Snake River Skies

The Monthly Newsletter of the Magic Valley Astronomical Society

September Highlights

Sept. 1st Final Solar Observing Session for Summer 2010. 1:30-3:30 pm Stargazer's Deck Centennial Observatory, Herrett Center.

Sept. 3-4 Craters of the Moon Star Party Caves Area Party Lot beginning at dusk. Please arrive before then if possible and avoid headlights if driving at night.

Sept. 10th Bimonthly Astronomy Talk-"Jupiter's Changing Face" 8:00 pm Rick Allen Room-Herrett Center CSI Presenter: Chris Anderson

Sept. 11th Monthly Meeting & Public Star Party 7:00 pm Herrett Center CSI. Speaker: Chris Anderson on his Egypt trip last July.

Sept. 10th-12th Idaho Star Party™ Bruneau Dunes State Park Bruneau, ID visit http://isp.boiseastro.org/ for info. and schedule of events.

Sept. 18th First Annual International Observe the Moon night. Meet at the Observatory at dusk. See back page.

Sept. 22 Autumnal Equinox at 21:09 h (MST)

Message from the President-Terry Wofford

Well folks, we have finally come to end of summer. With the end of Labor Day weekend we have concluded our summer star parties and I must report we have had good attendance. First at City of Rocks/ Castle Rocks, which had an about 75 in total attendance on Friday even though it quite cloudy.

Saturday, the attendance was about 30 with the park superintendent attending. It was reported to the club VP and Chris Anderson he appreciated the effort by the club and Centennial Observatory put out for the star party. I believe we will have continued success there in the future.

In August we had the annual Pomerelle Mountain Star Party and again a successful event for all. We had a nice turnout for this event as well.

Summer solar sessions are now officially over as well and I would like to take a moment to thank VP, David Olsen and Sec. Rick Widmer as well as Robert Mayer who assisted Chris Anderson with coverage during the time he was gone to Egypt and teaching his class on the CSI campus.

There is an astronomy talk this month by Chris Anderson entitled "Jupiter's Changing Face" beginning at 8:00 p.m. in the Rick Allen room of the Herrett Center.

Our public meeting this month will feature Chris Anderson speaking about his recent Egypt trip. As always, we will have the public star party at the Centennial Observatory following the meeting; all are welcome.

October is our business meeting month and also the elections. While you might be in agreement that the current officers of the club have done an outstanding job please nominate someone else if you have someone in mind. The by-laws state that an officer must be a current member of the club. Check with Jim Tubbs if you have any questions on membership. Thank you.

Terry Wofford, President

MVAS Mission

The Magic Valley Astronomical Society 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. The society serves as a source of astronomical phenomena, history and lore by providing educational and observing opportunities and information for its members and the general public and promotes viewing of celestial objects with special events for adults and children in south central Idaho.

Welcome to the Magic Valley Astronomical Society

Welcome to the society and hello. We hope you have a good time, enjoy the hobby, & bring good skies with you.

We hold indoor meetings each month at the Herrett Center for Arts & Science College of Southern Idaho campus in Twin Falls, ID, USA . Our meetings start at 7:00 pm on the second Saturday of the month. There will always be a very interesting program, class or presentation at these meetings, as well as good fellowship. There is always something new to learn.

Following our meetings we have a star party (weather permitting) at the Centennial Observatory, also at the Herrett Center.

Our star parties are free and you don't have to bring your own telescope. Telescopes are also set up outside on the stargazer's deck. Star Parties are held year round, so please dress accordingly as the Observatory is not heated, nor air conditioned.

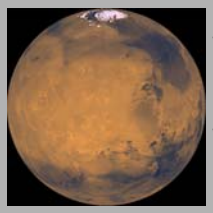
Wishing you dark skies and clear nights!

MVAS Board

September Observing Highlights

Mercury will make its best morning appearance of the year. It will be a good telescope target late this month. It will be visible in the eastern predawn sky. By midmonth it should be visible. It will be at its highest and brightest on the 19th.

Venus will be low in the evening sky at dusk all month. It will be increasing in brightness most of the month but being low on the horizon it will not make a good telescope target.

