



VBAS Highlights for November

Public Programs for November

Our members meeting will be held on Friday, November 17th at 7:30 pm. "Ever wonder about what telescopes are available to members and/or how to get training so that you can use them? If so, then you don't want to miss this month's program that will be dedicated to getting members familiar with telescope resources available for their use and to kick start several training programs. After our normal discussion of society business, we'll have three 15 minute sessions where members will be able to attend three of four separate sessions ranging from our 21 inch, 16 inch, and 14 inch telescopes as well as a session on other less known telescopes available on loan to members! Hope you'll come enjoy an evening of fellowship with fellow astronomers and, weather permitting, viewing of the night sky! As always, feel free to invite your friends too that may be interested in astronomy. # Michael Cowger, President Elect

There will not be a VBAS Member Meeting in December. Other than December, VBAS Member Meetings are typically held on the 3rd Friday of each month at 7:30 p.m.; they're open to the public and are free. Planetarium programs start at 7:30 PM. Admission to planetarium shows is free for VBAS Members, \$3.00 for Adults, \$2.00 for Children 6-11, and free for children under 6. Observation of the night sky through various telescopes normally follows each planetarium program, weather permitting.

President's Message

On page 2, Je & Delmas discusses the Volunteer State Star Party, and the possible purchase of a new planetarium projector.

Mercury Transit

On page 3, Je & Delmas has pictures and a report on the Mercury Transit observing event that VBAS coordinated at UAH.

Peach State Star Gaze Report

Darren Hiebert reports on the Georgia astronomy event on page 4.

VBAS Member Meeting Minutes and Treasurer's Reports

Page 6 has the draft minutes of last month's members meeting, the Treasurer's report, and the 2006 budget. Page 7 has the latest NASA grant report.

Telescope Construction Report

Member Bruce Potter describes how he built his 'rst home-made telescope in detail, and includes several pictures, on page 8.

New Members

VBAS welcomes Bennett Perritt and family, Shawn Wilson and family, Jessie Emerson and family, Mike and Alice Fanning, Magali Rivera, Ernest Wu, Gary Lasseter, Jason Lockridge, and Rick Laws.

Planetary Conjunctions

Richard Norman reminds us that a planetary conjunction of Mercury, Mars, and Jupiter is coming up in early December. You can 'nd his article, and his recent picture of a conjunction of Mercury, Saturn, Mars, and the Moon, on page 9.

Deadline for December 2006 Via Stellaris submissions is Friday, December 8.



In This Issue:

- VBAS Highlights for November..... 1
- President's Message..... 2
- Mercury Transit..... 3
- The Night Sky for November..... 4
- Peach State Star Gaze Report..... 4
- Calendar of Events..... 5
- VBAS Member Meeting Minutes..... 6
- Treasurer's Report and 2006 Budget..... 6
- NASA Grant Report..... 7
- Telescope Construction Report..... 8
- Planetary Conjunctions..... 9



October skies typically bring some of the best viewing of the year and this year has been no exception. VBAS members participated in regional star parties this season to enjoy the opportunities for viewing and to share the experience with fellow observers. Several members took part in this year's Peach State Star Gaze. Read Darren Hiebert's report on the PSSG on page 4.

This year's Volunteer State Star Party (VSSP) at the Meriwether Lewis Observatory owned by VBAS member Eric Johnson was held the weekend of October 27-29. W

yourself to take advantage of this or other dark site star parties to expand your knowledge and experience.

Last month I announced board approval for the purchase of a Spitz A3P planetarium projector from the Throneateska Heritage Foundation in Albany, Georgia for \$3000. I'm sorry to report that the projector ended up being sold to another party. Planetarium Director Roy Young remains on

the lookout for a suitable replacement projector of similar quality and price. I'll be sure to let you know if anything further develops.

Finally, I'd like to remind everyone that we have no member's meeting in the Month of December + Happy Holidays!

