

The Focal Point

The Atlanta Astronomy Club
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Editor: Tom Faber

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November General Meeting

Please join us for the next meeting of the Atlanta Astronomy Club, to be held on Saturday, November 14th at **3PM at the Fernbank Science Center**. Since Fernbank closes at 5PM on Saturdays we will now begin our meetings at 3PM. A short beginner's program will be presented at 2PM. Our featured speaker will be Clay Turner of Georgia State University. Clay is the site manager for Georgia State's Hard Labor Creek Observatory in Hard Labor Creek State Park near Rutledge, GA. Clay's research areas are active galactic nuclei and astronomical instrumentation.

After the talk upcoming club events and programs will be announced by the club officers.

The Talk

Clay's talk will be about his experience at getting everything functioning at HLCO. This talk will cover details many will find useful when considering setting up their own personal observatories. Topics such as collimation techniques, star testing, mount alignment, periodic error correction, autoguiding, adaptive optics, telescope controllers, mirror seeing, dome seeing, cameras and calibration etc. Clay's talk will be rather informal and he wishes for many to bring questions. Clay has taught many classes and labs in physics at GSU, and he finds this is the most fun way to share information.

Speaker Bio

Clay Turner is an eternal student, who has spent a lifetime learning and applying math and physics to solve work related problems. Clay works



Photo by Clay Turner

two jobs where the day job is as a field engineer for Gogo Inc specializing in wireless interference mitigation and the night job as the site manager (observatory roustabout) for GSU's Hard Labor Creek Observatory. At HLCO, Clay is charged with maintaining all of the equipment, and he does some of his research into AGNs there. His engineering work experience spans over 35 years and his interest in Astronomy spans an even longer time! Clay best describes himself as a scientist-engineer hybrid! Clay has a BS in Math, MS in Physics, and is nearing completion of a PhD in Physics/Astronomy, all from GSU.

The Dec Meeting & Holiday Potluck

The December meeting and Holiday potluck dinner will be Saturday, December 12th starting at about 6:00PM in the Mathematics and Science Building on the Emory University campus. Details of the dinner and the talk afterwards will be announced in the December *Focal Point*.

From the President's Desk

Our peak season for public stargaze events is upon us! Please keep an eye on our calendar of events and volunteer whenever possible. You don't need to be a rocket scientist and you don't even need a telescope. Most people don't know the difference between Astronomy & Astrology. If you can just answer some very basic questions, that's more than enough to be a big help. The kids are the most enthusiastic questioners and you will get a great feeling of satisfaction knowing that you have encouraged our next generation of great Astronomers, Astronauts, Scientists, and Engineers.

Telescope Buyers Program: We will be having our annual "How to Buy a Telescope" program again this year at Fernbank. The program will be on Nov. 21st at 3:00PM. If you know of anyone considering buying a telescope as a gift for the upcoming holiday season, please send them our way.

Help wanted:

Our Astronomical League coordinator, Jamie Anderson, is moving out of the area and we need someone to take over this important function. The position involves working with the Observing Awards program. You will handle the verification of observations and submit the proper documentation to the Astronomical League. The best part is when you get to give the Awards at the Club meetings. Please contact me if interested at president@atlantaastronomy.org.

Help wanted:

We need a publicity Chairperson. Someone who can handle publicity for the club's numerous events and activities on all forms of media. We need traditional press releases going to radio, TV, and newspapers. We also need to have a strong presence on Meetup, Facebook, Twitter & various web sites. If interested please contact me at president@Atlantaastronomy.org.

Mark Banks, AAC President

The Night Sky Network (NSN)

As a member of the Atlanta Astronomy Club, you have a free membership in NASA's Night Sky Network (NSN). The Night Sky Network was started in 2004 and is a nationwide coalition of more than 400 amateur astronomy clubs that was developed and is operated for NASA by the Astronomical Society of the Pacific.

It functions to educate the public about NASA missions through local astronomy clubs by providing the clubs with information and outreach materials about NASA activities. Only members of registered astronomy clubs can become members of the NSN.