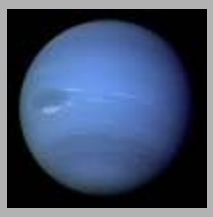


Mars will be visible very low in the south west sky as it grows dark. Mars will shine at magnitude 1.5. While still relatively bright, through a backyard telescope Mars will be too small to see any detail. Binoculars may be needed to spot it in the glare of the twilight.

Jupiter will reach opposition this month around the 20th. This is when it will be at its closest to Earth and thus at its biggest and brightest. It will be in Pisces. It will be the best planetary target this month.

Saturn will start the month very low on the southwestern horizon near Venus as it gets dark. It will be a bit too low to see much detail through a telescope. By the middle of the month it will be lost in the sunset sky.

Uranus will reach opposition this month around the 20th. It will be in the southern sky in Pisces very near Jupiter. The two planets will be within 1.5º apart all month. This would be a good time to look for Uranus when it is so close to the hard to miss Jupiter. It will be a good binocular target.



Neptune reached opposition late last month. It is still a great target. It will still nearly at its biggest and brightest. It will be close to straight south around 10 to 11PM in eastern Capricornus Aquarius border.

Moon Phases for September

1 Last Quarter
8 New Moon-at Perigee-Closet to Earth
21 Moon at Apogee-Farthest from Earth
23 Full Moon (Harvest Moon)
30 Last Quarter

Images of the planets from NASA file photos-Moon phases unknown.

Sky Calendar—September 2010

Events by Day

1 **Moon near the Pleiades** at 0h UT.
1 **Venus 1.0° SSW of Spica** at 2h UT.
3 **Mercury at inferior conjunction** with the Sun at 12h
5 **Moon near Beehive cluster M44** at 22h UT.
5 **Mars 2.1° NNE of Spica** at 22h UT.
9 **Moon near Saturn** (19° from Sun) at 18h UT.
11 **Moon near Spica** (evening sky) at 0h UT.
11 **Moon near Mars** at 4h UT.
11 **Moon near Venus** at 14h UT.
14 **Moon near Antares** (evening sky) at 5h UT.
18 **Jupiter 0.8° SSE from Uranus** (midnight sky)
19 **Mercury at greatest elongation**, 18° w of Sun at 17h
21 **Jupiter at opposition** at 11h UT Best time to observe the largest planet in the solar system.
21 **Uranus at opposition** at 17h UT
23 **Moon near Jupiter** (midnight sky) at 4h UT.
23 **Full Moon** at 9:17 UT.
27 **Venus at its brightest** at 15h UT.
28 **Moon near the Pleiades** at 4h UT.

