

THE FOCAL POINT

The Atlanta Astronomy Club, Inc.

Vol. VIII No. 7

December, 1995

The December Meeting

Our next meeting of the Atlanta Astronomy Club will be on Friday, **December 8**, at the **Fernbank Science Center**. At 7:00 p.m. we will have a pot luck holiday dinner. The Club will provide a ham. Please bring a dish to share if you can. Following the dinner, at 8:00 p.m., we will move to the planetarium to enjoy the show "Christmas Around the World". After the planetarium program, there will be viewing through the 36" telescope. We hope you will bring your families and friends to enjoy the festivities.

AAC in Astronomy Magazine

The January issue of Astronomy Magazine has an article in the Club News section about the Atlanta Astronomy Club and its assistance with CNN's "Science and Technology Week". Nice article, Ken! Be sure to check it out. Better yet, you can subscribe at a substantial discount through the Club. Contact Doug Chesser for details.

Another New Observing Site?

by Alex Langoussis

On Saturday evening, Nov. 25, several club members went out to check another possible observing site. Making the trip to a site north of Dahlonega were Site Search Committee Chairman Phil Bracken, Eric Shelton, Doug Chesser, Mark Wilson, and myself.

Once the bright crescent moon and early cirrus clouds disappeared, we had an incredible evening of observing. The only sky glow was toward Atlanta, but it did not scatter across the rest of the sky. Air steadiness was very choppy at best, but the sky's transparency was wonderful! And a very slight breeze kept dew at bay the entire night!

Normally viewing the Pleiades with a 15" scope is overkill, but transparency and darkness were excellent enough to be able to trace the nebulosities of the cluster further than I have personally ever seen before. Other highlights included seeing Comet Schwassman-Wachmann 3 (the Never-Say-Die Comet?) still putting on a show with a 1/2 degree tail, and Eric Shelton's 2 discoveries.

The first was a supernova in M33. Unfortunately the supernova that was not on the Megastar chart did show up in a picture! The second discovery was no false alarm. Eric discovered a flashing object near one of the Hershel objects he was observing. Possibly a geo-synchronous satellite, it moved VERY slowly. We hope we can eventually identify it.

Another highlight of the evening was hosting a few of the nearby local residents and their kids to views of the sky. The kids especially left awestruck. And the club members there also were extremely impressed with the views we had in the very dark skies. We hope that this can eventually be a third additional site where members can take their telescopes for dark sky viewing of the stars.

Calendar Notes

8 December	December Meeting at Fernbank
16 December	Dark Site Observing Session. Villa Rica! Come on out and enjoy the WARM-UP shack! Its actually warm. Here's the perfect way to do your observing and stay warm (relatively) at the same time. Make no mistake, you must still prepare for the cold weather. However, this is the time of year for Dark Skies at Villa Rica, so come on out and enjoy them with the club's deep-sky Zombies! See you there.
20 January, 1996	Dark Site Observing Session. Villa Rica!
17 February, 1996	Dark Site Observing Session. Villa Rica!

November 1995 AAC General Membership Meeting

By Ken Poshedly

The November 17 meeting of the Atlanta Astronomy Club was called to order by president Alex Langoussis shortly after 8 p.m. at Emory University's White Hall. By actual count, there were 43 persons members and guests attending.

Prior to the evening's formal program, the following announcements were made:

- Observing chairman Art Russell reminded all of the Dauset Trails observing session planned for the following evening and the November 25 observing session at Villa Rica; Art also recognized AAC member Richard Mintz for his good work at renovating the club's warmup shed at the Villa Rica observing site; Art also wants suggestions for future activities for the club's Beginner's Interest Group; contact Art at (770) 448-6990.
- Club treasurer Doug Chesser reminded everyone that he has "Astronomy" magazine calendars for sale; a portion of each sale goes into the club's speakers fund;
- Doug also congratulated our members for continuing memberships; today we continue to have 150-160 members; contact Doug for more information at (770) 457-5743.
- Peach State Star Gaze chairman Ken Poshedly offered his reminder about next spring's weekend event to be held once again at Indian Spring State Park's Camp McIntosh, near Jackson, Georgia. We'll know just after the first of the year whether we'll have the site March 14-17 or April 18-21; confirmed speakers now include Don Parker on planetary observing, Julius Benton on lunar observing, Jim Rouse on sunset photography, and Paul Traufler (author of the shareware satellite tracking software program "Traksat") on observing satellites; contact Ken for more info at (770) 979-9842.
- Dark Sky Search Committee chairman Phil Bracken informed all that we now have two observing sites—Dauset Trails near Jackson, Georgia, and another site near Blue Ridge; phone Phil for more information at (770) 941-6517.
- "Focal Point" newsletter editor Rich Jakiel asked all interested authors to submit articles to him for publication in this newsletter ASAP.
- Alex asked if anyone would be available to assist AAC member Larry Higgins who was to do a talk and demonstration on telescopes at Forest Park High School on November 21; Alex then introduced Mel Tolbert who displayed his Foucault Tester. Mel has built a number of scopes for himself since 1989 and

offered to assist anyone who would like to try building a scope from mirror grinding and up. Randy Ray told the group about Starry Hill Inn in New Mexico and distributed an opinion questionnaire.

The program for the evening was Fernbank Science Center's April Witt whose insightful slide presentation of her work in October aboard the flying Kuiper Astronomical Observatory proved to draw a number of questions and much interest from the audience.

The meeting was adjourned at approximately 9:30 p.m. for snacks and sodas outside the meeting room and a traditional visit to Jaegers across the street.

Minutes of the November 12 Meeting of the Atlanta Astronomy Club Board of Directors

By Ken Poshedly, recording secretary

The November 12 meeting of the Atlanta Astronomy Club board of directors and officers was called to order by chairman of the board Ken Poshedly at 6:40 p.m. at the home of Doug Chesser.

Present were: Alex Langoussis, president; Art Russell, vice president and observing chairman; Doug Chesser, treasurer; Rich Jakiel, newsletter editor; Ken Poshedly, recording secretary; Eric Shelton, member of the board and telescope-making chairman; Tom Buchanan, member of the board and light pollution chairman; Tushar Thrivikraman, member of the board; Phil Bracken, dark sky search chairman; and AAC member Don Hall.

Art Russell informed the board of the fine and much appreciated work done by Richard Mintz in renovating the club's Villa Rica observing site warm-up shed and also in replacing the deteriorated front gate-post.

Phil Bracken talked about the dark sky search committee's success in locating two observing sites for AAC members—one at Dauset Trails and the other at "Turkey Farm" near Blue Ridge in north Georgia; the Turkey Farm site is a remote, three-acre field about 1.5 hours north of Marietta with beautifully dark skies and only very slight sky-glow from Blue Ridge; Phil is working with both a Fannin County High School science teacher and the National Forest Service on this project.

Alex Langoussis said that he was still hoping one or more AAC members would step forward to help design a club logo; he added that Eric Shelton is still reviewing the AAC bylaws for possible changes to be presented to members for a vote at some time in the future. A scrapbook containing nearly the entire history of the Atlanta Astronomy Club has been missing since last fall and members of the AAC are asked to make any contributions they can to a new book to replace the lost one. If you have any old newspaper

clippings or news about the club that you may have saved from years past, please contact Alex. Alex stated that the club's home page on the Internet has so far resulted in three new members joining, with between 10 to 20 visits per day by others, and will be upgraded with even snazzier graphics.

Rich Jakiel stated that the timeline for completing the next issue of Focal Point is very short; Rich wants to get the newsletter out early enough for members to include our next program in their December schedule. He also asked for general opinions from the board on a new program and certificate for those observing objects found in the Caldwell Catalog as described in a recent issue of Sky & Telescope magazine.

Tom Buchanan talked of his efforts to have North Point Mall management douse their very bright light beacon early enough to not interfere with sky observing; Tom noted that the beacon is often left on until 10:30 p.m., well past the closing time of the stores at the mall. Tom and Alex will try to meet with North Point Mall management to see if any kind of agreement can be worked out. Tom then requested support for passage of Georgia House Bill 942 in the form of letters to members of the state house's Game, Fish and Parks Committee. Passage of this bill into law could only assist with energy conservation, reduce glare from badly installed lights and reduce light trespass.

Doug Chesser provided a verbal report of the club's financial status; we're solvent and on fine footing. We are very much gratified with how well Fernbank Science Center and the AAC worked together on making the October program a huge success.

Eric Shelton will meet with Alex to secure some miscellaneous woodworking equipment and proceed with the telescope-making committee's activities.

Tushar Thrikraman expressed his support for the dark sky search committee's work.

Ken Poshedly distributed an informational budget for the upcoming Peach State Star Gaze; board discussion was favorable and included some suggestions to draw even more families into the event.

The meeting was adjourned at approximately 9:10 p.m.

Deep Observing M33 by Richard Jakiel

One of the finest galaxies in the sky, **M33** (also known as the *Pinwheel Galaxy*) is located about 1/3 of the way between *Alpha (α) Trianguli* and *Beta (β) Andromedae*. This *Sc* galaxy is presented nearly face-on, and is a wonderfully complex object when viewed in a large amateur instrument. Though a fairly easy starhop, this beautiful galaxy can be quite the challenge for the inexperienced deep sky observer. This galaxy is the second brightest in the northern sky at magnitude 5.7, only the relatively

nearby **M31** is brighter. However, the posted magnitude is quite deceiving since it is spread over an area measuring 65' by 35', though visually it spans a smaller ~ 45' by 25'. This results in a relatively low surface brightness. I have seen observers locate this object in their finder scopes, only to be frustrated by *not* seeing it when looking through the primary scope. From urban and most suburban sites, **M33** can be a very difficult object due to lack of contrast. When observing this galaxy, or other low surface brightness objects the first rule is: *find the darkest skies possible!*

Under dark skies, this system isn't overly difficult to find and observe. I have seen **M33** using only the naked eye, and it's an easy object to see in almost any sized finder scope. With a 6 to 8-inch scope, the novice observer may see a diffuse glow stretching 30' by 20', at a position angle (PA) of around 30 degrees, while little else may be visible. With training and deep sky experience, you should be able to see the backward-S enhancement of the two main spiral arms plus a few of the brighter star associations and H II regions. In large scopes, like the AAC's 20-inch at Villa Rica, the sight can be nearly overwhelming. Perhaps two dozen or more knots are visible, of which 15 have NGC or IC designations. These "knots" are gigantic H II regions similar to *Eta Carinae* and *M42* and/or vast OB associations similar to the Orion OB1 which includes most of the bright blue giants in that constellation. These structures help delineate both the two main spiral arms plus the two smaller, more fragmented secondary arms that are visible in most photographs of the galaxy. These four majestic spiral arms help give **M33** earn the nickname "*Pinwheel Galaxy*".

Starting from the northeast, **NGC 604** is the brightest and largest of these "knots" in this galaxy. This structure is the brightest extragalactic H II region visible in the northern sky, perhaps 30 times the size of puny *M42*. It rivals the famous *Tarantula Region* in the Large Magellanic Cloud in sheer size and complexity. Paul Hodge's (1983) article on *Gas Clouds in Galaxies* cites that these and other similar regions are areas of very active star formation. Like the *Tarantula*, dozens of superluminous Wolf-Rayet stars are embedded within this region. These are some of the most luminous stars in the galaxy, visible as 16th magnitude and fainter pinpoints of light.

NGC 604 is plainly visible in even small telescopes and it has a much higher surface brightness than the galaxy itself. It is roughly oval, and measures 30" by 20" and has a brightest of 10.5 magnitude. I have seen it distinctly with a 4 1/4" Astroscan, while the club's 20-inch scope begins to reveal its wonderful complexity. Nebula Filters help show the cottony inner texture and wispy margins while high power, large aperture and good seeing are required to resolve some of the faint Wolf-Rayet stars. These are perhaps the farthest stars (other than supernova) visible to the observer, their feeble light traveling over 2.7 million light years! Several other slightly smaller H II regions also have NGC designations. **NGC 588**, **592** and **595** appear as small hazy spots about 15 to 20 arcseconds across, and between 12 and 13th magnitude. The first object is located northwest of the galaxy's nucleus as part of one of the smaller secondary spiral arms, while the last two are located near the lower middle section of the large northern arm. All of these giant H II regions respond well to both UHC and O III nebula filters.

Somewhat less distinct, yet a major structural component to spiral arms are the OB associations. These are vast

regions of brilliant stars and diffuse nebulae often spanning hundreds of light years. On M33 they form diffuse knots that also respond well to the use of nebula filters. Several of these are located near the **NGC 604**. **Association 85** is the closest, a small hazy patch less than 3' southeast of the giant H II region. **Associations 75 and 67** (=IC 143 and 142) are prominent hazy knots in the middle section of the northern arm between NGC 604 and the tiny stellar nucleus. **Associations A4+A5 and A10+12** are diffuse condensations that help delineate the main southern arm. Generally, these structures are between 13 to 14th magnitude and measure 30" to 1' across. Using charts provided in Luginbuhl and Skiff's *Observing Handbook and Catalogue of Deep Sky Objects*, dozens of OB associations and H II regions can be seen with a 12.5" or larger scope.

Although the spiral arms and associated structures can be quite impressive in a medium to large telescope, the nuclear hub is not very striking. The central hub is only weakly concentrated, but its higher overall surface brightness does allow for the use of greater magnifications. The nucleus appears as a tiny stellar point of about 13th magnitude surrounded by a mottled region a few arcminutes across. This is in striking contrast to nearby **M31** whose nuclear hub dominates the view.

Tips For Viewing: Generally, most guidebooks advocate the use of the *lowest* available power. Although this helps to locate the galaxy, this is *NOT* the best way to observe this object. To maximize contrast with sharpness and best limiting magnitude, it is better to use between 10 to 15x per inch of aperture. So for a 10-inch scope, this is between 100 to 150 power if you desire to get the best views of most deep sky objects. So, if you wish to see more than an unresolved haze -go for the "gusto" and use medium to medium-high magnification once M33 is in the field of view. High surface brightness regions like NGC 604 can tolerate higher magnifications if seeing permits. If you like hunting down the small, faint structures, programs like *MegaStar* and upgraded *The Sky* can provide detailed maps. Photographs and detailed descriptions can be found in volume 4 of *Deep Sky* and in Luginbuhl and Skiff's observing handbook. So if it's a clear, dark moonless night, take the time to observe one of our nearest galactic neighbors, M33 the "Pinwheel Galaxy".

The Opaque Sky

by David Riddle

At an elevation of almost 14000 feet above sea level, the night sky was a disappointing sight. The sky seemed much too bright. I was having trouble concentrating and asking my tour guide a coherent question was difficult. I was standing on the summit of Mauna Kea overlooking the dome of the Keck 10 meter telescope and besides suffering from a lack of oxygen in the freezing thin air I was freezing my tail off. The palm tree

fringed beaches thousands of feet below seemed a distant unreal dream. My tour group descended to an elevation of about 9000 feet and set up an 8" Celestron to take a few much too brief glimpses of the heavens. I asked about the seemingly bright sky at the summit of Mauna Kea and was told that a lack of oxygen was affecting my night vision. The sky here was spectacular! The late summer Milky Way was a revelation... I have never had a better view, even from the dark skies of the Texas Star Party at a mere elevation of about 6000 feet above sea level.

The transparency of the atmosphere is critical to really see the night sky. The summit of Mauna Kea is famous for its transparency - the amount of particulate matter in the air is extremely low and along with low humidity, elevation and a laminar flow that produces consistently good 'seeing' conditions - it is among the premier astronomical observing sites on the planet. I really envy the Hawaiian amateur astronomers that have an observing site on the slope of Mauna Kea.

The human eye can not distinguish contrast levels of about 5 percent above the background. Anybody that has ever hunted low surface brightness nebulae or galaxies is well aware of the devastating effects that light pollution (either artificial or 'natural sky glow') can have on these object's visibility. The popularity of 'nebula' filters is due to the fact that they increase the contrast of deep sky objects relative to the background of the night sky and thus make them easier to see.

Besides the obvious factors of artificial light pollution, light scattering by particulate matter (remember the murky skies following the eruption of Mount Pinatubo and Mt. Saint Helen?) and decreased contrast due to water vapor (a translucent 'cloud', if you will) the sky goes through cycles of brightness linked to solar activity. During solar maximum a pervasive weak aurora occurs to further brighten the night skies.

As measured by professional astronomers, a pristine dark sky has a brightness of magnitude +21.99 per square arc second or +13.10 per square arc minute at the zenith at solar minimum. (The formula for converting sky brightness from square arc minute to square arc second is simple; just add 8.891 to the arc minute value. This may be of value for those that use the surface brightness values given for galaxies given in the Deep Sky Field Guide. The surface brightness value is a much better guide to a galaxy's visibility than older 'total magnitude' values.) A mere one half magnitude artificial brightening of the sky begins to seriously degrade the night sky. Heavily light polluted sites have a brightening of close to 4 magnitudes (!) which translates into perpetual twilight.

Most amateur astronomers are aware of seasonal changes in the transparency of the sky. In general the summer months with high humidity and photochemical haze brings the worst transparency of the year for observers

in the Southeast United States. But the unpredictable chaos of the atmosphere can bring some surprises. I have seen the poor skies of July suddenly clear for a night or two and be quite transparent. Transparency can vary over much shorter time periods. Magnitude variations of the stars can vary one whole magnitude in a single minute. Transparency holes are a very real phenomena and should be looked for by amateur astronomers.

Judging the transparency of the sky is fairly simple. What color is the clear daytime sky? The difference of a soft blue grey summer time sky and the hard blue sky of October is easy to see. Hazy skies destroy the color and detail of distant objects. Learn to spot the aureole surrounding the sun during the day by carefully blocking the sun with your hand. A murky sky will reveal itself as a milky scattering of light around the sun's disc. The extent of this aureole is a good indication of haze and particulate matter in the sky. A lack of color in the west after sunset indicates low humidity and a 'clean' sky. Look at the Milky Way as a quick way to gauge sky quality. A vivid 'textured' Milky Way displaying a 'granularity' and the detail of the dark nebulae is a sure indication of a good sky. Most amateur astronomers also become amateur meteorologists!

In 1962, Rachel Carson's "The Silent Spring" was published and described the dangers of widespread use of toxic pesticides. I am convinced that this book along with the Apollo astronaut's pictures of the Earth as a delicate ecosystem suspended in the ocean of space galvanized a generation to act upon the dangers posed by a population literally at war with nature. Astronomers may face the possibility of a perpetual twilight of an atmosphere no longer able to cleanse itself of the increasing amounts of injected pollutants and brilliantly lit by the glare of artificial lights. The loss of the night sky is a very sad possibility just as the the loss of the songs of birds during the Spring was 30 years ago. I have seen the Metro Atlanta area night sky decline over the last 20 years. A brilliant Milky Way was a common sight from Cobb County in the early 1970s and small domes of light pollution were a curiosity. Yet I remain guardedly optimistic about the future of the night sky. Economics are on the side of the astronomer. Billions of dollars of energy are wasted in the United States in the form of light pollution. Cities strapped by tightening budgets must use their resources wisely and investigate alternatives to the expense of running and maintaining outdoor lighting. I can only hope that common sense will help prevent the literal poisoning of the air by chemical pollution. Will we ever see pristine skies over the cities of the world again? It's a possibility that could well happen if there is the will to do it.

WRITE TO GEORGIA LEGISLATORS ABOUT OUTDOOR LIGHTING BILL

by Tom Buchanan, Light Pollution Chairman

H.B. No. 942 is an outdoor lighting bill intended to limit light pollution. It will help ensure that outdoor lighting is selected to conserve energy, preserve the natural light environment, minimize light shining into the sky or onto nearby properties, and minimize roadway glare and visual clutter, without restricting safety, utility, security, and productivity. The bill covers outdoor lighting paid for with state government funds, and includes guidelines for outdoor lighting ordinances of local governments.

- To designate state parks as "dark sky preserves."
- To require that externally illuminated outdoor advertising signs be illuminated from the top.
- To prohibit the use of state funds to install or replace unshielded outdoor lighting fixtures pertaining to roadways and state owned buildings.
- To prohibit the placement and operation of a light fixture brilliant enough to impair vision of drivers.
- To authorize local governments to regulate shielding of outdoor lighting fixtures within two miles of planetariums, astronomical observatories, and meteorological laboratories.
- To minimize reflection of sunlight, from any building having a high percentage of exterior glass, in directions which will cause glare on roads.

The bill currently resides in the Game, Fish, and Parks Committee of the House of Representatives. List of members:

Mr. J. Max Davis
1177 W Nancy Creek Dr
Atlanta, GA 30319

Ms. Pamela Stanley
706 Foundry Street, NW
Atlanta, GA 30314

Mr. George Grindley, Jr.
1485 Dallas Circle
Marietta, GA 30064

Ms. Gail Buckner
PO Box 966
Morrow, GA 30260

Mr. Len Walker
PO Box 1500

Loganville, GA 30249

Ms. Cathy Cox
PO Box 1932
Bainbridge, GA 31717

Mr. George DeLoach
2546 GA Hwy. 88
Hephzibah, GA 30815

Ms. Dorothy B. Pelote
PO Box 1802
Savannah, GA 31402

Mr. Bob Hanner
9610 Plains Highway
Parrott, GA 31777

Mr. Brian D. Joyce
762 Paynes Chapel Road
Lookout Mountain, GA 30750

Mr. Ralph Twiggs
PO Box 432
Hiawassee, GA 30546

Mr. Theo Titus, III
Route 1, Box 441
Thomasville, GA 31792

Mr. Jay Shaw
PO Box 245
Lakeland, GA 31635

Mr. Hanson Carter
PO Box 711
Nashville, GA 31639

SUGGESTIONS FOR LETTER: Write to member nearest your residence. Length of letter should be at least three sentences but no more than one page. At the beginning, refer to "H.B. 942, dark sky preserves." Do not mention club membership. Include a few of these points:

1. Okay to say you are an amateur astronomer, nature lover, whatever.
2. Do not make entire letter astronomy oriented.
3. Give a specific example of outdoor lights that bother you:
 - a) brightening of the sky, visible upward shining beams
 - b) light trespass, unwanted light from streetlight shining onto your property or into your window

c) glare, especially in eyes when driving, which interfere with seeing traffic signs, roadway, stoplights, etc.

4. Portions of light shining into sky or onto other property is waste of energy and natural fuel resources, an unnecessary expense.
5. Appreciate natural environment, want to preserve dark starry skies.
6. Want to improve visibility at night, do not want to see bright part of light itself, but want to see object intended to be illuminated for a useful purpose.
7. Do not oppose all outdoor lights.

FROM THE OBSERVER'S NOTEBOOK

By Art Russell

Beginner's Interest Group.

Now's a good time for me to take time and reflect on my activities working with the club's beginners. We've seen more beginners participating at observing sessions, both at Villa Rica and Dauset Trails. As beginners, what would you like to see offered to meet your needs? Are there any particular subjects you'd like to see covered at observing sessions or at club meetings? Please don't hesitate to give me a call (770-448-6990) or send me email (76632.1252@compuserve.com or gs01har@panther.gsu.edu) to let me know what you are thinking. Would you like to see structured classes and presentations? Would you like more dedicated beginner's observing sessions at Villa Rica or elsewhere? Drop me a line and let me know what interests you and what you think we should do for the club's beginners.

Observer's Report.

Villa Rica continues to be a popular night spot. Four of the club's deep-sky Zombies took time to check out the view this past Thursday evening. The view was great, the warm-up shack proved to be a God-send, and in all, everybody had a great time. On that note, we recently checked out four more club members on observatory operations: Kemper Smith, Eric Johnson, Richard Schmude, and Tom Crowley. Now the important question: Where were you? Don't forget that our observatory is for everybody's use. I hope to see you there soon.

Observing Sessions.

December is that festive time of year that seems to drag astronomers away from their scopes and into other activities. Not only is the weather cold, but the call of family is particularly loud at this time of year. However,

lets not totally forget astronomy. This is the best time of year for observing from the club's Villa Rica observatory. Not only do we have a functional warm up shack, courtesy of Richard Mintz, but the skies have finally cleared at Villa Rica as well. During the warmer months observing at Villa Rica suffers from degraded seeing due to two conditions, neither of which is likely to change, at least not without an act of God. First off, the warmer months brings higher humidity and of course, Villa Rica's fabled entomofauna. Both degrade seeing significantly; the humidity increases light scatter and degrades the seeing, and the bug juice one needs to keep the insects at bay eats

your eyepieces, telescope accessories and just might give you that cancer for which you've been breathlessly waiting. Secondly, Villa Rica's baseball diamond complex is located south of the observatory. When its lights are on, the stars are out (as in G-O-N-E). Fortunately, cooler weather fixes both problems. So come on out on 16 December and enjoy the night skies with the other Christmas zombies. Bring along that new telescope or accessory that Santa Claus is going to give "junior" because he's always wanted one. See you there! P.S., who's bringing the egg-nog?

Telescope Makers Interest Group

Have you got that need for the bright lights? Do you have aperture fever, but you just can't seem to part with the money for that 20 inch F5 mirror (Rich, Phil, Alex, are you listening? I certainly am. How about 25 inches and highly corrected?)? Perhaps your needs are a little less extreme and you'd be very happy with a highly portable 6, 8 or 10 inch Newtonian telescope, but for the cost of a 3 - 4 inch commercial scope? Newcomer Melburn Tolbert has made a number of reflector telescopes since 1984 and would like to form a new *Telescope Makers Interest Group* within the Atlanta Astronomy Club. Mel specializes in grinding and polishing mirrors (he's even got a wild idea about going for refractors!) and is ready to lend his time, talent and considerable experience for those club members interested in a winter project to prepare for the Peach State Star Gaze! Additionally, Mel has the equipment and experience, including a Foucault tester, to check that poorly performing mirror of yours (*remember those "boiling" Mars images, Art? ..sorry, couldn't resist!*). Lets look at it and then grind it the way it was meant to be ground! Not only that, but since Mel is a machinist by trade, he can make those impossible to find specialty parts nobody but you has ever heard of.

In the past, grinding your own mirrors was, to say the least, a nightmare. However, Mel believes that with no distractions he can knock out an 8 inch mirror over the weekend if pressed and can teach anybody to grind their own 8 inch mirror in as little as two weeks! To prove the point, Mel's 3 year old son is busily grinding his own mirror as well. If done properly Mel believes any club member can have a quality 8 inch scope for as little as \$300 or less, quite a bargain since the best that Meade or Orion can offer is about \$400, plus shipping and insurance, and no guarantee it will be what you really want. If you build it yourself, you know that you'll be getting exactly what you want.

Its best to start grinding your first mirror at about the 8 or 10 inch size (for the ambitious). However, if anyone has previously made one mirror, a good follow up size would be 12 or 13 inches. Grind another and you'll be about ready to try for that 16 to 18 inch (or more?) dream scope.

Please give Mel Tolbert a call if you are interested. His number is 434-0789.

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

Address for New Memberships, Renewals, Magazine Subscriptions, and Book Orders:

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

Atlanta Astronomy Club Information Line: 770-621-2661

Internet Home Page: <http://www.mindspring.com/~aleko/atlastro.html>

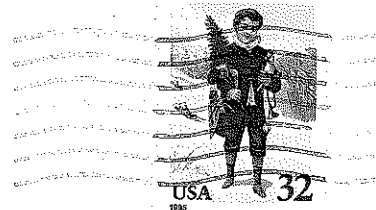
Officers, Board, and Committees:

Alex Langoussis	President	770-429-8384	aleko@mindspring.com
Jerry Armstrong	VP, Program Chairman	770-947-6548	
Art Russell	VP, Observing Chairman, Library, Beginner's Interest Group	770-448-6990	gs01har@panther.gsu.edu
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Rich Jakiel	Newsletter Editor	404-352-0916	jakiel@crl.com
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Eric Shelton	Board, Telescope Making Chairman	770-664-2837	eshelton@america.net
Tom Buchanan	Board, Light Pollution Chairman	770-587-0774	
Tushar Thrivikraman	Board, Audio-Visuals	770-270-0742	kthrivi@emory.edu
Lenny Abbey	Board, Publications	404-634-1222	labbey@mindspring.com
Steve Gilbreath	Board	770-409-1915	steve.gilbreath@oit.gatech.edu
Phil Bracken	Dark Site Search Chairman	770-941-6517	philb@mindspring.com
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Ginny Mauldin-Kinney	Information Line	770-414-9383	gs05vjm@panther.gsu.edu

THE FOCAL POINT

Newsletter of The Atlanta Astronomy Club, Inc.

FROM:
Richard and Jennifer Jakiel
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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 (check the hot line for details). Membership is open to all. Annual dues are \$20 (\$10 for students). Discounted subscriptions to Astronomy (\$20), and Sky & Telescope (\$24) magazines are available. Send dues to: **The Atlanta Astronomy Club, Inc., 3595 Canton Road, Suite A9-305, Marietta, Ga. 30066.**

Hot Line: Timely information on the night sky and astronomy in the Atlanta area is available on a twenty-four hour basis on the Atlanta Astronomy Club hot line: **707-621-2661.**

Check out our ASTRO discussion list on the Internet: ASTRO@Mindspring.com. Also visit our Internet home-page: <http://www.mindspring.com/~aleko/atlastro.html>

First Class

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