Snake River Skies

The Monthly Newsletter of the Magic Valley Astronomical Society. November 2026

Membership Meeting
Nov. 14th 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

November 2026 Announcements

Message from the Club Vice President

Happy November and Thanksgiving. First, this month is our annual election. As usual, our meeting is set for Saturday the 14th at 7pm at the Herrett Center Library. Please consider any nominations you might have for board members for 2027. Our scheduled speaker will be Rick Hull, our secretary. He will be discussing Betelgeuse: Fun Facts, Will it go Supernova, should we be worried. Have a great month, another exciting time for observing and imagining our beautiful Idaho skies. I will bring the 2027 calendar so we can start putting together the 2027 programs. Cheers and best to you,

Jay Hartwell, MVAS Vice President:

Message from Tim Frazier - Idaho Dark Skies

Hi everyone. There's an upcoming event that really deserves attention and support. On November 10, Sun Valley Resort is celebrating their designation as the world's first dark sky resort. This comes after three years of work not only replacing their outdoor lighting, shielding other lights, switching to recyclable and compostable materials for their packaging but also initiating environmentally responsible management of all their properties. This includes their ski slopes. This shift to a stance of environmental awareness and protection is a trend they hope to spread to other resorts. The dark sky is foremost in these preservation efforts.

This planned celebration will include an evening under the stars with amateur astronomers setting up telescopes on the lawn in front of the music pavilion. This is where, hopefully, you come in. I would love to see a number of representatives from the astronomical societies participating in this event. It would be great if you could come and bring a telescope to share views with the public. I'm not sure how many people to expect but previous events at the resort have drawn hundreds of people. I hope many of you will come to this celebration and make it a memorable one.

Please let me know if you have any questions about attending this event.

Cheers and clear skies,

Tim Frazier

The Town of Victor, Idaho has expressed their intent to pursue Dark Sky Certification in the next 1-2 years.

Visit our Website
www.mvastro.org

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Calendar of Astronomical Events - November 2026

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1 Close approach of the Moon and M44 Moon at Last Quarter **End DST: 1 hour backward**	2 Lunar occultation of Mars	3	4 Mercury at inferior solar conjunction	5	6	7 Conjunction of the Moon and Venus
8	9 New Moon 	10 Telescope Tuesday Centennial Observatory 6:15-9:00 p.m	11 **Veterans Day** 	12 Comet 69P/ Taylor passes perihelion Northern Taurid meteor shower 2026	13 The Moon at apogee	14 MVAS Meeting 7:00p at the Herrett Center. Centennial Observatory Star Party 6:15-9:00 p.m.
15 Close approach of Jupiter and Mars	16	17 Moon at First Quarter Leonid meteor shower 2026	18 The Pleiades cluster is well placed	19 Mercury at highest altitude in morning sky Centennial Observatory 7:15 - 7:30 am	20 Conjunction of the Moon and Saturn Mercury at greatest elongation west	21 α-Monocerotid meteor shower 2026
22 The Moon at aphelion	23	24 Telescope Tuesday Centennial Observatory 6:15-9:00 p.m Full Beaver Moon	25 The Moon at perigee Uranus at opposition	26 **Thanksgiving Day** 	27 Venus at greatest brightness	28 The Hyades cluster is well placed Close approach of the Moon and M44
29	30 Close approach of the Moon and Jupiter	*1 Daylight Saving Time Ends set your clock back 1-hour. Change the batteries on your smoke detector!				

Full Beaver Moon. This was the time when beavers finished preparations for winter and retreated into their lodges. In the 1760s, Captain Jonathan Carver heard this Native American term during his travels.

Herrett Center for Arts and Science

Centennial Observatory



Upcoming Events
All events are weather permitting

Event	Place	Date	Time	Admission(s)
Telescope Tuesday	Centennial Observatory	Tuesday, November 10, 2026	6:15-9:00 p.m.	$1.50, ages 6 & under free, or free with planetarium admission
Monthly Free Star Party	Centennial Observatory	Saturday, November 14, 2026	6:15-9:00 p.m.	Free
Best morning apparition of Mercury in 2026	Centennial Observatory	Thursday, November 19, 2026	7:15-7:30 a.m.	Free
Telescope Tuesday	Centennial Observatory	Tuesday, November 24, 2026	6:15-9:00 p.m.	$1.50, ages 6 & under free, or free with planetarium admission

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 – November 2026

Here's your Cosmic Pursuits newsletter!

1. Three meteor showers arrive in November with the Moon mostly out of the way – an ideal circumstance for casual late-night viewing. Deep-sky observers can see plenty of open star clusters in Cassiopeia and Perseus and galaxies in Pegasus, Andromeda, and Sculptor. Orion rises well into the evening and dominates the southern sky after midnight, while the stars of northern spring rise before dawn. Saturn remains in the evening sky, still well-placed for viewing, while Mars, Jupiter, brilliant Venus – and briefly Mercury – adorn the early-morning sky.

2. Grab your telescope and head outside for a quick peek at Almaak, perhaps the prettiest double star in the northern autumn sky.

