

# The Focal Point

The Atlanta Astronomy Club  
Established 1947  
October 2017

Vol. 30 No. 2

Editor: Tom Faber

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## No October AAC General Meeting

Due to the Peach State Star Gaze being held in mid-October there will be no general meeting of the Atlanta Astronomy Club this month. General meetings will resume in November. Check the November *Focal Point* and the AAC web site for information on the date, time, and location for the November General Meeting of the AAC.

## The 2017 Peach State Star Gaze

Mark your calendars for the 2017 Peach State Star Gaze which will be held from Sunday, October 15 to Sunday, October 22 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 Thursday, October 19. 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!



Right: Some images from the 2016 PSSG - Photos by Tom Faber.



## September AAC Meeting Report

Photos by Tom Faber unless noted

The September AAC general meeting was held on Saturday, September 16th at the Atlanta Freethought Hall in Smyrna. Our guest speaker was long time AAC member Richard Jakiel (photo right; Rich is on the left at the computer). Rich presented a talk about French astronomer and comet hunter Charles Messier. His talk covered how Messier got started and his career in astronomy, the comets he discovered, and his much more famous list of “not comets”.

After Rich’s talk and Q&A session, Tom Faber presented a short report about his and Kat’s trip to Nebraska to observe and image the total solar eclipse. Tom showed some photos of the observing site in Stapleton, Nebraska, showed a few photos of the eclipse, and a short video he made of them and the surrounding area that ran through totality.

After the program, club officers then announced upcoming AAC events and activities. Then some of us went to a nearby restaurant for late dinner and more conversations.



*A screen capture from the eclipse video Tom Faber showed. This was about 70 seconds before totality began.*

# The Next Charlie Elliott Meeting

## Meeting Details

If you asked someone at one of our observing sessions on Jon Wood Astronomy Field about the Messier list, they would probably tell you it was the first list of deep sky objects they decided to use as a guide for observing or imaging. In fact, most observers will probably tell you the same thing about the list of Messier objects. What if I told you that the list we know today as the Messier Observing List isn't a list of objects to observe at all? What if I told you that it was actually a list of objects to avoid? Want to know more?

Join us on Saturday, October 14, 2017 at 5:00 p.m. at the Charlie Elliott Wildlife Center (map left of center), Conference Room B, for an engaging and informative discussion with Richard Jakiel about the life and times of Charles Messier. If you read Sky and Telescope magazine regularly, you may have read a few of Richard's articles. You may also have come across



Credit: Google Maps

a book that Richard co-authored, *Galaxies and How to Observe Them*. Richard brings a wealth of knowledge on the subject and you will almost certainly leave having learned something new!

Check here for updates: <http://ceastronomy.org/blog/home>

## All of the Above!

David Whalen, the most interesting observer in the world, who also happens to be the Observing Supervisor for Charlie Elliott Astronomy, will give a short talk about what you can expect to see in the sky this month with binoculars and small telescopes. David will also cover the Charlie Elliott Observing Challenge. Be sure to ask for the monthly target list and a SkyMap!

## Observing After the Meeting

All are invited to Jon Wood Astronomy Field immediately after the meeting (weather-permitting). As always, the event is free and everyone is welcome.

## Technical Workshops

There is currently no Technical Workshop scheduled for October. However, if you have a topic you would like to present, there's still time!

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, Steve Siedentop.

Future Charlie Elliott meetings will be held on: October 14, November 18, December 16, January 20, February 17, March 17, April 14, May 12, June 16. Meetings start approximately 2 hours before sunset.

## Georgia Regional Astronomers Meeting

All members of the Atlanta Astronomy Club are invited to the next Georgia Regional Astronomy Meeting (GRAM) to be held Friday and Saturday, October 27 and 28, at the University of Georgia in Athens. The event is free and there is no registration fee. That weekend's UGA football game with Florida will be in Jacksonville, Florida, so traffic and parking in Athens will be light.

Also participating will be members of the Assn of Lunar & Planetary Observers, who will present several papers and hold an awards dinner on Saturday evening to which all are invited.

The GRAM event will begin with an informal get-together on Friday evening at the UGA Physics Building and observing through UGA's 24-inch telescope also located there (weather permitting).

