

# The Focal Point

The Atlanta Astronomy Club

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Editor: Keith Burns

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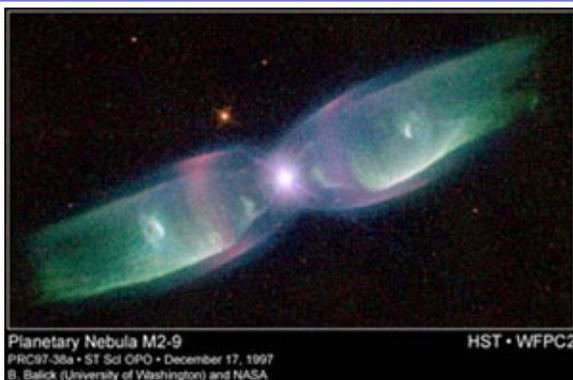
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**Special Announcement. The September General Membership Meeting will be held at the PSSG. Date:Sept 14th. Starts at 7PM and will consist of just a business meeting. No speaker will be featured. To be held at the Dining Hall. September 21st meeting cancelled.**



## PLANETARY NEBULAE AND THE DEATH OF STARS

In October we will have James Kaler speaking on “Planetary Nebulae and the Death of Stars.” His talk will focus on how ordinary stars like the Sun meet their often spectacular ends, as they blow much of their matter back into space to produce the beautiful glowing clouds called planetary nebulae, and then finally die as dim bulbs no larger than our Earth. In the process, stars recycle great portions of themselves back into interstellar space. The fleeing matter from this process commonly



is loaded with freshly made chemical elements, thus the old dying stars feed new generations yet to be born. The presentation will be heavily illustrated with images from the Hubble Space Telescope and from a variety of ground-based observatories.

James (Jim) Kaler, Professor of Astronomy, earned his A.B. at the University of Michigan, his PhD at UCLA, and has been at the University of Illinois since 1964. Professor Kaler has held Fulbright and Guggenheim Fellowships, has been awarded medals for his work from the University of Liege in Belgium and the University of Mexico, and most recently was selected to give the Armand Spitz lecture by the Great Lakes Planetary Association. His research area, in which he has published over 100 papers, involves dying stars. He has written for a variety of popular magazines (including *Astronomy*, *Sky and Telescope*, and *Scientific American*), he was a consultant for Time-Life Books on their *Voyage Through the Universe* series, and appears frequently on Illinois television and radio. He has written and produced many



books, including *Stars and their Spectra*, *Stars and Cosmic Clouds*, *The ever-Changing Sky*, *Astronomy! A Brief Edition*, and the recently published *The Little Book of Stars* and also *Stars at the Edge*.

*Continued on the next page.*

Please join us October 19<sup>th</sup> for this informational and entertaining talk. His last two publications, *Extreme Stars: At the Edge of Creation* and *The Little Book of Stars* will be available for purchase and personalized signing at the meeting. Don't miss this event!

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## Observing Down Under

By Gene Greneker

Business and pleasure trips take many of us to different parts of the world where the sky is totally different than the sky over Atlanta. During July, 2001, the author traveled to Canberra, Australia for a week and was privileged to be invited to spend an evening observing at the Canberra Astronomy Club's Stromlo observatory, 20 minutes outside of Canberra. My very knowledgeable host was Brad Wilson, who had worked as a professional astronomer in the Australian education system before taking a position with a Canberra radar systems manufacturer. We arrived at the Mount Stromlo observatory complex two hours after local sundown. The Canberra Astronomy Club owns an observatory on Mount Stomlo that was built many years ago for use by a Swedish University for its professional astronomers conducting astronomy projects in the Southern Hemisphere. The Canberra club's observatory is located within a cluster of several other domes containing telescopes operated by Australian National University's Research School of Astronomy and Astrophysics (see web page at: <http://msowww.anu.edu.au/>).



The night sky was very dark and seeing conditions were almost perfect in the 30 degree dense winter air (mid winter occurs during July in the Southern Hemisphere). Brad set up the club's 14 inch Dobson and centered it under the opening in the 30 foot high observatory dome. Mars was observed almost overhead as a very bright planet whose features could almost be resolved by the Dob. The next target for the night was Omega Centarus, a star cluster, showing millions of stars in the cold and clear light pollution free Australian night sky. Our host quickly located the Keyhole Nebula, which is a split galaxy. The double star Alpha Centauri Complex was our next target which was easily resolved by the Dob located only 4.4 light-years from the our Sun. The Southern Cross was almost overhead appearing as points of light on a sea of black. Our host swung the Dob to the center of the cross and then along

the southern arm to show us the Jewel Box, open star cluster NCG 4755 (See web page: [http://msowww.anu.edu.au/outreach/Bessell/40\\_inch.shtml](http://msowww.anu.edu.au/outreach/Bessell/40_inch.shtml) for a photo). Other targets that were observed before the night was over included M7 (NGC 6475), NGC 3530 and NGC 3503.

While our host was closing the observatory I walked to the car still amazed at what I had seen and the perfect sky conditions under which the observations were made. Looking up, I saw the final treat of the night. The Milky Way appeared just as its name implies, as spilled milk poured onto a black cloth. After orienting myself, I realized that I was staring directly into the center of our galaxy. The bulge around the center could be clearly discerned, as could the star disk that extended many degrees in both directions from the center bulge. Driving down the mountain, there were occasional sightings of kangaroos caught in the headlights while grazing along the brush line along the winding two lane road. As we entered the city of Canberra, the millions of sparkling jewels that had only 20 minutes previously made up the night sky disappeared as street lights overwhelmed the few primordial photons that had survived their trip to Earth from deep space removing all doubt that we had returned to civilization.

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## A Letter from a Charter Member

By Anna Belle Close

About 1939 the Worlds Fair was held in New York City. Dr. William A. Caulder pressed a button which lit the Fair Grounds, officially opening the World's Fair Grounds. A few years later, he became Agnes Scott College's first Professor of Astronomy.

Along with teaching, one of his first acts was to found the Atlanta Astronomy Club. I can tell you that my husband, William Hector Close, and I were among its first Charter Members. In fact, I was its first secretary. The next year's secretary left the city, leaving no forwarding address. She took the clubs records with her. Gone were the records of our founding fathers!

Several years later my husband was president of the club. A commercial artist, in the Atlanta Journal's Advertising Department, kept him busy in the daytime. At night he ground a mirror in our basement. He performed the knife-edge test of its curvature in the lab room at the college. For 3 years, I was a "mirror widow."

He sent the 16 1/2 in mirror off to be silvered, insuring it maybe for \$100. That was considered a lot of money in those days. When it was shipped back, the strong Federal Express driver refused to set it down in the hallway, but carried the heavy burden upstairs and gingerly set it on our double bed. The silvering company, in returning it, had insured it for \$1000!

*Continued on next page.*

When my husband died, I let one of our nice amateur astronomers have it. I'm 83 years old, but as best as I can remember, I believe I passed it on after my husband died to another member who had his own observatory on a mountain top well away from Atlanta city lights. I can't remember his name (I'm a victim of Alzheimer's disease.)

One night he made an official "First Report" of an astronomical occurrence which was observed. This is a tremendous achievement, and our membership rejoiced with him!

There was an occasion when a group of us were observing high on a mountain when there was a sudden explosion of a meteor in the heavens above us. We "oohed!" and "aahed!". It was followed in a few seconds by a tremendous sound it made. It had exploded. May you have some wonderful experiences to!

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## AAC Board Meeting/ July 16th, 2001

Minutes taken **By Karen Stiles**

**Board Members Present:** Sharon Carruthers, Peter Macumber, Bob (Bear) Simmons, Keith Burns, Richard Blackburn, Carol Abernathy, Gil Shillcutt, Karen Stiles

**Others Present:** Ken Poshedly, Phillip Sacco, Matthew Macumber

Meeting was called to order by Sharon at 8:25pm.

**Opening remarks** made by Sharon welcoming the new board members and apologizing for the delay in scheduling of this the first meeting of the new board.

**The first order of business** was to elect a new board chairman. Richard Blackburn nominated Bear for a second term; the motion was seconded and called for a vote. The vote was unanimous in favor of Bear.

### **Reports from Standing Committees:**

**Treasurer's Report:** Anticipated revenue from new members is 10,000 but we are expecting a shortfall of \$1200 for the year. The main area of concern in the budget is the Focal Point. The allocated funds for this are \$175 per month but we are spending about \$195 per month due to increases in prices at copying centers. AL dues are estimated \$1415 per year and came in somewhat less than that. Phone box (voice mail) may have doubled billed us last month and that will be investigated. AA Expo brought in \$1860 but expenditures were \$1926. VR improvement expenditures were estimated to be at \$3000. Bills paid to date are at \$2617. Banquet for AAC ran at a slight loss due to a misunderstanding with coffee served afterwards which was supposed to be gratis. Woodruff budget has over expended \$538, which covered the cost of concrete work, electrical work, piers, additional 3 eyepieces, etc.