3. See how an ingenious photographer figured out how to capture images of the Milky Way over Manhattan, one of the most inhospitable places on Earth to photograph the Milky Way.

4. The good folks at the *Actual Astronomy* podcast offer some useful tips on buying used astronomy equipment (see episode #552).

5. Astronomers believe there may be planets even more hospitable to life than our fair Earth. Learn more about these 'super-habitable worlds' in this gift article from the *NY Times*.

And the astronomy quote of the month: "Insight into universal nature provides an intellectual delight and sense of freedom that no blows of fate and no evil can destroy." - Alexander von Humboldt

Please share this email with anyone who may be interested. If you're not already a subscriber to Cosmic Pursuits, you can sign up here.

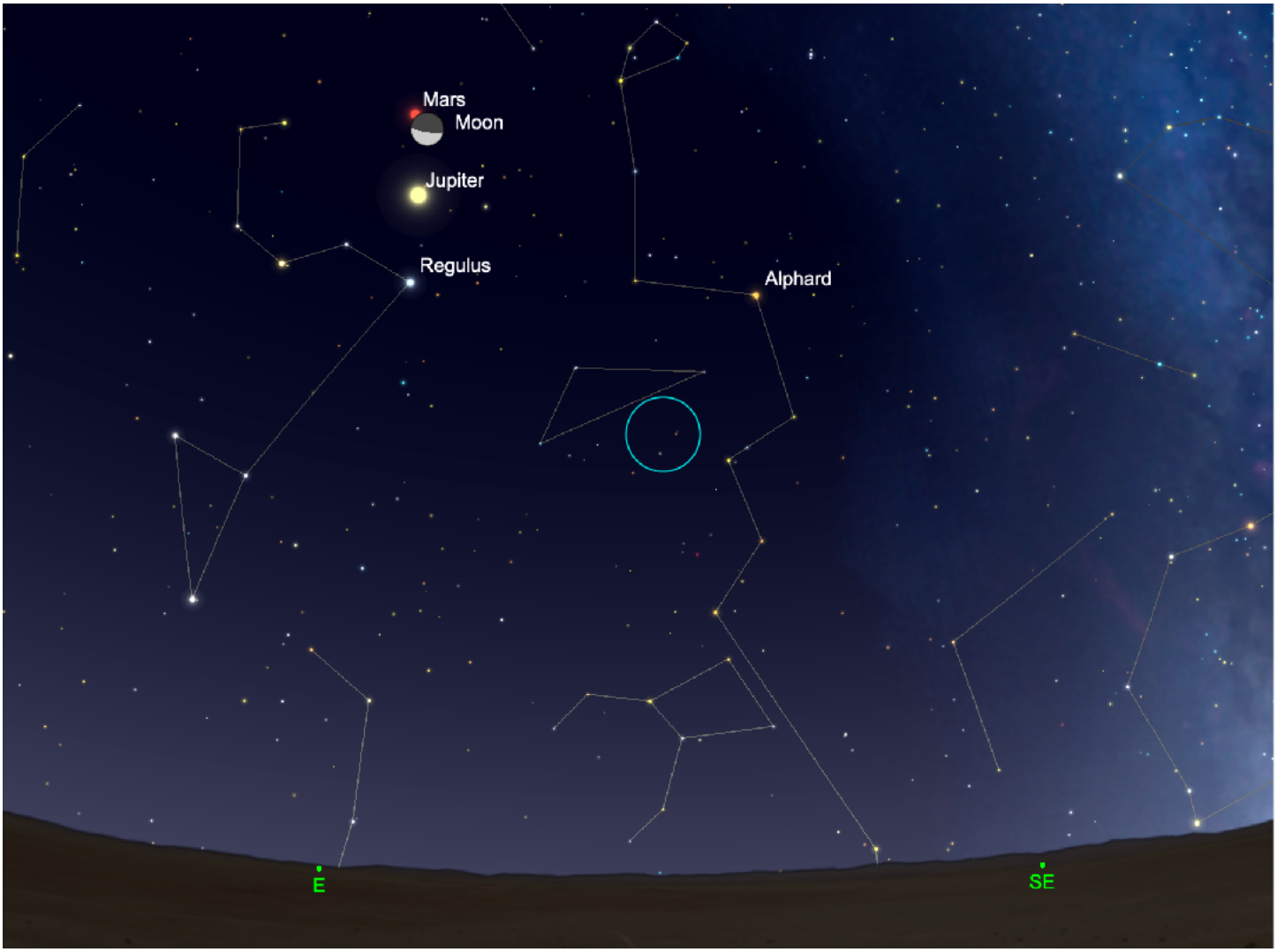


A partial view of the constellation Orion at dawn as seen above the Andromeda Cabin, Bruneau Dunes State Park, southern Idaho.