Je& Delmas

Mercury Transit

by Jeff Delmas

A rare transit of the Sun by Mercury occurred on November 8 starting at 1:12 pm local time. VBAS coordinated with UAH to observe the event in the field on the west side of the Materials Sciences building on the UAH campus. VBAS had four telescopes at the event: our two H-alpha Coronado scopes, and the private scopes of John Young and James Brelford. Clouds prevented viewing the start of the event and we decided to regroup about 3:00 pm that day when predictions expected the clouds to clear. We drew a good crowd of students, faculty, and VBAS members.

VBAS member Brian Newton submitted the following photo taken at 2:49 pm at the Barkley Bridge Elementary School just west of the Hartselle Civic Center. Brian was able to bring this experience to the entire student body of the 4th and 5th grades at the elementary school and then he took his equipment over to Decatur to share with his scout troop.



Mercury in transit across the Sun 11/8/2006, 2:49 pm CST. Note that the larger spot at about the 2 o'clock position is a sunspot. Mercury is the smaller black dot a bit to the lower right of the Sun's center. Photo by Brian Newton.



VBAS members along with UAH faculty and students gather to observe the transit of Mercury.

The Night Sky for November, 2006

Here is the view at 9 PM in mid November, 2006, at 34° N Latitude, 86° W Longitude. Uranus, the circle and arrow symbol, will be near Aquarius. Neptune, the trident symbol, will be visible by telescope in Capricorn. Uranus and Neptune are easily visible by telescope, if you know where to look.

According to the International Meteor Organizations 2006 Meteor Shower Calendar, at <http://www.imo.net/calendar/2006>, there are two more meteor showers coming up in the next few months. On Nov 19th, the Leonids will peak during a new moon. On Dec 14th, the Geminids will peak during a waning crescent moon.

To catch the peak, watch during the early morning hours of the day of the peak. For example, watch the Leonids from midnight Nov 18 until 5 am on the 19th. This is when your location on Earth is facing the direction the Earth is moving around the Sun. There will also be increased meteor activity during the days just before and after the peak. More info can be found online at the IMO, and places like <http://skytour.homestead.com/met2006.html>

VBAS Calendar of Events, November through December

Saturday, November 4, 2006, 10 AM to 3 PM

Facilities Working Party

Help perform much-needed maintenance of the VBAS facilities. Please contact **John Young** at 464-7998 or email jgy71@bellsouth.net if you can make it.

Wednesday, November 8, 2006, 12:45-2:00 PM

Mercury Transit

Location: UAH Optics Building, on the walkway between Building 19 (Optics) and Building 21 (Materials Science)

Presented by Jeff Delmas & John Young

Mercury will transit the Sun on Wednesday November 8th starting at 1:12 pm CST. Come join us on the UAH campus where we're coordinating viewing activities with Dr. Jack Fix and the UAH College of Science. If you have a telescope with a solar filter, please bring it. We'll have the two Coronado solar telescopes at the event. We plan to observe for about 1½ hours. If you need further information, please contact Jeff Delmas or John Young. We hope to see you there! See the map at <http://www.uah.edu/News/map/index.php> for help finding the observation site.

Saturday, November 11, 2006, 7:30 PM

Planetarium Show: Severe Weather

WHNT Chief Meteorologist **Dan Satterfield** discusses the various types of severe weather that occur in North Alabama while explaining how storms are affected by the Sun and the seasonal changes. Learn how to protect yourself from dangerous weather and how meteorologists track weather systems from the Earth and space.

Friday, November 17, 2006, 7:30 PM

Regular Monthly Meeting

"Ever wonder about what telescopes are available to members and/or how to get training so that you can use them?

If so, then you don't want to miss this month's program that will be dedicated to getting members familiar with telescope resources available for their use, and to kick start several training programs.

After our normal discussion of society business, we'll have three 15 minute sessions where members will be able to attend three of four separate sessions ranging from our 21 inch, 16 inch, and 14 inch telescopes, as well as a session on other less known telescopes available on loan to members!

