): \$5.50 CSI students (w/ under age 2: FREE. Buy your

*50% discount for Planetary

- Assistive listening
- Open captioning shows.
- No food, drink, or late
- Dark conditions and intense for younger



link above. Admission: Adults (ages 60+): \$6.50 Children (ages activity card): \$5.50 Children [tickets](#) online.

Society members and families.

devices available upon request. available upon request for some entry. audio/visual effects may be too children.

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.currenz.../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.currenz.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...hly-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...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