



VIA STELLARIS

The Monthly Newsletter of the Von Braun Astronomical Society

VBAS Highlights

Public Programs for February

Our next society meeting will be held on Friday, February 18th 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 Advances in Astronomy in the Middle Ages. 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, and visual exploration of the universe through various telescopes will follow planetarium program, weather permitting.

Calendar of Events

On page 2, Details for the events of February.

The Night Sky for February

On page 3, Jupiter at twilight, and Venus & Mercury at dawn.

Stellar Events for February

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

Stellar Challenges

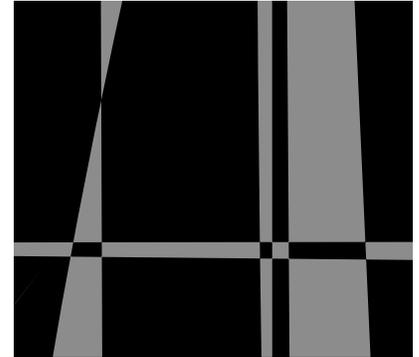
On page 4, Things to find in the current night sky!.

Future City Contest

On page 4, First Annual VBAS special award!

Swanson Observatory Status Report

On page 6, Thanks to many folks progress is made!



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Richard Norman
Via Stellaris Editor
astrodude@mchsi.com

Calendar of Events

Saturday, Feb 5th, 12th, 26th, 2011, 7:30 PM

Planetarium Show: “Advances in Astronomy in the Middle Ages”

Location: VBAS

Presented by Naz

Join us for a family-friendly program as we explore the astronomers of the middle ages advanced our understanding of the universe. Weather permitting, we will be viewing the night sky afterwards through the historical telescopes, too.

Friday, Feb 18th, 2011, 7 PM

Regular Monthly Meeting

Location: VBAS

Meeting and a topic. We had a great topic last month. To find out what the topic is you'll have to come to the meeting. Visitors are welcome!

Saturday, Feb 19th, 2011, 7:30PM **Planetarium Show: “Follow the Drinking Gourd”**

Location: VBAS

Presented by Gena and Brenda

Join us for a family-friendly program exploring the legend of the drinking gourd. Weather permitting, we will be viewing the night sky afterwards through our historical telescopes, too.

Friday March 4th, 2011

Youth and Adult Observing Night

Location: VBAS

Presented by Doug Horacek

Topic will be Leo, Cancer, and Gemni. Contact Doug for more info (256)772-6788.

Saturday Feb 5th, 12th, & 28th, 2011,

Planetarium Show: “Advances in Astronomy in the Middle Ages”

Location: VBAS

Presented by Naz

Continuing our journey through history we explore how astronomers from the middle ages advanced our knowledge of the universe.

Possible Fall Dark Sky Star Party

If there is enough interest, we may have a star party this fall on November 18-19, 2011 at the Paint Rock Valley Lodge. If we get 10 folks to sign up, the cost per person would be \$80 and would include:

Two nights stay at the lodge (they have 14 rooms).

Kitchen Privileges (bring your own food).

To reserve the lodge we need to collect a \$30 dollar per person deposit by March 15th. If we don't get enough deposits, we will cancel the event and refund the deposits.

If we get enough deposits, the lodge will be reserved and the deposits will not be refundable at that point. The balance is due only if you go. We can plan the food arrangements amongst those going. To sign up please contact Doug Horacek (256)772-6788.

...And as always, for the most up-to-date information about VBAS events, be sure to check the web site at vbas.org.

The Night Sky for February, 2011

Here is the view at 8:00 PM CST on February 1, 2011, 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 three minor showers for February, one class II, the other two class IV. The Alpha Centaurids peak the morning of 8 February at 7 per hour. The Moon will be out of the way; however, the radiant is in the Southern Hemisphere. The parent object is unknown. The Pi Hydrids also peak on the morning of 8 February with less than two meteors per hour, the parent object is unknown. Early in the morning on 13 February the Moon should be somewhat out of the way for the Beta Herculdid shower, again only a handful per hour, and parent body unknown..



Stellar Events Feb 2011

by Doug Horacek, Resident Astronomer

- 1st:** Tues at Dawn, Mercury will be below thin crescent waning moon far to the lower left of Venus. Saturn will be high.
- 2nd:** Wed New Moon at 8:31 PM CST
- 3-18th:** Predawn skies Venus and the bright asteroid Vesta pass between Mu and Pi Sagittarii and a whole lot of Messier objects near the center of the Milky Way galaxy. On the 9th Venus and Vesta will be 0.4 degrees apart.
- 6th:** Sun Evening, Jupiter is 6 degrees from the waxing crescent Moon.
- 9th:** Wed Evening, Algol is at minimum brightness at 9:18 PM CST.
- 11th:** First Quarter Moon at 1:18 AM CST
- 12th:** Algol at minimum at 6:07 PM CST.
- 18th:** Full Moon at 2:36 AM CST.
- 20-21st:** Saturn, Spica, and Moon make an equal lateral triangle roughly.
- 24th:** Last Quarter Moon at 5:26 P.M. CST.
- 25th:** Fri Morning, Antares is a few degrees to the right of the Moon.
- 28th:** Mon Morning Venus is to the lower left of a waning crescent Moon.

Feb Stellar Challenges

by Doug Horacek, Resident Astronomer

Each month Doug will be presenting some targets for observers to try and find. Come to the Member's Meeting to see some star charts, images, and to get some hints on how to find the objects.

For February look for:

Leo Triplet (NGC3628, M65 galaxy, M66 galaxy) in Leo
 M105 Galaxy in Leo
 M95 Galaxy in Leo
 M96 Galaxy in Leo

Advanced Deep sky object:
 Hickson 44 (NGC3190) Compact Group near the head of Leo.

