

The Focal Point

The Atlanta Astronomy Club
Established 1947
October 2006

Vol. 19 No. 5

Editor: Kat Sarbell

Table of Contents

- Page 1...** Peach State Star Gaze 2006!
Page 2... Meeting Information, Bradley Open Houses
Page 3... Sept Dark Sky Report, New Horizons' Image of Jupiter
Page 4... Special Mars Report
Page 5... "Oldest Recorded Supernova"
Page 7... GASP Events, Web Site, Memberships & Contacts
Page 8... Calendar, AAC List Serve Info, Focal Point Deadline



Left: A view of Venus from the field at last year's Peach State. Photo by Frank Marchese. Above: Peter Macumber and Joanne Cirincione, co-chairs of the Peach State. Photo by Tom Faber.

The Peach State Star Gaze 2006

by Peter Macumber, AAC President

It seems like just a few weeks ago the last PSSG ended. A week later plans were set in motion for this year's PSSG. After what seems like a short ten months, the planning and organizing are building. Now it is only a couple weeks away.

This year, on October 16th, the PSSG'06 will begin - a week of observing, attending workshops, and talks in the mountains of North Georgia (actually Tennessee.) Brochures are available from the website.

We have arranged for NASA's "AeroSpace Environmental Traveling Exhibit" for Friday and Saturday. More details are available on the website at www.atlantaastronomy.org/pssg.

Jonn Serrie will be back on Friday night to entertain under the stars with his program, "The Stargazers Journey".

Our own Larry Owens and Chris Hetlage as well as Jim Fly and Vic Menard will be giving talks as well as workshops.

Our keynote speaker, Bob Berman, will provide us with two entertaining talks, one Friday and one Saturday. Bob Berman is the director of Overlook Observatory near Woodstock, New York, and adjunct professor of astronomy at Marymount Manhattan College. He is the astronomy editor of *The Old Farmer's Almanac* and a monthly columnist for *Discover* and *Astronomy* magazines, and he has appeared on the Today Show and Late Night with David Letterman. His books include *Secrets of the Night Sky*, *Cosmic Adventure* and *Strange Universe*. He lives near Woodstock, New York.

Registration has ended, but visitors can still attend the event at walk-in rates.

The Field, for Camping or Scope setup, is \$12.00 per person per night. You also have the option of a bunkhouse for \$20.00 per person per night. The Bunkhouse includes use of the field. All attendees must pay either the Field or Bunkhouse fee.

Come out to the 2006 Peach State Star Gaze, October 16 through October 22. Support your club in its major fundraising event of the year.

Upcoming General Meeting Speakers and Programs

By Keith "Kosmic Kow" Burns, AAC Program Chair

October 20th: meeting cancelled due to the Peach State Star Gaze. This event will include several wonderful speakers who will talk on various topics of astronomical interest. Be sure to make your reservations and attend.

November there will be a meeting but exact date, speaker, and topic is still in the planning stage at this time. I should have more info in October.

December there will be a Christmas dinner. This is a popular event, so the speaker chairman will not disappoint the masses. At this time the location is not yet confirmed. I do have a speaker or with some luck, *speakers*. It's going to be an interesting program that will complement the dinner. We are planning on holding it on a Saturday night to allow more folks to attend. Keep those fingers crossed.

September General Meeting Minutes

By Daniel Herron, AAC Observing Chair

Peter Macumber presided over the meeting and opened it at 8:02 PM. Peter posed a trivia question for the chance to win a copy of "Strange Universe" by Bob Berman. He asked who knew the new numerical designation of Pluto, but since no one answered, he asked for the name of one of the newly named minor planets. Phil Danneman won by answering "Eris."

The observing chair announced upcoming events. Sharon Carruthers announced info for the T&IW. (*Editor's note: Check calendar for dates.*)

Peter reminded people to register for the PSSG as soon as possible. He announced that the DAV property has been paid for and he explained the yearly and camping fee structure and logic behind the fees. He then called to the podium Alex Langoussis who introduced the main speaker April Whitt.

April gave a great talk about the current missions to Mercury (MESSENGER) and to Pluto and beyond (New Horizons). (*Editor's note: Check out the article on New Horizons in this issue of the Focal Point.*) She talked about the instrumentation on each space craft and what knowledge they hope to gain from the missions. There was a short Q&A session following the talk.

The meeting ended at 9:11 PM and the "after meeting" meeting was announced for Athens Pizza.

Charlie Elliott September Minutes

by Clevis Jones, CEC Recording Secretary

ATTENDANCE: Seventeen guests and members attended the CE chapter meeting on September 16.

BUSINESS: Larry Owens provided astronomical images and planetarium mood music for a GREAT pot luck meeting.

2006 remaining schedule – Oct 14 (3rd Qtr), Nov 11 (3rd Qtr, 3 PM. for the winter), Dec 9 (Wn Gib).

