

# The Focal Point

The Atlanta Astronomy Club

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Editor: Keith Burns

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## Atlanta Astronomy Club invades Huntsville

By Keith Burns

The idea behind this trip was to do an astronomy related trip that would be weather proof. That way if the unspeakable happen, we would be prepared. Plus this would be a chance for the AAC folks to hang around with the VBAS folks and have some fun. It was not to be a normal tourist type. Normal is not in our vocabulary.



Thanks to all who helped make it a successful trip. Thanks to Mitzi Adams for setting up the tour and taking the time with us. Kudos to Carlos Flores for helping with the setup in the early days. A big thank you to the members of VBAS for coming out and giving us

the tour of their observatory. I also want to thank the Scientists at MSFC for taking the time out of their busy schedules to speak to us and give the grand tour of the place. Thank you to our four photographers on the trip for the pictures. They include Ralph Bowmen, Tom Crowley, Tom Faber, and Bill Macfarlane.

Shall we get started now? The final weeks leading up to the trip were filled with long hours and may last minute details. I had to pass along to Mitzi a list of people who would be going to Huntsville and taking the tour of the Marshall Space Flight Center. She would use this info to get us security passes. The ironic thing is that the Canadians were the ones creating the biggest security problem. You know how dangerous those Canadians can be. To make matters worse, the list of names kept

changing. Finally I put down my foot and said that's it. Lucky for me, no one else asked to go. I was covering for several folks missing from work. This was my payment for taking the time off for this trip. In between, I managed to publish, collate, and mail the Focal Point. Thanks to the Canadians for helping me with the collating. Of course, some folks in our group of travelers left on Thursday to get to Huntsville before the rush. So those of us last minute stragglers had but one issue to decide. Who gets to turn off all the lights when they leave Atlanta?



Of course, I finally got around to packing at 11P.M. on Thursday night. Bedtime didn't come until after midnight. Thunderstorms visited our fair city during the evening and stayed around until about 2 A.M. Finally the storms subsided leaving in it's wake a gentle rain. It had rained for most of the night and the last of the showers moved through before dawn. I awoke about 6:30 A.M.

on Friday morning. The usual morning routine was not in store on this morning. Breakfast first and then the final packing and departure from the homestead. I finally got out the door about 7:30 A.M. Atlanta time. After stopping for gas, I headed north on I-75. The skies above were cloudy, but just to the north were clear blue skies.

Before I get much further on this endeavor, I should give you a little more information on the trip. A group of us were heading to Huntsville to see Mitzi Adams at the Marshall Space Center. From there we would tour the place where she works. Also tour the Von Braun Astronomical Society Observatory. Observing was also part of the plan to. All this would take place on Friday. Saturday we would do the Space Center tour and some more observing at the VBAS facilities. The following people came on the trip Peter, Sharon, David Macumber, Wilkie, Tammy Brown, Tom Faber, Kat Sarbell, myself, Ralph, Cathy Bowmen, Bill Macfarlane, Linda Kroger, Harold, Claudia Champ, and Tom Crowley. Now back to the story.

*Continued on the next page.*



Blue skies appeared overhead with that bright yellow ball to the east making it's normal daytime appearance. The trip to Chattanooga was a quick one.

Nine o'clock rolled around when I drove into Chattanooga. A quick stop at the welcome center to gather information. From there I headed into the heart of the city. Leaving I-75 behind, I headed west on I-24 and then south on I-59 to Alabama.

Exiting the interstate, I ventured on the back roads to see what the real Alabama is like. Funny thing is that it looks just like Georgia. No much in the way of house trailers or even pickup trucks on the cinder blocks. After a thirty mile drive, the road suddenly went from flat boring surface to a steep continuous drop. It was more like a roller coaster ride. The views to the right side of the road were incredible. Soon I found myself driving along the Tennessee River. After crossing the river, I drove through Scottsboro and turned onto US 72 south. Mountains were on both sides of the road as US 72 basically runs down a series of long valleys. Occasionally, the road climbed over a mountain and then continued on down the other side and through the next valley. It was only 10:45 A.M. when I stopped just outside of Huntsville for breakfast or was that Lunch? Was that eastern time or central? All I know is that it was early yet.



After finishing whatever meal it was, I headed into town. Our meeting time for the tour was suppose to be 1 P.M. or was that 12:30 P.M.? I had time to waste, so I headed for the visitors center to get some information on the area. After acquiring much information, I headed for Monte Sano State Park to meet up with Tom Crowley, the Canadians, Harold, and Claudia. The park is located only 6 miles east of downtown Huntsville and sits on top of Monte Santo Mountain..



Sharon and Peter were both surprised to see me or perhaps they were disappointed to see me? You can never tell. They had selected campsites next door to the VBAS observatory. We took a short stroll to the observatory. The driveway into the place has a grassy field that is used for visitor parking. Beyond that the driveway goes through a dense forest until you reach the complex. Compared to Villa Rica, this spot has far more trees. They need Phil's services immediately. The com-



plex consists of three buildings including two observatories. On the far right hand side is a dome housing a 21 inch scope. On the left side of that is a roll off roof building that houses a 16 inch sct. To the left of that is the planetarium or least that is what we thought it was. They had a large grassy area to the right of the buildings and behind the buildings. All other directions had nothing but trees. The parking lot for the observatory was small. Of course, I will have more to say about the observatory later. It was getting to be about 12:30 P.M., so we headed to our vehicles and drove down into town.

We arrived at the Marriott at about 1 P.M. to find Ralph (of dome maker fame) and his wife Cathy sitting there waiting for everyone. So which time was it that we were suppose to meet anyway was the question posed to me? Well after some discussion, I said it was suppose to be 1 P.M. Central( Alabama time) and not 1 P.M. Atlanta time. By now the other folks had arrived including TomKat, Bill Macfarlane, Linda, Wilkie Brown, and Tammy Brown.

A few minutes later, a bus arrived. Mitzi Adams stepped out of the bus. Thus began the first tour of the weekend. After a quick boarding of the bus, the bus headed for Marshall Space Flight Center. Along the way I pulled out an article from the NASA News series that comes via email to my computer at home. Since her name was mentioned in the article, I asked her about it. It was an article about the up coming Perseid Meteor shower. She told me that she did not write it. There is someone at Marshall who writes the stories. Then he puts the name of one of the scientists at Marshall in the story as the official source. The chosen scientist is asked to read the story and change it if they want to. In this case, Mitzi read it and handed it back to him without any changes. So she never wrote the story but was given credit for it anyway. She considered it quiet amusing. So now you know a little bit about how these news bits are written.

The ironic thing is that both sides of the entrance to Marshall is surrounded by cow pastures. I knew at this point that there must be astronomers nearby. Our federal government leases the land to the farmers to use as pasture. Our first stop on the trip was the to get our security passes. The Americans in the group got the cool passes with the picture of the X-34 on it.

*Continued on the next page.*

Plus there was several stars, a galaxy, and the top of the earth pictured on it. The Canadians in the group got plain yellow passes with a big letter "A" written on it. I guess the federal government knows what we know. They are indeed aliens from outer space. We thought that is what the Letter "A" stood for. Sharon pointed out that should have been an "eh" instead just an "A". In the lobby of the building was a display of some of the past missions that had taken place in space among other things. After a few minutes walking around, we reboarded the bus and headed for the Solar Observatory.

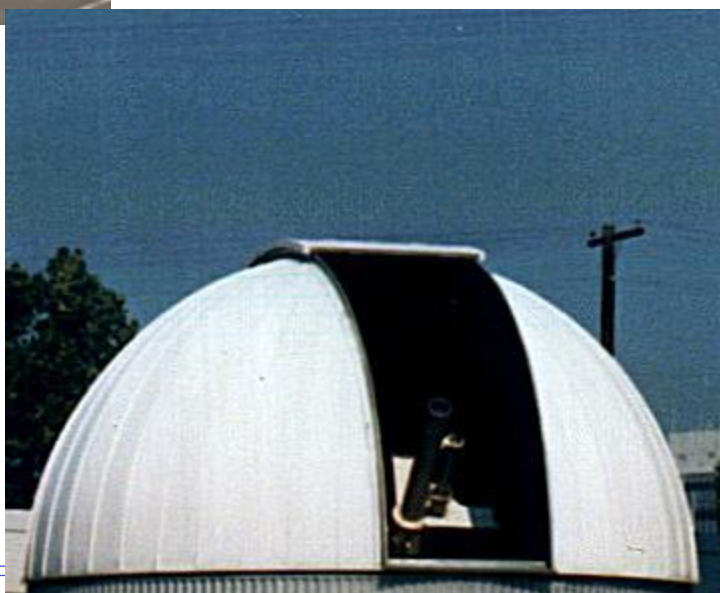
Observer of the Solar Vector Magnetograph Group. Ed and James took half of our group outside to see both scopes. The rest of us were given a brief talk on how the sun works and what exactly the solar lab studies and why. Afterward we went outside to do some solar viewing. Mitzi setup a Questar telescope with a solar filter on it. Sunspots were easy to see in the field of view.



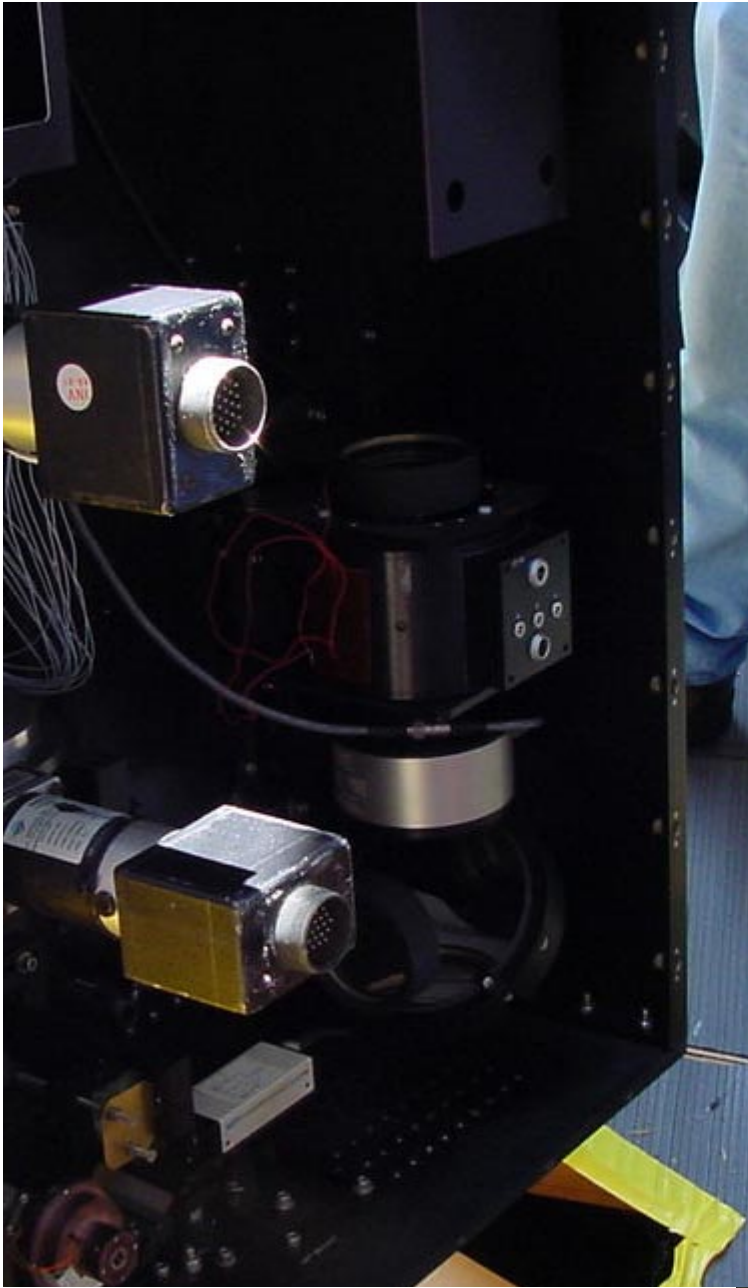
Soon after we were given the tour of the Dome Magnetograph. James gave use the tour of this scope. At the current time the telescope was under renovations so the instrument package was opened up and easy to see. The suns light entered the box at one point and from there could be sent to different spots to take

As we pulled up to the facility, all you could see was a tall square tower and a plain block building. It didn't look like much but I was soon proved wrong about that assessment. After we stepped off the bus, you could see two dome buildings behind the tower and block building. We went inside of the block building. Mitzi told us a little about the facility. The facility houses two instruments used to observe the sun. The tower structure is the Vector Magnetograph. This instrument is used to record magnetic activity on the sun's surface. It was built in 1976. One of the domes contains the Dome Magnetograph. It was built to measure magnetic fields on the sun's surface.

Mitzi introduced Ed West to us. He is the engineer who works on both scopes and maintains the computer systems that run all the systems. We also got to met James Smith, who is the Chief



different measurements. Beyond that I couldn't tell you much. The system did include a CCD array and Fabry-Perot Filter.



The Tower structure is the home of the Vector Magnetograph telescope. The tower used to be a test stand in the past but was converted to an observatory in the 1970's. Part of the roof of the building is a roll off roof. This structure is high off the ground considering the telescope is 3 to 4 stories above the ground. The scope is used to measure the magnetic fields of the sun. Scientists are using this information to get a better understanding of solar magnetism and figure out what role it plays in the production of solar flares. Solar flares can and do affect our satellites in space, navigation of ships (and planes), and electric power systems on the earth. They have been known to damage power systems on the ground and satellites up in space. Recently Ed replaced the very old computers which runs the

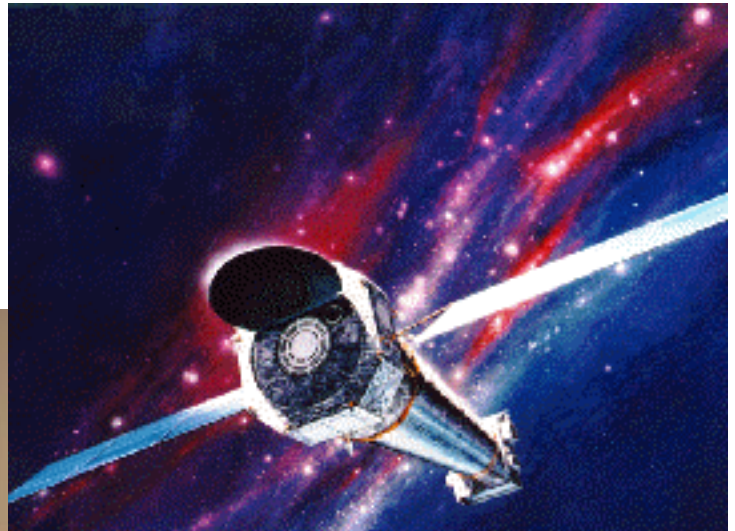
scope and other systems with new ones. This has been done because they could not find replacement parts for the old computers. The instrument package on this scope was opened up for us to see. Ed was in the process of finishing the final work on upgrading the telescope. It is supposed to be up and collecting data by August 26 at the latest.



We rejoined the other group on the ground and talked for a while before finally reboarding the bus. The next stop on our tour was the Space Sciences Laboratory. This is where Mitzi and other scientists who work at Marshall have their offices. There was a brief two minute stop at her office. It seemed too neat to be an office. Of course, I've been accused of the same thing at times. From there we went to a conference room and sat down. For the next 45 minutes we were given brief talks

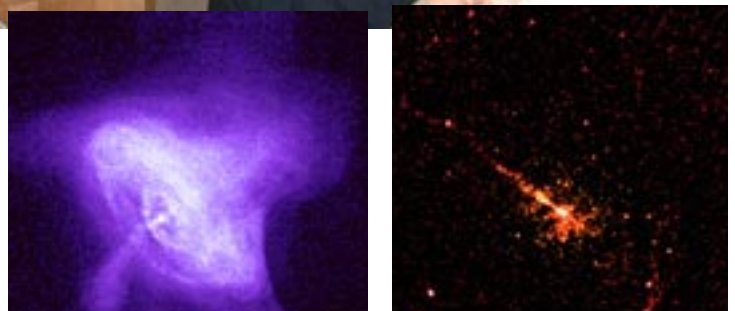
by four different scientists who worked on various research projects at Marshall. Many of those projects are well known to the general public.

Talks were given by Mian Abbas, who is studying Particle Physics. His study included experiments to see how a dust particle would respond to different environments common in space. They have built a machine that captures a single particle in a vacuum chamber which is similar to what is found in space.



They expose it to different conditions that are common in space. A few minutes later we got to see the instrument they had built in their lab. The instrument was running an experiment at the time we were there.

Ron Elsner, of the Chandra X-ray observatory gave a little background on the mission project. He was one of the original designers and planners for the project. Currently he and the others are analyzing data being collected by Chandra. You could hear the excitement in his voice and the enthusiasm look on his face. Later we were able to see some of the latest images taken by Chandra and Ron gave us a little interpretation of each new image taken. They had the new images posted on a board in the hallway.



*Large picture instrument used in Plasma Lab to conduct experiments on a single particle. Mian Abbas standing to right of device. Upper right corner Chandra Observatory. Bottom right picture Centarus A. Picture to left Crab Nebula. Both taken by Chandra.*

Jim Derrickson, talked about the Compton Gamma-Ray Observatory Mission. Of course, the actual observatory was brought back down to earth due to the failure of several gyroscopes. Jim gave us his opinion on the decision that was made to control crash the observatory. He preferred to leave the observatory in orbit. Later he showed a spare detector left over from the construction of the actual observatory. It was sitting on a table out in the hallway. One of the detectors on the Compton Observatory is BATES. It stands for Burst and Transient Source Experiment. This instrument was used to detect the now famous Gamma- Ray Bursts. Finally Charles Meegan gave a talk on various other Gamma Ray programs talking place.

We left the Space Sciences building around five o'clock in the afternoon. The bus took us back to the parking lot of the Marriott Hotel where we split up and headed out for supper. I had to secure my room first and then would get something to eat. I acquired a room at the La Quinta and did some unpacking of the truck. After changing clothes, I met Tom F, Kat, Bill, and Karen at the Olive Garden Restaunt across the street for dinner. The discussion at the table was the things we had seen so far that day plus the usual weird topics of discussion we astronomers are known to discuss. When we finished eating, we left for the Von Braun Astronomical Society's observatory. The drive only took a few minutes and it was getting dark about that



time. We pulled up to find folks all over the place setting up equipment. This reminds me of the open houses we have at Villa Rica. It looks like chaos with organization to it. It was now about 8 P.M. in the evening. Several folks from the VBAS organization came on up to us and introduced themselves. I felt like a celebrity. They were so excited to see us. I guess we felt the same way. After all, the VBAS group had some famous and well known members in it's ranks in the present and past. Werner Von Braun himself started the club following the suggest made by a young boy.

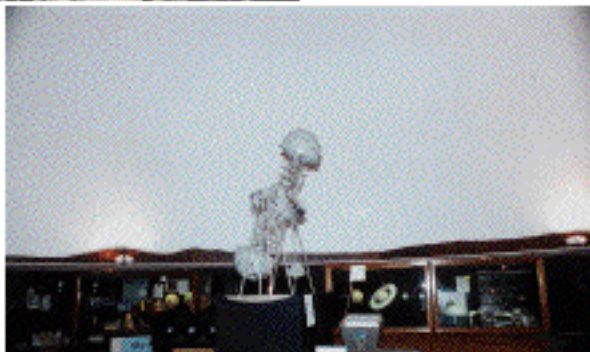
I met Gus, Tim, Andy, Doshia, Westly, and  
*Pictured left is the Compton Observa-  
tory. Our tour group in picture below.*



other folks. Some of the people I had met before but not many. It was nice to put the voice with the face. We got a brief tour of the library and other facilities. They have a very impressive and up to day library. Many recent titles with multiple titles available for members to checkout. The books were kept in a room below the 16 inch SCT scope.



Soon we moved into the Planetarium so Mitzi could do a short show for us. The Planetarium roof was made out of the bottom section of a Saturn 5 fuel tank. Having Werner Von Braun as a member does



have it's privileges. The ceiling produced an echo throughout the room. In the middle was a projector that blocked the view of the folks sitting on the other side of the planetarium. The acoustics were such that any sound you made was heard by the folks directly across from you. You could not see them but you could hear them. The projector came from a college in North Georgia that had decided to get rid of their old projector. Mitzi gave a brief talk on the history of the planetarium and the observatory. It was followed by a five minute planetarium show.

We went back outside when the show ended. The tour of the grounds continued. They have a 16 SCT as I mentioned before. It sits on the roof of the library and has a roll off roof. They also have a 21 inch reflector. It was under renovation along with it's dome. The dome had just recently been remodeled and the work completed. The dome was built just like the ones you see all over the world. They also have a solar scope built into the building. The planetarium was on the left side. The Library to it's left was on the first floor There was also a bathroom, workshop, and storage room. The 16 inch SCT was housed on the second floor above the library. To the right of the library sits the dome building(Known as the Swanson Dome) where the 21 inch scope is housed. All three buildings were tied together as one continuous building.

After the tour was over, we went back up stairs to do some viewing through the 16 inch scope. Nice view of the Ring Nebula. I went downstairs and pulled out my 6 inch scope out of the truck. I setup next to Jim Fly and his Wife. Assemblage

only took five minutes. So we were viewing the Moon and some deep sky objects in a short period of time. Of course with the moon just 4 days short of full moon, it was bright up in the sky. Still the viewing was nice. The skies were clear and the air was cool. Perseid meteors raced across the skies as single bright flashes or in groups of twos or threes. Bill Macfarlane had his scope setup to. We were the only two from the AAC who had brought scopes with. Everyone from both clubs was having a good time. I was glad to see this. As the night wore on, folks began to leave. It was down to just a few of us by 2 A.M. We packed up the equipment. The plan was to return tomorrow night for some more observing.

The last of us left after 2 A.M. and I made my way back to the Hotel. Driving back to the Hotel was a pleasant trip. The views of the city lights below were beautiful as I made my way down Monte Sano. Traffic was almost non-existent but there were a few cars about. Downtown Huntsville was almost like a ghost town. I pulled into the Hotel parking lot and parked. After entering into the room, I turned on the TV. Not long after, I turned the TV off and went to sleep. Stay tuned for more in the future.



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### General Meeting October 13, 2000 (8:10p)

Number in attendance: 82 - **Sharon Carruthers, President** – Open the meeting by asking for a brief summary on committees.

**Keith Burns, Corresponding Secretary** - Announced the deadline for the November Issue of the Focal Point is October 30. **Mark Banks, Sidewalk Astronomy** – Announced that we had a great turnout at the Atlanta Botanical Gardens “Moonlight Walk” held October 12. Everyone had a great time. He also announced October 26th - Stargaze & Science night Burkely Lake Elementary, Duluth 7pm \*Volunteers needed.

**Rich Jakiel, Observing Chairman** – Announced the picnic on 10/21 and talked about the Chiefland Star Party. He also announced a work party headed up by Ralph Bowmen. Ralph was completing the deck and others were going to check out the layout for the new electrical post. **Sharon Carruthers** – Announced next FoGSPA event will be November 11 at Unicoi State Park in Helen, Ga. There was a drawing for door prizes before our guest spoke. **Alex Langoussis, Program Chairman** – Before he introduced the speaker he announced November 17<sup>th</sup> speakers as Dr. Shawn Cruzen and Dr. Carole Rutledge from the Coca-Cola Space Science Center in Columbus, GA. December's meeting will be held at Agnes Scott College on December 15. It will be a Planetarium show and a pot luck dinner. Alex then had Lenny Abby introduce our speaker, Dr. William Sheehan from Minneapolis. His talk was on Neptune's Discovery: Crown Jewel of Celestial Mechanics or Heist of the Century?

## A Sky full of "Birds and Things they Eat"

by Philip Sacco



It is Turkey time again. And in celebration of this time of year, I couldn't resist the urge to create yet another interesting hunt list for the season. How about an entertaining hunt for a common theme of objects by common name, all of which are at least remotely related to birds. I would like to give credit to Harmut Frommert and his web site of deep sky objects with common and uncommon names. He has a good catalog and I drew many of the deep sky objects found in section one from his source at: <spider@seds.org>. I am sure that you who have found this website are of the deep sky perversion...errr... *persuasion*... (hehehe) so with no further delay, let's delve into these deep sky nasties.

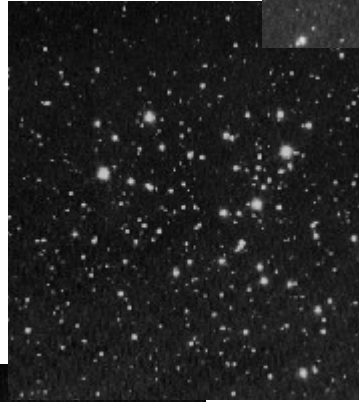
**For those just starting their study of the sky...** grab a star chart and jump down to the "*Birds at Play and Birds of Prey*" section and I will entertain you with a sampling of naked eye objects to get you started. That section will be followed by

naked eye objects no longer seen or viewed today, and finally you can join your deep sky fiends- errr... I mean **friends**- on the top of the list to continue the hunt for birds of wonder and the things they eat. I hope you all enjoy scoping out these beee-uts.

Well...now that I have you interested....What came first the Chicken or the EGG?This is a time old Question, one which has stupefied

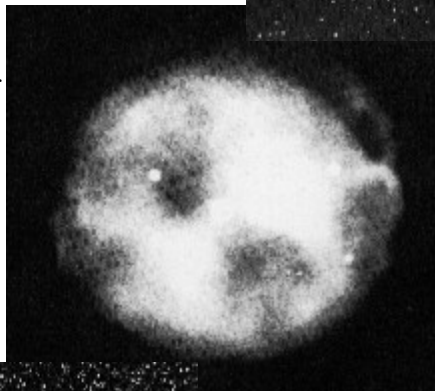
Article resumes below top right hand image. The picture bottom left is M29(known as The Butterfly Cluster). Second picture up is M 11(also known as Wild Duck Cluster) The Middle picture is M97(known as the Owl Nebula).

Here's some more info on the pictures. The image at top right is M6( known as the Butterfly Cluster). The picture below M6 is M44(The Beehive cluster).

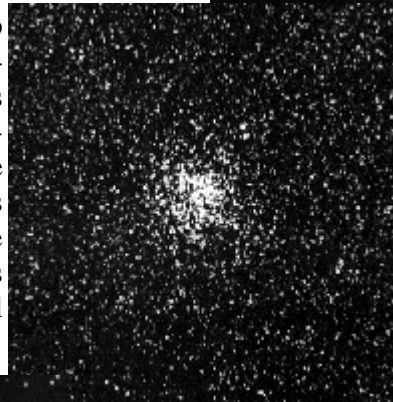


the staunchest Darwinest, and with that question we will begin our quest for the 'Birds of the Sky', for surely without the Egg . . . we wouldn't have the Birds . . . ENJOY!

**The Egg Nebula** (CRL 2688) (21:02.3 +36:42), **The Cygnus Egg** (CRL 2688) (21:02.3



+36:42), **The Pelican Nebula or The Eagle Nebula** (I5067/70), **The Seagull Nebula** (I 2177), **The Eagle Nebula** (M 16/I 4703), **The Owl Nebula** (M 97), **Parrots Head Nebula** (18:04.3 -32:30), **Pavo Glob** (N 6752), **Phoenix Dwarf** (1:51.1 -44:26), **Running Chicken Nebula** (I 2944/8), **The Swan Nebula** (N 6618/M 17), **Wild Duck Cluster** (N 6705/M 11), **Cygnus A** (19:59.4 +40:43), **Cygnus Loop** (N 6960,92,95), **Grus**



**Quartet** (N 7552/82/90/99), and **Pegasus Dwarf** (ok, ok, it's not a bird, but Pegasus DOES have wings! I think that qualifies for the spirit of the list.....besides....it's MY list! hehehe) (23:28.5 +14.44).

Now that we have a sky full of winged beauties.....they need to eat! Let's now take a look at the lower end of the food chain and see if we can grab some 'Grub'...and just as we must have an egg to have a bird...we have to have a .....welllllll your just going to have to see where this section begins!



**The Cocoon Galaxy**--N 4490, **The Cocoon Nebula**--I 5146, **The Butterfly Nebula**--M 29, **Butterfly Cluster**--N 6405, **The Butterfly Cluster**--N 2447, **Butterfly Nebula**--N 650-1, **The Butterfly Nebula**--I 2220, **The Bug Nebula**--N 6302, **The Spider** (10:42.6 +34.27)--UGC 5829, **Tarantula Nebula**--N 2070, **Ant Nebula** (16:17.2 -51:59)--PK 331-1.1, **The Beehive Cluster**--N 2632, and **The Antennae**--N 4038-9 (I know this is stretching it a bit, but it is a common element to these critters.....)

This next section is the Primer for those new to Astronomy or having a penchant for the Astronomy of old....**LORE and MYTHOLOGY**. It serves as a primer to the theme and will

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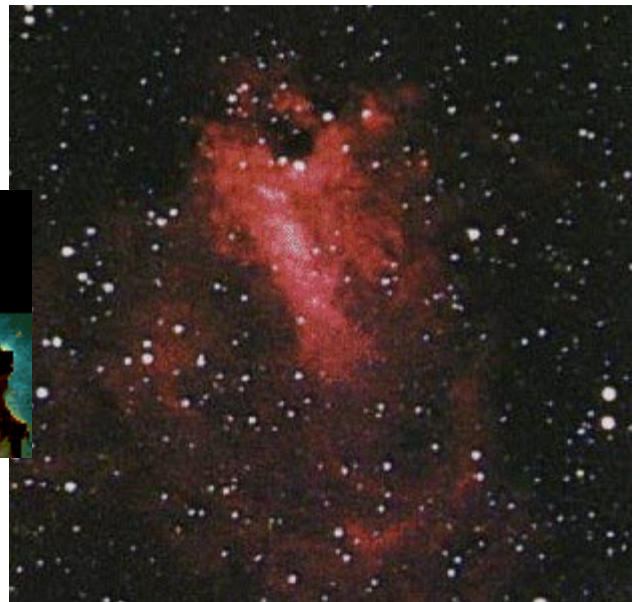
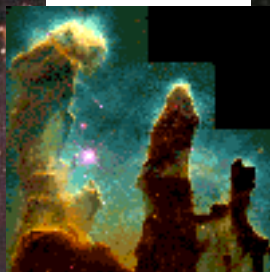
hopefully be found to be educational as well as entertaining. All of these flying animals are naked eye objects and therefore related (at least in my thinking)...

### **Birds at Play and Birds of Prey**

Apus--The Bird of Paradise, Aquila--The Eagle, Columba--Noah's Dove, Corvus--The Crow, Cygnus--The Swan, Grus--The Crane, Pavo--The Peacock, Pegasus--The Flying Horse (ok, ok, give me a little artistic license here....), Phoenix--The Phoenix, Sagitta--The Arrow (Look....! Not only does it have feather, but it flies!), Tucana--The Toucan, and Volans--The Flying Fish (ok, OK...it may not have Feathers, But IT DOES FLY!)

### **Dead Birds and Things they Ate**

I have included these extinct birds and consumables as they used to be studied in the sky, and it is a sort of history we shouldn't forget...What better way to head this list off than **MOST APPROPRIATELY** with an extinct constellation *itself* representing the act of extinction (well at least for one poor 'Fine Feathered Friend')



we have the extinct constellation of ...the envelope please...

**Vulpecula cum Ansere-** This constellation created by Hevelius represents a ***Fox chasing a Goose!*** We know it today as simply Vulpecula the Fox.... so much for the poor **GOOSE!!** It is appropriately missing....The best Thanksgiving object I can think of...! **Apes-** Flamsteed 41,33,35,39 in Aries. **A Fly. Apis-** Occupied the current position of the constellation Musca. **A Bee. Felis-** Ok, it's not exactly something eaten by birds, but how do you think the birds became extinct anyway?! Formed by the stars between Antlia and Hydra. **A Cat. Gallus-** The stars between Argo Navis and Canis Major. **A Cock. Leo Palatinus-** OK! So its a BIG CAT! He must have eaten BIG BIRDS! This **Imperial Lion** was composed of the faint stars between the current constellations of Aquarius and Aquila. **Musca Australis-** This title replaced Apis. It is

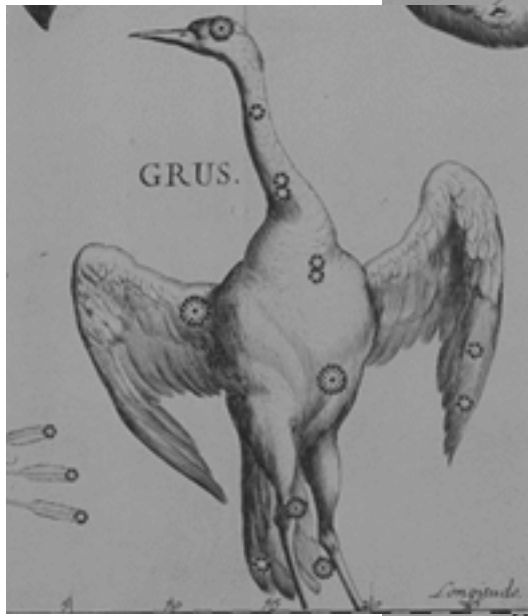
now known as **Musca(A Fly)**. **Musca Borealis-** Flamsteed 41,33,35,39 in Aries. Originally known as Apes. The names may change, but the locations are the same....**A Fly. Noctua-** On the tip of the tail of Hydra. It occupied the same position as 'Turdis Solitarius' **A Night Owl. Phoenicopterus-** Alternate seventeenth century name for Grus. **The Flamingo. Renne (or Tarandus vel Rangifer)-** OK...this is again one of my odd-ball-add ons, but I started this list with Christmas around the corner, and everybody knows these guys can fly.... formed from the faint stars between Cassiopeia and Camelopardalis....we have **A Reindeer. Sciurus Volans-** Two stars in the tail of the present constellation of Camelopardalis. **A Flying Squirrel. Solitaire-** The 41 stars between the 3rd and 9th magnitude near the tip of the tail of Hydra. This group of stars was also known as Turdis Solitarius and later became known as Noctua. **A Solitary Thrush.** Any and all of the above subjects could be found among or perched on: **Lilium (Fleur de Lis)-** Formed of the four stars north of Aries and

which have been placed into the constellation of Apes. **A Flower. Robur Carolinum-** 25 stars including B Carinae. **A Royal Oak Tree. Solarium-** Found east of Horologium, between the head of Hydrus and the tail of Dorado.....**A Sundial** (ok maybe more butterflies would be seen here but...**I HEARD THAT COMMENT!** Watch it Buddy..!) I hope you have enjoyed this list, and if you note any errors or would like to make any additions such as the coordinates of some of the objects or new objects, feel free to contact me.

Picture to left is M16(The Eagle Nebula). Small picture in middle is M16 up close thanks to the HST. Image to the right is M17(The Swan Nebula). On the next page is proof that birds are all over the sky. It's amazing how many constellations from the present or past revolve around a bird theme.

## Bird Constellations

This is a small part of all the constellations of old or new that are birds, insects, or other things that fly. One of the more famous ones is Corvus which was left off this page. The big picture in the middle contains Cygnus to the right. There is an bird holding a Lyra(harp) to the upper right of Cygnus. Below Cygnus is a fox holding bird in his month. The bird is the constellation of Anfer and the fox is Vupecula. Musca is the Fly in the picture at the bottom sandwiched between Pavo(Peacock) and Columba(Dove).



## Websites to Visit

*Below is a little info on the pictures used in this newsletter. If you are interested in finding out more, go checkout these sites on the internet.*

**Astronomical Observatory of Brera website**, the celestial atlases by Hevelius, Doppelmayr and Flamsteed and the terrestrial atlas by Sanson can be consulted electronically at this website.

<http://mahler.brera.mi.astro.it/HEAVENS/ATLAS/atlanti.html>

**Students for Exploration and Development of Space.** This is a great website. I've used it for the last four years. Cool stuff. Lots of Messier information including the entire list. This is the mission statement of this group. SEDS is an independent, student-based organization which promotes the exploration and development of space. SEDS pursues this mission by educating people about the benefits of space, by supporting a network of interested students, by providing an opportunity for members to develop their leadership skills, and inspiring people through our involvement in space-related projects.

<http://www.seds.org/messier/>

**The Hubble Space Telescope website.** If you have not seen it or the photographs they have released, you must be living in a cave. Nothing I can say expresses the feeling better than WOW!!!!

<http://oposite.stsci.edu/pubinfo/>

**Compton Gamma Ray Observatory website** has many new projects listed. Lots of information on the Gamma Ray Bursts.

<http://antwrp.gsfc.nasa.gov/cossc/gipages.html>

**Chandra X-Ray Observatory website.**

<http://www.wastro.msfc.nasa.gov/axafps.html>

**The Solar Physics Group of Marshall Space Flight Center's website.** All the stuff about the sun including information on their telescopes and the observatories out in space now.

<http://science.nasa.gov/ssl/pad/solar/default.htm>

**Von Braun Astronomical Society.** Huntsville's Astronomy Club. Check out our sister organization.

<http://www.vbas.org>

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## Spectra Observing Schedule

**By Tom Buchanan**

I have been taking spectra of Mercury, Uranus, and certain unusual stars, which range to magnitude 6.0. I needed a clear sky for three hours after sunset without a moon older than four days. Listed below are all the evenings since April 26 that I could use for observing:

April 30, June 1, June 23, July 1, August 22, August 27, and September 26.

Due to the scarcity of dark clear evenings, I was barely able to maintain my planned observing program as each star reached culmination, through September 26. (At least one evening from September 27-30 was also clear.) The lack of clear dark nights in May and October is most unusual.

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## 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 13. You can also email Tracy at [tracywilson@alltel.net](mailto:tracywilson@alltel.net).

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## Directions to the Observing Field at Woodruff

From Atlanta: Take I-575 to GA 515. Follow 515 through Ellijay and Blue Ridge. Go 2.2 miles past the intersection of 515 and GA 60. Take a left on Loving Road, and follow it until it ends. Turn right on GA 325 and go about 50 yards to Boy Scout Road. Turn right again. The entrance to the Scout Camp is about 2.5 miles on the right.

From Blairsville: Take 515 East toward Blue Ridge. Turn right on GA 325. Boy Scout Road comes up on your left after about 2 miles. Go about 3 miles and the camp entrance is on your left.

(From the east side of Atlanta, it may **look** more direct to take 400/129 to Blairsville, but the last 40 miles of 129 are quite crooked. The route up 575 is faster and 4 lane for all but the last 10 miles.)

Take the main entrance road (Turner Gap Rd.) and follow it past the lake (on your left). The main road turns rough at the second ranger's house, but Chestnut Gap Road goes left, and is OK. Take the left. Go about a half mile, and again the road ahead gets rough, but you should turn right at a sign that says "private property, do not enter". Ignore the sign and go down the road, past an old cabin. There will be a gate on the road near the cabin and a box with the visitors' log. Sign in. The gate will be open for planned Club events. Other times, you will need the combination. Follow the road until it ends at the Observing Field.

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## Faint Fuzzy Forum of the AAC

By Richard Jakiel

This past month has been a very active one, with several major events scheduled. I'd like to thank everyone who pitched in and helped out with the annual picnic at Villa Rica (VR). The turnout was very good, and the food was tasty – especially the Moore's awesome potato salad! The deck for the new instructional building is complete, and the re-coated mirror and secondary has been mounted into the 10-inch OTA. At the picnic, Art Zorka very generously donated a 486 computer for future use at VR. This will become part of a new computer network linking several buildings and the 20-inch building. Final plans were made for the upgrading and installation of new power + computer cable lines. So be prepared for some heavy-duty workdays at Villa Rica in November and December (actual dates TBA).

As for observing, the month of November should be a bit less hectic, but interesting and fun none-the-less. On November 18<sup>th</sup>, there will be a public open house. Turnout could be quite heavy, and all AAC members are invited to participate. Even if you are a new member, please join us. It's a great learning experience and just showing the public a few bright objects can be great fun.

Later on November 25<sup>th</sup>, there will be a deep-sky event at the Woodruff Boy Scout Camp up in the north Georgia Mountains. It's a superb dark sky site and a great opportunity to burn off excess turkey and gravy. With some luck, perhaps the new observing building will have been completed. A word of advice – bring plenty of clothes and cold weather gear, as sub-freezing temperatures are a real possibility.

A number of AAC members have requested a column on deep-sky observing for the Focal Point. So starting next month, I will have an "observer's corner" where I will focus on a type or group of seasonal objects. I will probably discuss some of my observations made while in Chiefland, Florida (Oct 27<sup>th</sup>-28<sup>th</sup>), and in future months I will be talking a tour of the lesser known sights. I'm open to suggestions so if you have a favorite type of object please contact me at: [deepsky@mindspring.com](mailto:deepsky@mindspring.com).

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## Calendar

November 17th-General Meeting at Emory University 8PM  
Speakers Carol Rutland and Shawn Cruzen

November 18th-Open House at Walter Barber Jr Observatory  
Starts at 5PM.

November 25th-Deep Sky Session Woodruff BSC.

December 2nd-Fernbank Science Center  
How to Buy a telescope seminar.

December 8th-Open House "From Stonehenge to Keck" 7:30PM  
Bradley Observatory at ASC. Speaker Dr Chris DePree.

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

December 16th- Members only Observing Party  
Walter Barber Jr Observatory.

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

## AAC Club Officers

**President:** Sharon Carruthers

770-941-4640 SCarruthers@NightSky.Org

**VP Program Chairman:** Alex Langoussis

770-591-5776 aleko@mindspring.com

**VP Observing Chairman:** Rich Jakiel

404-352-0916 DeepSky@mindspring.com

**Treasurer:** Peter Macumber

770-941-4640 PMacumber@nightsky.org

**Recording Secretary:** Joanne Cirincione

770-898-4271 starrynights@AtlantaAstronomy.org

**Corresponding Secretary:** Keith Burns

770-427-1475 Keith\_B@Bellsouth.net.

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## Board Of Directors

Bear Simmons: **Chairman**

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Tom Faber

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Jim Moore

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Bob Smith

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## Standing Committees

**Sidewalk Astronomy:** Mark Banks

404-257-2766 bank4@mindspring.com

**AAC Webmaster:** Matthew Macumber

770-941-4640 webmaster@atlantaastronomy.org

**Light Pollution:** Tom Buchanan

770-521-2136

**Hospitality & Refreshments:** Julie Moore

770-242-6735 julie@dwcs.com

**Friends of Georgia State Parks Astronomy:** Joanne Cirincione

770-898-4271 starrynights@AtlantaAstronomy.org

**Amatuer Telescope Making:** Skip Cook

404-325-4987 scz9@cdc.gov

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## Contacts

**Villa Rica Coordinator:** Ralph Bowman

770-926-1424 email TBA

**CEWMA Coordinator:** Philip Sacco

404-296-6332 ppsacco@mindspring.com

**Equipment Training:** Stef Whetstone

770-460-7678 swhetstone@mindspring.com

**Club Historian:** Lenny Abbey

404-634-1222 labbey@mindspring.com

**Club Librarian:** Jim Moore

770-242-6735 hollin@dwcs.com

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## NightSky.Org

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.

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 capitals, type Orion exactly as you see it here.

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## 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.

The **deadline** for the **December issue** is **November 30th**.

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## 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.

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*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:*

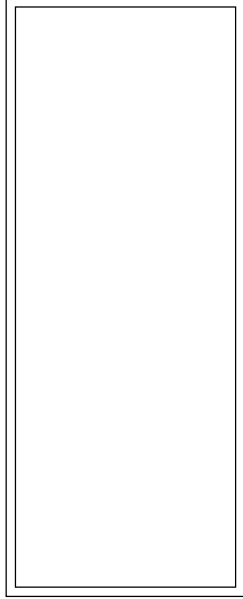
Atlanta Astronomy Club

PMB 305

3595 Canton Road A9

Marietta, GA 30066

FIRST CLASS



## November General Membership Meeting

This month's meeting is Friday, November 17, at Emory University's White Hall. Our speakers will be Dr. Carol Rutland and Dr. Shawn Cruzen, from the Coca Cola Space Science Center in Columbus. Everyone seems to know there's an aquarium located within 90 miles of Atlanta, but how many know we have an additional state-of-the-art space education center located practically in our back yard? Come join us to find out more. Refreshments start at 7:30.

Dec. 15 Chris Depree, \*at Agnes Scott College and Planetarium\*  
"Holiday Pot Luck Dinner and Planetarium Show"

Jan. 19 Ron Buta, University of Alabama "Barred Spiral Galaxies"

Feb. 16 Dr. James Kaler, University of Illinois "Planetary Nebulae"  
Alex Langoussis Program Chairman

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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 \$25 (\$10 for students). Discounted subscriptions to Astronomy, and Sky & Telescope magazines are available.

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: **770-621-2661**.

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

Subscribe to the Atlanta Area Astronomers Mailing List!

List posting address: [AAC@topica.com](mailto:AAC@topica.com)

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For list information, go to: <http://www.topica.com/lists/AAC>

To tell me what a wonderful job I am doing, send messages to: [LAbbey@mindspring.com](mailto:LAbbey@mindspring.com)