

Astrofiles

Auburn Astronomical Society E-Newsletter June, 2014

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Events Calendar

We'll hold our **monthly meeting** on **Friday, June 06**, at **7:45pm**, in [room 215 of Davis Hall, the Aerospace Engineering Building](#), on the [main campus of Auburn University](#).

Our next dark-sky **star party** is scheduled for **June 28**, at our [new dark sky site](#). Sunset will be at 07:47pm and moonset at 10:10pm.

June 1 Waxing crescent moon passes 5.4 degrees south of Jupiter in twilight sky
June 5 First Quarter Moon
June 7 Waxing gibbous moon passes 1.5 degrees south of Mars
June 10 Waxing gibbous moon passes 1.2 degrees south of Saturn in SE twilight
June 13 Full Moon, the Honey Moon
June 19 Last Quarter Moon
June 21 Summer solstice occurs at 5:51 AM
June 24 Moon, Venus, and Pleiades cluster in fine dawn conjunction
June 27 New moon
June 28, Monthly Star Party at our [dark sky site](#)

Astronomy Day 2014

We amateur astronomers are totally dependent on the weather to practice our hobby. Not only rain, but mere clouds will shut us down. Saturday, May 10th 2014, was a perfect example of the fickle nature of Nature. **Rick Evans**, director of the [W. A. Gayle Planetarium](#), had advertised the sixteenth Astronomy Day with AAS as a "rain or shine" event. As we began to arrive at the planetarium, the weather radar was showing clouds and rain heading our way for the rest of the day and night. Reluctantly, we decided to display the telescopes in the planetarium lobby. In spite of these conditions, attendance was surprisingly good (SRO for some of the shows) due mainly to the selection of the programs showing the in the planetarium and a 70+ contingent from the Booker T. Washington Magnet School science classes.

By 5:00, there were enough patches of clear sky that **Allen Screws** moved the AAS PST solar scope up outside to catch H-alpha glimpses of the Sun for visitors to see. Joining Allen was **Selvaganesan Muthusamy** using a white-light solar filter on one

barrel of his binoculars mounted atop his equatorial reflector. **Frank Ward** moved his 12-inch reflector out for intermittent looks at the Moon. Seeing was poor and cloud breaks short lived, but Allen reported sharing a few sunspots (but no prominences) with the visitors and showed the chemical make-up of the Sun with his spectrometer.

Meanwhile, back inside the lobby, we had a number of visitors who brought their telescopes with problems for the Telescope Clinic. Some of the scopes were missing parts and at least a couple of visitors were having trouble with the go-to features. We suggested dispensing with the 3X barlows and 4mm eyepieces.

By 7:00PM, we could catch momentary views of the Moon, so **John Wingard** (3.5-inch Questar) and your editor (C-11 SCT) moved their telescopes outside in preparation for the guests who would be coming out for telescopic viewing at the conclusion of the presentations inside. By 8:00PM we viewed the Moon, Jupiter, Mars, for brief, but increasing longer periods, followed by clouds obscuring our views. Conditions gradually improved over the next couple of hours so that by 10:00PM we had amazing views of Saturn.

Because the lobby was quickly filled with telescopes, not all of them were unloaded, but we had enough to accommodate our guests. Thanks to everyone who helped with their telescopes, especially those who drove all the way from Auburn, and Columbus through torrential rain.

Rodger Morrison: 10-inch Newtonian, AAS CGEM100

Russell Whigham: Celestron C-11 SCT

Allen Screws, AAS PST solar scope

Frank Ward, 12-inch Lightbridge

John Wingard, 3.5-inch Questar

Jim McLaughlin, 8-inch Meade SCT

Alan Cook, 3.5-inch Questar

Ray Kunert, Meade LX200 GPS

Rhon Jenkins, AAS Astroscan

Selvaganesan Muthusamy, Celestron 127 EQ PowerSeeker reflector

Binil Josy

Also joining us for the day was **Eric Bair** from the [AAS Facebook Group](#).