There was discussion among those present about the cost of the Focal Point and possible ways to reduce costs. It was noted

that the issue is not of serious concern at this point but will need to be addressed in the next budget session. Ken Poshedly raised the issue of looking at profits from PSSG and placing these into the general fund rather than diverting to a Dark Sky Site Fund. Motion was made to accept Treasurer's Report, it was seconded and passed.

**Observing Chair's Report:** Meeting of Observing Committee held last week and schedule was set through January with events planned for Annual Picnic, GASP, Zombie parties, Dark Sky Events etc. The schedule will be published on the Web site or in upcoming issues of the Focal Point. There was some discussion of last weekend's POHO.

**Newsletter Report:** Keith Burns reported that in order to reduce costs the Focal Point would include a maximum limit of pages (6) for the paper version. The electronic version will continue to be longer and members are encouraged to choose this format.

**Speakers Report:** Carol Abernathy reported on upcoming speakers and programs, including a program scheduled for November with cosmonauts who will be visiting Atlanta. This program will be cost shared with Atlanta. The issue of a general meeting in conjunction with PSSG was discussed. The speaker budget was also discussed briefly with no changes recommended or voted.

### **Reports from Special Committees:**

**GASP:** Announcements were made regarding dates of upcoming GASP events.

**Astronomical League:** National convention for AL is this month. Phil Sacco mentioned some concerns regarding communication from AL regarding SERAL business and other key issues, e.g., newsletters, bylaws, not received.

**Website:** Matthew reported increasing hits on the AAC website. There were up to 3000 hits on the two days last month when the club was mentioned in the AJC. Other days last month, hits ranged from 200-800/day. A plan was discussed to put the AAC membership list on the web site so that it can be updated frequently (accessible only by members).

**PSSG:** Ken Poshedly reported that 112 persons are registered for the PSSG at this point. Finances look good with profit anticipated. Schedule for the speakers were reviewed.

**Charlie Elliot:** Phil Sacco reported that chapter by-laws have been presented to the club. The two officers that were provisionally identified have both declined to participate in a leadership role and no replacements have been as yet identified. No construction has occurred on an observatory, as there has been a moratorium on construction at Charlie Elliot.

### **New Business**

**I. Training/Public Sessions:** Gil Shillcutt motioned that an

*Continued on the next page.*

ad hoc committee be formed to look at issues of POHO and training. Motion made, seconded and approved by the board. Several of those present volunteered to assist. Gil will chair the committee and schedule a meeting.

**II. Independent Audit:** Recommendation was made by several members of the board for an independent audit. Motion was made and the issue was discussed. The motion was amended to have Sharon Carruthers seek professional consultation from an accounting professional familiar with non-profit issues prior to the next board meeting. The motion was seconded and passed unanimously.

**III. Focal Point Budget:** Discussed. No action taken

**IV. Locale Change for General Meeting** during construction at Emory was raised and discussed with some possible options mentioned. No action taken.

**V. Missing eyepiece** at Villa Rica belonging to some club members lost at the time of the POHO last weekend was discussed.

**VI. The Club's mailing address** was discussed. Since Alex Langoussis will not be continuing to retrieve mail from the PO Box, a change is recommended by Sharon Carruthers and Peter Macumber. Motion was made to change the corporate and mailing address to the Mableton Post Office or other nearby location. Motion seconded and unanimously passed.

**VII. The possibility of telephone** at Villa Rica was discussed. Issue tabled until more information on costs available.

**VIII. The next Board Meeting** was scheduled for Monday August 27th at 8:00pm (location TBA).

Meeting was adjourned at 10:30 pm.

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## AAC Board Meeting/ August 27th, 2001

**Board Members Present:** Carol Abernathy, Keith Burns, Sharon Carruthers, Tom Crowley, Peter Macumber, Chuck Painter, Gil Shillcutt, Karen Stiles

**Others Present:** Art Russell, Matthew Macumber

\* **Meeting was called** to order by Sharon at 8:00pm.

