

The Focal Point

The Atlanta Astronomy Club
Established 1947
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Editor: Tom Faber

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The 2018 Peach State Star Gaze

Mark your calendars for the 2018 Peach State Star Gaze which will be held from Sunday, September 30 to Sunday, October 7 at the Deerlick Astronomy Village! Information about the programs, speakers, and a link for on-line registration can be found at: <http://atlantaastronomy.org/pssg/> And of course there will be lots of observing under some of the darkest skies in Georgia. The new moon occurs on Monday, October 8. Micki's Kitchen is also scheduled to return with meals, sandwiches, hot coffee, hot chocolate and other drinks, and her famous brownies! See you there!

For photos from the 2017 PSSG, please turn to page 6.

The September AAC Meeting

By Ken Poshedly

SPECIAL AAC / FERNBANK SCIENCE CENTER PLANETARIUM
EVENING SET FOR SEPTEMBER 21

The Atlanta Astronomy Club's first meeting of the season will be a real treat -- especially for those who have not visited the facility for some time. On Friday, September 21, AAC members will be granted free admission to the Jim Cherry Planetarium for the 8 pm. show to be presented by both Scott Harris, FSC planetary geologist, and Mark Lancaster, FSC astronomer. (Normal admission is \$7 for adults ages 19-61, \$5 for students ages 3-18 and \$5 for senior citizens age 62 and up.)

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Mark Lancaster, astronomer, with an FSC telescope.



The AAC field at the DAV during the 2016 PSSG - Photo by Tom Faber.



Scott Harris, planetary geologist, with the planetarium's Zeiss Mark V projector.

NOTE: You MUST show the AAC membership certificate included in this issue of your Focal Point newsletter to the front desk personnel in order to gain free admission.

The Fernbank Science Center is located at 156 Heaton Park Dr. NE, Atlanta, GA 30303. (Phone: 678-874-7102).

Immediately before the planetarium program starts, we'll let all attendees know that thanks to the good folks who run the Fernbank Science Center, this is a special Atlanta Astronomy Club night at the planetarium and we welcome as many guests as possible to take advantage of some of the AAC observing activities about to be announced and even consider an AAC membership.

Next will be 15-minute tour of the night sky using the combined capabilities of the Fernbank Science Center's vintage Zeiss Mark V star projector and the facility's new Spitz system. Then will be the full-dome planetarium show about supermassive stars called "Black Holes" which will be guided by the voice of Star Trek's John de Lancie.

Following the "Black Holes" presentation, AAC members are invited to remain in the planetarium for a demonstration of the new planetarium and observatory technology and a discussion about upcoming events at the Fernbank Science Center.

Finally, and weather-permitting, all will be invited upstairs to Ralph Buice Observatory to view through the 0.9 meter (36-inch) Cassegrain reflecting telescope inside the 10 meter (30 ft.) dome. This is the largest telescope in the southeastern United States and one of the largest instruments ever dedicated to education and public viewing.

To repeat, you MUST show the AAC membership certificate included in this issue of your Focal Point newsletter to the front desk personnel in order to gain free admission to the planetarium show.

The bearer of this certificate and accompanying family members is / are members of the Atlanta Astronomy Club for the purpose of attending the September 21, 2018 Fernbank Science Center Planetarium Show.



Please print and show this AAC membership certificate to the front desk personnel in order to gain free admission to the planetarium show.



Credit: Google Maps

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.