Papers on various aspects of astronomical research, education and amateur topics will be presented at the Physics Building from 9 a.m. to 5 p.m. Those with table-top poster presentations are also invited to set them up.

The ALPO awards dinner will be held at the UGA Center for Continuing Education & Hotel from 6:30 to 8:30 p.m., and feature Professor of Astronomy at UGA, Dr. Loris Magnani as the keynote speaker. While there is no registration fee for the meeting, pre-registration for the awards dinner will be required so proper arrangements can be made.

Finally, a block of rooms for reduced rates at the UGA Center is being secured for those who prefer to lodge there overnight Friday and/or Saturday.

The GRAM itself was started in 2002 by Dr. Chris DePree (Bradley Observatory at Agnes Scott College) and Dr. Magnani as a time for astronomers in and near Georgia to get together and meet one another. The GRAM is open to anyone with an interest in astronomy (amateurs, too!). The yearly meetings -- usually held in the fall -- feature both oral and poster presentations on research, education, and amateur topics. Previous GRAM events have been held at Agnes Scott College, Berry College, Emory University, UGA, Valdosta State University, Georgia Perimeter College, North Georgia College & State University (now part of the University of North Georgia), Georgia Tech, Georgia Southern University (Statesboro), Columbus State University, Tellus Museum, Georgia College & State University (Milledgeville), and Georgia State University.

For information about the GRAM event, e-mail Dr. Magnani at [loris@physast.uga.edu](mailto:loris@physast.uga.edu)

For information about the ALPO awards dinner and lodging arrangements, e-mail [ken.poshedly@alpo-astronomy.org](mailto:ken.poshedly@alpo-astronomy.org)

## The Next AAC Board Meeting

The next Board of Directors Meeting of the AAC is scheduled for Sunday, October 29th, starting at 3PM at the home of Peter and Sharon, 1057 Trestle Drive, Austell. Contact AAC President Mark Banks or Board Chair Sharon Carruthers for more information. Any member of the club who has any questions, concerns, or issues about club operations is welcome to attend the meeting and address the Board.

## The August Charlie Elliott Meeting

The August meeting was held on the 19th at 7:00PM in the Charlie Elliott Wildlife Center Conference Room B. Marie Lott presented a talk on the upcoming solar eclipse. Marie's talk covered eclipse basics, what you can expect to see from your location, and where to go if you want to experience totality. She also talked about how to safely observe the eclipse.