Hope you'll come enjoy an evening of fellowship with fellow astronomers and, weather permitting, viewing of

the night sky! As always, feel free to invite your friends too that may be interested in astronomy. #

Michael Cowger, President Elect

Saturday, November 18, 2006, 10 AM to 3 PM

Facilities Committee Meeting and Working Party

Help perform much-needed maintenance of the VBAS facilities, and attend this month's Facilities Committee Meeting.

Saturday, November 18, 2006, 7:30 PM

Children's Show: Gravity

Presented by Andrew Wilson

Saturday, December 2, 2006, 10 AM to 3 PM

Facilities Working Party

Help perform much-needed maintenance of the VBAS facilities.

Saturday, December 2, 2006, 7:30 PM

Planetarium Show: Star of Wonder

Presented by Cassie Lofts

What exactly was the object that the Wise men saw? Was it a star that stood in the sky two thousand years ago, and marked a single location in Bethlehem? Each year at this special time, we turn back the hands of time to look into the sky of long ago, to search for this mysterious object. As we ponder the skies of Bethlehem, we'll explore several possibilities including comets, meteors, novae, and other phenomena.

Friday, December 15, 2006, 7:30 PM

NO MONTHLY MEETING for December

Saturday, December 16, 2006, 10 AM to 3 PM

Facilities Committee Meeting and Working Party

Help perform much-needed maintenance of the VBAS facilities, and attend this month's Facilities Committee Meeting.

Saturday, December 16, 2006, 7:30 PM

Planetarium Show: Star of Wonder

Presented by Cassie Lofts

Cassie Lofts reprises her presentation of our annual Christmas Star show.

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

VBAS Planetarium, 7:30 PM on Friday October 20, 2006

by Steve Sloan

President Je& Delmas called the meeting to order. He asked for guests to introduce themselves. Bruce Chandler was an old member since the mid%80s. There were a few other guests as well.

At the previous Board Meeting, the board decided to purchase a Spitz AP3 located in Albany, Georgia for \$3000. It would be a newer planetarium projector than the one we currently own. However, the deal fell through when Albany decided to trade it back to Spitz. Walker County has a projector just like it, so the board will purchase that one. Their projector comes as a package deal with a 40 foot dome, for \$15,000.

We are coordinating with Monte Sano State Park, to earn a Dark Sky Bronze Level certification for the park. We will help them by performing the educational outreach the certification requires.

Because Treasurer Gena Crook could not attend, Je& brie-y spoke about her Treasurer's Report *[See below]*. The NASA grant has about \$50,000 left. Th

usually says no. It's a very dark site. Eric usually provides breakfast, lunch, and dinner. To attend, please contact Eric Johnson for directions.

Last Saturday, the 21 inch telescope saw 'rst light again. It was converted from a Cassegrain to a Newtonian. As a Cassegrain, it had poor image quality, at too high a power to aim well. The new f4 Newtonian setup has several advantages: the primary is much better, and it has simpler optics, and much, much better image quality. They have tested the motor controls, which worked well.

On November 8th, at 1:12 in the afternoon, Mercury will begin a transit across the sun. The sun will set before the transit completes. Does anyone want to find a good place to observe? Any other ideas? Jeff will contact Melissa to see if the Space and Rocket Center will host.

What resources do we have for the transits? We have two solar scopes. Do any members have solar filters? John recently found solar filters.

Solar transits are most exciting when the planet first enters the face of the sun, and when it leaves. Several important experiments have been performed, that taught us a lot about how the universe works by timing the two events. You can recreate those measurements.

According to Doug Horacek, Solar Site Online is a good place to look for Mercury transit information.