Schedule for the 2007 CEC Meetings is as follows: Jan 13, Feb 10, March 10, April 14 (back to 5 PM. for the summer), May 19 (JAKES DAY – volunteers needed, and ELECTION of Officers), June 9, July 7, Aug 18, Sept 15, Oct 6 (Peach State on the 13th), Nov 3 (3 PM. for the winter), Dec 15.

Announcements: Alesia Rast says regarding grass cutting on the observing field – State equipment cannot be borrowed; coordinate with her. If possible call during a work day to see if state cutting can be scheduled, or we can do it ourselves.

Jim Honeycutt has donated a lot of books that are available at the meetings for a fair donation – see Jim Honeycutt or any CEC club officer at the meeting. The funds will be used toward CEC club projects, including completing the various telescopes like the 12-inch, for which, Steve Bieger is working up the design.

Ken Poshedley says the ALPO "Solar System Handbook" on CD is still available at \$12 per disc. If interested, contact Ken at poshedly@bellsouth.net or at a CEC meeting.

OBSERVING REPORT: Steve Bieger presented "What's Up For September".

CURRENT EVENTS: was postponed until the next meeting.

FEATURE PRESENTATION – POT LUCK ... um, um, GOOD!!!
Thanks so much everyone!

OBSERVING SESSION: Several folks went to the observing field, now that they had their tummies full! Carlos Flores brought the club's 16" Starfinder and chapter members enjoyed several hours of deep sky browsing through the big scope.

Charlie Elliot Future Meetings

by Clevis Jones, CEC Recording Secretary

OCTOBER 14, 2006 at 5:00 PM. – AT OXFORD COLLEGE (note this is a change in location for this month only).

What's Up Tonight: by Steve Beiger

Current Events: by Clevis Jones

FEATURE PRESENTATION: Jim Honeycutt, Instructor of Astronomy at Oxford College, will present two lab sessions: The first lab is on determining Jupiter's mass by observing its moons. The second lab is using a photometer to measure the V, and B magnitude of a star, and to determine the distance to the Pleiades star cluster. Join the rest of the masses and be there!

For directions to Oxford College of Emory University in Oxford, GA, visit our website: <http://www.CEastronomy.org>

NOVEMBER 11, 2006 at 3:00 PM. (NOTE: this is a meeting time change for the rest of the winter) - TBD

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

Bradley Observatory Open House Series 2006-2007

"Astronomy Through Time" - Humans have looked up at the heavens for as long as they have had eyes to see and minds to wonder. The Open House Lecture Series this year concentrates on astronomy through the centuries, the history of astronomy. Explore the impact of changing technology on astronomical understanding, hear inspiring human stories of discovery and exploration and delve into the myths and architecture of ancient cultures.

All talks are free and open to the public. Lectures begin at 8 p.m.; doors open at 7:30 p.m. Bradley Observatory and Delafield Planetarium. Here is the schedule for Fall 2006. The programs for Winter/Spring 2007 will be announced later.

October 13 - Robert Silliman, Professor emeritus of history, Emory University

November 10 - Miller Goss, National Radio Astronomy Observatory

December 8 - Christopher De Pree, Associate professor of astronomy and chair, Agnes Scott

September Dark Sky Report

by Daniel Herron, Observing Chair

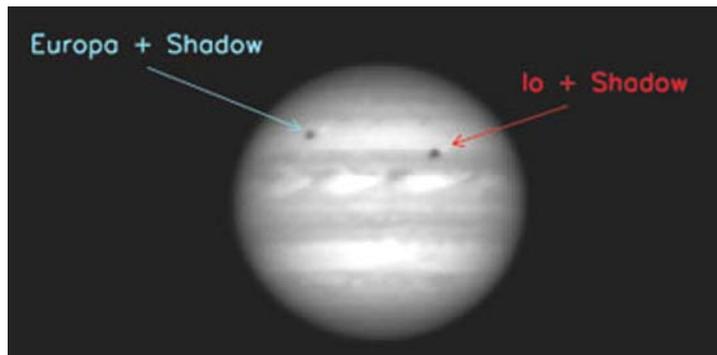
The first official Dark Sky Observing session at the Deerlick Astronomy Village was great! I arrived around 4PM on Saturday September 23. The sky was partly cloudy but clearing. By 7 it was perfectly clear. The weather was humid but clear until around 12:30 when it started to get cloudy around the horizon.

As it started getting dark the Milky Way slowly revealed itself. The Milky Way stretched from the southwest in Sagittarius and Scorpius to the Northeast running through the Summer triangle (directly overhead) and ending near Cassiopeia. It never fails to amaze me how the detail a dark site can reveal in the Milky Way. Several star clouds and dark lanes were visible to the naked eye as were the Double Cluster, M8, M24, M6, M7, Uranus and of course M31. M31 was awesome even with the naked eye you could see how big the galaxy is.

Since it was the first day of fall I thought it was just as well we pay one last visit to the summer items before they leave us. M15 was a treat right as it got really dark; both it and M13 were in good position to compare the two. While M13 is the winner as far as size and beauty, M15 shows a brighter core of stars in the center of the globular cluster that affords a more 3D effect. Through the Binoviewer you really get a 3D effect from both globular clusters.

