

Snake River Skies

The Newsletter of the Magic Valley Astronomical Society

April 2022

Membership Meeting

Saturday April 8th 2022 at 7:00p at the Herrett Center - CSI Campus

Centennial Observatory

See Inside for Details

Faulkner Planetarium

See Inside for Details

www.mvastro.org

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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*






President's Message

As I post this month's message, several of us MVAS members will hopefully be able to meet for our first star party of the year. The Jerome Gun Club will be our first site and Magic Valley skies should offer us a good selection of targets as galaxy season arrives. Personally, I'll be trying to image several of my favorites, including the Markarian's Chain in Virgo, one of more of the Leo Galaxy groups and Barnard's Loop, a difficult nebulous region in Orion. On another matter, I was approached by Aiden, one of our younger members to provide assistance for his senior project at a local high school. We met and decided on an observing program where he views certain deep sky objects with either a telescope/and or binoculars and sketches what he sees. Aiden has agreed to join us at our May meeting to present his findings. Should be a great meeting.

Chris Anderson has reminded me that tentatively on June 4th we have a star party at Hagerman Fossil Beds Monument. More on that later, after it has been confirmed. Welcome, James Webb. Hope that many of you have been following the launch and deployment of the James Webb Space Telescope (JWST). Since its successful liftoff from the ESA facility in French Guiana in November, the JWST was able to reach its pre-ordained orbit at a Lagrange (L2) position some 1.5 million km from earth. I'll be talking about the JWST mission at our April meeting on the 9th at 7pm at the Herrett Center Library. Meanwhile, happy galaxy and DSO hunting and see you all there!

Gary Leavitt

April 2022 Calendar

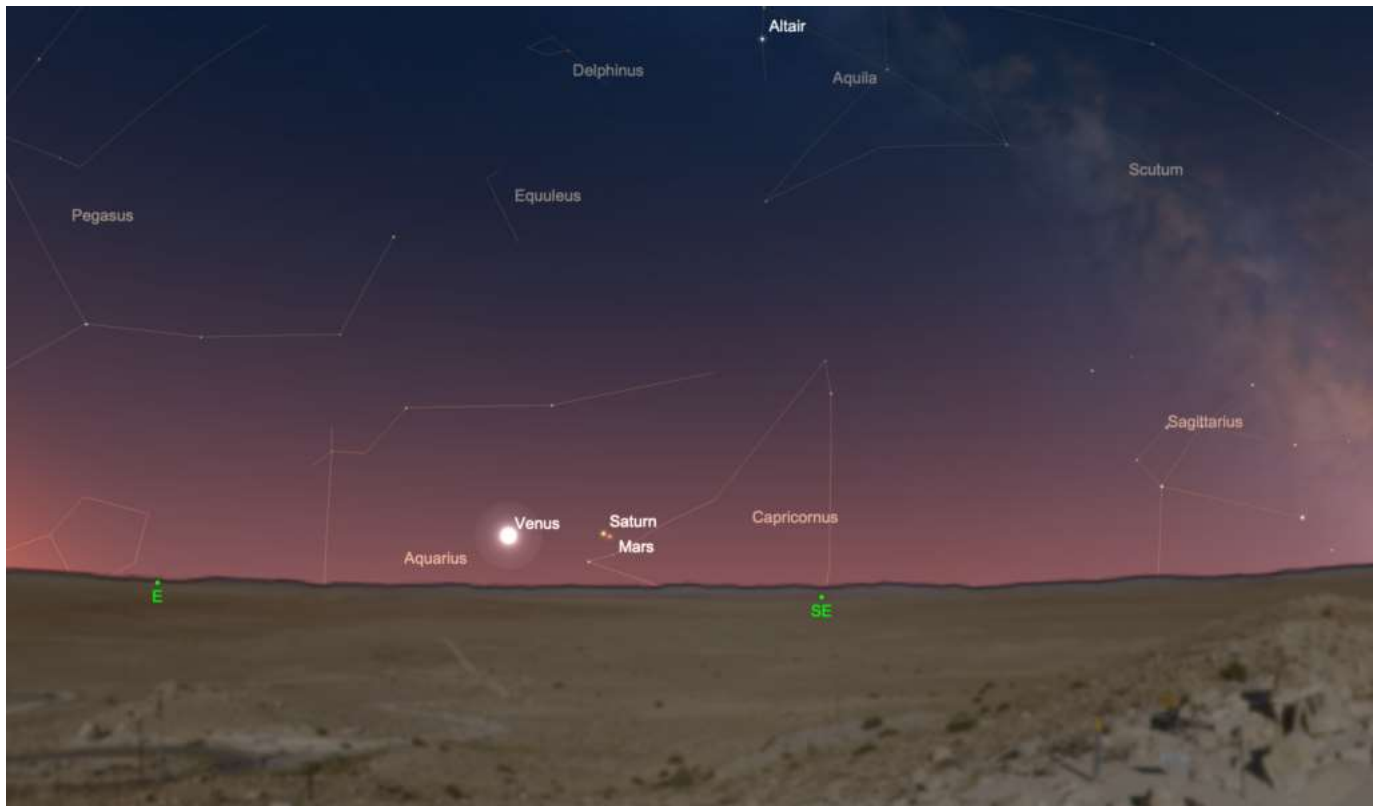
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1 April Fool's Day New Moon  Visible 0% Lunation 1228	2
3	4	5	6	7	8 First Quarter Moon  Visible 50% ↑ Age: 7.43 Days On the 9 th	9 MVAS General Meeting 7:00p Herrett Center Centennial Observatory Public Star Party 7:30p – 9:30p
10	11	12	13	14	15	16 Full Pink Moon 1:17 am  Visible 100% Age: 14.44 Days
17 Easter 	18	19	20	21	22	23 Last Quarter Moon  Visible: 50% ↓ Age: 22.15 Days
24	25	26	27	28	29	30