The nights grow longer and colder for northern observers while southern-hemisphere stargazers enjoy the warmer nights of spring. Three meteor showers arrive in November with the Moon mostly out of the way – ideal for casual late-night viewing. Deep-sky observers can see plenty of open star clusters in Cassiopeia and Perseus and galaxies in Pegasus, Andromeda, and Sculptor. Orion rises well into the evening and dominates the southern sky after midnight, while the stars of northern spring rise before dawn. Saturn remains in the evening sky, still well-placed for viewing, while Mars, Jupiter, brilliant Venus – and briefly Mercury – adorn the early-morning sky. Here's what to see in the night sky this month.

1 November 2026. Last Quarter Moon, 20:28 UT

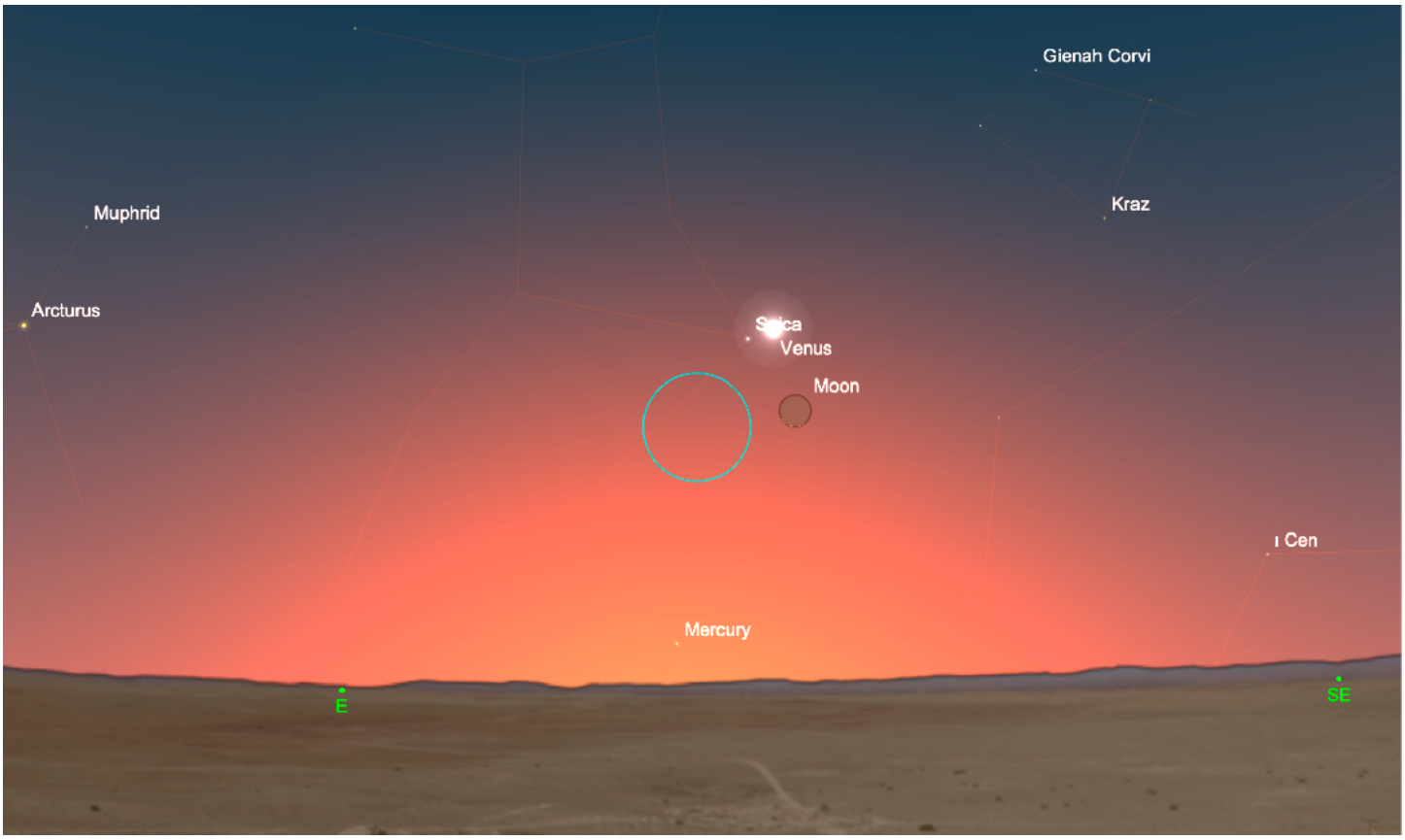
2 Nov. Look eastward in the early morning to see Mars, the waning crescent Moon, Jupiter, and the star Regulus in a crooked line about 12º long. Mars, now shining at magnitude +0.9, spans about 8" in a telescope as it slowly draws closer to Earth. Jupiter spans about 36" and shines at magnitude -2.0. The two planets grow closer on their way to conjunction later this month.



Mars, the Moon, Jupiter, and Regulus fall in a crooked line high in the eastern sky on the early morning of Nov. 2, 2026. Cyan circle spans 5 degrees.

