Snake River Skies

The Newsletter of the Magic Valley Astronomical Society

www.mvastro.org

Membership Meeting

Saturday, May 9th 2015
7:00pm at the
Herrett Center for Arts & Science
College of Southern Idaho.

Public Star Party Follows at the Centennial Observatory

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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

Colleagues,

The weather's warming up and the skies are getting clearer. One would think it couldn't get any better for May.

Ah, but it will.

This month's speaker will have us look down to look up. Idaho State University Geosciences researcher Scott Hughes will be talking to us via Skype about how he's using Idaho's Craters of the Moon to study Mars. Hughes and his colleague, Shannon Kobs-Nawotniak, have recently received a $400,000 grant, According to ISU, Hughes and Kobs-Nawotniak will be studying both flows at Craters of the Moon and Hawaii to get an idea of how we look for life on other planets. In a press release from ISU, Hughes' work not only includes looking at both lichen and microbial life on the lava, but will also hopefully feature the use of rovers.

Dr. Hughes' presentation is just the latest in an effort on the part of our members to reach out and find other guests in the field. We thank all of the members who have helped bring in great speakers, and hope the successful presentations will continue. In the meantime, we want to thank those of you who have helped out with volunteering efforts. April was a particularly busy month, with Hagerman and Astronomy Day. This month doesn't look as busy, but we are hoping to reschedule the snowed-out Three Creek visit for May 8. Please feel free to drop by. You might even get free food.

Clear Views,
Rob Mayer, President

Moon Rise over the Snake River Canyon & Shoshone Falls © Gary Leavitt MVAS

Calendars for May

Events Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4 Full Moon Pink Moon 	5	6	7 Moon at Greatest S Declination -18.3°	8	9 General Membership Mtg. 19:00 Herrett Center
10 	11 Last Quarter 	12	13	14	15	16
17	18 New Moon 	19	20 Moon at Greatest N Declination +18.4°	21	22	23
24	25 Memorial Day First Quarter 	26	27	28	29	30
31						

Snake River Skies is the Newsletter of the Magic Valley Astronomical Society and is published electronically once a month.

May Celestial Calendar and Trivia

5/1 May Day or Beltane, a cross-quarter day
5/5 Saturn is 2 degrees south of the Moon
5/6 The peak of the Eta Aquarid meteor shower (20 per hour for northern observers) occurs.
5/7 Mercury is at greatest eastern elongation 21°
5/10 Venus is at its greatest heliocentric latitude north today
5/12 Neptune is 3 degrees south of the Moon
5/15 The Moon is at perigee, subtending 32' 19" from a distance of 366,024 kilometers (227,437 miles) Uranus is 0.2 degree north of the Moon
5/17 Asteroid 532 Herculina (magnitude 8.5)
5/19 Mercury is 6 degrees north of the Moon
5/21 A double Galilean satellite shadow transit begins at 10:00pm. Venus is 8 degrees north of the Moon.
5/23 Mercury is at the descending node today; Saturn (magnitude 0.0, apparent size 18.5").
5/24 Jupiter is 5 degrees north of the Moon
5/26 The Moon is at apogee, subtending 29' 53" from a distance of 404,244 kilometers (251,186 miles) 5/28 A double Galilean satellite shadow transit will occur.
5/30 Mercury is in inferior conjunction; Venus is 4° south of the first-magnitude star Pollux (β Geminorum).

Nicolas Lacaille (1713-1762) and Joseph Lockyer (1836-1920) were born this month.

Nereid, Neptune's third-largest satellite, was discovered on May 1, 1949 by Gerard Kuiper.

The May 6th peak of the Eta Aquarid meteor shower is compromised by moonlight from a waning gibbous Moon. Southern hemisphere observers are favored. Eta Aquarid meteors are debris from the famous periodic comet 1P/Halley.

Information on Iridium flares and passes of the ISS, the Tiangong-1, the USAF's X-37B, the HST, and other satellites can be found at http://www.heavens-above.com/

The Moon is located in Virgo, is illuminated 90.8%, and is 12.2 days old on May 1st at 0:00 UT. The Moon occults Uranus from western and central Africa and central South America on May 15th. The Moon is at its greatest northern declination on May 20th (+18.4 degrees). The Moon is at its greatest its greatest southern declination on May 7th (-18.3 degrees). Longitudinal libration is at maximum (+5.6 degrees) on May 21st and at minimum (-5.6 degrees) on May 6th. Latitudinal libration is at maximum (+6.7 degrees) on May 21st and at minimum (-6.7 degrees) on May 8th. Visit http://saberdoesthes...does-the-stars/ for tips on spotting extreme crescent Moons. Times and dates for the lunar light rays predicted to occur this month are available at http://www.lunar-occ...o/rays/rays.htm

The Sun is located in Aries on May 1st.

Brightness, apparent size, illumination, distance from the Earth in astronomical units, and location data for the planets and Pluto on May 1st: Mercury (magnitude -0.4, 6.8", 56% illuminated, 0.99 a.u., Taurus), Venus (magnitude -4.2, 16.7", 67% illuminated, 1.00 a.u., Taurus), Mars (magnitude +1.4, 3.8", 100% illuminated, 2.47 a.u., Aries), Jupiter (magnitude -2.1, 37.9", 99% illuminated, 5.21 a.u., Cancer), Saturn (magnitude +0.1, 18.4", 100% illuminated, 9.04 a.u., Scorpius), Uranus on May 16th (magnitude +5.9, 3.4", 100% illuminated, 20.80 a.u., Pisces), Neptune on May 16th (magnitude +7.9, 2.3", 100% illuminated, 30.21 a.u., Aquarius), and Pluto on May 16th (magnitude +14.1, 0.1", 100% illuminated, 32.22 a.u., Sagittarius).

In the evening, Mercury can be seen in the northwest, Venus in the west, Jupiter in the southwest, and Saturn in the southeast. Jupiter is located in the west and Saturn in the southeast at midnight. Saturn is in the southwest, Uranus in the east, and Neptune in the southeast at dawn.

At midmonth, Mercury is visible in evening twilight, Venus sets at midnight, Jupiter sets at 2:00 a.m. local daylight time, and Saturn is visible for the entire night for observers at latitude 40 degrees north.

Mercury, Venus, and Saturn are at their best this month.

Mercury is at its brightest during the first half of May. The speediest planet shines at magnitude 0.2 when it reaches greatest eastern elongation on May 7th. For mid-northern latitude observers, this is the best apparition of the planet in 2015. By May 11th, Mercury has faded to magnitude 1.0 as it passes 8 degrees north of the first-magnitude star Aldebaran (Alpha Tauri). Mercury is stationary on May 19th and in inferior conjunction on May 30th.

Brilliant Venus is situated between second-magnitude Elnath (Beta Tauri) and third-magnitude Zeta Tauri on May 1st. It exits Taurus and enters Gemini on May 8th. On May 9th, Venus passes 1.7 degrees north of the bright open cluster M35. Venus is 8 degrees north of a slender crescent Moon on May 20th and 4 degrees south of the first-magnitude star Pollux (Beta Geminorum) on May 30th. Venus brightens to magnitude -4.4 by month's end.

Mars is a tiny, first-magnitude object that's visible a few degrees above the northwestern horizon shortly after sunset early this month.

Jupiter sets around 1:00 a.m. local daylight time on May 1st and 11:00 p.m. local daylight time on May 31st. The waxing crescent Moon passes five degrees to the south of Jupiter on the morning of May 24th. Double Galilean satellite shadow transits occur on May 21st and May 28th. On the evening of May 30th, Callisto is the only one of the Galilean satellites visible from 10:57 p.m. to 12:55 a.m. EDT, since Europa is transiting Jupiter and Io and Ganymede are in occultation.

Saturn is 1.2 degrees north of the second-magnitude multiple star Acrab (Beta Scorpius) on May 1st. It departs Scorpius and enters Libra on May 12th. The Ringed Planet reaches opposition on May 23rd and is visible all night. On that date, Saturn shines at magnitude 0.0 and has an apparent equatorial diameter of 18.5 arc seconds. Its rings are inclined by 24.4 degrees and subtend 42.1 arc seconds. At opposition, Saturn is located 8.97 astronomical units or 75 light-minutes from the Earth. Eighth-magnitude Titan is positioned north of the planet on May 3rd and May 19th and south of it on May 10th-May 11th and May 26th-May 27th. Saturn's variably bright moon Iapetus shines at eleventh magnitude as it passes 2.5 arc minutes southwest of Saturn on May 1st. Iapetus is a magnitude brighter when it reaches greatest western elongation 9 arc minutes from the planet on May 19th.

