

# Astrofiles

## Auburn Astronomical Society E-Newsletter June, 2012

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### Events Calendar

We'll hold our **monthly meeting** on **Friday, June 1**, at 7:45PM, in room 215 of Davis Hall, the Aerospace Engineering Building. Riders from the Montgomery area are welcome to meet at the home of Russell Whigham, 518 Seminole Dr., and carpool over to Auburn. Plan to be ready to leave for Auburn at 6:45PM.

June 1, monthly meeting at 7:45PM room 215 of Davis Hall  
June 4, Full Moon; Partial Lunar eclipse 4:00 – 6:00AM CDT  
June 05, Transit of Venus  
June 20, Summer Solstice  
June 27, latest sunset of the year

### Web Links

**John Zachry** sends this interesting link to the [Mars Science Laboratory Curiosity](#) . Notice you can change Units from kilometers to Miles.

In other Mars news, hundreds of [large spirals](#) have been discovered on Mars.

Meade **LX200GPS CAD diagrams** of:

<http://www.crcm.net/lx200gps8/otacad/FrontCell.pdf>  
<http://www.crcm.net/lx200gps8/otacad/Sec-mirror-lock.pdf>  
<http://www.crcm.net/lx200gps8/otacad/OTAcad.htm>

**Larry Owsley** sends [this link](#) to Neal Thompson's interview on his book that chronicles the life of America's first man in space, **Alan Shepard** (45 minutes)

## Astronomy Day 2012

We had beautiful clear-blue skies with warm (but not miserable) temperatures in the late afternoon, for our April 28<sup>th</sup> Astronomy Day 2012 event at the [W. A. Gayle Planetarium](#). There are lots of thanks to go around to those who made it happen.

Thanks first, to the following for volunteering their time, telescopes, and expertise:

**Frank Ward**, 12-inch LightBridge Dob & AAS's 40mm PST solar scope  
**Alan Cook**, 10-inch Meade LX50 SCT  
**Russell Whigham**, Celestron C-11 SCT and AAS's 12.5-inch Dobsonian  
**David McConnell**, 8-inch Celestron GOTO SCT  
**Joseph Jackson**, iOptron 106mm refractor  
**Mack Acheson**, Orion XX14i IntelliScope Dobsonian & 12 inch Astrotech reflector  
**Chad Ellington**, Coordinating the children's activities & AAS information table  
AAS prez, **Rhon Jenkins**, Glad-handler-in-charge & wife, **Joyce Jenkins**

Pulling double (or triple) duty was **Chad Ellington**, NASA/JPL Solar System Ambassador and Adjunct Astronomy Professor at Auburn University Montgomery who, in addition to his outdoor children's activities, gave a presentation on "Finding Exoplanets" in the planetarium auditorium. Chad also called our visitor's attention to the passage of the International Space Station and a very bright Iridium flare. Thanks, Chad!

Thanks to **Dr. Michael Sterner** who came down from the University of Montevallo - [Shepherd Observatory](#), to give an update on their future plans for the observatory and its 20-Inch Plane Wave telescope.

We really appreciate that former AAS member, **Mack Acheson**, invested his time and expense to make the 6-hour drive each way from his home in Prairieville LA, to help us out this year. In addition to the two telescopes he brought, Mack was also helping with the planetarium's 60mm Coronado solar scope. Mack had conspired with Rick Evans to make this a surprise visit. Thanks, Mack!

It was good to see AAS member **Joe Albree** and frequent visitor, **C.J. Butterbaugh** coming out for a visit and to support our event. C.J. sent this note:

Just wanted to drop a note to thank all of you guys in the Auburn Astronomical Society for presenting the events at the Planetarium on Saturday. I had a great time and am looking forward to more events like this to share the educational experience with my family.