## From the President's Desk

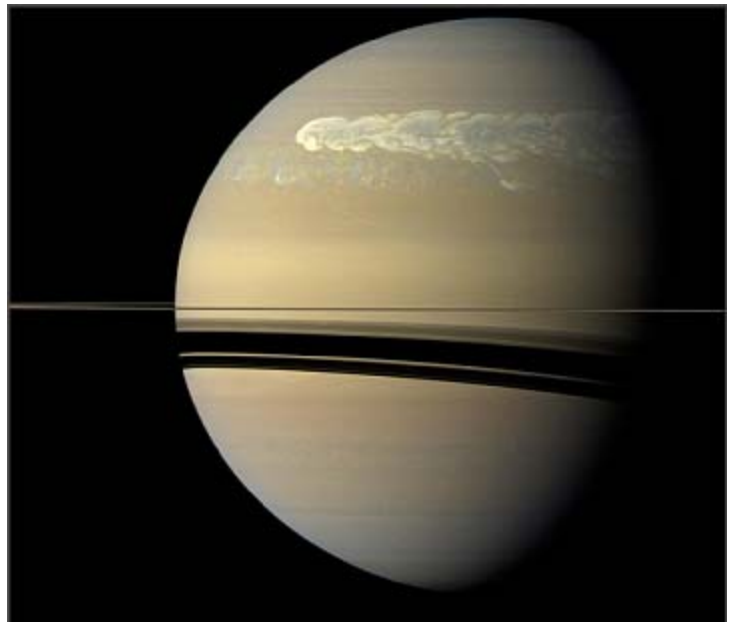
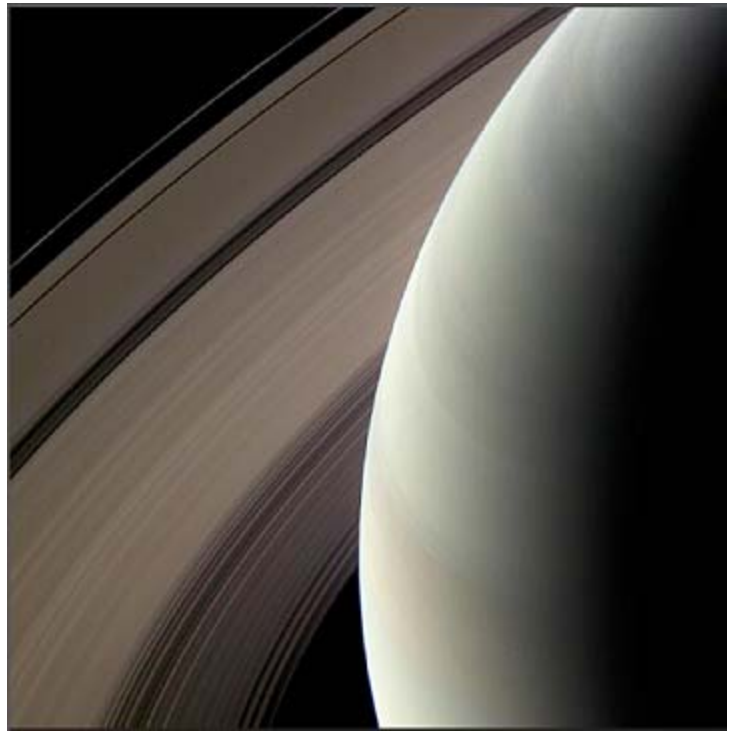
Our club needs to make some changes to better serve our membership. The manner in which we hold meetings, stay in contact with other members, and enjoy all that Astronomy has to offer needs to be updated. Our current officers have been serving the club faithfully for many years, but it's time we move on with new people and new ideas. That's where you, our members, come in. Please consider volunteering as a board member or club officer. The club is what you make it. So please contact me or any other club officer and let us know what you think. Any ideas or suggestions are welcome. - Mark Banks, AAC President

## The End of Cassini

On September 15, after nearly 20 years in space and 13 years in orbit around Saturn, the mission of the Cassini spacecraft came to an end high in the atmosphere of Saturn. The spacecraft entered the planet's atmosphere at about 76,000 mph and vaporized high in Saturn's atmosphere, a human made meteor of that distant world. Cassini was nearly out of propellant for its thrusters used to orient the spacecraft to point its instruments at targets and its antenna at Earth. Before this happened and control of the spacecraft was lost NASA wanted to safely dispose of it to prevent a possible future impact with Titan, or especially Enceladus, which Cassini's own observations showed that the little moon quite likely has a salty subsurface ocean that possibly could harbor simple forms of life. NASA wanted to preclude the remotely possibility that Earthly microbes could have survived Cassini's long journey and possibly contaminate these worlds if it ever did impact on one of them.

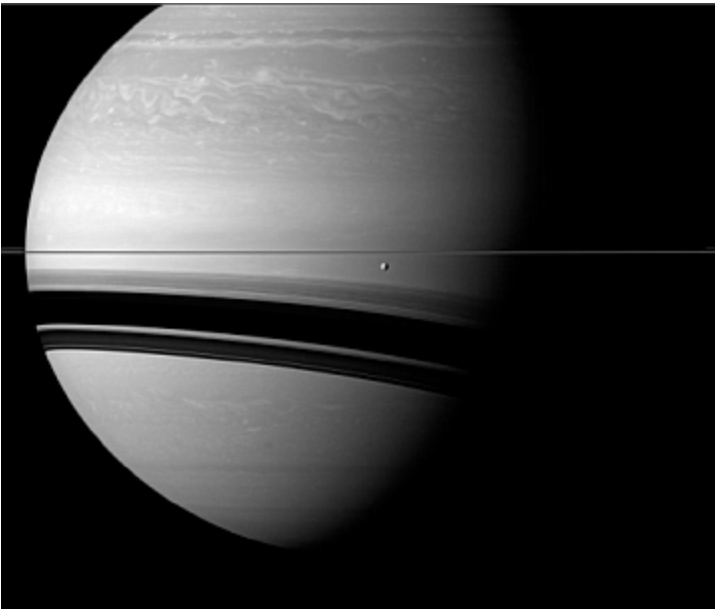
Cassini's "Grand Finale" began in April when a final close flyby of Titan dropped the low point of its orbit from outside of the rings into the gap between Saturn's innermost ring and its atmosphere. Cassini then began a series of 22 orbits taking it between the rings and the atmosphere. Occasional distant encounters with Titan altered its orbit so that it passed closer to the inner ring edge or closer to the atmosphere. During the final 5 orbits Cassini actually passed through the tenuous upper regions of Saturn's atmosphere. On September 11 a final distant pass by Titan dropped the low point of Cassini's orbit deep in atmosphere, sealing its fate.