Night Sky – April 2022



As April arrives, the brilliant constellations Taurus, Orion, and Canis Major turn to the west after sunset and are on their way out for the year. Mercury makes an appearance in the second half of the month in the evening sky and encounters the Pleiades as April winds down. The Lyrid meteors arrive, the first major meteor shower since January. And planets begin to congregate in the morning sky leading to a number of spectacularly close conjunctions for observers with or without optics. Here's what to see in the night sky this month...

1 April 2022. New Moon, 6:24 UT



Venus, Saturn, and Mars in the eastern sky before sunrise on April 4, 2022.

4 April. Look to the southeast before sunrise to see Mars and Saturn rising in the brightening sky. The two planets lie just half a degree from each other, while Venus lies about seven degrees to the east. Use Venus as a guide to spot the two fainter planets with the unaided eye. Both are easily visible in binoculars. A telescope at medium magnification also puts both planets in the same field of view. Venus and Mercury shine around first magnitude with Saturn just marginally brighter than Mars. In a telescope, Saturn's disk appears about three times larger than Mars; the latter is still too distant to give up much detail in a scope. The red-orange hue of Mars presents an evident contrast with sand-yellow Saturn.



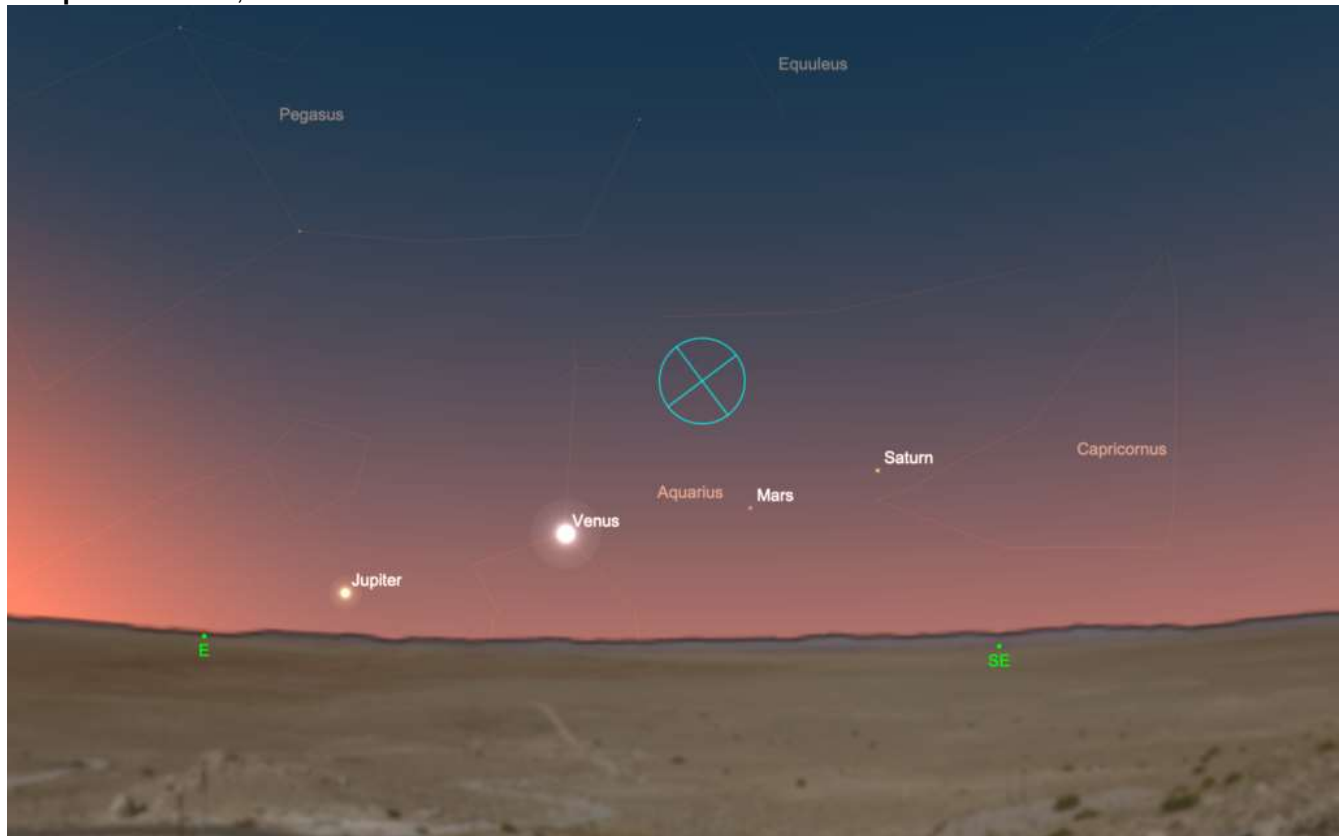
The 3-day-old crescent Moon nears the Pleiades star cluster in the western sky after sunset on April 4, 2022.

4 April. In the evening sky after sunset, look for a slender crescent Moon, just three days old, about four degrees from the Pleiades star cluster low in the southwestern sky. Both fit into a binocular field of view and present a truly splendid sight. The Hyades star cluster lies to the east of the Moon, with Orion further southeast still.

