



www.vbas.org

The Monthly Newsletter of the Von Braun Astronomical Society

VBAS Highlights for June

Public Programs for June

Our next member's meeting will be held on Friday, June 19th at 7 PM. This month, we'll be having another pot-luck dinner. See the calendar of events on page 2 for details. VBAS Member Meetings are held on the 3rd Friday of each month at 7 PM; they're open to the public and are free.

Regular planetarium programs are held on Saturdays at 7:30 PM. This month, we discuss *Star Clusters* with shows on June 6th, 13th, and 27th. On the 20th, we will give a seasonal sky tour. 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 normally follows each planetarium program, weather permitting.

Stellar Events for June

Resident Astronomer Doug Horacek reports on this month's astronomical events on page 3.

50th Anniversary of the RCAA First Light Ceremony

This month marks the 50th anniversary of the Monte Sano (later Conrad Swanson) Observatory official opening ceremony. Gert Schmitz has contributed an invitation and photos of Wilhelm Angele and Dr. Ernst Stuhlinger from the June 12, 1959 event, which are displayed on page 5.

The Student's Corner

On page 6, Student Director David Lofts writes about Maegen Edwards, the other recent winner of the VBAS science fair award, who won for a project on Galileo and the motions of the Jovian moons he discovered.

VBAS Member and Board Meeting Minutes

The April member meeting minutes and board meeting minutes start on page 7.

Steve Sloan
Via Stellaris Editor
steve@sloan3d.com



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VBAS Calendar of Events

Saturday, June 6th, 13th, & 27th, 2009, 7:30 PM

Planetarium Show: Star Clusters

Location: VBAS

Join us for a family-friendly program at the VBAS Planetarium as we explore star clusters. We will discover some of the characteristics of each type. We will also learn where to find some star clusters in the summer night sky. Bring the whole family. This program will be interesting and fun for all ages. Weather permitting, we will be viewing the night sky afterwards through powerful telescopes too.



Perhaps the most famous star cluster in the sky, the Pleiades can be seen without binoculars "om even th! depths of a light#po\$uted city. Also known as th! Seven Sisters and M45, the Pleiades is one of th! brightest and closest open clusters. The Pleiades contains over 3000 stars, and is about 400 light years away, and only 13 light years across. %Credit & Copyright: [Robert Gendler](#)&

Friday, June 12th, 2009, 7:30 PM # 10 PM

Youth and Adult Observing Night

Location: VBAS

*Presented by **David Lofts and Doug Horacek***

The youth evening will run from 8 until 10 PM. We will have a planetarium show if weather does not permit. If clear, the adults can set up at 7:30 PM or earlier. Doug Horacek will be there early if weather permits or for the Planetarium Show. Contact David Lofts at 726-0275 or Doug

Horacek at 772-6788 for more information.

Friday, June 19th, 2009, 7 PM

Regular Monthly Meeting

Location: VBAS

Once again VBAS will have a Pot-Luck Dinner for our June members' meeting. In the past our members have brought barbecue, fried chicken, veggie and cheese trays, chips, ice and drinks, along with an assortment of desserts. We will start eating and socializing at 7:00 p.m., followed by a brief meeting to discuss the latest society business. We plan to continue with the social aspects of the evening following the business meeting by having an opportunity for members to do some observing, weather permitting. If the weather does not allow for observing we will have a DVD program as a back-up. Come out and join in the fun and, as always, visitors are welcome to our members' meetings.

Saturday, June 20th, 2009, 7:30 PM

Planetarium Show: Seasonal Star Tour

Location: VBAS

Join us for a relaxing evening at VBAS. We'll show you which constellations are visible this time of year, and teach you how to find them. We'll also learn about the fascinating and beautiful deep sky objects that can be found, along with a mix of mythology. Weather permitting, we'll be viewing the night sky afterwards through one of VBAS's powerful telescopes, too.