On a more practical level, the NSN provides the AAC with a website on which the AAC can maintain a club roster of members, maintain a calendar of events and send out e-mails to our members about Club activities. (In these days of anti-spam filters on most e-mail programs, this has been an invaluable resource for keeping members informed.)

When you are enrolled on the NSN you receive an e-mail from them on behalf of the AAC, with your User ID and your password. You can then go in and edit your membership information. If, for example, you do not wish to receive e-mails about upcoming events, you can check the box requesting no e-mails; or you can delete your e-mail address if you do not want ANY e-mails sent to you from the NSN.

If you do this, or make other changes (such as updating your contact information), PLEASE either forward a note to me at Treasurer@AtlantaAstronomy.org, or make a note in the "Notes on Membership" box, as I may think the change was an oversight when you were registered and not a deliberate choice on your part and I would re-enter the information.

Daniel Herron, Mark Banks and Sharon Carruthers are the AAC's NSN coordinators. If you have a problem or question, contact us for help.

Sharon Carruthers, Treasurer@AtlantaAstronomy.org

The Astronomical League

As a member of the **Atlanta Astronomy Club** you are automatically also a member of the **Astronomical League**, a nation wide affiliation of astronomy clubs. Membership in the AL provides a number of benefits for you. They include:

- * You will receive *The Reflector*, the AL's quarterly newsletter.
- * You can use the Book Service, through which you can buy astronomy-related books at a 10% discount.
- * You can participate in the Astronomical League's Observing Clubs. The Observing Clubs offer encouragement and certificates of accomplishment for demonstrating observing skills with a variety of instruments and objects. These include the Messier Club, Binocular Messier Club, the Herschel 400 Club, the Deep Sky Binocular Club, and many others.

To learn more about the Astronomical League and its benefits for you, visit <http://www.astroleague.org>

Upcoming DSO Dates and Locations

These are the dates for the next few AAC Dark Sky Observing events. All of these events are scheduled at Grier's Field at the Deerlick Astronomy Village unless noted otherwise: Nov 14 at the Charlie Elliott Observing Field, Dec 19 at DAV. The locations and dates of the DSOs may change or be cancelled due to weather - check the AAC web page for updates.

The Next Charlie Elliott Meeting

"Experience the Universe at Charlie Elliott"

Our next chapter meeting and public stargazing

The next regular meeting of the Charlie Elliott Chapter will be held on Saturday, November 14, 2015 at 3:30 pm in the Dining Hall at the very end of Elliott Trail (note room change!). We are pleased to have as our guest speaker Daniel Herron, who will present a talk about the International Space Station.

At sunset we will head over to Jon Wood Astronomy Field (33.468865, -83.735319) for a night of observing, weather permitting. All are welcome! Bring your scopes, binoculars, or just bring yourself - we enjoy sharing the night sky with our guests!

The handouts and presentations from our past meetings are available for download on our Past Events web page. Monthly sky maps are available from skymaps.com.

Upcoming meeting dates are: December 12 (our next potluck).

NEW! Astrophotography Field Workshops

Bring a camera and a tripod to Jon Wood Astronomy Field and start taking photographs of the night sky! The first astrophotography workshop kicks off on Jon Wood Astronomy Field after the November meeting. This will be the first in a series of basic AP workshops which we are planning for the coming months. Future sessions will get into scope alignment, tracking, guiding, shooting of calibration sub frames, image processing, and other topics. If you are interested in getting started in night sky, planetary, or deep sky astrophotography, this is a great place to start!

November 14, 2105, 6:30-8:30 PM: Van Macatee will host a Basic Astrophotography workshop on the field after the meeting. In this session, we will shoot a few wide field objects using nothing more than your DSLR camera and a tripod. Van will cover camera settings, focus and other techniques unique to AP. He will then lead attendees through the capturing IMAGES of a constellation, star trails and, if time allows, a star-scape.

In case of inclement weather, an introductory indoor session will be held in the Dining Hall after the chapter meeting, and the outdoor portion of the workshop will be rescheduled to the evening of December 12th.

The October Charlie Elliott Meeting

By Valorie Whalen, Charlie Elliott Chapter Recording Secretary

Photos by Valorie Whalen

The October monthly meeting for the Charlie Elliott Chapter of the Atlanta Astronomy Club was held in the Campbell Aquatic Center Building at the Charlie Elliott Wildlife Management property in Mansfield, Georgia. There were twenty members and guests in attendance.