In addition to reams of observations by its suite of instruments, Cassini's cameras returned tens of thousands of images of Saturn, its rings, and its host of moons. On the next few pages is a tiny sampling of this rich harvest of visual and scientific wonders. Image credits: NASA/JPL/SSI

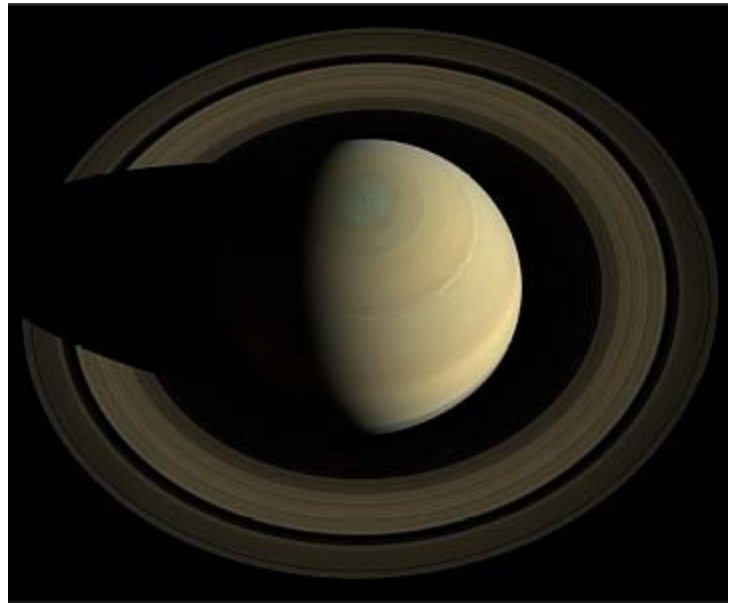


*The rings edge-on and their shadow, as a giant storm rages; February 2011.*