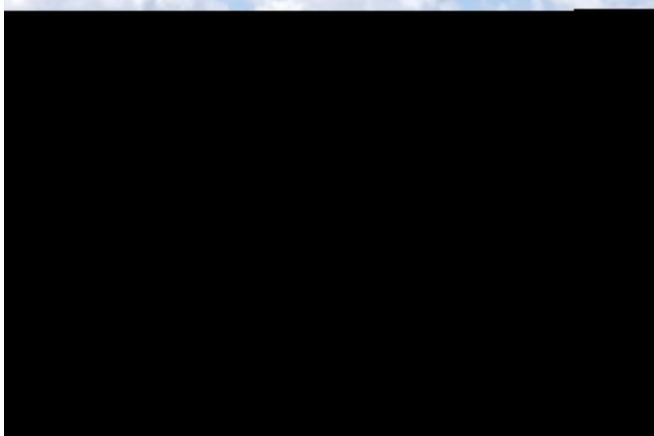
Friday, October 9th # Sunday, October 11th, 2009

Greenbank Radio Telescope Trip

Location: West Virginia

You're invited on a trip with Michael Cowger to see the world's largest movable radio telescope and to tour the National Radio Astronomy Observatory's Greenbank Facilities, which include several radio telescopes, in the mountains of West Virginia during the Fall colors! The group, including family members,

will travel by bus on Friday, October 9th to a Star Party at nearby Snowshoe Resort's Rimfire Lodge, then tour the Greenbank facilities on Saturday, followed by dinner and a ride on the Cass Scenic Railroad, then another Star Party before returning on Sunday.



Contact Michael Cowger for additional details at [mcowger@be\\$outh.ne](mailto:mcowger@be$outh.ne) and visit the related links below:

Observatory: www.gb.nrao.edu

Lodging: www.rimfirelodge.com

Dinner/Train: www.cassrailroad.com

Friday October 16 # Saturday October 17, 2009

Sixth Annual Volunteer State Star Party

**Location: Meriwether Lewis Observatory
Dark Sky Site, Summertown, Tennessee**

Presented by Eric Johnson

VBAS member Eric Johnson is opening up his dark sky site in Southern Tennessee for a weekend of observing, good food, and plenty of hospitality. The site is in Lewis County, Tennessee, between Hohenwald and Summertown. This is a very dark sky site. Primitive camping and facilities are on site. It is free to all astronomers near and far. Don't forget your scope. RSVP Eric Johnson at ejohnso4@yahoo.com.