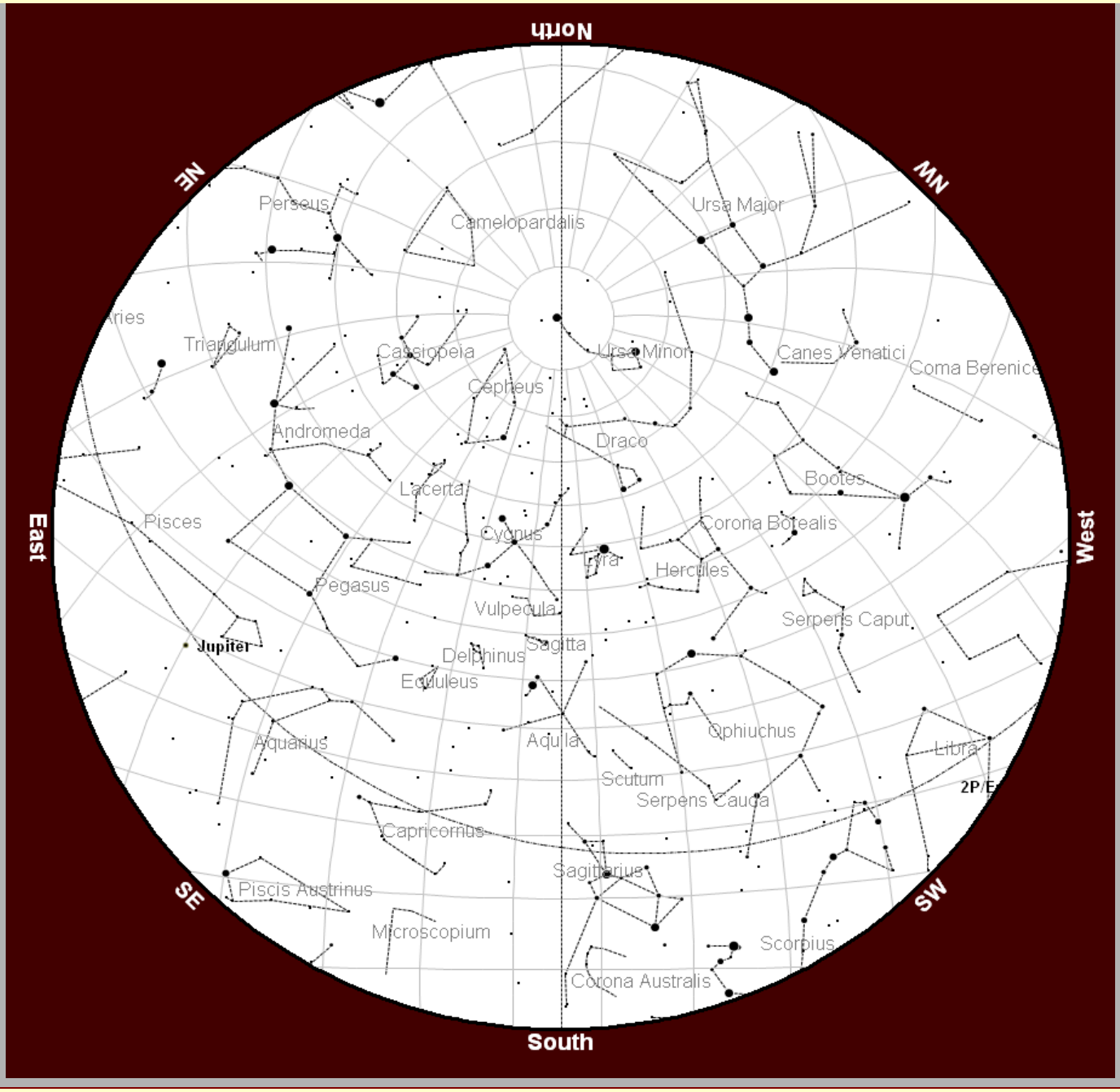
In the Northern Hemisphere, the Autumnal Equinox brings the first day of fall. On the equinox, the sun rises directly in the east and sets directly in the west. The exact moment of equinox for 2010 is Sept. 22, 21:09 MDT.

September 23 is also the date of the Harvest Moon, the full moon for the month. The harvest moon is the moon at or about the period of fullness that is nearest to the autumnal equinox. The harvest moon is often mistaken for the modern day hunter's moon. The precise moment of full moon is at 3:17 a.m. MDT. Most people first notice the full moon as it rises in the east around sunset.

On September 22, the full moon will rise at 99.6% lit, as it moves into full phase, and by moonrise on September 23, the date of the full moon, the moon will actually be farther past its peak of full phase and only appear at 99.4% lit.

Farmers harvesting corn under a Harvest Moon-Wikimedia license

Planisphere for September



Did you Know?

Sept. 17th 1976 The space shuttle program officially began when the orbiter *Enterprise* rolled out from its California assembly facility for eventual delivery to nearby Edwards Air Force Base.

Originally designated the *Constitution*, the name was changed to *Enterprise* following an aggressive write-in campaign by fans of the *Star Trek* TV series, who recognized symbolism when they saw it.

Built as a test vehicle for the space shuttle program, *Enterprise* was not equipped for space flight.

Rather, it was subjected to a variety of ground and flight tests to determine, among other things, the shuttle's flight-worthiness and landing capabilities.

Enterprise was added to the permanent collection of the Smithsonian Institution in Nov. 1985.

1976 NASA file photo of Enterprise OV-101.

Looking Through the Eyepiece - Canes Venatici

We begin this month's tour with a look into the sky to our north. We begin just below the Constellation Ursa Major (Big Dipper) and into Canes Venatici.