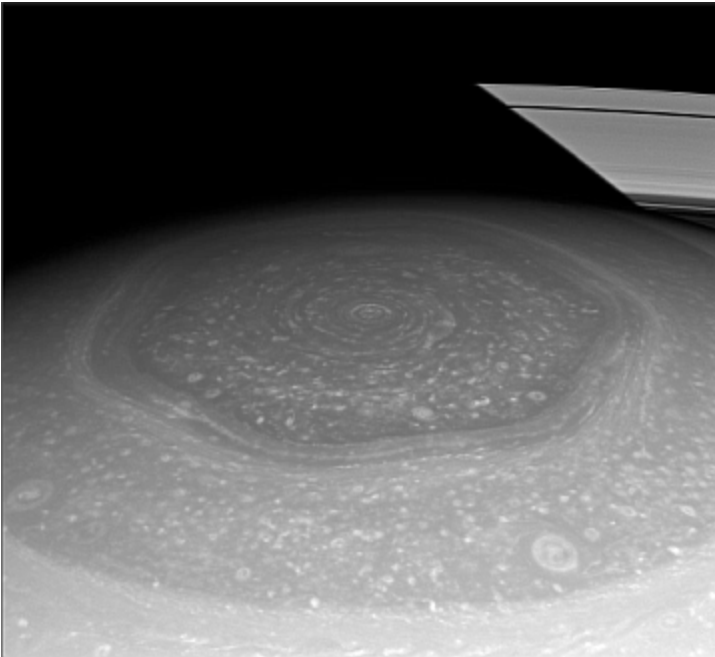




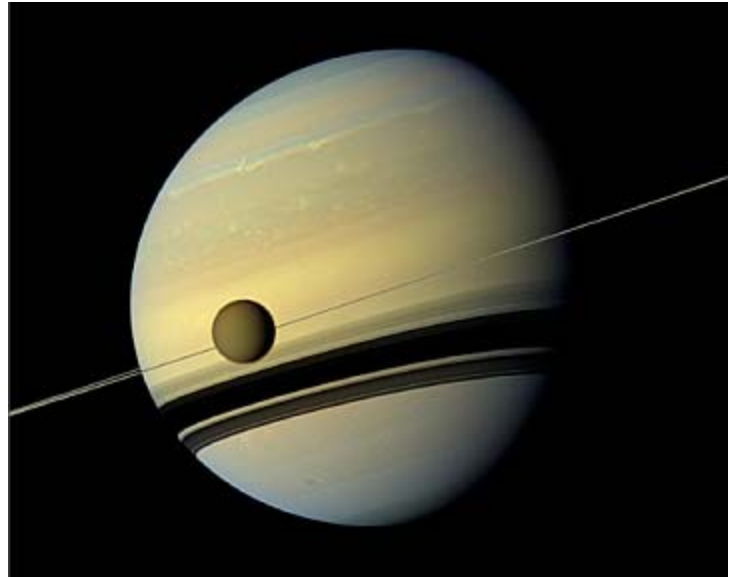
*Edge-on rings, their shadow cast on Saturn, and the moon Tethys - Dec 2011.*



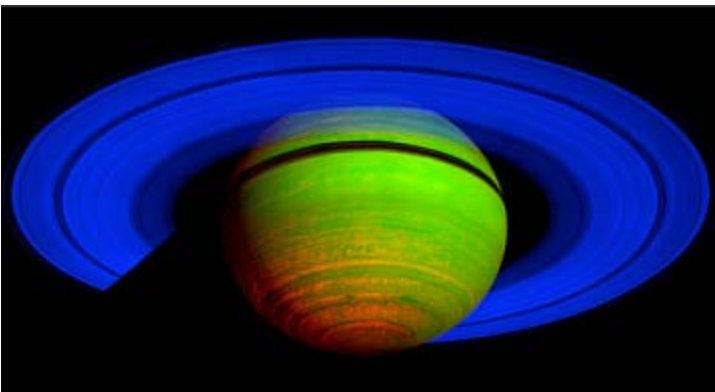
*Saturn's north pole region and shadow on the rings - October 2013.*



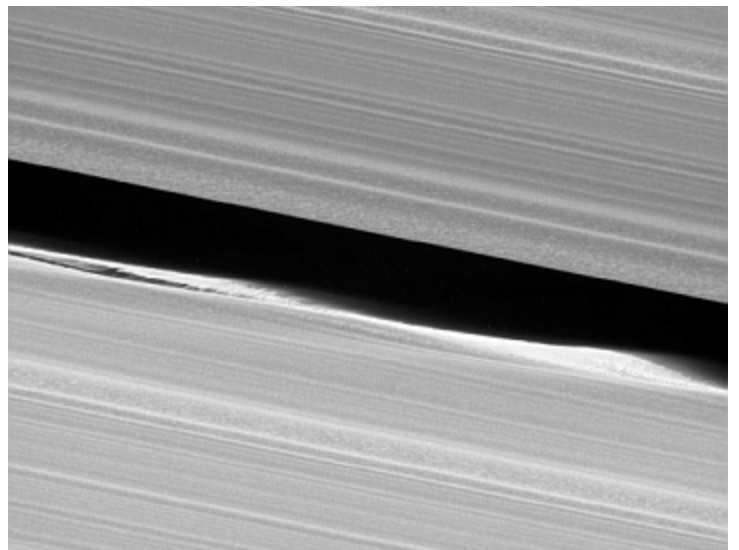
*Saturn's north polar hexagon - November 2012.*