There was a question about how we learned about the planetarium projector for sale from Albany. They contacted us through Roy Young, who had worked at their plan

The Construction of My First Home Made Telescope

by Bruce Potter, October 30, 2006

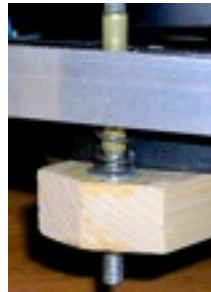
In March 2006 I converted my Hardin 12# Deep Space Hunter Dob into a truss Dob using the mirrors and all needed working parts o& the Hardin. The project took 18 days of steady work every day and part of the night from start to completion. The scope saw 'rst light March 22. I designed and built each part on an as needed basis; there were no plans.

The only power tools I used were a Dremel scroll saw, a Delta 8# drill press, a Milwaukee 1/2# cordless drill, and a Dremel tool with cuto& disks. The main building materials used were 1/2# plywood, 1/4# plywood, 1# x 2# and 1# x 3# pine strips, and a \$13 reduced%price edge%damaged 4' x 8' sheet of laminate. It is 'nished with -at black paint and orange shellac. Construction is the built up open frame or "stick construction# style. Total 'nished weight is 53 lb. compared to 76 lb. for the original Hardin.

The folding truss tubes are plastic%covered thin steel tubing from \$1 brooms. The alt bearings are made from two laminated pieces of 1/2# plywood. All cuts were done freehand following marked lines. Straight line cuts were used wherever possible, with "I# shaped joinery cuts used on the mirror box corners for added strength. Titebond II Premium Wood Glue was used on all glued joints, along with drywall screws on most. Laminate was used for bearing surfaces, mirror box covering, and cage liner.



The completed mirror box framework, a collimation knob and rod are visible upper left, above the primary mirror by the baffle opening.



The primary cell end of a collimation rod in place.



The cage framework, together enough for a focus test.



Completed rocker box.



A quick focus test.



The finished truss Dob.

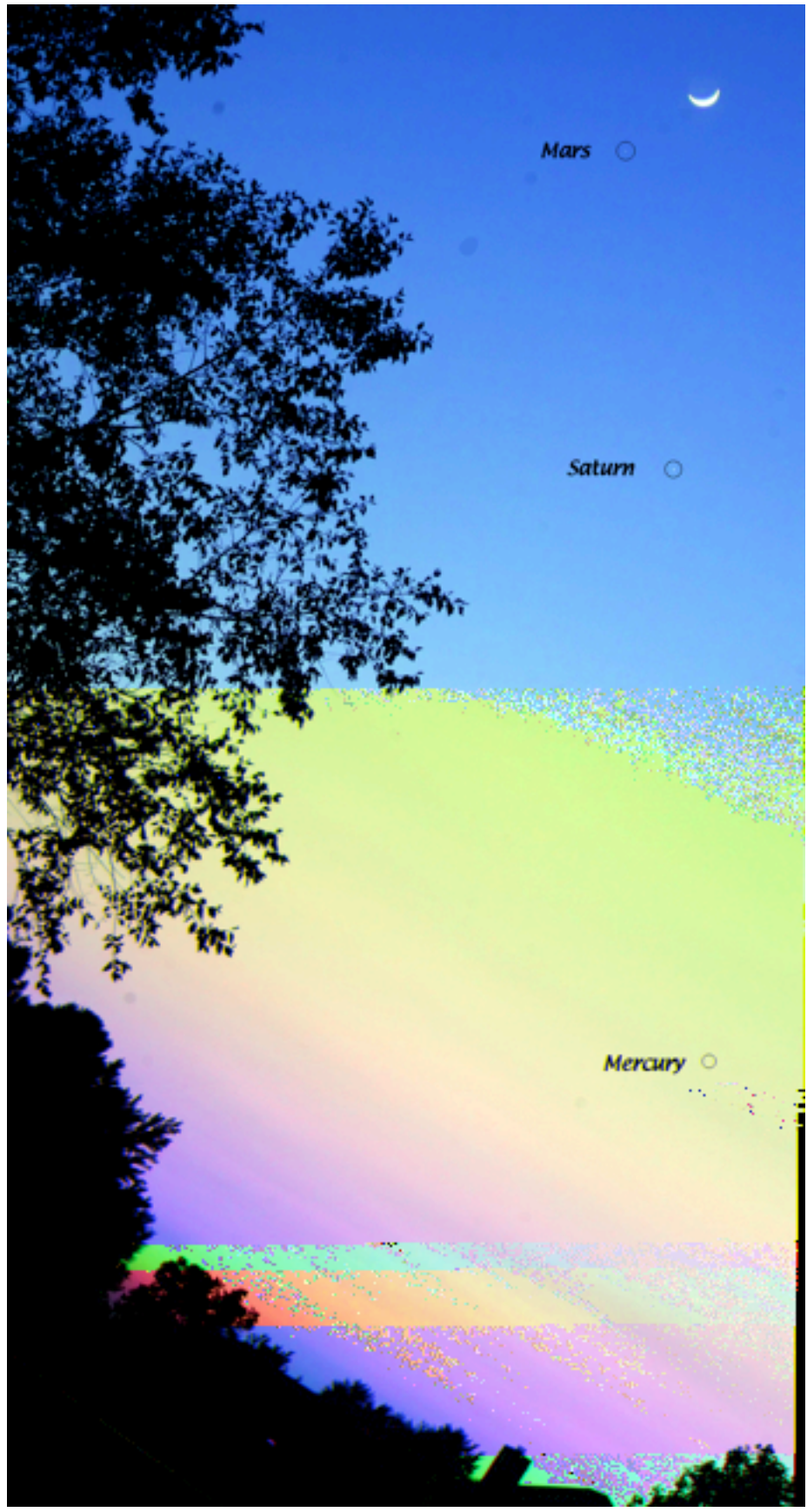
This scope has proven to be solid, stable, and holds collimation very well. For a 'rst building attempt, it turned out much better than I dared hope when I started. It has been a great learning experience, but I think it also gave me the "build a bigger better one# bug. Hopefully a peek into my scope's construction will inspire others who don't have a big shop full of equipment to start building. Clear Skies!