The Polish astronomer Johannes Hevelius formed this constellation in 1687 from stars that had previously been considered part of Ursa Major. Canes Venatici represents two dogs held on a lead by Boötes, snapping at the heels of the Great Bear. The southern dog contains the two brightest stars in the constellation, Alpha and Beta Canum Venaticorum.

First we visit M3, a Globular cluster that has an apparent mag. of 6.3 is bright enough to be seen with binoculars, though difficult for the naked eye even in dark conditions. Made up over 500,000 stars it is one of the brightest. With a moderate-sized telescope, the cluster is fully defined. It is estimated to be 8 billion years old. M-3 Viewing coordinates:

Right ascension $13^h\ 42^m\ 11.23^s$
Declination 28° 22′ 31.6″

No doubt the most recognized object here is M51. It is one of the most famous galaxies in the sky. The galaxy and its companion NGC 5195 are easily observed by amateur astronomers, and the two galaxies may even be seen with binoculars. The Whirlpool Galaxy is also a popular target for professional astronomers, who study it to further understanding of galaxy structure. M51 has been featured before and is found on the first page of the newsletter.

Moving along we come to M63, the Sunflower Galaxy, a Spiral galaxy in the Canes Venatici constellation consisting of a central disc surrounded by many short spiral arm segments. M-63 Coordinates:

Right ascension $13^h\ 15^m\ 49.3^s$
Declination +42° 01′ 45″

Next we move onto M94 with a prominent central bulge and tightly wound spiral arms making up another spiral galaxy The inner regions of this galaxy are probably the brightest to be found among nearby normal galaxies. An interesting feature is the very bright inner spiral pattern of star-forming regions, especially prominent in blue light. Analysis of the spectrum of the starlight near the nucleus indicates that this is in a post-starburst phase, having undergone an intense burst of star formation almost a billion years ago which is now fading into the redder background of older giant stars. M94 Viewing coordinates:

Right ascension $12^h\ 50^m\ 53.1^s$
Declination +41° 07′ 14″

Finally near the edge of the constellation of Canes Venatici we find another spiral galaxy M-106.

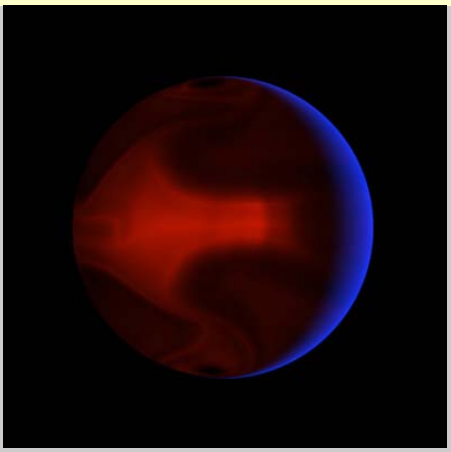
This galaxy is also a Seyfert II galaxy, which means that due to x-rays and unusual emission lines detected, it is suspected that part of the galaxy is falling into a super massive black hole in the center. NGC 4217 is a possible companion galaxy of Messier 106.

M106 has a water vapor maser that is seen by the 22-GHz line of ortho-H□O that evidences dense and warm molecular gas. Water masers are useful to observe nuclear accretion disks in active galaxies. M106 has a slightly warped, thin, almost edge-on Keplerian disk which is on a subparsec scale. It surrounds a central area with mass four × 10^7 Mg.

In Canes Venatici the star Alpha is known as Cor Caroli, meaning Charles's Heart, in honour of King Charles I of England. It was given this title by Sir Charles Scarborough, physician to King Charles II. Scarborough said that the star shone particularly brightly on the night of 1660 May 29, when King Charles II returned to London at the Restoration of the Monarchy. The star Beta is called Chara, from the Greek for 'joy', the name given by Hevelius to the southern dog. The northern dog, called Asterion ('little star'), is marked only by a scattering of faint stars.

