

The Focal Point

The Atlanta Astronomy Club
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Editor: Keith Burns

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Keeping Warm While Observing

By Roger Venable

Cold winter nights at the eyepiece can be so uncomfortable as to dishearten some budding 'stronomizers. I'd like to tell you some of my tricks at keeping warm. I was a hunter in Upstate New York for years, and if there is anyone who knows how to keep warm, it's a hunter. Hunters sit for hours without moving, even minimizing their breathing motions. It's this lack of motion that causes one to be susceptible to cold.

The first principle of keeping warm is to wear more clothing. If you are not so bundled up that your motion is impaired, you're not bundled up enough. I accumulated, over a period of years, my warm clothing... lots of it... and on cold nights I wear it ALL. For temperatures in the 20's, I may wear three warm pairs of leggings, three warm pairs of socks in my oversized boots, and four layers of warm stuff under my down jacket. As the temp gets lower, or as the wind picks up, I add headgear, gloves, and other body and leg clothing layers as needed. With this approach, I generally stay as snug as a bug in a rug for a whole night of observing.

Boots: snowmobile boots have a 3/8" thick tightly matted wool liner, under which you can wear multiple socks. These boots are rubber below the ankle but have only a nylon shell to cover the liner above the ankle. The U.S. Army makes two types of winter boots, each of which is very warm — a "wet cold" variety that comes in basic black, designed for temps down to -20 F (fondly known as "Mickey Mouse Boots", because their insulation makes them somewhat bulbous); and a "dry cold"

variety that comes in basic white, designed for temps down to -65 F. The snowmobile boots are readily available, at K-Mart perhaps, while the Army boots are seldom available, and expensive. The Army boots are highly recommended, should you come across any of either type.

Socks: wool is best, mostly-wool is next best, and nothing else is nearly the same. Don't wear cotton. Cotton is for keeping cool in the summer! Its insulating value is less than that of most synthetics.

Leggings: some year, spend the money to get good wool long underwear or thick polypropylene long underwear. If you use it only for star-gazing it will last many years. Wool is more durable but seems eventually to shrink or deform regardless of how well you take care of it. I have found the polypropylene underwear to be VERY warm, with some warmth when wet though with less wet-warmth than wool. It "pills" fiercely when abraded, worse than polyester. Over it, put a very thick wool pant. I mean 1/8" thick or so. You can get these at most good hunting supply stores, or probably they will occasionally be available at places like L.L. Bean. Spend the money' for such pants will last longer than you or I will. Mine are 15 years old and hardly show wear. Warm? Sheesh! Over that, wear an oversized tightly woven pant or wind-breaker. Down pants are O.K. for an outer layer if the weather is very cold. (Down always has to be the outermost layer, for it loses its insulating ability when compressed.)

Chest: alternate tightly woven layers with loosely woven layers, so as to lessen convection between layers. At least one sweater should be a turtleneck. Over these, a thick jacket (down is probably best, but other warm jackets will probably be satisfactory). The jacket should have a drawstring at the bottom and the bottom should be below your buttocks. Insulated pockets are a desirable plus. The neck should be adjustable so as to allow you to tighten it so as to prevent air loss regardless of whether the hood is up. Most truly warm coats have a hood, which offers much better cover than a hat. The best hoods have a drawstring around the face opening, not around the neck. North Face brand does all these things right.

Head: a ski cap under the hood is necessary on only the coldest

Continued on the next page.

nights. Take one with you. They're fairly inexpensive, even the woolen ones. Yes, that means you cover your cheeks and forehead with the ski cap, if needed. These caps also cover the neck.

Gloves: a real pearl of information here — go to a store that specializes in backpacking and rock-climbing gear and get a pair of rock-climber's gloves. They have the ends of the fingers cut out, and they're wool. You could cut the distal portions of the fingers off of any old pair of gloves, but you will like the non-fraying toughness, fit, and warmth of the store-bought ones. And get an over-sized pair of mittens, into which you can stuff your hands, gloves and all. Two thick layers on the hands is a big help. The mittens preferably will be wind-proof and warm, such as insulated leather with pile lining. Or, you could use insulated wind-proof pockets, but I usually find that my pockets are full of other things when stargazing, and they're not a good place to put my hands. Since the mittens will be removed frequently to enable you to handle eyepieces, star charts etc., it is helpful to attach a string to them, and run the string through your sleeves, as small children do.

Please note that I have accumulated these items over a number of years -- sort of like accumulating gizmos for telescopes, I guess. Where socks overlap the lower ends of leggings, I alternate overlaps. That is, I pull my long underwear over my first layer of socks, and then put on another layer of socks that overlaps the long underwear, before I put on the next layer of leggings... and so on, alternately. This type of overlap creates a friction that makes it nearly impossible to expose bare skin at the junction. I do an analogous overlap of layers at the junction of pants and sweaters and at the junction of sweaters and gloves. (That makes it impossible to see my wristwatch. If I need to know the time on cold nights, I usually keep my watch with my eyepieces or tell time by the stars.)

I have rarely resorted to brief exercise to keep warm. It is effective. Remember, it's the sedentary nature of stargazing that makes the 'stronomizer so susceptible to cold. I have done "jumping jacks" on more than one occasion, and once I jogged a mile down the road and back! Since I usually stargaze alone, nobody knew of this eccentric activity. Generally, I have resorted to exercise only when I had come to my observing site unprepared for the unexpected cold. If you exercise, you are likely to sweat, and then you will feel cold and clammy as you cool down again. Therefore, exercise probably should be done only if you are wearing clothing that retains its insulating properties when wet. No fabric is quite as warm when wet as when dry, but wool is best in this regard, and polypropylene is next best. Cotton next to the skin is VERY bad in this regard. I swear it's colder than nudity when it's wet (I have a tale to tell about that... but just believe me: it's warmer to be naked than it is to wear wet cotton). One more thing about exercise: relying on it to keep warm can lead to sore muscles if you are not in

good shape, and worse — it can lead to exhaustion. The latter is very dangerous in the cold, for when it happens you will have no further resource for warmth. Exhaustion can be delayed by having had plenty of high-calorie foods to eat recently.

Warmth can be noticeably enhanced by eating sugary foods. I expect that some of you won't believe that until you've tried it. Candy bars freeze hard as rocks, but small pieces of hard candy can be sucked on, usefully. Hot liquids, of course, have a noticeable warming effect. Hot chocolate is ideal, for it contains lots of sugar. Carrying a thermos is a lot easier than whipping up a brew in the field. It's a lot better than a pocket warmer! I have had little benefit from pocket warmers. They just don't provide enough heat to make a difference. Furthermore, their very principle is wrong. The body uses the extremities (hands, feet, nose, ears) to help regulate body core temperature. When your core temperature drops, circulation to the extremities decreases drastically, in order to preserve body heat. So cold extremities may mean that you need more insulation ON YOUR TORSO AND HEAD, not on your extremities. And, if your torso and head are well enough insulated, your hands will stay warm in very cold temperatures indeed. By the way, the head has the least natural insulation (i.e., body fat) and a great deal of heat is lost from it. Try that ski cap!

I think that if you get cold despite bundling up, it's time to go indoors! Relying on exercise is a bit risky. Whatever you do, don't push yourself to stay out in the cold too long. This is especially true if you are at a lonely observing site. Cold can kill. What if your car won't start....I hope this has been helpful. Happy winter observing to you.

General Meeting November 17, 2000

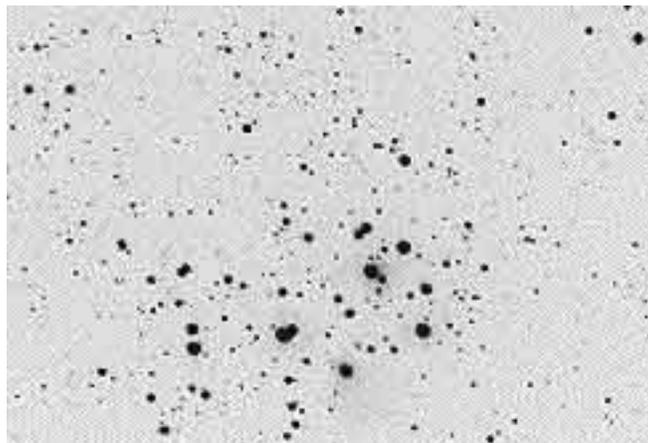
Number in attendance: 55 - **Sharon Carruthers, President** – Before opening the floor to the committees Sharon announced that we have t-shirts and calendars for sale. FoGSPA at Unicoi State Park was a great success! **Rich Jakiel, Observing Chairman** – Announced a December 3 (Sunday) Villa Rica Planning Meeting. Also announced a December 16 members only observing party. Also talked about the Leonid Shower. **Keith Burns, Corresponding Secretary** – Announced November 30 deadline for December's Focal Point. **Astronomical League (AL) Rep.** - One member turned in their Lunar Certificate paperwork. **Peter Macumber, Treasurer** – General announcements were made on memberships, magazines and name tags. **Alex Langoussis, Program Chairman** – Announced December 15th Annual Family Christmas Potluck Dinner/Planetarium Show at Agnes Scott. Dinner will start at 6:30pm and planetarium show will start at 8:00pm. He also announced upcoming speakers for next year: January – Ron Buta, University of Alabama "Barred Spiral Galaxies"; February – Dr. James Kaler, University of Illinois "Planetary Nebu-

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In Memory of Chrissy Mondell

It is with the heaviest of heart that I have to announce that Chrissy Mondell passed away suddenly, in her sleep, on Tuesday Nov 28 at the age of 43. She had just moved back to her hometown in New York to be with her father, who is suffering from terminal cancer, and to start a new life with Dublin, a high school sweetheart.

I first meet Chrissy at the PSSG'96, the first AAC event that Peter & I attended. She & Phil Sacco took us under their wing over the weekend, letting us use their scopes and filling us in about the AAC & observing. We decided to join that weekend because the AAC had such great, warm & welcoming people.



Since then, Chrissy has been my inspiration, my mentor & a great friend. She has done almost everything that a member can do for our Club without serving on the Board. She cleaned out years of accumulated junk at Villa Rica; scrubbed & painted the outhouses & cut brush. She was the driving force behind the Pancake Breakfast at the PSSG; organized the making & selling of the soap baskets to raise money for the composting toilet & shed; did refreshments at the meetings & Club events and was a principal founder (along with Joanne Cirincione & Deb Caruso) of the Ladies of the Night...Sky. She also received AL awards for her Lunar, Binocular Messier, & Double Star observations.



When Chrissy joined the AAC, women were rarely seen out on the field. Knowing that she would be out at every Club event gave me the extra support to show up & take part. And I am still trying to catch up with all those AL Certificates!

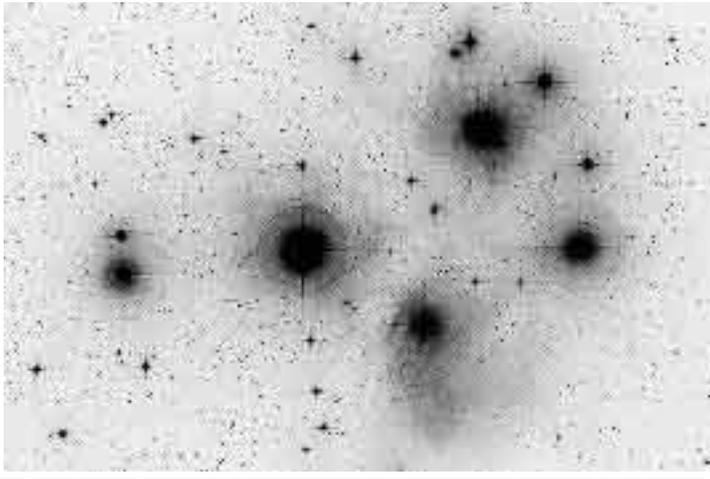
Chrissy was also the key figure in "the Greatest Tales of the AAC". There is the mystery of the Vanishing Couch; the story of how the Pleiades was renamed the Peeladies, and the rained out Memorial Day weekend at Woodruff that saw the creation of the AAC theme song, "On top of a Ladder, all covered with dew". She had boundless energy, a get-up-and-do attitude and didn't take guff from anyone! Chrissy, we loved you like a sister and we will miss you very much.

Phil Sacco, her friend, roommate & "main squeeze" for many years, credits Chrissy as the driving force behind his roles as Observing Chair and President. She was, in his words, truly "the woman behind the man", and as often in front of him as

well. In much the same way...I was behind her observing chair guiding her to her achievements. We were a very sympathetic energy....I loved her greatly!"

The AAC sends their condolences to Chrissy's family, especially her daughter, Iris, and her parents; and to Phil Sacco.

Sharon



Christine "Chrissy" (Baldwin) Mondell, 43, died unexpectedly Wednesday, November 29, 2000. She is survived by one daughter, Iris Kinsey, Sugar Hill, Ga.; her dear friend, Doblin Shaw, Binghamton; her parents, Vilma and Vern Teeple, Binghamton, Kenneth and Nancy Baldwin, Jr., Binghamton; two sisters and one brother-in-law, Kathi Schimpff, Endicott, Patty and Eric Stampfler, Binghamton; two brothers and one sister-in-law, Bill and Dawn Baldwin, Miss., Mike and Jean Baldwin, Binghamton; several stepbrothers and stepsisters, aunts, uncles, nieces, nephews and cousins. She was a member of the Astronomical League and Ladies of the Night Sky. She was fun loving and a very creative person and compassionate friend. A faery on earth, now an angel in heaven.

The Official AAC Song

(Sung to "On top of Old Smokie")

On top of the ladder, All covered with dew, I looked thru the Telrad, For M-32.

And the green grass grew all around, all around. And the green grass died & turned brown.

I turned to the eyepiece, And what did I see, A lot of M-0, Just staring at me.

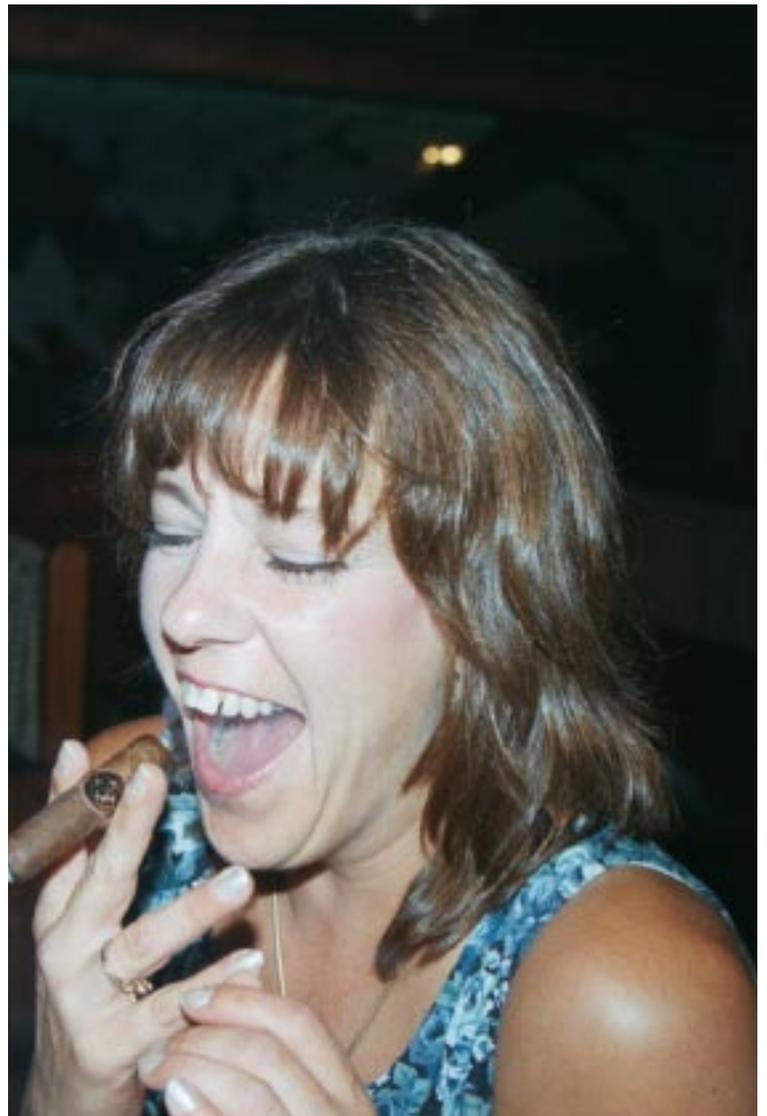
And the green grass grew all around, all around. And the green grass died & turned brown.

I climbed down the ladder, And onto the grounds, I stepped on a spider, That made barking sounds.

And the green grass grew all around, all around. And the green grass died & turned brown.

I went to the school yard, To show them the view, Came home with my mirror, All covered in goo.

And the green grass grew all around, all around. And the green grass died & turned brown.



Cold, Dark, and Beautiful at VR

By Keith Burns

November 27, 2000

It was a cold, clear, and dark night. The fact that it was a Monday night had to be the reason we had clear skies. Wilkie Brown and I made a run out to the Walter Barber Jr. Observatory to do some viewing. Some previous family commitments keep me at home for an hour so I was late in leaving the house. Finally with everyone taken care of, I left the house and headed for Villa Rica. Wilkie was setting up when I got there. I managed to startle him. That's amazing considering I my arrival was not at all quiet.

I brought out the Aurora 13 scope. Wilkie had his 8 inch SCT. The last time it saw service was the night of the Mentone Lightning storm. I guess it must have been a bad storm. Of course, Wilkie has many hobbies, family and plus a business to run. So there is not much time for Astronomy. But I still believe it was the storm that has kept him indoors for so long.

The night started out with much promise and delivered on it to. I warmed up with views of NGC 884 and 869. Started out with a naked eye view and then pointed the telescope at them. From there I moved on to M31. You could see the massive size of it just looking up without any optical aid. Then I pointed the scope at it. The views were so great that I pulled out some paper and sketched M110. We moved to Jupiter and Saturn. WOW! That is what I call major light pollution. Jupiter had two of it's moons oriented one just above the other. Another moon was to the right with the planet to it's right. The fourth moon was to the right of the planet. Below the two stacked moons was three stars forming a triangle shape. There were many other stars in the fov. Saturn looked like it's usual wonderful self. Four moons were easy to see. Titan was directly above the planet in the fov.

While I consider open clusters to be the black sheep of the deep sky family, I have found myself drawn to them lately. First we looked at NGC 7789. One of the best open clusters in Cassiopeia. I consider it to be a better object then M52. The stars in it are lower in magnitude but the cluster has more stars. For those interested we viewed it at 56X. We moved over to one of my new favorites. NGC 457. The Owl Cluster. This is one of those objects where you don't have to consume alcohol in order to see it. How rare those are. Then there was a quick glance at NGC 129, 225, among others.

From there we moved on to Auriga and the IC objects 405, 410, and 417. Five bright stars separate the two nebula clouds. IC-405 is to the right of the stars and IC-410 is to the left of the stars. The five stars include 19 Auriga, 16 Auriga(Binary), 14 Auriga(Binary), and AR Auriga(Variable with a binary). The five stars are visible to the naked eye and are located inside the five sided figure of the constellation of Auriga in the lower middle area.

I pulled out the O-3 filter and pushed the power up to 86X even tho the Night Sky Book recommended 75X. First I went for IC-405 also known as the Flaming Star nebula. The nebula was very faint but you could see the textured pattern. The nebula was brighter above the star AE Auriga. Without the filter, this object would not have been visible. From there I moved to IC-410. There was a small open cluster imbedded in the cloud that helped reveal the nebula. The cluster is NGC 1893. The nebula also had a textured appearance to it. There were dark fingers running through it.

With these two objects under my belt, I went for IC-417. This is a much larger nebula located a few degrees above the star 19 Auriga. I did see hints of a nebula around the open cluster Stock 8 but not much else. I moved onward and found an open cluster. Thought it was in the nebula. Then I pulled the O-3 off and dropped the power down to 56X. The star cluster was very easy to see and very small. It turned out to be NGC 1907. I've seen it before but never realized how close it is to M38 and IC-417. 1907 is not located in the nebula cloud like I thought it was. A quick check of Night Sky verified that. I sketched the cluster on paper. If you moved the scope just right, you can get both M38 and 1907 in the same FOV.

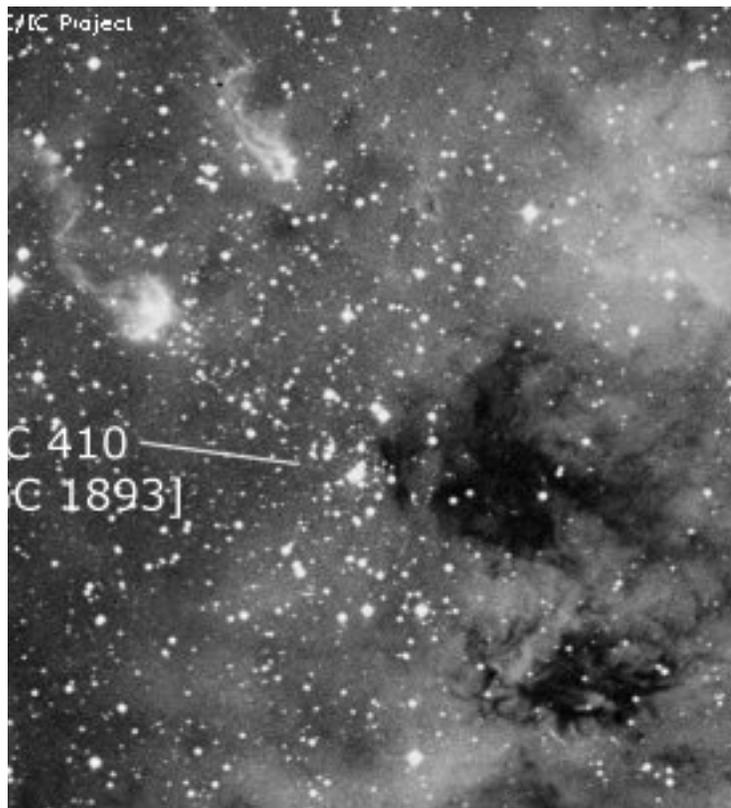
I only logged one item the whole time we were up at Mentone last month. It was NGC 278 in Cassiopeia. Tonight I decided to look for it again along with two other galaxies located along the Cassiopeia and Andromedia border. The galaxy only took a few seconds to find. It was easy to see and resembled a small bright round smudge. I'm sure everyone is familiar with that description. How many of you have used that one in you notes before. Next I looked for NGC 185. Here again it only took a minute to locate the galaxy. I found 185 only after realizing that it was much larger then NGC 278. Nice round core along with diffuse areas extending out in all directions. Both NGC's 185 and 147 are members of the local group of galaxies. Viewing these galaxies is difficult do to there closeness to the Milkyway and their larger sizes. This makes them dimmer since the light is spread out over a large area of sky. I looked for NGC 147 but could not find it. I suspect I saw it several times but was never 100 percent sure about it. I kept coming back to 185 and moved out the few degrees to find 147. Each time I returned to 185 empty handed. The search went on with first with me using 86X power and then it following with the use of 56X power. Neither one seemed to help. After 20 minutes of trying, I abandon the search.

All this time, Wilkie Brown was waiting for Monocerous to rise above the trees so he could get M50 and log one of the two reminding objects on his Telescopic Messier list. We took several breaks during the night and looked in the Night Sky books at the pictures and drawing of the objects we were looking for in our telescopes. Thanks to this effort Wilkie found M50 in his

Continued on the next page.

scope quickly after it cleared the trees and was able to verify it as being the correct object. He beat me to the punch by 5 seconds.

The next object on his list was M93. It would be at least an hour before it would clear the trees. By now the ground was covered with thick frost. The only reason we had been able to carry on was thanks to the 1500 watt hairdryer I brought with. The temps were getting too cold and this wasn't much fun anymore. We gave a few more minutes and then Wilkie started packing. We did some quick viewing of M-42, The Flame Nebula in Orion NGC 752, NGC 891, and finished up with M1. M1 looked the best I've ever seen it. It was elongated and you could see a string and knotted appearance to it. After that I took the scope apart and packed it up. Frost covered everything so it was a bit difficult to walk in the back of truck without sliding. With our vehicles warming up, we looked up in the sky one last time before leaving. There just above the trees was the area of the sky where M93 was sitting. Oops, Oh Well. Maybe next time Wilkie.



Leonid Meteor Report Morning of November 18th

Well, all things considered, it wasn't too bad! Between 2:28 and 3:23am EST, I saw 27 Leonids, ranging in brightness between 2nd and 0 magnitude. All were very fast and "long", and about a third left trails. Colors were mostly white, along with several reddish ones. Considering that there were street lights,

a 3rd quarter moon, and thin broken cirrus that kept limiting magnitude to around 3.5, it was to me a pretty decent show.

Hoping to get a weather report, I had tried to call the N. Georgia College Observatory after leaving Decatur around midnight. Could not find a number to call. Drove all the way to the Outlet Mall on Ga. 400 near Dahlonega, then turned homeward when it was still overcast. But by the time I got home, the sky had improved! I gave it up only when mid-level clouds moved back in.

Of the 27 Leonids I saw, 18 were before the 2:53 predicted peak. I'm guessing that the actual peak was about 15 minutes earlier than predicted. Did anyone else catch a sucker hole and get a look?

Alex



Bradley Observatory Dedication

By Chris Depree

The Observatory that you see before you today, and the spaces that you will tour in a few minutes are at once old and new. The familiar shape of the old building is now complemented by the octagonal form of the new planetarium. The old pathway in front of the Observatory has been enlarged and formalized with the addition of a new educational observing plaza. And the shape of the curved wall that once cradled the old planetarium has been reproduced in the curved walls of the new back foyer. The dedication of this college to excellence in women's science education is old. The opportunities that this Observatory will now provide to women interested in astronomy are altogether new.

In this Observatory, students in collaboration with scientists from the Georgia Tech Research Institute will be able to probe the atmosphere above Atlanta with a powerful laser, monitoring pollutant levels. They will be able to view a pristine night sky, filled with 7000 stars, as seen from any location on Earth at any time. They will be able to guide

Continued on the next page.

remote telescopes from a desktop computer. They will be able to observe the night sky with one of the largest telescopes in the southeast. And they will be challenged, whether they are majoring in astronomy or history or philosophy, to think creatively about our place in the universe.

When this Observatory was dedicated in 1950, there were no satellites, humans had not walked on the Moon, the solar system was unexplored by robotic probes, and pulsars had not yet been discovered. What astronomical discoveries and milestones will the next 50 years bring? Human settlements on other planets? The imaging of extrasolar planetary surfaces? The discovery of life on Europa, one of the moons of Jupiter? Of course, we cannot know. All we can be sure of is that the next 50 years will provide new answers to old questions.

As you tour the building today, you will hear a lot about the instruments and technologies that have been incorporated into the Observatory; you will be told about the parts. But as we begin a new era in Bradley Observatory, it is my hope that this building will continue to be a meeting place for science, music and art, and to be more than simply the sum of its parts. I trust that what will make it more is the daily interaction between people that can take place here. Between teacher and student, artist and scientist, musician and child.

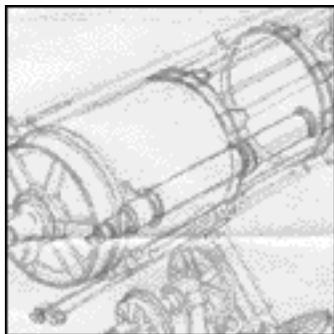
T.S. Eliot wrote: *We shall not cease from exploration. And the end of all our exploring. Will be to arrive where we started. And know the place for the first time.*

If you are new to the Observatory, then I trust that it will be a place of exploration for you. And I hope that those of you who have been here before will, having returned, know this place anew, and feel welcome.



Picture on the left is a 1950 etching of the Bradley Observatory, showing the western entrance.

Pencil sketch of the Beck Telescope by Bill Close, one of the founding members of the Atlanta Astronomy Club, made upon its arrival at the Observatory.



“Astronomy at Agnes Scott”

by William A. Calder

Bradley Observatory, Agnes Scott College

Dedication of Bradley Observatory of Agnes Scott College, Decatur, Ga., took place on June 3, 1950. This is the first adequate observatory in an important area of the Southeast. Hundreds of students and visitors will have their lives enriched because of the vision and prodigious effort of Dr. James R. McCain, president of the college.

At the foot of the telescope pier, in the main lobby where one enters the building, is a plaque giving the geographical co-ordinates of the pier as determined by the U.S. Coast and Geodetic Survey. The surrounding walls have spaces for photographs and transparencies being given by members of the Atlanta Astronomers, our local amateur society that has Bradley Observatory as its headquarters. To the left of the rotunda is a lecture room with a seating capacity of 125 persons. There is a small stage which, by a strange coincidence, is ideal for chamber music. The first floor also has a large room for telescope making activities, a darkroom, library, and offices.

One of the most attractive features is the 14-foot planetarium dome—far superior to the parachute under which the author has had formerly to stack school children of the region. The planetarium projector is the same as that described in *Sky and Telescope* VIII, 181, 1949. It is of the pinpoint projection type, with separate optical projectors for the planets. A gift of \$1,000 toward the planetarium chamber was made by Mandle Zaban, of Atlanta. There is a large flat roof for constellation study, where portable instruments can also be set up. These can be stored in a room beneath the telescope.

Ample space for laboratory work is provided in the basement of the building. The largest contribution to the projection was a gift of \$50,000 made by the W.C. and Sarah H. Bradley Foundation of Columbus, Ga. The Aluminum Company of America donated the . . . aluminum plate and structural elements for the dome; this, in turn, was fabricated largely as a gift by the R.D. Cole Manufacturing Company of Newnan, Ga.

Our principal instrument is a 30-inch reflecting telescope, formerly owned by Henry C. Gibson, Jenkintown, Pa. It has a Warner and Swasey mounting, with optical elements by J.W. Fecker, and was completely refurbished and modified to suit our Dixie latitude by the Perkin-Elmer Corporation. It is now known as the Lewis H. Beck telescope, as \$15,000 was contributed for it by the Beck Foundation of Atlanta. The Research Corporation of New York has contributed \$3,100 for a photoelectric photometer, being made by the John, F. Jewett Company, Amherst, Mass., and a two-prism slit spectrograph, by Perkin-Elmer.

The new observatory climaxes quite a *skyslide* we have had at Agnes Scott College. The number of students in astronomy

has trebled for three successive years until the astronomy enrollment comprised a fifth of the total student body. Astronomy courses at Agnes Scott are being made available for credit to students of Emory University and Georgia Institute of Technology. Classes in telescope making have also been conducted for the past three years, and amateur astronomers have developed optical shop activities. The Atlanta Astronomers have been active also in conducting lecture meetings and in the publication of a journal, Atlanta Astronomers Report. Every effort has been made to encourage attendance at the planetarium.

Taken from (**Sky & Telescope**, September 1950) posted on Bradley's Webpage.

Amateur Telescope Makers

Watch the AACLIST to find out more from Tracy or Skip. They have been meeting at Skip Cook's House. Skip is listed in the committee section of the Focal Point on page 7. You can also email Tracy at tracywilson@alltel.net.

Pictures from this years Villa Rica picnic

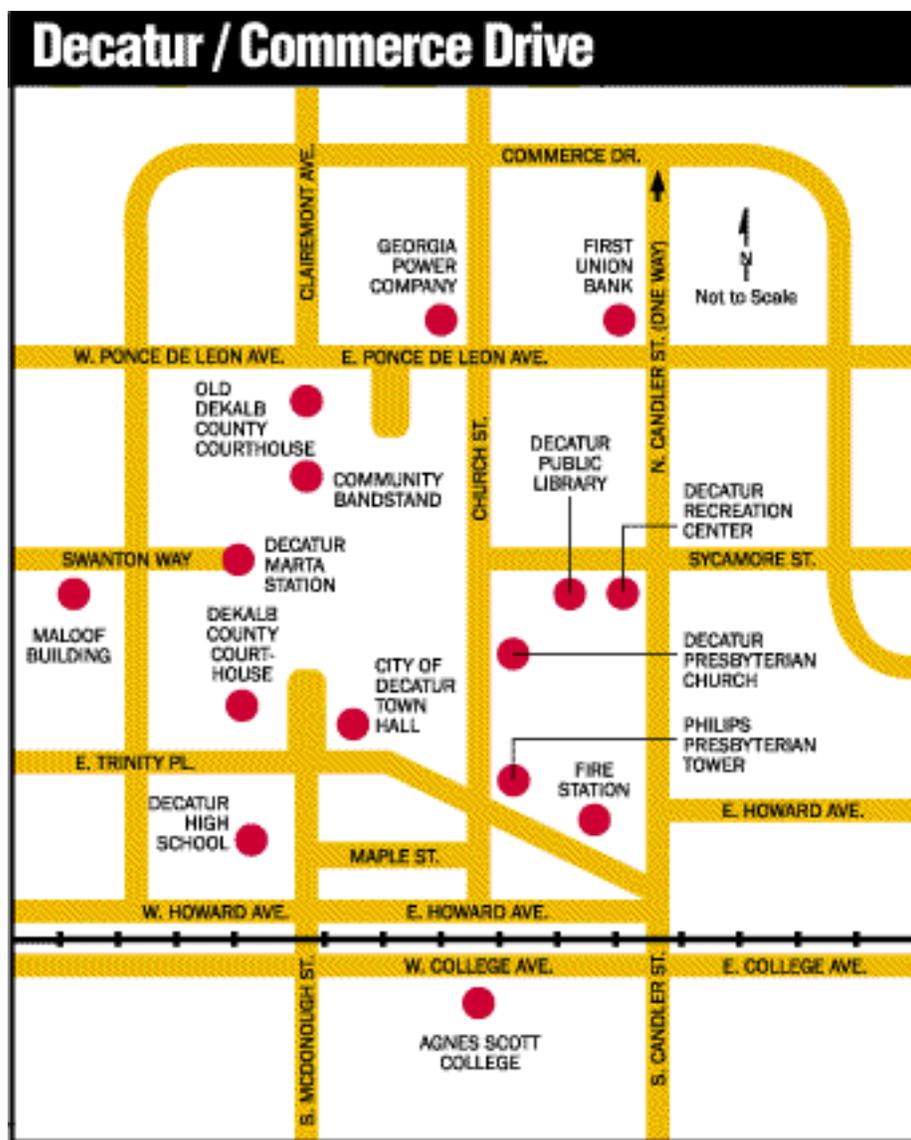


lae”; April’s meeting will be our annual banquet. **Mark Banks, Sidewalk Astronomy** – There were rainouts and there are some programs in the works. He is always looking for volunteers. **Sharon Carruthers** – Announced “How to Buy a Telescope” Seminar at Fernbank Science Center December 2nd. **Tom Buchanan, Light Pollution** - - Announced Cherokee County considering a light ordinance after the success in the City of Roswell. **Phil Sacco, CEWC Coordinator** – Announced a November 18 Chapter Meeting. Memberships no so great. There was a drawing for door prizes before our guests spoke. **Alex Langoussis, Program Chairman** – introduced our guest speakers, Dr. Carol Rutland and Dr. Shawn Cruzen, from the Coca-Cola Space Science Center in Columbus. They talked about the state-of-the-art space education center and all the programs that they run. It was such an exciting talk that we are already talking about a field trip to see what they are all about! Sharon closed the meeting around 9:30p

Directions to Agnes Scott College and Bradley Observatory

From the Airport: Exit airport via Riverdale Road. Follow signs to I-285. Take I-285 east; exit Covington Highway; head west (left) toward Decatur. Covington Highway becomes East College Avenue once you pass through the City of Avondale Estates. Agnes Scott is on the left, roughly one mile from Avondale Estates.

From I-85: Take I-85 to Clairmont Road, which is in the north-east quadrant of the metropolitan area, inside the I-285 perimeter. Exit onto Clairmont Road (signs point to Decatur; as a guide, note the next major intersection is Briarcliff Road). Proceed on Clairmont (5.7 miles) to Commerce Drive in the City of Decatur (note Clairmont’s spelling changes to “Clairmont” in the city). Turn left on Commerce Drive and proceed around Commerce Drive crossing Church Street and East Ponce de Leon Avenue. Continue until you arrive at a railroad overpass



at East College Avenue. Turn right onto East College Avenue. Agnes Scott will be on your left about one-half mile from the intersection.

From I-285 East: Exit Covington Highway; head west (left) toward Decatur. Covington Highway becomes East College Avenue once you pass through the City of Avondale Estates. Agnes Scott is on the left, roughly one mile from Avondale Estates.

From Downtown/Midtown: Take Ponce de Leon Avenue east. After exiting the Atlanta city limits, look for St. Elias Antiochian Orthodox Church and the Episcopal Church of the Epiphany (both are on the right). About a quarter mile past these two churches and after you pass beneath an arched railroad trestle, the road will fork, and you will veer right onto West Ponce de Leon Avenue. Follow to Trinity Place; take a right on Trinity. Follow Trinity Place past the Decatur Police Station and DeKalb County Courthouse Annex (the Callaway Building), then turn right on North McDonough Street. Cross the railroad tracks and turn left onto East College Avenue. Agnes Scott is on the right.

Location of Bradley Observatory on Campus: The observatory is located on the southeast corner of the ASC campus. Bradley Observatory is located on Hancock Street which is off of Chandler Road. The observatory sits on top of a hill. There is a running track next door. Sidewalks connect from E. Dougherty Street and McDonough Street to the observatory.

PARKING: While there is no longer parking

next to the building, you can park on E. Dougherty St, or in a parking lot off E. Dougherty, or in parking lot G, which is on McDonough, across from the observatory. All are within short walking distance.

Work Party/SWC at Woodruff

There will be a gathering of about 300 adult scouters at Woodruff on the weekend of January 12, 13 and 14. This gathering, known as the Scouter's Winter Campout (SWC) is a great opportunity to teach scout leaders about astronomy, and get them to pass their interest on to their scouts. We went last year, and although the weather was lousy, everyone had a good time.

This year, we can camp out at the observing field, and do some work on the new campsite as well. There is a nice clearing, ideal for camping, just north of the observing field where we can set up some outdoor amenities, but first we need to clean the place up. Before Kendall can clear it out with his Bush Hog, there are objects made of metal and glass that need to be moved. Also, there are reportedly three baby graves that need to be located and fenced off before the site can be used. We can also blaze the newly cut trail with markers so folks can find their way to the field in the dark.

This weekend is not the best for observing (the full moon is January 9), but it's what we've got. The cleanup of the camp site will go forward rain or shine, as will the SWC. Our participation in SWC events is optional—they will schedule observing for after their Saturday night campfire. The date is January 13, 2001.

We will need people to bring rakes, weed whackers, and other implements in addition to telescopes. Who wants to come? John Lentini, johnlentini@yahoo.com

Work Party Dec 20th at Villa Rica

Wednesday December 20th there will be a work party to install the pipe and wire for the new power lines and computer lines to be installed at the Walter Barber Jr Observatory. Ralph Bowman and Rich Jakiel are heading up this effort. They are renting a ditch witch to do the digging. About six people are needed to help with the laying of pipe and wire. If you plan to come, dress in some old clothes. Please contact Rich Jakiel for more information. His phone number and email address are listed on page 11 of this newsletter.

Looking For

We are looking for an old Newtonian equatorial telescope mount. Does not have to be motorized. Something that will accommodate a 8 to 10 inch telescope. Please Contact Rich Jakiel if you have one or know where we can get one. His phone number and email is listed on page 11 of this publication. Thanks.

Astronomical League Membership

As a member of the AAC you also are a member of the AL. This entitles you to many benefits. The most popular is the observing programs. Contact Keith Burns who is you AL representative for more info on these programs. You can also find out more at the AL website at www.astroleague.com

Calendar

December 15th- General Meeting at Bradley Observatory. 8PM
Speaker Chris Depree Holiday Planetarium Show & Potluck Dinner.

December 16th- Members Observing/ Christmas Party
Sunset at Walter Barber Jr Observatory.

December 20th-Work Party Villa Rica Observatory.
Starts at 10AM. Run power cables to buildings.

January 6th- How to Use Your Telescope.
Location Fernbank Science Center. Time 12Noon-3PM.

January 7th- Board Meeting at Bradley Observatory.
Starts at 2PM. Budget will be discussed.

January 13th-Work Party/SMC at Woodruff.
Contact John Lentini for time and other info.

January 19th- General Meeting at Emory University. 8PM.
Speaker Ron Buta on Barred Spiral Galaxies.

January 20th- Deep Sky Observing at CEWMA.

January 27th- Open House at Walter Barber Jr Observatory

February 16th- General Meeting at Emory University. 8PM.
Speaker Dr. James Kaler on Planetary Nebulae.

February 17th- Training at Walter Barber Jr Observatory

February 17th- FogSPA Sidewalk Event. Location TBA.

February 24th- Deep Sky Observing at Woodruff BSC

March 16th-General Membership Meeting at Emory
Starts 8PM. Speaker TBA.

AAC Club Officers

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VP Observing Chairman: Rich Jakiel

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Contacts

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Equipment Training: Stef Whetstone

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Club Historian: Lenny Abbey

404-634-1222 labbey@mindspring.com

Club Librarian: Jim Moore

770-242-6735 hollin@dwcs.com

Getting The Focal Point Online

Did you know that there are two versions of the focal point available? One is the standard 8 page black and white one that is mailed to members. The other version is the web version. It is 10 to 15 pages long. It's also in color and includes pictures and an extra article or two.

The Focal Point is available in color online in PDF format. The free Adobe(R) Reader allows you to view, navigate, and print PDF files across all major computing platforms. Download the free reader at www.adobe.com

Visit **NightSky.Org/aac** on the web. In a private sub-web, the past year of Focal Points can be found. Check it out. If it works for you, send me an e-mail and I will stop sending you a copy snail-mail. It will also save the club a dollar. The Focal-Point web can be entered by using the Username of **AAC** and a password of **Orion**. These names are case sensitive! Type **AAC** in all capitals, type **Orion** exactly as you see it here.

Focal Point Deadline

I'm looking for articles, pictures, and drawings on anything astronomy related. Perhaps you have taken a trip somewhere and did something astronomy related while there. Tell the rest of us about it. You can email it to me or send it to me. My home address is Keith Burns 3740 Burnt Hickory Road Marietta, Georgia 30064. Email address is Keith_B@bellsouth.net. You can submit articles anytime up and including the deadline date. The **deadline** for the **January issue** is December 30th, 2000.

Magazine and Membership Renewal

You are sent a membership renewal two months before your membership expires. Your magazine renewals are sent to you by the publisher. Magazine renewals must be paid by the club. Remember to send renewals to the club with a check payable to the club. S&T is \$30. Astronomy is \$29. Club membership is \$25 or \$10 for a student.



The Focal Point

Newsletter of The Atlanta Astronomy Club, Inc.

FROM:

Keith Burns Email: Keith_b@bellsouth.net

3740 Burnt Hickory Road

Marietta, Georgia 30064

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

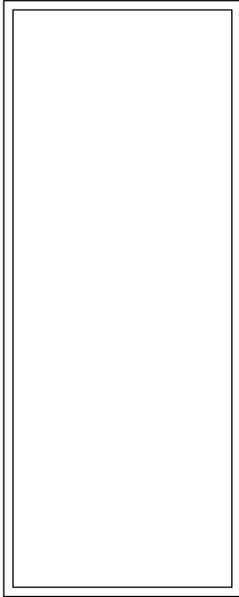
Atlanta Astronomy Club

PMB 305

3595 Canton Road A9

Marietta, GA 30066

FIRST CLASS



December General Membership Meeting

The December meeting of the Atlanta Astronomy Club will be on Friday, Dec. 15. (Unlike some years, this meeting is on the 3rd Friday, not the second.) This year we will have our Holiday Pot Luck Dinner and Planetarium Show at the newly refurbished Bradley Observatory and Planetarium at Agnes Scott College.

The pot luck dinner will start at 7:00 P.M. Please contact Sharon Carruthers (770-941-4640) to let her know what food you would like to bring. Following the dinner, at around 8:00, Dr. Chris Depree will present a planetarium show in the new planetarium. Those "old-timers" who remember our meetings when they were at Bradley won't recognize the place. Chris has done an outstanding job of spearheading the renovation and expansion, which includes a new 70-seat planetarium with a Zeiss projector. It is a state of the art facility that retains all of its pre-renovation charm. Everyone will be impressed with the new place. So bring your family, enjoy a dinner with other club members, check out the renovated facility, and enjoy the show in the new planetarium!

PARKING: While there is no longer parking next to the building, you can park on E. Dougherty St, or in a parking lot off E. Dougherty, or in parking lot G, which is on McDonough, across from the observatory. All are within short walking distance. Maps are available online at the AAC web site or http://www.agnesscott.edu/aas/vasc/maps_full.html <http://www.agnesscott.edu/ass/vasc/campus/map/index.html>

UPCOMING PROGRAMS: Fri., Jan. 19, 2001 Dr. Ron Buta, University of Alabama "Barred Spiral Galaxies"

Fri., Feb. 16, 2001 Dr. James Kaler, University of Illinois "The Intriguing Beauty of Planetary Nebulae"

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.

Atlanta Astronomy Club Hot Line: Timely information on the night sky and astronomy in the Atlanta area is available on a twenty-four hour basis. Call **770-621-2661**.

Internet Home Page: <http://www.AtlantaAstronomy.Org>

Subscribe to the Atlanta Area Astronomers Mailing List!

The name of the new list is: AstroAtlanta. The address for messages is: AstroAtlanta@egroups.com . To add a subscription, send a message to: AstroAtlanta-subscribe@egroups.com . To cancel your membership, send a message to AstroAtlanta-unsubscribe@egroups.com . Messages for the list-owner (me) go to: AstroAtlanta-owner@egroups.com or to (LAbbey@mindspring.com). The "home page" for the list, from which you can change your account defaults is: <http://www.egroups.com/group/AstroAtlanta>.