*Edge-on rings, ring shadow, and Titan.*



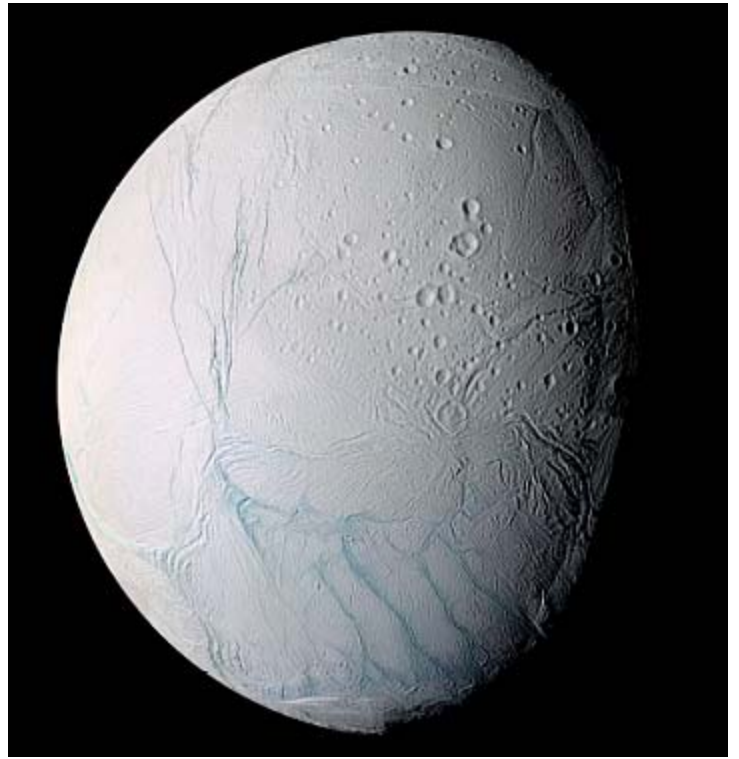
*Saturn imaged in 3 infrared wavelengths: blue - 2 microns, green - 3 microns, and red - 5 microns - November 2008.*



*The Keeler Gap with waves caused by the tiny moon Daphnis.*



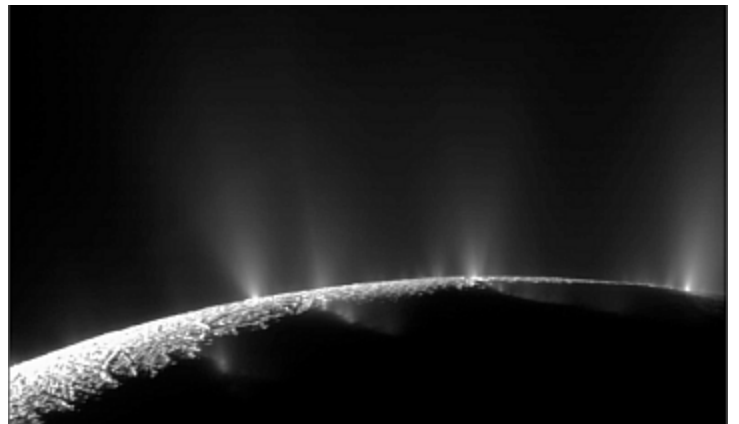
*Titan with Rhea in front - June 2011.*



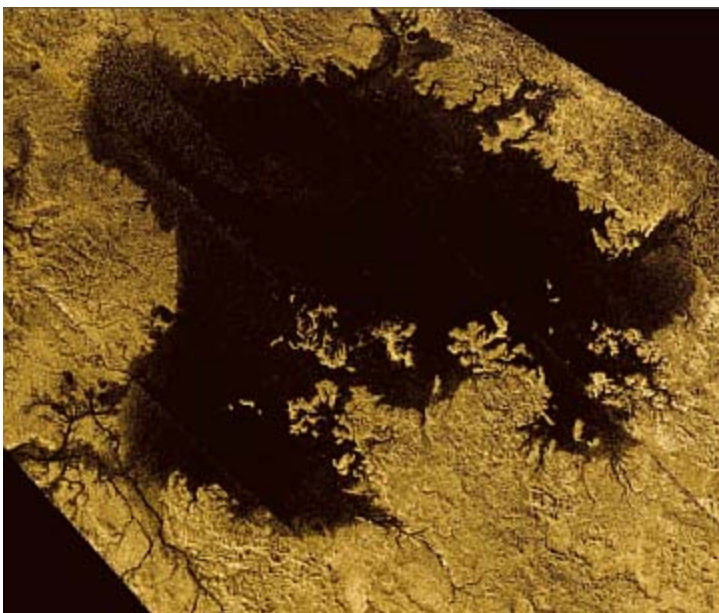
*Enceladus showing the "Tiger Stripes" area.*