We then turned to the North America and the Veil Nebula in Cygnus. I have been staring at the darn thing all month in the Astronomy 2006 Calendar, so I thought I might as well give it a look for real. I always lose track of time as I look at the Veil Nebula. I love how you can just sit back and pan back and forth and see detail after detail of this huge supernova remnant. I was also amazed that I was able to get both the Eastern and Western extents of the nebula in the same field of view (barely) in my Shorttube 80 with my 40mm eyepiece! WHAT A SIGHT! Also I was able to barely see the brightest section of the Veil without my OIII filter. The North America was beautiful as always and every time I look at it I see something new.

With the OIII filter safely put back in its case as I got tired of holding one eye closed, I grabbed the Binoviewer and my two 40mm eyepieces to see what damage I could do. We looked at the Ring Nebula, M31, NGC6543 (Cat's Eye Nebula), M15, M13, and Uranus with the Binoviewer. Two eyes are definitely better than one! It really does add a 3D effect to the image. We took turns hopping from scope to scope seeing the sights and discussing the objects, the DAV site, and what we were hoping to get out of the PSSG in October. At about 12:30 clouds started coming in from the west and by about 1AM they were overhead allowing only the brightest stars to shine through. We called it a night around 1:41. A heavy rain shower woke us around 6AM and it rained for about 45 minutes then we packed up and headed home.



New Horizons snaps image of Jupiter

APPLIED PHYSICS LABORATORY NEWS RELEASE - Sept 27, 2006

Blazing along its path to Pluto, NASA's New Horizons has come within hailing distance of Jupiter. The first picture of the giant planet from the spacecraft's Long Range Reconnaissance Imager (LORRI), taken Sept. 4, is a tantalizing promise of what's to come when New Horizons flies through the Jupiter system early next year.



New Horizons was still 291 million kilometers (nearly 181 million miles) away from Jupiter when LORRI took the photo. As New Horizons comes much closer, next January and February, LORRI will take more-detailed images.

"These first LORRI images of Jupiter are awe-inspiring," says New Horizons Project Scientist Hal Weaver, of the Johns Hopkins University Applied Physics Laboratory (APL), where LORRI was designed and built. "New Horizons is speeding toward this majestic planet at 45,000 miles per hour, right on target for a close encounter on February 28 of next year. LORRI's resolution at Jupiter will be 125 times better than now, and we're really looking forward to getting the most detailed views of the Jovian system since Cassini's flyby in late 2000 and Galileo's final images in 2003."

LORRI snapped this image during a test sequence to help prepare for the Jupiter encounter observations. It was taken close to solar opposition, meaning that the Sun was almost directly behind the camera when it spied Jupiter. This makes Jupiter appear blindingly bright, about 40 times brighter than Pluto will be for LORRI's primary observations when New Horizons encounters the Pluto system in 2015. To avoid saturation, the camera's exposure time was kept to 6 milliseconds. This image was, in part, a test to see how well LORRI would operate with such a short exposure time.

"LORRI's first Jupiter image is all we could have expected," says LORRI Principal Investigator Andy Cheng, of APL. "We see belts, zones and large storms in Jupiter's atmosphere. We see the Jovian moons Io and Europa, as well as the shadows they cast on Jupiter. It is most gratifying to detect these moons against the glare from Jupiter."

LORRI wasn't the only New Horizons instrument peeking at Jupiter on Sept. 4; the Ralph imager also performed some important calibrations. "We rapidly scanned Ralph's Multispectral Visible Imaging Camera [MVIC] across Jupiter to test a technique we plan to employ near closest approach next February. We also observed Jupiter in the infrared using Ralph's Linear Etalon Imaging Spectral Array [LEISA]," says Ralph Program Manager Cathy Olkin, of the Southwest Research Institute. "Everything worked great."

New Horizons won't observe Jupiter again until early January 2007, when periodic monitoring will begin, followed by intensive observations at the end of February. The spacecraft will also continue to look at the Jovian magnetosphere for several months after closest approach.

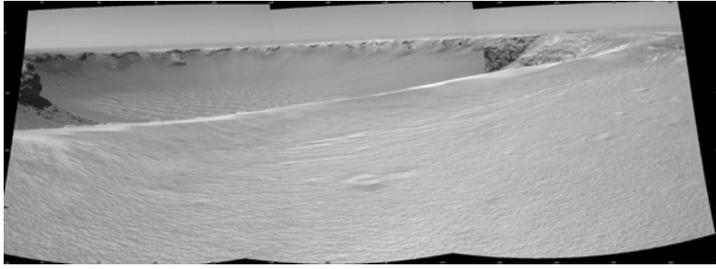
"New Horizons is headed to a spectacular science encounter with the Jupiter system early next year," says mission Principal Investigator Alan Stern, of the Southwest Research Institute. "The first LORRI images of Jupiter just whet our appetite for the observations to come."