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

Stellar Events for June

by Doug Horacek, Resident Astronomer

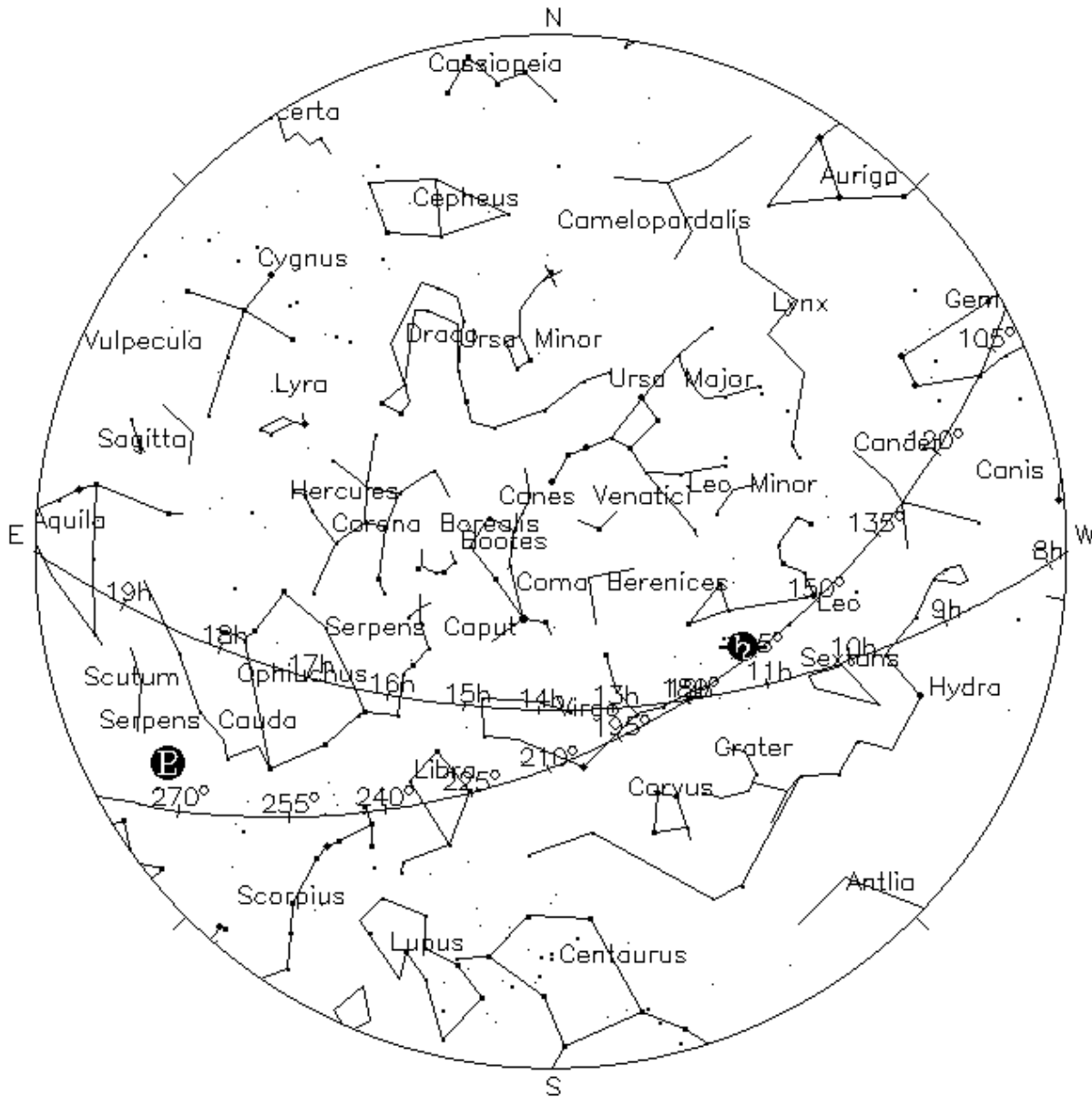
Reminder, the best Friday evening for observing this month will be the Friday evening of our Members Meeting. The Moon will be a waning crescent that evening and will be in the dawn sky. On Saturday evening, 6 June 2009, the club can witness an occultation of Antares. That evening, Antares disappears at 8:07 P.M. CDT, to reappear later. At 9:21 P.M. CDT, the moon will be near full and should be up at least for the reappearance of Antares. Watch Saturn this month as it approaches Sigma Leonis as it moves eastward among the stars again. On the evening of Monday, 15 June 2009, at 10:40 P.M. CDT, the moon Titan will start casting its shadow on the face of Saturn. Saturn will be in the southwest when this happens, and you will need a western horizon to see this event. In

the morning sky on 21 June 2009, Sunday morning, Mars and Venus will be at their closest approach of 2 degrees. Mercury will also be visible in the morning sky around the 21st of June 2009. You will need an eastern horizon to see Mercury. At the beginning of the month, Neptune and Jupiter will be less than 1/2 degree apart and the gap will widen as the month goes on. In July, both will be in retrograde, and another conjunction of the two planets will occur. Uranus remains in the morning sky, rising higher, just under the loop of stars in Pisces. In the later part of June, Mercury, Mars, Venus, Uranus, Jupiter, and Neptune will all be in the early morning sky. On the morning of 27 June 2009, with no moon to hamper viewing, will be the June Bootid Meteor shower. It is a minor shower with a varied meteor count. The associated comet for this meteor shower is 7P/Pons-Winnecke.

The Night Sky for June, 2009

Here is the view at 9 PM in mid June, 2009, at 34° N Latitude, 86° W Longitude. Saturn (the lowercase "h" symbol) will be high in the sky, between Leo and Virgo.

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



RCAA First Light Ceremony, 1959

Invitation scan and photographs by Gert Schmitz

This month marks the 50th anniversary of the June 12, 1959 official opening ceremony for Monte Sano Observatory, later renamed the Conrad Swanson Observatory. The Rocket City Astronomical Association was later renamed the Von Braun Astronomical Society.