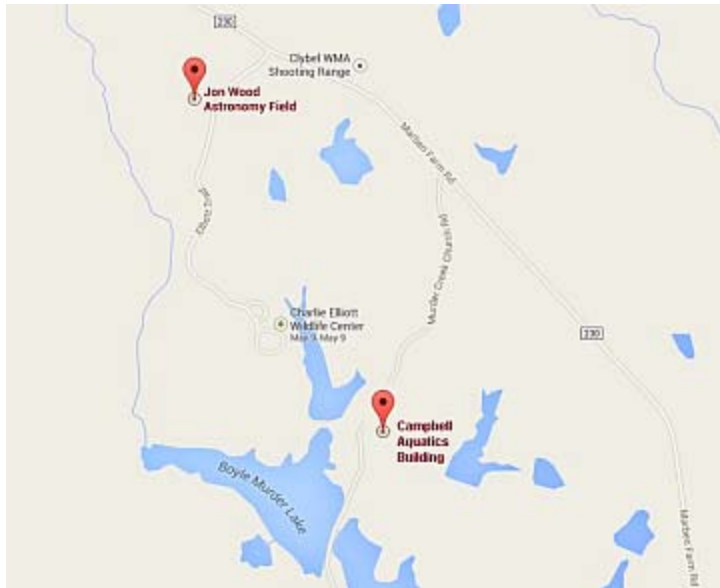
To learn more about the Astronomical League and its benefits for you, visit <http://www.astroleague.org>

The September Charlie Elliott Meeting

Meeting Details - Quarterly Potluck Dinner

The next gathering of the Charlie Elliott chapter of the AAC will be the group's quarterly potluck dinner at 6:30 p.m., Saturday, September 8, at the Campbell Aquatics Building at the Charlie Elliott Wildlife Center.

The CE Wildlife Center is located off Hwy 11, a few miles south of I-20. The Aquatics Building is located on Murder Creek Church Rd inside the CE Wildlife Center. The CE Wildlife Center phone is 770-784-3059.



Credit: Google Maps

If you've already been to any of our potlucks, you're probably looking forward to the good food (banana pudding!!) and good company these events have become known for. Potlucks are great when everyone chips in, and ours are no different. In addition to all of the good things like banana pudding, barbecue, and mac & cheese, we need help with set-up and clean-up as well. Please take a moment to sign up for something to contribute and help out. The website with a link to a sign-up sheet is at ceastronomy.org

As is the usual custom, there will be no formal program. However, Steve Sidentop, our CE Astronomy Observing Supervisor, will give a talk about what you can expect to see in the sky this month using binoculars and small telescopes, as well as the monthly observing challenge.

If you've been to any of our meetings, you know that Steve is a dynamic and engaging speaker and always delivers a lot of great information. Be sure to ask for the monthly target list and a SkyMap! Steve will be joined by Astrophotography Coordinator Mark Woolridge who will cover the imaging challenges of the month and tips on how to image them.

Observing After the Meeting

All are invited to Jon Wood Astronomy Field immediately after the meeting for observing (weather-permitting).

Tech Talks

If you have an idea for a 15-30 minute discussion or presentation that you would like to see or would like to give, contact the Charlie Elliott Program Coordinator, Kevin Snedden, at program@ceastronomy.org

Our Monthly Meetings and Public Observing Nights for 2018

Future Charlie Elliott meetings will be held on: September 8, October 6, November 10, December 8, 2018. Meetings start approximately 2 hours before sunset. Meeting rooms and start times vary, so please check back for updates or changes at: <http://ceastronomy.org/blog/home>

The May Charlie Elliott Meeting

Stephanie Dickson, Secretary, Charlie Elliott Chapter

Photos by Steve Sidentop

Meeting Minutes: 5/12/18

Pre-meeting start time: 5:30pm

Pre-meeting presenter: Theo Ramakers (Photo Below)

Pre-meeting topic: Solar objects and ISS Imaging



Attendees: Meeting - 31, Field - 35

Meeting time: 6:46pm, Meeting called to order by Mike Shaw

Outreach:

5/19-5/20 Keeping GA Wild (Jakes Day by NWTF)

5/27 Deerlick BBQ and Campout

Other news:

CJ from Roswell Astronomy Club - filming meeting for YouTube

Stephanie Dickson - Volunteers for refreshments

Ken Poshedly - ALPO update, Looking for meteor updates

Club Elections: Director : Mike Shaw, Secretary : Mike Mardis, Observing : Steve Sidentop, Astronomy League Coordinator : David Whalen, Guests : Kevin Snedden, Ken and Stephanie : Updating club web page and bringing in an app for club.