Uranus rises during morning twilight for most of the month.

Neptune rises around 3:00 a.m. local daylight time by the middle of May. The gas giant is positioned approximately 2.2 degrees southwest of the fourth-magnitude star Lambda Aquarii. A finder chart is posted at https://in-the-sky.o...php?obj=neptune

Pluto lies in Sagittarius, approximately 5.5 degrees north of the handle of the Teapot asterism, and is high in the sky after midnight. Consult https://in-the-sky.o...pluto&year=2015 for a finder chart.

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

Visit http://cometchasing.skyhound.com/ for information on comets visible this month.

Asteroid 532 Herculina travels southwestward through Serpens Caput this month. The minor planet passes within three arc minutes of a field star on the evenings of May 4th, May 10th, and May 21st and less than one degree south of the fifth-magnitude star Omega Serpentis on the evenings of May 22nd and May 23rd. The large, stony S-type main belt asteroid shines at magnitude 8.5 when it reaches opposition on May 17th. Asteroid 18 Melpomene (magnitude 10.3) reaches opposition on May 2nd. Consult http://www.minorplan...2015/index.html for ephemerides on these objects. Information on asteroid occultations taking place this month is available at http://www.asteroido.../2015_05_si.htm

Browse http://astrocast.tv/ for an informative video on astronomical events taking place this month.

The famous eclipsing variable star Algol (Beta Persei) is at a minimum, decreasing in magnitude from 2.1 to 3.4, on May 2nd, 5th, 8th, 11th, 14th, 17th, 19th, 22nd, 25th, 28th, and 31st. For more on Algol, see http://stars.astro.i.../sow/Algol.html and http://www.solstatio...ars2/algol3.htm

Notable carbon star for May: SS Virginis

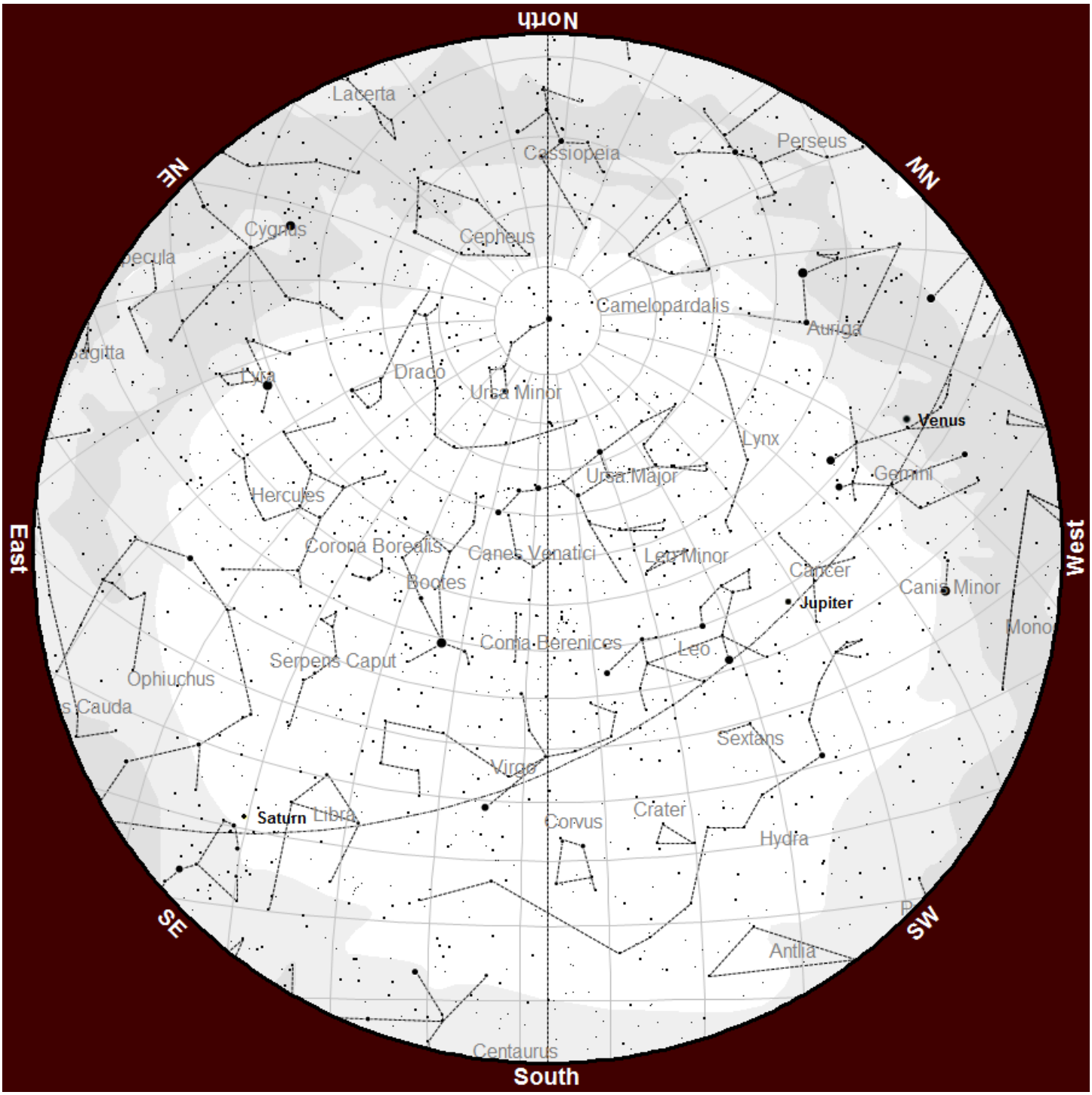
Top ten deep-sky objects for May: M3, M51, M63, M64, M83, M87, M104, M106, NGC 4449, NGC 4565