Planetary Conjunctions

by *Richard Norman*

When planets align, they offer some interesting photo opportunities, even without a telescope. Sky and Telescope usually provides info on upcoming opportunities, and there is a good one coming on December 9th, a triple planetary conjunction of Mercury, Mars, and Jupiter.

This summer, three planets and the crescent moon posed just before sunset. Unfortunately, I was not able to scout out a good site for the photo, but was able to get this one from my backyard. Mercury is particularly tough because it stays near the horizon, and by the time it gets dark enough it disappears behind the trees and houses. The camera was a Sigma SD10 with about a 50 mm lens mounted on a tripod. The exposure was 1 sec at ASA 400 with aperture of F5.6. The image was cropped and enhanced in Photoshop to tease out the planets from the bright sunset. Enhancing also brings out the dust and water spots, so remember to take your dust brush into the 'eld.



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 Villaret Dr, Huntsville, AL 35803.

Check Your Label

Look at the address label on the outside of your *Via Stellaris*. The first line contains the expiration date on the right-hand side. 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 address changes, please report the new address promptly to the Membership Secretary, Linda Farnell, at 534-5060, to avoid missing issues of *Via Stellaris*.

Membership Dues Reminder

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.

Reprints

Permission is hereby granted to any non-profit astronomical association to reprint, in whole or in part, any article in this or past *Via Stellaris*. We ask that credit be given to the *Via Stellaris*, Von Braun Astronomical Society, date of issue, and author of article used.

VIA STELLARIS



A Publication of the
Von Braun Astronomical Society
A Member of the Astronomical League
P. O. Box 1142
Huntsville, AL 35807-1142

Address Service Requested

Other Organizations: This is your last paper copy of the Via Stellaris, unless you specifically request one. We are trying to limit the paper copies we generate, to save costs, clutter, and a lot of work for everyone. If you would like to receive your newsletter electronically, please send your email address to editor1@vbas.org, and let me know.

Steve Sloan, Via Stellaris editor