Snake River Skies

The Monthly Newsletter of the Magic Valley Astronomical Society. May 2025

Membership Meeting
May 10th at the Herrett Center
CSI 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

May Newsletter

Greetings Friends and Family: Another typical Idaho May, when the weather jumps from winter to summer. And no, I am not complaining about a series of 70 degrees days. First off, just a note about our next two programs. Dr. Candace Wright will be presenting our program for May, "The Search for Exoplanets and the Possibility of Life Beyond Earth"! That is on the 10th at 7:00pm in the Herrett Center Library.

Our June 14th program will be presented by George Dunn. George will be discussing Castle Rock Observation. Also to be finalized at our May meeting will be the location and date of our long-awaited star party.

Calendar Quick Review

May 6, 7 - Eta Aquariids Meteor Shower. The Eta Aquariids is an above average shower, capable of producing up to 60 meteors per hour at its peak. Most of the activity is seen in the Southern Hemisphere. In the Northern Hemisphere, the rate can reach about 30 meteors per hour. It is produced by dust particles left behind by comet Halley, which has been observed since ancient times. The shower runs annually from April 19 to May 28. It peaks this year on the night of May 6 and the morning of May 7. The waxing gibbous moon will block out some of the fainter meteors this year. But if you are patient, you should still be able to catch some of the brighter ones. The best view will be from a dark location after midnight. Meteors will radiate from the constellation Aquarius but can appear anywhere in the sky.

May 12 - Full Moon. 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 16:57 UTC. This full moon was known by early Native American tribes as the Flower Moon because this was the time of year when spring flowers appeared in abundance. This moon has also been known as the Corn Planting Moon and the Milk Moon.

May 27 - New Moon. The Moon will located on the same side of the Earth as the Sun and will not be visible in the night sky. This phase occurs at 03:04 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.

May 31 - Venus at Greatest Western Elongation. The planet Venus reaches its greatest eastern elongation of 45.9 degrees from the Sun. This is the best time to view Venus since it will be at its highest point above the horizon in the morning sky. Look for the bright planet in the eastern sky before sunrise.

Visit our Website
www.mvastro.org

Moon Phases for May 2025

Twin Falls, Idaho, United States

SUN	MON	TUE	WED	THU	FRI	SAT
				1  Waxing crescent 21.1% 4 days	2  Waxing crescent 30.9% 5 days	3  Waxing crescent 41.3% 6 days
4  First Quarter 7:53 A.M. 7 days	5  Waxing gibbous 61.7% 8 days	6  Waxing gibbous 71.0% 9 days	7  Waxing gibbous 79.4% 10 days	8  Waxing gibbous 86.5% 11 days	9  Waxing gibbous 92.3% 12 days	10  Waxing gibbous 96.5% 13 days
11  Waxing gibbous 99.2% 14 days	12  Full Flower Moon 10:58 A.M. 15 days	13  Waning gibbous 99.0% 16 days	14  Waning gibbous 96.1% 17 days	15  Waning gibbous 91.5% 18 days	16  Waning gibbous 85.2% 19 days	17  Waning gibbous 77.4% 20 days
18  Waning gibbous 68.2% 21 days	19  Waning gibbous 58.1% 22 days	20  Last Quarter 6:00 A.M. 23 days	21  Waning crescent 36.4% 24 days	22  Waning crescent 25.8% 25 days	23  Waning crescent 16.2% 26 days	24  Waning crescent 8.3% 27 days
25  Waning crescent 2.8% 28 days	26  New Moon 9:04 P.M. 0 days	27  Waxing crescent 0.6% 1 day	28  Waxing crescent 3.9% 2 days	29  Waxing crescent 9.6% 3 days	30  Waxing crescent 17.3% 4 days	31  Waxing crescent 26.2% 5 days

Source: The Old Farmer's Almanac

The full Moon in May is known as the Flower Moon, and this year, it will rise at 12:56 P.M. on Monday, May 12. Near this Moon, you may spot the bright red star Antares, the brightest star in Scorpius. Given its timing, this Moon will also appear full the evening prior—on Sunday, May 11. How fitting that the Flower Moon will shine its light on Mother's Day!