Jack Fitzmier, Chapter Director, called the meeting to order and welcomed everyone. He began the meeting with a recap of names of members who were awarded various Astronomical League program pins for completion of programs during the "Summer Under the Stars". During the months of June, July, and August of 2015, these members were awarded pins and certificates for the following programs:

Messier: Marie Lott and David Whalen

Binocular Messier: Valorie Whalen

Hydrogen Alpha Solar Observing: Marie Lott and Valorie Whalen

Jack also presented six new awards for October as follows:

Sunspotter: Dan Thoman

Messier: Valorie Whalen

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Double Stars: Marie Lott, Valorie Whalen, David Whalen and Jack Fitzmier

Lastly, he discussed changes that are coming to the Master Observer Award Program. Currently there is only one award at the Master level, but the Astronomical League is planning to introduce several new levels to that program. There are plans to have an "Observer" level award, "Master" level, "Master Silver" level, "Master Gold" level, and a "Master Platinum" level. The details of these advanced programs are still being worked on and will be announced by the League at a later date.



Marie Lott, Program Chair, introduced our featured speaker, David Yenerall, Lecturer of Astronomy for Georgia Perimeter College. Mr. Yenerall presented a slide show of images of the construction of the Gemini Observatory in Chile. The 8.1 meter diameter telescope is situated atop Cerro Pachon in the Chilean Andes mountains. Along with its sister observatory located atop Mauna Kea in Hawaii, the twin telescopes can cover all but 2 degrees of the observable sky. Funded by a consortium from the United States, Canada, Chile, Brazil, Argentina and Australia, the telescope features state of the art adaptive optics that allow it to clearly see through the Earth's atmospheric distortions. He also gave a discussion of the different instrumentation packages that are available to the scope. There are also several outreach events at the Observatory as well.



Jack also noted the following upcoming events:

Peach State Star Gaze: October 11th through 19th

CE Meeting: November 14th at 3:30 p.m. in the Shepherd Conference Room. The Speaker will be Daniel Herron regarding The International Space Station.

CE Meeting: December 12th at 3:30 p.m. in the Campbell Aquatic Building. This will be our quarterly potluck dinner and holiday gathering.

Our Observing Supervisor, David Whalen, gave a presentation on what we can expect to see in the sky over the coming weeks. His talk, titled "All of the Above" included current weather conditions for the Jon Wood Astronomy Field, relative location of each of the planets, along with the sun and moon, and each of their respective rise and set times. He included H-alpha photos of the Sun as of 10/10/15. David gave a presentation showing the relationship of each of the planets we can currently see in the morning skies (Venus, Mars, Jupiter and Mercury), along with what those

"conjunctions" really mean in the grand scheme of our solar system. Also discussed were several deep-sky targets in the categories of "Relaxing", "Intriguing", "Taxing" and a Challenge Object. The full list of targets for the month of October is available on the website.

The weather was too poor to host an observing session on the field after the meeting.

The 2015 Peach State Star Gaze - Part 1

Photos by Tom Faber unless noted otherwise

The 22nd annual Peach State Star Gaze was held from Sunday, October 11th to Sunday, October 18th. We had pretty much clear skies the whole week and temperatures were warm in the daytime and cool at night which gave us many hours for observing and imaging. We had a number of interesting talks on Friday, and Saturday. Friday evening the Peach State treated attendees to cake and ice cream at the pavilion, and Saturday saw many of attendees win door prizes at the drawing after the talks. And Micki's Kitchen was back serving breakfasts, sandwiches, snacks, and dinners during the day and plenty of hot coffee, hot chocolate, and brownies at night to keep us observers warm and awake!

We all had a great time and look forward to seeing everyone at the 2016 PSSG! Here is part 1 of the 2015 Peach State Star Gaze photo gallery. Next month the *Focal Point* will have more photos from 2015 PSSG including speakers, door prize winners, and more.





Bootes, Corona Borealis, and Serpens set in the west over Micki's Kitchen on Sunday evening.



Photo above: Scorpius and our only evening naked eye planet, Saturn, sink toward the treeline in the evening twilight. Photo taken on Monday evening, October 12.



Photo middle right: Orion rises over my tent around 12:30AM on Oct 14.



Crescent moon sets in twilight on Wednesday evening.



Photo next page top left: During the 2015 PSSG we were treated to a display of four planets in the morning skies. This photo, taken on the morning of October 15, shows bright Venus in the constellation Leo. A little ways below Venus are Mars and Jupiter. Down near the horizon, in the gap in the trees, is Mercury.



Chuck Painter's PSSG Images

The following three images were made by Chuck Painter at the PSSG. All images were captured with the following setup:

8" Astrotek Ritchie-Chretien, Orion Starshoot Pro one shot color camera, guided with Orion short tube 80 and Orion starshoot autoguider, Atlas EQ-G mount controlled using EQMOD, Software Bisque TheSky6, PHD2 autoguiding, AstroTortilla (for plate solving), Maxim DL Essentials for image acquisition. Image was processed using Nebulosity and Pixinsight.



M31, the Great Andromeda galaxy: This is a 2 panel mosaic with each panel containing 12 X 5 minutes subs = 60 minutes of data.



Top: M77 a Seyfert galaxy in Cetus (3 1/2 hours of data). Bottom: NGC672 and, to its lower right, IC1727. This pair of interacting galaxies is in Triangulum. (3 hours of data).

Dan Llewellyn's PSSG Images

The following three images were made by Dan Llewellyn during the PSSG. All images were captured with the following setup:

Celestron C14 at f/11 (Nearly 4 meter focal length) with a Sony A7S camera. The images were processed in CCDStack, Nebulosity and Photoshop.



M1, The Crab Nebula - a stack of 4 - 30 second subs at ISO 32,000.

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M27, The Dumbbell Nebula - a stack of 4 - 30 second subs at ISO 16,000.



NGC 7293, The Helix Nebula - a stack of 5 - 30 second subs.

Be sure to check back next month for more photos from the 2015 Peach State Star Gaze including speakers, door prize winners, and more!

The **Atlanta Astronomy Club, Inc.**, one of the South's largest and oldest astronomical society, meets at **3:00 P.M.** on the **2nd Saturday of each month** at the Fernbank Science Center in Decatur, or occasionally at other locations or times. Membership fees are **\$30** for a family or single person membership. College Students membership fee is **\$15**. These fees are for a one year membership.

Magazine subscriptions to *Sky & Telescope* or *Astronomy* can be purchased through the club for a reduced rate. The fees are **\$33** for *Sky & Telescope* and **\$34** for *Astronomy*. Renewal forms will be sent to you by the magazines. Send the renewal form along with your check to the Atlanta Astronomy Club treasurer.

The Club address: Atlanta Astronomy Club, Inc., P.O. Box 76155, Atlanta, GA 30358-1155. AAC Web Page: <http://www.AtlantaAstronomy.org>. Send suggestions, comments, or ideas about the website to webmaster@AtlantaAstronomy.org. Also send information on upcoming observing events, meetings, and other events to the webmaster.

Atlanta Astronomy Club Online

While this newsletter is the official information source for the Atlanta Astronomy Club, it is only up to date the day it is posted. So if you want more up to date information, go to our club's website. The website contains pictures, directions, membership applications, events updates and other information. <http://www.atlantaastronomy.org> You can also follow the AAC on Facebook by joining the AAC group, and on Twitter at <http://twitter.com/atlastro>.

AAC Officers and Contacts

President: Mark Banks President@AtlantaAstronomy.org

Program Chair: Richard Jakiel Programs@AtlantaAstronomy.org

Observing Chair: Daniel Herron Observing@AtlantaAstronomy.org

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Treasurer: Sharon Carruthers Treasurer@AtlantaAstronomy.org

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Board: Steve Phillips sandsphillips@att.net

ALCor: Jamie Anderson, jameia@bellsouth.net

Elliott Chapter Co-Directors: Jack Fitzmier
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Elliott Observing Supervisor: David Whalen
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Elliott Recording Secretary: Valorie Whalen
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Elliott Chapter ALCor: Jack Fitzmier

Elliott Coordinator: Alesia Rast Alesia_Rast@mail.dnr.state.ga.us

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Elliott Outreach Coordinator: Position Open
outreach@ceastronomy.org

Georgia Astronomy in State Parks: Sharon Carruthers
Treasurer@AtlantaAstronomy.org

PSSG Chairman: Peter Macumber pmacumber@nightsky.org

PSSG Co-Chair: Open

Sidewalk Astronomy: Brad Isley
sidewalkastronomy@AtlantaAstronomy.org

Light Trespass: Ken Edwards, Contact info TBA

Woodruff Observ. Coordinator: Sharon Carruthers
Treasurer@AtlantaAstronomy.org

AAC Webmaster: Daniel Herron
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Calendar by Tom Faber (Times EDT/EST unless noted)

AAC Events are listed in BOLD

- Nov 2nd, Monday: Venus & Mars close conjunction.
- Nov 3rd, Tuesday: Moon Last Quarter.
- Nov 4th, Wednesday: Algol at minimum brightness 10:32PM.
- Nov 6th, Friday: Moon near Jupiter.
- Nov 7th, Saturday: Moon near Venus & Mars.
- Nov 8th, **Sunday: BoD Meeting at Sharon & Peter's House 3PM.**
- Nov 11th, Wednesday: New Moon.
- Nov 14th, Saturday: **AAC Mtg at Fernbank Science Center 3:00PM. CE Chapter Mtg 3:30PM.**
- Nov 17th, Tuesday: Leonid Meteor Shower. Mercury superior conjunction.
- Nov 19th, Thursday: Moon First Quarter.
- Nov 25th, Wednesday: Full Moon.
- Nov 27th, Friday: Algol at minimum brightness 9:04PM.
- Dec 3rd, Thursday: Moon Last Quarter.
- Dec 7th, Monday: Moon occults Venus - disappears 12:32PM, reappears 1:57PM.
- Dec 8th, Tuesday: Earliest Sunset in Atlanta: ~5:27PM EST.
- Dec 11th, Friday: New Moon.
- Dec 12th, Saturday: **AAC meeting & Holiday Potluck at Emory University Math & Science Bldg 6:00PM. CE Chapter meeting & Potluck at 3:30PM.**
- Dec 18th, Friday: Moon First Quarter.
- Dec 21st, Monday: Solstice 11:48PM.
- Dec 25th, Friday: Full Moon.
- Jan 2nd, Saturday: Moon Last Quarter. Earth at Perihelion.
- Jan 4th, Monday: Latest Sunrise in Atlanta: ~7:42 AM.
- Jan 10th, Sunday: New Moon.

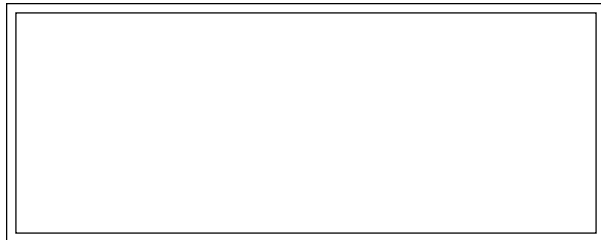
For more event listings see the calendar at www.atlantaastronomy.org

Atlanta Astronomy Club Listserv

Subscribe to the Atlanta Astronomy Club Mailing List: The name of the list is: AstroAtlanta. The address for messages is: AstroAtlanta@yahoogroups.com . To add a subscription, send a message to: AstroAtlanta-subscribe@yahoogroups.com .

Focal Point Deadline and Submission Information

Please send articles, pictures, and drawings in electronic format on anything astronomy, space, or sky related to Tom Faber at focalpoint@atlantaastronomy.org. Please send images separate from articles, not embedded in them. Articles are preferred as plain text files but Word documents or PDFs are okay. You can submit articles anytime up to the deadline. **The deadline for December is Sunday, November 22. Submissions after the deadline will go in the following issue.**



FIRST CLASS



www.beclage.com



We're here to help! Here's how to reach us:

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Newsletter of The Atlanta Astronomy Club, Inc.

FROM:

