

# The Focal Point

The Atlanta Astronomy Club  
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Editor: Kat Sarbell

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## August General Membership Meeting

By Keith "Kosmic Kow" Burns

The next General meeting of the Atlanta Astronomy Club will be on August 19th at 8 P.M. at Emory University in White Hall. Directions to White Hall 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.

The meetings consist of two parts. Part one consists of a short business meeting. This includes any announcements of meetings, upcoming events, and things of general interest. Part two is the talk or talks for the night. We usually have two talks. The first one is a feature we call show and tell. It is a 5 to 10 minute talk on something astronomy related given by a club member. The second talk is our featured speaker for the night. Afterward we adjourned the meeting and head off to a local eating establishment for supper, dessert, and/or just a drink.

This month I am excited to announce Tim Puckett of The Puckett Observatory will be coming to speak to us. Recently Tim's Supernova group found their 100<sup>th</sup> supernova discovery. He will talk to us about the supernova program and the latest happenings. Plus he will give some background on the Puckett Observatory and other things he is working on.

Here is some information on our speaker. A pioneer in the field of amateur CCD astro-imaging, Tim Puckett has built many robotic telescopes and is the co-discoverer of 100 supernovae to date. His comet photos have graced the pages of many magazines worldwide. His work has been featured on air at: ABC, NBC, CBS, FOX, CNN, BBC, Good Morning America, Discovery, and The Learning Channel. He's been published in 22 countries, and is a co-Author of The Art & Science of CCD Astronomy. Puckett is a 25-year veteran amateur astronomer, 20 years of which he's been an avid astrophotographer. Since 1989 he's owned and operated

numerous CCD cameras. Currently Puckett is operating a Super Nova patrol which spans 5 countries. Tim is also currently working as a robotic telescope consultant to many professional institutions and the co-owner of Observatoryscope, makers of high precision robotic telescopes. Here are website addresses to some of Tim's CNN interviews with the late John Holliman. There are also addresses to several of his websites.

<http://www.cnn.com/TECH/space/9807/16/puckett.observatory/index.html>

<http://www.cnn.com/TECH/space/9807/15/holliman/>

<http://www.cometwatch.com>

<http://www.observatoryscope.com>

### Upcoming speakers and programs for the coming months.

Coming in September we have Hal McAlister of Georgia State University. He will be talking about the latest from the CHARA program.

For October, we have something different for a talk. Angela Osterman is a graduate student from Georgia State University. She will talk about her research, what it is like to be a graduate student, and the various observatories around the world she has visited.

## AAC Mailing Address Change

by Sharon Carruthers

The Atlanta Astronomy Club has changed its mailing address. Our new address is: The Atlanta Astronomy Club, Inc., P.O. Box 76155, Atlanta, GA 30358-1155.

## A Letter from the President: "No Person is an Island"

First a word of welcome to all our new members! The AAC has a lot to offer, and experience has born out that you will get more out of the club if you get involved. With that said ~ find your interest and share your interest! Welcome.

I have been a member of the club now for 10 years. In that time I have met a load of wonderful people, each with something unique and interesting to share. I have also made an observation... What do these imagers, satellite trackers, deep sky observers, amateur telescope makers, comet hunters, Solar Eclipse chasers, and meteor gazers have in common? Yes... they are all members of the AAC, but what else...

They all seemingly stand alone in their interests ~ Meaning ~ few of them know with whom else in the club they can share their interest. Sure, a few have made friends with each other, but what about the new members coming into the club? They don't know who's who, and whom to contact with their particular questions, or whom they can share their passion.

Simply put, when new members join the club, they are often asked, "What is your interest in Astronomy?" Unfortunately, nothing has been done with this information.

Among the efforts I would like to see accomplished this year, as will be discussed later in this article and in subsequent 'Letters from the Prez,' first off I would like to see all of our membership have better resources made available to them to further their individual interests. The first step towards this goal requires YOUR involvement. Please contact me and tell me of your interest. This information will be recorded and made available to other members so that "birds of a feather can flock together." In short, I would like to see a compilation of those with special interests in astronomy. This should facilitate more communication among our membership, and hopefully make the newcomers task of getting direction and answers a little more comfortable. Your help is essential with this. If you would like to head up your particular special interest group, stand up and let it be known...now is the time to make your voice and interest known. I see having a 'spokesman' for each special interest group imperative to drive the groups efforts forward. I as your President am but one individual. It takes everyone doing their part to make our club the vital and energetic club it is.

Some time ago I had discussed this matter with the clubs ALCOR, Keith Burns, and he has been working on putting together Observing Special Interest Groups for the Astronomical Leagues Observing Programs. Please contact Keith or myself, your SERAL, about the observing programs. To my knowledge we currently have active groups formed with 'mentors' for the Double Star, Lunar, Messier, Herschel, Urban, Planetary, Solar, Binocular Messier, and Arp Clubs. For more information about these observing programs visit the Astronomical Leagues website.

It has come to my attention that a 5-year plan had been drawn up, some time ago, for the club. I hope to see several of the items on that plan moved towards aggressively this year. More on this will be said at the clubs general membership meeting on the 19<sup>th</sup>.

Of particular concern to me is our maintenance and continued service with the Boy Scouts to secure our dark sky site in Blue Ridge. As stipulated in our agreement with the Scouts, we are to conduct 'Astronomy Nights' for the Scouts during their Summer programs. These programs are held during the week and make it very difficult for willing AAC members to participate due to the distance involved. Also, it has come to my attention that we will need to find a new Scout Liaison to take over for John Lentini. If you are interested in working in that capacity, please let me know.

In order to better meet our obligations with the Scouts, I have proposed to the Board a canvassing of the membership to see if it would be possible to start a Chapter of Astronomy in the Blue Ridge area. If this is of interest to you, please contact me, or Larry Owens~ the Charlie Elliott Chapter Director.

The last major announcement I have for this letter concerns our Barber Observatory. Back in 1998-99 when so much energy was put into revitalizing our site, the vision I had for the efforts included having the capability to capture Lunar and Planetary images with club equipment. We will need those members with an interest in imaging to be involved in this project. If you are a budding or seasoned imager and want to help bring this about, contact Rich Jakiel, or Dan Llewelyn.

Finally, our Program Director, Keith Burns, has notified me that one of our meetings this coming Fall -Winter will have to be on the second rather than the third Friday of the month. Be watching the website, and the Focal Point for the date change. This notice will also be on the clubs Hotline, 770-621-2661.

Thanks for your participation ~ Remember ~ "Many hands make light work."

Clear Skies ~

Philip Sacco

SERAL, President AAC, Master Observer #11, Lunatic #82, Urban #1

## AAC July Meeting Minutes

by Art Russell

Approximately 40 members and guests attended the July General Membership Meeting of the AAC held at Emory University's White Hall. Phil Sacco, President, opened the meeting at 8:05 PM with a quiz commemorating the delayed Space Shuttle launch. AAC members Tom Faber and Tom Buchanan answered the quiz questions correctly and received commemorative shuttle coins and patches as prizes. Phil then spoke about a 3-part agenda for the forthcoming year as president. First, he intends to push for an upgrade of the facilities at the club's Villa Rica Observatory. Secondly, he'd like to charter an AAC chapter in north Georgia that would focus on supporting the astronomical activities of the Boy Scouts at the Woodruff Scout Camp. Finally, he proposes that everyone in the club should be seen as a beginner until they express their interests in Special Interest Groups. In further remarks, he noted that AAC member Tom Crowley was elected as Chairman of the Board of Directors and that AAC member Sharon Carruthers has volunteered to serve as the chairwoman of the Special Interest Group committee. (*Editor's Note: Sharon later corrected that she offered to pass on any membership information she has that the Special Interest Committee may need, not to chair the committee.*)

Charlie Elliott Wildlife Management Area (CEWMA) AAC Chapter President Larry Owens discussed ongoing activities including the success of the recent Pot-Luck dinner held at CEWMA. Larry also discussed equipment available now or shortly at CEWMA.

AAC Program Chairman Keith Burns introduced three presentations as the program for the evening. AAC member Dallas Rodgers discussed his successes with radio astronomy using his Starmaster telescope in a presentation entitled "Satellite Tracking and Amateur Radio." AAC member Daniel Herron discussed star-hopping in his presentation entitled "Star Hopping." AAC member Art Zorka showed how amateur astronomers can create simple inexpensive web-cameras in his presentation entitled "A Cheap Way to Get Started in Astrophotography."

Phil closed the evening with a discussion of membership training and observing programs offered by the Astronomical League. He adjourned the meeting at approximately 9:35PM whereupon the membership then moved to the after-meeting festivities held at Athens's Pizza.

## Charlie Elliott July Meeting Minutes

by Clevis Jones, CEC Recording Secretary

Saturday, July 9, 2005

ATTENDENCE: Thirty-six guests and members attended the July meeting.

BUSINESS: Larry's business presentation consisted of a continuously running slide show to music during dinner. The presentation outlined progress on the Byers mount, acknowledged the efforts of Jim Honeycutt and Bill McKibben for their participation in the Charlie Elliott Summer Camp program, and reminded participants of our programs for August and September (see below).

CURRENT EVENTS REPORT: Clevis Jones pointed out that Larry Owens has started a Mars imaging campaign, the Deep Impact mission to comet 9P/Tempel 1 was a "smashing" success, and Space Shuttle mission STS-114 was scheduled to launch July 13.

OBSERVING REPORT - What's Up Tonight: Steve Bieger presented his first "What's Up Tonight" report and explained his goals for the reports in the coming months. These reports by Steve are going to be very informative and contain something for all levels of observers: naked eye to deep sky. He plans to establish a "Watch List" on the CE Web site so everyone can preview what he will be covering in detail.

FEATURED PROGRAM: Pot Luck: Great food and companionship! The dinner was a great success, especially considering the bad weather, with 36 attendees. After the "Current Events" and "What's Up" reports, Philip Sacco further entertained the group with a short talk on mythology. Later, Rich Jakiel delighted the group with some of his images of the Moon, Jupiter and Mars.

OBSERVING SESSION: Clouded out by the edges of Hurricane Dennis.

## Charlie Elliot Chapter Future Meetings

by Larry Owens

Meeting Dates and Programs:

All programs are at the CE Visitor's Center presentation room unless noted otherwise. Enter through the left side door nearest the back of the building.

August 6, 2005 - 5:00-7:30 PM

Lecture. Clevis Jones, the chapter's Recording Secretary will present a short program on current events in astronomy and Stephen Bieger, the chapter's Observing Supervisor will present a short program on what's available for observing from Charlie Elliott.

Feature Presentation: "Mars Opposition 2005", Dr. Richard Schmude

Lecture. Please join Dr Richard Schmude for an entertaining and informative preview of the 2005 opposition of the planet Mars.

Observing. Everyone is invited to the Charlie Elliott observing field after the meeting for an evening of observing.

September 10, 2005 - 5:00-7:30 PM

Lecture. Clevis Jones, the chapter's Recording Secretary will present a short program on current events in astronomy and Stephen Bieger, the chapter's Observing Supervisor will present a short program on what's available for observing from Charlie Elliott.

Feature Presentation: "Deep Sky Imaging with Digital Cameras", Larry Owens

Lecture. "Deep sky" imaging (time exposure photography of the night sky) in the recent past has required very expensive astronomical CCD cameras or wrestling with the difficulties of using a film camera. With today's advancements in digital photography, the common digital land camera is now very suitable for most types of deep sky imaging. Please join Larry Owens for a program on how to get started, using a common digital land camera.

Observing. Everyone is invited to the Charlie Elliott observing field after the meeting for an evening of observing.

## Darkest Africa

by Dave C Riddle

My cushioned seat on the South African Airways Airbus 340-600 must be filled with stones. Just great -- this technological marvel of a plane doesn't have enough padding in the seat to suit my sore tail and my legs are starting to stiffen from the lack of proper legroom. Anything to pass the time, I wearily watch the movie "Ray" for a second time. The Ray Charles rendition of "Georgia" only makes me feel homesick despite having just left Hartsfield International a few hours ago. I grumble and finally face the facts -- I am stuck in this flying tin can for another 16 hours.

I doze off and then wake with a start. What the devil am I doing here? I've volunteered for a two month stay at a place I'd never even heard of until a few months ago in a country that many Americans have never heard of. Sossusvlei in Namibia. The Great Namib Desert. Right. This may turn out to be a bad idea. A really bad idea. I ask the stewardess for a beer -- no, make that two.

I feel better after clearing customs in Johannesburg, South Africa. I'm delighted to see my old friends in Africa waiting for me at the gate. The

morning is splendid with a warm subtropical sun in a clear blue sky. This sure beats the weather back home. I'll bet it is still cold and raining there. With the grueling flight behind me, I start to see the reasons why I chose to come back to Africa. There isn't another place like it.

The plan is to leave Johannesburg and do a five day road trip to the Sossusvlei Mountain Lodge in Namibia. Once there, I'll be "employed" as a ranger of sorts and use a Meade LX200 12" telescope to show the paying guests the wonders of the night sky. Some job -- and I'm even more excited when I get my first glimpse of the Southern Hemisphere night skies from Augrabies, Namibia. Rising early one morning well before sunrise (and after moonset), I see the Milky Way as a blazing band of light splitting the Heavens. The famed Southern Cross, the remarkable Coalsack and the heart of the Milky Way are passing overhead in a sky that can only be described as "black." There isn't any light pollution to soften the impact of what has to be one of the most glorious sights Nature can provide. I'm so enchanted by the view that I find a picnic table and lie flat on my back and stare upwards. Meteors dart overhead -- some are swift arrows while others are graceful, slow, flaring affairs against a sky literally filled with stars. I'm struck by the fact that in all of my years of star-watching, I've never really seen the Milky Way.

I find the Sossusvlei Mountain Lodge to be a splendid place. Located on the edge of the Great Namib Sand Sea with its towering sand dunes, the location is almost ideal for seeing the night skies. The humidity -- or lack of -- is noticeable. The air has a quality that is difficult to describe. It tastes different. And the color of the sky is of a hard blue tint that you will never see from Atlanta. I meet Peter Dunning, the manager of the lodge and I'm put at ease. I'm a working member of the staff but I'll be treated as a guest. We are served lunch. The menu? Ostrich. Oh boy, my favorite. The food is superb (after a few weeks of "African" food, I finally ask for a hamburger and a milk shake with fries).



Sossusvlei Mountain Lodge in Namibia. Copyright © 2005 CC Africa - CC Africa Safaris & Tours

So, how good are the night skies from Sossusvlei? I'll bet they can be counted among the best in the world. The number of clear, sunny days comes as a surprise to me (which

should be no surprise at all considering the Namibian flag has a big sun-symbol on it). rains only twice during my stay and the rain really is a big deal here. About three-quarters of an inch of rain falls one morning (which is practically unheard of in these parts) and I am indeed fortunate to witness the miraculous "blooming" of the desert.

First comes the grass, followed by the desert flowers and an exploding population of insects. This in turn brings the larger animals closer in to the lodge. Hartmann Zebra, oryx, jackal, bat-eared fox, kudu, hyena... fortunately, with the coming of the Winter months at Sossusvlei, the numbers of desert scorpions and solifuge (a big hairy spider known as the "Kalahari Ferrari" due to its habit of chasing shadows to stay out of direct sunlight) are on the decline. Despite assurances that the spider is more bark than bite, that still doesn't stop me from freaking out when I find one hanging on the wall of my bedroom. Yep, they certainly are "Ferraris" but after a couple of laps around the room, it has joined the ranks of the deceased. I just don't care for spiders that much. But I feel lucky that it's not \*my\* room where a big black spitting cobra is found.

I like the staff of the lodge. If I want a cup of coffee at 4 in the morning while I'm using the telescope, all I do is call the night butler. And I stay up late on many evenings. I develop a fascination with the Large and Small Magellanic Clouds, those small irregular galaxies in orbit around our Galaxy. The blood-red star VY Canis Majoris is a favorite due the small orange reflection nebula that surrounds that star. Omega Centauri and the 47 Tucanae globular cluster are spectacular with the 12" telescope. All said and done, I'll record over 600 observations in my journal before I depart Namibia. I have the sinking feeling that I've only scratched the surface of what can be seen from the Namib Desert. Sleep? I'll sleep on the plane ride returning to Atlanta!

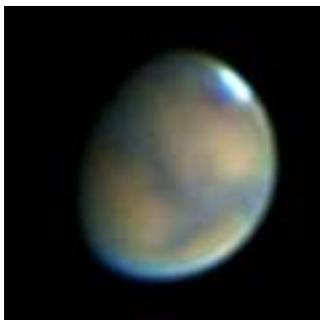
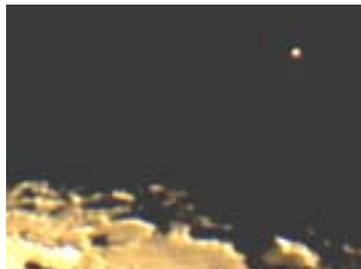
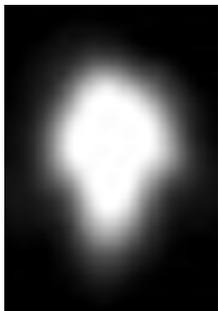


Above: The Meade LX200 that Dave used to show guests the night sky. Copyright © 2005 CC Africa - CC Africa Safaris & Tours

## Antares, the Moon, and Mars

by Rich Jakiel

On the evening of July 17th, Keith Burns and I observed the 'occultation', or in this case the very near miss - of Antares and the Moon. At one point the terminator was less than 10 arc-seconds from the star, but alas - no graze. I have enclosed a very preliminary image (below right) about 8 minutes from the close approach. Antares is resolved as a tiny 'bump' at almost the 9 o'clock position, but the Moon was smeared slightly in the process (Registax can't handle convergent motions). This image was on a C11 at f/10. (Below left is a resolved Antares earlier in the evening at f/20 - to prove how easy it was to split this binary star system).



Mars 7/18/05 at 9:50 UT. C11 at F/30, Neximage Cam - 2060 frame stack. CM = 255.4, D = 10.34", phase = 83.9. Seeing 7.5 (10). Rich Jakiel, Douglasville, GA.

Mars on 7/18/05 - 09:50 UT (4:50 EDT).

I got about 2 hours of sleep, then it was time to image Mars. For once, I had very good seeing - and here is one of my stacked images. I still need to refine my processing skills, but already a large amount of detail is visible on the planet which is only 10.3" across.

## What YOU can do to help Restore and Protect the Nighttime Environment

By Marc Sandberg

Light Pollution is so prevalent in the Atlanta metropolitan area that we are all waiting for that blackout to occur so we can use our scopes at home. The problem is so huge that you wonder what anyone could do about it. Well, wonder no more. If the members of the Astronomy Club follow these easy steps, there will be several hundred mini-dark sky preserves in the metropolitan area.

Step 1: Review your home or living area for GOOD outdoor lighting. Use the "Better Lights for Atlanta Nights" brochure as a guide (on the yahoo AstroAtlanta listserv). Look at your house from the outside at night, or better yet, from your neighbor's point of view. Be sure all fixtures have full cut off shields and do not emit light horizontally or upward to the sky. Only turn on outdoor lights when needed. Even better, install motion detectors on all outdoor lights to minimize power usage (more on this point next time).

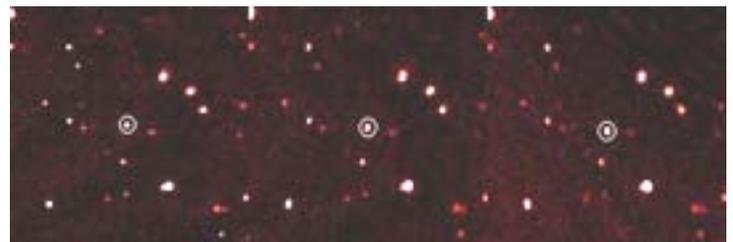
Step 2: Survey your neighborhood for good and bad outdoor lights. Tell neighbors who have good lights how much they are appreciated. If there is a bright outdoor light that gives off a lot of glare or sky glow (light shining upwards or outwards), talk to the owner politely (children should always be accompanied by an adult) to see if they are aware of it and if they would be willing to do something about it. Give them a "You Can Help Restore And Protect The Nighttime Environment" brochure and a "Better Lights for Atlanta Nights" brochure as a guide. (Both are available on the AAC listserv.) If they are not willing to do anything, thank them for their time. Of course, you may want to note down their name and address for future reference, for when we have ordinances prohibiting light trespass.

## NASA-Funded Scientists Discover Tenth Planet

NASA News Release - July 29, 2005

A planet larger than Pluto has been discovered in the outlying regions of the solar system.

The planet was discovered using the Samuel Oschin Telescope at Palomar Observatory near San Diego, Calif. The discovery was announced today by planetary scientist Dr. Mike Brown of the California Institute of Technology in Pasadena, Calif., whose research is partly funded by NASA.



This time-lapse image of a newfound planet in our solar system, called 2003UB313, was taken on Oct. 21, 2003, using the Samuel Oschin Telescope at the Palomar Observatory near San Diego, Calif. The planet, circled in white, is seen moving across a field of stars.

The planet is a typical member of the Kuiper belt, but its sheer size in relation to the nine known planets means that it can only be classified as a planet, Brown said. Currently about 97 times further from the sun than the Earth, the planet is the farthest-known object in the solar system, and the third brightest of the Kuiper belt objects.

"It will be visible with a telescope over the next six months and is currently almost directly overhead in the early-morning eastern sky, in the constellation Cetus," said Brown, who made the discovery with colleagues Chad Trujillo, of the Gemini Observatory in Mauna Kea, Hawaii, and David Rabinowitz, of Yale University, New Haven, Conn., on January 8.

Brown, Trujillo and Rabinowitz first photographed the new planet with the 48-inch Samuel Oschin Telescope on October 31, 2003.

However, the object was so far away that its motion was not detected until they reanalyzed the data in January of this year. In the last seven months, the scientists have been studying the planet to better estimate its size and its motions.

"It's definitely bigger than Pluto," said Brown, who is a professor of planetary astronomy.

Scientists can infer the size of a solar system object by its brightness, just as one can infer the size of a faraway light bulb if one knows its wattage.

The reflectance of the planet is not yet known. Scientists can not yet tell how much light from the sun is reflected away, but the amount of light the planet reflects puts a lower limit on its size.

"Even if it reflected 100 percent of the light reaching it, it would still be as big as Pluto," says Brown. "I'd say it's probably one and a half times the size of Pluto, but we're not sure yet of the final size.

"We are 100 percent confident that this is the first object bigger than Pluto ever found in the outer solar system," Brown added.

The size of the planet is limited by observations using NASA's Spitzer Space Telescope, which has already proved its mettle in studying the heat of dim, faint, faraway objects such as the Kuiper-belt bodies. Because Spitzer is unable to detect the new planet, the overall diameter must be less than 2,000 miles, said Brown.

A name for the new planet has been proposed by the discoverers to the International Astronomical Union, and they are awaiting the decision of this body before announcing the name.

The Jet Propulsion Laboratory manages the Spitzer Space Telescope mission for NASA's Science Mission Directorate, Washington. Science operations are conducted at the Spitzer Science Center at Caltech. Caltech manages JPL for NASA.

For more information and images see: <http://www.nasa.gov/vision/universe/solarsystem/newplanet-072905-images.html> or <http://www.astro.caltech.edu/palomarnew/sot.html>

## History's Greatest Comet Hunter Nears Major Milestone

NASA News Release - July 6, 2005

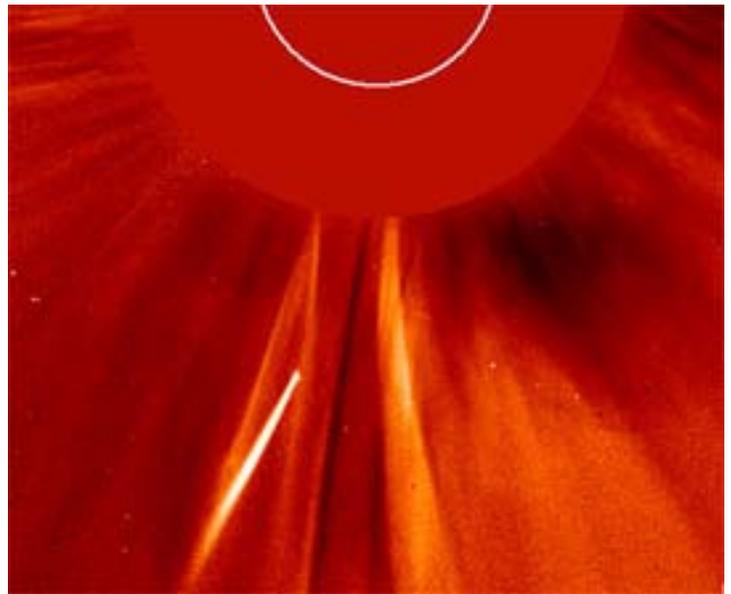
The Solar and Heliospheric Observatory (SOHO) spacecraft is expected to discover its 1,000th comet this summer.

The SOHO spacecraft is a joint effort between NASA and the European Space Agency.

It has accounted for approximately one-half of all comet discoveries with computed orbits in the history of astronomy.

"Before SOHO was launched, only 16 sun grazing comets had been discovered by space observatories. Based on that experience, who could have predicted SOHO would discover more than 60 times that number, and in only nine years," said Dr. Chris St. Cyr.

He is senior project scientist for NASA's Living With a Star program at the agency's Goddard Space Flight Center, Greenbelt, Md. "This is truly a remarkable achievement!"



*This Kreutz sungrazing comet was observed in the LASCO C2 telescope. This particular class of comets vaporizes as they plunge into the solar atmosphere. Credit: NASA/ESA*

About 85 percent of the comets SOHO discovered belongs to the Kreutz group of sun grazing comets, so named because their orbits take them very close to Earth's star. The Kreutz sun grazers pass within 500,000 miles of the star's visible surface. Mercury, the planet closest to the sun, is about 36 million miles from the solar surface.

SOHO has also been used to discover three other well-populated comet groups: the Meyer, with at least 55 members; Marsden, with at least 21 members; and the Kracht, with 24 members. These groups are named after the astronomers who suggested the comets are related, because they have similar orbits.

Many comet discoveries were made by amateurs using SOHO images on the Internet.

SOHO comet hunters come from all over the world. The United States, United Kingdom, China, Japan, Taiwan, Russia, Ukraine, France, Germany, and Lithuania are among the many countries whose citizens have used SOHO to chase comets.

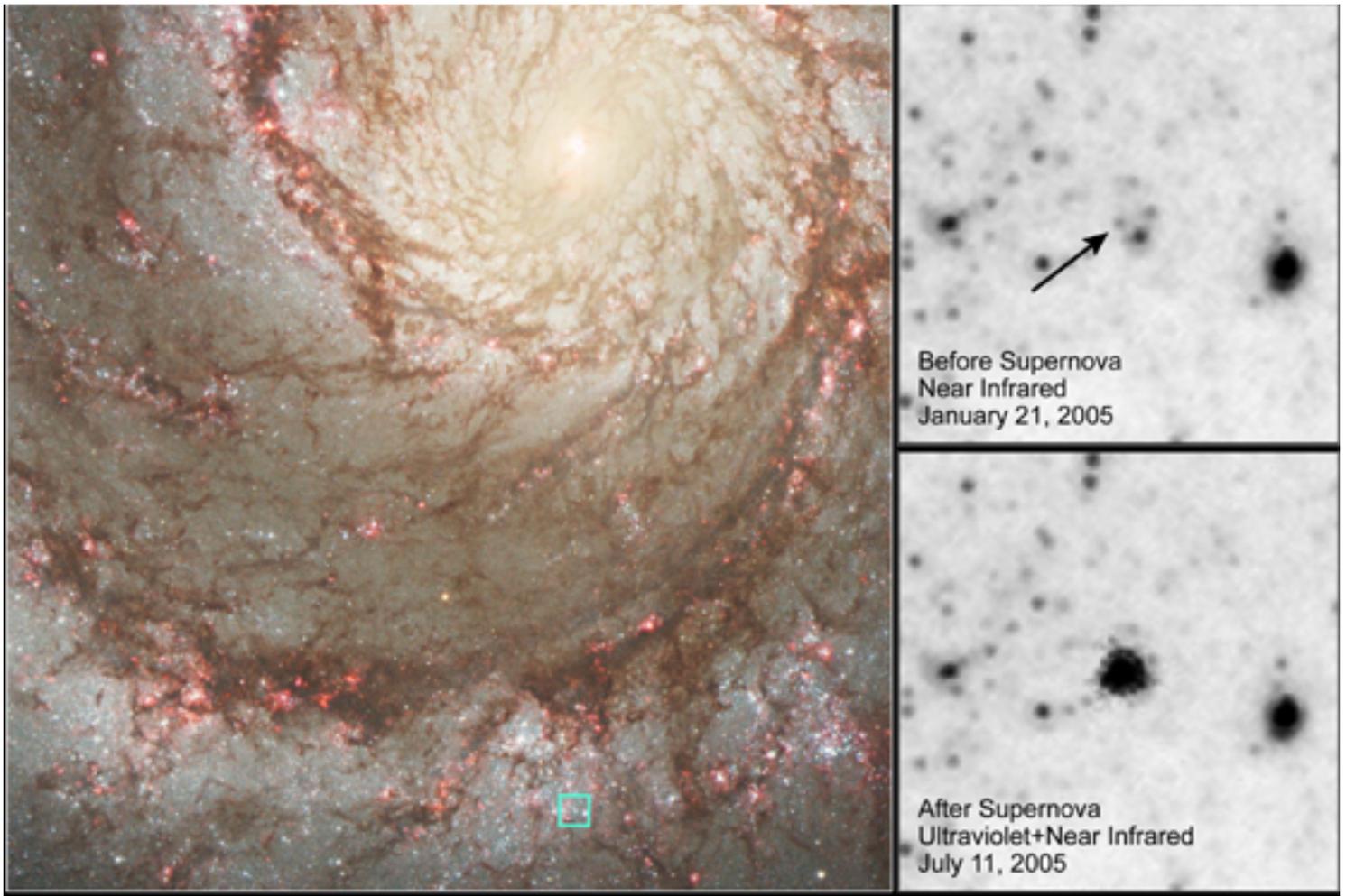
Almost all of SOHO's comets are discovered using images from its Large Angle and Spectrometric Coronagraph (LASCO) instrument. LASCO is used to observe the faint, multimillion-degree outer atmosphere of the sun, called the corona.

A disk in the instrument is used to make an artificial eclipse, blocking direct light from the sun, so the much fainter corona can be seen. Sun grazing comets are discovered when they enter LASCO's field of view as they pass close by the star.

"Building coronagraphs like LASCO is still more art than science, because the light we are trying to detect is very faint," said Dr. Joe Gurman, U.S. project scientist for SOHO at Goddard.

"Any imperfections in the optics or dust in the instrument will scatter the light, making the images too noisy to be useful. Discovering almost 1,000 comets since SOHO's launch on December 2, 1995 is a testament to the skill of the LASCO team."

SOHO successfully completed its primary mission in April 1998. It has enough fuel to remain on station to keep hunting comets for decades if the LASCO continues to function.



**Supernova 2004cs in the Whirlpool Galaxy • M51**  
 Hubble Space Telescope • Advanced Camera for Surveys

NASA, ESA, W. Li and A. Filippenko (University of California, Berkeley),  
 S. Beckwith (STScI), and The Hubble Heritage Team (STScI/AURA)

STScI-PRC05-21

## Hubble Pinpoints Doomed Star that Explodes as Supernova

Amidst the glitter of billions of stars in the majestic spiral galaxy called the Whirlpool (M51), a massive star abruptly ends its life in a brilliant flash of light. NASA's Hubble Space Telescope snapped images of the exploding star, called supernova (SN) 2005cs, 12 days after its discovery. Astronomers then compared those photos with Hubble images of the same region before the supernova blast to pinpoint the progenitor star (the star that exploded).

Photo Credit: NASA, ESA, W.Li and A.Filippenko (University of CA, Berkeley), S. Beckwith (STScI), and The Hubble Heritage Team (STScI/AURA)

## The Telescope & Instrument Workshop (T&IW formerly The ATM Group)

by Sharon Carruthers

Why did we call this the T&IW instead of the standard ATM (Amateur Telescope Makers)? 'Cause we thought ATM made it sound like all we did was make telescopes, which might keep people away (O.K., maybe that was dumb). But we are dedicated to ALL the NON-OBSERVING needs of our members – problems and projects with telescopes, binoculars, mounts, motors, optics, equipment and accessories. We are the place to bring new scope that you just can't get to work!!

We don't offer formal classes – it is all driven by networking and mentoring. Show up & we will find someone to help you. We will offer

specific topics (i.e. collimation, cleaning optics, mirror grinding & testing) at a meeting if our attendees express an interest. (The previous ATM group started on a 16" Dob for the Club – we would like to see work on that moving forward again.)

Meetings will be on Saturday morning at 11:00 a.m. and will be on the Saturday after the General Meeting for the next 3 months (these are Full Moon weekends). Future meetings will be on August 20, Sept 17, and Oct 15 (this is the Saturday BEFORE the General Meeting, which is Oct 21).

Location: Bradford Map, Globe & Telescopes, 300 Hammond Dr, ATLANTA 30328 (Sandy Springs)

For More info, contact: Dan Llewellyn at [zoser@mindspring.com](mailto:zoser@mindspring.com) or 404-633-7562 (W); or Sharon Carruthers at [Treasurer@AtlantaAstronomy.org](mailto:Treasurer@AtlantaAstronomy.org) or 770-941-4640 (H); 404-843-9610 (W)

## GASP (Georgia Astronomy in State Parks) Events

Here are the remaining GASP events scheduled for 2005:

September 3rd - FDR State Park.

October 8th - Florence Marina State Park

November 19th - Unicoi State Park.

For information about these events, contact Joanne

Cirincione at [Starrynights@AtlantaAstronomy.org](mailto: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 at FDR State Park on Labor Day weekend 2004.*

## 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 can save. Just send an email to Kat Sarbell ([FocalPoint@AtlantaAstronomy.Org](mailto:FocalPoint@AtlantaAstronomy.Org)) requesting that your name be removed from the Focal Point mailing list.

## 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](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. 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 **\$29** 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](mailto:webmaster@AtlantaAstronomy.org). Also send information on upcoming observing events, meetings, and other events to the webmaster.

## AAC Contacts

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## 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>

## Calendar by Tom Faber (All times EDT unless noted)

- August 4th, Thursday: Moon New.
- August 6th, Saturday: Mercury Inferior Conjunction. DSO at Brasstown Bald. Contact Daniel Herron for details. CE Chapter Meeting & Observing.
- August 7th, Sunday: Moon near Venus.
- August 8th, Monday: Neptune Opposition.
- August 12th, Friday: Moon First Quarter. Perseid meteor shower.
- August 13th, Saturday: Perseid observing at Woodruff BSC. Contact Daniel Herron for details.
- August 19th, Friday: AAC Meeting at White Hall, Emory University. Moon Full.
- August 20th, Saturday: Telescope & Instrument Workshop at 11AM. Contact Sharon Carruthers.
- August 23rd, Tuesday: Mercury at Western Elongation.
- August 26th, Friday: Moon Last Quarter - near M45.
- August 28th, Sunday: AAC Board Meeting at Bradford Map, Globe & Telescopes, 5:00PM
- August 31st, Wednesday: Uranus Opposition. Moon near Saturn & M44.
- September 1st, Thursday: Conjunction Venus-Jupiter.
- September 2nd, Friday: Moon near Mercury.
- September 3rd, Saturday: New Moon. GASP at FDR State Park. DSO at Woodruff BSC. Contact Daniel Herron for details.
- September 5th, Monday: Venus near Spica.
- September 6th, Tuesday: Grouping Moon, Venus, Jupiter, Spica.
- September 9th, Friday: Saturn in M44 next several weeks. Bradley Observatory Open House, 8PM, Agnes Scott College. "Deep Impact: What did we learn about Comet Tempel 1?" Amy Lovell - Agnes Scott College.
- September 10th, Saturday: CE Chapter Meeting & Observing.
- September 16th, Friday: AAC Meeting at White Hall, Emory University. Moon First Quarter.
- September 17th, Saturday: Telescope & Instrument Workshop at 11AM. Contact Sharon Carruthers.
- September 18th, Sunday: Mercury Superior Conjunction.

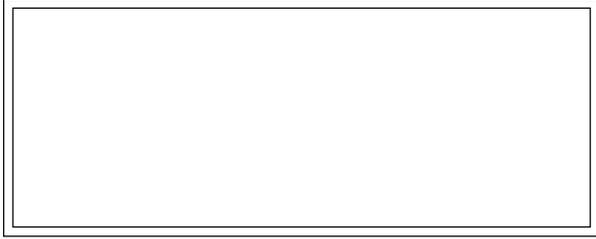
## Atlanta Astronomy Club Listserve

Subscribe to the Atlanta Astronomy Club Mailing List: The name of the list is: AstroAtlanta. The address for messages is: [AstroAtlanta@yahoogroups.com](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 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:focalpoint@atlantaastronomy.org). You can submit articles anytime up and including the deadline date. **The deadline for September is Thursday, August 25th at 4:00 PM ... Submissions will no longer be accepted after the deadline.**

FIRST CLASS



*The Focal Point*

Newsletter of The Atlanta Astronomy Club, Inc.

FROM:

Kat Sarbell

2025 Peachtree Road, Apt.#408

Atlanta, GA 30309

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

Atlanta Astronomy Club

PMB 305

3595 Canton Road A9

Marietta, GA 30066