Images: Far left: the globular cluster M3. Upper Middle: M63, the Sunflower Galaxy imaged by the 24" telescope on Mount Lemmon, AZ. Lower Middle: M94, a Spiral Galaxy Walther photography using a Meade LX-200 10" Telescope in Oshawa, Ontario, CA. . Far right: M106 and possible companion (lower right) NGC 4217 Images of M3 and M106 © by Hunter Wilson-Hewholooks Creative Commons License used.

Potassium Planets



Any driver who's seen deer silhouetted by the headlights of an oncoming car knows that vital information can be conveyed by the outlines of objects.

Building on this concept, University of Florida astronomers have analyzed light passing through the upper atmosphere of the giant planet HD80606b, about 190 light years from Earth, and determined that its atmosphere contains the element potassium.

"It's wonderful that this method works so well for Jupiter-sized planets," said Knicole Colón, a UF astronomy doctoral student. "Now, we're working to apply this technique to observe smaller planets in an effort to pinpoint the components of their atmospheres."

Coincidentally, another team led by David Sing at the University of Exeter, in Devon, U.K., has just used the same technique to detect potassium in the atmosphere of XO-2b, another huge planet about 485 light years from Earth.

Both planets, known as gas giants, have extremely high temperatures by earthly standards – HD 80606 b reaches about 2,200 degrees Fahrenheit and XO-2b is about 1,700 degrees. That's hot enough to vaporize potassium.

Together, these observations support previous computer models that predicted what the atmospheres of such planets would be like. The findings also demonstrate the value of a new observational technique that could one day aid in the characterization of planets that might support life.

The two groups' findings are available online at the arXiv preprint server, http://arxiv.org and have been submitted to the journals *Astronomy & Astrophysics* and the *Monthly Notices of the Royal Astronomical Society*. Colón and Sing will present their findings at the ExoClimes 2010 conference to be held at the University of Exeter, Sept. 7-10. The observational technique is called narrow-band transit spectrophotometry, and it can measure the light absorbed by the atoms and molecules in a planet's atmosphere, said Eric Ford, a UF astronomy associate professor and Colón's adviser.

"This new technique only works for planets that pass in front of their parent stars as viewed from Earth. Most of the nearly 500 known planets do not, and even fewer orbit stars that are bright enough for such precise observations," Ford said. "Another challenge is that observations must be carefully timed, in order to see the planets in silhouette against the backlighting of their parent star."

Transit spectrophotometry works like this: While the planet is backlit, astronomers measure the light that passed through its atmosphere. Atoms and molecules absorb specific wavelengths (colors) of light, providing a chemical signature that scientists can recognize. By analyzing the amount of absorption by the planet's atmosphere at specific wavelengths, astronomers can detect the presence of a particular atom or molecule — in this case, potassium. The UF team — Colón and Ford, along with colleagues from the University of California, Santa Cruz, Penn State University, Wesleyan University and the Universidad de La Laguna in Tenerife, Spain — had help from another technological breakthrough.

These researchers, as well as the Exeter team, used one of the world's most powerful telescopes, the Gran Telescopio Canarias. The observatory includes a mirror almost 35 feet wide and is situated at one of the world's best locations for star-gazing, in the Canary Islands off the northwest coast of Africa. UF is a 5 percent partner in the enormous telescope, that captures enough light to make transit spectrophotometry possible, Colón said. Sing says he's excited about future prospects for transit spectrophotometry. "The initial results from both teams have been very encouraging," Sing said. "We still haven't explored the full capabilities or ultimate limitations of the instrument yet."

In 2002, the Hubble Space Telescope detected a similar element, sodium, in the atmosphere of the gas giant planet HD 209458b. Since then, astronomers have detected sodium in only one other planet. Colón plans to search for potassium in the atmospheres of additional giant planets to learn about the diversity of planetary atmospheres. She hopes that planet searches such as NASA's Kepler Mission will identify many more planets that cross the faces of their parent stars.

"The Kepler Mission has the precision to find even more planets, including some as small as the Earth," she said. Ultimately, Ford and Colón want to examine smaller, Earth-like planets for molecules such as methane gas and water vapor, as both are intimately linked to life on Earth.