Similarly, the Cree names of **Budding Moon** and **Leaf Budding Moon** celebrate the awakening of plant life. **Egg Laying Moon** and **Frog Moon** are other Cree terms for this period. **Moon of the Shedding Ponies** is an Oglala term. **Planting Moon** (Dakota, Lakota) marks the time to plant seeds and start the year's crops.

Next page: Images by member Tim Frazier 1). Aurora & Pleiades 2). Aurora & Cassiopeia

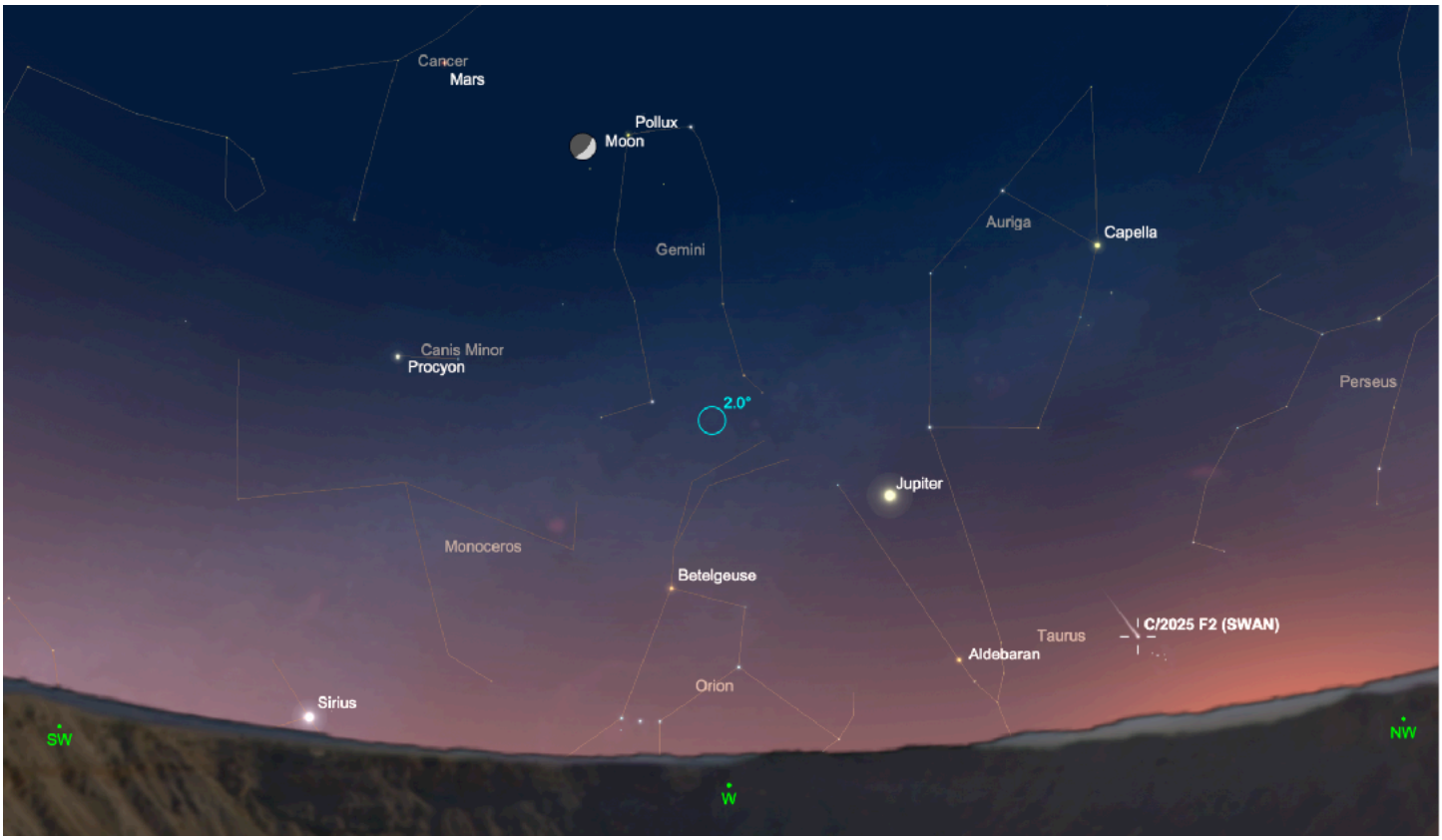
The Sky This Month – May 2025

A superb image few Eta Aquariid meteors, some random meteors, and a bright Iridium flare taken on May 5, 2013 by David Kingham. This image was captured over three nights with two cameras.

