

The Focal Point

The Atlanta Astronomy Club
Established 1947
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Editor: Kat Sarbell

Table of Contents

Page 1...January General Membership Meeting, Upcoming Speakers and Programs

Page 2...Special Photo Gallery: Christmas Potluck Dinner

Page 3...AAC Board of Directors Meeting Minutes, Charlie Elliott Chapter December Meeting Minutes and Future Meetings

Page 4...Image of Mars by Dan Llewelyn, A New Project for the Telescope & Instrument Workshop, AAC Dark-Sky Site at Deerlick Astronomy Village, "New Horizons - To Pluto and Beyond"

Page 5... "The PI's Perspective - Getting Closer", "Two Stunning Pictures Show Young Stellar Clusters"

Page 6... "Galaxy's Neighboring Spiral Arm Is Closer Than Thought"

Page 7...GASP Info, Next ACC Board Meeting, ACC Web Site, White Hall Directions, Club Info: Memberships, Contacts

Page 8...Calendar, AAC List Serve Info, Focal Point Deadline



January General Membership Meeting

By Keith "Kosmic Kow" Burns

The next General meeting of the Atlanta Astronomy Club will be on January 20th at 8 PM at Emory University in White Hall, room 207. Directions to Emory are on page 7. We will have refreshments in the hallway just outside of the room before the meeting. A small donation in the kitty box is requested by not required.

Philip Sacco, our president, will not be at the meeting, so I am running it in his absence. We will have a business meeting first. This includes any announcements and other things of astronomical interest. I ask that anyone who wishes to make any announcements, please notify me by the 18th of January. That way I know who is speaking ahead of time and I can schedule the time. My e-mail is Keith_B@Bellsouth.net and my phone number is 678-234-8961.

Our featured speaker of the night, Dr. David T. King, Jr. of Auburn University, will give his talk with questions and answers to follow. We will adjourn the meeting and head off to a local eating establishment for supper, dessert, and/or just a drink.

The title of the talk is, "Catastrophic cosmic impact in the southern Gulf of Mexico and its effects: the sedimentary record of the Cretaceous-Tertiary boundary in Belize, Mexico, and the US Gulf Coast (plus the sedimentary layers in Italy)." The information in this talk was created by Dr. King and Lucille Petruny (Astra-Terra Research). The Cretaceous-Tertiary global catastrophe (65 million years ago) was caused by the impact of a 10-km diameter asteroid on the northern tip of the Yucatan peninsula. Thus, the Gulf of Mexico became a cradle for this global

disaster. Contamination of Earth's atmosphere and oceans as a direct result of this violent event set in motion the collapse of the food chain and a global mass extinction of life. As many as 65% of all living species succumbed to this catastrophe, including the dinosaurs, marine reptiles, and many other species of plants and animals. The evidence for an astronomical origin for this event is overwhelming and has been carefully documented by many researchers. Our speaker and Lucille Petruny have conducted research upon the Cretaceous-Tertiary boundary for 10 years, including work in Belize, Mexico, Italy, and the southern US. The program will show you the results of our studies, which have helped contribute to an understanding of the physical processes unleashed by such an incredibly violent encounter with a minor planet.

Dr. King is a professor of geology at Auburn University. His specialty is sedimentary geology (the study of sediments and what they tell us about Earth history). Dr. King has been at Auburn for 25 years. About ten years ago, he became fascinated with the Cretaceous-Tertiary boundary, which consists of a substantial sedimentary record of one of the most profound catastrophes in Earth history. Along with Lucille Petruny and other scientists, he completed research in 2002 that established Wetumpka impact crater, Alabama, as the 157th known impact crater on Earth. Lucille earned her MS in Physics, has taught numerous undergraduate astronomy labs and one freshmen level lecture course, earned a Graduate Teaching Award, traveled extensively, and hopes to get her Ph.D. sometime in the next year.

Upcoming Speakers and Programs

On February 10th we will have Adam Block, who formally worked at Kitt Peak, come speak. Note that this is the 2nd Friday of the month and not the third Friday. Here's Adam's description of the new talk on which he is working: I would like to give my talk on the "Accessible Universe." It is a talk that combines my idea of the state of (amateur) CCD imagery with the kind of "stories" that the images can tell us. Today, no one is really

attending to the kind of information that CCD observing can yield. People like Stephan O'Meara and Sue French actively describe the universe from a visual perspective. I enjoy giving this perspective from the viewpoint of a CCD Imager. The talk hits on issues that combine the story OF the image with the story IN the image. They are often both very compelling aspects. Also, I also want to indicate my current plans for constructing my own observatory at a professional site.

On March 17th AAC member Rich Jakiel will speak on Galaxies. Plans are in the works to dive deep into the subject of galaxies. This will include the "what", "why", and "how" of galaxies.

Christmas Potluck Dinner

On December 10th the AAC held its annual Christmas Potluck Dinner at Bradley Observatory at Agnes Scott College. A big thank you to Dr. Amy Lovell for providing the use of Bradley for the event and presenting a planetarium show to the guests after the dinner. Thanks also to the following people for helping to organize the dinner, set up the rooms, and clean up afterwards: Keith Burns, Rauna Long, Carol Abernathy, Kat Sarbell, Tom Faber, Philip Sacco, Sharon Carruthers, Peter Macumber, and Joanne Cirincione. Chris Hetlage also presented a talk after the dinner in the planetarium about an astronomical imaging conference that he recently attended. Everyone had a great time! All photos by Tom Faber.



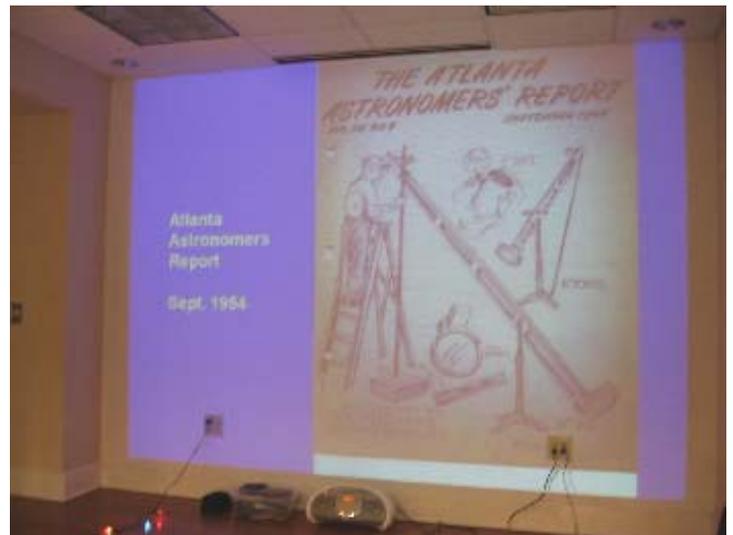
Volunteers help decorate the Bradley lecture room for the dinner.



Some of the first visitors gather in front of the planetarium.



The tables were soon filled with covered dishes as more guests arrived.



Keith Burns scanned the covers of many old club newsletters from the 1950s and put together a slide show that ran accompanied by Christmas music during the dinner.



Club members, families, and friends enjoying the dinner.

AAC Board of Directors Meeting Minutes

by Art Russell, Recording Secretary

General. AAC Chairman of the Board, Tom Crowley, opened the meeting of the AAC Board of Directors (BOD) on October 16, 2005 at 5:20PM. AAC members attending were: Tom Crowley, Kat Sarbell, Larry Owens, Chris Hetlage, Peter Macumber, Sharon Carruthers, Art Zorka, and Tom Faber. The following actions were decided during the meeting: The business portion of the meeting should be held to about 20 minutes, and that the business meeting should precede the featured speaker's presentation. Approximately \$170 should be spent for a Celestron NexImager and filter for video imaging. A committee should be formed to negotiate the AAC's acquisition of property at the Deer Lick Astronomy Village. Chris Hetlage is authorized to state that the AAC is negotiating the purchase of property from the Deer Lick Astronomy Village. Approximately \$1000 is authorized to pay for refiguring and recoating the Charlie Elliot Wildlife Management Area (CEWMA) 16-inch mirror.

Agenda Items:

Sequencing of events at General Meetings of the AAC. Discussed was the best way to run meetings and allot time for meeting events. The board unanimously agreed that the business portion of the meeting should be held to about 20 minutes, with the business meeting proceeding the featured speaker's presentation.

Woodruff Initiative. The initiative was discussed as well as the need for an energetic self-starter in the position. It was also suggested that the AAC's job is simply to provide a Boy Scout Liaison. However, at this time there does not appear to be anyone interested in the position.

Peach State Star Gaze (PSSG) - Peter Macumber. A sound system was purchased to support PSSG and other club activities. Other PSSG related activities were reported, the most of which was an assessment of why the PSSG was not getting a larger response.

Walter Barber Memorial Observatory Equipment. Larry Owens presented his recommendation to provide video imaging at the Walter Barber Memorial Observatory. His presentation covered cost of an imager and supporting computer equipment. It was later recommended that members use their private computers for imaging. It was also observed that the club laptop could be used, but priority of laptop use remained with sanctioned club events. The board unanimously approved spending approximately \$170 for a Celestron NexImager and filter for video imaging.

Fundraising. Chris Hetlage presented his observations and recommendations about how the AAC funds its activities. Chris subsequently volunteered to head the fundraising committee.

Dark-Sky Observing Site. Chris Hetlage also presented an update on the Deer Lick Astronomy Village project. After discussion, the board approved establishing a committee to negotiate the AAC's acquisition of property at the Deer Lick Astronomy Village. In the vote, all attending officers approved, less Chris Hetlage who abstained due a conflict of interest. The board also approved allowing Chris Hetlage to state that the AAC is negotiating the purchase of property from Deer Lick Astronomy Village.

New Business: CEWMA Mirror Refurbishment. Larry Owens, Charlie Elliot Chapter Director, requested that the BOD approve funding for refurbishment of a 16" mirror they are using in their portable observatory project. The board unanimously approved providing \$1000 to cover costs associated with refiguring and recoating of a 16" mirror for the CEWMA portable observatory.

Next Board Meeting: The next meeting of the AAC Board of Directors was not scheduled during the current meeting. Notes of the BOD meeting were taken by Kat Sarbell and submitted October 23, 2005 by Art Russell, Recording Secretary.

Charlie Elliott Chapter December Meeting Minutes and Future Meetings

by Clevis Jones, CEC Recording Secretary

Saturday, December 3, 2005

ATTENDANCE: More than twenty-five guests and members attended the December meeting held at the Charlie Elliott Visitor Center.

BUSINESS:

POT LUCK DINNER: dining at its finest!!! Wow, was it good! Thanks to all whose hands contributed to a delightful dinner!

The 2006 Charlie Elliott Chapter meeting schedule is as follows: Jan 21, Feb 18, Mar 25, Apr 22, May 20, Jun 17, Jul 15, Aug 19, Sep 16, Oct 14, Nov 11, Dec 09. Updates at <http://www.atlantaastronomy.org/CEWMA/>

OBSERVING REPORT - What's Up Tonight: Steve Bieger presented "What's Up Tonight". This month is the Full Cold Moon month and his presentation covered objects in constellations including Cetus, Pices, and Taurus among others. Steve covered the winter solstice as celebrated by different cultures over time. Steve will have a list of objects for next month's viewing posted on the CEC Web-site as well as links and information on this month's objects. If you have suggestions, Steve welcomes them and can be contacted at sbieger@bellsouth.net

CURRENT EVENTS REPORT: Clevis Jones covered SOHO's 10th anniversary, the successful landing and take off of the Japanese Hayabusa spacecraft on the near-Earth asteroid Itonkawa (named for the father of Japanese rocketry), and member images of Mars.

FEATURED PROGRAM: "Mars Rose Bowl" Dr. Richard W. Schmude, former Executive Director of the Association of Lunar and Planetary Observers, Professor at Gordon College, Barnesville, GA gave us an entertaining and very informative update on this year's phenomenal Mars apparition! We've had dust storms, weather fronts, cloud phenomena, mists, snows – an unusually active and very interesting Mars apparition this year! Topics covered included dust storms and how the size of particles affects brightness, SPC sublimation, NPH and Mt. Olympus brightness measurements. He described how to tell the time of season on Mars with a lesson in Areocentric Longitude. Brightness data, sources and results were discussed. He asked everyone to keep drawing Mars and send those drawings to him: he finds these drawings very useful in his studies. As always, Dr. Schmude kept the attendees fully involved in his presentation. It was another great presentation. Thank You, Dr. Schmude! <http://www.lpl.arizona.edu/alpo/>

OBSERVING SESSION: No observing due to overcast.

MEETING DATES AND PROGRAMS:

January 21, 2006 - 3:00 PM.

Place: Charlie Elliott Visitor's Center

- Astronomy Current Events - Clevis Jones

- What's Up Tonight - Steve Bieger

Feature: Astronomers Show and Tell – Bring your new telescope, and find out how to use it, or just take a look at the telescopes and other astronomy equipment club members will have on display – sorry, no sales will be permitted at the Charlie Elliott Visitor Center.

Observing: Everyone is invited to the Charlie Elliott observing field after the meeting for an evening of viewing and imaging through member and club telescopes.

FOR UPDATES & DIRECTIONS: PLEASE check the CEC website for the most current meeting information! <http://www.atlantaastronomy.org/CEWMA/>



Dan Llewellyn took this image of Mars in Decatur with his 20" Starmaster on November 12, 2005 at 12:15 AM EST. The image was then processed by Rich Jakiel.

A New Project for the Telescope & Instrument Workshop

by Dan Llewellyn, AAC member and owner of Telescope Atlanta

OK gang, the Telescope and Instrument Workshop has decided on a new project, The Monorail telescope. We shall begin the project on the first TIW meeting, which is Saturday, January 14th from 11:00 AM -2 PM. For more information on the Monorail, click on: http://www.cloudynights.com/item.php?item_id=1091

If you want to be a part of this project with responsibilities, or just want to participate by watching this being built, please attend. We need as many volunteers as we can get. This will be a GREAT telescope.

AAC Dark-Sky Site at Deerlick Astronomy Village

by Art Russell, AAC Deerlick Dark-Sky Site Committee Chairman

Atlanta's light-polluted skies make it difficult for AAC members to enjoy nighttime panoramas commonly available to earlier generations. This is not news to the club's members. Indeed, acquisition of a dedicated club dark-sky observing site has been a stated goal of the club since I joined in 1993.

For the last 5 years or so, the club has had access to an observing site at the Woodruff Boy Scout Center located near Blue Ridge, Georgia. Although the site has provided a number of members with opportunities to observe under dark-skies, its limitations have prevented full participation by all members.

East of Atlanta, members of the AAC and interested others, have undertaken creation of an "astronomical village" patterned after a successful earlier project in Chiefland, Florida (see <http://www.chiefland.org/>). Closer to home and located under some of the darkest skies in Georgia, the newly formed Deerlick Astronomical Village (DAV) is situated in an area not expected to experience any significant growth in the next 10-15 years.

For those interested, AAC member Chris Hetlage has posted a panoramic picture at his web-site that provides some idea of what the site looks like presently; see http://www.hetlage.com/images/dav_memberfield_091905_med.jpg. In addition, Chris and other members of the AAC maintain a Yahoo Groups web-site detailing their efforts to establish the DAV (see http://groups.yahoo.com/group/GA_DarkSky/?yguid=6973028).

With the advent of the New Year, the AAC will begin negotiations to secure a club site located at the DAV. To further the process, at the last AAC Board of Directors meeting, a committee was formed to begin negotiations with the DAV. Committee members are Alex Langoussis, Art Russell, Joanne Cirincione, Peter Macumber, Philip Sacco, and Tom Crowley.

When successfully completed, this will bring to fulfillment club efforts to acquire a dark-sky site. However, before we begin negotiations, we'd like to hear from you about what you'd like to see at the site. What requirements do you see the AAC's dark-sky site as needing? Feel free to contact me about the proposed dark-sky site: phone 404-607-9946, email atrussell@mindspring.com. I look forward to your comments. Thanks.

New Horizons - To Pluto and Beyond

by Tom Faber

In January NASA plans to launch the New Horizons spacecraft to conduct the first close-up exploration of the Pluto system and the Kuiper Belt beyond. The project's Principle Investigator, Dr. Alan Stern of the Southwest Research Institute, posts periodic status reports on the mission to the New Horizons web site (<http://pluto.jhuapl.edu>). His most recent report is on the next page.



The New Horizons launch vehicle fully assembled at Cape Canaveral Launch Complex 41. Credit NASA/JHU/APL

The PI's Perspective - Getting Closer

by Alan Stern, December 27, 2005

This past week was a busy one. Mission operations practices continued, as did engineering paperwork closeouts. Other major activities included:

- * The final tasks associated with mating the spacecraft and third stage to our Atlas launch vehicle.
- * A suite of integrated electrical testing of the spacecraft-third stage-Atlas stack.
- * A stress test of the New Horizons spacecraft Power Distribution Unit (PDU) in response to an anomaly investigation surrounding a pair of commands the PDU dropped before executing on Nov. 19-20.
- * A dry run of radioisotope thermoelectric generator (RTG)-spacecraft mating activities.
- * Draining and preparations to begin drying our Atlas fuel tank in preparation for boroscope inspections set for Jan. 3-4.
- * The final NASA Headquarters prelaunch mission review.
- * A mission press conference held at NASA Headquarters; this was accompanied by the release of the mission press kit, which is available at <http://pluto.jhuapl.edu>.

In other news of the week, New Horizons science team collaborator Marc Buie and four coworkers submitted a research paper to The Astronomical Journal describing some new results about Pluto's just-discovered small satellites, which have been temporarily dubbed "P1" and "P2." This paper is posted on the Web at: <http://xxx.lanl.gov/abs/astro-ph/0512491>.

In brief, Buie et al. faintly detected P1 and P2 in almost two dozen Hubble Space Telescope images of Pluto made in 2002. They then used that data to refine the orbits of the new satellites. They also managed to eke out colors for the two moons: P1 is neutrally colored, but P2 is red. Why are they different? No one knows, but variety is the spice of life, and these new results indicate New Horizons is going to see a lot of that when it visits the Pluto system.

The holidays upon us now are providing a well-earned break for most of the New Horizons team. With that break, also comes a time of reflection. We are very proud of the spacecraft and launcher we built and tested in 2005, and we are even prouder to think that we're so close to flying the capstone mission in the initial reconnaissance of the planets.

I'll post my next update right after the start of the new year. See you then.

Two Stunning Pictures Show Young Stellar Clusters

EUROPEAN SOUTHERN OBSERVATORY NEWS RELEASE

Posted: December 29, 2005

Just like Charles Dickens' Christmas Carol takes us on a journey into past, present and future in the time of only one Christmas Eve, two of the European Southern Observatory's telescopes captured various stages in the life of a star in a single image.

The image (top right) shows the area surrounding the stellar cluster NGC 2467, located in the southern constellation of Puppis ("The Stern"). With an age of a few million years at most, it is a very active stellar nursery, where new stars are born continuously from large clouds of dust and gas.

The image, looking like a colourful cosmic ghost or a gigantic celestial Mandrill, contains the open clusters Haffner 18 (centre) and Haffner 19 (middle right: it is located inside the smaller pink region - the lower eye of the Mandrill), as well as vast areas of ionised gas. NGC 2467 is also sometimes referred as the "Skull and Crossbones".



The bright star at the centre of the largest pink region on the bottom of the image is HD 64315, a massive young star that is helping shaping the structure of the whole nebular region.

The image was taken with the Wide-Field Imager camera at the 2.2m MPG/ESO telescope located at La Silla, in Chile.

Another image of the central part of this area is shown below. It was obtained with the FORS2 instrument at ESO's Very Large Telescope on Cerro Paranal, also in Chile.



Continued on next page

The image zooms in on the open stellar cluster Haffner 18, perfectly illustrating three different stages of this process of star formation: In the centre of the picture, Haffner 18, a group of mature stars that have already dispersed their birth nebulae, represents the completed product or immediate past of the star formation process. Located at the bottom left of this cluster, a very young star, just come into existence and, still surrounded by its birth cocoon of gas, provides insight into the very present of star birth. Finally, the dust clouds towards the right corner of the image are active stellar nurseries that will produce more new stars in the future.

Haffner 18 contains about 50 stars, among which several short lived, massive ones. The massive star still surrounded by a small, dense shell of hydrogen, has the rather cryptic name of FM3060a. The shell is about 2.5 light-years wide and expands at a speed of 20 km/s. It must have been created some 40,000 years ago. The cluster is between 25,000 and 30,000 light-years away from us. Images Credit: ESO

Galaxy's Neighboring Spiral Arm Is Closer Than Thought

Harvard-Smithsonian Center for Astrophysics Press Release, December 27, 2005

Cambridge, MA - The Perseus spiral arm - the nearest spiral arm in the Milky Way outside the Sun's orbit - lies only half as far from Earth as some previous studies had suggested. An international team of astronomers measured a highly accurate distance to the Perseus arm for the first time using a globe-spanning system of radio dishes known as the Very Long Baseline Array (VLBA), which offers the sharpest vision of any telescope in existence. Additional VLBA measurements will help astronomers to determine the true structure of the Milky Way.

"We know less about the structure of our own galaxy than we do about many nearby galaxies like Andromeda," said Smithsonian astronomer and team leader Mark Reid (Harvard-Smithsonian Center for Astrophysics). "We literally can't see the forest for the trees because we are embedded inside our own galaxy, and interstellar dust blocks our view."

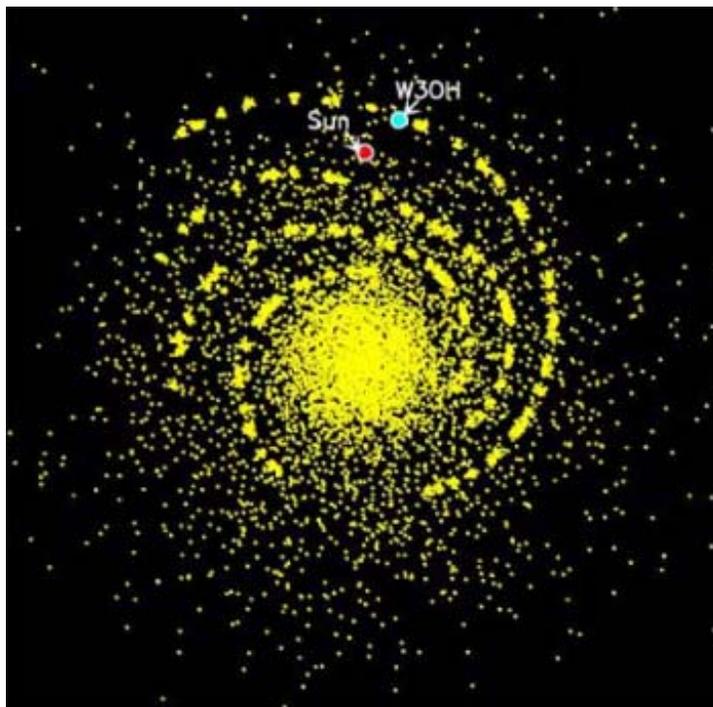
The team's results were published in the December 8, 2005 online issue of Science Express and will appear in print in the January 6, 2006 issue of Science. Reid also will speak about the findings on January 9 at the 207th meeting of the American Astronomical Society in Washington, DC.

Previous estimates of the distance to the Perseus arm varied by a factor of two. Studies based on the motions of stars yielded a distance of more than 14,000 light-years, while observations comparing the apparent brightness of massive, young stars with estimates of their intrinsic brightness yielded a distance of only about 7,200 light-years. The new VLBA measurements confirm with an accuracy of 2 percent that the Perseus spiral arm is located about 6,400 light-years from the Earth.

"Our neighbors are closer than we thought," stated first author Ye Xu (Shanghai Astronomical Observatory).

Obtaining accurate distances in astronomy is a difficult challenge. The most reliable method for measuring astronomical distances is called trigonometric parallax, a technique similar to the triangulation used by land surveyors. A trigonometric parallax is determined by observing the change in position of a star relative to a very distant, essentially fixed object like a quasar, as the Earth moves in its orbit around the Sun. Just as a finger held at arm's length appears to shift against the far wall when viewed with one eye or the other, a nearby object will appear to shift position relative to a more distant one. Mathematical calculations then yield the distance to the closer object. The parallax method is powerful but requires exceptional accuracy.

"I have spent more than a decade developing the calibration techniques we needed to obtain this result," said Reid.



Mark Reid and his colleagues measured the distance to the Perseus spiral arm and found it to be closer than believed, only 6400 light-years away. Credit Y. Xu et al.

The team achieved an accuracy of 10 micro-arcseconds, which is a factor of 100 better than previous methods. That resolution is equivalent to looking from the Earth to a person standing on the Moon's surface and telling whether that person is holding a flashlight in their right or left hand. The VLBA is the only telescope able to provide such high resolution.

Reid and his colleagues used the VLBA to examine the region near a newly formed star in the Perseus arm called W3OH. They gathered radiation from bright, compact radio sources known as methanol masers. (Masers amplify, or strengthen, radio-wave emission the same way that lasers amplify light emission. Masers can form naturally in outer space.)

With a distance in hand, the team was able to determine the motion of W3OH in three-dimensional space. They found that W3OH is orbiting the galactic center more slowly than the galaxy spins, and is "falling" toward the center of the Milky Way. Such peculiar motions can be studied to determine the distribution of mass in the Milky Way.

The team has been awarded additional VLBA observing time to measure other regions of the galaxy. Over time, such studies will help map the spiral structure of the Milky Way and determine the distribution of unseen dark matter believed to surround it.

The VLBA is part of the National Radio Astronomy Observatory (NRAO), a research facility of the National Science Foundation (NSF). Dedicated in 1993, the VLBA consists of 10, 25-meter-diameter dish antennas spread from Hawaii to St. Croix in the Caribbean. The antennas all work together as a single telescopic system roughly the size of the Earth. The NRAO is operated for the NSF under a cooperative agreement by Associated Universities, Inc.

Headquartered in Cambridge, Mass., the Harvard-Smithsonian Center for Astrophysics (CfA) is a joint collaboration between the Smithsonian Astrophysical Observatory and the Harvard College Observatory. CfA scientists, organized into six research divisions, study the origin, evolution and ultimate fate of the universe.

Georgia Astronomy in State Parks (GASP) Events

Here are the currently scheduled GASP events for 2006:

March 25th - Unicoi St Park.

April 15th - Tallulah Gorge St Park.

June 10th - Amicalola Falls St Park.

September 2nd - FDR State Park (Labor Day Weekend)

November 11th - Florence Marina St Park.



For more information about these events, contact Joanne Cirincione at Starrynights@AtlantaAstronomy.org.

The GASP volunteers - 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.

Next AAC Board Meeting

The next Board Meeting of the Atlanta Astronomy Club will be on Sunday, February 12th at 5:00PM at Bradford Map, Globe & Telescopes, 300 Hammond Dr, Sandy Springs.

Editor's Note

Most of the images in the Focal Point are in color, but you won't see that if you are getting the mailed version. You can download the full color version from the AAC web site each month. By reviewing the Focal Point over the Internet instead of having it mailed, you can save the club about \$12 a year in printing and mailing costs. It may not sound like much, but the more people that use the Internet to receive the Focal Point, the more money the club will have to support its other activities. Just send an email to Kat Sarbell (FocalPoint@AtlantaAstronomy.Org) requesting that your name be removed from the Focal Point mailing list.

Atlanta Astronomy Club Website

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 (when available) and other information. <http://www.atlantaastronomy.org>

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 or times. Membership is open to all. 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.

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

AAC Web Page: <http://www.AtlantaAstronomy.Org>

Send suggestions, comments, or ideas about the website to webmaster@AtlantaAstronomy.org. Also send information on upcoming observing events, meetings, and other events to the webmaster.

AAC Contacts

President: Philip Sacco 404-296-6332
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Elliott Observing Supervisor: Steve Bieger - Contact Info TBA

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Co-Chair: Joanne Cirincione starrynights@AtlantaAstronomy.org

Sidewalk Astronomy: Mark Banks 404-257-2766
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Woodruff Observ. Coordinator: John Lentini 770-984-0175
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Webmaster Atlanta Astronomy: Peter Macumber 770-941-4640
pmacumber@nightsky.org

Directions to White Hall at Emory

Meeting Location Information:

Turn onto Dowman Drive from North Decatur Road at the five way intersection (across from Everybody's Pizza). White Hall is located on the right across from the new Science & Math building. Parking is available along Dowman Drive on both sides of the road. There is also a gated parking lot on the left behind the Admissions Building. After 6PM there is no fee to park there. For more detailed directions on how to get to Emory University, visit www.atlantaastronomy.org.

Calendar by Tom Faber (All times EST unless noted)

January 4th, Wednesday: Earth at Perihelion. Latest Sunrise (~7:42 AM EST at Atlanta).
January 6th, Friday: Moon First Quarter.
January 9th, Monday: Moon occults M45.
January 13th, Friday: Venus Inferior Conjunction.
January 14th, Saturday: Full Moon. Telescope & Instrument Workshop, 11AM at Bradford Map, Globe & Telescopes.
January 20th, Friday: AAC Meeting at White Hall, 8PM, Emory University.
January 21st, Saturday: New Telescope Workshop at VR, 3PM, Contact Daniel Herron for details. CEC Meeting, 3PM.
January 22th, Sunday: Moon Last Quarter.
January 26th, Thursday: Focal Point Deadline. Mercury Superior Conjunction.
January 27th, Friday: Saturn at Opposition.
January 28th, Saturday: DSO at Woodruff BSC, Contact Daniel Herron for details.
January 29th, Sunday: New Moon.
February 5th, Sunday: Moon First Quarter, near Mars. Neptune Conjunction with Sun.
February 10th, Friday: (Special Date) AAC Meeting at White Hall, 8PM, Emory University.
Bradley Observatory Open House, 8PM, Agnes Scott College, "The fault, dear Brutus, is not in our stars / But in ourselves. Was Cassius Right?" Mark Douglas (Columbia Seminary).
February 12th, Sunday: AAC Board Meeting, 5PM. Moon Full.
February 17th, Friday: Moon occults Spica.
February 18th, Saturday: CEC Meeting, 3PM.
February 21st, Tuesday: Moon Last Quarter.
February 23rd, Thursday: Mercury Greatest Eastern Elongation.
February 25th, Saturday: DSO at Woodruff BSC, Contact Daniel Herron for details.
February 27th, Monday: New Moon.
March 1st, Wednesday: Uranus Conjunction with Sun.

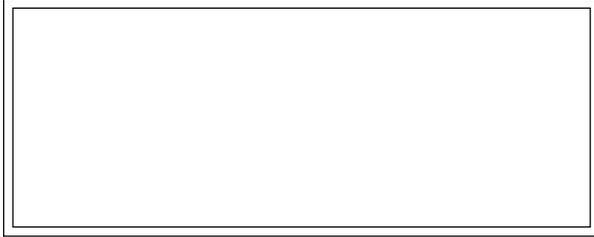
Atlanta Astronomy Club Listserve

Subscribe to the Atlanta Astronomy Club Mailing List: The name of the list is: AstroAtlanta. The address for messages is: AstroAtlanta@yahoogroups.com. To add a subscription, send a message to: AstroAtlanta-subscribe@yahoogroups.com. This list is owned by Lenny Abbey.

Focal Point Deadline and Info

Please send articles, pictures, and drawings in electronic format on anything astronomy related to [Kat Sarbell at focalpoint@atlantaastronomy.org](mailto:KatSarbell@focalpoint@atlantaastronomy.org). You can submit articles anytime up and including the deadline date. **The deadline for February is Thursday, January 26 at 4:00 PM Submissions will no longer be accepted after the deadline.**

FIRST CLASS



Newsletter of The Atlanta Astronomy Club, Inc.



FROM:

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

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