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# VIA STELLARIS

*The Monthly Newsletter of the Von Braun Astronomical Society*

## VBAS Highlights

### Public Programs for September

Our next society meeting will be held on Friday, August 20th at 7 PM. VBAS Meetings are held on the 3rd Friday of each month & they are open to the public!

Regular planetarium programs are held on Saturdays at 7:30 PM. This month, we explore the Constellations of the summer: Cassiopeia, Perseus, and Cepheus. We'll have a special show: "Moon" in celebration of the International Observe the Moon Night. Admission to planetarium shows is free for VBAS Members, \$5.00 for Adults, \$3.00 for Students, and free for children under 6. Observation of the night sky through various telescopes will follow planetarium program, weather permitting.

### Calendar of Events

On page 2, Details for the events of September.

### The Night Sky for September

On page 3, Venus easily seen in the twilight!

### Stellar Events for September

On page 4, Doug Horacek's report on astronomical events.

### Tn Fall Star Gaze 2010

On page 4, Free informal star party.

### These are a Few of My Favorite Things...

On page 5, Jeff Goswick shares his Lunar Observing tips just in time for the International Observe the Moon Night!

### International Observe the Moon Night

On page 5, Check out Gena's planetarium show on the moon!

### Green U & Perseid Meteor Shower

On page 5, Outreach Events are well attended!

Richard Norman  
Via Stellaris Editor  
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***Deadline for October Via Stellaris submissions is Sept 24, 2010.***



## Calendar of Events

*Saturday, Sept 4th, 11th, & 25th 2010, 7:30 PM*

### **Planetarium Show: “Constellations Cassiopeia, Perseus, Cepheus”**

*Location: VBAS*

Join us for a family-friendly program as we explore the constellations of the summer.. Weather permitting, we will be viewing the night sky afterwards through the historical telescopes, too.

*Friday, Sept 17th, 2010, 7 PM*

### **Regular Monthly Meeting**

*Location: VBAS*

Meeting & pizza social. Visitors are welcome!

*Saturday, Sept 18th, 2010, 7:30PM* **Planetarium Show: “Moon: International Observe the Moon Night”**

*Location: VBAS*

*Presented by Gena Crook*

Join us for a family-friendly program to explore the Moon. Weather permitting, we will be viewing the night sky afterwards through our historical telescopes, too.

*Friday Sept 10th, 2010, 6:00 PM*

### **Member’s Observing Night**

*Location: VBAS*

*Presented by Doug Horacek*

For those not attending the Fall Creek Falls Star Party join me at the VBAS observing field for an impromptu observing session. Set up begins at 6pm. The moon will be out of the way, and the fall constellations and Jupiter should be coming into view. No planetarium show just observing.

*Friday Oct 1st, 2010, 7:00 PM*

### **Youth and Adult Observing Night**

*Location: VBAS*

*Presented by Doug Horacek*

Planetarium show starts at 7pm: “The Soap Opera in the Sky.” Observing starts at 8pm. If

cloudy we will still have the planetarium show and tours of the observatories. We will be talking about the following Constellations: Cepheus, Cassiopeia, Andromeda, Perseus, and Pegasus. One of the featured objects that evening, if the sky is clear will be the famous Double Cluster in Perseus. In smaller or faster scopes, both clusters appear in the same field of view. We will provide star maps and children can look through the adult telescopes until they are tired and need to go home. This will conclude this year’s Youth and Adult observing sessions. Contact Doug if you’d like to help plan next year’s events: 256 772-6788.

*Friday Oct 8th, 2010, 5:30 PM*

### **Member’s Observing Night**

*Location: VBAS*

*Presented by Doug Horacek*

Take advantage of a moonless fall night, and join us at the VBAS observing field for an impromptu observing session of the fall constellations. Setup begins at 5:30 pm.

...And as always, for the most up-to-date information about VBAS events, be sure to check the web site at [vbas.org](http://vbas.org).