May brings all five bright planets to the sky, and even Neptune makes an appearance in the morning before sunrise. The reliable Eta Aquariid meteor shower gets underway for much of the month and peaks during the first week of May. And the Milky Way rises before dawn at the end of ever shorter nights for northern stargazers, while longer and cooler nights south of the equator enable longer contemplation of the dazzling deep southern skies. Here's what to see in the night sky this month…

1 May 2025. Look east-southeast before sunrise to spot Venus and Saturn within 4° of each other. At magnitude -4.5, Venus easily shines through the morning twilight. In a telescope it appears as a thick crescent about 29% illuminated. Saturn shines at magnitude +1.2 and presents an intriguing sight in a telescope because its rings are still nearly edge-on to our point of view and appear as a pair of thin lines protruding from the planet's limb. Saturn moves from Aquarius into Pisces as the month begins and it slowly arcs away from the Sun in the coming months. Look also about 15° eastward this morning to spot tiny Mercury just over the horizon. It lingers in the morning sky for the first two weeks of the month. Southern hemisphere observers get a better view of this inner planet as it appears further above the horizon.

2 May. A fattening crescent Moon lies within 2° of Pollux in Gemini in the evening sky. Mars lies further east in the constellation Cancer not far from the Beehive star cluster (Messier 44). To the west, in the horns of Taurus, sits Jupiter. And if you have a telescope, have a look for Comet C/2025 F2 (SWAN) about 2° east of the Pleiades low in the northwest, although the comet has faded to 9th magnitude and may be too faint to pull out of the evening twilight.



Mars and Jupiter in the western evening sky on May 2, 2025. The fading Comet C/2025 F2 (SWAN) lies near the Pleiades on this night.

4 May. First Quarter Moon, 13:52UT. Look for Mars less than half a degree north of the Beehive star cluster in Cancer. Planet and cluster present a lovely sight in a small telescope and binoculars!

5-6 May. The usually reliable Eta Aquarid meteor shower peaks. The shower runs from April 21 through May 20 each year, with many meteors still visible for several days on either side of the peak. The Eta Aquarids occur as Earth passes through a stream of icy and dusty debris from Comet 1/P Halley, more commonly called Halley's Comet. We pass through a second stream of the comet in late October during the Orionids meteor shower. Look for the meteors anywhere in the sky, preferably after midnight. They trace their paths back to a point near the star Eta Aquarii which rises in the eastern/ southeastern sky before dawn. This is perhaps the best meteor shower of the year for southern hemisphere stargazers, but northern observers may see a few of these meteors too. NOTE: If you're clouded out, you can always watch some of the shower on the excellent live feed from the Subaru Telescope on Mauna Kea, Hawaii.

10 May. Spica, Virgo's brightest star, lies about 0.4° north of the nearly-full Moon after sunset.

12 May. Full Moon, 16:56 UT (the 'Full Flower' Moon). This full Moon occurs near lunar apogee and appears about 7% smaller than average, and 14% smaller than a so-called 'super moon' when the Moon is near perigee.

17 May. Uranus lies in conjunction with the Sun. It will slowly emerge in the constellation Taurus in the morning sky by next month.

20 May. Last Quarter Moon, 11:58 UT

22 May. Again, in the morning sky before sunrise, look east to see a waning crescent Moon with Saturn rising behind it by nearly 4°. Venus also shines brilliantly to the east. If you have a telescope handy, look also for 8th-magnitude Neptune about 2° northeast of Saturn.

27 May. New Moon, 3:02 UT

31 May. Look again in the evening sky for Mars and a thin crescent Moon in close proximity. Both lie near the border between the constellations Cancer and Leo.