\* **Minutes from the July Board** meeting were reviewed and approved without change. Procedures for approval and publication of the minutes were reviewed. The consensus among those present was that the minutes should be sent electronically to board members following the meeting with a request that any proposed corrections or changes be sent to the Recording Secretary. If no changes are received within a few days, the minutes will be considered approved and forwarded by the Recording Secretary to the Focal Point Editor for publication. It was discussed that the Board List Serve still needs to be updated to

include the current Board members. The Recording Secretary requested email addresses of all current Board members so that minutes can be forwarded to them.

\* **Reports from Standing Committees:**

- **Speakers:** Carol Abernathy reviewed the tentative schedule for speakers over the next few months. There has been a change in the November schedule. The General Meeting will be held at CEWMC on Friday 11/16 at 8pm. There is no speaker scheduled and the general meeting will not occur in conjunction with the Cosmonaut program scheduled for 11/18 as previously discussed. Art Russell announced a proposed program for early 2002. Dave King, professor at Auburn University, will speak on the Wetumpka Meteor Crater which is located near Montgomery, AL. Art is suggesting that the club sponsor a day trip outing to the crater, possibly this Fall. Dave is willing to travel here to speak at his own expense but requests a donation to the Wetumpka Meteor Preservation Fund in lieu of travel expenses. Tom Crowley made a motion that the club donate \$100 to the Wetumpka Meteor Crater Fund. The motion was seconded and passed unanimously. Art refers members to several websites on the crater for further information.

The Auburn Astronomical Society made a trip there in 1997 and has a website describing their trip - see <http://www.mindspring.com/~rwhigham/wetu.htm> Other resources concerning the site are as follows: <http://groups.google.com/groups?q=Wetumpka+AND+meteor&safe=off&num=1&selm=heinrich-2107980841150001@news.intersurf.net> . Also see: [http://www.cnn.com/TECH/science/9807/17/t\\_t/alabama.crater/index.html](http://www.cnn.com/TECH/science/9807/17/t_t/alabama.crater/index.html) . Dr. King's webpage on the crater is at: <http://www.auburn.edu/~kingdat/wetumpkawebpage3.htm> . Auburn University also has a website with "virtual" tour at: [http://www.auburn.edu/academic/science\\_math/geology/docs/wetumpka/index.html](http://www.auburn.edu/academic/science_math/geology/docs/wetumpka/index.html)

Additional resources provided by Art are: Neathery, T. L., Bentley, R. D., and Lines, G. C., 1976, Crytoexplosive structure near Wetumpka, Alabama. Geological Society of America, vol. 87, no. 4, pp. 567-573.

Neathery, T. L., King, D. T., and Wolf, L. W., 1997, The Wetumpka Impact Structure and Related Features. Alabama Geological Society, (P.O. Box 866184), Tuscaloosa, AL 35486-0055 McGowin, W., 1996, Ground Zero: The Wetumpka Astrobleme. Alabama Heritage, Fall 1996, pp. 6-13.

Art also suggested a day trip be considered to Roper Mountain where there is a 23" Refractor Telescope.

- **Treasurer:** Peter Macumber reported on a new combined

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membership card/ID badge which he is recommending the club change over to. The current ID badges cost 41 cents each and the new cards are 60 cents each. However, production of the badges is far less time intensive. A motion was made to change to the new membership badges as recommended by Peter. The motion was seconded and passed unanimously. Peter reported that his printer is no longer working and requested that the club purchase a new printer for him due to the extensive use of this in conducting club business, mailings, etc. The cost of a new machine which includes a copier, scanner and fax is \$179. A motion was made to approve funds for purchase of the machine. The motion was seconded and passed. Expenses for the Focal Point were reviewed.

**\* Old Business:**

**I. Training/Public Sessions Committee** (Gil Shillcutt)—Committee has not yet met. Meeting is in the process of being scheduled.

**II. Focal Point Budget**—no change in status (see Treasurer's report)

**III. Missing Eyepiece** at Villa Rica—Concerns were raised by several board members present regarding actions taken by the President to replace equipment of club members which was lost/stolen at POHO with club funds and without approval of the board.

**IV. Club Mailing Address**—Peter Macumber announced that Alex L. will continue to pick up the club mail so no address change is necessary at this time.