Top ten deep-sky binocular objects for May: M3, M51, M63, M64, M84, M86, M87, M104, M106, Melotte 111

Challenge deep-sky object for May: 3C 273 (Virgo)

The objects listed above are located between 12:00 and 14:00 hours of right ascension.

Planisphere for May



Planisphere courtesy of Chris Anderson, Observatory Manager, Herrett Center College of Southern Idaho, Twin Falls, ID

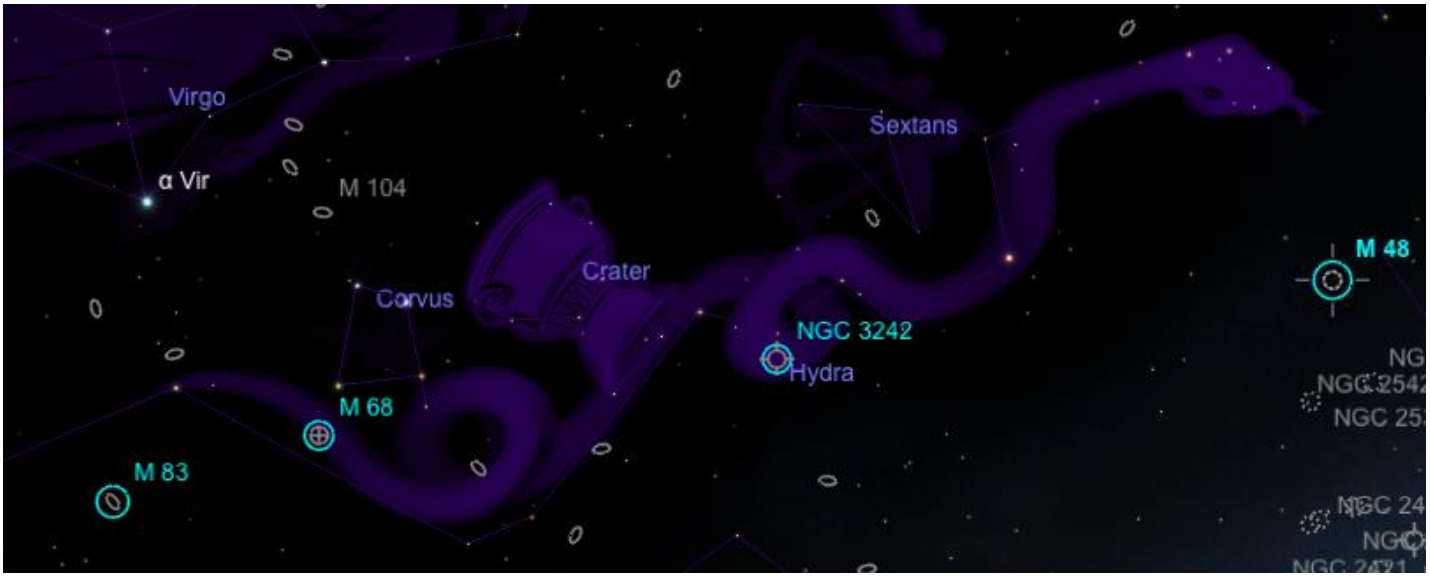
Be Safe – Get Out There – Explore Your Universe

