

# The Focal Point

Vol XVI No. 2



The Atlanta Astronomy Club  
Established 1947  
July 2003



Editor: Kosmic Kow

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## July General Membership Meeting

We are pleased to welcome back as our guest speaker Dr. Richard Schmude. He will talk about the Planet Mars. Talk to include various info on the red planet. Now is the time to observe this planet. Especially since it will be very close to the earth for the next few months. Observing details on the planets surface will be much easier to see compared to other times.



Dr. Schmude is the Remote Planets Section coordinator, and a board member, of the Association of Lunar and Planetary Observers, and is also an active member of

the American Association of Variable Star Observers and the Atlanta Astronomy Club. He is also running for the office of Secretary of the Astronomical League.

Since receiving his Ph.D. in Physical Chemistry from Texas A&M University in 1994, Dr. Schmude has been teaching Astronomy, Physics and Chemistry at Gordon College in Barnesville,

GA. His primary areas of study include the solar system, variable stars and planetary nebulae.

This month the meeting will take place on the Emory University Campus in the White Hall Building. White Hall is located across the street from the new Math and



Science Building. Street access is via North Decatur Road. Take North Decatur to Dowman Drive( 5 way intersection). Turn onto Dowman Drive and White Hall is second building on right side of road. Note that Dowman Drive changes names to Dickey Drive but still same road. Parking is available along Dowman Drive and a parking lot is located behind the Admissions Building. Access is via first left after turning onto Dowman



Drive from North Decatur Road. The date of the meeting is **Friday July 18th**. Refreshments and general socializing takes place from 7:30 PM to 7:55 PM. Meeting starts at 8 PM sharp.

Mitzi Adams of the NASA Solar Laboratory in Huntsville, Alabama will be speaking in August.



Above picture taken by the Mars Orbital Camera. The image of Mars you may see in your telescopes will be less than this picture in quality but still contain a lot of detail. Notice the phase of the planet on the right side. The current phase of Mars is also similar to the one captured in this picture.

## Focal Point News

For the past few years, the two most recent issues of the Focal Point were password protected. For those trying to download it from the website, they had to enter a user name and password. **From now on, you do not need to enter neither.** All issues of the Focal Point are available online at the club website. **No password needed for any issue from now on.**

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## Villa Rica Observatory Update

The 20 inch telescope is working beautifully now. Thanks to the mirror cell modifications done by Ralph Bowman with information provided by Don Hall. Donovan, Brigitte, Dave R, Rich, and David also provided help with the project. If there are others I have left out, sorry. Note that the telescope is only collimated on the western focuser. So if you use the scope, **do not touch the secondary mirror or use the eastern focuser.** Ralph is still working on a solution to the eastern focuser problem.

The Mak dome has a new skin on it. The exterior consists of sheet metal now. No more rotting wood to content with. Thanks to Dan, Donovan (Especially), Rich Cates ( New member), Brigitte, and David for doing this. The Mak scope has been completely cleaned up and is ready for use. The main concern now is to get the mount adjusted so that the scope will stay in place when it is used.

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## Atlanta Astronomical Imagers

By Chris Hetlage

Astronomical Imaging has long been a tool used by professional astronomers and scientist. Until recently, the equipment and knowledge it took to produced these images laid in the hands of just a few. Technology has changed and made it more possible for the average amateur astronomer to also participate in this endeavor. Here in the greater Atlanta area there many accomplished astro-imagers. To recognize the abundance of these individuals and to provide a platform for new and upcoming imagers, the AAC is forming a new workgroup, hereby known as the Atlanta Astronomical Imagers (AAI). The AAI groups' primary mission will be to advance the interests and knowledge of astro-imaging to the AAC community. All imaging techniques are welcome including; CCD cameras (SBIG, Starlight Xpress...), Digital/35mm cameras (Nikon, Canon, Olympus...), Video Astronomy, as well as astronomical sketches from the eyepiece.