**V. Independent Audit**—Peter Macumber reported that he and Sharon met recently with a CPA to discuss issues of auditing and tax filing. It was estimated that the cost of an independent audit by a CPA would be \$4000. Taxes need to be filed with IRS. The issue of hiring an accountant for tax filing and audit was discussed. The consensus of the group was that an accountant should be hired for tax filing but that an internal audit by club members with experience in finance might be preferable to the expense in hiring an external consultant. A motion was made to complete an internal audit of the club financial operations by April 30, 2002 for FY 2001 under the direction of an audit committee which would consist of two board members and one general member in good standing. The audit committee would be accountable to the Board. The motion was seconded and passed. Chuck Painter volunteered to chair the Audit Committee.

**\* New Business:**

**I. Handling of funds from the Peach State Star Gaze** (PSSG) were discussed, specifically, whether all

proceeds should continue to be allotted to a Dark Sky Site fund. The issue was tabled without resolution. Sharon Carruthers will form a committee to further consider the issue.

**II. The Whitewater location** in Tennessee was briefly discussed as a possible future location for the PSSG.

**III. Atlanta Astronomy Exposition**—Tom Crowley reported that dates being considered for next year's event are May 20-27 and that initial planning for the event has begun. A full day program is being planned with 5-6 speakers and an afternoon Planetarium show.

**Announcements:**

**I. The September General Meeting** will take place at 7:00pm 9/14 at PSSG.

**The meeting was adjourned** at 10:15pm.

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## Upcoming GASP Events

### Joanne Cirincione

Please join us at any of the GASP events. It is a great place to relax and get to know your fellow members. Campgrounds on holidays fill up quick. Please make your reservations far enough in advance to get a spot.

**10/20 FDR State Park** – 7:00p

**11/10 Unicoi State Park** – 5:30p

**11/24 Tallulah Gorge State Park** – 5:30p

*Please contact me at [starrynights@AtlantaAstronomy.org](mailto:starrynights@AtlantaAstronomy.org) for more information on any GASP event.*

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## Coca Cola Falls State Park

### By Keith Burns

Our fearless leader is home resting tonight so I report on her behalf.....

...without permission, of course. What can one say about Coca Cola Falls State Park. It was a success. The talks that is.

The viewing sucked. Much rain, clouds, and fog made for really bad transparency. I'm sick of this rain stuff. That's it..... mother nature and I are at war. Let's have it out.....right now. Out in the parking.

There were other things to note. We had a raccoon visit during Sharon's talks on both nights. Some folks thought we had arranged that. Well, I/we did. And Peter the Raccoon wants his money. He takes cash, checks, or credit cards. No American Express.

We also were over flown by about 8 to 10 Hawks up at the Lodge Parking lot on Sunday. Lot's of pictures were taken.

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WOW!!!!!!! It was a beautiful sight. Ooooooo.....Aaaaaaaa. We also conducted a drive through the countryside on a beautiful rainy afternoon. Crossing the wilderness on our quest to find the local Kroger. We like to camp but also have some of the comforts of home. Just a few.

Campfire? Not in the rain. Although Joanne and Sharon purchased firewood. Never used it. But the ice cream was good. At least that's what Sharon told me.

The talks were moved to the Lodge because of the inclement weather. Nice location. Tables and chairs provided. Also a slide projector and screen. Then there was the fire burning in the fireplace. Perhaps it's time to move this gig indoors for the rest of the weekend. Ditch the tent. But, no. We are camping. Besides it's \$200 a night for a room. Did I hear that correctly?

Tracy came on Saturday night to help out. He was the smart one. Didn't bring a telescope. Or At least left it in the truck. Peter and I did the same. Sunday night we brought them into the building and set them up. Nothing to see but it proves that we did indeed bring scopes with us.

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The document below is part of large document sent to me by Tom Buchanan. This is the light trespass ordinance recently approved. For those of you who don't know Tom, he is a our expert in Light Trespass. He has been working for years to get laws and ordinances passed in the Metro Atlanta area. Recently he had considerable success getting ordinances passed in Cherokee County and the City of Alpharetta. Hopefully this is the start of a trend in the Metro area. Thank you Tom for all your hard work. The club owes you much for this.

I have included the intent section and the glossary section. Hopefully this will help you understand what all those terms mean and reason why this stuff is important to us.

## **OUTDOOR LIGHTING AND ROAD GLARE ORDINANCE**

### **SECTION 1. PURPOSE AND INTENT**

The purpose and intent of this ordinance are as follows:

- A. To encourage systematic practices in the use of outdoor electrically powered luminaires, consistent with conserving energy and maximizing the benefits to the citizenry;
- B. To increase nighttime utility, safety, security, and productivity; to foster the nighttime use of property; and to protect the privacy of residents;
- C. To reduce light trespass, obtrusive light, and sky glow; and to reduce roadway glare and extreme variations of illumination, to which elderly drivers are particularly sensitive;
- D. To preserve and enhance the natural nighttime visual environment of Cherokee County;

E. To preserve the views of the starry sky, encouraging the enjoyment of their aesthetics, the education of the public in the sciences, and the astronomical study of celestial bodies; and

F. To accomplish these purposes by limiting illuminance levels; by directing the luminaire emissions away from roadways, other properties, and the sky; and by reducing illumination levels during later hours of the night.

### **SECTION 2. DEFINITIONS**

**BEACON:** A light with one or more beams directed into the atmosphere or directed at one or more points not on the same property as the light source; also any light system with one or more beams that rotate or move.

**CUTOFF:** A luminaire light distribution where the emission does not exceed 2.5 percent of the lamp lumens at an angle of 90 degrees above nadir, and does not exceed 10 percent at a vertical angle of 80 degrees above nadir. These emission values apply to all lateral angles around the installed luminaire.

**FOOTCANDLE:** A unit of measure for illuminance on a surface that is everywhere one foot from a point source of light of one candle, and equal to one lumen per square foot of area.

**FULL CUTOFF:** A luminaire light distribution where zero emission occurs at all angles of 90 degrees or greater above nadir, and the emission does not exceed 10 percent of total lamp lumens at a vertical angle or 80 degrees above nadir. These emission values apply to all lateral angles around the installed luminaire.

**GLARE:** The sensation produced within the visual field by luminance that is sufficiently greater than the luminance to which the eyes are adapted, causing annoyance, discomfort, or loss in visual performance and visibility

**ILLUMINANCE:** The quantity of light arriving at a surface divided by the area of the illuminated surface, measured in foot-candles. Horizontal illuminance applies to a horizontal surface; vertical illuminance applies to a vertical surface. Average illuminance is the level of illuminance over an entire illuminated target area. Maximum illuminance is the highest level of illuminance on any point within the entire area; minimum illuminance is the lowest level of illuminance on any point within the entire area.

**ILLUMINANCE LEVELS:** All illuminance levels and foot candles noted in this ordinance mean the maintained illuminance levels: the illuminance levels occurring just prior to lamp replacement and luminaire cleaning. The average illuminance level applies to an entire illuminated target area. Minimum and maximum illuminance levels apply to small areas within the entire illuminated target area. Unless otherwise noted, illuminance levels refer to horizontal illuminance levels.

**LAMP:** The component of an outdoor luminaire that produces

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light.

**LIGHT TRESPASS:** Unwanted light emitted beyond the boundaries of the property on which the luminaire is located, detrimentally affecting residents, vehicle operators and pedestrians, the natural environment, and astronomical observations.

**LUMINAIRE (LIGHT FIXTURE):** A complete fixed or movable lighting unit consisting of a lamp or lamps and ballasting (when applicable) together with the parts designed to distribute the light, to position and protect the lamps, and to connect the lamps to the power supply.

**PERSON:** Any individual, tenant, lessee, owner, or any commercial entity, including, but not limited to, a firm, business, partnership, association, joint venture, corporation, or organization, whether commercial, religious, fraternal, social or otherwise, or any agent thereof.

**ROADWAY LIGHTING:** Lighting that is specifically intended to illuminate roadways for automobiles, excluding the lighting intended to illuminate roadways only for pedestrians.

**SECURITY LIGHTING:** Continuous illumination of non-roadway territory when there is no/minimal nighttime activity by authorized individuals.

**SEMI-CUTOFF:** A luminaire light distribution where the emission does not numerically exceed 5 percent of the total at an angle of 90 degrees above nadir, and 20 percent at a vertical angle of 80 degrees above nadir. These values apply to all lateral angles around the installed luminaire.

**SHIELDED:** provided with internal and/or external shields, top and side visors, hoods, and internal louvers to limit glare, sky glow, and light trespass caused by emission from luminaires.

**SKY GLOW:** The brightening of the nighttime atmosphere by light emitted above the horizontal plane and by light reflected upward from illuminated surfaces, which reduces the visibility of astronomical objects.

**UNIFORMITY RATIO:** A higher level of illumination in relation to a lower level of illumination within a given target area. A value for either the maximum-to-minimum ratio or the average-to-minimum ratio may be required. For example, if the average-to-minimum uniformity ratio is 4:1 for the given target area, the lowest level of illuminance is no less than 1 divided by 4 (25%) of the average level of illuminance.

## Report of Light Trespass Committee

By Tom Buchanan

The Cherokee County Commissioners adopted the Outdoor Lighting and Road Glare Ordinance during their July 10, 2001 Public Meeting.

The City Council of Alpharetta adopted the following paragraph to be added to their §2.6.10. **GENERAL PROVISIONS:**  
b ILLUMINATION OF SIGNS:

“Lighting for free standing signs shall be located above the sign and aimed downward in order to minimize the brightness added to the night sky.”

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## Amateur Telescope Makers Group

Interested in building your own telescope? Want to enhance your current scope with some features or fix problems with it? Do you want to grind your own mirror or learn how it is done? This is the group for you. The ATM group meets every couple of weeks at Skip Cook's house. He has generously offer this location for this purpose. Contact him via phone (404-325-4987) or email (scz9@cdc.gov) for more information and directions. Tracy Wilson runs the group and has much expertise to offer. You can contact him via email (tracy@c2optical.com). Announcements of meetings will be posted on the AAC listserv. You can also find out about upcoming meetings from Skip.

They are using Skip's house currently but are interested in moving the group to another location. If you have a place where they can meet and work on those projects, please contact Skip.



**Above is Lee Troske's 8 inch scope. He designed his scope so that the primary mirror and mirror cell are easy to remove. The four latches make this possible. A fan is used to cool the primary mirror for the night time viewing to come.**

I have recently seen the scopes that the regular ATMers have built, and I was impressed with the quality of their scopes. It's amazing what hard work, determination, shared knowledge, and a little money can do to make these wonderful instruments.



## Hot Shots

This month Keith Burns took some photos of the sun. The photo to left shows the sun and what looks to be something escaping the surface in all directions. Picture below was taken as a cloud passed in front of the sun. Sunspots are also visible.



Telescope used is a 6 inch f/5 schmidt-newtonian fork mount. I used a 25 mm old plossol eyepiece with a magnification of 29X. The reason for the difference in sizes of the suns is the zoom feature on the Kodak 210 Digital camera used. Pictures taken with eyepiece project technique. Pictures taken September 9, 2001.

The filter used is a Baader film. It consists of the film sandwiched between three layers of 3/16 inch foam board. Velcro is used to secure the filter onto the tube of the scope. This also makes for easy removal later versus using tape. The velcro extends out from the sides of the filter and loops around. See picture of filter to the left.. Pictured to middle left shows how filter is attached to the scope.

## Hot Shots

Hot shots is a new section in the Focal Point that features pictures taken by Club members. Pictures can be anything from deep sky objects, planets, sun, moon, or sketches. This month Dan Ford has provided an image of M57. Note that the picture size was reduced in size to fit it on this page.



Image of M57 (Ring Nebula in Lyra) taken at VR on 8/23/01. The image consists of 4 - 5 minute exposures with dark and flat fields subtracted.

Equipment used was the following:

Takahashi FS-102 4" Refractor

Starlight Xpress MX7-C CCD Camera

Star 2000 Guiding

Williams Optics GT-1 GOTO Mount

Sky Sensor 2000PC Mount Control

Dan only owns one Tak. The other one belongs to Stef Whetstone. This is the scope he used to take the picture above. Except without Stef's scope.

## Mystery Photograph



**Get Art Bell on the phone. I think we have been visited by aliens. The above picture proves this to be true. The challenge for you is to guess where this picture came from. Some folks know but can't tell. So, where did it come from?**

### AAC Member of Astronomical League

For more info on the Astronomical League, visit their website at <http://www.astroleague.org>. The AAC astronomical league contact is Keith Burns. You can reach him via email at [Keith\\_B@Bellsouth.net](mailto:Keith_B@Bellsouth.net) or 7-427-1475.



As part of the benefits of being a member of the AL, you can do one of the many observing programs available. Upon successful completion of the requirements the AL awards you a pin and certificate for your troubles. Hope you also gain knowledge along the way and an interest in some aspect of astronomy. Recently Frank Marchase completed the Sunspot program. He will be certificate holder number 41.