THE
**ROCKET CITY ASTRONOMICAL
ASSOCIATION**

INVITES

ITS BENEFACTORS, FRIENDS AND MEMBERS

TO THE

OFFICIAL OPENING

OF THE

MONTE SANO OBSERVATORY



HUNTSVILLE ELECTRIC AUDITORIUM

7:30 P. M. — 12 JUNE 1959 — ALL INVITED

MONTE SANO OBSERVATORY

9:15 P. M. — 12 JUNE 1959

SPECIAL CONTRIBUTORS NIGHT

8:00 P. M. — 13 JUNE 1959

MEMBERS AND FRIENDS

Invitation to the RCAA official opening ceremony



Dr. Ernst Stublinger at the official RCAA opening, June 12, 1959



Wilhelm Angele and Ernst Stublinger at the official RCAA opening, June 12, 1959

The Student's Corner

Study of Galileo & Moons of Jupiter Wins VBAS Science Fair Award

by David Lo*s

In April two awards from VBAS were given to students at the Alabama Science and Engineering Fair. One of these awards was given to Maegen Edwards, a 9th grader at Westminster Christian Academy. Her project was called "And Yet She Moves - An Examination of Jupiter and the Galilean Moons". She came up with this idea because she was interested in combining astronomy and history. Using Kepler's 3rd law of planetary motion, she observed the moons of Jupiter. She also tried to get the recorded data within a factor of 2. She used CLEA (Contemporary Laboratory Experience in Astronomy), a simulating software, to determine the average of the moons' distance over a period of 30 days, while using her observed results as a confirmation. At the regional and state science fairs, she won Optics awards from NASA and HEOS, 2nd place \$75, Excellence in Astronomy, UAH College of Engineering, Office of Naval Research Science, 2nd place in her category at both fairs. Congratulations, Maegen.

ABSTRACT

And Yet She Moves: An Examination of Jupiter and the Galilean Moons

Maegan J. Edwards

Westminster Christian Academy, Huntsville, AL, USA

The Renaissance brought forth many new and exciting scientific discoveries. In 1609, Galileo Galilei used a telescope and observed four small satellites revolving around Jupiter. Galileo's discovery cast doubt upon the "perfection of the heavens" idea associated with the geocentric theory. A paradigm shift was in order. The Copernicus' heliocentric model of the solar system was physically possible. Many observations from great scientists merged together and created new theories about the universe. Observations made by Tycho Brahe were used by Johannes Kepler to deduce three empirical mathematical laws. These laws are known as the Laws of Planetary Motion. The masses and distances of planets and their moons cannot be directly measured. However, some properties of celestial bodies can be deduced using Kepler's Laws. By using the observations of Jupiter's Galilean Moons (Io, Europa, Ganymede, and Callisto), Kepler's Third Law can be used to determine the mass of Jupiter. This project was composed of three stages:

Stage One – Control Group: The Contemporary Laboratory Experience in Astronomy (CLEA) software was used to calculate the mass of Jupiter.

Stage Two – Experimental Group: Field observations were conducted using a telescope and a bifilar lens. Using the observed data, the mass of Jupiter was calculated.

Stage Three - Analysis: The data resulting from Stage One and Stage Two were compared and contrasted.

Without the aid of computers, early scientists made incredible discoveries. This project examined the foundations for modern astronomy and provided insights on the obstacles faced by early scientists in producing sound discoveries.



VBAS Member Meeting Minutes

7:30 PM on Friday, April 17, 2009

(19 members present)

Meeting started at 7:30

New members were welcomed.

Minutes from previous members meeting were read and approved: Michael Cowger moved to approve, and Bruce supplied a second.

Jeff asked how much money was made at the last members meeting. Jared answered \$83.00. Discussion followed about the 6 inch telescope initially purchased by Lorin and then returned. Michael, previously interested, declined to purchase the telescope.

Doug reported he will have a column on the website. He announced the Messier Marathon replan, the youth observing from 7-9 on April 24th. Discussion ensued concerning waning participation in youth group. Doug also reported that some high school students showed up last week and expressed an interest in partnering with VBAS although he couldn't remember which school they came from.

Terry reported a need for help with mowing grass. Michael Cowger volunteered to help.

John reported that he received an invitation from Skylar Hall to attend his Eagle Ceremony. Skylar did some volunteer work with VBAS in the past during John's tenure as Facilities Director.

Michael reported that the website was down for a couple of days this past weekend due to storm damage to the ISP. He also reported the fund raiser he was planning for May will now be done in conjunction with Astronomy day in the fall.