6-7 Nov. The Taurid meteor showers peak this week with the Moon out of the way. There are two Taurid showers, the Northern and Southern Taurids, and they both peak in late October through mid-November. They're sometimes called the Halloween Fireballs. You can see these bright, slow-moving meteors in the northern and southern hemispheres at essentially any time of night. This event usually shows 5-10 meteors an hour.

7 Nov. Before sunrise, look eastward low over the horizon to see Venus rising with a razor-thin Moon with Spica, Virgo's brightest star, nearby. If you can, have a look at Venus in a telescope. It shows a slender crescent phase, about 7% illuminated, and spans an impressive 56". The planet shines at a blazing magnitude -4.4.



Venus makes a close approach with Spica, with a very thin crescent Moon below in the eastern sky before sunrise on Nov. 7, 2026. Cyan circle spans 5 degrees.

9 Nov. New Moon, 07:02 UT

10 Nov. Look again to the eastern horizon before sunrise to see Venus about a degree from 1st-magnitude Spica.

16-17 Nov. The Leonid meteor shower has been quiet these past many years and it remains a modest event despite several historical outbursts. The shower occurs as the Earth passes through the path of the periodic Comet 55/P Tempel-Tuttle. A peak of 15 meteors per hour is typical for the Leonids theses days. But nothing's assured and a few extras may arrive, especially this year as the Earth passes through clumps in the comet's debris stream. Leonids can appear anywhere in the sky but appear to trace their paths back to a radiant in the 'Sickle' of Leo. This year, the moon is at first quarter, so we have a chance to see both bright and faint meteors in the sky, especially on the early morning of Nov. 17.

17 Nov. As you're watching for Leonid meteors, look eastward to see Mars and Jupiter rising in the east. The pair are just over a degree apart. They present a fine sight to the naked eye, but have a look in a small telescope to see these two contrasting worlds together. Mars appears orange, Jupiter a pale yellow, while nearby Regulus shines a blue-white color.

17 Nov. First Quarter Moon, 11:48 UT

21 Nov. Mercury reaches greatest western elongation 20° west of the Sun. Look for the little planet about 15° southeast of (below) Venus and Spica over the eastern horizon before sunrise.

24 Nov. Full Moon, 14:54 UT (the full 'Beaver Moon'). Tonight, the Moon lies just adjacent to the Pleiades star cluster.

26 Nov. Mars, Jupiter, and Regulus form a small triangle about 4° tall in the eastern early-morning sky.

30 Nov. Repeating their gathering of Nov. 2, a half-lit Moon, Jupiter, and Mars hover near Regulus in the constellation Leo in the early-morning sky.

Wishing you clear skies! Brian Ventrudo, Publisher Copyright © 2026 Mintaka Publishing Inc.
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Phil Harrington's Cosmic Challenge

NGC 604



<u>This month's suggested aperture range</u>:

Giant Binoculars, 3- to 5-inch (7.6-12.7cm) telescopes
Pictured Scope Tele-Vue TV85