To join the AAI group simply subscribe to the AAI listserve described below. Once subscribed, you will be connected to a wealth of knowledge and content. Some great ideas are already coming from this group including;

As stated above, the AAI will also maintain a Yahoo Groups listserve. The name of this Yahoo Group is Atlanta\_Astro\_Imaging. To learn more about the Atlanta\_Astro\_Imaging group, please visit <http://groups.yahoo.com/group/AtlantaAstroImaging> . To join the AAI listserve simply send an email to; [AtlantaAstroImaging@yahoogroups.com](mailto:AtlantaAstroImaging@yahoogroups.com) . If you wish to unsubscribe simply send an email to [AtlantaAstroImaging-unsubscribe@yahoogroups.com](mailto:AtlantaAstroImaging-unsubscribe@yahoogroups.com) . All are welcome to join, even if you just want to see the wonderful images produced by this group. The moderators are Chris Hetlage, <mailto:chrishet@attbi.com> and Donovan Conrad <mailto:donovan@donconrad.com> .

This public messaging board will be the virtual meeting place for new and accomplished astro-imagers in the Atlanta area. The mission of this group is to expand the knowledge of our members, most specifically in the area of astro-image acquisition and astro-image processing techniques. Members are encouraged to post the images of their work and to discuss the processes used to create their images. While non-AAC members may participate in this listserve it will be required to be a member of the AAC to participate in the formal AAC workshops and AAC events.

Another benefit of the AAI group will be the AAI Web Page. This home page of the AAI group will have many great features and functions. This site is under construction so stay tuned to the listserve for information on its deployment. Any interested HTML programmer looking to volunteer to help set this up please contact Donovan Conrad <mailto:donovan@donconrad.com> .

*Continued on the next page.*

The **Atlanta Astronomy Club Inc.**, the South's largest and oldest astronomical society, meets at **8:00 p.m.** on the third Friday of each month at Emory University's White Hall or occasionally at other locations. Membership is open to all. Membership fee's 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 & Tel or Astronomy can be purchased through the club for a reduced rate. The fees are **\$30** for Sky & Tel and **\$29** for Astronomy. Renewal forms will be sent to you by the magazines. Send the renewal form along with you check to the Atlanta Astronomy Club treasurer.

**Club address is:**

Atlanta Astronomy Club  
PMB 305  
3595 Canton Road A9  
Marietta, Georgia 3006

**Treasurer's address is:**

Peter Macumber AAC  
1057 Trestle Drive  
Austell, Georgia 30106

Atlanta Astronomy Club Hot Line: Timely information on the night sky and astronomy in the Atlanta area. Call **770-621-2661**.

Internet Home 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.

If you are wanting to know how to get started into astro-imaging, then this group is for you. If you are looking to expand your skills and knowledge in astro-imaging, then this group is for you. If you just like to see beautiful deep space images create by these local artists, then this group is for you. Feel free to contact Chris Hetlage, Donovan Conrad, or Dan Llewellyn if you have any questions, comments, or want to know how you can help out. Welcome all and we look forward to seeing some great images from the AAI in the near future.

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## Charlie Elliott Chapter Update

The next meeting of the Elliott Chapter is scheduled for Saturday July 26th at 7 P.M. Featured speaker Dr Richard Schmude will talk about observing mars. Meeting to be held at the meeting room of the welcome center. Observing afterward at field weather permitting. Note that meetings are held rain or shine.

August meeting will be held on August 23rd at 7 P.M. Topic to be announced. Locations same as above.

September meeting will be held Saturday September 20th at 7 P.M. Featured speaker is Philip Sacco. His talk will be on Astro Mythology.

New location for the CEC website is the following. <http://www.AtlantaAstronomy.Org/CEWMA>

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## Mentone, AL July 26th Deep Sky Session

The dark sky event will be held Saturday night, July 26th, at club member Roger Dowait's property near Mentone, Alabama, a 2 hour lovely drive from Atlanta. Roger has informed me that power should be available by the 26th, however I will keep the list posted on this. Last year we went to Roger's sister's property. This year will be at a different location, it is on a field next to his sisters, but the entrance is totally different so please print a copy of the directions.

I will be driving the AstroBuggy and tents and campers are welcome. DeSoto State Park is a couple of miles away for those who want to take in some nature on the trip. We will be about 1600 ft elevation, so bring appropriate clothing just in case it is nippy. Mars should bring a fine show to top off the evening.

Directions from Atlanta: Take I-75 North towards Chattanooga. Take exit 306, that is State road 140 Adairsville. Make a left on 140 towards Adairsville. (West) 140 will dead end into US Hwy 27. Make a right (north) towards Armuchee. US Hwy 27 will take you all the way into the town of Summerville. You will see a Waffle House on the left. Continue straight PAST the Waffle House and the red light, about 50 yards and make a left on State hwy 48 to Menlo. Pass through Menlo and come up the mountain. You will cross one bridge in Georgia, then cross the state line into Alabama, then cross another bridge. About 100

yards past that bridge, you make a left at an old service station that is closed. We will have a marker out where to turn. This should be county road 106, although the sign is a bit further down. Go up the hill, pass a field on the right and at the end of the field make a right on county road 9000. We should have another marker there. One quarter mile down there is a cabin on the left near the road. Turn right on the little road across from the cabin. Another marker should be out. Come up the hill and onto the observing field!

Lets make it a big turnout! Dan Llewellyn, VP-Observing Chair, Atlanta Astronomy Club.

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## Atlanta Area Astronomy Listserv

If you have email access with a computer, then you can subscribe to the Atlanta Area Astronomy Listserv. This is a source for up to the minute info on observing events. You can also post questions about astronomy. You can talk to fellow astronomers about the hobby.

Subscribe to the Atlanta Area Astronomy Mailing List: The name of the new list is: AstroAtlanta. The address for messages is: [AstroAtlanta@yahogroups.com](mailto:AstroAtlanta@yahogroups.com). To add a subscription, send a message to: [AstroAtlanta-subscribe@yahogroups.com](mailto:AstroAtlanta-subscribe@yahogroups.com). To cancel your membership, send a message to [AstroAtlanta-unsubscribe@yahogroups.com](mailto:AstroAtlanta-unsubscribe@yahogroups.com). Messages for the list-owner (me) go to: [AstroAtlanta-owner@yahogroups.com](mailto:AstroAtlanta-owner@yahogroups.com) or to [LAbbey@mindspring.com](mailto:LAbbey@mindspring.com). The "home page" for the list, from which you can change your account defaults is: <http://www.yahogroups.com/group/AstroAtlanta>. This list is owned by Lenny Abbey.

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## Volunteers Needed Woodruff & Bert Adams

It's once again that time when I ask AAC members to make the ultimate sacrifice, and try to do astronomy in the Georgia Summer, with Boy Scouts. It's the "rent" we apy for having access to Woodruff (which has been recently improved with the addition of four new concrete pads.)

There is a new Nature Staff Director at Woodruff who LIKES the idea of astronomy, and we have decided to have a regular MONDAY night program there. If anyone wants to volunteer to go up on any other night, we can make those arrangements as well, but we want to cover each Monday for remaining weeks of July and early August.

For Bert Adams, there are three day camps in July. Who wants to sign up? Contact John via email at [johnlentini@yahoo.com](mailto:johnlentini@yahoo.com). or phone at 770-984-0175.

## From the Belly of an Airplane: Galaxies

By Dr. Tony Phillips

On April 28th a NASA spacecraft named GALEX left Earth. Its mission: to learn how galaxies are born, how they grow, and how they die.

"GALEX-short for Galaxy Evolution Explorer-is like a time machine," says Caltech astronomer Peter Friedman. It can see galaxies as far away as 10 billion light years, which is like looking 10 billion years into the past. The key to the mission is GALEX's ultraviolet (UV) telescope. UV rays are a telltale

sign of hot young stars, newly formed, and also of galaxies crashing together. By studying the ultraviolet light emitted by galaxies, Friedman and colleagues hope to trace their evolution spanning billions of years.