David gave his presentation on "All of the Above" at 6:54pm

Episode 36 : The Great Solar Restoration Project 2018 - Slideshow of panel restoration.

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Solar Update : Sun set 8:28pm

Lunar Update : 15th new, 29th full, June 13th new

Solar Events : Jupiter and Venus at night

Astronomical League Observing Program : Solar and Galileo, can be done by telescope or binoculars, able to complete locally

Comet C/2016 M1 (Panstarrs)

Constellation updates:

Target Lists: Relaxing = Planets, Intriguing, Taxing

Challenge - NGC 5449, 5447/50, 5461, 5462

17th Moon/Venus conjunction

6/16 Next Meeting and Pot Luck

AP Targets by Mark Woolridge: Given by David Whalen for May/June

Beginner Target List - Moon & Planets in conjunction, meteor shower, Intermediate Target - Jupiter, Advanced Target - M101 Pinwheel Galaxy

Main Presentation started at: 7:15pm, intro by Steve Sidetop

Presenter: Dan Herron - Subject: 2017 Total Eclipse Trip

Notes: Went to Wyoming; used roadtrippers.com; Average eclipse every 18 months; Last in Atlanta June 24 1778; next May 11 2078; Tips and Tricks: Prepare; Observe instead of taking photos unless prepared; book in advance.

Observed in Douglas WY; Used multiple set ups; Showed video's of scene and Moon/Sun; Used Eclipse Coordinator software about \$100

Meeting Ended: 8pm by Mike Shaw

Field conditions: Clear and warm



The June Charlie Elliott Meeting

Mike Mardis, Secretary, Charlie Elliott Chapter

Meeting Minutes: 6/16/2018 at the Charlie Elliott Campbell Building:

Pre-meeting start time: NA due to potluck dinner

Attendees: Meeting - 29, Field - NA due to weather

Meeting:

Date/Time 6/16/2018 at 1830-2200

Facilitator Mike Mardis

Meeting attendees 29 (attached)

Agenda: Potluck dinner and welcome to old and new members, Briefings, Q&A / discussion, Reflector collimation assist.

Outreach by - None reported by Dan Thoman

Awards by - None reported by David Whalen

Briefing speaker/topic:

Marie Lott "All The Above" presentation created by Steve Sidetop

Marie Lott "Astrophotography Targets" created by Mark Woolridge

Guest speaker None scheduled due to potluck

Rich Jakiel Weather report on dust storms on Mars

Ken Poshedly Association of Lunar and Planetary Association (ALPO) update

Frank Garner Touching picture of Frank holding his first great grandchild

Handouts:

Marie Lott "The Summer Solstice"

Marie Lott "What's In The Sky"

Ken Poshedly Association of Lunar and Planetary Association (ALPO) group and publication

Marie Lott Weather report from Weather Underground

Other news:

Mike Mardis Air conditioning was out. Notified CE Conference Center the following Monday.

The July Charlie Elliott Meeting

Mike Mardis, Secretary, Charlie Elliott Chapter

Meeting Minutes: Meeting Minutes 7/14/2018 at the Charlie Elliott conference room B:

Pre-meeting: None

Meeting:

Date/Time 7/14/2018 at 1830-2200

Facilitator Mike Shaw

Attendees: 24

Agenda: Announcements, Briefings, Q&A / discussion

Field participants NA due to weather

Outreach Reported by Dan Thoman - Perseus Meteor Shower star party on 8/18 at the Hard Labor Creek State Park in Rutledge GA from 9pm-1am. Outreach support requested for an estimated 400-500 attendees.

Awards Reported by David Whalen - NASA Certification for eclipse photograph by Frank Garner.

Briefing speaker/topic:

- Steve Seidentop "Perspective" presentation by Steve Seidentop.
- Mark Woolridge "Astrophotography Targets" presentation by Mark Woolridge.
- Alexandra Yep "Stellar Properties: Poetry and Astronomy" presentation by Alexandra Yep from Georgia State University.

Handouts:

- Steve Seidentop "The Evening Sky Map" handout
- Steve Seidentop "Constellation: Aquila the Eagle" handout
- Steve Seidentop "Celestial Objects" handout
- Steve Seidentop "Target List" handout

Other news:

None

Hubble Paints Picture of the Evolving Universe

NASA/STScI News Release - Aug 16, 2018

Astronomers using the ultraviolet vision of NASA's Hubble Space Telescope have captured one of the largest panoramic views of the fire and fury of star birth in the distant universe. The field features approximately 15,000 galaxies, about 12,000 of which are forming stars. Hubble's ultraviolet vision opens a new window on the evolving universe, tracking the birth of stars over the last 11 billion years back to the cosmos' busiest star-forming period, which happened about 3 billion years after the big bang.

Ultraviolet light has been the missing piece to the cosmic puzzle. Now, combined with infrared and visible-light data from Hubble and other space and ground-based telescopes, astronomers have assembled one of the most comprehensive portraits yet of the universe's evolutionary history.

The image straddles the gap between the very distant galaxies, which can only be viewed in infrared light, and closer galaxies, which can be seen across a broad spectrum. The light from distant star-forming regions in remote galaxies started out as ultraviolet. However, the expansion of the universe has shifted the light into infrared wavelengths. By comparing images of star formation in the distant and nearby universe, astronomers glean a better understanding of how nearby galaxies grew from small clumps of hot, young stars long ago.

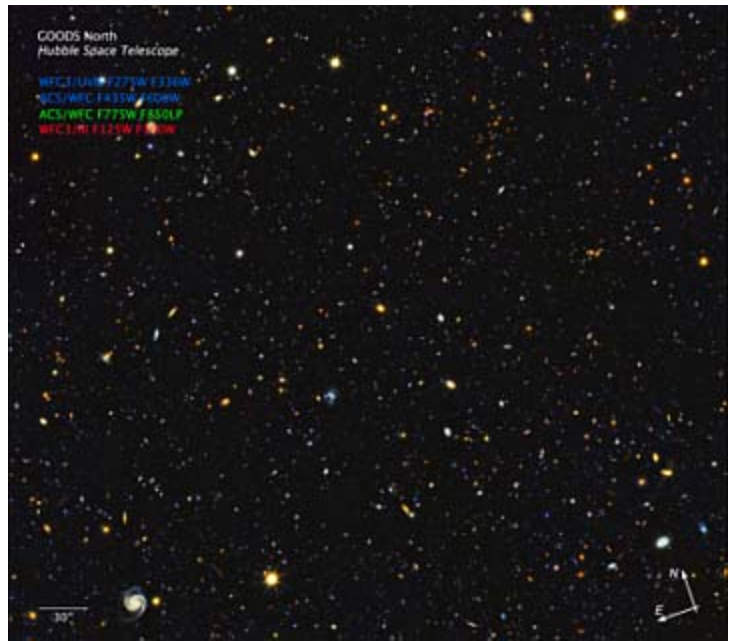
Because Earth's atmosphere filters most ultraviolet light, Hubble can provide some of the most sensitive space-based ultraviolet observations possible.

The program, called the Hubble Deep UV (HDUV) Legacy Survey, extends and builds on the previous Hubble multi-wavelength data in the CANDELS-Deep (Cosmic Assembly Near-infrared Deep Extragalactic Legacy Survey) fields within the central part of the GOODS (The Great Observatories Origins Deep Survey) fields. This mosaic is 14 times the area of the Hubble Ultra Violet Ultra Deep Field released in 2014.

This image is a portion of the GOODS-North field, which is located in the northern constellation Ursa Major.

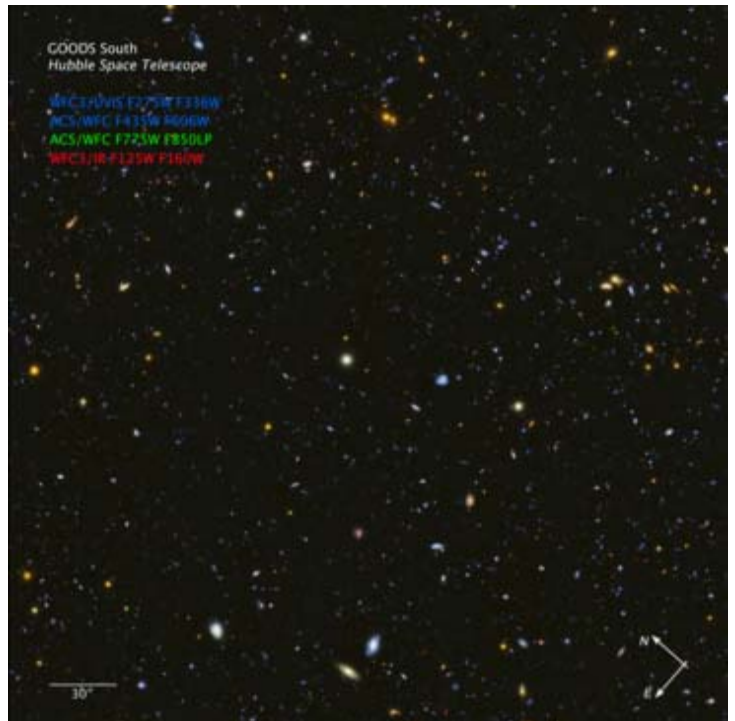
The Hubble Space Telescope is a project of international cooperation between NASA and ESA (European Space Agency). NASA's Goddard Space Flight Center in Greenbelt, Maryland, manages the telescope. The Space Telescope Science Institute (STScI) in Baltimore, Maryland, conducts Hubble science operations. STScI is operated for NASA by the Association of Universities for Research in Astronomy in Washington, D.C.

These images are a composite of separate exposures acquired by the ACS and WFC3 instruments on the Hubble Space Telescope. Several filters were used to sample narrow wavelength ranges. The color results from assigning different hues (colors) to each monochromatic (grayscale) image associated with an individual filter.



HDUV GOODS - North Field Image

NASA, ESA, P. Oesch (University of Geneva), and M. Montes (University of New South Wales)



HDUV GOODS - South Field Image

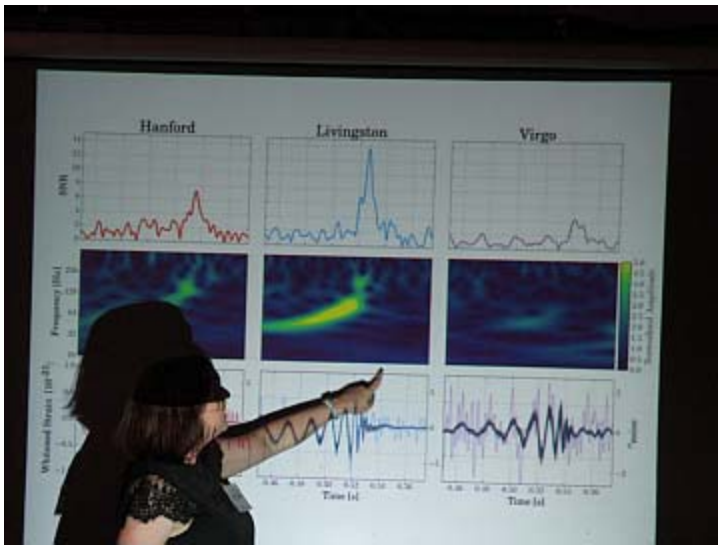
NASA, ESA, P. Oesch (University of Geneva), and M. Montes (University of New South Wales)

PSSG 2017 Photo Recap

All photos by Tom Faber



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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/atlaastro>.