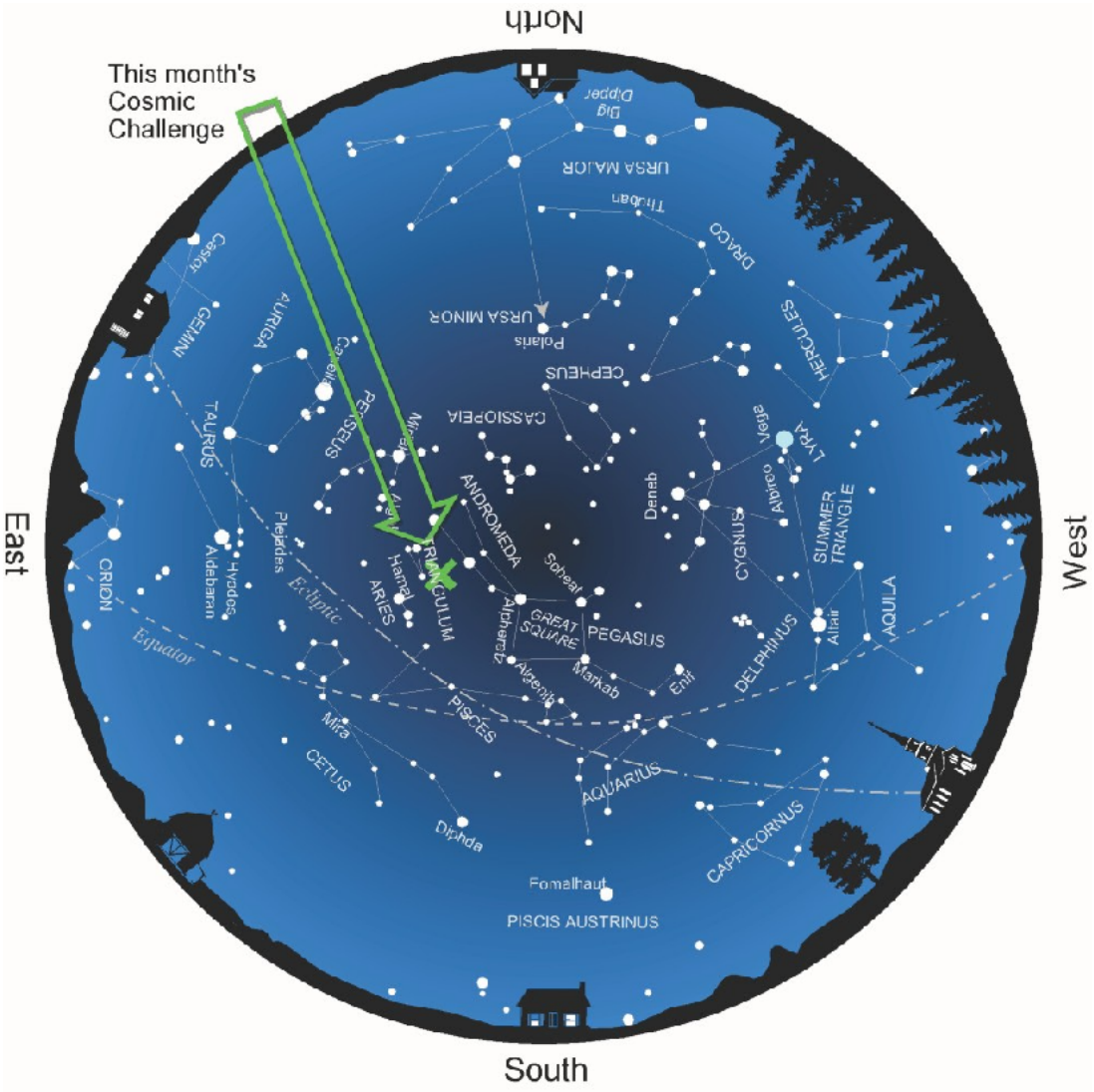


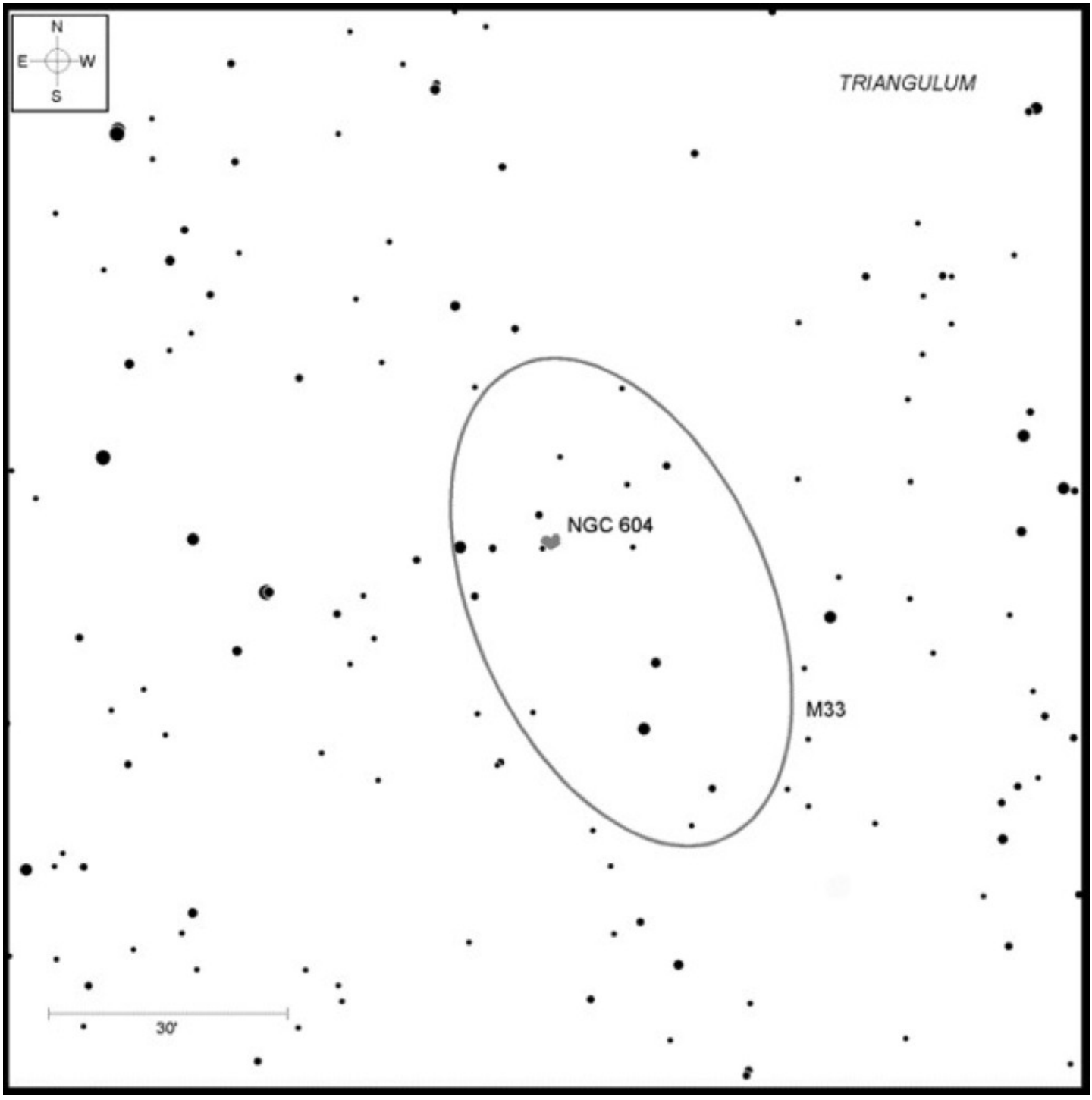
Target	Type	RA	DEC	Constellation	Magnitude	Size
NGC 604	Emission nebula/stellar association in galaxy M33	01h 34.5m	+30° 47'	Triangulum	11ish	1.5'

Last month, I challenged you to spot M33, the Triangulum Spiral, without any optical aid. This month, we're back in search of one of M33's own deep-sky objects. Best of all, you do not need a large aperture to see it. Our challenge this month is visible through small telescopes and even giant binoculars.

NGC 604 is an enormous Hydrogen II (H II) region of ionized hydrogen embedded within one of the galaxy's spiral arms. Its tiny glow lies about 11′ northeast of M33's central nucleus.

Above: Evening star
map showing the location
of this month's
<u>Cosmic Challenge</u>.
Credit: Map adapted from
<u>Star Watch</u> by Phil
Harrington.





Above: Finder chart for this month's Cosmic Challenge.
Credit: Chart adapted from Cosmic Challenge by Phil Harrington

William Herschel was first to lay eyes on this distant cloud of glowing hydrogen gas when he noticed it on September 11, 1784. He could scarcely have imagined the extraordinary nature of what he had discovered. Herschel subsequently listed it as "H-III-150," his short-hand way of cataloging it as the 150th entry in his compilation of "very faint nebulae."

From our earthly vantage point, NGC 604 spans roughly 1.5′ to 2′ and is often listed at visual magnitude 14, although other catalogs give considerably brighter estimates. I'll stick with the latter, as I estimate its magnitude as 9th, give or take. Regardless, its relatively high surface brightness makes it surprisingly accessible through modest instruments, with experienced observers reporting successful sightings through telescopes as small as 50 mm and with large binoculars.

That apparent size may sound unimpressive, but consider what we are viewing. At M33's distance of approximately 2.73 million light-years, the nebula extends some 1,300 to 1,500 light-years across, making it one of the largest known stellar nurseries in our Local Group. By comparison, the familiar Orion Nebula is only a few tens of light-years across.

Were NGC 604 transported to Orion's distance of roughly 1,350 light-years, its enormous extent would cover more than 50° of sky! Imagine that sight. Within its billowing clouds are more than 200 hot, massive young stars, including some exceeding 100 times the Sun's mass. Their intense ultraviolet radiation ionizes the surrounding hydrogen, causing the gas to glow. Powerful stellar winds, together with the effects of past supernova explosions, have excavated enormous cavities within the nebula. Despite this energetic activity, NGC 604 remains a region of ongoing star formation.

In March 2024, NASA released spectacular new views of NGC 604 obtained with the James Webb Space Telescope. Its Near-Infrared Camera (NIRCam) revealed intricate filaments, cavities, and glowing ionized hydrogen, while its Mid-Infrared Instrument (MIRI) traced cooler gas and dust. Particularly intriguing are the clouds of molecular hydrogen that provide raw material for future generations of stars. The images reveal an environment far more complex than anything we can hope to discern through our backyard telescopes.