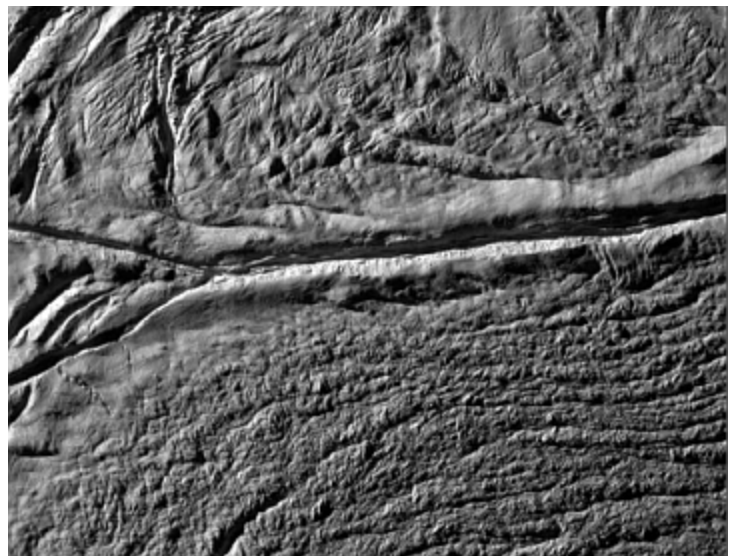
*A view through Titan's hazy atmosphere in infrared - November 2015.*



*Icy jets erupting from the Tiger Stripes - November 2010.*



*A radar image of Titan showing a hydrocarbon sea and rivers.*



*Close up of one of the Tiger Stripes - October 2008.*



The rings, Enceladus (front) and Tethys.



Closeup of Dione with the two tiny moons Epimetheus and Prometheus near the rings - December 2011.

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](mailto: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/atlaastro>.

### AAC Officers and Contacts

**President:** Mark Banks [President@AtlantaAstronomy.org](mailto:President@AtlantaAstronomy.org)

**Program Chair:** Open [Programs@AtlantaAstronomy.org](mailto:Programs@AtlantaAstronomy.org)

**Observing Chair:** Daniel Herron [Observing@AtlantaAstronomy.org](mailto:Observing@AtlantaAstronomy.org)

**Corresponding Secretary:** Tom Faber  
[Focalpoint@AtlantaAstronomy.org](mailto:Focalpoint@AtlantaAstronomy.org)

**Treasurer:** Sharon Carruthers [Treasurer@AtlantaAstronomy.org](mailto:Treasurer@AtlantaAstronomy.org)

**Recording Secretary:** Alan Coffelt,  
[Secretary@AtlantaAstronomy.org](mailto:Secretary@AtlantaAstronomy.org)

**Board Chair:** Sharon Carruthers [Treasurer@AtlantaAstronomy.org](mailto:Treasurer@AtlantaAstronomy.org)

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**Board:** David Lumpkin, Contact info TBA

**Board:** Steve Phillips [sandsphillips@att.net](mailto:sandsphillips@att.net)

**ALCor:** Ken Olson, [keneolson@yahoo.com](mailto:keneolson@yahoo.com)

**Elliott Chapter Director:** Tim Geib [director@ceastronomy.org](mailto:director@ceastronomy.org)

**Elliott Observing Supervisor:** David Whalen  
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**Elliott Recording Secretary:** Brian Tucker  
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**Elliott Chapter ALCor:** Jack Fitzmier