New Horizons, the first spacecraft to Pluto and the distant Kuiper Belt region, launched on Jan. 19, 2006. Stern leads the mission and science team as principal investigator. APL manages the mission for NASA's Science Mission Directorate and is operating the spacecraft in flight.

Left: LORRI Image of Jupiter. September 4, 2006. 13:43:46 UTC. NASA/ Johns Hopkins University Applied Physics Laboratory/Southwest Research Institute

Special Mars Report

Since Mars is in conjunction with the sun and not visible this month, here are updates on the latest happenings from our red neighbor.



Opportunity Arrives at Dramatic Vista

NASA NEWS RELEASE September 27, 2006

NASA's Mars Rover Opportunity has arrived at the rim of a crater approximately five times wider than a previous stadium-sized one it studied for half a year.

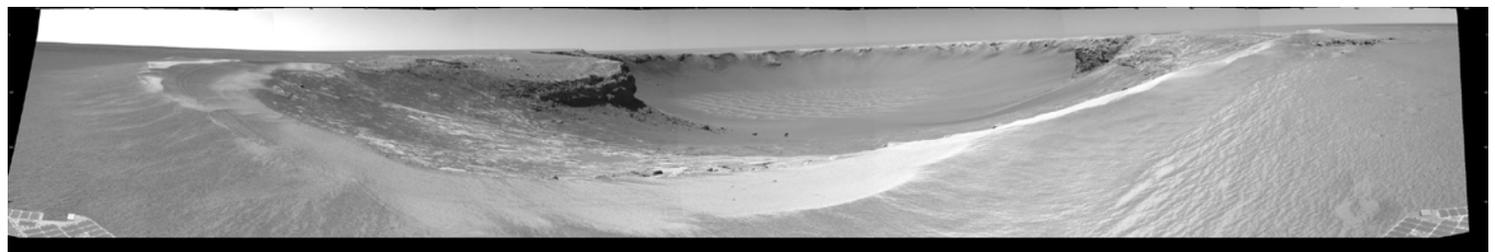
Initial images from the rover's first overlook after a 21-month journey to "Victoria Crater" (above) show rugged walls with layers of exposed rock and a floor blanketed with dunes. The far wall is approximately one-half mile from the rover.

"This is a geologist's dream come true," said Steve Squyres of Cornell University, Ithaca, N.Y., principal investigator for NASA's twin rovers Opportunity and Spirit. "Those layers of rock, if we can get to them, will tell us new stories about the environmental conditions long ago. We especially want to learn whether the wet era that we found recorded in the rocks closer to the landing site extended farther back in time. The way to find that out is to go deeper, and Victoria may let us do that."

Opportunity has been exploring Mars since January 2004, more than 10 times longer than its original prime mission of three months. It has driven more than 5.7 miles. Most of that was to get from "Endurance" crater to Victoria, across a flat plain pocked with smaller craters and strewn with sand ripples. Frequent stops to examine intriguing rocks interrupted the journey, and one large sand ripple kept the rover trapped for more than five weeks.

"We're so proud of Opportunity, the rover that 'takes a lickin' but keeps on tickin'," said Cindy Oda, a Mars rover mission manager at NASA's Jet Propulsion Laboratory (JPL), Pasadena, Calif. "It continues to overcome all challenges despite its aging parts and difficult terrain. We are looking forward to exciting new discoveries as Opportunity begins its new adventure exploring Victoria crater."

Spirit, halfway around Mars and farther south of the planet's equator, has been staying at one northward-tilted position through the southern Mars winter for a maximum energy supply for its solar panels. Spirit is conducting studies that benefit from staying in one place, such as monitoring effects of wind on dust. It will begin driving again when the Martian spring increases the amount of solar power available.



Operations for both rovers will be minimized for much of October as Mars passes nearly behind the sun from Earth's perspective, making radio communication more difficult than usual.

JPL manages the Mars Exploration Rover Project for the NASA Science Mission Directorate, Washington.

Image Credit: NASA/JPL-Caltech

'Victoria Crater' from 'Duck Bay'

NASA News Release 28-Sep-2006

NASA's Mars rover Opportunity edged 3.7 meters (12 feet) closer to the top of the "Duck Bay" alcove along the rim of "Victoria Crater" during the rover's 952nd Martian day, or sol (overnight Sept. 27 to Sept. 28), and gained this vista of the crater (below). The rover's navigation camera took the seven exposures combined into this mosaic view of the crater's interior. This crater has been the mission's long-term destination for the past 21 Earth months.

The far side of the crater is about 800 meters (one-half mile) away. The rim of the crater is composed of alternating promontories, rocky points towering approximately 70 meters (230 feet) above the crater floor, and recessed alcoves, such as Duck Bay. The bottom of the crater is covered by sand that has been shaped into ripples by the Martian wind. The rocky cliffs in the foreground have been informally named "Cape Verde," on the left, and "Cabo Frio," on the right.