AAC Officers and Contacts

- President:** Dave Lumpkin President@AtlantaAstronomy.org
- Program Chair:** Open Programs@AtlantaAstronomy.org
- Observing Chair:** Daniel Herron Observing@AtlantaAstronomy.org
- Corresponding Secretary:** Tom Faber
Focalpoint@AtlantaAstronomy.org
- Treasurer:** Sharon Carruthers Treasurer@AtlantaAstronomy.org
- Recording Secretary:** Lilli Lindbeck,
Secretary@AtlantaAstronomy.org
- Board Chair:** Sharon Carruthers Treasurer@AtlantaAstronomy.org
- Board:** Brigitte Fessele, bhfessele1@gmail.com
- Board:** Open
- Board:** Steve Phillips sandsphillips@att.net
- ALCor:** Ken Olson, keneolson@yahoo.com
- Elliott Chapter Director:** Mike Shaw director@ceastronomy.org
- Elliott Observing Chair:** Steve Sientop
observing@ceastronomy.org
- Elliott Recording Secretary:** Mike Mardis
secretary@ceastronomy.org
- Elliott Program Coordinator:** Kevin Snedden
program@ceastronomy.org
- Elliott Astrophotography Coordinator:** Mark Wolridge
- Elliott Chapter ALCor:** David Whalen
- Elliott Coordinator:** Lacy Mitchell, Lacy.Mitchell@dnr.ga.gov
- Elliott Webmaster:** Larry Owens webmaster@CEastronomy.org
- Elliott Outreach Coordinator:** Dan Thoman
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:** Open
sidewalkastronomy@AtlantaAstronomy.org
- Light Tresspass:** Ken Edwards, Contact info TBA
- Woodruff Observ. Coordinator:** Sharon Carruthers
Treasurer@AtlantaAstronomy.org
- AAC Webmaster:** Daniel Herron
Observing@AtlantaAstronomy.org

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.

Calendar by Tom Faber (Times EDT/EST unless noted)

AAC Events are listed in BOLD

- Sept 1st, Saturday: Venus near Spica evening.
- Sept 3rd, Monday: Moon Last Quarter.
- Sept 7th, Friday: Neptune at Opposition.
- Sept 8th, Saturday: **CEA Chapter Meeting.** Moon near Mercury & Regulus morning.
- Sept 9th, Sunday: New Moon.
- Sept 13th, Thursday: Moon near Jupiter.
- Sept 16th, Sunday: Moon First Quarter.
- Sept 19th, Wednesday: Moon near Mars evening.
- Sept 20th, Thursday: Mercury at Superior Conjunction.
- Sept 21st, Friday: **AAC Meeting at the Fernbank Science Center at 7:45PM.**
- Sept 22nd, Saturday: Fall Equinox at 9:54PM.
- Sept 24th, Monday: Full Moon.
- Sept 29th, Saturday: Moon near Aldebaran.
- Sept 30th, Sunday: **Peach State Star Gaze Opens at 12:00PM.**
- Oct 2nd, Tuesday: Moon Last Quarter.
- Oct 6th, Saturday: **CEA Chapter Meeting.**
- Oct 7th, Sunday: **Peach State Star Gaze Closes at 12:00PM.**
- Oct 8th, Monday: New Moon.
- Oct 16th, Tuesday: Moon First Quarter.
- Oct 19th, Friday: **AAC Meeting at the Fernbank Science Center at time TBA.**
- Oct 24th, Wednesday: Full Moon.
- Oct 31st, Wednesday: Moon Last Quarter.
- Nov 7th, Wednesday: New Moon.
- Nov 10th, Saturday: **CEA Chapter Meeting.**

For more event listings and updates 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 with images separate but Word documents or PDFs are okay. **The deadline for October is Sunday, October 7. Submissions received after the deadline will go in the following issue.**



FIRST CLASS



www.bctagg.com




The Focal Point

Newsletter of The Atlanta Astronomy Club, Inc.

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

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www.atlantaastronomy.org
 On Twitter at <http://twitter.com/atlastro>