**Elliott Coordinator:** Lacy Mitchell, [Lacy.Mitchell@dnr.ga.gov](mailto:Lacy.Mitchell@dnr.ga.gov)

**Elliott Webmaster:** Larry Owens [webmaster@CEastronomy.org](mailto:webmaster@CEastronomy.org)

**Elliott Outreach Coordinator:** Dan Thoman  
[outreach@ceastronomy.org](mailto:outreach@ceastronomy.org)

**Georgia Astronomy in State Parks:** Sharon Carruthers  
[Treasurer@AtlantaAstronomy.org](mailto:Treasurer@AtlantaAstronomy.org)

**PSSG Chairman:** Peter Macumber [pmacumber@nightsky.org](mailto:pmacumber@nightsky.org)

**PSSG Co-Chair:** Open

**Sidewalk Astronomy:** Open  
[sidewalkastronomy@AtlantaAstronomy.org](mailto:sidewalkastronomy@AtlantaAstronomy.org)

**Light Trespass:** Ken Edwards, Contact info TBA

**Woodruff Observ. Coordinator:** Sharon Carruthers  
[Treasurer@AtlantaAstronomy.org](mailto:Treasurer@AtlantaAstronomy.org)

**AAC Webmaster:** Daniel Herron  
[Observing@AtlantaAstronomy.org](mailto:Observing@AtlantaAstronomy.org)

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

## AAC Events are listed in BOLD

- Oct 5th, Thursday: Full Moon. Venus near Mars.
- Oct 8th, Sunday: Mercury at Superior Conjunction. Draconid Meteors.
- Oct 12th, Thursday: Moon Last Quarter.
- Oct 14th, Saturday: **CEA Chapter Meeting.**
- Oct 15th, Sunday: **Peach State Star Gaze Opens at 12:00PM.** Moon occults Regulus.
- Oct 17th, Tuesday: Moon near Venus and Mars.
- Oct 19th, Thursday: New Moon. Uranus at Opposition.
- Oct 21st, Saturday: Orionids Meteor Shower.
- Oct 22nd, Sunday: **Peach State Star Gaze Closes at 12:00PM.**
- Oct 26th, Thursday: Jupiter in conjunction with Sun.
- Oct 27th, Friday: Moon First Quarter.
- Oct 29th, Sunday: **AAC BoD Meeting 3:00PM - See page 3 for details.**

## AAC November Meeting - Date, time, and location TBA.

- Nov 4th, Saturday: Full Moon.
- Nov 5th-12th: Northern & Southern Taurid Meteor Showers.
- Nov 10th, Friday: Moon Last Quarter.
- Nov 16th, Thursday: Moon near Venus and Jupiter.
- Nov 17th, Friday: Leonid Meteor shower.
- Nov 18th, Saturday: **CEA Chapter Meeting.** New Moon.
- Nov 19th, Sunday: Moon near Mercury.
- Nov 20th, Monday: Moon near Saturn.
- Nov 23th, Thursday: Mercury at Greatest Elongation East.
- Nov 26th, Sunday: Moon First Quarter.

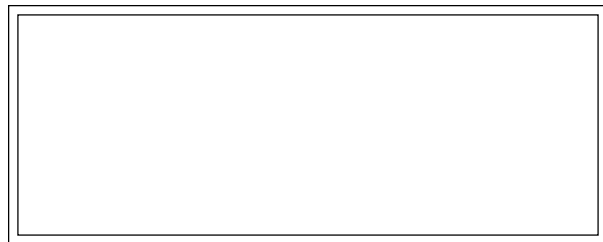
For more event listings see the calendar at [www.atlantaastronomy.org](http://www.atlantaastronomy.org)

## 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](mailto:AstroAtlanta@yahoogroups.com) . To add a subscription, send a message to: [AstroAtlanta-subscribe@yahoogroups.com](mailto: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](mailto: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 November is Saturday, October 28. Submissions received after the deadline will go in the following issue.**



FIRST CLASS



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

Newsletter of The Atlanta Astronomy Club, Inc.



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[www.atlantaastronomy.org](http://www.atlantaastronomy.org)

FROM: