

# The Focal Point

The Atlanta Astronomy Club  
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Editor: Keith Burns

## In This Issue:

**Page 1-2...**January Meeting. New Math & Science Center.

**Page 2-3...** New Telescope & Planetarium at Emory.

**Page 3....** December 20 Meeting Minutes. Woodruff Combo Change.

**Page 4...**Pictures.

**Page 5...**Club Contacts. Saturn Picture. FP online access.

**Page 6...**Events Calendar. FP Deadline.

## January General Meeting

The January meeting will take place on Friday January 17th. Meeting starts at 8 PM. Refreshments and socializing will take place from 7:30PM to 7:55PM. Location is the White Hall building on the Emory Campus. The topic of the talk will about new math and science building across the street. Also the talk will cover various other astronomy things Emory is doing. There will be a tour of the new facility to. Depending on the number of folks attending the meeting, the tour group may have to be broken up into several groups.

## New Mathematics and Science Center Enriches Education and Research for Faculty and Students

Emory University's Mathematics and Science Center opens the door to a new era of science education and research for the institution. From pristine physics laboratories in the basement, to a rooftop environmental classroom and observatory, the building gives Emory faculty and students unprecedented opportunities for learning, teaching and research.

The five-story center, a \$40 million, 138,000-square-foot facility, is the new home for the departments of physics, mathematics and computer science, and environmental studies—all housed together for the first time. Students began attending classes there this semester.

"The Mathematics and Science Center changes the face of science on this campus and enriches the educational experi-

ence of the university," says Emory President William M. Chace. "The center provides a state-of-the-art facility that will enable our faculty to make major advances in teaching and research."

The exterior resembles the classical architecture of Emory's older buildings, while the interior includes the newest technology. In addition to multi-media classrooms, offices and laboratories, the building includes the university's first planetarium, a 180-seat lecture hall, and a rooftop observatory with a 24-inch telescope.



"The center is going to make science very different at Emory," says Robert Paul, dean of Emory College, the undergraduate school of arts and sciences. "By housing the departments together, the synergy among the disciplines will allow new opportunities to emerge that will provide a better education for students, and foster even more creative research ideas."

Nearly 25 percent of the building is used for laboratory space, with 17,055 square feet devoted to teaching labs and 15,918 for research labs.

The structure is essentially three buildings in one, connected by a slate walkway bordered by a floor-to-ceiling wall of windows and copper columns. The facility is nestled in a small forest of trees, some growing within a few feet of the building.

Emory's newest facility is on track to become the second building in the Southeast to attain Leadership in Energy and Environmental Design (LEED) certification through the U.S. Green

*Continued on the next page.*

Building Council.

First place honors belong to Emory's Whitehead Biomedical Research Building, which recently became the first facility to receive LEED certification in the Southeast, and one of only 28 LEED-certified buildings in the nation. The intensive certification process evaluates the environmental sustainability of building design, construction and operation.

The Mathematics and Science Center is the second phase of the university's Science 2000 initiative. The first phase was Cherry Logan Emerson Hall, completed last year. The \$25 million Emerson Hall, located across from the new center, includes chemistry department laboratories, the Emerson Center for Scientific Computing, a nuclear magnetic resonance laboratory and the integrated microscopy and microanalytical facility, in addition to classroom and office space.

Oct. 30, 2002 Nancy Seideman, Director, University Media Relations, at 404-727-0640 or [nseidem@emory.edu](mailto:nseidem@emory.edu)

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### **New telescope, planetarium and undergraduate majors in Astronomy and Astrophysics**

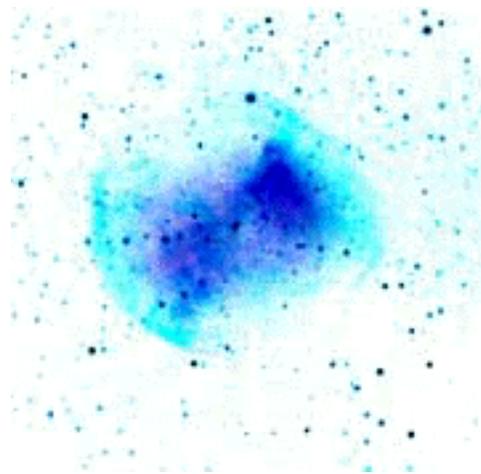
A visual scan of the Mathematics and Science Center (MSC) building reveals that its sweeping rectilinear lines are punctuated by two rounded features. What is that silver dome on the very top? What is the rounded protrusion from the center portion of the building? These curving components of the MSC spring from the Department of Physics' new facilities for education in astronomy and astrophysics. The rooftop dome houses a large DFM Cassegrain research-grade telescope. The 24" mirror affords the "light-gathering" ability to see deeply into the universe, and the device is fully automated. Want to examine the horsehead nebula in the constellation Orion? Simply direct the cursor on the computer monitor to this feature of the displayed sky map, click, and the automated guidance systems (calibrated by using the GPS) point the telescope towards the target. The image is collected by a CCD camera and appears on the computer screen. Don't worry, however, if you are a purist who needs to detect the light from the heavens with your very own retina! The camera can be removed for viewing by eye.