This kind of work can't be done from the ground because Earth's atmosphere absorbs the most energetic UV rays. GALEX would have to go to space. To get it there, mission planners turned to Orbital Science Corporation's Pegasus rocket.

"Pegasus rockets are unusual because of the way they're launched—from the belly of an airplane," says GALEX Project Engineer Frank Surber of JPL.

It works like this: a modified L-1011 airliner

nicknamed *Stargazer* carries the rocket to an altitude of 39,000 feet. The pilot pushes a button and the Pegasus drops free. For 5 seconds it plunges toward Earth, unpowered, which gives the *Stargazer* time to get away. Then the rocket ignites its engines and surges skyward. The travel time to space: only 11 minutes.

"The aircraft eliminates the need for a large first stage on the rocket," explains Surber. "Because *Stargazer* can be used for many missions, it becomes a re-useable first stage and makes the launch system cheaper in the long run." (To take advantage of this inexpensive launch system, GALEX designers had to make their spacecraft weigh less than 1000 lbs—the most a Pegasus can carry.)

A Pegasus has three stages—not counting the aircraft. "Its three solid rocket engines are similar to the black powder rockets used by amateurs. The main difference is that the fuel is cast into a solid chunk called a 'grain'—about the consistency of tire rubber. Like black powder rockets, once the grain is lit it burns to completion. There's no turning back."

In this case, turning back was not required. The rocket carried GALEX to Earth orbit and deployed the spacecraft flawlessly. On May 22nd, the UV telescope opened its cover and began

observing galaxies—"first light" for GALEX and another success story for Pegasus.

For adults, find out more about the GALEX mission at <http://www.galex.caltech.edu/>. Kids can read and see a video about Pegasus at <http://spaceplace.nasa.gov/galex/pegasus.html>.

*This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.*

IMAGE

Caption:

*L-1011 "Stargazer" takes off to carry Pegasus rocket on*



*the first 39,000 feet of its climb to deliver a spacecraft to orbit.*

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### Board Meeting, June 1, 2003

An AAC Board meeting was called for June 12, 2003. Chuck Painter chaired. Due to communication difficulties not all members received the necessary 7-day notice, so no official business was conducted. A special meeting was called for June 20, 2003 at 7:30 (before the club meeting) to elect a new Board Chairman.

In attendance on June 12 were: Jim Moore, Alex Langoussis, Paul DeBono, Chuck Painter, Rich Jakiel, Brigitte Fessle Dan Llewellyn, Bear Simmons, Art Russell, Sharon Caruthers, Ken Poshedly, Keith Burns, Julie Moore, and Rich LaCates.

Reports were heard from past and new officers and committees:

Bear Simmons, out-going president, summarized the achievements of the past year. A new membership committee was appointed by the president to assist the treasurer with processing new membership needs. The focus on stabilizing the membership was successful. Villa Rica has been revitalized and

*Continued on the next page.*

more plans are in the works for the site. The 20" mirror cell has been rebuilt. Work towards finding an accessible place to store the AAC library continues. Thanks, Bear, for a great year!

Incoming president Jim Moore outlined some of his goals for the coming year. They included a standard meeting place for the AAC board, designation of an emergency speaker, perhaps new name badges. The focus of his discussion was on an incentive program for volunteers to encourage more people to get more heavily involved. We can't wait to get going!

Rich Jakiel announced that the July speaker was TBA and August speaker will be Mitzi Adams. Dan Llewellyn spoke of a need to step up the training programs for the big scopes. Ken Poshedly reported that 3 dozen people have sent in paid registrations for the PSSG.

Keith Burns reiterated the fact that we STILL NEED A CORRESPONDING SECRETARY! The Cosmic Cow will continue to stand in with help from others until a new one can be found. (Volunteers welcome!) Thank you Keith for years of faithful service that have brought the Focal Point up to award-winning status.