### **Outreach Events:**

**Sept 24th, & Oct 1st Friday night campout at the Botanical Garden. VBAS has been invited to bring some scopes. Contact James Brelsford for details.**

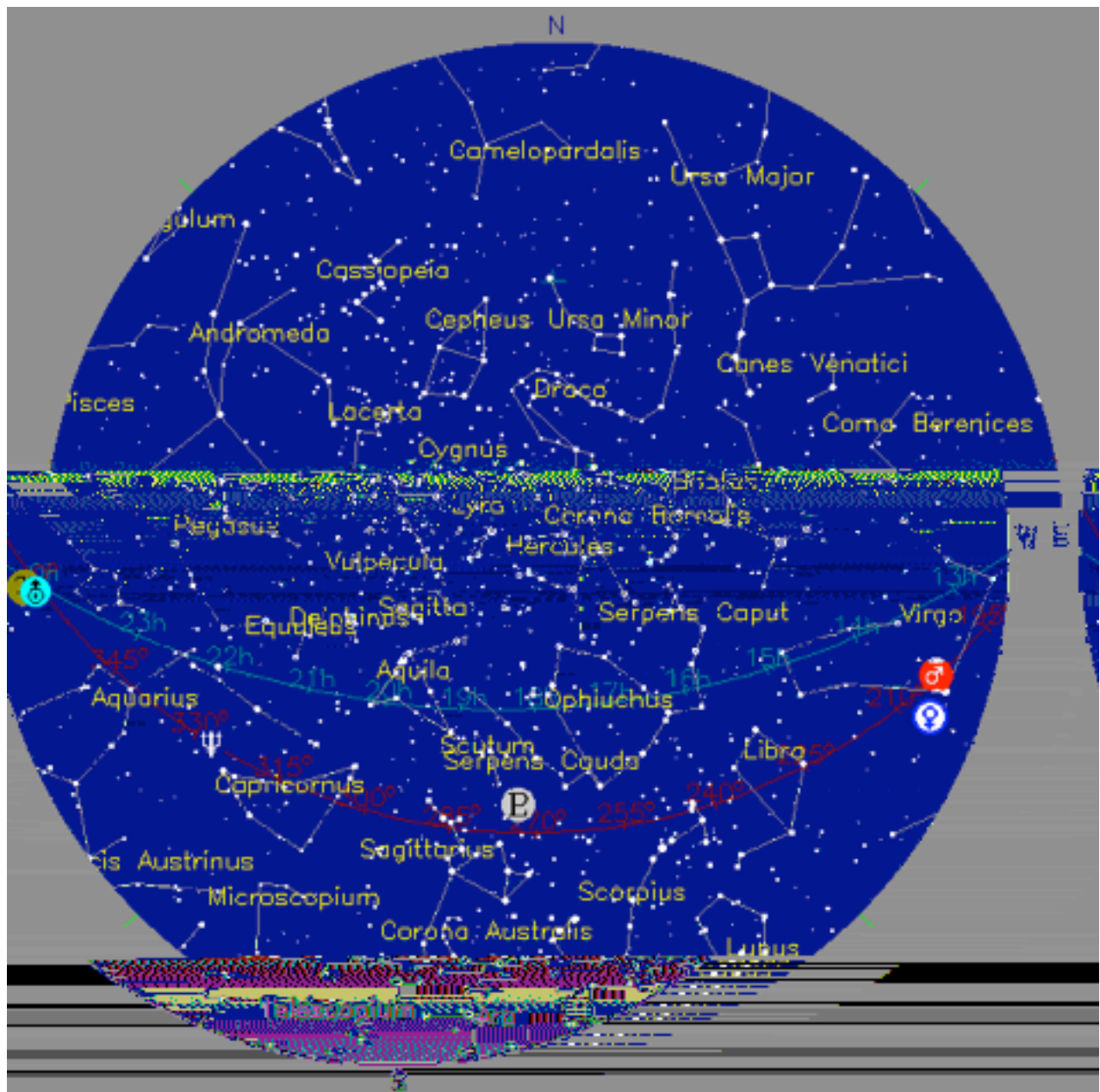
## The Night Sky for September, 2010

Here is the view at 9 PM CDT on September 4, 2010, at 34° N Latitude, 86° W Longitude.

Map courtesy of John Walker and YourSky (<http://www.fourmilab.to/yoursky/>).

### Meteor Showers, By Doug Horacek, VBAS Resident Astronomer

There are two minor showers in September. On the morning of 1 September, that is Wednesday Morning, the Aurigids will have a peak of 7 per hour. The parent comet is C/1911 N1 (Kiess). On the morning of 9 September 2010, Thursday Morning, the September Perseids will have a peak of 5 per hour. The parent object is unknown.



## Stellar Events Sept 2010

by Doug Horacek

- 1st:** Last Qtr Moon at 12:22 P.M. CDT. Venus, Spica, & Mars form an almost straight line less than 5 deg long low in the Southwest a half hour after sunset.
- 8th:** Wed, New Moon at 5:30 A.M. CDT.
- 10th:** Friday Evening Mars is above thin waxing crescent Moon forming a diamond shape with Spica while Venus dazzles to their left just after sunset.
- 11th:** Saturday at Dusk: Venus and the moon will almost fit into 6 deg field of view.
- 13th:** Monday, Antares is 3 to 4 deg left of the waxing crescent moon.
- 15th:** First Qtr Moon at 12:50 A.M. CDT.
- 17-19th:** Friday thru Sunday Jupiter and Uranus will be 0.8 deg or 48min apart with Sat being the closest approach.
- 18th:** International Observe the Moon Night. Afterward view the Jupiter/Uranus conjunction.
- 20-21st:** Jupiter and Uranus are closest to Earth for the year. Both are in opposition on the 21st. Jupiter is closest for its entire 12 year orbit. Good time to watch for the South Equatorial Band to reappear.
- 22nd:** Wednesday: Autumn begins at 10:09 P.M. CDT with Jupiter and Uranus 6deg below a Full Moon.
- 23rd:** Full Moon at 4:17 A.M. CDT.
- 27th:** Monday 8pm CDT Pleiades rise about 2 deg left of waning gibbous Moon.
- 30th:** Last Qtr Moon 10:52 P.M. CDT.

## Tn Fall Star Gaze 2010

by Allen Ball

CAS will be hosting the Tn Fall Star Gaze star party at the Fall Creek Falls State Park on Sept 10 to 12th. TFSG is an informal gathering of amateur astronomers from our region. There are no planned speakers or presentations, just observing and relaxation.

There will be a conference room available for swap tables, promoting your club, or just hanging out. TSFG is free and open to all interested. Those attending are responsible for their food and lodging.

Fall Creek Falls has rooms at the Inn, cabins, and campsites available. Call 1-800-250-8610 for reservations. Camping is not permitted on the observing field, but observers can "nap" in their vehicle if they wish.

The public will be invited to view through our telescopes from sunset to 9:00 pm on Friday and Saturday nights.

If you have any questions or suggestions, be sure to contact Lloyd, or myself:  
Lloyd: [watkinslk@comcast.net](mailto:watkinslk@comcast.net)  
Allen: [tnscoper@gmail.com](mailto:tnscoper@gmail.com)

Hope to see you in September!

## These Are A Few Of My Favorite Things...

By Jeff Goswick

As a child growing up during the Apollo era, I have always had a soft spot in my heart for the moon. Interestingly, I had never really spent any telescopic resources on our nearest heavenly neighbor until recently. Like many other amateurs, I was often annoyed by the moon when I needed all the dark I could muster to draw out details in a deep-sky catch.

After reading various books, especially *Star Watch* by Phil Harrington, my curiosity toward lunar observing was piqued. So much so that I have spent the last three years building what I affectionately call a “lunatic” library. I have many favorites in this library, but today, I would like to quickly take a look at just a sample of the more basic ones.