We heard several of the visitors during the telescopic viewing say that they had heard about our event on the 6:00 evening news. Thanks to WSFA meteorologist, **Eric Snitil** who had come out to the planetarium at about 5:00 to interview some of the people there and make video of the telescopes set up outside and made it back to the studio in time for the evening news.

Thanks to **Trish Jester**, planetarium assistant, who helped with the preparation in advance of the event and was there when I needed her helping me find Saturn in the AAS big Dob.

And finally, our thanks to planetarium director, **Rick Evans**. Let's begin with his hosting the event and offering the planetarium facility to the public free of charge. This also includes the invitation to, and the securing of, our speakers. At Rick's request, Orion Telescopes & Binoculars sent a boat load of door prizes including an Orion Starshoot USB eyepiece and an Orion Video Capture device donated to AAS. Rick followed up with a very nice letter of appreciation to Orion with images of people using the gifts Orion had sent. As part of the publicity for the event, Rick contacted the *Montgomery Advertiser*. They ran a full-page article in the My Life section of the paper the Friday before. And thanks to Rick, for leaving home early and coming home late for days on end to have everything ready for us, and to he and his wife for rolling up their sleeves to erect the canopy they put up for the AAS area outside. Keep in mind that this all took place on the heels of Rick's presentation promoting the proposed Digital Planetarium Projector to the City of Montgomery's Mayor, Todd Strange, and his entourage just the day before. ([See below](#)) For those who weren't able to come this year, I hope we'll see you next year.

For a recap of the Astronomy Day agenda and photos, click [HERE](#).

## Transit of Venus

It's here! This Tuesday, June 05 and the encore performance of the [Transit of Venus](#). The transit will begin in late (Tuesday) afternoon just before 5:05PM when the Sun is only about 35 degrees above the western horizon. The full silhouette of Venus' disk will be visible about 17 minutes later at 5:22. Sunset is at 7:48 so we'll only be treated to less than half of the full transit.

Chad Ellington has arranged with Randy Russell, AUM assistant professor of physical science, to have the west room of the AUM library tower reserved for viewing the transit of Venus. All of us are invited to attend.

If you can't be with us there and/or have your own place in mind, remember the Sun, roughly 2-weeks before Summer Solstice, will be significantly farther north than due west at sunset. The transit will begin with the Sun at 271 degrees W azimuth & 35 degrees altitude (at 1st contact 5:05PM) and end (for us) at 300 degrees WNW and 0 degrees at sunset.

Be sure to get your solar filter if you don't already have one. Just Google "[safe solar filter](#)" and don't forget our [friends down in Pensacola](#). I'm a big fan of the Baader solar filter. It's cheap, has good resolution, and a near-natural color. Click [HERE](#) for sketches of a new way you can mount your Baader solar filter to a PVC end cap for nice looking refractor solar filter.

Here's a overview of [the black-drop effect](#) , an optical illusion seen when Venus' shadow is near the Sun's limb.

**Reanimating the [1882 Transit of Venus](#)**

## Digital Planetarium Projector Demo

As mentioned here before, the [W. A. Gayle Planetarium](#) will be 44 years old this year. Replacement parts and qualified maintenance technicians for the Spitz "Space Transit Projector" are increasingly difficult if not impossible to find. On Thursday evening, April 26, planetarium director, **Rick Evans** had invited AAS members to attend a demonstration of the [SUPER MEDIAGLOBE-II](#) digital projector. Attending were: former AAS member and former planetarium assistant, Rick Fanning, as well as AAS members Andy Camerio, Russell Whigham, Alan Cook, and Joseph Jackson.