Art Russell outlined the procedure for the approval of the minutes. A new board list has been instituted at AACboard@yahoo.com. Art also has pulled together a notebook and a CD with all past minutes, by-laws and other materials helpful to incoming secretaries. Thanks, Art!

Chuck Painter ended the meeting with an overview of the principles that have guided the club this past year and the direction he hopes the club will take in the future. Some of these goals include the organization of a new Dark Site committee and the building of bookshelves at Villa Rica and Woodruff. Thanks for your guidance, Chuck!

**ADDENDUM:** A special called meeting of the AAC Board was held June 20, 2003 at 7:30 PM. Present were Jim Moore, Alex Langoussis, Paul DeBono, Rich Jakiel, Brigitte Fessle, Dan Llewellyn, Art Russell, Ken Poshedly, Julie Moore, Michael Nischan, Gill Shulcut and Tom Crowley. Art Russell was asked to moderate in the absence of Chuck Painter. Alex Langoussis was elected Chairman of the AAC Board for the year 2003-2004. The next Board meeting was set for July 8, 2003 at 7:30 PM at Fernbank.

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Note that material you see in the Focal Point has been sent to me is for use in our newsletter only. If anyone wants to use the material elsewhere, please contact the author of the

article or photographer who has taken the picture. With rare exceptions, most people will grant you permission.



## AAC Contacts

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**Webmaster Charlie Elliott:** Lyle Fischer  
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## *The Focal Point*

Newsletter of The Atlanta Astronomy Club, Inc.

FROM:

Kosmic Kow

3740 Burnt Hickory Road

Marietta, Georgia 30064

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

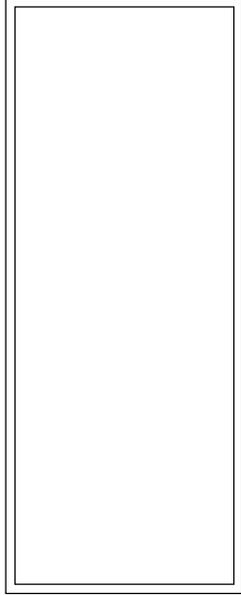
Atlanta Astronomy Club

PMB 305

3595 Canton Road A9

Marietta, GA 30066

**FIRST CLASS**



## Calendar

**July 18th: General Membership Meeting** at Emory University. Meeting starts at 8PM sharp. Featured speaker is Dr. Richard Schumde. Talk will be about Mars.

**July 26th: Deep Sky Observing** at Metone, Alabama. Thanks to club member Roger Dowait for allowing us to use this site. Directions to site on page 3 of this publication.

**July 26th: Charlie Elliott Chapter Meeting.** The featured talk of the night will be presented by Dr. Richard Schumde. His program will be "Observing Mars." Observing to follow program at main observing field. Meeting starts at 7PM. Meeting will take place in the visitors center rain or shine.

**August 1st: Focal Point Deadline.**

**August 15th: General Membership Meeting.** Featured speaker is Mitzi Adams. Topic to be announced. Meeting starts at 8PM sharp. Meeting to be held at Emory University.

**August 23rd: Deep Sky Session.** Location will be Mentone, AL.

**August 23rd: Charlie Elliott Chapter Meeting** and observing. Topic and speaker to be announced later. Meeting at Visitors Center. Starts at 7PM. Meeting rain or shine. Observing to follow weather permitting.

### Newsletter Deadline and Info

Please send articles, pictures, and drawings on anything astronomy related. All formats are acceptable. Pictures can be sent as either JPEGs, GIFs, or other formats. I can also scan hard copies of pictures. Articles can either be sent to Kosmic Kow via my spokes person at the following address. Send it to Keith Burns 3740 Burnt Hickory Road Marietta, Georgia 30064 or email my spokes person at **[Keith\\_B@bellsouth.net](mailto:Keith_B@bellsouth.net)**. You can submit articles anytime up and including the deadline date. Note that the **August issue** will be published **August 1st**. Sometimes it takes me a week to do the newsletter. So don't expect to see it til about the 5th or 6th.