8 April. The nearly first-quarter Moon makes a triangle with the bright stars Castor and Pollux in Gemini.

9 April. First Quarter Moon, 6:48 UT

16 April. Full Moon, 18:55 UT



Four bright planets align in the eastern sky before sunrise on April 16, 2022. The cyan circle spans 5 degrees.

16 April. As the full Moon sets in the west before sunrise, turn eastward to see Jupiter join the planetary show in the eastern sky at dawn. Four planets are now visible here. From east to west you can see Jupiter, Venus (the brightest), Mars, and Saturn.

22 April. The Lyrid meteor shower peaks in the early-morning hours. This is the first significant meteor shower since the Quadrantids in early January. The Lyrids display some 15-20 meteors per hour in good conditions. The Moon, just a day before last quarter, may get in the way of the faintest meteors this year.

The Lyrids trace their apparent paths back to a point between the constellations Hercules and Lyra, both of which rise in the east around midnight. They're visible all night, but you may have more luck after midnight as the Earth turns into the meteor stream. The Lyrids have made a regular appearance for at least 2,500 years, longer than any other meteor shower. They happen as Earth passes through a stream of debris left by Comet C/1861 G1 (Thatcher).

23 April. Last Quarter Moon, 11:56 UT

27 April. At 19:00 Universal Time, Neptune lies just 1/100 of a degree north of Venus in the eastern sky before sunrise. The two planets lie in a rapidly brightening sky and differ in brightness by 12 magnitudes (about 63,000 x). A telescope is a must for this exceedingly difficult observation – it would be interesting to know how many around the world see this extraordinary sight.