### Focal Point Submission Deadline

I'm looking for articles, pictures, and drawings on anything astronomy related. All formats are acceptable. Pictures can be sent as either JPEGs, GIFs, or other formats. I can also scan in hard copy pictures. Articles can either be sent via snail mail addressed to Keith Burns 3740 Burnt Hickory Road Marietta, Georgia 30064 or email at [Keith\\_B@bellsouth.net](mailto:Keith_B@bellsouth.net). You can submit articles anytime up and including the deadline date. The **deadline** for the **October issue** is **September 29th, 2001**.

### Atlanta Area Astronomers Listserv

While the Focal Point is a good source for information among other things, it cannot be undated after it is printed. If you have email access with a computer, then you can subscribe to the Atlanta Astronomers Listserv. This is a great source for up to the minute info on observing events. You can also post questions about astronomy. You can talk to fellow astronomers about the hobby or other things related to it.

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

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### Hotline and Website

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

The website has proven itself in attracting new members and keeping members informed of club events. This can only happen if we are given the information to post on the website. If you have any suggestions, comments or ideas please send them along to the [webmaster@AtlantaAstronomy.org](mailto:webmaster@AtlantaAstronomy.org). Internet Home Page: <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 fee's are **\$25** for a family or single person membership. College Students membership fee is **\$10**. These fees are for a one year membership.

Magazine subscriptions to Sky & Tel or Astronomy can be purchased through the club for a reduced rate. The fees are **\$30** for Sky & Tel and **\$29** for Astronomy. Renewal forms will be sent to you by the magazines. Send the renewal form along with you check to the Atlanta Astronomy Club treasurer.

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<b>Woodruff Observ. Coordinator:</b> John Lentini 7-984-0175 <a href="mailto:johnlentini@yahoo.com">johnlentini@yahoo.com</a>	



## *The Focal Point*

Newsletter of The Atlanta Astronomy Club, Inc.

**FROM:**

Keith Burns Email: [Keith\\_b@bellsouth.net](mailto:Keith_b@bellsouth.net)

3740 Burnt Hickory Road

Marietta, Georgia 30064

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

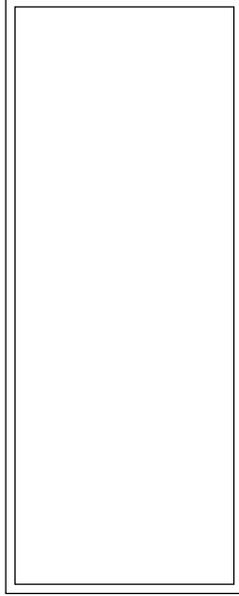
Atlanta Astronomy Club

PMB 305

3595 Canton Road A9

Marietta, GA 30066

**FIRST CLASS**



## Calendar

**September 13th-16th-Peach State Star Gaze.** Indian Springs State Park. Must pre-register in order to attend. Registration closed as of Aug 31st.

**September 17th- Dinner with Wil Tirion.** Steak and AI near Northlake mall. Fee. Must register by Sept 7th.

**October 6th- AAC members orientation.** Location: Walter Barber Observatory near Villa Rica. Time: 5:00 p.m.

**October 19th- General Membership Meeting.** Refreshments at 7:30 p.m. Meeting starts at 8 p.m. Location is White Hall at Emory University. Speaker is Dr James Kaler of the University of Illinios.

**October 20th- GASP** sidewalk astronomy at FDR state park. Talk and viewing through scopes. Starts at 7 p.m. Rain or shine event.

**October 27th- Picnic and Open House** at Villa Rica Observatory. Picnic starts at Noon. Open House starts at 5PM. Night of the Living Dob.

**November 3rd- How to Buy a Telescope.** Fernbank Science Center.

**November 10th- GASP** sidewalk astronomy at Unicoi State Park. Starts at 5:30PM.

**November 16th- General Membership Meeting** to be held at CEWC. Regular meeting. No speaker as we are having a speaker on November 18th. Starts at 8PM.

**November 16th-18th- Deep Sky Session** at either Chiefland, FLA or Zombie Party at CEWMA. 4PM Orientation on Saturday Nov. 17th.

**November 18th- Special Speaker.** Cosmonauts at Fernbank. Details TBA.

**November 24th- GASP** sidewalk astronomy at Tallulah Gorge State Park. Starts at 5:30PM.