Jeff reported the Bridge Street sidewalk astronomy project was a huge success. He said people were lined up around the corner to see through the 14" telescope. Flyers were handed out as part of our publicity plan.

Doug announced Earth Day at Hayes preserve opens at 9:00, starts at 10:00 and ends at 3:00. Come join us for some outdoor fun!

John introduced Andy Wilson as our new Membership Chairperson. Andy reported that he was still getting the database together and that membership checks are trickling in. John reminded us that if we haven't already paid, membership dues are due.

Tom Burleson, Jr. reported that the audit committee went over the fiscal budget and found a few minor holes, but in the end decided Gena was not embezzling. ☺ They are working on a report for the next member's meeting.

The nominating committee reported that they are still looking for a few good people to step forward and take positions on the VBAS board of directors. Terry reported that Melissa is willing to stay on as Director of Education and Gena is willing to stay on as Treasurer.

John commented on Jared's commitment to VBAS and thanked him for his past efforts as Vice President. Jared will not be fulfilling the role of President in July. John said the society definitely needs the help of its members to keep it running. Gert reflected on some of the members from his younger days that held offices for VBAS and the work they did.

There was no new business.

Doug made members aware of an article in the April Sky and Telescope about Titan crossing Saturn's face and that this will be seen on June 16.

John reminded everyone about the annual meeting next month. We will hold elections, and present the next year's budget. The program is still TBD.

Jared introduced Jeff, who will talk on "Messier Marathons" at 8:21.

Attendees:

Gena Crook (Treasurer)
Michael Cowger (Past President)
Jeff Delmas (Planning & Research)
Doug Horacek (Resident Astronomer)
Terry Owens (Facilities)
Steve Sloan (Secretary)
John Young (President)

President John Young called the meeting to order at 7:15 PM.

The minutes from the previous meeting were presented. **Michael moved to approve the minutes and Jeff seconded. The motion passed.**

Gena presented the treasurer's report. She showed "April '09 Profit and Loss" and the 2008/2009 budget. Jeff suggested she keep building donations separate. Is the leftover grant money going into the building fund? Gena will put them all in one pot by next month. **Michael Cowger moved to approve the financial reports as presented. Jeff seconded, and the motion carried.**

The officers on the Nominating Committee gave their report. Terry read the upcoming slate of candidates:

- Michael Cowger - President
- Al Riesz - Vice President
- Benjamin Neil Boyd - Director of Administration
- Gena Crook - Treasurer
- Melissa Snider - Director of Education and Programs

According to Terry, Al and Neil are excited and pumped up. There is currently no nominee for Facilities, so we will put the ballot together as it stands. Benjamin has a bad email address in the database, which will need to be cleared up.

The 2009/2010 Budget was discussed. We will stop listing Crystal Tech, which was our old web provider. **Jeff moved we approve the 2009/2010 Budget as amended, Michael seconded, and the motion carried. It still needs to go before the membership for their final approval.**

At the Annual Meeting, Wes will present a Messier Certificate. Michael is getting a speaker from NASA.

There was more discussion of Astronomy Day. We should hold an event at Bridge Street 2-3 weeks before A-Day to promote A-Day. The recent Hays Nature Preserve Earth Day event had a good food vendor, who we'd like to get for A-Day. Michael suggested a telescope raffle promoting VBAS and upcoming events. He suggested two price ranges for the prize telescope: \$1500 or \$2000. Raffle tickets would be \$5 apiece. We will sell tickets to general public. Jeff recommended that we buy the telescope beforehand, to show people what they could win. \$1500 would be more than sufficient for a scope small enough for beginners. Jeff and Doug suggested a computerized Goto Dob 8", especially Orion

Fundraising was discussed. QinetiQ has more money coming. Jeff is working on filing for the next CAS Cares grant.

At 9:10 PM, Jeff moved to adjourn, and Michael seconded.

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 Steve Sloan at editor1@vbas.org. If you don't have access to email, you can send articles in either Word or ASCII format to Steve at 2110 Vilaret Dr, Huntsville, AL 35803.

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, 2009. 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. If your mailing or email address changes, please report the new address promptly to the Membership Secretary to avoid missing issues of *Via Stellaris*.

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Steve Sloan, Via Stellaris editor