Looking Through the Eyepiece

Along the Sea Serpent
Steve Bell

By May, Hydra, the Sea Snake or Sea Serpent, is sliding toward the western horizon. There are four nice deep sky objects, three Messier and one Herschel 400 object that are worth chasing down if you haven't seen them (or worth another look if you have).

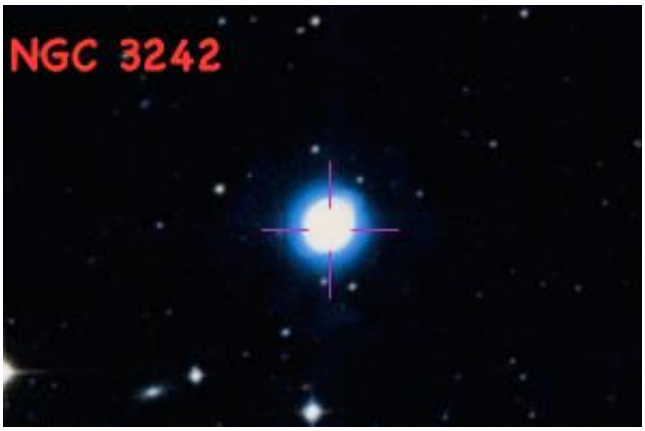
Object	Type	RA	Dec	Mag	Size
M48	Open	08 13 42	-05 45 00	5.8	54
NGC3242	P Neb	10 24 48	-18 39 00	8.6	0.7x0.6
M68	Globular	12 39 30	-26 45 00	7.3	9.8
M83	Galaxy	13 37 00	-29 52 00	7.5	13.1x12.2



Messier 48 is a large, bright open cluster visible to the naked eye under good conditions. At almost a degree in diameter, it will take low power and wide field to see it in context.

Through an 8" SCT at 75X, the cluster was large and impressive, covering about half the field. It was rich and fairly concentrated toward the center with most stars about the same brightness.

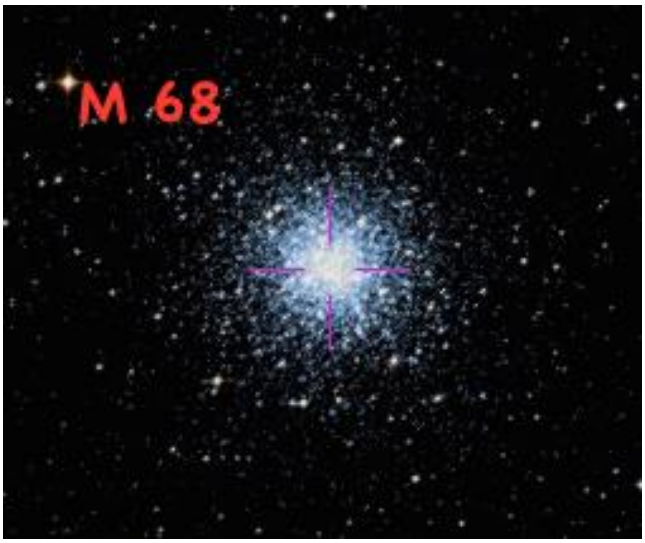
Messier 48 is about 1500 light years from the sun and 300 million years old. There is actually no cluster visible at the position that Messier reported. His declination value is off by about 5°.