Images: above left: The planet HD80606b glows orange from its own heat in this computer-generated image by D. Kasen, J. Langton, and G. Laughlin (UCSC) Above: Gran Telescopio Canarias in Spain's Canary Islands. It was used by University of Florida astronomers to analyze light passing through the upper atmosphere of the giant planet HD 80606 b too find the element Potassium in the planets atmosphere. Credit: Miguel Briganti/SMM/IAC based on a UF release

New Solar System Found

This is cool stuff, astronomers using the ESO HARPS instrument have discovered a planetary system with at least five planets and possibly a couple more around a Sun-like star. The star is called HD10180 and is located 127 light-years away in the constellation Hydrus.

Here's the press release from the ESO:

"We have found what is most likely the system with the most planets yet discovered," says Christophe Lovis, lead author of the paper reporting the result. "This remarkable discovery also highlights the fact that we are now entering a new era in exoplanet research: the study of complex planetary systems and not just of individual planets. Studies of planetary motions in the new system reveal complex gravitational interactions between the planets and give us insights into the long-term evolution of the system."

The team of astronomers used the HARPS spectrograph, attached to ESO's 3.6-metre telescope at La Silla, Chile, for a six-year-long study of the Sun-like star HD 10180, located 127 light-years away in the southern constellation of Hydrus (the Male Water Snake). HARPS is an instrument with unrivalled measurement stability and great precision and is the world's most successful exoplanet hunter.

Thanks to the 190 individual HARPS measurements, the astronomers detected the tiny back and forth motions of the star caused by the complex gravitational attractions from five or more planets. The five strongest signals correspond to planets with Neptune-like masses — between 13 and 25 Earth masses — which orbit the star with periods ranging from about 6 to 600 days. These planets are located between 0.06 and 1.4 times the Earth–Sun distance from their central star.

"We also have good reasons to believe that two other planets are present," says Lovis. One would be a Saturn-like planet (with a minimum mass of 65 Earth masses) orbiting in 2200 days. The other would be the least massive exoplanet ever discovered, with a mass of about 1.4 times that of the Earth. It is very close to its host star, at just 2 percent of the Earth–Sun distance. One "year" on this planet would last only 1.18 Earth-days.

"This object causes a wobble of its star of only about 3 km/hour— slower than walking speed — and this motion is very hard to measure," says team member Damien Ségransan. If confirmed, this object would be another example of a hot rocky planet, similar to Corot-7b

The newly discovered system of planets around HD 10180 is unique in several respects. First of all, with at least five Neptune-like planets lying within a distance equivalent to the orbit of Mars, this system is more populated than our Solar System in its inner region, and has many more massive planets there. Furthermore, the system probably has no Jupiter-like gas giant. In addition, all the planets seem to have almost circular orbits.

So far, astronomers know of fifteen systems with at least three planets. The last record-holder was 55 Cancri, which contains five planets, two of them being giant planets. "Systems of low-mass planets like the one around HD 10180 appear to be quite common, but their formation history remains a puzzle," says Lovis.

Using the new discovery as well as data for other planetary systems, the astronomers found an equivalent of the Titius–Bode law that exists in our Solar System: the distances of the planets from their star seem to follow a regular pattern. "This could be a signature of the formation process of these planetary systems," says team member Michel Mayor.

Another important result found by the astronomers while studying these systems is that there is a relationship between the mass of a planetary system and the mass and chemical content of its host star. All very massive planetary systems are found around massive and metal-rich stars, while the four lowest-mass systems are found around lower-mass and metal-poor stars. Such properties confirm current theoretical models.

The discovery is announced today at the international colloquium "Detection and dynamics of transiting exoplanets", at the Observatoire de Haute-Provence, France.

This wide-field image shows the sky around the star HD 10180, which appears as a fairly bright star just below the centre. The picture was created from photographs taken through red and blue filters and forming part of the Digitized Sky Survey 2. The field of view is approximately three degrees across. The colored halos around the stars are artifacts of the photographic process and are not real. The remarkable planetary system around this star is far too faint and close in to be visible in this image-

In Memoriam

Frank Allard

Frank Alpha Allard, 75, of Twin Falls, died Tuesday, Aug. 3, 2010, at St. Luke's Magic Valley Medical Center in Twin Falls, Idaho.