29 April. Mercury reaches greatest eastern elongation 21° from the Sun. It appears relatively prominently in the evening sky.



Mercury and the Pleiades meet in the western sky after sunset on April 29, 2022.

29 April. To coincide with its greatest elongation today, Mercury lies passes about 1.4° south of the Pleiades star cluster. Look for this sight just above the west-northwestern horizon after sunset. At magnitude $+0.4$, Mercury shines brighter than all the stars of the Pleiades and the adjacent Hyades star cluster which lies about ten degrees to its left. Binoculars improve the view and show the contrast in color between creamy Mercury and the young blue-white stars of the Pleiades. In a telescope, the planet's tiny disk appears about 35% illuminated and spans just eight arc-seconds.



Venus and Jupiter make a close conjunction in the early morning sky on April 30, 2022.

30 April. Jupiter continues to rise in the early morning sky and today, brilliant Venus passes less than 0.25° degree south of Jupiter in the eastern sky before sunrise. This striking conjunction is easily visible to the unaided eye and in binoculars, and is even more spectacular in a telescope. At magnitude -4.1 , the disk of Venus is about 65% illuminated and spans about 16 arc-seconds. At magnitude -2.1 , Jupiter's disk spans 35 arc-seconds and reveals some cloud detail and its bright Galilean moons.

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

Boise State Professor Dr. Brian Jackson's Astronomy Information Website: <http://www.astrojack.com/> has past BSU First Friday's events and other information.

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

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

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

A monthly podcast on various astronomical topics is available at <https://www.skyandte...onomy-podcasts/>

Free star charts for the month can be downloaded at <http://www.skymaps.com/downloads.html> and <http://whatsouttonight.com/>

Stellarium and Cartes du Ciel are useful 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://telescopus.com/> and <http://tonightssky.com/MainPage.php>

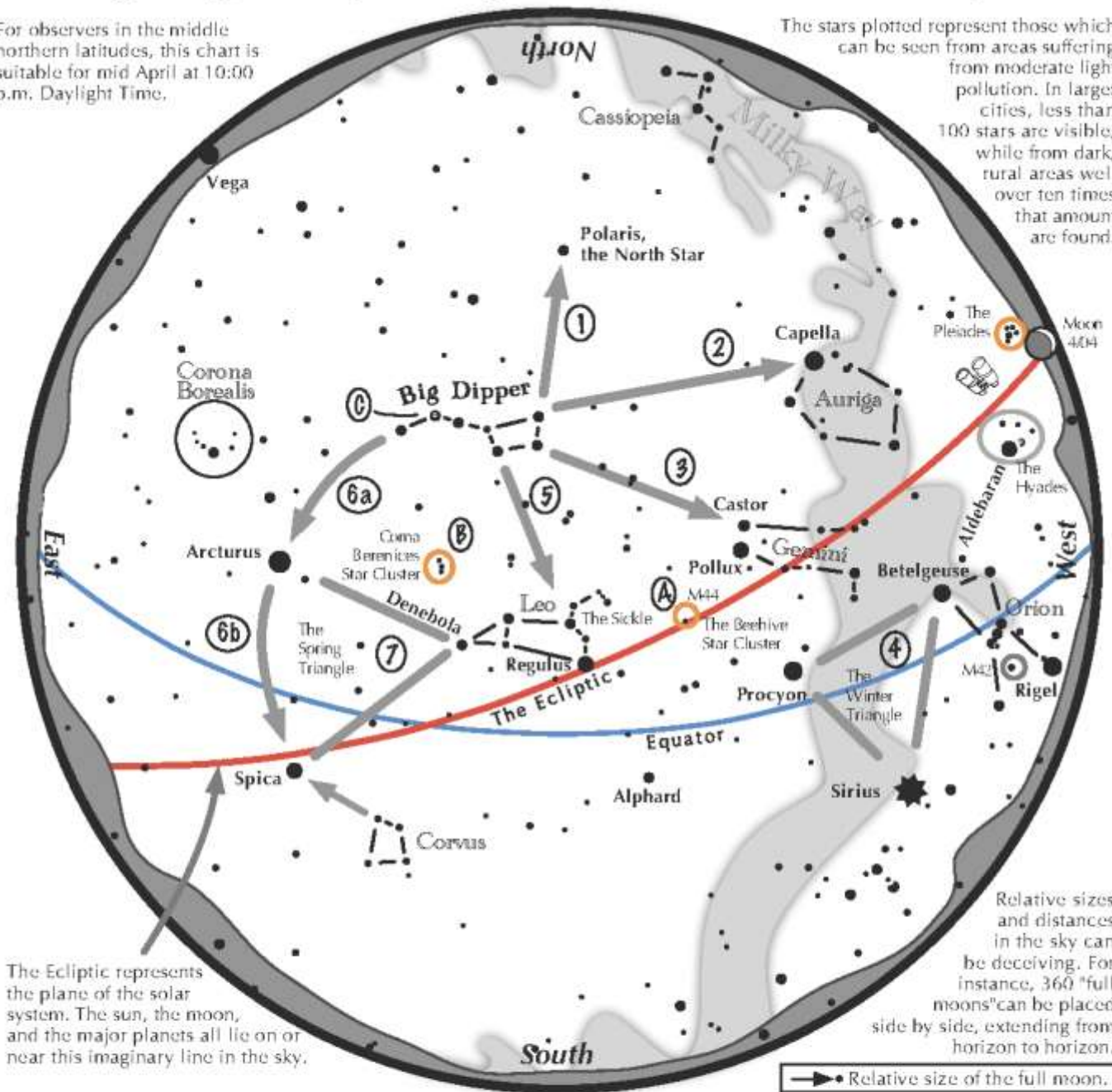
Freeware sky atlases can be downloaded at <http://www.deepskywa...-atlas-full.pdf> and <https://www.cloudyni...ar-charts-r1021> and <https://allans-stuff.com/triatlas/>