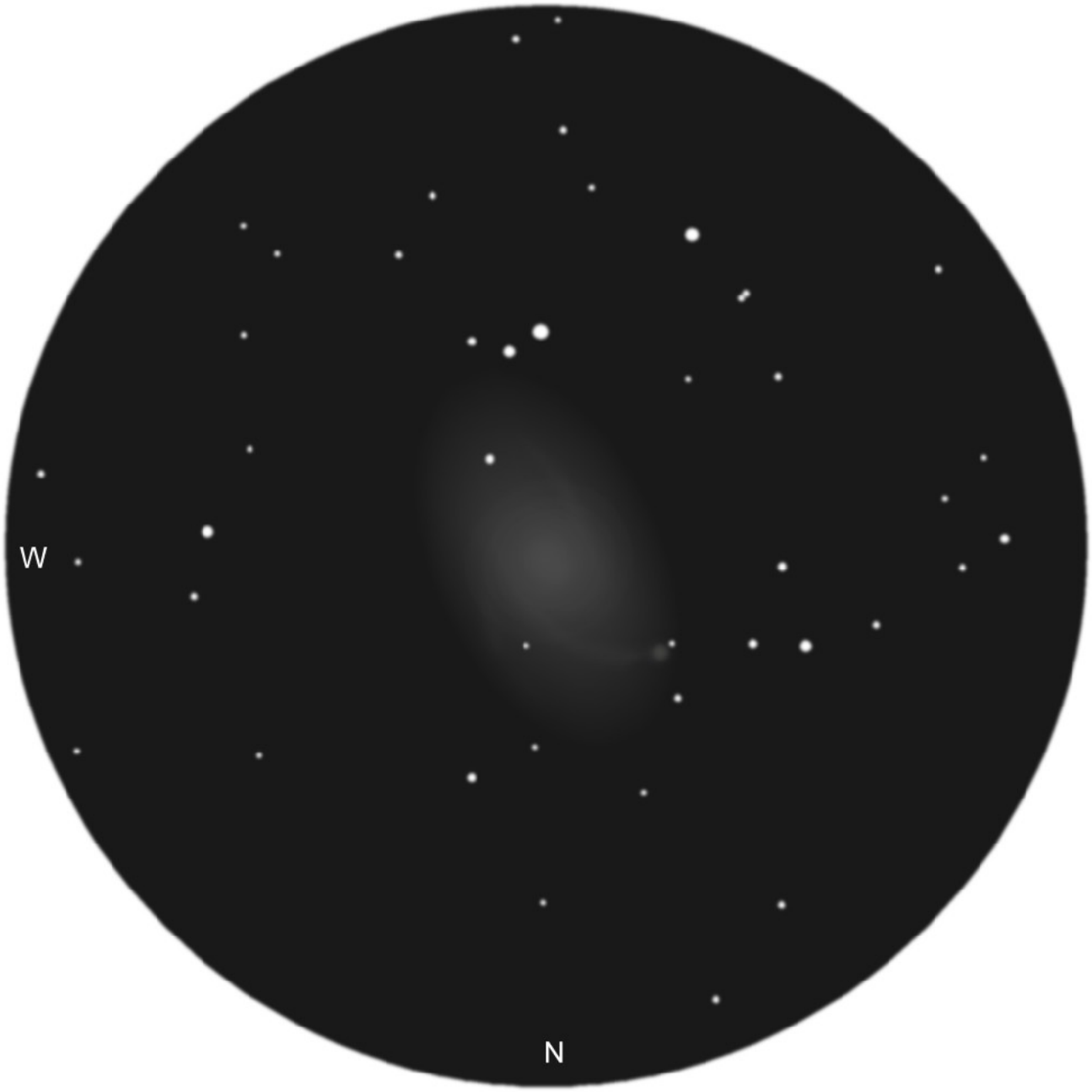


Above: NGC 604, as imaged through the James Webb Space Telescope's Near-Infrared Camera (NIRCam).
Credit: NASA, ESA, CSA, STScI

Still, there is something wonderfully satisfying about detecting this distant stellar nursery with modest equipment. Under favorable conditions, NGC 604 appears as a tiny, oval smudge near the outer reaches of M33's northern spiral arm. At 100×, my 4-inch refractor shows a distinctly brighter central region, although none of the individual massive stars is resolved. Those stars are generally too faint and crowded together for such modest apertures. Larger amateur instruments may begin to reveal individual stellar points and irregularities within the surrounding nebulosity.



Above: NGC 604, as imaged through the author's Celestron Origin 6-inch (15 cm) f/2.2 astrograph. North is up. For full tech specs, visit his Astrobin page.

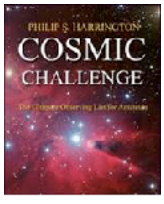


Digitized sketch of NGC 604 by the author through his 4-inch (102 mm) f/10 refractor.

Try varying the magnification to determine whether the nebula appears uniformly bright or shows subtle changes in intensity. A narrowband nebula filter may also improve its contrast by suppressing some of the surrounding sky glow while transmitting emission lines from the ionized gas. It is remarkable to consider that this tiny patch of light, seemingly so insignificant against M33's diffuse spiral arm, contains an enormous stellar nursery dwarfing our own Orion Nebula. And NGC 604 is hardly alone. Herschel and others went on to catalog more H-II regions and star clouds within M33. We will return once again next month as we go hunting for other deep-sky objects in that galaxy far, far away.

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!

About the Author:



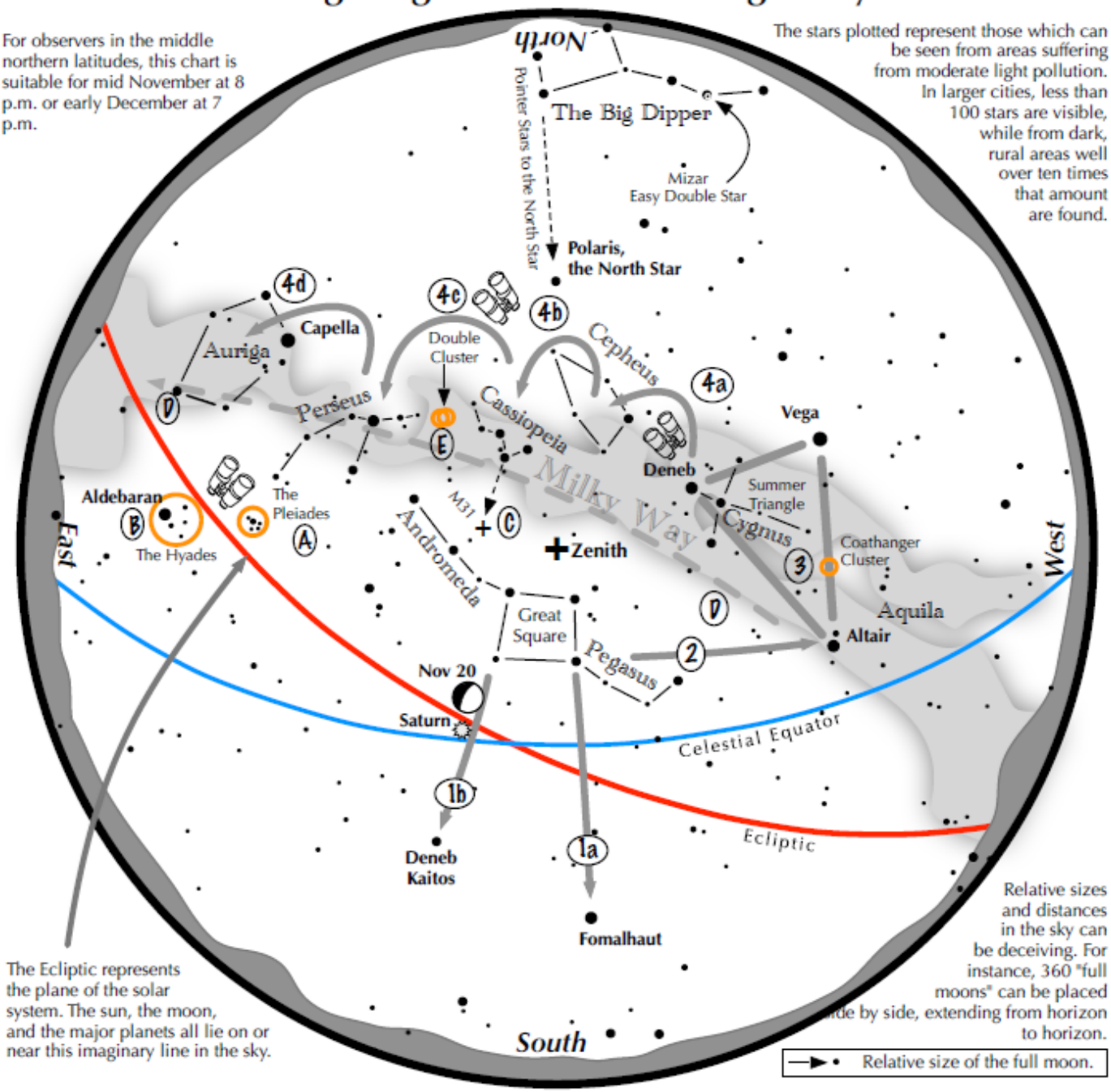
Phil Harrington is a contributing editor to Astronomy magazine and is the author of 9 books on astronomy. Visit www.philharrington.net to learn more. Phil Harrington's Cosmic Challenge is copyright 2026 by Philip S. Harrington. All rights reserved. No reproduction, in whole or in part, beyond single 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.

Navigating the November Night Sky

2026

For observers in the middle northern latitudes, this chart is suitable for mid November at 8 p.m. or early December at 7 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.



The Ecliptic represents the plane of the solar system. The sun, the moon, and the major planets all lie on or near this imaginary line in the sky.

Relative sizes and distances in the sky can be deceiving. For instance, 360 "full moons" can be placed side by side, extending from horizon to horizon.

Relative size of the full moon.

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

1. Face south. Almost overhead lies the "Great Square" with four stars about the same brightness as those of the Big Dipper. Extend a line southward following the Square's two westernmost stars. The line strikes Fomalhaut, the brightest star in the south. A line extending southward from the two easternmost stars, passes Deneb Kaitos, the second brighest star in the south.
2. Draw a line westward following the southern edge of the Square until it strikes Altair, part of the "Summer Triangle."
3. Locate Vega and Deneb, the other two stars of the Summer Triangle. Vega is its brightest member, while Deneb sits in the middle of the Milky Way.
4. Jump along the Milky Way from Deneb to Cepheus, which resembles the outline of a house. Continue jumping to the "W" of Cassiopeia, then to Perseus, and finally to Auriga with its bright star Capella.

Binocular Highlights

A and B: Examine the stars of the Pleiades and Hyades, two naked eye star clusters. **C:** The three westernmost stars of Cassiopeia's "W" point south to M31, the Andromeda Galaxy, a "fuzzy" oval. **D:** Sweep along the Milky Way from Altair, past Deneb, through Cepheus, Cassiopeia and Perseus, then to Auriga for many intriguing star clusters and nebulous areas. **E.** The Double Cluster.

Astronomical League *www.astroleague.org/outreach; duplication is allowed and encouraged for all free distribution.*

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