If you scan popular lunar literature, you will no doubt, find titles that are well-regarded, and classics such as Antonin Rühl’s *Atlas of the Moon*, and Ernest Cherrington, Jr.’s *Exploring the Moon Through Binoculars and Small Telescopes*. These are often noted as being at the core of a small lunar observer’s library, and rightfully so, but I have decided, instead, to focus on resources that I have found to be inexpensive, handy and the most practical for myself, as a new lunar observer.

### “Quick! Hand Me That Map...”

To begin, a good, old-fashioned, foldable map of the moon would be a welcomed start. Of all the lunar maps I own, the most concise, foldable

map would be the Sky and Telescope Field Map of the Moon, available from their web site, or by catalog. Drawn by lunar cartographer, Antonin Rühl, it is offered in both correct-image version, and the one I have, the mirror-image version, which works well for refractors and Schmidt-Cassegrains with diagonals. It divides the moon into four quadrants and comes with a large index and coordinate system for quickly finding features by name. Each quadrant is 12” X 12” and the map is laminated and made to fold easily. This is the map I use out at the telescope. It takes up very little of my tabletop, and can rest in my lap, too. I discovered while completing my Astronomical League Lunar Club award that it was also easy to mark or record notes on the laminated surfaces with a china pencil, and simply wipe them off later.

### “A Little More, Please...”

A second, more in-depth resource that would be a great addition for indoor use or even at the telescope would be a small lunar atlas, such as The Hatfield Lunar Atlas edited by Jeremy Cook, made with images for those with Newtonian telescopes. This also comes in an SCT (Schmidt-Cassegrain) version, whose images are flipped horizontally, but not inverted. The atlas is made of hand-drawn and labeled maps that correspond to photographs of matching scale on the facing pages. This makes it easy to identify surface features in more detail than a map would allow. Several photos of each of the areas give an observer the ability to see the same features under different illumination conditions. This atlas feels good in the hand and is a good, basic atlas. The hand drawings are homely and the images are older, but the practical value of this atlas becomes obvious quickly to its user.



For those who prefer a computer-based resource, there is the Virtual Atlas of the Moon. It is a freeware project that is without equal and includes much more information than just an atlas. It provides ephemeris and other numerical data for the moon as well. It can be explored and downloaded from: (<http://ap-i.net/avl/en/start>)

### “Smoke and Mirrors...”

Like other types of astronomy, viewing the lunar surface provides its own set of rewards and challenges. I believe the contrast and texture of the lunar surface can improve an observer's eye for fine detail. The increased resolution of images through the eyepiece can be really different and refreshing when compared to studying the wisps of deep sky objects on the edge of visibility. It also has its own difficulties. What often may seem confusing to the new lunar observer is often just the result of what I call, “smoke and mirrors.” This simply means that the angle of illumination can dramatically change the appearance of the entire moon's surface. This causes the same craters and features to take on a new appearance in a matter of hours, keeping things new and different.

A book that would help in regard to showing the terminator (the line of light and darkness on the face of the moon) at different days of illumination is a little known resource, called the Photographic Atlas of the Moon by Chong, Lim, and Ang. This book features whole moon images for 29 days of the lunar cycle and some images are included for half-days, making it that much more valuable. It includes labeling for features near the terminator and a daily highlights guide as well. This book is neat and concise in its design. I enjoy using it to find objects I have ob-

served on the edge of the terminator that don't look familiar to me.

These resources can be found using the Internet retailers, like Amazon.com or Alibris.com for new or used versions. Sky and Telescope also has an online shop for their products. Often Amazon.com has a preview feature that allows the user to view some of the inside pages of a book to see if it would be a good fit for the buyer.

I hope these quick notes of some of my favorite, lunar resources have encouraged you to sneak a peak of our nearest neighbor. The moon is an interesting story teller, sharing its violent history through its geological features.

A similar article by the author appeared in the September, 2009 edition of the Barnard Astronomical Society's newsletter, Barnard Star, but is not under copyright.