Navigating the April Night Sky, Northern Hemisphere

For observers in the middle northern latitudes, this chart is suitable for mid April at 10:00 p.m. Daylight Time.

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.



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 April night sky: Simply start with what you know or with what you can easily find.

- 1 Extend an imaginary line north from the two stars at the tip of the Big Dipper's bowl. It passes Polaris, the North Star.
- 2 Draw another imaginary line west across the top two stars of the Dipper's bowl. It strikes Capella low in the northwest.
- 3 Through the two diagonal stars of the Dipper's bowl, draw a line pointing to the twin stars of Castor and Pollux in Gemini.
- 4 Look in the west-southwest for the bright Winter Triangle stars of Sirius, Procyon, and Betelgeuse.
- 5 Directly below the Dipper's bowl reclines the constellation Leo with its primary star, Regulus.
- 6 Follow the arc of the Dipper's handle. It first intersects Arcturus, then continues to Spica.
- 7 Arcturus, Spica, and Denebola form the Spring Triangle; a large equilateral triangle.

Binocular Highlights

- A:** M44, a star cluster barely visible to the naked eye, lies to the southeast of Pollux.
- B:** Look nearly overhead for the loose star cluster of Coma Berenices.
- C:** In the Big Dipper's handle shines Mizar next to a dimmer star, Alcor.



Astronomical League
www.astroleague.org
/outreach

Duplication allowed and encouraged for all free distribution.

Observatory and Planetarium Events



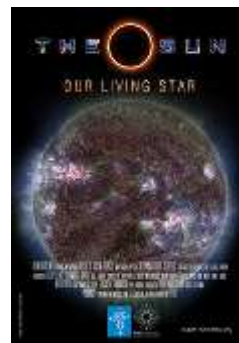
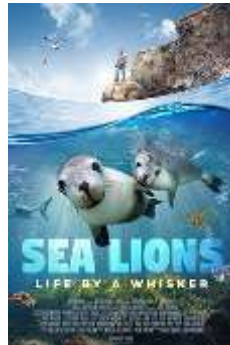
Centennial Observatory Upcoming Events

Event	Place	Date	Time	Admission
Monthly Free Star Party	Centennial Observatory	Saturday, April 9 th , 2022	9:00 to 11:00 PM	FREE

Faulkner Planetarium



[Now Showing!](#)



Note: There are more shows for the Planetarium. To learn more and find show times visit the [Now Showing](#) link above.



Visit the Herrett Center [Video Vault](#)

About the Magic Valley Astronomical Society

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 [Gary Leavitt](#), 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, Twin Falls, ID, USA.