Frank was born Aug. 8, 1934, in Huntington Park, Calif., the son of Lillian Irene (Woodrow) Allard and Alpha Eastman Allard. Frank graduated from the University of Southern California in June 1956 with a bachelor's degree in mathematics.

Upon graduation from college, Frank was commissioned an Ensign in the Navy and commenced a 20-year Naval career. He served on the USS Rowan (DD782), Staff COMESDIV 32 and U.S. Navy Electronics Laboratory in San Diego, Calif. In 1962, Frank's naval career changed to submarines, and he served on the USS Skipjack (SSN 585), USS John C. Calhoun (SSBN 630) and USS Patrick Henry (SSBN 599); he made 13 Polaris deterrent patrols. After three years at the Naval Submarine Base in New London, Conn., he retired in June 1976 with the rank of lieutenant commander. During his Naval service, Frank visited ports on both coasts of the United States, the west coast of South America, the North and South Pacific oceans including the Orient, and Europe; he was a Shellback.

On Sept. 4, 1965, Frank married June Ann Henstock in Grace Church in Charleston, S.C. Their daughter, Elizabeth Rebecca Allard, was born in Charleston in August 1967.

Upon his retirement from the Navy, Frank and June moved to June's home state of Idaho and lived in the Twin Falls area. Frank finally retired in 1998 after 10 years as a Twin Falls County Adult Misdemeanor Probation officer. Frank had many interests: amateur radio, amateur astronomy, projects on their acreage south of Twin Falls, embroidery, woodworking and computer programming. He was very active in the Episcopal Church of the Ascension in Twin Falls and served God and his fellow parishioners. Realizing that a spiritual journey with God is available to anyone, Frank grew into a practice of the presence of God in his life.

Frank was a long time member of the Magic Valley Astronomical Society. We really enjoyed his input and participation in the Society. He will be missed.

Jack Horkheimer

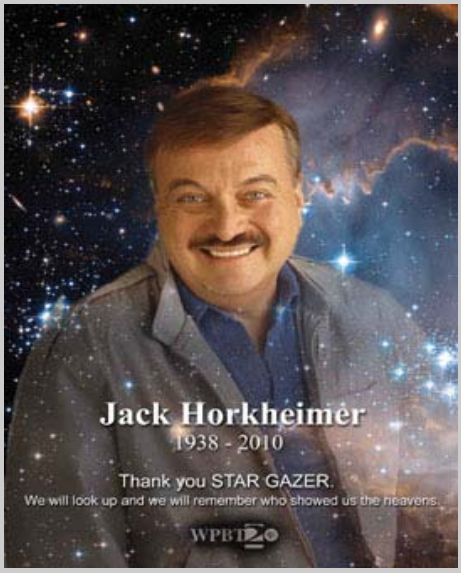
Some people hustle pool,
Some people hustle cars,
But have you ever heard about
The man who hustles stars?

Star Gazer; a five-minute astronomy show on public television was hosted by Jack Horkheimer (born Jack Foley Arthur Horkheimer, June 11, 1938 – August 20, 2010) executive director of the Miami Space Transit Planetarium. On the weekly program, Horkheimer informed the viewer of significant astronomical events for the upcoming week, including key constellations, stars and planets, lunar eclipses and conjunctions, as well as historical and scientific information about these events.

Episodes usually featured Horkheimer in front of a green screen, where he appears to sit on top of a planetary ring on one side of the screen. Horkheimer then uses the screen to illustrate starfields and diagrams appropriate to his subject. *Star Gazer* has been in weekly production since 1976, and has produced over 1,500 episodes as of September 2006.

From its inception until 1997, the show was named *Jack Horkheimer: Star Hustler*. With the rise of the Internet however, viewers let the show's producers and WPBT know that, instead of the program's web site showing up at the top of search results, search engines were giving results for the Hustler adult magazine. As a result, the producers renamed the show *Star Gazer* to avert any confusion, accidental or purposeful.