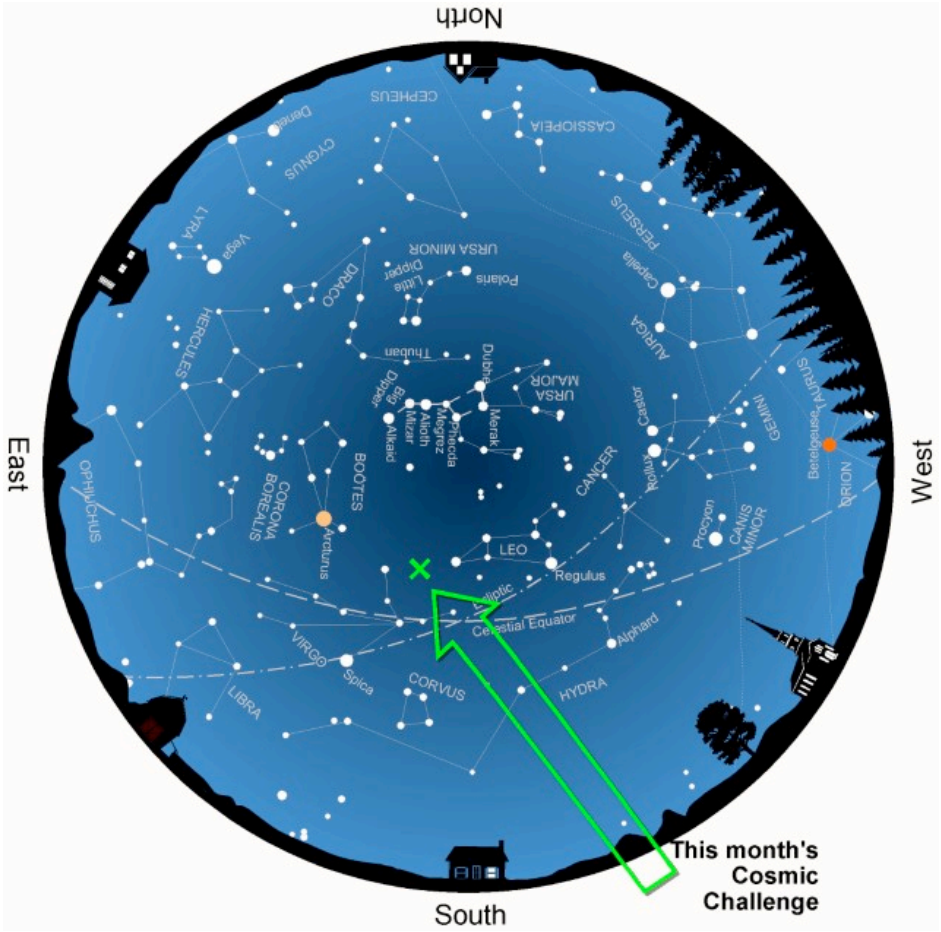
Phil Harrington's Cosmic Challenge

M84 and M86

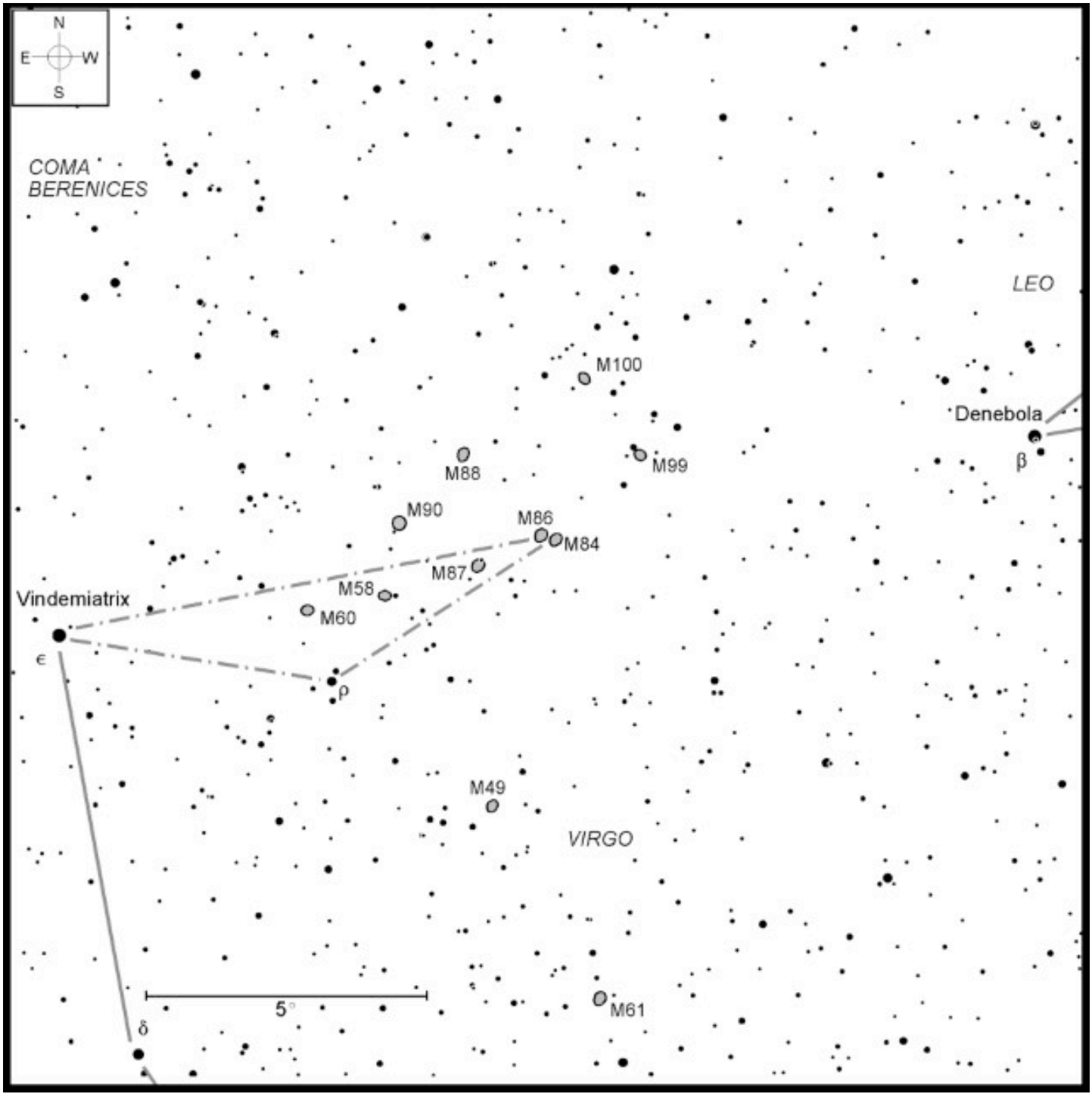
	**<u>This month's suggested aperture range</u>:** 7x to 10x Binoculars

Target	Type	RA	DEC	Constellation	Magnitude	Size
M84	Elliptical galaxy	12h 25.1m	+12° 53.2’	Virgo	10.1	6'x4'
M86	Elliptical galaxy	12h 26.2m	+12° 56.8’	Virgo	9.8	9'x6'

Look at any deep-sky map of the spring sky, and it's pretty clear that when it comes to galaxy hunting, the constellations of Coma Berenices and Virgo are the places to be. The Virgo Cluster hosts an estimated 1,300 individual galaxies (though some sources suggest it may have as many as 2,000) and forms the heart of the Local Supercluster, of which our Milky Way’s Local Group is considered an outlying member.



Above: Evening star map. Credit: Map adapted from Star Watch by Phil Harrington
Above: Finder chart for this month's Cosmic Challenge.



Of those 1,300+ galaxies, two of the brightest are M84 and M86, found not far from the Virgo Cluster's geometric center. Both shine at about 10th magnitude, bringing them within the grasp of 40-mm binoculars under dark skies. The sketch below shows them through my 10x50 binoculars. They are separated in our sky by a scant 20 arc-minutes, making them look more like a faint, fuzzy double star than a pair of extragalactic targets. Even after careful study, it's hard to tell their true identity through binoculars.

Studies show, however, that their twin appearance does not necessarily infer twin galaxies. While many sources continue to classify each as an elliptical galaxy, the most recent evidence indicates that M84 is actually one of those strange missing links, a lenticular galaxy. Also known as type S0 galaxies, lenticular galaxies share some of the traits of traditional spirals and other qualities found in elliptical systems. Lenticular galaxies contain very little interstellar matter and are made up of mostly old stars. Any dust is generally found only near the galactic core, not in outlying regions. Their spiral arms are difficult to make out even in deep photographs, which is why many refer to lenticular galaxies as "armless spirals."