NGC 3242, known as the Ghost of Jupiter, gained this moniker due to its similar size and white color at lower magnification to that of the giant planet.

Through larger apertures, there is a great deal of internal structure visible, but in smaller, under good sky conditions, only a hint.

Through an 8" SCT at 231X it was bright and large (visible in 8x50 finder). Without a filter, it appeared distinct and circular. With a UHC class filter, it appeared slightly elliptical with mottling seen on the surface. The central star was seen with averted vision. NGC 3242 is around 1400 light years from the sun and its age (for inner gas rings) is estimated at around 1500 years.



Messier 68 is a relatively small, but bright globular cluster. M 68 is around 34,000 light years distant and some 11 billion years of age. Charles Messier logged it in 1780. Through an 8"SCT at 156X it was about 1/5 field of view and grainy across the face. In a 10" Newtonian at 133X, it resolved cleanly across the face with concentration toward the center.

Messier 83, known as the Southern Pinwheel, is a large, bright face-on galaxy. It is a barred spiral galaxy about 15 million light years away. Through a 9.25" SCT at 124X, it appeared large, with a bright distinct core that was broad and non-stellar. The halo was mottled; more aperture would show the spiral arms. It subsumed about 1/3 field of view at 124X.

Observatories and Planetarium

Bruneau Dunes Observatory – Bruneau, ID

You're invited to star gaze at the Bruneau Dunes Observatory! See the night sky as you've never seen it before. Observatory tours and solar viewing (through a specially adapted telescope) begin one hour before sunset, and are free of cost. Following that, visitors can view short orientation program and then have the chance to survey the heavens through the observatory's collection of telescopes. There is a viewing fee of $3 per person (children 5 and under are free of cost) for this. The observatory is open to the public from early May through mid-October on Friday and Saturday nights only, weather permitting. For presentation times, call 208-366-7919, or check the kiosk when you arrive at the park.

See our video: https://www.youtube.com/watch?v=v_TnnWx75k0#t=226

Centennial Observatory at the Herrett Center
College of Southern Idaho – Twin Falls, ID

Event	Place	Date	Time	Admission
Monthly Free Star Party	Centennial Observatory	Saturday, May 9th, 2015	8:45 PM to midnight	FREE
Bimonthly Astronomy Talk: "Galaxies"	Faulkner Planetarium	Thursday, May 14th, 2015	8:45 to 9:45 PM	Adults: $2.50 adults Students (incl. CSI): $1.50 (Children 6 & under free)
Astronomy Talk Night Telescope Viewing	Centennial Observatory	Thursday, May 14th, 2015	9:45 to 11:45 PM	$1.50 (Children 6 & under free) Free to all with paid astronomy talk admission
Summer Solar Session #1	Centennial Observatory	Wednesday, May 27th, 2015	1:30 to 3:30 PM	FREE

www.herrett.csi.edu

Faulkner Planetarium Show Schedule May 6th – 25th

SHOWS

Astronaut (Astro)*
Black Holes: The Other Side of Infinity (Black Holes)*
Dynamic Earth: Exploring Earth's Climate Engine (Dyn Earth)*
Pink Floyd: Dark Side of the Moon (Dark Side)
Rock On Demand (ROCK)
Sea Monsters: A Prehistoric Adventure (Sea Monsters)
Solar System Odyssey (SS Odyssey)

Tuesday					
				7:00	
				(Dyn Earth)*	

Friday					
				7:00	8:00
				(SS Odyssey)	(ROCK)

Saturday					
1:30	2:30	3:30	4:30	7:00	8:00
(Astro)*	(SS Odyssey)	(Sea Monsters)	(SS Odyssey)	(Black Holes)*	(Dark Side)

Denotes a program that includes a live sky tour.

About the Magic Valley Astronomical Society

Magic Valley Astronomical Society
P.O. Box 445
Kimberly, ID, USA 83341

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, $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.

Membership Benefits:
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, Twin Falls, ID, USA circa 1980.