Visitors who requested to be included on our e-mail list were: Gabi Wenzelow, Govind Menon, Pamela Hunt, Scott Burbank, Martin Triplett, Lomar Benson, Peter Howard, Ryan Burgener, and Laurie Ford.

As always, special thanks to **Rick & Deborah Evans** and planetarium assistants, **Trish Jester**, and **Dana Hartsfield** for hosting our group and providing drinks and pizza for us. Thanks to you all!

This was our agenda:

5:00PM: The "Telescope Clinic" was open for guests to bring their sick, disassembled, or otherwise malfunctioning telescopes for repair.

6:00 PM: Presenter: **Ethel Boykin:** "Montgomery Botanical Gardens". (Overview of plans for the Botanical Gardens in Oak Park), in the Planetarium auditorium.

7:00 PM: Presenter: **Rick Evans** – Planetarium Director –

- Overview of Planetarium Upgrade
- Demonstration of new show content (Planetarium Program)
- "Two Pieces of Glass" (Planetarium Program)
- "Losing the Dark" (Planetarium Program)
- Sky-Walk (Tour of the night sky)

Rick also emceed astronomy learning games for the kids and awarded prizes for the winners. Congratulations to **Alban Schachte**, 1st place winner in the Astronomy Scattergories game. He won a one year membership to the Auburn Astronomical Society and a SpaceProbe 3 EQ Reflector Telescope. **Vicki Lawson** was the second place winner of a Free Year Subscription to Astronomy Magazine. **Priya Menon** was our 3rd place winner of a MoonMap and Orion Star Target Planisphere. Congratulations to **Colin Gill**, Science teacher at the BTW Magnet School in Montgomery, and his budding BTW astronomy club, who were awarded a telescope by Rick Evans. All Prizes were donated by [Orion Telescopes and Binoculars](#). Great Job everyone!!!!

7:33 PM : Sunset

8:00 PM: Telescopic viewing with Auburn Astronomical Society: Viewed Jupiter with all four of the Galilean moons, the mountains, craters and ray structure of the 10-day-old Moon, the northern polar cap of Mars, and Saturn and its glorious rings.

Photos of the day's events by **John Wingard** and your editor are on the [2014 Astronomy Day Webpage](#) or you can view the [full screen slideshow version here](#).

Following the event, **Rick Evans** sent this note:

Colin came by and got the telescope today. We talked briefly about him forming an astronomy club at BTW, and I told him that we (the AAS and the Planetarium) would support him in any way we could to get it started and up and running.

This is what it is all about, getting people enthused and interested in astronomy, particularly the youth. I thank you and the AAS members for all you do year after year to support that goal, and accomplish that mission.

Rick

And I followed up with:

Greetings Mr. Gill,

Rick Evans, director of the W. A. Gayle Planetarium, just wrote to say that the telescope donated by Orion Telescopes and Binoculars as an Astronomy Day door prize, had been awarded to you and your budding astronomy club at BTW Magnet

School. Congratulations! And, thanks for bringing your students to Astronomy Day.

I'm not sure if BTW has a summer break, but whenever you want to try out the telescope in a dark-sky setting, we invite you and your group to join us at our observing site in Macon County. Summer skies are not typically the amateur astronomers friend. The high air temperatures hold so much moisture, that transparency is seriously degraded. That, and the mosquitoes.

I see that your name is already on our e-mail list, so just watch the newsletters to see when our new moon weekend "star parties" will be. A map and directions are under the "Star Party" link on our AAS Webpage, then "Auburn Planesman R/C Club Airfield" link. Dr. Rodger Morrison is our Observing Coordinator, so you may want to check with him to be sure the star party hasn't been canceled and that the gate will be unlocked before driving over there. In the meanwhile, if you have questions about the telescope, just let me know and I'll see if we can get you started.

Thanks for your work,

Russell

Member News

Maggie Murphy:

Good morning everyone! I was sorry to be in New Hampshire and miss the celebration of National Astronomy day visit to the W.A. Gayle Planetarium, and hope you all had a wonderful experience. I've been dreaming to make a trip to Montgomery, and wonder what you thought of the show?

I am e-mailing to see if there is a date chosen for the Society to meet in June, as I'd like to ask permission to make a proposal to the group.

Yesterday I met with Dr. Beale, a professor in Mechanical Engineering and the adviser to the senior design teams, to discuss the possibility for the telescope endeavor to be considered as a design project.

I am so ecstatic to pass on the news: Dr. Beale believes that the design and build process of a homemade telescope has potential to be a project for a group of Senior Mechanical Engineers as credit for MECH 4240 and MECH4250, (Comprehensive Design I and II)! I am very grateful for Dr. Beale to have been so willing to consider the proposal, and while it has not been approved definitely, I intend to try my hardest to make this happen.

There are requirements that a Senior Design project must meet, and I'd like to reach out to the Auburn Astronomical Society members for help in brainstorming ideas to meet them all.

- Firstly, there must be a design process; I believe this condition is the easiest to meet! There is ample design to be done, between the Foucault testing apparatus, the mount, the tube, the spider cells, the focuser, etc etc :)

- Secondly, the group will need a set of objectives or standards that will be used to measure the final product and determine a grade. Dr. Beale liked the idea of entering the finished telescope into the Mechanical Competition at the Stellafane Convention- so THANK YOU Russell so much for sharing that event with me last summer! Not only was it a blast, but I believe the existence of a mechanical-related competitive event contributed to validating this proposal. I will work on creating a list of design goals, but think the administration would like someone else to approve this set of guidelines. Which leads me to the next requirement:
- A professional! I truly believe that any member of the Society would be more than adequate to fulfill this role, so I'm curious if anyone would be willing to be recognized as the adviser to this project? I will find the exact responsibilities for the position, but don't believe it to be too time demanding. I think administration just wishes to see there is an adult to oversee the project, to discuss any questions and check in on the group's progress over time, and be able to determine whether the finished product met the design goals. It would be great to work with any member that is interested in this position, and I promise to make their job as easy as possible, and they would be included as much as they'd like!
- Finally, funding will be the last obstacle to overcome. I reach out to the Society for ideas of potential foundations or organizations, whom may be willing to sponsor this project. Dr. Beale suggested the Center for Student Organizations. I will contact them, but it seems they grant funds to clubs/organizations that belong to the University, so perhaps I should make an Astronomy club for Auburn University, in which the club attends AAS meetings? This brings me to the topic of Rhonald Jenkins' personal message: I really enjoyed reading that document and thought he made great points on each and every topic he addressed. I want to thank Dr. Jenkins for how welcome he made newcomers feel. I believe his respectful demeanor has a very positive influence on the society, and while I can't begin to know the extent of his contribution and impact to the group, I can say I appreciate how kindly he encouraged my attendance to the meetings, and considerately allowed a presentation of the mirror-making. If member turn-over is a challenge the Society wants to work on, I wonder if making an official chapter within the University could help in any way? Perhaps start our own Auburn Amateur Telescope Makers? ;)

I intend to go to the AU Physics Department and inquire about any Astronomy related organizations (I found a group called Club Europa, for space exploration enthusiasts, whom I've e-mailed to check whether or not they are active). I will also talk to the Design and Manufacturing Lab, and the car teams to see if there are companies that may have scrap metal stock available for sale or donations. I don't believe much money is needed, though hope to get an estimate soon. Finally, Dr. Beale expressed that if outside funds are not found, there may be a last resort option.

I hope this isn't too much verbiage, I just wanted to share the good news! It is truly no problem if the Society would rather not be involved in this Senior Design project, as the last thing I want is to burden anyone. I would still like to give the final product to AAS though, if it is allowed. I will keep you all informed and hope that everyone is doing very well. I look forward to speaking with you again soon, and thank you all for everything you've done so far!!

Genuinely,

Maggie Murphy

I replied:

Maggie, this is such great news! We're so happy for you. Congratulations and thanks for sharing this with us.

We'll call on the more active members and telescope builders in AAS to solicit their input. We have several AAS members who I'm sure will be happy to lend their considerable experience, expertise, as well as academic credentials to support your project.

We look forward to addressing your proposals and following your progress. [Editor's note: Rodger Morrison has already sent Maggie a few leads and suggestions. Let's all get behind Maggie on her project.]

Rodger Morrison:

I want to let you know that I was contacted by the Auburn-Opelika Marriott Grand National hotel last week. They have agreed to pay me to conduct 1-2 hour star gazing sessions for their guests during the Summer months (May through August). The pay is not much, but it is enough to make it worth my while a few times a month to drive over and back. I'll be putting together an observing program that is kid-friendly and weather-flexible this week.

Also, because I often carry my big Newtonian imaging rig (the "Cluster Buster"), as well as another wide-field rig (a fast 80mm corrected achromatic refractor), my binoculars, and a pile of gear when I go out, Vicki surprised me yesterday with a new covered utility trailer. I'll be converting the front end of it into something of an observatory control center, where I can sit inside and control my telescopes while they are working through imaging sequences. We are going to set up the back end of the trailer with a bed and such, so we can take cat naps, or even camp, when out on all-nighters. My summer project is to get this ready for the Fall astronomy season, so it looks like it is going to be a busy and fun summer.

Rodger

Harold Cole - A Voice from the Past:

Hi Russell, I see that you are still actively involved with amateur astronomy. You may not remember me....I'm Harold Cole, and I was a member and participant in AAS back in the early 80's. If you remember, I had a Meade 8 inch and was interested in astrophotography. I have fond memories of attending the monthly meetings and star parties at the observatory. I remember spending many a cold night at the observatory taking my pictures with 3M Color Slide 1000. It was pretty stressful and time consuming back then. For example. It would take me about an hour to accurately set up on the polar axis. Now, you set up your GPS computerized scope and it does all that for you. The back breaking guiding is all done automatically now.....just incredible!

Anyway, I came across your site on the net and thought I would say hello. I left Montgomery in 1989 and went to work with Boeing in Huntsville working on Space Station Life Support Systems. I spent 23 years having a very good time working on recycled water and air. I retired a little over 2 years ago and I'm really enjoying it and my Grandkids. Are you retired now? Let me hear from you about what you are doing these days.

The two other people I remember at AAS were Jim Chesnutt and Rhon Jenkins. Tell them I said hello.

I sold my scope about 15 years ago. If I decide to get back into it, the Von Braun Astronomical Society has excellent facilities and instruments here. You can get certified to use the equipment and schedule the personal use of research grade scopes. If you get up this way, stop by to see us. In thinking back, I can remember some of the most impressive astrophotos I have ever seen was some of the pictures that Jim Chesnutt took of the eclipse with his home made wooden scope and a Nikon with fast shutter. I remember they were incredible.

Harold

Well Harold -- What a good surprise to hear from you again. No re-introduction necessary. That's certainly interesting work you did. If you're ever down Auburn way, we'd love to have to share some of your work at a meeting. Do you ever get back down this way?

I had thought about you a few years ago when I was building the AAS History page. There are a few photos of us in our younger years. The astronomy club is still rocking along. I'll add you back on the e-mail list when we get home. Do you still use your 8-inch? A few of the folks you remember are still in the club. Rhon Jenkins is stepping down as prez after a nearly 30-year reign, but Jim Chesnutt hasn't been active for a long time. I'm trying to dial back a little as well to make room for the young folks.

Yes, we're both retired and haven't regretted a single day not being at work.

Thanks so much for writing. Stay in touch,

Russell

Congratulations to **Wes Schwarz** and his new bride on their recent marriage!

Web Links

Online Courses:

Coursera has numerous classes on various subjects such as [The Science of the Solar System!](#)

You may also find this **Illustris-Project** website to be of interest:
<http://www.illustris-project.org/>

John Wingard: just ran across this free online astronomy course. It might be of interest to those desiring to learn more about astronomy.

[**Bruce Betts' Online College Intro Astronomy Course 2014 | The Planetary Society**](#)

Larry Owsley:

WATCH: Huge Fireball Lights Up The Night Sky In Northern Russia - <http://huff.to/1jlfXbZ>

New 'Map' May Help Solve Galaxy Mystery - <http://huff.to/1iQxkUa>

How Often Do Solar Eclipses Occur Anyway? - <http://huff.to/1k8pL9y>

Have Physicists Found Dark Matter's Hiding Place? - <http://huff.to/1jl3zLm>

Huge Moon's 'Club Sandwich' Ocean Might Support Life - <http://huff.to/1jqup4M>

Have Scientists Found Solution To Planetary Puzzle? - <http://huff.to/1jsuGEw>

Chilly Neutrons Help Shed Light On 'Dark' Mysteries - <http://huff.to/1kI61db>

WATCH: Strange 'Hole' Spotted In Solar Atmosphere - <http://huff.to/1135Eds>

'Hypervelocity' Star May Help Solve Milky Way Mysteries - <http://huff.to/118Plf3>

Strange 'Warp' Seen In Galaxy's Outer Reaches - <http://huff.to/1lhxiU6>

Does THIS Trigger Lightning On Earth? - <http://huff.to/1k87EmD>

Fresh Doubts Raised Over Sensational 'Wave' Discovery - <http://huff.to/11EBH3q>

WATCH: Red Spot's Dramatic Size Shift Baffles Scientists - <http://huff.to/11lbI0V>

SOLVED? Massive Magnetic Star Mystery - <http://huff.to/1keqNn4>

Powerful Solar Flare Reveals Its Secrets - <http://huff.to/11PHqnh>

'They're Running Out Of Time' - <http://huff.to/1koDjAq>

LOOK: Eagle-Eyed Orbiter Spies Huge New Crater - <http://huff.to/1kC2fEs>

If some of you are interested in **buying a scope**. Here is some very good advice: <http://www.skyandtelescope.com/astronomy-news/what-to-know-before-buying-a-telescope/>

Light pollution is a big problem in enjoying the beauty of the night sky. Here is a look at some solutions:

<http://ngm.nationalgeographic.com/2008/11/light-pollution/klinkenborg-text>

We use far **more than just visible light** to explore the universe now. Here is the largest and most expensive project to date, with great potential.

<http://www.nationalgeographic.com/cosmic-dawn/>

Wes Schwarz: For those curious about what the new Sistrunk site looks like, my friend Michael Harrington took this panorama while we were out at the site last month, the moon was a little more than half full at the time and you can see it low on the horizon. Photo by Michael Harrington, panorama stitched and edited by me.

<https://www.flickr.com/photos/70374000@N08/14081929333/player/5f43e9175f>

See more of **Wes'** astroimages [here](#).

And, **Rodger's** latest images [here](#).

Phil Hosey:

Haven't posted here in a while. Here's an image from last weekend. **M51, the Whirlpool galaxy**. I've been working on automating my setup as much as possible. I recently added auto-focus.. love not having to re-focus every 30 minutes when the temp drops or when I switch filters.

<http://astrob.in/full/94433/0/>

And here's a **Rosette** from late March. It's just a straight-up all-natural RGB image, no H-alpha added. In a way these color filters reduce the affect of light pollution by not passing light of the wavelengths emitted by primary light pollution sources, (mercury vapor, high pressure sodium, etc).

<http://astrob.in/full/95506/0/>

Hope to see everyone at the meeting,

Russell