The round expanse of the planetarium near the center of the MSC houses a Zeiss projection system, which throws the stars and planets and other celestial phenomena onto a 35 foot diameter domed ceiling screen. The projector creates an exact replica of the night sky on the screen, as it is now, or at any point in past or future. Viewers sit in comfortable chairs that allow a full view. It's like sitting outside on a pleasant summer evening in a plush lawn chair, enjoying the view of the sky, but without the mosquitos. With Dr. Richard Williamon, newly appointed as Director of the planetarium and observatory, at the helm, viewers are treated to a unique spectacle and educational experi-



ence. The planetarium will be used as a classroom, as well as for seasonal astronomy shows, which Dr. Williamon is now developing.

The new astronomy facilities provide the impetus for two undergraduate programs that are planned for launch by the Department of Physics (subject to approval by the Emory College Curriculum Committee). The Department will offer a B.S. Physics major in Astrophysics, and a B.A. Physics major in Astronomy. Two new 300-level courses will be offered as part of these majors, in addition to the Introductory Astronomy 116 and Physics core courses. As part of the new majors, students will have the opportunity for "hands-on" use of the new telescope for education and research.



One of several images taken with the new telescope during the test run phase of the telescope installation process.

The new facilities and programs will make the cosmos an integral part of the Emory experience for all.

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## Woodruff Combination Change

I was up at Woodruff yesterday and successfully changed the combination lock for access to the Power box. The combination to the 24" remains unchanged. The power box also is holding both keys (one for the warmup shed, one for the cabin up the road). The rangers have been informed.

If you are a member of the Atlanta Astronomy Club and have signed the Woodruff release form and would like the new combination, please contact one of: me, Bear Simmons, Sharon Carruthers, Harry Falise, or John Lentini.

Other doings at Woodruff: There is now a nice gas heater installed on the back wall of the warmup shed which should make the place habitable on even the coldest of nights. There is a working phone. Unfortunately, I neglected to take note of the telephone number. The additional concrete pads have not yet been established. Chuck Painter.

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## Atlanta Astronomy Club Listserv

While the Focal Point is a good source for information among other things, it cannot be undated after it is printed. If you have email access with a computer, then you can subscribe to the Atlanta Astronomy Club Listserv. This is a great 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 or other things related to it.

Subscribe to the Atlanta Astronomy Club Mailing List: The name of the new 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). To cancel your membership, send a message to [AstroAtlanta-unsubscribe@yahoogroups.com](mailto:AstroAtlanta-unsubscribe@yahoogroups.com). Messages for the list-owner (me) go to: [AstroAtlanta-owner@yahoogroups.com](mailto:AstroAtlanta-owner@yahoogroups.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.yahoo.com/group/AstroAtlanta>. This list is owned by Lenny Abbey.

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## General Meeting – 20 December, 2002

Approximately 50 members and guests attended the Annual Christmas Meeting of the AAC at Agnes Scott College's Barber Observatory. Again held this year as a pot-luck dinner, the food was coordinated by **Carol Abernathy, Programs Vice President**. The dinner was followed by a presentation by Amy Lovell in the Agnes Scott College planetarium, and offered a unique review of the southern skies.



## Astronomical League



As a member of the AAC, you are automatically a member of the Astronomical League. For more information on the AL, either go to the website at <http://www.astroleague.org> or contact ALCOR (Keith Burns).

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.

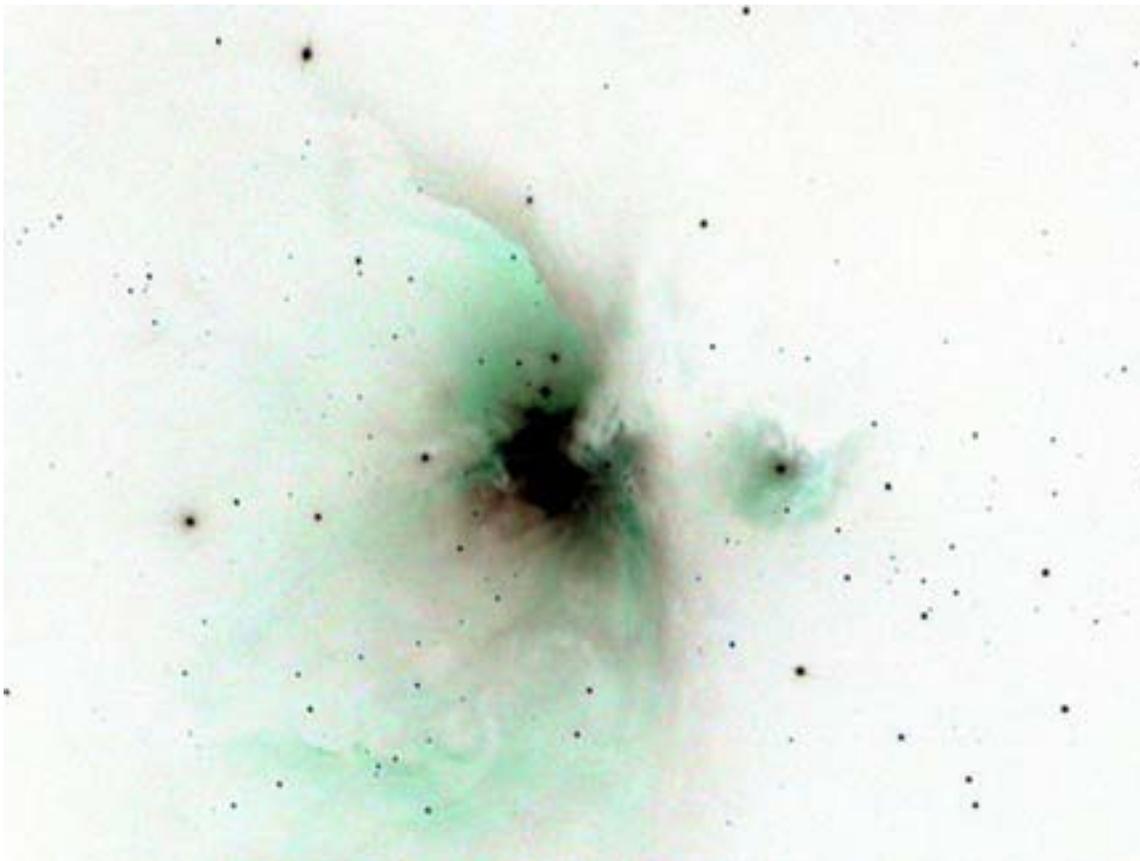
**Club address is:**  
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Marietta, Georgia 3006

**Treasurer's address is:**  
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Norcross, Georgia 30093

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.



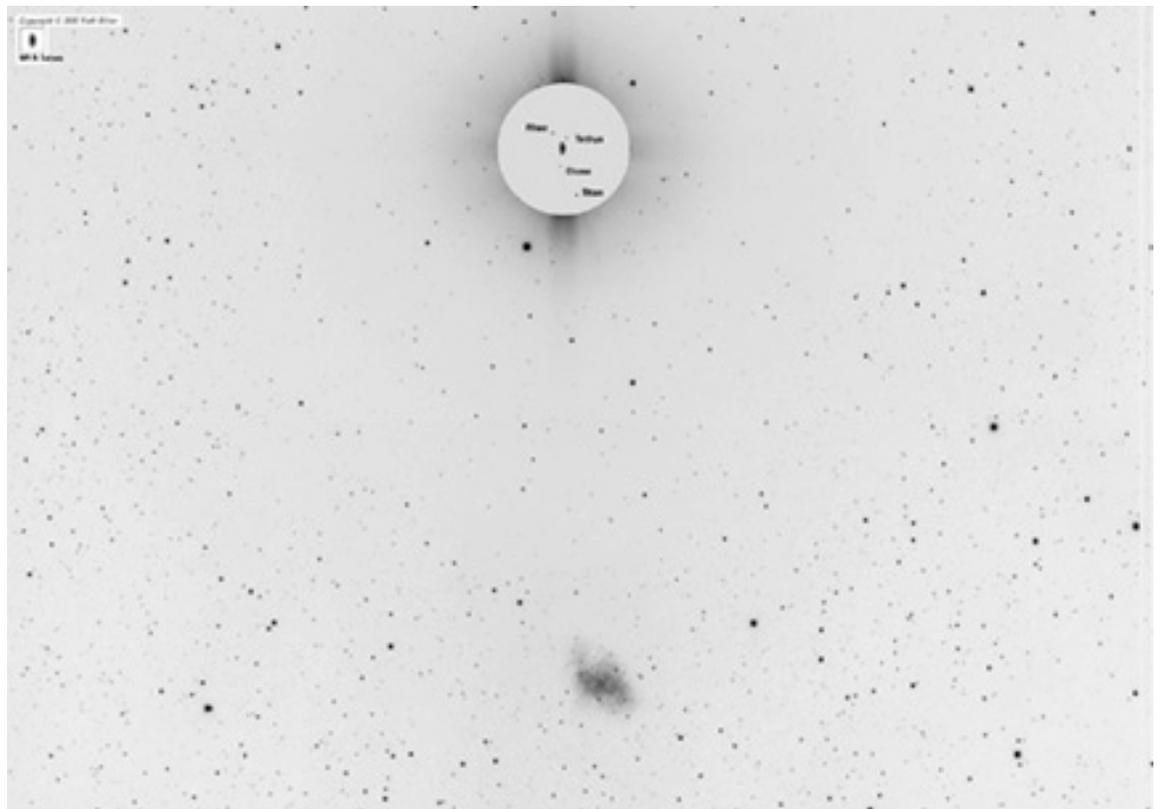
### Picture Left

Picture to the left is M42 aka "The Orion Nebula". It is a long exposure lasting about 8 seconds. This was taken using a remote shutter attached to the camera. The image was taken with a Nikon Coolpix 4500 digital camera connected to a 35mm Panoptic eyepiece. Telescope used was a 20" Starmaster. Imager was Chuck Painter.

### Picture Below

Here's a quick and dirty test to see how the meeting of these two objects are going to react image-wise as they approach each other (before my camera frosted over of course:) This is not a cut and paste, but rather Saturn was

shot in the same exact field at 0.11 seconds through a blue filter. I then shot it again for 5 seconds to expose the moons and a few of the brighter stars to register everything with. Finally I shot a few 2 minute exposures to bring out M1. I didn't spend too much time on it since I didn't know how it would turn out. Saturn's wash looks like it may really overtake M1 soon. A pretty amazing event. Picture taken by Roth Ritter. His website is <http://www.rothritter.com>



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Visit [www.AtlantaAstronomy.org](http://www.AtlantaAstronomy.org) on the web. The link to Focal Points is located at the top of the front page of the website. If it works for you and you want to get the FP via email, send Peter Macumber an e-mail at [pmacumber@AtlantaAstronomy.org](mailto:pmacumber@AtlantaAstronomy.org). The Focal-Point web can be entered by using the Username of **AAC** and a password of **Moon**. These names are case sensitive! Type **AAC** and **Moon** exactly as you see it here.



Above picture of Saturn taken by Chuck Painter. He used the same camera and telescope to take this picture as

he did with M42 picture. This picture is the result of stacking a series of pictures. Amazing what such a simple setup can do.

### AAC Contacts

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**Webmaster Charlie Elliott:** Maria Zorka [dotters@surfbest.net](mailto:dotters@surfbest.net)



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Newsletter of The Atlanta Astronomy Club, Inc.

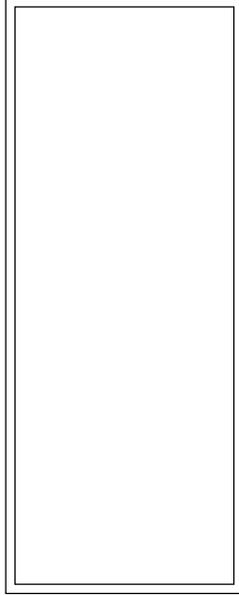
FROM:

Keith Burns  
3740 Burnt Hickory Road  
Marietta, Georgia 30064

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

Atlanta Astronomy Club  
PMB 305  
3595 Canton Road A9  
Marietta, GA 30066

**FIRST CLASS**



### Calendar

**January 10-12th- Scouter's Winter Campout** at Woodruff. Sidewalk astronomy with the scout leaders and camping in the cool winter air. Contact John Lentini for more information.

**January 12th- Board Meeting.** Time 3PM. Location Carol Abernathy's Office Conference Room. See Carol and Chuck Painter for more details.

**January 17th- General Membership Meeting.** Starts at 8PM. Chance to see the new science building digs at Emory University.

**January 17th- Planning meeting** to follow membership meeting. Setting up the events calendar for the next six months is the agenda.

**January 25th- Open House and Orientation** at our Villa Rica Observatory location. "How to Use a Telescope".

**February 1st- Dark Sky at Woodruff.**

**February 8th or 22nd- GASP** - Sidewalk astronomy at Skidaway State Park near Savannah. Exact date to be confirmed later.

**February 21st- General Membership Meeting.** Starts at 8PM.

**March 1st- Dark Sky Observing** at Woodruff.

**March 8th- Open House and Orientation.** To be held at our Villa Rica Observatory.

Visit the new Charlie Elliott Chapter Website for more information on upcoming meetings and happenings. <http://touchmoon.com/ce/index.shtml>

#### 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 Keith Burns 3740 Burnt Hickory Road Marietta, Georgia 30064 or email at [Keith\\_B@bellsouth.net](mailto:Keith_B@bellsouth.net). You can submit articles any-time up and including the deadline date. The **deadline** for the **February issue** is **February 1st**.