If you take images of the stellar targets, please share them Via Stellaris.

Future City Contest

by Richard Norman



As-Slam Future City Model (150 yrs from now)
 Photo by Woody Williams.

VBAS sponsored a special award entitled "Best Nightscape ... most sustainable dark sky friendly outdoor lighting" for the 2011 Alabama Regional of the Future City Contest held Jan 15 at UAH. The award was funded by donations from Richard Norman and John Young. The purpose of the award is to promote the most sustainable responsible use of outdoor lighting to conserve energy, and to protect our natural view of the universe (nightscape) by eliminating light pollution. Although we may live in a city, we must also remember that we are part of something much larger... the universe!

The future city contest is for 6th, 7th, and 8th graders, and provides them a team project to think about and design what cities might be like 150 years from now. The regional winner goes on to a National competition. The project involves several tasks that help build teamwork and presentation skills. Each team must build a software simulation of their city in Sim City. They build a physical model to highlight their city plan, and they have to put together a presentation to describe what makes their city great!



Teacher's Incentive Award: Lindsay Dunnivant
Photo by Woody Williams.

This year's contest was a tight race between 17 entries. There were a lot of similarities, but also quite a few unique ideas. One city floated above the Earth, while another could submerge itself into the ocean during storms. It was good to see that most designs were aware of energy conservation and other ways to make the city operate more efficiently. One team in particular stood out from the rest as being aware of the universe around them. Whitesburg Middle School's future city model showed the city layout, but also what the night sky would look like at that date and time in the future. In addition to their awareness and understanding of basic astronomy they also had several clever ideas about ways to capture natural light for

reuse at night rather than consuming other energy resources. Their streets did not need street lights since they were made with quantum dots. Granted it takes some imagination to see how this will work, but the whole point of the contest is to spark their imagination, and they have 150 years to work out the details!



1st annual VBAS Best Nightscape Award
Photo by Woody Williams.

Whitesburg Middle School, Huntsville, AL,
City Name: As-Slam
Teacher: Lindsey Dunnivant
Engineer: Matt Wright
Student: Owen Aebuch
Student: Jackson Burow
Student: David Butler



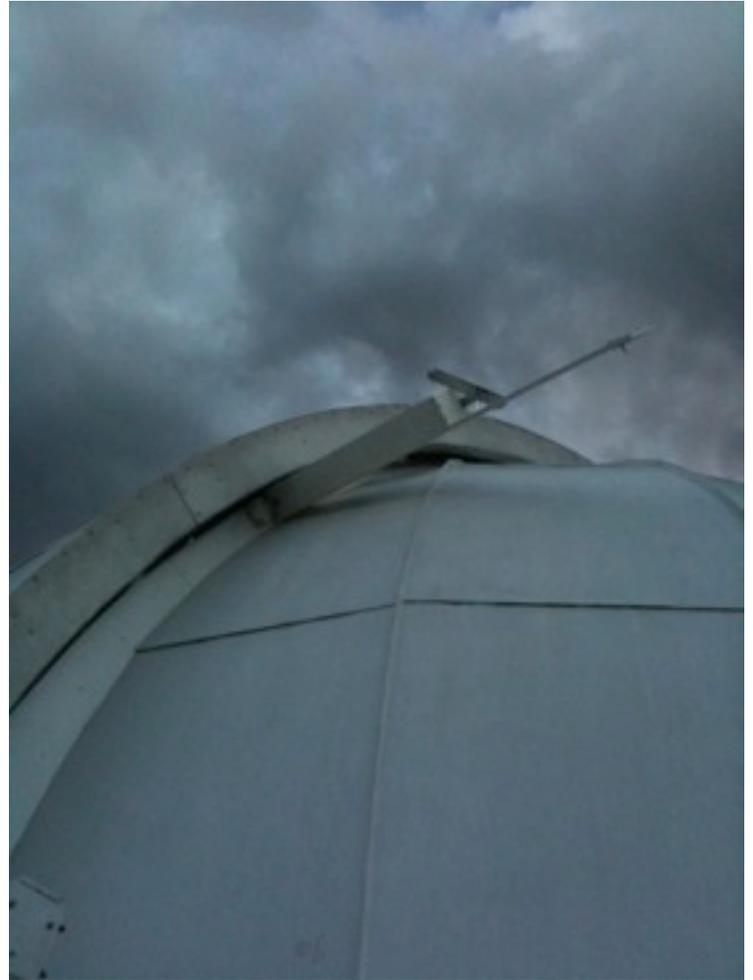
The team won second place overall!
Photo by Woody Williams

Swanson Observatory Status Report

by Richard Norman

Slow but steady progress is being made on the 21 inch telescope. The new actuators have plenty of power to move the doors, but we must give them the finesse in control to not move beyond the point that breaks them. Mimmo has increased the strength of the supports, and we will try again. Wes Swift and I rebalanced the scope, and reduced the amount of weight necessary to balance the scope, while keeping the scope balanced at the zenith. Hopefully, this will reduce the number of “blinky modes” in declination. You might have noticed the lack of pictures this month. Jeff and Doug captured quite a few, but we don’t have anybody with the time to process them into something worthy of putting in the news letter. If anyone would like to volunteer to work with the images, please contact Jeff Delmas via the web site contacts page.

The picture is of one of the new door actuators during installation. The bar that attaches the actuator swing arm to the door is not shown. Weak points have been fixed in the swing arm and the track for the swing arm.



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.

Membership and Renewal

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. 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.

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Richard Norman, Via Stellaris editor