

The Focal Point

The Atlanta Astronomy Club

Established 1947

August 2000

Vol XIII No. 3

Editor: Keith Burns

Fort Mountain Experience

By Keith Burns

On Saturday morning I had the luxury of sleeping in late. I consider 9AM to be late. I awoke and did the usual morning routine. There was no hurry. I had completed the packing last night. All I had to do was put the equipment in the truck and take care of a few last minute errands. I left the house at 10:45AM and headed for the store, bank, and gas station. A change of brought me to my arrival destination much sooner than I planned and without the usual frustration of traffic to contend with. I arrived at the meeting spot. The usual actors in this play called astronomy were there. Of course, I talking about the Macumber house. Peter and Sharon were trying to finish packing. Joanne was patiently waiting. Chrissy soon arrived on the scene. By now, the Macumbers were done with the packing. Makes me glad I am only packing for one person.

We left their house about 1PM and headed for Fort Mountain State Park. The caravan started out in an organized manner. Peter took the lead with Chrissy following. Joanne came next with me picking up anyone left behind. Between traffic lights and traffic on I-75, we got separated. Actually, I was separated from the rest of the group.

The drive was rather boring. The usual ho-hum traffic and crazy driving on I-75. It became interesting Once we exited the interstate, the drive became much more interesting. Mountains were everywhere. I saw Mount Garland out to the east. This is the proposed site for the new Cherokee Observatory. Many of the towns we passed through were fly specks on the wall. One of those deals where if you brink your eyes, you miss the town. Civilization was almost none existent. Finally I turned right onto GA 52 and headed up the mountain road. As I looked out over the valley rapidly disappearing below me, I noticed how thick the haze was. The hills out to the west were white in color though they were covered in trees. I proceed up the long steep road. The drive up Fort Mountain seemed to take forever. At the top of the hill was the park. I turned in and headed for the main office.

There I found the rest of the group. With a few minutes of conversation we soon discovered that the park people had not set aside campsites for us. With some confusion, we learned that two campsites had been set aside for us indeed or so we thought. So we headed for the campground and located the campsites. Rick Brown along with his son Jacob was already there setting up their tent. He told us that he had purchased the campsites for our use. Anyway we setup camp. Harold and Claudia came in right behind us. Tom Faber and Kat arrived not long after and so did Paul DiBono. They too had been given some bad information on which campsites were available for use. After some discussion, and a little musical campsite switching, we figured out who would go were. Now the plot thickens. Barry Flansburg arrived a short time later along with Chuck and Delaine Painter. They to had been told some bad information to. After scoping out the observing spot and seeing that there was no place to setup a tent, Chuck and Delaine headed for Brasstown Bald. Finally everyone was set as to were they would sleep that night.

Sharon realizes at this point that the slide project slide holder was left at home. Uh-oh, panic fills the air. Seems that the ladies talk will be filled with hand puppets instead of slides now. Our group puts their heads together and

brainstormed on what to do to fix this problem. Finally the park people come through when they brought a spare slide holder for Sharon to use and it fit the slide projector perfectly. It's now 5:00PM. Some folks go off for a walk around the lake while the rest of us decide to stay at the campsite just in case something else happens. After we ate supper, we headed down to the beach and nearby parking lot were the talk and sidewalk event were to take place. It's now 7:30PM. Already down there are Barry Flansburg, Harold, and Claudia. We setup the equipment for the presentation to take place in the pavilion near the beach and setup our telescopes for the sidewalk astronomy part of the event to follow the talk. The evening air was cool and the skies clear for a change. No haze was visible as the sun headed toward the horizon. At a height of 2500 feet above sea level, I think that helped. A cold front had passed through Georgia a few days ago also. The biggest problem we had was the horizon. To the north, east, and southeast, the horizon started 30 degrees above the ground. Trees blocked the view but we still had some pretty good skies.

The talk started at 8:30PM with a fairly large crowd of people showing up. That made Sharon feel much better. Joanne our wonderful organizer was also relieved to see the crowd materialize. Bear and Karen Simmons showed up about this time and Bear setup his 8-inch dobsonian telescope. Tom Buchanan also showed up. A small crowd started to materialize around the scopes at this point even with the talk still going on. Of course, it was too light out yet for us to do any observing. I pointed the Aurora 13 scope toward the top of a nearby Mountain. The mountain top had a TV tower. This gave those eager for something to look at something to look at for a few minutes. No one asked why the image of the tower was upside down. Hmmmmmm.....I thought they would have asked that question. Of, well! I checked the collimation of the telescope. It was perfect.

Finally it got dark enough for the first star to appear. Then the debate began as to which star it was. Was it Arcturus, Vega, or Deneb. Finally it was decided that it was Arcturus. Wow, everyone was excited to see the first astronomy object of the night. Even I was. By now, the presentation had ended and everyone was heading down to the parking lot for chance to see. Finally it got dark enough for several binary stars to become visible. So we pointed our scopes at some binaries. Harold was the first to see a messier object in his scope. The Hercules globular (M-13) was just barely visible. The skies darken and views got even better. Soon we were treated to views of several bright satellites in the constellation of Lyra. Hubble Space Telescope made a pass overhead not long after. Then followed the MIR space station with it's trail of debris. The public seemed to enjoy seeing these objects with their eyes. Thanks to Tom for keeping us informed as to what and where each object was.

I pointed the Aurora scope at M-3 and was blown away by the view. WWOOWWWW! Even M-4 looked decent for once. You could actually see many individual stars in it and not just a nebulous cloud. We moved from object to object. I felt like John Dobson at this point. I even used his descriptions for several of the objects. And I also demonstrated his technique of collimating a telescope. The old kick the box routine. Of course, I didn't kick my telescope. It was fun explaining to folks the interesting history behind the Messier objects. I've seen them a thousand times but M-57 and

M-27 are always impressive objects to show. Slowly the crowds began to dwindle down. By 11:30PM it was only us astronomy folks left. Rick Brown, Paul DiBono, Tom Faber, Kat, Phil, ?, and myself decided to leave the beach area and head for nearby Cohutta Overlook. It was only 6 miles away.

We left Fort Mountain with our scopes and took the short drive to the overlook. It was now 11:55PM. We arrived there in about 10 minutes and found several cars parked on the side of the road. So Rick and Paul headed up the hill to see what was going on. After about 5 minutes they came back down and told us that a group of folks was up there praying. This has to be a first. I been up there before and seen all kinds of things but this a first. Anyway we decided to wait a few minutes. You could hear the leader of the group saying a pray. It was real loud. I think the people in the house a mile down the road heard it. With each pray came the very loud and in unison ,”Amen”, response. Phil and another guy showed up to join us a few minutes later. They heard the yelling and asked us what was going on. So we explained. After about 25 minutes time the prayer group finished and was coming back down. Meanwhile, Rick, Paul, and Phil had headed up the hill again to see how long it would be before the pray was done. They ended up talking to the group for several minutes while Tom, Kat, and myself headed up the hill to survey the site. The horizons were beautiful but the haze soon turned the views into a picture of horror. The nearby mountains in the Cohutta Wilderness Area were haze covered. You could see how high the haze layer was to the east. The town of Elijay with it’s lights revealed to us that the haze was above our heads. I forgot that Cohutta Overlook is only 2000 feet above sea level. There was a very distinct line of haze the ran from the horizon to about 15 to 20 degrees up. Below that point, you could not see any stars at all. Above that point the skies were star filled. It was an interesting site to see. Rick, Paul, and Phil brought their telescopes up the hill and started to set them up.

Tom, Kat, and I decided to head back to Fort Mountain and try the beach area again. It was a lot clearer there. The idea of bringing the Aurora scope up that hill didn’t excite me either. So we left the others and headed back to Fort Mountain. Along the way, we saw several deer walking along the side of the road. I slowed just in case one of them decided to cross. It was now 1AM. We returned to the beach area and found most folks packing it up and heading either home or to the campsites. Barry Flansburg was still observing along with another guy. I setup the Aurora scope. For fun, we looked and found the planet Uranus. Thanks to Tom Faber and another Guy for setting me straight as to the exact location of it. I got confused as to the exact location and shape of Capricorn. Uranus was interesting to look at. Sort of bluish green color to it. This is the first time I found it with my own telescope. At about 117X you could see a circular shape to it. It was not a star. I had detailed star charts of both Uranus and Neptune to help me. Then I tried for Neptune. This one was easier to find but hard to distinguish from the surrounding stars. Even at high power it was hard to see. It had a blue color to it that helped identify it.

Should we try to Pluto at this point. I decided not to. It was after 3AM and Perseus was rising. So the comet would be visible soon. I waited for M34 to rise above the trees. We ended up moving the scope to a spot near the water in order to see it sooner. From there I was able to hop over two degrees and find Comet Linear(Comet KC). It had a small coma and short tail. The tail was 1 or 2 degrees long if that much. You could tell it was comet. Looked good but not great like Hale-Bopp and Hyakutake. I know the other folks would have preferred a better view but I was just happy to see this object again. The last time I saw it was December 26th. The funny thing is that the comet was in Triangulum which is right next door to the comet’s present location. It sure is a lot brighter now then it was then too. Don’t complain folks. At least you can see it now. The comet was as bright as a 13th magnitude galaxy back in December. At that point, we were only able to see it in one scope. The Aurora 13 is becoming quiet a good scope.

To finish up the viewing, I pointed the scope at M-31. Nice to see M-31 again along with M-32 and M110. These galaxies seem to look better and better each time I see them. There detail was incredible to see. We finished the up the evening viewing M-15, M-8, and M-20. Barry Flansburg was still

doing CCD imaging at this point. I told him the comet was up and about where to look for it and perhaps he could get a image of it before twilight. We packed up the aurora 13 and headed for the campground about 4:30AM. ZZZZZzzzzzz.....

FROM THE PREZ’S DESK

By Sharon C.

Ahh! Georgia in the summer. If trying to peer through haze doesn’t drive you crazy, being thankful for rain on a new moon weekend will! Your one, thin thread of hope is...it gets better in the Fall (doesn’t it??).

Let us hope so, because in September we are planning a Big Bash at Agnes Scott. Every year, the Bradley Observatory celebrates the Spring and Fall Equinoxes with a musical program. This year’s program will be presented in the field below Bradley (as the Observatory is still under construction) along with food, giveaways and other festivities. Chris DePree estimates that over one thousand people may attend.

The AAC has been invited by Chris to set up a table and do some sidewalk astronomy. I would like to see us out in full force for this event, so you are all invited to join in the fun. The festivities start at 6:30 p.m. on Friday Sept 8 (and will run until 10:30 - 11:00 p.m.). Bring your solar filters if you can be there before sunset.

Contact me if you plan to attend, just to give me a general idea of who and how many plan to be there. I also would like to see some displays about the AAC, its history and activities; new, updated brochures ; and information about light pollution. If you can help with any of these, contact me.

And speaking of “Light Pollution” (LP), one of our members got a rude awakening as to how fast it can happen when a gas station was built near a site we use in Rockdale. One month it was a passable dark site: two months later, the south horizon is awash in white light. When he asked what could be done; the answer was “Not Much”. If codes exist they aren’t very good; and even if they are good, there is usually no teeth in their enforcement.

Fighting LP is like Hercules fighting the many-headed Hydra. One can go after the builders; the architects; the power companies (who recommend and approve lighting plans); local planning commissions; state and Federal agencies; and/or the suppliers, both retail and commercial; But the biggest battle is for public awareness: we have to make people aware that LP is a serious issue and that there are solutions that do not leave them cowering in the dark.

Tom Buchanan has been the AAC’s St. George single-handedly battling the dragon of LP for many years. John Lentini joined him this year. They could use more help, especially with research into contacts, letter writing campaigns and producing information for public education. Tom would like a someone from every county around Atlanta to act as a contact for the AAC in their community (Local Councils pay more attention to their constituents than to outsiders)

AAC members can also do our part by getting informed - while I complain about LP , I confess that when I went out looking for outdoor light fixtures, I hadn’t a clue what I should buy to meet IDSA standards. Our website now carries information on LP - READ it and PASS what you learn on to others, including your neighbors, your boss, your local retailers, anyone who might make a decision about installing outdoor lighting.

At our July Board Meeting, we had a representatives from Georgia Power who apologized for the debacle at PSSG’00. They have re-evaluated their prioritization of calls during emergencies due to us. Thank you, GP, for being so responsive both then and for following up afterwards.

Focal Point Deadline

I’m looking for articles, pictures, and drawings on anything astronomy related. You can email it to me or send it to me. I’m also looking for stuff on the late Comet Linear S4. The deadline for the September issue is August 29.

Board Meeting #2

Thursday, July 20, 2000 7:40pm Fernbank Science Center

In attendance: Bear Simmons – Chairman of the Board, Tom Faber – Board Member, Jim Moore – Board Member, John Lentini – Board Member, Sharon Carruthers – President, Rich Jakiel – Observing Chairman, Peter Macumber – Treasurer, Keith Burns – Corresponding Secretary (Focal Point Editor), Joanne Cirincione – Recording Secretary, Matthew Macumber – Web Master, Ken Poshedly – PSSG Coordinator, Tom Buchanan – Light Pollution, and Gil Shilcutt - Member

President – Sharon Carruthers opened the meeting by giving the floor to **Ken Poshedly, PSSG Coordinator**, who introduced Jeff Wallace, VP of Customer Service for Georgia Power. Jeff wanted to attend a board meeting so he could personally apologize for the confusion with the power outage at this year's Peach State Star Gaze and how it was handled. There was a small staff and they just didn't get the job done. He has offered to serve us lunch next year at our 9/01 PSSG. Also at the meeting was Mike Stevens, Lighting Specification Engineer for Georgia Power. There was a lot of discussion and questions on the power outage and proper lighting. Suggestions were made on how Georgia Power can help us out. Tom Buchanan explained what he is trying to accomplish.

Standing Committees Report

FoGSPA (Friends of Georgia State Parks Astronomy) – Joanne Cirincione - Announced upcoming sidewalk astronomy events: August 5 – Amicalola Falls State Park; September 2-4 – FDR State Park. Help is always welcomed. There is limit on space so we have to put a deadline on volunteer registration. The observing committee will need to meet after Labor Day to discuss future fall/winter dates and next year's dates.

Light Pollution - Tom Buchanan – Einstein Project, which is an observatory in NE Cherokee County. Met with Planning Commissioner. Walked through proposed ordinance. Met with City of Roswell Community Development Advisory Committee. Looking into ordinance. If anyone is interested in a lighting ordinance in Gwinette County please contact Tom. (770-521-2136) Tom has met with Mike Stevens, Georgia Power Lighting Specification Engineer, who was also present at the July 20th Board Meeting. Auto Nation have a great cut-off system for their lights. He will be sending the headquarters a letter telling them what a great job they have done.

Woodruff Boy Scout Camp – (Blue Ridge) – John Lentini - 60 Boy Scouts showed up for the 4th of July. There was no teacher. It was the only Tuesday, so far, that there was not a representative from the AAC. There are some volunteers who need some help with Woodruff. Burt Adams Observatory is a success.

Web Site – Matthew Macumber - New web site up and running and welcomes e-mails. Asking Standing Committees to send a write-up to him on what the committee is all about so we can add a link to the web site.

Treasurer, Peter Macumber - Fees spent YTD. 390+ members & families. Went over the budget and we are doing well. Motion was made for Rich to authorize Tracy Wilson's expenses on the scope being built for Woodruff.

Observing Chairman, Rich Jakiel – 24" scope needs some work done on the sky commander. 20" scope is having some problems. Rich and Stef will be working on it at the 8/19 Work Party at Villa Rica. Went over the work done at VR to date. They are working on a ramp among other things. Discussing relocating/replacing the power pole.

Corresponding Secretary, Keith Burns – Deadline for August Focal Point is 7/30. Cost for printing the Focal Point is \$75/month. 90 members are receiving it electronically. Trying to get more to receive it on-line.

Insurance, John Lentini – Looking into possibly getting coverage of property and equipment. They need a list of the inventory we want covered.

The meeting was interrupted by the fire alarm going off. Lightening striking it caused this. We had to evacuate the Fernbank. We dedicated members

stood outside in the horrible wind (it was preparing to tear loose on us) and finished the meeting.

Fundraiser: Sharon talked about getting AAC t-shirts made. To do a "phase one" with the AAC logo then move to a "phase 2" with a Hubble shot or something eye appealing.

Meeting Adjourned. Next meeting date was tabled. Trying to work around other club commitments.

Notes taken Joanne Cirincione

General Meeting July 21, 2000 (8:10p)

Joanne Cirincione, Recording Secretary

Starrynights@mindspring.com

Number in attendance: 55

Sharon Carruthers, President - opened the meeting.

Peter Macumber, Treasurer – All membership applications are to be sent to him. Membership 390. Memberships in many cases includes several people in the household so the number of actual members will be larger than 390. He is behind on badges; waiting on membership directories to be printed. Also a reminder that with membership you get a discount on Astronomy and S&T Magazines, discount through S&T on their merchandise, discount at Wolf Camera (14th Location only) and Camera Bug.

Rich Jakiel, Observing Chairman –

7/29-Brasstown Bald. Working on parking passes.

8/5 – Amicalola Falls State Park – FoGSPSA (Friends of Georgia State Parks Astronomy)

8/19 – Work Party at Villa Rica – “Deck’n, Wack’n & Scope Fixin’”. (9:00am start time) Training on scopes in the evening with Stef.

8/26- Pari, NC - Deepsky

Joanne Cirincione, FoGSPA – Working with Friends of Georgia State Parks by doing sidewalk astronomy for the campgrounds in Georgia.

8/5 – Amicalola Falls State Park – Contact me if you are interested in volunteering.

9/2-4-FDR State Park

Please contact me as soon as possible if you would like to volunteer. Sites will go fast at FDR State Park.

Keith Burns, Huntsville Coordinator – August 11, 12 & 13. Tour of Solar Observatory, CHANDRA Information Center – VEBAS Astronomy Club, Planetarium Show – NASA Facility.

Keith Burns, Focal Point Editor – Announced July 30 deadline for the August Focal Point; August 28 deadline for the September Focal Point. **Astronomical League (AL) Rep.** - Keith presented Philip Sacco (finally) with his much deserved Hershel Certificate and pin. Philip has been working on this for many years. Find out more about the AL Awards programs by emailing Keith. (e-mails on back sheet of Focal Point)

Mark Banks, Sidewalk Astronomy – Limiting the events during the summer due to summer heat and haze. Organizing an event for disabled kids in the fall. Please contact him if you are interested in helping or having a sidewalk astronomy event. bank4@mindspring.com or (404) 257-2766.

Tom Buchanan, Light Pollution – Einstein Project, which is an observatory in NE Cherokee County. Met with Planning Commissioner. Walked through proposed ordinance. Met with City of Roswell Community Development Advisory Committee. Looking into ordinance. If anyone is interested in a lighting ordinance in Gwinette County please contact Tom. (770-521-2136) Tom has met with Mike Stevens, Georgia Power Lighting Specification Engineer, who was also present at the July 20th Board Meeting. Auto Nation have a great cut-off system for their lights. He will be sending the headquarters a letter telling them what a great job they have done.

Philip Sacco –SERAL – Southeast Region Astronomical League Rep. (Keith Burns-ALCOR, Astronomical League Correspondent Rep.) Philip announced that the AAC is the largest club in the SE region. The region consists of 41 clubs. 3 new observing clubs being voted on: Earth Orbit Satellite Observers Club, SETI at Home, and Master Observing Award. With this award you will need 10 AL club certificates. 5 required certificate include; Messier, Messier Binocular, Lunar, Double Star and the Hershel.

Alex Langoussis, Program Chairman - Thanked Richard Schmude and Art Russell for their participation in last month's meeting. Dr. Schmude was a guest speaker and Art took over for Alex while he was out of town. Alex then introduced our speaker, Dr. Chris Depree, Assistant Professor of Physics and Astronomy at Agnes Scott College in Decatur. Dr. Depree's talk was on the History of Agnes Scott College. He filled us in on what was happening with the renovation of Bradley Observatory. It is due to reopen in the Fall of 2000. Chris answered questions from the audience.

Alex announced next month's speaker, Katie Moore, local astronomy student from the Flint River Astronomy Club. She is the year 2000 recipient of the Jack Horkheimer Award for Exceptional Service by a Young Astronomer.

We had a raffle for an Agnes Scott College Observatory T-shirts. Meeting was adjourned.

Faint Fuzzy Forum of the AAC

By Richard Jakiel

"I am the Cloud Commander!"

I have been to six different observing events over the past two months and my record remains a "perfect" 6 out of 6 for being clouded/hazed out! I can now understand how some of the other past Observing Chairs (especially Larry Higgins and Keith Burns) almost dreaded deep-sky events knowing full well that thunderstorms and evil cloud blanks will soon be in the forecast. So far my skills seem mostly limited to clouds and haze, and thus I am not a good drought breaker. But the worst of the summer haze season has only a month to go, so perhaps my luck will change. Then again, it might not!

Special Events for August

August 19: "Double-header" event at the Barber Observatory near Villa Rica (VR). Starting at ~ 10 p.m. will be a return engagement of the weed-whacking, deck construction fun some of us had back in July. Hopefully, the deck will be completed and plans will be set in motion for the power/computer line ditch. So far, only a select few have shown up for needed construction and maintenance at our prime education facility. I will avoid the rant this time, but the fact remains general participation has been poor for the most part over the last year or so.

Part two of the double header will feature another training session at VR. Introductory ("Navigator") and perhaps higher level training will be conducted – including a follow-up/refresher session on the club's 20-inch scope – right, Sharon?

August 26th: Deep-sky observing event at PARI or the Pisgah Astronomical Research Institute, near Rosman, North Carolina. Located about 45 miles southwest of Asheville, NC in the Pisgah National Forest it was a former NASA satellite tracking station. Since 1999, it has been turned over to the National Forest Service and serves as a Radio and Optical Observatory. There are several large radio telescopes (including two 26-meter instruments) plus a small optical observatory. Details, including a map of the area can be found at <http://www.pari.edu>. More details and maps will be provided at the AAC general meeting on August 18th. For those not wishing to travel so far, or if plans to PARI get scrubbed the alternative deep-sky event will be held at Charles Elliot (CEWC).

An Astronomical Math Challenge

by Bill Warren

The larger of two binary stars is 40 million years old. That is very young in celestial terms except in relation to its smaller companion that is only 10 million years old. The big star is four times older than the smaller star, right?

Okay, so five million years pass in the blinking of a cosmic eye. Now the large star is 45 million years old, the small one 15 million years old, and the larger star is only three times as old as its companion.

Fifteen million more years pass. Now the larger star is 60 million years old, the small one 30 million years old. The big star started off four times older than its companion, but now it's only twice as old. So here's my question: How many more years will have to pass before the two stars are the same age?

P. S.: Don't tell Smitty the answer; make him figure it out for himself. ("Hmmm, let's see. Divide by three, carry the two...Wait a minute! How can it have a remainder of seven?!!!"

Product Note: Ilford 3200 Delta

By Michael A. Covington

I usually don't recommend super-speed films for astrophotography, but this relatively new Ilford film looks promising. It's relatively fine-grained — not much grainier than Tri-X — when developed to 1600 speed. More importantly, it has good response to hydrogen-alpha light at 656 nm. That's the wavelength of emission nebulae, and it's a wavelength that most black-and-white films don't pick up.

Other good films for wide-field astrophotography include Elite Chrome 200 slide film (my long-time favorite; very sensitive to red nebulae and very little reciprocity failure); Fuji Provia 100F slide film (super-fine-grained, and very, very little reciprocity failure); and Kodak Supra 400 color print film (similar to earlier products PJ400 and PJM).

For astrophotography, it's important to buy your film by name, not by speed. For example, Kodak Supra 400 is *much* better for our purposes than Kodak Portra 400, even though both are 400-speed color print films. Further, because of reciprocity failure, most 800-speed films are actually slower than 200-speed films in long exposures.

Eruption of Delta Scorpii

From Sky and Telescope news

The middle star in the row of three forming the head of Scorpius is undergoing a substantial outburst. It has brightened enough to change the look of this familiar constellation for skywatchers paying close attention. Normally magnitude 2.3, Delta Scorpii rose to magnitude 1.9 from June 30th to July 25th. The brightening may well continue.

Delta Scorpii (also named Dschubba, from the Arabic for "the Scorpion's Forehead") is a hot, highly luminous type B0 IV star about 500 light-years away in the Scorpius-Centaurus Association. The first person to notice a slight brightening was the dedicated variable-star observer Sebastian Otero of Argentina. Notified of the change, astronomers elsewhere took spectra of the star. They discovered that for the first time it was showing strong emission lines of hydrogen, turning it into a star of type Be.

Delta Scorpii may be following in the venerable footsteps of Gamma Cassiopeiae, a star of identical spectral type that forms the prototype of the Gamma Cas category of variables - rapidly rotating Be stars evolving off the main sequence and undergoing episodes of equatorial mass loss. Gamma Cas brightened from about magnitude 2.25 to 1.6 in 1937 and remained near this peak for many months. It subsided to magnitude 3.0 by 1940, then took more than 15 years to brighten back to normal.



Comment about the Comet

By Keith Burns

July 7, 2000

Tonight I made a run out to VR to do some viewing with my trusty 13 inch aurora scope. Since the moon would be up until just after midnight, I was in no hurry to get there. I arrive at VR about 9:30PM. To my surprise there were several other folks there to. Dan Ford with his 10 inch Celestron with the mega LOSMONDY mount. From what I've heard, there is a bigger mount sold on the market. See Mr. Shillcutt for information. Jerry Tarter with his 16 inch star master Dobsonian with the R2D2 feature. Some folks have called it the singing scope.

Dan and Jerry were set up in the eastern section behind the old warm-up shed. I decided to setup by the fence on the western section on the other side of the old warm-up shed. The night looked promising even with the summer haze in the air. The dimmest star I could see was about magnitude 5. All the stars in Ursa Minor were visible even with the moon up. I pulled out the Herschel 400 list. The goal for the night was to observe some globular clusters in Ophiuchus, Uranus & Neptune in Capricornus, and finish it off with Comet Linear in Perseus.

With some struggle, I finally nailed a few Herschel objects. Seems that my notes were wrong about several of the objects. I was looking for a globular when it was suppose to be an open cluster. Discovered that mistake when looking for NGC 6633. I also located the globular star clusters NGC 6356 and 6426. Close to moon set a bank of fog moved in and covered the sky for

about 10 minutes. After that, the clouds were not a problem. The usual light dome over VR to the south was pushing 50 degrees above the horizon tonight. This to hampered some of my observing efforts. The surprising thing was that I was able to see some of these Herschel objects even with the moon still up. The last object I tried for was NGC 6118 or the Blinking Galaxy. Now I know why they call it the Blinking Galaxy. After 10 minutes of searching, I was starting to call it that Blinking #@###@ galaxy. Needless to say, I was not successful in finding it. Maybe next time.

Taking the idea from Jerry, I looked at brighter objects. With the O-3 filter, we looked at the Veil Nebula. And for fun, the ring nebula. WOW, what a bright donut. Even the dumbbell nebula took on a whole new appearance. After last weekends successful run, I tried to find both Uranus and Neptune. Here again, I failed. The stars in Capricorn were washed out a bit by the light pollution and the haze. We located and looked at the Andromeda Galaxy.

The final feat of the night was to located Comet Linear. It took a lot of time. Had to wait for Perseus to rise. Seemed to take forever. It's hard to star hop when you can't see the star hop stars. Finally they became visible about 3AM. Right now the comet is below the Double Cluster. It's about 1/2 to 1 degree east of the star Iota Perseus. It's fairly bright considering how much haze we were looking through. It looked like a cross between a tadpole and a broom with a knob at the top of the handle. Maybe it was more like a badminton shuttlecock thing. Anyway, I sketched the comet. I couldn't tell you exactly how long the tail was but it looked to be 2 to 3 degrees. If you get a chance, go out and take a look at it. We don't get many brighter ones like this very often. Granted it's not comet Hale-Bopp or comet Hyakutake but it's worth a look.

Maui Lunar Eclipse

By Chuck Painter

July 16, 2000 lunar eclipse at approximately 2:50 AM Hawaiian Standard Time, 10 minutes before totality with the Earth's shadow bisecting Mare Crisium. Shot from Maui with a Sony Handycam through an ST-80 refractor. This one was a lot warmer than January's event!

Editors Note: Chuck and Delaine were sitting in lounge chairs on the beach outside their hotel room during the Eclipse. Not a bad place to view from. Of course, they did have to give up a few hours of sleep in order to see this. I'm sure all of us would gladly have done that to. Maybe next time.



Neither Chuck or Delaine took the small pictures to the left or right. They did see the eclipse and Chuck took the large picture above. I don't think anyone else in the club was lucky enough to see two total eclipses in one year. Chuck is an avid windsurfer. The guy in the picture to the left is not him but perhaps a twin.



Amicalola Falls State Park

FoGSPA

By Joanne Cirincione

Saturday, August 5 we had our sidewalk astronomy/campout at Amicalola Falls. The event was a success! Though the skies had hazed/clouded over for a while they opened up after midnight and gave us what we were looking for. Clarity in its greatest! The Milkyway was out for all to see, though Sharon, Peter, David, Keith, Andy and I were the only ones left to see it.

We had a great club turnout and wanted to thank all of you for coming up and helping out! I'm guessing that there were between 10-15 members there. We had some campers who brought their scopes and we had some folks who got in touch with us through our website and showed up!

Sharon's presentation drew the largest crowd that Amicalola Falls had at their upper theater. We lost count at around 65-70. You only had to walk few steps to get to the sidewalk session. We had campers there that came to Amicalola because they knew we would be there. We had all ages and all were as curious as the other. We were at the top of the falls and all I can say is "what a view"! Amicalola Falls is a wonderful place and we have been invited to return there next spring and fall.

We want to send a special thank you to Steve Hadley and Jennifer Pack from Amicalola Falls State Park for their hospitality and help. Everything ran smoothly and we all had so much fun. They even surprised the volunteers that brought a scope with a little present and volunteer pins. Thanks Jennifer for your help in organizing this and thanks Steve for being there on site, helping out and hanging out with us.

ALCON 2000

By Mike Benson

Where did the month go? The last time I looked it was June. I turned around twice and the next thing I know I had flown 4000+ miles; driven another 4500; and seen major parts of Arizona, Colorado, New Mexico, and California. I met, and stargazed with Thomas Bopp; talked with Bonnie Gordon (editor of Astronomy magazine) and Rick Feinberg (publisher of Sky & Telescope and president of Sky Publishing), Dave Eicher, Stephen James O'Meara, Don Parker, and E.C. Krupp, among others. The national meetings of the Astronomical League can be a lot of fun. One thing about the community of astronomical amateurs is that it is relatively small and in time you can meet many of the movers and shakers in the field. Most are extremely approachable. For such a purportedly solitary endeavor, I think there is more gregariousness per pound of amateur astronomer than in any other field with which I have any acquaintance.

Among the other highlights of the trip were visits to the White Sands, Kitt Peak, San Diego Zoo, Taliesin West (Frank Lloyd Wright's winter home in Arizona), and the J. Paul Getty Museum. I got to spend time with family and saw a lot of new countryside. All in all, a wonderful vacation

As usual, I represented the Southeast Region of the Astronomical League and BSAS at the Council and General Meetings, respectively, so it wasn't all play. Several important decisions were made which will affect the club and the amateur community as a whole. First, a decision was made to establish a national office of the AL. This is being done in the expectation that the membership in the League is going to grow rather substantially in the next couple of years. A major effort is being made to attract members-at-large with the help of loose affiliations with Meade Instruments and e-Hobbies, who are promoting the AL in several ways. It is expected that the current 18,000 member League may double.

Chuck Allen, Bob Gent and Joanne Hailey were confirmed as President, Vice-President, and Treasurer, respectively. Joanne, from the Des Moines (IA) Astronomical Society, is replacing Jackie Beucher, who has completed two, three year terms as Treasurer. Kathy Machin and John Wagoner, who

were coordinators of many of the observing clubs, both resigned for personal reasons and replacements were appointed. Kathy's replacement is a colleague in the Kansas City Astronomical Society (They are switching positions. Kathy is to be the new President of KCAS). I was asked to assume the Binocular Club Coordinator's post and will now be handling the Binocular, Deep Sky, and Southern Skies Binocular Clubs, as well as the Urban Club, Double Star Club, Arp Peculiar Galaxy Club, and the newly created Master Observers Club.

Finally a decision was made to increase the dues by \$0.50 per member starting with the 2001-2 dues. There has not been an increase for several years and it was felt that this will help in setting up the national office and offset some of the increases in the printing of the Reflector. The plus side is that if the membership grows as expected, it may be a long time before another increase is needed.

Tidbits about FoGSPA

By Keith Burns

What is FoGSPA? The title stands for Friends of Georgia State Parks Astronomy. Atlanta Astronomy Club members are working with a group that helps support the Georgia State Parks. The name of that group is Friends of Georgia State Parks. Basically we go around to various state parks and do one or more talks followed by sidewalk astronomy afterward. This is a way for the Astronomy Club to get out the word about astronomy.

We will no longer do deep sky sessions at these events. These events are now sidewalk astronomy in nature only. Too many problems at the last several events has caused us to make this change.

For our efforts, the state parks provide us with campsites for free for the weekend that we are there. We have fun at these events. This is a great way for astronomers and the public to meet in a relaxed atmosphere.

For information you can contact Joanne Cirincione. She organizes these events and does a fantastic job.. Her phone number and email is located in the directory located on page 9 of this newsletter. You can also contact Sharon Carruthers. She does the talks. Peter Macumber and Keith Burns can also be contact for information.

Amateur Telescope Makers

Since the temporary loss of their home at Bradley, the ATMers meet randomly but often. 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.

AAC Membership & Magazine

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.

Timothy Ferris Announcement

Mark this date on your calendar. Wednesday, November 1, 2000 at 7 PM. Timothy Ferris, author of The Whole Shebang, Coming of Age in the Milky Way and many other books and the creator of the PBS series, Life in the Universe, will speak in Gaines Auditorium at Agnes Scott College.

The Case of the Herschel 400 Typos

By Keith Burns

I have observed 300 Herschel objects as of June 2000. Along the way, I have found several mistakes in the Herschel list. For a while there, I thought that I needed the services of Sherlock Holmes and Doctor Watson to solve some of these. There is the interesting problem of NGC 1758, NGC 1750, and NGC 1746. The Herschel lists I have only show the object NGC 1758. I purchased a booklet from the Astronomical League called Observe the Herschel Objects. NGC 1750 is the only object listed in the booklet. You can get a copy of the Herschel 400 list from the Astronomical League's web site. This list contains a footnote that NGC 7814 is a replacement for NGC 1758. They claim NGC 1758 is a duplicate object.

Now that everyone is really confused, let me explain a little about these three open clusters. The answer is quietly elementary. NGC 1746 is a large open cluster in the horn area of the constellation Taurus. It covers the fov for anyone using 56X power with a scope of focal ratio 4.5 inches. Inside 1746 are the two small open clusters NGC 1750 and NGC 1758. NGC 1750 is in the lower center area of NGC 1746 and NGC 1758 located in the middle left area of NGC 1746. Now NGC 7814 is a galaxy in the constellation of Pegasus. So it has nothing to do with open cluster.

The Cambridge star atlas only shows NGC 1746. I used the Uranometria 2000 star atlas and discovered that it only shows NGC 1746. The old addition of Sky Atlas 2000 shows only shows the open cluster NGC 1746. The new addition of Sky Atlas 2000 also only shows NGC 1746 and neither of the other two smaller clusters is listed. It would have made more sense to have NGC 1746 as the Herschel object since it is listed in most star atlases. Night Sky Observer's Guide shows all three open clusters. Also, the Sky computer program shows all three clusters. As for object NGC 7814, I didn't find any duplicate of NGC 1758. NGC 1758 is indeed part of NGC 1746 it is listed as a separate smaller star cluster contained in the open cluster 1746. I am only assuming that the Astronomical League people think, NGC 1758 is a duplicate object for this reason. Who knows? Sherlock Holmes knows the answer and maybe even William Herschel himself. Of course, we can't forget about Caroline Herschel. She definitely knew the answer.

The Herschel Objects booklet contains mistakes in it. Any of you who have or is working on this program knows this fact. The various versions of the Herschel 400 list available on the Internet also have mistakes in them. It is best to be a little cautious when using these lists. The above is only one of many mistakes I have found. Here's some other items to watch out for when you do the Herschel 400 list. Some objects are listed as open clusters when they are really galaxies. Other objects are listed in the wrong constellation. This may be frustrating to some people but I consider it part of the fun of doing the Herschel list. There is nothing like solving a mystery and learning something along the way. A good mystery keeps the search for these



objects' lively and interesting. If Sherlock Holmes were an astronomer, he would say "Take me to NGC 7814, Mr. Watson."

Bradley Open House Series

Astronomy and the Arts

Lectures in the 2000-2001 academic year will focus on the interconnections between astronomy and the arts. From the "Night Under the Stars" in September to the lecture by Timothy Ferris on November 1, it will be an exciting fall!

September 8, 2000

A Night Under the Stars

October 6, 2000 **Note Special Date**

Universal Verses: Astronomy and the Poetic Impulse

November 1, 2000 **Note Special Date**

Coming of Age in the Milky Way

Timothy Ferris

November 10, 2000

Sculpting the Sky in Native American Myths & Legends

Amy Lovell

December 8, 2000

From Stonehenge to Keck: Architecture and Astronomy

Chris De Pree

The Bradley Observatory and Planetarium are open to the public on the **second** Friday of each month during the academic year, September through December and February through May. *Admission is free.* Our doors open at 7:30 PM and a brief public lecture and slide show follow at 8:00 PM.

After the lecture, refreshments are served and guests may attend a planetarium show or gaze through the telescopes (weather permitting). The historic 30-inch Beck Telescope is now available to the public on Open House nights. The lecture and planetarium show are geared towards both children (8 years and older) and adults.

Please call (404) 471-6265 for information or contact Chris via email at cdepree@agnesscott.edu. You can also find more information at their website. The website address is <http://bradley.agnesscott.edu>.

Directions

From I-20: Take Candler road exit north past Memorial Dr., past Kirk road (light) look for Hancock road on your left. Turn left on Hancock, and right into the Observatory driveway.

From I-285 (east side of city): Take the Ponce de Leon exit. Go west on Ponce de Leon toward Decatur. Stay on Ponce until Church Street. Turn left on Church Street. The second light will be Trinity. Take a left on Trinity, cross the railroad tracks (College Ave.), and you will be on Candler Road southbound. Look for Hancock on your right. Turn right on Hancock, then right into the Observatory driveway.

From downtown: Take Ponce de Leon east until it hits Church Street. Turn right on Church Street. The second light will be Trinity. Take a left on Trinity, cross the railroad tracks (College Ave.), and you will be on Candler Rd. southbound. Look for Hancock on your right. Turn right on Hancock, then right into the Observatory driveway.

Do to renovations at the observatory. Parking at the observatory it's self is restricted now. Contact Bradley for more information on parking arrangements. It is recommended to park either along Dougherty Street or in the new parking deck.

NightSky.Org

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 **mizar**. These names are case sensitive! Type AAC in capitals, type mizar in lower case.

Peter

Club Officers

Sharon Carruthers	President	770-941-4640 <i>SCarruthers@NightSky.Org</i>
Alex Langoussis	VP Program Chairman	770-591-5776 <i>aleko@mindspring.com</i>
Rich Jakiel	VP Observing Chairman	404-352-0916 <i>DeepSky@mindspring.com</i>
Peter Macumber	Treasurer	770-941-4640 <i>PMacumber@nightsky.org</i>
Joanne Cirincione	Recording Secretary	770-473-7196 <i>starrynights@mindspring.com</i>
Keith Burns	Corresponding Secretary	770-427-1475 <i>Keith_B@bellsouth.net</i>

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Bob Smith	770-886-8191	<i>Bob.smith@qwest.com</i>

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Sidewalk Astronomy -----	Mark Banks
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AAC Webmaster -----	Matthew Macumber
770-941-4640	<i>webmaster@atlantaastronomy.org</i>
Light Pollution -----	Tom Buchanan
770-521-2136	
Hospitality & Refreshments -----	Julie Moore
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Ladies of the Night...Sky -----	Chrissy Mondell
404-299-8739	<i>starlight@mindspring.com</i>
Friends of Georgia State Parks Astronomy -----	Joanne Cirincione
770-473-7196	<i>starrynights@mindspring.com</i>
Amateur Telescope Making -----	Skip Cook
404-325-4987	<i>scz9@cdc.gov</i>

Calendar

August 18th - General Meeting at Emory
8 PM Speaker Katie Moore.

August 19th - CEWMA Chapter Meeting.
7:30PM.

August 19th - Work Party at Villa Rica Observatory
10AM.

August 26 - PARI North Carolina - special deep-sky event.
CEWMA alternative deep-sky site.

September 2 - FoGSPA Sidewalk astronomy and campout.
FDR State Park near Pine Mountain, Georgia

September 8th - Open House - "Night Under The Stars."
6:30PM Bradley Observatory/ Soccer field. Agnes Scott College.

September 15th - General Meeting at Emory
8PM Speaker TBA

September 22nd - 23rd Zombie Party CEWMA
Open House Sept. 23rd. Training 24 inch scope TBA.

October 6th - Open House "Astronomy and Poetic Impulse"
7:30PM open doors. 8PM talk starts.

October 20th - General Meeting 8PM Speaker TBA.

October 21st - Annual Picnic at Villa Rica.

October 27th-29th - Chiefland, Fla. Special Deep-sky event.

October 28th - Fort Payne, Ala. - Alternative Deep-sky event.

Astronomical League Stuff

By Keith Burns

Below is the list of recent observing program award recipients. Your name can be here to. Just email me if you want information on the various observing programs available through the Astronomical League. You can also ask any club member wearing one of the observing award pins. They can give you some info on the particular observing program they have completed. Remember that with your membership in the AAC you are also a member of the Astronomical League. There are 21 different observing programs available for you to do.

Philip Sacco Herschel 400 award number 210, Chuck Painter Herschel 400 award number 211, Frank Marchese Double Star award number 119, Frank Marchese Urban Club award number 16, David Ward Telescopic Messier award number 1751, and Binocular Messier award number 420.



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:

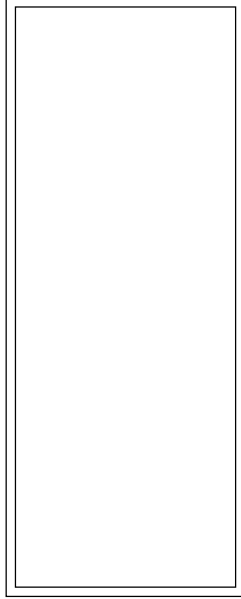
Atlanta Astronomy Club

PMB 305

3595 Canton Road A9

Marietta, GA 30066

FIRST CLASS



August Meeting

Our next meeting of the Atlanta Astronomy Club is Friday, August 18, 8:00 P.M., at Emory University's White Hall.

We are pleased to welcome as our guest speaker Katie Moore. She is the year 2000 winner of the Jack Horkheimer Award for Exceptional Service by a Young Astronomer.

Looking ahead to September 15, we will meet at Emory. The speaker for that meeting has not been selected yet.

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

To subscribe to the new list, send a message to: AAC-subscribe@topica.com

To drop out of the list, send a message to: AAC-unsubscribe@topica.com

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