In making his case for upgrading the facility, Rick (Evans) began the presentation by demonstrating the limitations of the existing 1960s vintage projector before turning the program over to [Konica Minolta Planetarium Co., Ltd.](#) factory representative, Phil Groce. Phil opened with a mini-IMAX type presentation using the city-scapes and attractions of Jacksonville FL as an example, to show what an impact this could have recruiting businesses, conventions, and tourists, who may be considering coming Montgomery. This was followed by what we had really come to see, the way the Digital Full Dome Planetarium can revolutionize astronomy education for the general public. Phil took requests from our group to see how the sky would look from any place and any time in space and showed how the constellations change as we travel forward and backward in time. Or, to hop onboard the Cassini spacecraft, as it traveled to its destination, Saturn. How about an annular eclipse from Alex City on May 30, 1984, or a transit of Venus next week? It's as easy as a mouse click. Want to watch the Sun skidder around the horizon from the north pole on the summer solstice, or watch a total solar eclipse by Europa from the cloud tops of Jupiter? No problem. Let's fly into the heart of the giant globular cluster, Omega Centauri. This planetarium's capabilities are limited only by ones imagination!

The projector's hardware consists of three components. First are the two parallel desktop style computers — one that controls the projector and on the other is stored every know astronomical catalog and thousands of images. Another part is the projector itself (which unlike the present projector, yields an unobstructed view of the dome), and the third is a GUI interfaced display/control panel. The available software will open the door for myriad new public programs.

On the following Friday, Rick had invited **Montgomery Mayor, Todd Strange** and his staff, to a similar demonstration with special emphasis on selling the city, and to promote moving into the new digital age with the planetarium and its ability to sell visitors on the city. Rick reports the presentation seemed well received by the mayor who asked Rick to submit a formal proposal — which he has. The project is now in the hands of the City of Montgomery and Troy University.

Rick has been working tirelessly on this for a least a year. No one could have put more time and energy into this effort. We're keeping our fingers crossed for you, Rick, and thanks for the private showing.

## Member News

**Mack Acheson** sent these partial [solar eclipse photos](#) from his vantage point in Louisiana. Thanks Mack!

## Loaner Scope Repair

We instituted the AAS loaner scope program back in 2001. Until recently, we've only had to deal with incidental and normal use repairs. Last year, the 8-inch scope that was loaned to one of our members. I had asked Rhon to get it back for use at Astronomy Day. When Rhon went to get it, he discovered that the rocker-box had apparently been left out in the rain, destroying the particle board base and rendering the scope useless. Since then, I've updated the [Loaner Scope](#) page to include a paragraph on "responsibility for damage". I guess we're lucky this hasn't come up before. The Optical tube and accessories appear to be OK. Rhon has requested at least partial restitution from the person responsible.

Rhon has been in contact with Orion Telescopes and Binoculars to see if we could replace just the rocker-box. If you recall, we bought the scope used. Orion is telling Rhon that since we weren't the original owner's they can't help us. When we were discussing this at Astronomy Day, Alan Cook mentioned that he may be able to fabricate a rocker-box, reusing the Teflon bearings and hardware. We'll discuss our options at the June meeting.

## Fall Stargazes

Our fall schedule for public stargazes is filling up fast. At Astronomy Day we met **Priscilla Tubbs**, who asked about having us come to **Blount Elementary** school, in Montgomery where she teaches, on Thursday, October 25. I told her to go ahead and schedule us for that date.

Last week, I had a call from **Christine Biggers**, Park Ranger at the [Tuskegee Airmen National Historic Site](#). Christine is planning a series of astronomy camps for junior high school age kids this summer. She has compiled a vast amount of astronomy related material through the National Park Service and on her own, including five telescopes with which she needed a little help. Cathy and I drove over last Tuesday to help with the scope assemblies and to go over the ABCs of alignment, and observing. I mentioned the perils of summer telescope observing around here, including hazy skies, the heat, and that it doesn't get dark until 9:00PM. Christine has requested that we host a stargaze there on a date to be determined in October.

[If you haven't been there recently, you'll be in for a pleasant surprise. The Museum is having a make-over due to be completed in March, 2013. RDW]

We also need to include **Jennifer Lolley's** [Forest Preserve](#) Stargaze that was clouded out this spring.

Hoping to see everyone at the meeting,

Russell