"Star Gazer" who helped popularize naked-eye astronomy, passed away on August 20th, 2010 of a respiratory ailment. He was 72.



Uncharted suns and planets past all counting, whirling, twirling down unnumbered years, nations by the trillion, faintly guessed at, come and gone and still more yet to be:

Incomprehensible.

Far as man made eyes can reach and farther.....perched and poised peer through the night and seem to beg, plead, cry out in our stead. Peace If only for one Speck of Time...Speck of Space Tonight—Hope Jack Horkheimer

Keep Looking Up!

Currently there is no mention if the show will continue.

The show was formatted for 5-minutes to run at the conclusion of the day's broadcasting on WPBT2, Miami. This was so people could go outside and look up before going to bed.

Magic Valley Astronomical Society
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http://www.mvastro.org/

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

Images on the front page: 1. Centennial Observatory courtesy of Chris Anderson, Observatory Manager. The Centennial Observatory is located at the Herrett Center for Arts and Science, College of Southern Idaho, Twin Falls, ID, USA.
2. Shoshone Falls is a major attraction to the Magic Valley and a prominent landmark on the Snake River. Falls image is used under “public domain;” unknown photographer.
3. M-51 on the front page was imaged with the Shotwell Camera and the Herrett Telescope at the Centennial Observatory by club members Rick Widmer & Ken Thomason. Star Party image is a open source photo, photographer unknown.

Membership Information

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 or home telephone: 736-1989 or mail directly to the treasurer at his home address. 550 Sparks Twin Falls, ID 83301

Donations to our club are always welcome. Please contact a board member for details.

International Observe the Moon Night

International Observe the Moon Night (InOMN) was inspired by you. You and people just like you, who are curious about the Moon and would like to find out more about Earth's nearest neighbor. On August 1, 2009, the Lunar Reconnaissance Orbiter (LRO) Education and Public Outreach (EPO) team celebrated LRO's successful journey to and orbital insertion around the Moon by hosting a public outreach event called "We're at the Moon!" at Goddard Space Flight Center (GSFC) in Greenbelt, MD. That same night, the Lunar CRater Observation and Sensing Satellite (LCROSS) and NASA Lunar Science Institute (NLSI) EPO teams hosted a similar event at Ames Research Center (ARC) in Moffett Field, CA called "National Observe the Moon Night" as part of the International Year of Astronomy (IYA).

The goal of both of these events was similar: engage the local public and amateur astronomer communities in an event to raise awareness of NASA's involvement in lunar research and exploration. The events were so successful; we've decided to do it again only better and much, much bigger. What started at two NASA institutions has expanded to events at four partner institutions: GSFC (hosted by the LRO EPO team), ARC (hosted by the Lunar Atmosphere and Dust Environment Explorer (LADEE) and the NLSI EPO teams), the Lunar and Planetary Institute (LPI, Houston TX), and the Lunar Quest EPO Office at Marshall Space Flight Center (MSFC, Huntsville AL). But it's not stopping there. We would like to encourage *everyone* who is interested in the Moon and sharing the excitement of lunar science and exploration to host their own InOMN event, and bring it to communities around the world.

Join the society at the Observatory on Sept. 18th where we will have telescopes set up, or bring your own and help us explore the moon international style. Contact Chris Anderson for more details 208-732-6663.

Image: Young stargazer at the eyepiece observing the moon at dusk. Credit: Unknown photographer. Common use license applied.

Membership Benefits

Sky and Telescope group rates. Subscriptions to this excellent periodical are available through the MVAS at a reduced price of $32.95.

Astronomy Magazine group rates. Subscriptions to this excellent periodical are available through the MVAS at a reduced price of $34.00

Receive 10% discounts on other selected Astronomy Publications.

For periodical info. and subscriptions Contact Jim Tubbs, Treasurer

Lending Library: Currently we have no books to lend.

Lending Telescopes: The society currently has two telescopes for loan and would gladly accept others. Contact Rick Widmer, Secretary for more information.

Elected Board

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David Olsen, VP / Newsletter Ed.
editor@mvastro.org

Jim Tubbs, Treasurer
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rick@developersdesk.com