Victoria Crater is about five times wider than "Endurance Crater," which Opportunity spent six months examining in 2004, and about 40 times wider than "Eagle Crater," where Opportunity landed. The great lure of Victoria is an expectation that the thick stack of geological layers exposed in the crater walls could reveal the record of past environmental conditions over a much greater span of time than Opportunity has read from rocks examined earlier in the mission.

This view is presented as a cylindrical projection with geometric seam correction.

Image credit: NASA/JPL-Caltech

Mars Rover, Global Surveyor, Odyssey Missions Extended

NASA/JPL NEWS RELEASE September 26, 2006

NASA's Mars robotic missions are performing so well, they are being prepared for additional overtime work.

The team operating the twin Mars Exploration Rovers, Spirit and Opportunity, since January 2004, won approval for an additional year of exploration. NASA funded the extensions on recommendations from an outside panel of scientists. NASA also is adding two more years of operations for Mars Global Surveyor, which has been orbiting Mars since 1997, and the Mars Odyssey orbiter, at the red planet since 2001.

Continued on next page

These mission extensions will begin Oct. 1, 2006. The spacecraft beginning extended missions have already completed a successful prime mission plus years of additional service. The extensions occur when NASA's newest Mars spacecraft, named the Mars Reconnaissance Orbiter, is about to begin its main science phase.

"Each of these missions increases the value of the others and of the Mars Reconnaissance Orbiter," said Doug McCuiston, director of NASA's Mars Exploration Program, NASA Headquarters, Washington. "By extending these missions, we gain very cost-effective additional benefits from the investments in developing them and getting them to Mars."

Each orbiter has a different set of instruments, and the spacecraft complement each other in helping scientists understand Mars. Also, observations by the rovers on the ground validate interpretation of information from the orbiters. Observations by the orbiters allow extrapolation from what the rovers find in small areas. The orbiters support current and future surface missions with landing-site assessments and communication relays.

Both rovers are still healthy, more than 31 months into what was originally planned as a three-month exploration of their landing areas. Provided they remain operable, their fourth mission extension will take them into Martian spring and summer, increasing their solar-energy supply and daily capabilities. Spirit has been studying its surroundings from a stationary, sun-facing tilt for several months. "As we get into the Martian spring, Spirit will resume exploring the inner basin of the 'Columbia Hills,'" said Dr. Bruce Banerdt, rover project scientist at NASA's Jet Propulsion Laboratory, Pasadena, Calif. Opportunity will spend the extension at "Victoria Crater."

Each Martian year lasts nearly two Earth years. The longevity of Mars Global Surveyor and Mars Odyssey has allowed researchers to watch how Mars changes not just from season to season, but from year to year. Mars Global Surveyor has observed shrinking of the south polar carbon-dioxide ice cap from one summer to the next. "This extension will take us through our fifth annual cycle of Martian summers and winters," said Thomas Thorpe of JPL, project manager for Mars Global Surveyor.

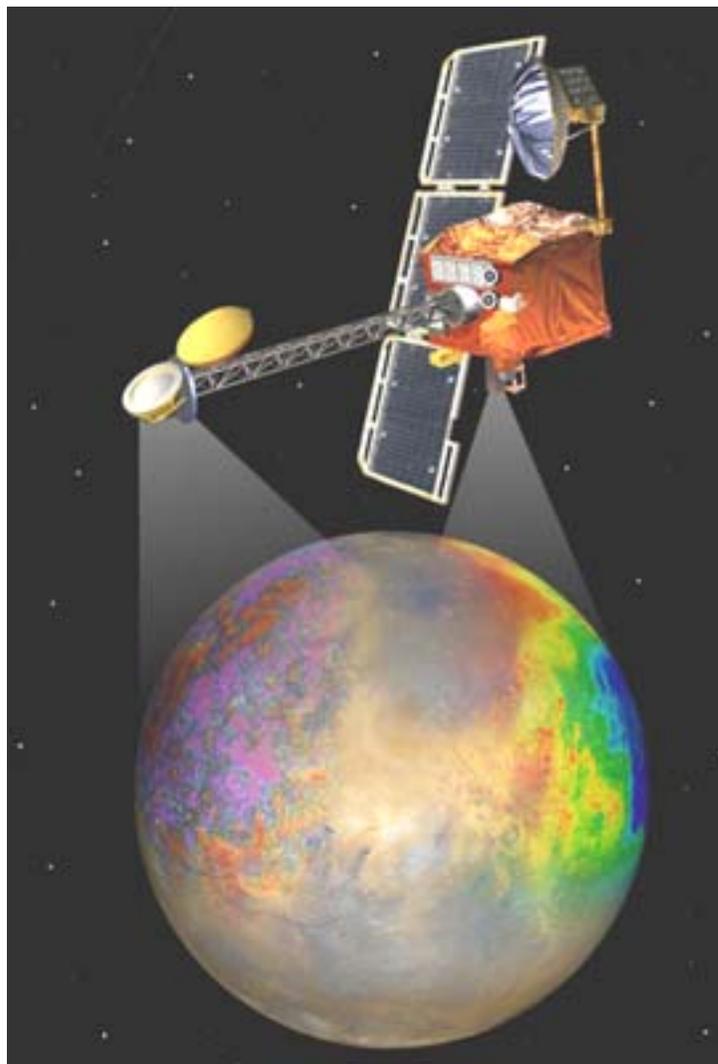
"With the additional years of observations, we are able to monitor the Martian climate, not just the weather. There is a hypothesis that Mars' climate is changing, perhaps rapidly. The combination of instruments from different orbiters strengthens our ability to study that possibility. With Odyssey, for example, we can monitor the mass of carbon-dioxide frost in winter to help understand the changes that Global Surveyor is seeing in the summers," said JPL's Dr. Jeffrey Plaut, project scientist for Mars Odyssey.