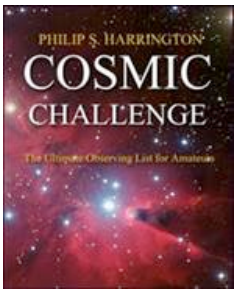
Above: M84 (above center), M86 (left of center), and more than a dozen friends are seen in this shot taken by the author using a ZWO Seestar S30 smart telescope. To see a full size version of the image as well as additional details, visit the author's Astrobin gallery.

Above: Digitized sketch of M84 and M86 through the author's 10x50 binoculars. The galaxy to their left (east) is M87.

Finding M84 and M86 with standard binoculars requires a bit of extra effort, as there are no bright stars in their immediate vicinity to guide the way. Start by centering your binoculars on Vindemiatrix (Epsilon [ε] Virginis), one of the brighter stars in Virgo. From there, shift your view about 5°—roughly one binocular field—west-southwest until you come across a pair of stars formed by 5th-magnitude Rho (ρ) Virginis and a fainter 7th-magnitude companion. M84 and M86 lie another 5° to the northwest of Rho.

Visualize a large, flattened triangle with its corners at Vindemiatrix, Rho Virginis, and the M84/M86 pair. This mental image can help you zero in on the galaxies' approximate location. Spotting them through binoculars, however, may still prove challenging due to their low surface brightness and the lack of nearby stellar landmarks. To improve your chances, try using observing techniques such as averted vision, which takes advantage of your eye's more light-sensitive peripheral vision. Steady your binoculars using a tripod or by bracing against a solid surface, and consider gently tapping the binocular barrel to introduce slight motion to the field. Subtle motion can help faint objects pop out against the background. If you can find M84 and M86, then try your luck with the many other galaxies in the area, such as M87, which is shown the my sketch above. All of the Messier objects in the Virgo Cluster plotted on the chart above should be visible to patient observers using 50-mm or larger binoculars. Several NGC galaxies should be observable as well, although they are not plotted on the finder chart here.

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

Herrett Center for Arts and Science

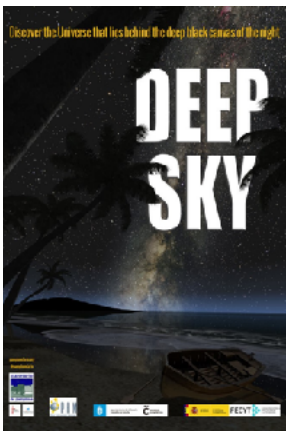
Upcoming Events
All events are weather permitting.

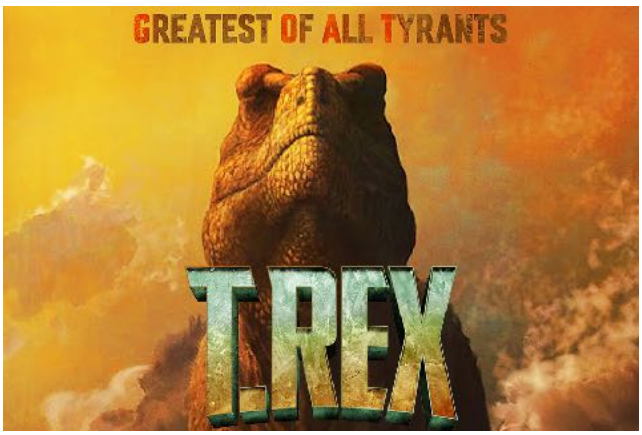
https://herrett.csi.edu/observatory/events.aspx

Step into a world of wonder at our observatory, where the star of the show is the 24" (0.6 m) Norman Herrett Telescope. This impressive telescope offers an experience like no other, inviting everyone to explore the beauty of the cosmos. Thanks to accessible elevators, reaching the observing deck is a breeze, ensuring that even those with limited mobility can experience the magic of the skies like never before.

Faulkner Planetarium
Show Times

The Faulkner Planetarium has been serving the communities of southern Idaho since its opening in November 1995. Equipped with state-of-the-art planetarium technology, the 50-foot dome, Idaho's largest, virtually transports up to 144 guests to locales near and far. The Digistar 7 full-dome video system combined with Dolby 5.1 surround sound make for one incredible experience. Whether staying Earthbound or traveling to the far-flung reaches of the universe, the planetarium will give you an immersive experience you just won't find anywhere else.





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/

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