Mars, Saturn, and Venus August 2010  
photo by Richard Norman

## International Observe the Moon Night

Astronomers Without Borders is trying to build upon the success of the International Year of Astronomy to continue the astronomical outreach events around the globe. VBAS was able to register our InOMN outreach event with the NASA Night Sky Network in time to win one of fifty Lunar Meteorites:

[http://nightsky.jpl.nasa.gov/club/news-display.cfm?News\\_ID=373](http://nightsky.jpl.nasa.gov/club/news-display.cfm?News_ID=373)

Gena Crook will be giving a special planetarium show on the moon to honor the event. Afterward we will observe our nearest celestial neighbor using one of two Celestron 16 inch telescopes purchased by NASA to survey the moon for landing sites. For lunar observing tips check out Jeff Goswick's article on page 5. To find out more about Astronomers Without Borders and Global Astronomy Month check out:

[www.astronomerswithoutborders.org](http://www.astronomerswithoutborders.org).

## Green U

by Richard Norman

VBAS participated in the second year event hosted by the city of Huntsville's Green Team at the Botanical Gardens to promote Green Living. This year's event was met with great, but breezy weather. Thanks to Melissa Snider the VBAS booth had a fresh new look as we continue to raise awareness of the green energy savings of eliminating light pollution. The crowd was very favorable. Now if we could get the Green Team on board to take action! Since we handed out over a hundred flyers, expect to see some increased attendance at the Saturday shows. Doug was able to show folks a sunspot with his scope.

He also supported the Green Coalition Booth which primarily promotes recycling, but also supports the VBAS dark sky efforts.

This event is one reason the newsletter is late this month, but it was well worth the effort! Supporting VBAS outreach efforts is fun and rewarding! Thank you to Melissa, Doug, and Megan for their support!

## Perseid Meteor Shower

by Richard Norman

Doug Horacek hosted two nights of observing the Perseid Meteor shower for 2010 at the VBAS observing field. Both nights were well attended, but unfortunately the crowd's expectations were set too high by the media. A combination of expecting a peak activity too early in the night coupled with an extra high humidity level reflecting Huntsville's light pollution back in our face yielded very few meteor's bright enough to overcome the limiting magnitude 3 skies. From 9pm to midnight we saw 10 Perseids, 2 sporadics, 2 armadillos, and 1 skunk. Although most folks had to give up before midnight on a week night, the prime meteor shower activity happens between midnight and dawn as the Earth rotates toward our direction of travel around the sun (i.e., we are looking out the windshield instead of the side window). On the peak evening we saw 35 more Perseids between midnight and 4am compared to the 10 from 9pm to midnight. Although 10 meteors/hr is well below the predicted 100 meteors/hr, it was quiet good considering the bright sky conditions. If we could convince the Green Team to stop allowing light to be emitted above horizontal, we could see where we are going.

### Contributions to Via Stellaris

We welcome contributions to our newsletter that may be of interest to the astronomical community. Contributions are best sent by email to Richard Norman at [astrodude@mchsi.com](mailto:astrodude@mchsi.com).

### Membership and Renewal

The VBAS currently has four categories of membership. All four include free admission to the planetarium shows; subscription to this newsletter; membership in the Astronomical League; and use of VBAS library and equipment. The four categories of membership, and the dues for each, are: REGULAR at \$24.00 per year, FAMILY at \$36.00 per year, STUDENT (must be full-time student) at \$12.00 per year, and LIFE at \$500.00. Newsletter Only is also available for \$12.00 per year. Membership renewal occurs for all members annually on March 1st.

All VBAS memberships came up for renewal on March 1, 2010. If you have questions regarding membership, please contact a VBAS officer.

Please send your renewal to the Membership Secretary at VBAS, P.O. Box 1142, Huntsville, AL 35807. Make checks payable to the Von Braun Astronomical Society.

### Reprints

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*Richard Norman, Via Stellaris editor*