

# The Focal Point

The Atlanta Astronomy Club  
Established 1947  
June 2010

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Editor: Tom Faber

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## June General Meeting

by Keith Burns, A-V Coordinator

The June meeting of the Atlanta Astronomy Club will be held on Friday June 25th, 2010 at 8PM. This month we meet at Emory University in White Hall. The room location has changed to room 101. Room 101 is located on the 1st floor across the hallway from the lower entrance doors. The lower double doors are located to the left of the upper double doors we usually go through. The entrance is located across the street from the Math and Science Building. The meeting starts out with our featured speaker. The business meeting will follow after the talk is finished. If you have any information you want to put into the pre-meeting announcement Power Point, please let me (Keith Burns) know at keith\_b@bellsouth.net.

### The Program

The meeting starts out with the monthly announcements Power-Point program that will run before the meeting. After some announcements, we will move on our featured speaker. Lorraine (Rain) Glynn is the organizer of the Space Track at Dragon\*Con. Dragon\*Con is a yearly science fiction and fantasy convention held on Labor Day weekend. It takes place in downtown Atlanta at several hotels. See the Dragon\*Con website for more information at <http://www.dragoncon.org>. This year the dates are Friday Sept 3rd to Monday Sept 6th. The AAC participated in last year's Dragon\*Con by setting up telescopes and astronomy displays and is planning to do so again this year. The title of Rain's talk is: "Unsuspected Geek: Evolution of a Space Track Director." Lorraine (Rain) Glynn had her life changed in 2003. Before that year she had never even been to a convention of any type. The words geek or space freak were not terms that she would ever associate with herself. Then she met this guy and a couple of months later found herself helping to put together a hacker convention. By August, she had agreed to be Assistant Director for the Space and Science track for some strange group called Dragon\*Con! Her life would never be the same.

## Our Speaker

Rain is the daughter of a USAF Master Sergeant and had attended 10 different schools by 8th grade. She has always loved to read and although she didn't realize it until much later in life, read her first sci-fi book ("A Wrinkle in Time") in 2nd grade. She attended high school in Connecticut and graduated with a B.S. in Psychology from Florida State University. Although always finding science interesting (she went through a dinosaur craze in 6th grade) and cosmology awe inspiring, Rain never gave thought to a career in the sciences. Besides having dreamed of Broadway musical theater, three failed attempts at passing physics may have had an influence as well.

She is a paralegal by training but has also done long stints behind the scenes in non-fiction documentaries and sports broadcasting, media

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## The Peach State Star Gaze!

The next Peach State Star Gaze is fast approaching! The AAC's annual star party will again be held at the Deerlick Astronomy Village near Sharon, GA. This year the PSSG will run from Sunday, October 3 to Sunday, October 10 (new moon is October 7). Details about this event will appear in upcoming issues of the *Focal Point* and will also be posted on the AAC web site at <http://www.atlantaastronomy.org/PSSG>. So mark your calendar for the week of Oct 3-10 and get ready for some great star gazing under some of the darkest skies in Georgia!

## Greetings from the President's Desk

I am looking forward to leading the AAC for the next year. The science of astronomy and the club have changed dramatically since 1947, when the club was founded. For the club to continue to prosper we need to continue to change. For that reason I have set some goals to work on for the upcoming year.

- \* More public recognition and publicity. This can be done via radio, TV, the web, print and other media.
- \* School & college outreach programs. We can assist existing campus Science/Astronomy clubs or help establish new clubs. We may also be able to help the students with projects as advisors/mentors or volunteers to assist the teachers as judges for the science fair entries.
- \* The above mentioned goals should boost membership. That will give us more resources to work with for the continuing expansion and improvement of the club.

If anyone has any ideas or suggestions please contact any of the club's officers or board members and let's all make a contribution for the benefit of the club.

Mark Banks, AAC President

relations for pro soccer, forensic accounting, and even corporate taxation. In 2003 Rain became friends with a group of computer geeks and suddenly found kindred spirits with whom she could discuss all her favorite sci-fi/fantasy books, TV and movies. Even better, people who were willing to talk about all the space and science she had secretly been enamored with for many years. It was during this time that she realized she might be a closet geek. Since becoming involved with Dragon\*Con she has allowed herself the freedom to be completely herself - geekdom and all.

## Parking News Update at Emory University

Starting in July the parking deck behind the admissions building will be open again for parking. So those of you who have been walking from either the Peavine or Fishburne parking decks will not have to do that anymore. Plus they are opening a new Barnes and Noble and other shops on the top floor. So there will be a few things to do while waiting for the meeting to start. This new facility and parking area is located next to the Math and Science Building and directly behind the Admissions building. Math and Science is across the street from our usual meeting place at Whitehall. For the June meeting we will have to continue to park in the Fishburne or Peavine Parking decks.

## Upcoming AAC Meetings:

### July Tellus Meeting:

Our July meeting will take place on **Saturday, July 24th at Tellus Northwest Georgia Science Museum** in Cartersville. This will be AAC membership day. The meeting will be held in the afternoon starting at 2PM and run to 4PM. This was a popular meeting last year, so we decided to try it again to encourage more folks to come. Club member Stephen Ramsden will be giving a talk on, "The Sun." We will do some observing of the sun afterward outside. The plan is to head over to the I-Hop afterward for a bit of dinner.

### Future Meeting Dates:

Future meeting dates for 2010 are Aug 20th, Sept 17th, Oct 22nd, Nov 19th, and Dec 11th (Saturday). Meetings held in Room 207 unless noted.

## May General Meeting Minutes

by Julie Moore, AAC Recording Secretary; Photos by Tom Faber

The May meeting of the Atlanta Astronomy Club convened on Friday, May 21, 2010 at 8:00 PM at the Howey Physics Building on the Georgia Tech campus, with approximately 30 members and visitors present.



Members and guests enjoy snacks provided by Sharon Carruthers prior to the meeting start.

President Keith Burns presided. Main business item for the evening was the election of a new slate of officers, which passed unanimously. They are:

President: Mark Banks, VP Observing: Daniel Herron, VP Program: Rich Jakiel, Recording Secretary: Julie Moore, Corresponding Secretary: Tom Faber, Board Members: Theo Ramakers, Jim Moore. Since there were no other nominations from the floor, the members present voted to accept the slate as presented.



Outgoing Board Chair Don Hall (right) conducts the election of officers and board members as President Keith Burns looks on.

## Upcoming events are scheduled as follows:

Deep Sky, June 12 at Mentone, AL. June AAC General Meeting, June 25, Emory Whitehall, room 101, Lorraine Glynn who runs the Science Trak at Dragon\*Con will speak. July AAC General Meeting, July 24, 2-4 PM at Tellus Museum, Stephen Ramsden will speak on Solar Astronomy. August General Meeting, Aug 20, Emory Whitehall, room 204, Speaker TBA. PSSG Oct 3-10, Deerlick Astronomy Village. Woodruff Scout Camp needs Volunteers June 10-29, Every Thursday 9:30-11:30 PM Contact Sharon @770-941-4640 or treasurer@atlantaastronomy.org to help. Charlie Elliott Chapter Meeting is June 12, 5:00-7:00PM. Dr. Richard Schmude is speaking. GASP Events: June 12-Tugaloo State Park; Aug 14- Moon Lake County Library, Mentone, AL.



Dr. Sowell begins his talk about the astronomy program at Ga Tech.

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*The observatory on the roof of the Physics Building, with the 16-inch Meade. The scope was aimed at Saturn here. The ghostly silhouettes in the center are former President Keith Burns and Kat Sarbell.*

Outgoing President Keith Burns delivered a “farewell and thanks” speech expressing his appreciation to all those who worked so hard to make the club a success. Thanks, Keith, for all your hard work and dedication. You’ve been a great president!

The speakers for the evening were Dr. James Sowell of GT School of Physics, and grad student Nicole Cabrera. Dr. Sowell gave us a talk about the astronomy program at GA Tech, then Dr. Sowell introduced Nicole, who shared with us her travels and work on some great telescopes. Dr. Sowell then took us to the roof of the physics building to show us the observatory and to view the moon and Saturn through the 16-inch Meade telescope! Great job, Jim and Nicole!

## May CE Chapter Minutes

By Ken Poshedly, CE Recording Secretary

Photos by Theo Ramakers

The May meeting was held on May 15 at the Charlie Elliott Wildlife Visitor Center and called to order at 5:15 p.m. by CE Chapter Director Theo Ramakers. The final meeting attendance was approximately 24 members and guests. After welcoming remarks by Theo, the NASA movie “Journey to the Stars” was screened.

Next was a demonstration by member Frank Garner on his own method of polar aligning a non-GOTO equatorial telescope mount. Basically, one uses a bubble level to set the mount perfectly horizontal, then a compass to set the mount azimuth for magnetic north (add +4 degrees east to compensate for the westerly error of magnetic north from true north), and finally a protractor to set the polar shaft altitude to 33.5 degrees (our local latitude). Frank’s own mount with these devices made the demonstration much easier to understand.

Theo followed with the May version of “Current Events in Astronomy & Space Exploration.” Highlighted were the various school outreach observing events CE astronomy members held over the past month (photos right). Theo reminded all that while NASA maintains a number of unmanned probes throughout the solar system, they cannot replace the dedicated amateurs here on Earth; after all, it was Australian amateur Anthony Wesley who was the first to capture images showing that a massive comet or asteroid had collided with the planet Jupiter in July 2009. The resulting “smear” on the Jovian clouds has become known as the “birdstrike” on Jupiter.

Discussion of the election of new officers followed. All three positions are open with all three current officers wishing to pass on reelection. After much discussion, member Steve Phillips agreed to accept the position of Observing Director, and member Eric Bozeman agreed to serve as his assistant. Theo has already arranged for speakers for the June and July meetings, but still hopes for a new chapter director. The final vote was to accept the observing director candidates, but hold off until next month on filling the chapter director and recording secretary slots.

Afterwards, Steve Biegers offered up another of his very well-thought-out “Observing 101” segments. In this episode, the featured object of the month is Saturn. Included are a target list of Saturn’s moons and a segment called “Observing Tools and Techniques” in which Steve includes a list of various eyepiece filters used to enhance the appearance of various Saturn features including the clouds and belts of the globe as well as the Cassini Division of the ring system.

Steve also promotes Sky View Café ([www.skyviewcafe.com](http://www.skyviewcafe.com)); from the online write-up: “Sky View Café is a Java applet that lets you use your web browser to see many types of astronomical information, in both graphical and numerical form. You can see which stars and planets will be out tonight in the sky above your home town, see how the next solar or lunar eclipse will look from Los Angeles, or find out when the Moon rose over Sydney on your birthday ten years ago. Sky View Café includes star charts, a 3-D orrery, displays of the moons of Jupiter and Saturn, an astronomical event calendar, an ephemeris generator, and many other features. Best of all, Sky View Café is free, and there’s nothing you have to install to use the on-line web version. All you need is a compatible Java-enabled web browser, and you’re ready to go.”



## Next CE Chapter Meeting

by Ken Poshedly, CE Recording Secretary

The next meeting will be on June 12 and begin at 5:00PM. It will include a talk by Dr. Richard Schmude, professor of science and astronomy at Gordon College in Barnesville and CE astronomy chapter member, about the July 2009 "Birdstrike on Jupiter". Dr. Schmude is also the executive director of the Association of Lunar & Planetary Observers (ALPO) as well as the coordinator of the association's Jupiter Observing Section. The June 12 meeting will also be the next in our series of quarterly potluck dinners, so please arrive hungry. Future meeting dates are Jul 10, Aug 7, Sept 11, Oct 2, Nov 6, and Dec 4.

## Woodruff BSC Volunteers Needed

By Sharon Carruthers, AAC Treasurer

SUMMERTIME!! The time for Beaches, B-B-Ques and BoyScouts! The Summer Scout Camping season is fast upon us. This is our best opportunity to bring the wonders of the sky to eager and enthusiastic youngsters. We are looking for at least one volunteer a week to go up to Woodruff Boyscout Camp and set one or more scopes to give the scouts an opportunity to use the scopes and view the night sky to earn their Astronomy Badge. You can bring and use your own telescope or use the scopes that we have in the warm-up shed – a 10" Discovery Dob and I have a 6" Dob that I will leave in the shed (The Club's 24" is now permanently at the DAV).

Our on-field viewing with the scopes will be on Thursday nights. The scouts usually come down to the field as it gets dark (from 9:30 – 10 p.m.) and stay for an hour or two. We need volunteers to commit to go up on Thursdays, June 10, 17, 24, and July 1, 8, 15, 22, and 29. Please phone (770-941-4640) or e-mail (Treasurer@AtlantaAstronomy.org) me if you can commit to one or more evenings.

## Georgia Astronomy in State Parks

by Keith Burns, AAC President & GASP coordinator

One of the main things we do in the Atlanta Astronomy Club is provide sidewalk astronomy events for the public. As an offshoot of sidewalk astronomy, a group of us formed GASP. GASP or Georgia Astronomy in State Parks goes out to select state parks, and we do an astronomy talk with viewing through telescopes following the talk. In case of rain, we set up the telescopes inside and show them to the attendees. The events are always scheduled on a Saturday night. Currently we are doing four of these events per year.

Any Atlanta Astronomy Club member is welcome to join us and help out at one of these events. You don't need a telescope - just being able to answer questions is a big help when dealing with the public. For more information on the group, please email me at keith\_b@bellsouth.net.

There are two events remaining for this year.

August 14th, at Moon Lake Community Library in Mentone, Alabama. This is a special event to help out the Late Roger Dowiat family support the Library and promote astronomy in the community. Roger was an avid supporter of the club and provided us with a field for some of our DSO events. We will be camping at Desoto Falls State Park Located about 10 minutes from the library. Start time is 8:30PM Eastern Time or 7:30 PM Central Time.

November 13th, at Red Top Mountain State Park on Lake Allatoona near Cartersville, Georgia. This event is close to Atlanta for any club member to attend. Only 45 minutes north of downtown Atlanta. This event usually draws a large crowd of people. Start time is 7PM.

We are always looking for new state parks to explore and perhaps do an event at. So if you have any ideas, please let Keith know. Hope to see you at the next event, "out in the wilds and under the stars."

## AAC Board Meeting Minutes

Julie Moore, AAC Recording Secretary

The meeting was held on January 31, 2010 at the Science and Math Building at Emory University.

President Keith Burns opened the meeting at 4:10 PM. The 2010 Schedule was presented. The minutes of the previous board meeting were accepted as presented.

### Charlie Elliott report:

A moment of silence was observed for Jon Wood. The Observing Chair was replaced by Steve Beiger.

### Next the Budget was discussed:

Sharon moved that \$1000 be set aside for site improvements for the CE chapter at CEWM. It was seconded and approved. Sharon also moved that \$1000 be budgeted to replace the club projector. It was seconded and approved. There were no committee reports.

### Old Business:

New insurance may include \$2500 property damage. Rusty Keeny will review the policy. Property taxes were up at both properties. Sharon will ask for a reduction due to our 501c3 status.

### New Business:

A committee was formed to inventory AAC's assets including all observing equipment. It will be headed by Rich Jakiel and will also include Dan Herron and Keith Burns. Rich moved to approve the budget with the 2 above amendments. It was seconded and passed.

Next board meeting was scheduled for April 18 at 4:00 PM at Emory.

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## Astronomy Day Prize Awarded

Club members Jim and Julie Moore were at the Tellus Northwest Georgia Science Museum on May 13 as fellow club members Alex and Nelda Langoussis were present to pick up Nelda's Astronomy Prize. In this photo by Jim Moore Nelda is being awarded her prize by Tellus Astronomer David Dundee in the main hall of the museum.



# Measuring the Cosmos

By Sharon Carruthers, AAC Treasurer

A multipart series that will relate astronomers' attempts to measure the size of the Universe. There are 26 methodologies used to calculate the distance to stars and the size of the Universe. Each one has its limitations and different ones either extend or reconfirm the others. For example, stellar parallax fails when the distance is too great or no individual stars can be observed, so other methods are used to measure further distances.

In this series I will talk about four primary techniques: stellar parallax, Cepheid variable stars, luminosity of both stars and galaxies, and red shift.

## Part 1: The Problem and Parallax

### The Problem:

One of the most important questions of astronomy for over 2000 years has been the question of how far away are the stars and how big is the Universe. For astronomers since the time of the Greeks, this was not merely a curiosity about size, but the heart of the question of whether the Earth or the Sun was at the center of the Universe.

Ptolemy (Claudius Ptolemaeus; c. AD 90 - c. 168) was a Roman citizen who lived in Egypt. In his major astronomical work, the *Almagest* or "The Great Treatise", he wrote that the Earth was fixed at the center of the Universe, which rotated around it every 24 hours. The Universe was the size of the Solar System, with the stars in a sphere as its outside limit. This seemed obvious - the Earth seems to stand still; the sky appears to move around it. If the Earth rotated on its axis and orbited the Sun, it would be moving so fast that everything would be swept from its surface and the stars would be so far away that the Universe would be an immense region of "wasted space".

Nicolaus Copernicus (Poland, February 1473 - May 1543) theorized in *De Revolutionibus Orbium Coelestium* (On the Revolutions of the Celestial Spheres) that the Earth and other planets orbited the Sun, which was at the center of the Solar System. The rotation of the Earth on its axis caused the daily movement of the sky; and its orbit around the Sun caused the seasonal change in the constellations. Thus meant that the Solar System must be very big, the stars very far away and the Universe unimaginably large.

The evidence of our senses was on the side of Ptolemy; but the best evidence for his geocentric model and against Copernicus' heliocentric model for over 2000 years was that the stars had no observable parallax.

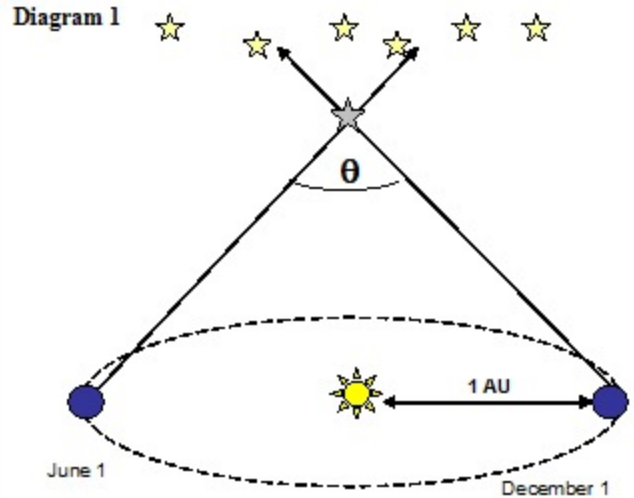
### Parallax

Parallax is the apparent shift in an objects position against a fixed background. If you are driving by a field with a telephone pole at its edge and a barn off in the distance, the position of the pole will change relative to the barn as you drive by. As you approach the field, the pole will appear to be at the barns left end; as you pass in front of the pole, it will appear to be in front of the barn; as you drive past and look back, the pole will now appear to be on the right end of the barn. The closer the pole to you, the more parallax will be apparent. Conversely, the farther away the object, the less parallax will be evident.

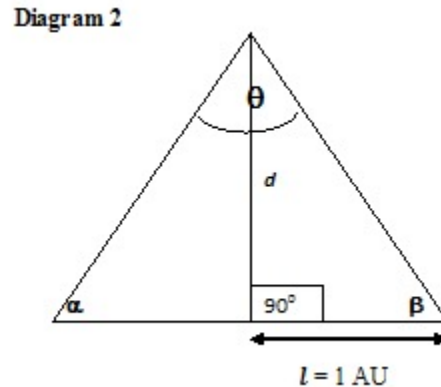
This has been the problem that has plagued astronomers for centuries - because the stars are so far away, the parallax shift is too small in most of them to be observed by the naked eye. It wasn't until 1839, some 230 years after Galileo made his first telescope in 1609, that stellar parallax was first observed in 61 Cygni (a tiny 0.314 of an arcsecond making it 3 parsecs or 9.8 light years away).

Parallax gives astronomers two tools - the knowledge that the observer is actually moving; and the ability to measure the distance from the observer to the object through triangulation. Triangulation is the process of determining the location of a point by measuring angles to it from known

points at either end of a fixed baseline of known length. In astronomy, the fixed baseline is the Earth's distance from the Sun (the Astronomical Unit: AU). To get the greatest parallax, the two most extreme points in its orbit are used to calculate the baseline - one half of a the orbit, which is six months apart from each other.



**Diagram 1** demonstrates the anticipated results if the Earth was orbiting the Sun. The angle of parallax shift is determined by taking two observations of a close stars against the background stars.



**Diagram 2** shows how the Law of Sines (yes, there was a reason you learned Euclidean geometry in high school) can be used to calculate the distance (d) to the star in terms of AU's:

$$d = \frac{l \cdot \sin \alpha \cdot \sin \beta}{\sin(\alpha + \beta)}$$

**Next Month:** Struve, Bessel and Henderson in a neck-and-neck race to be the first person to measure stellar parallax.

## 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> You may also contact the AAC's Astronomical League Correspondent Art Zorka for more information about the AL's Observing Clubs. Contact Art at [artzorka@yahoo.com](mailto:artzorka@yahoo.com) or by phone at 404-633-8822.

## Astronomical League Elections

By Art Zorka, AAC ALCOR

The election of President and Vice-President of the Astronomical League is upon us. Running for President is Carroll Iorg, and for VP the candidate is John Goss. If you access the league's web site, these names should mean something to you. Write-ins are allowed, so if you would like to vote for someone else, let me know. Below are the submitted biographies. Send your vote to me (Art Zorka) at [star.myth@juno.com](mailto:star.myth@juno.com)

### Candidate For President - Carroll Iorg:

I am a candidate for Astronomical League president. I have served as vice president of the Astronomical League since 2006. I've been active in my local club, the Astronomical Society of Kansas City, for over 20 years, having served as president and currently as a member of the board of directors. Presently, I am a key holder at the club's Powell Observatory. In addition, I am Public Relations Chair for the club. I have coordinated the National Young Astronomer Award, the Horkheimer Service Award, and the Mabel Sterns Newsletter Award programs for the past nine years, first as League awards coordinator, then for the past four years as Vice President. I chaired two successful national conventions, ALCon 1994 and ALConExpo 2005, in addition to chairing several MidStates Regional conventions. I am president of my church's board of directors and am a former president of the Wand Parkway Homes Association in Kansas City. I earned a B.S. in Business from Missouri State University and an M.A. from the University of Missouri-Kansas City. I am married with two adult daughters. I hope to build on the fine leadership displayed by our current president, Terry Mann.

My main goals are to:

1. Improve the League support of, and communication with our members, clubs and regions.
2. Introduce new programs and services that increase the value of a League membership.
3. Forge more ties with other national organizations to work on common goals.
4. Strengthen our outreach to youth and increase their involvement in amateur astronomy.
5. Publicize more fully our presence as the premier national organization of amateur astronomy in the country.
6. Increase collaborations with astronomers in other countries.

I look forward to the opportunity to serve as the League's president and help make it a better organization.

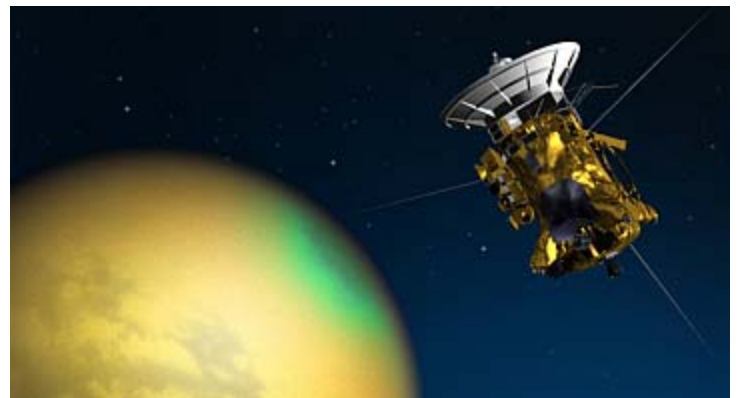
### Biography of John Jardine Goss - Candidate for Vice President

We live in a time of change. Just consider these major developments in amateur astronomy that we are witnessing right now: the continuing Dobsonian revolution giving more amateurs access to larger aperture instruments, the coming of age of computer guided scopes, and red cameras bringing more celestial objects to more people, and the blossoming of the internet providing just about anything astronomy-related to just about any one [sic].

The League has changed, too, and it will continue to do so as it promotes amateur astronomy. Yes, it will continue to confront the scourge of light pollution. Yes, it will continue to address declining youth membership. Yes, it will continue to make your time spent under the stars more enjoyable. More importantly, though, it continue to change so that it better meets new developments in amateur astronomy.

To do all this and more, the League has an unceasing need for people who have the talent, time, and desire to do the tasks that need to be done. Volunteerism, after all, is what made the League what it is today.

Active participation in the League, I have found, is a great way to give back to the hobby that has given so much to us. Over the past nine years, I have had the pleasure to participate in conferences, to edit the *Reflector*, to complete numerous observing clubs, to serve as National Secretary, and, especially, to attend many amateur gatherings around the country. With your support, I will continue my service to the League and amateur astronomy by being part of the team that helps the League confront future challenges.



Artist's concept of Cassini's June 4, 2010, flyby of Saturn's moon Titan.  
Image credit: NASA/JPL

## Next Stop, Titan: Looking at the Land o' Lakes

NASA/JPL News Release - June 03, 2010

NASA's Cassini spacecraft will be eyeing the north polar region of Saturn's moon Titan this weekend, scanning the moon's land o' lakes.

At closest approach on early morning Saturday, June 5 UTC, which is Friday afternoon, June 4 Pacific time, Cassini will glide to within about 2,000 kilometers (1,300 miles) of the Titan surface.

Cassini will make infrared scans of the north polar region, which was in darkness for the first several years of Cassini's tour around the Saturn system. The lighting has improved as northern spring has started to dawn over the area.

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The visual and infrared spectrometer will be prime during closest approach, but the imaging science subsystem cameras will also be taking pictures. Among the scientific bounties, Cassini team members are hoping to get another good look at Kraken Mare, the largest lake on Titan, which covers a greater area than the Caspian Sea on Earth.

Although this latest flyby is dubbed "T69," planning changes early in the orbital tour made this the 70th targeted flyby of Titan.

The Cassini-Huygens mission is a cooperative project of NASA, the European Space Agency and the Italian Space Agency. JPL manages the mission for NASA's Science Mission Directorate, Washington, D.C. The Cassini orbiter was designed, developed and assembled at JPL.

## Georgia Astronomy in State Parks

The following GASP events are currently scheduled:

**Aug 14** - Special Event:  
Moon Lake Community  
Library in Mentone,  
Alabama.

**Nov 13** - Red Top Mtn SP.

For more information about these events, contact Keith Burns at 770-427-1475 or Keith\_B@bellsouth.net.



*The GASP volunteers at FDR State Park on Labor Day weekend 2004 - From left to right: Joanne Cirincione, Keith Burns, Harold and Claudia Champ with Ginger, Peter Macumber, Sharon Carruthers, Tom Faber, Kat Sarbell, and Holly and John Ritger. Photo by Holly Ritger.*

## 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 printed. 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>.

The **Atlanta Astronomy Club, Inc.**, the South's largest and oldest astronomical society, meets at **8:00 P.M.** on the Friday closest to full moon of each month at Emory University's White Hall or occasionally at other locations or times. Membership fees are **\$30 (\$35)** for a family or single person membership. College Students membership fee is **\$15 (\$20)**. These fees are for a one year membership (\$5 per year extra charge to receive the *Focal Point* mailed).

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.

## AAC Officers and Contacts

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

**Program Chair:** Rich Jakiel [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:** Julia Moore 678-531-2134  
[Secretary@AtlantaAstronomy.org](mailto:Secretary@AtlantaAstronomy.org)

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**Board:** Misty Herron - [mistyherron@gmail.com](mailto:mistyherron@gmail.com)

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

## Directions to White Hall at Emory

Our meetings are generally held in White Hall. To get to White Hall, turn onto Dowman Drive from North Decatur Rd at the five way intersection (across from Everybody's Pizza). White Hall is located across from the new Science & Math building. The best places to park are the Peavine and the Fishburne Parking Decks. The Fishburne deck is located on Fishburne Drive which is accessible from N. Decatur Rd. Turn onto Dowman and then right on Fishburne. You can also access Fishburne Drive from Clifton Road just north of N. Decatur. The Peavine parking deck is accessible from N. Decatur Rd. Turn onto Oxford Rd, go to the back entrance of Emory and turn onto Eagle Row. Take that to the Peavine deck. You can also access the Peavine deck from Clifton Rd. Turn onto Asbury Circle. It's the intersection next to the railroad tracks on Clifton. For maps to the decks see <http://map.emory.edu>. For more detailed directions to Emory University, visit [www.atlantaastronomy.org](http://www.atlantaastronomy.org) or go to the Emory web site.

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

## AAC Events are listed in BOLD

- June 4th, Friday: Moon Last Quarter.
- June 5th, Saturday: **GASP at Tugaloo State Park - see pg 7.**
- June 6th, Sunday: Mars near Regulus, Jupiter near Uranus.
- June 12th, Saturday: **Charlie Elliott Chapter Meeting & Potluck Dinner at 5PM.** New Moon.
- June 14th, Monday: Earliest Sunrise in Atlanta (~6:25AM).
- June 15th, Tuesday: Moon near Venus.
- June 19th, Saturday: Moon First Quarter.
- June 21st, Monday: Solstice at 7:28AM.
- June 23rd, Wednesday: Bootid Meteor Shower (Moonlight will interfere).
- June 25th, Friday: **AAC Meeting at White Hall, 8PM, Emory University.**
- June 26th, Saturday: Full Moon. Partial Eclipse.
- June 27th, Sunday: Latest Sunset in Atlanta (~8:52PM).
- June 28th, Monday: Mercury at Superior Conjunction.
- July 2nd, Friday: **July Focal Point Deadline.**
- July 4th, Sunday: Moon Last Quarter.
- July 6th, Tuesday: Earth at Aphelion.
- July 10th, Saturday: **Charlie Elliott Chapter Meeting at 5PM. DSO at location TBA.**
- July 11th, Sunday: New Moon.
- July 18th, Sunday: Moon First Quarter.
- July 24th, Saturday: **AAC Meeting at Tellus Museum, 2PM.**
- July 25th, Sunday: Full Moon.
- July 28th, Wednesday: Delta Aquarids Meteors.
- July 30th, Friday: Mars near Saturn.
- Aug 3rd, Tuesday: Moon Last Quarter.
- Aug 6th, Friday: Mercury at Greatest Elongation East.

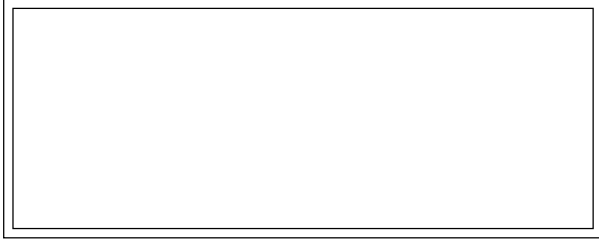
## Atlanta Astronomy Club Listserv

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) . This list is owned by Lemmy Abbey.

## 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@atlantaastro.org](mailto:focalpoint@atlantaastro.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 July is Friday, July 2nd at 6:00 PM. Submissions will not be accepted after the deadline.**

## FIRST CLASS



*The Focal Point*

Newsletter of The Atlanta Astronomy Club, Inc.

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