The Odyssey flight team at JPL and at Lockheed Martin Space Systems, Denver, plans to teach the spacecraft some new tricks during the mission extension. New software will enable the spacecraft to make choices about which images are high priority. Also, the team will begin pointing Odyssey slightly off the straight-down view it has flown so far. This will enable imaging of polar areas it never flies directly over. Odyssey also will continue serving as the primary communications relay for the rovers Spirit and Opportunity.

NASA also has extended the U.S. participation in the European Space Agency's Mars Express mission. That orbiter reached Mars in 2003 and is in an extended mission.

JPL, a division of the California Institute of Technology, Pasadena, manages the Mars Global Surveyor, Mars Odyssey and Mars Exploration Rover projects for the NASA Science Mission Directorate, Washington. Lockheed Martin Space Systems, Denver, is the prime contractor for the Global Surveyor and Odyssey projects and built those spacecraft.

Above right: Artist's concept of the 2001 Mars Odyssey Mission. Credit: NASA/JPL



New Evidence About Oldest Recorded Supernova

CHANDRA X-RAY CENTER NEWS RELEASE September 23, 2006

Recent observations have uncovered evidence that helps to confirm the identification of the remains of one of the earliest stellar explosions recorded by humans.

The new study shows that the supernova remnant RCW 86 is much younger than previously thought. As such, the formation of the remnant appears to coincide with a supernova observed by Chinese astronomers in 185 A.D. The study used data from NASA's Chandra X-ray Observatory and the European Space Agency's XMM-Newton Observatory,

"There have been previous suggestions that RCW 86 is the remains of the supernova from 185 A.D.," said Jacco Vink of University of Utrecht, the Netherlands, and lead author of the study. "These new X-ray data greatly strengthen the case."

When a massive star runs out of fuel, it collapses on itself, creating a supernova that can outshine an entire galaxy. The intense explosion hurls the outer layers of the star into space and produces powerful shock waves. The remains of the star and the material it encounters are heated to millions of degrees and can emit intense X-ray radiation for thousands of years.

Continued on next page

In their stellar forensic work, Vink and colleagues studied the debris in RCW 86 to estimate when its progenitor star originally exploded. They calculated how quickly the shocked, or energized, shell is moving in RCW 86, by studying one part of the remnant. They combined this expansion velocity with the size of the remnant and a basic understanding of how supernovas expand to estimate the age of RCW 86.

"Our new calculations tell us the remnant is about 2,000 years old," said Aya Bamba, a coauthor from the Institute of Physical and Chemical Research (RIKEN), Japan. "Previously astronomers had estimated an age of 10,000 years."

The younger age for RCW 86 may explain an astronomical event observed almost 2000 years ago. In 185 AD, Chinese astronomers (and possibly the Romans) recorded the appearance of a new bright star. The Chinese noted that it sparkled like a star and did not appear to move in the sky, arguing against it being a comet. Also, the observers noticed that the star took about eight months to fade, consistent with modern observations of supernovas.

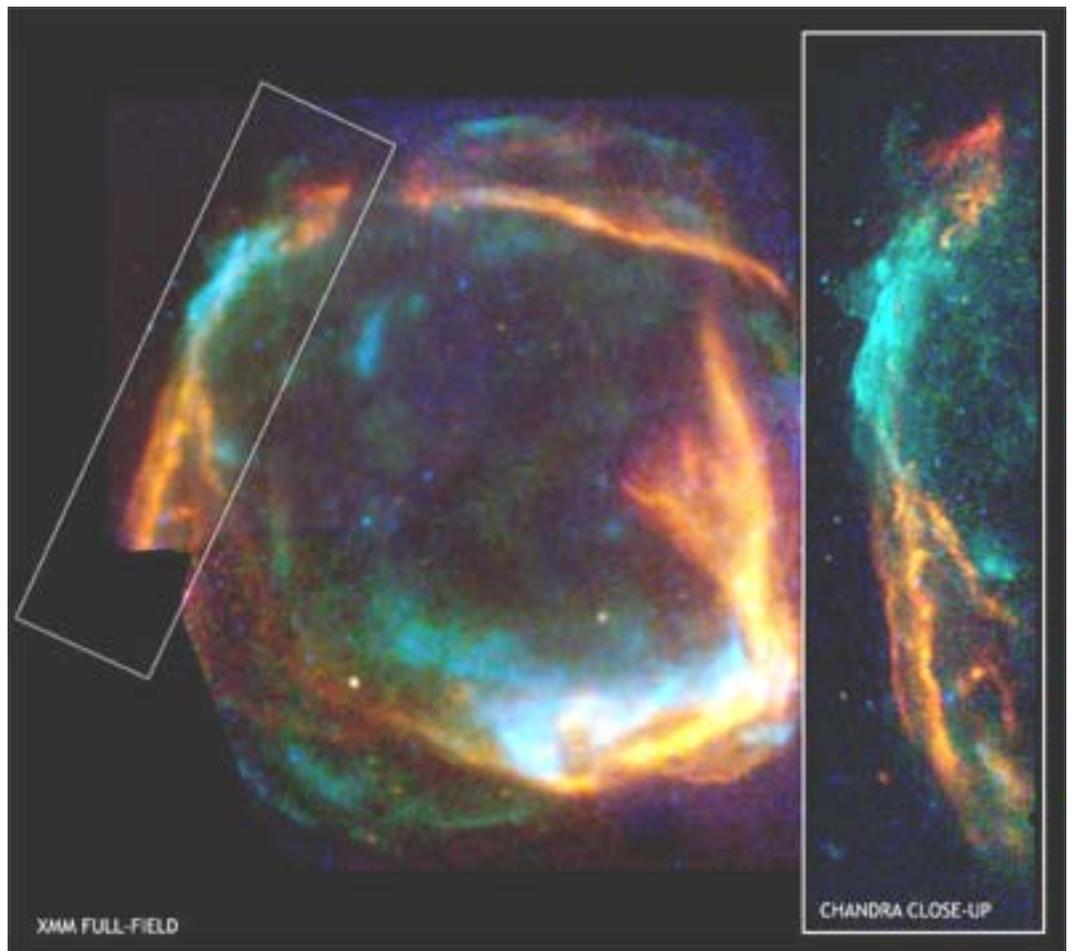
RCW 86 had previously been suggested as the remnant from the 185 AD event, based on the historical records of the object's position. However, uncertainties about the age provided significant doubt about the association.

"Before this work I had doubts myself about the link, but our study indicates that the age of RCW 86 matches that of the oldest known supernova explosion in recorded history," said Vink. "Astronomers are used to referencing results from 5 or 10 years ago, so it's remarkable that we can build upon work from nearly 2000 years ago."

The smaller age estimate for the remnant follows directly from a higher expansion velocity. By examining the energy distribution of the X-rays, a technique known as spectroscopy, the team found most of the X-ray emission was caused by high-energy electrons moving through a magnetic field. This is a well-known process that normally gives rise to low-energy radio emission. However, only very high shock velocities can accelerate the electrons to such high energies that X-ray radiation is emitted.

"The energies reached in this supernova remnant are extremely high," said Andrei Bykov, another team member from the Ioffe Institute, St. Petersburg, Russia. "In fact, the particle energies are greater than what can be achieved by the most modern particle accelerators."

The difference in age estimates for RCW 86 is due to differences in expansion velocities measured for the supernova remnant. The authors speculate that these variations arise because RCW 86 is expanding into an irregular bubble blown by a wind from the progenitor star before it exploded. In some directions, the shock wave has encountered a dense region outside the bubble and slowed down, whereas in other regions the shock remains inside the bubble and is still moving rapidly. These regions give the most accurate estimate of the age.



The combined image from the Chandra and XMM-Newton X-ray observatories of RCW 86 shows the expanding ring of debris that was created after a massive star in the Milky Way collapsed onto itself and exploded. Credit: Chandra: NASA/CXC/Univ. of Utrecht/J. Vink et al. XMM-Newton: ESA/Univ. of Utrecht/J. Vink et al.

The study describing these results appeared in the September 1 issue of *The Astrophysical Journal Letters*. NASA's Marshall Space Flight Center, Huntsville, Ala., manages the Chandra program for the agency's Science Mission Directorate. The Smithsonian Astrophysical Observatory, Cambridge, Mass., controls science and flight operations from the Chandra X-ray Center, Cambridge, Mass. XMM-Newton is an European Space Agency science mission managed at the European Space Research and Technology Centre, Noordwijk, the Netherlands for the Directorate of the Scientific Programme.

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.

Georgia Astronomy in State Parks (GASP) Events

There is one remaining GASP event for 2006:

November 11th - Florence Marina State Park

For more information about this event, contact Joanne Cirincione at Starrynights@AtlantaAstronomy.org



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

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 Officers and Contacts

President: Peter Macumber 770-941-4640
president@atlantaastronomy.org

Program Chair: Keith Burns 770-427-1475
programs@atlantaastronomy.org

Observing Chair: Daniel Herron observing@atlantaastronomy.org

Corresponding Secretary: Kat Sarbell 404-352-0652
focalpoint@atlantaastronomy.org

Treasurer: Sharon Carruthers Treasurer@AtlantaAstronomy.org

Recording Secretary: Rich Jakiel
secretary@atlantaastronomy.org

Board: Tom Crowley 404-233-6886 crowleytj@hotmail.com

Board: Brad Isley - Contact Info TBA

Board: Larry Owens planetographer@comcast.com

Board: Ken Poshedly 678-516-1366 poshedly@bellsouth.net

Board: Gil Shillcutt - Contact Info TBA

Board/ALCOR: Art Zorka 404-633-8822 (H) 404-824-7106 (C)
star.myth@juno.com

Elliott Chapter Director: Larry Owens
planetographer@comcast.com

Elliott Observing Supervisor: Steve Bieger - 770-457-9148
sbieger@bellsouth.net

Elliott Recording Secretary: Clevis Jones
cjones@aaahawk.com

Elliott Coordinator: Alesia Rast Alesia_Rast@mail.dnr.state.ga.us

Webmaster Charlie Elliott: Larry Owens
planetographer@comcast.net

The Telescope Workshop: Dan Llewellyn 404-735-9661 or 404-633-7562
zoser@mindspring.com

Georgia Astronomy in State Parks: Joanne Cirincione 404-824-4751
starrynights@AtlantaAstronomy.org

Light Trespass: Marc Sandberg 404-531-4227
sandberg235@earthlink.net

AL Observing Programs Assistance: Keith Burns 770-427-1475
Keith_B@bellsouth.net

PSSG Chairman: Peter Macumber pmacumber@nightssky.org

Co-Chair: Joanne Cirincione starrynights@AtlantaAstronomy.org

Sidewalk Astronomy: position open

Woodruff Observ. Coordinator: John Lentini 770-984-0175
johnlentini@yahoo.com

Webmaster Atlanta Astronomy: Peter Macumber 770-941-4640
pmacumber@nightssky.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 EDT/EST unless noted)

October 6th, Friday: Full Moon (Harvest Moon).

October 9th, Monday: Moon Occults M45.

October 13th, Friday: Bradley Observatory Open House, 8PM, Agnes Scott College, Robert Silliman - Professor Emeritus of History, Emory University. Moon Last Quarter.

October 14th, Saturday: **CEC Meeting - see p.2 for details.**

October 16th, Monday: Mercury Greatest Eastern Elongation.

October 16th-22nd: Peach State Star Gaze at Whitewater.

October 21st, Saturday: Mars Conjunction with Sun, Orionid Meteors.

October 22nd, Sunday: New Moon.

October 24th, Tuesday: Venus Superior Conjunction.

October 29th, Sunday: Moon First Quarter.

November 5th, Sunday: **Tentative Date for next AAC Board Meeting.** Full Moon (Hunter's Moon).

November 8th, Wednesday: Mercury Inferior Conjunction - Transit.

November 10th, Friday: Bradley Observatory Open House, 8PM, Agnes Scott College, Miller Goss - National Radio Astronomy Observatory

November 11th, Saturday: **GASP at Florence Marina State Park - see p. 7 for details. CEC Meeting.**

November 17th, Friday: **AAC Meeting at White Hall, 8PM, Emory University.** Moon Last Quarter. Leonid Meteors.

November 18th, Saturday: **DSO at Woodruff - Contact Daniel Herron for details.**

November 20th, Monday: New Moon.

November 21st, Tuesday: Jupiter Conjunction with Sun.

November 25th, Saturday: Mercury Greatest Western Elongation.

November 28th, Tuesday: Moon First Quarter.

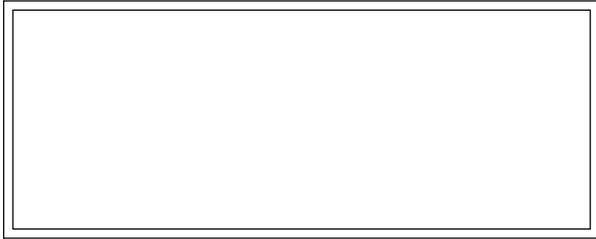
Atlanta Astronomy Club Listserve

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 Submission Information

Please send articles, pictures, and drawings in electronic format on anything astronomy related to Kat Sarbell at focalpoint@atlantaastronomy.org. Please send images separate from articles, not embedded in them. Articles are preferred as plain text files but Word documents are okay. You can submit articles anytime up and including the deadline date. **The deadline for November is Thursday, October 26th at 4:00 PM ... Submissions will no longer be accepted after the deadline.**

FIRST CLASS



Newsletter of The Atlanta Astronomy Club, Inc.



The Focal Point

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

P.O. Box 76155

Atlanta, GA 30358-1155

www.atlantaastronomy.org