

The Focal Point

The Atlanta Astronomy Club

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Editor: Keith Burns

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Charles Elliott Chapter Meetings

By **Art Zorka**(Secretary Charles Elliott Chapter)

There will be a meeting for the General Public on September 28th. The September 28th meeting for the General Public will be followed by a viewing session in the parking lot outside the Welcome Center. Of Course, the Observing Field is always open to all members. Be sure to wear your name tags and to sign in.

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Visit www.AtlantaAstronomy.org on the web. The link to Focal Points is located at the top of the front page of the website. If it works for you and you want to get the FP via email, send Peter Macumber an e-mail at pmacumber@AtlantaAstronomy.org. The Focal-Point web can be entered by using the Username of **AAC** and a password of **Gaze**. These names are case sensitive! Type **AAC** and **Gaze** exactly as you see it here.

New Members' Corner

For the person new to astronomy, it can seem a siren's song... The lure of that first "real" telescope. You've looked over the ads, made a few inquiries, and decided on a particular scope. You may ask yourself, is this the right scope for me? This is one of the most difficult questions to answer. Many of the experienced astronomers in the club will tell you to look around, spend some time getting to know the sky and find out what it is that you enjoy observing. This is sage advice. But, keep this in mind — many end up with several scopes. Each type of telescope is well suited for specific astronomical pursuits. The key will be to know which of those pursuits give you the thrill of the chase. There are several events coming up on the calendar that can help you do this. The Dark Sky events (this month at Woodruff Boy Scout Camp on Sept. 7) are great, informal events. The Orientation and Open House, set for September 14th, is geared specifically towards providing information and instruction to beginning astronomers. Finally, the Peach State Star Gaze on October 4th through 6th will have hundreds of folks out with their scopes — and several workshops regarding their use. In each case, AAC members typically enjoy telling anyone that will listen about their scope. Each of these events can really help to zoom in on the best choice for you. See you out there!

Newsletter Deadline and Info

Please send articles, pictures, and drawings on anything astronomy related. All formats are acceptable. Pictures can be sent as either JPEGs, GIFs, or other formats. I can also scan hard copies of pictures. Articles can either be sent to Keith Burns 3740 Burnt Hickory Road Marietta, Georgia 30064 or email at **Keith_B@bellsouth.net**. You can submit articles anytime up and including the deadline date. The **deadline** for the **October issue** is **September 28th**.

AAC September Meeting

The date of the meeting is Friday September 20th. Location is White Hall on the Emory University Campus. Refreshments will be served from 7:30PM to 7:55PM in the Lobby. The meeting starts at 8PM. There will be a few brief business announcements followed by the presentation of our featured speaker Brian Cudnik. His talk will be "Watching Lunar Meteor Impacts From the Earth's Surface—The Results of Nearly 3 Years of Observing Lunar Meteors"

This talk will summarize what we found in terms of the lunar impact phenomena for the past 3 years. It will focus on the work that ALPO and IOTA has done in the observations of lunar meteors and present the results of the search. I will also talk about how interested individuals can make a contribution to the search for lunar meteors.

About the speaker:

Brian Cudnik lives in Houston, Texas. He earned a B.S. in Physics & Astronomy from Northern Arizona University in 1994, a Master's in Astronomy from San Diego State University, and have lived in the Houston, TX area since the summer of 1998. Brian is currently the Manager of Physics Laboratories in the Physics Department at Prairie View A&M University and have been for about one year, prior to this he served as Research Associate at the Prairie View Solar Observatory (same University). He also currently serves as Secretary of the Houston Astronomical Society and on its Program Committee. Brian is also the Coordinator of the ALPO Lunar Section. Meteoritic Impact Search Section.



Moon shot taken By Dan Llewellyn. This is a still shot from the video he took of the moon on Saturday evening August 24th. Telescope used was a 10 inch SCT.

The **Atlanta Astronomy Club Inc.**, the South's largest and oldest astronomical society, meets at **8:00 p.m.** on the third Friday of each month at Emory University's White Hall or occasionally at other locations. Membership is open to all. Membership fee's are **\$30** for a family or single person membership. College Students membership fee is **\$15**. These fees are for a one year membership.

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

Club address is:

Atlanta Astronomy Club
PMB 305
3595 Canton Road A9
Marietta, Georgia 3006

Treasurer's address is:

Harry Falise AAC
4300 Jimmy Carter Blvd, Apt #107
Norcross, Georgia 30093

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

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

Send suggestions, comments, or ideas about the website to webmaster@AtlantaAstronomy.org. Also send information on upcoming observing events, meetings, and other events to the webmaster.

GASP (Georgia Astronomy in State Parks)

By Joanne Cirincione

West Point Lake Campgrounds – 8/3/02

Though the weather was on the HOT side we managed to get through it and have a great time at West Point. We had a great turnout with the campers and the public. We had 65 people come see the program. 17 cars were counted that came through the main gate just to see us!

Thanks to the club members and friends who showed up: Sharon Carruthers, Keith Burns, Harold and Claudia Champ and their 2 guests, Bear Simmons & his daughter Jessica and Down Bowers.



The crowd was thrilled with the views through our scopes. We also were acquainting folks with constellations, satellites and shooting stars we saw. Sunday morning we were treated to the sight of a Bald Eagle flying over the lake's edge next to our campsites!

If you have any questions about any of our events please let me know. Joanne - Starrynights@AtlantaAstronomy.org

Note that material you see in the Focal Point has been sent to me is for use in our newsletter only. If anyone wants to use the material elsewhere, please contact the author of the article or photographer who has taken the picture. With rare exceptions, most people will grant you permission.

General Meeting – 16 August, 2002

Approximately 60 members and guests attended the August General Membership Meeting of the AAC held at Emory University's White Hall. **"Bear" Simmons, President**, opened the meeting and welcomed 5 new members as well as several guests to the evening's meeting. During his welcome, he emphasized that the main membership of the club is young, having spent 5 or less years as members of the club. The business meeting was very short and reflected Bear's efforts begun last month to host shorter meetings. The short business meeting continues to reflect his desire to streamline the business portion of general membership meetings in order to allow a more leisurely presentation by featured speakers, and facilitate an earlier end to an evening's meeting. **Tom Buchanan, Light Tresspass Chairman**, reported his interest in placing lighting restrictions on billboards now being inspected in Snellville, and that parties in Jackson County have expressed a similar interest. **Ken Poshedley, Peach State Star Gaze Chairman**, reviewed preparations for the upcoming Peach State Star Gaze scheduled for **3-6 October** (see the website for details at: <http://personal.atl.bellsouth.net/atl/p/o/poshedly/pssg/index.html>). He also discussed planning for an after PSSG dinner to honor featured speaker Wil Tirion on **7 October**. Additionally, Ken asked that AAC members attending the PSSG volunteer to help run its various activities. **Carol Abernathy, Vice President – Programs**, speaking in her capacity as **Co-chair of the Membership Committee**, introduced the committee's members and emphasized its role as new and prospective members' first point of contact with the club's leadership, as well as its efforts to enhance the initial experience for new and prospective members when first attending club functions. Speaking in her capacity as **Vice President – Programs**, she announced AAC member Richard Schmude's report that the AAC is now the fifth largest astronomy club in the United States. The evening's featured speaker was club member **Philip Sacco**, who discussed the mythological roots of astronomy in his presentation entitled **"Wings of Desire: The Lovers' Triangle."** Following the presentation, **Bear Simmons** reviewed upcoming observing events. As a final note before **Bear** closed the meeting, club member **Art Zorka** announced that asteroid 2002 NY40 would be passing through the constellation Hercules and should be easily observable.

Seeking the Edge of the Solar System

In September and August, respectively, 2002, the Voyager 1 and 2 spacecraft will observe their 25th anniversaries in space, continuing to perform long after their original mission to visit the Jupiter and Saturn systems. After Voyager 1's encounter with the two gas giants, it was aimed upward out of the plane of the ecliptic. Voyager 2, after its visit at Jupiter and Saturn, was given two more planetary destinations, Uranus and Nep-

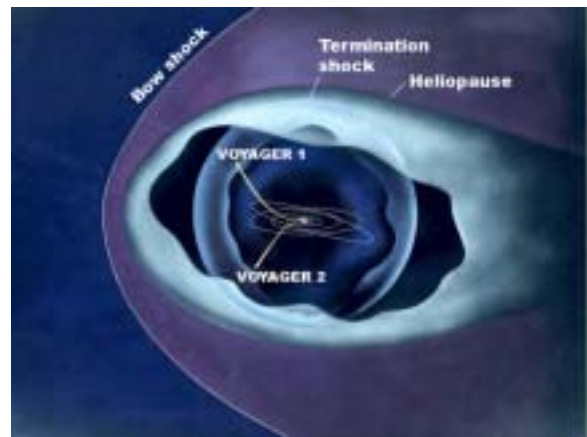
tune. It completed its "grand tour" of the outer planets in 1989. It was then aimed downward out of the ecliptic plane.

Now, at about 85 AU, Voyager 1 is the most distant human-made object. Round-trip light time is 24 hours. Voyager 2 is at about 68 AU. Their mission now is to study the heliosphere, the vast bubble of space within the Sun's influence, and the heliopause, the boundary of the solar system with interstellar space. At the heliopause, the outward pressure exerted by the solar wind balances the inward pressure of the interstellar wind. The region where solar wind particles begin piling up against the heliopause is the termination shock, where the solar wind should drop from about 1,500,000 kilometers (nearly 1,000,000 miles) per hour to 400,000 kilometers (250,000 miles) per hour. Voyager 1 is already detecting a slowing of the solar wind from the pressure of inbound interstellar particles leaking through the heliopause.

No one knows exactly how much farther Voyager 1 must travel to reach the termination shock or the heliopause. Dr. Ed Stone, Voyager Project Scientist since mission inception, estimates that the spacecraft could reach the termination shock within three years. Once there, Dr. Stone predicts it will still have about 5 billion to 8 billion kilometers (3 billion to 5 billion miles) and 10 to 15 years to go before actually crossing the heliopause into interstellar space. Because the heliosphere expands and contracts with the level of solar activity and the inward pressure of the interstellar wind is uncertain, it is very difficult for scientists to estimate the actual extent of the heliosphere.

Read more about the Voyager mission to find the heliopause at <http://voyager.jpl.nasa.gov/>. For children, go to http://spaceplace.nasa.gov/vgr_fact1.htm to read about the Voyagers' grand tour of the outer planets and find out the secret code they use to send pictures back from space.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



Caption: *Voyagers 1 and 2 are headed out of the solar system in search of the heliopause, the region where the Sun's wind stops and interstellar space begins.*

THE CYGNUS REGION

by Rick Raasch, Dallas

This month, we'll be surveying a very rich area of the sky composed of Cygnus, Lyra, Vulpecula, Sagitta, and Delphinus. Here, in a relatively compact region, are a wealth of objects to keep observers busy on an autumn night. Scanning this region with binoculars is a pure joy, with field after field of star clusters and groupings everywhere you look. The listing of objects presented here are just a few of the splendors waiting for you to observe.

CYGNUS

M39 Through binoculars, this open cluster is very impressive. It is large and bright and stands out well from the background. I see it as having an overall triangular shape. Through a telescope, it loses some of its impact, because of its size and the fact that it is not very concentrated to the center.

M29 This small open cluster is seen through binoculars as a diamond shaped grouping of about 6 - 8 stars in a nice field. In a telescope, the count increases to about 15 sparsely concentrated stars.

NGC 7000 The North America Nebula. I usually see this best with the naked eye as a milky patch just to the east of the bright star Deneb. The "Gulf of Mexico" region stands out particularly well. Try holding an O-III or UHC filter in front of your eyes to increase the contrast. Then, as an added treat, use these filters while looking through binoculars.

NGC 6969/6992-5 The Veil Nebula. This is a large supernova remnant best seen at low power, divided into two major segments. NGC 6960 is the more difficult to see, as the bright star 52 Cygni overwhelms it. NGC 6992-5 lies to the east, and shows a wealth of filamentary detail, especially when using a filter.

Alberio This is a classic double star. Easily split, it shows a beautiful contrast of yellow-orange and blue stars. Even if you're not a double star fan, try this one. You'll like it.

LYRA

M56 This is a relatively bright globular cluster, about 5' in diameter, concentrated in the center, and faintly resolved across its face. It is visible in binoculars as a small, unresolved fuzzy spot.

M57 One of the jewels in the sky. The Ring Nebula is bright and easily found. The ring shape is easily seen in almost any size instrument. It is slightly elongated ENE-WSW, and has



M57 The Ring Nebula pictured above.

a star just off its eastern edge. This object handles magnification very well, and is one of my personal favorite deep sky objects. At 15th magnitude, its central star is only well seen in large amateur instruments.

ADS 11834 When you're through viewing the Ring Nebula, look in your viewfinder to see the relatively bright star just north of it. This is a fine, easily split double star showing a very pretty yellow-orange primary with a nice blue companion.

Delta This double star is wide and easy to split, and shows a pretty orange and blue-white pair.

ADS 11834 If you look at the Ring Nebula, give this pretty double star a glance. It is just north of the Ring, and is easily seen in the finder. It is easily split and presents a wonderful orange and blue contrast.

Epsilon The famous "double-double" is easily split into two components, but needs a steady night to further split these two into four. A very nice sight.

VULPECULA

M27 The Dumbbell Nebula. This huge planetary nebula is easily seen in binoculars as a gray puff of light in a very pretty field. In a telescope, the hourglass shape is obvious, and extensions are seen which actually make it more football shaped. A wealth of detail awards careful scrutiny. Justifiably one of the most observed deep sky objects.

Cr 399 The "Coathanger". This star cluster is easily seen with the naked eye with its distinctive star pattern. A cruise though it with binoculars reveals many bright stars and star fields.

SAGITTA

M71 This globular cluster is about 6' in diameter, and show many stars resolved across its face. The shape is intriguing, as it is arrowhead or chevron shaped, pointing to the west. Binoculars show a faint unresolved patch of light in an interesting field.



M 71 pictured above. Asymmetrical Globular in Sagitta. Article continued on next page.

DELPHINUS

NGC 6905 This planetary nebula is about 40" in diameter, and is gray-blue, reminiscent of the Owl Nebula (M-97).

NGC 7006 This small, unresolved globular cluster is unremarkable until you realize that it is some 185,000 light years distant, comparable to the distance of the Magellanic Clouds, and may actually not even belong to the Milky Way's system of globulars.



NGC 7006 pictured above. Tiny globular in Delphinus.

NGC 6934 This globular is closer to home, and shows a 4' diameter disk which hints at resolution and granulation with averted vision.

Gamma This very pretty double star is easy to split, and presents a gold primary and a pretty blue secondary.

The Astronomical League

As a member of the AAC, you are automatically a member of the Astronomical League. AL for short. I am the ALCOR for the club. My job is to relay information from the AL to our membership. The AL consists of a national organization. Members in the AL include individuals and other astronomy clubs. Check out the website for the AL at www.astroleague.org to see what they offer. You also get the AL newsletter called The Reflector four times a year. If you have any questions about the AL, please contact me at either Keith_B@Bellsouth.net or phone at 770-427-1475.

The pins for the Caldwell club have finally been sent to me by Sue Rose of the AL. Congratulations to the following folks who have completed the Caldwell Observing Club. Phil Sacco aka The General is #7 on the list. The other Caldwell award goes to Chuck Painter. He is #6 on the list.



Black God of Fire:

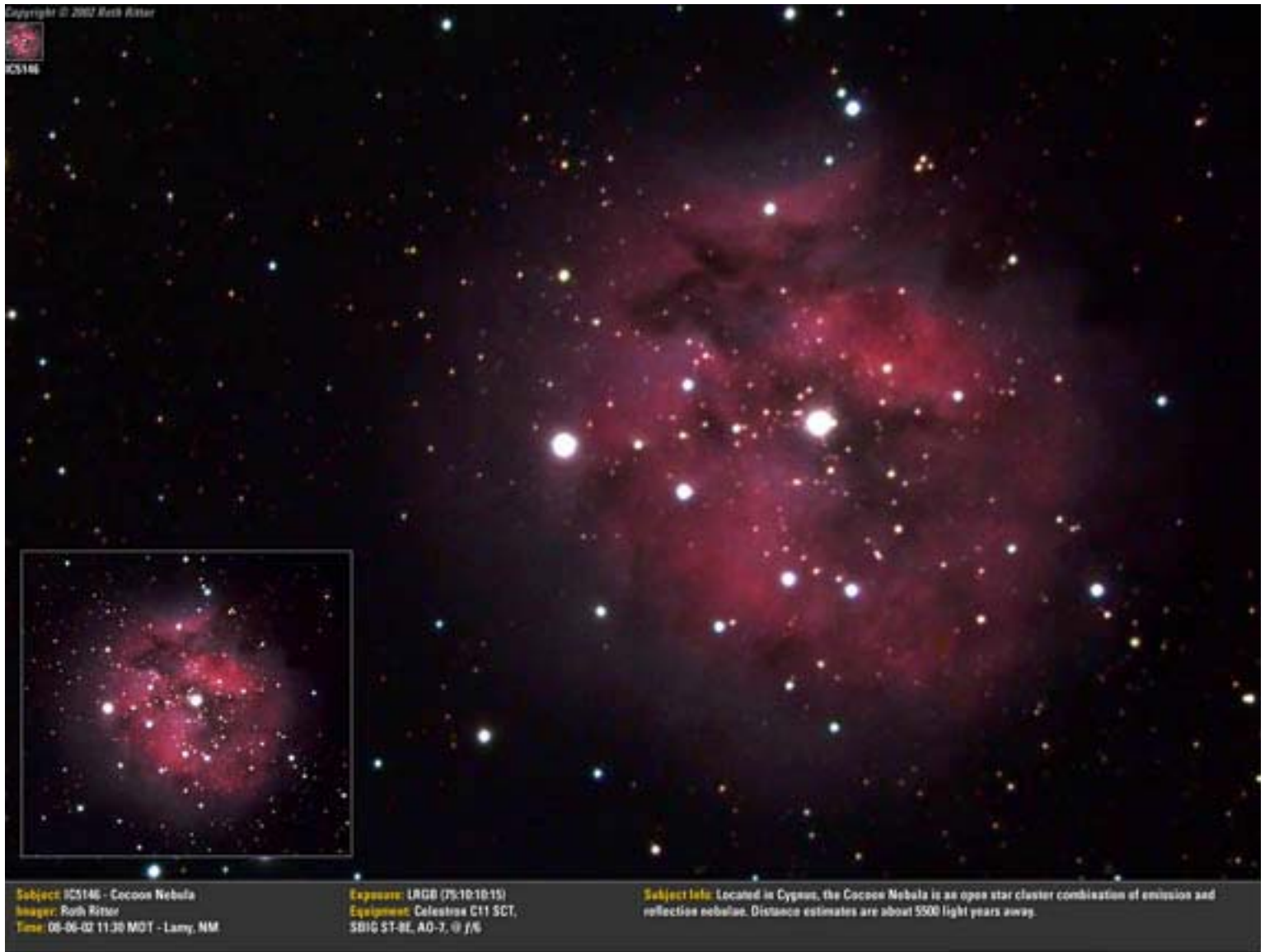
In the days before the stars were made, The Navajo gods of creation met in their Hogan to discuss how to make the world and what to put in it. Black God joined them after the others had arrived. Attached to his ankle he carried the small group of stars called the Dilyehe (dil-YEH-heh) (pleiades). Several of the other Gods noticed the stars and asked what they were. But The Black God said nothing, but wishing to display his power, he stamped his foot hard four times. Once for each direction: south, west, north, and east. With the first stamp, Dilyehe jumped to his knee. The second stamp they jumped to his hip, on the third one they went to his shoulder. And on the fourth and final stamp, they went to his left temple. There it shall remain. Even today when Black God of Fire dances the small constellation is always painted on the left temple of his mask.

The other Gods asked Black God to fill the dark night sky with stars to make it beautiful. He took out a pouch that he always carried with him. Opening it, Black God took out a single bright crystal. He reached far out into the sky and carefully placed the first crystal precisely in the North. It became the North Fire, the star that never moves; next he picked out seven crystals and placed them near North Fire. This became Revolving Male (Big Dipper) because it circles the North Fire, After this he placed another set of stars on the opposite side and called them Revolving Female. (Cassiopeia)

Taking more crystals out of his pouch he placed them in each direction of the sky. Giving them all names. Then he made a copy of the Dilyehe on his temple and put them in the sky. Finally he lit up all the crystals, and sat down to admire his work. When along came Coyote, who was always looking for trouble. He said. What are you doing, you didn't ask my advice. The Black God told him to look at the sky and see what beautiful patterns he made. Before he could stop Coyote quickly reached the pouch and snatched it away. Here, let me help you. He said with a grin. Then he blew the remaining crystals across the sky. He scattered thousands of points of light in a disordered jumble. There they remain today. Only the patterns that Black God placed so carefully now have names. The ones Coyote scattered remain nameless, except for one tiny red crystal that he placed in the South. (Antares) But it is only seen in the summer, and when there is a full moon, you cannot see it at all. That is why the Coyote howls at the moon. The Navajos refer to this star as Coyote Star.

Wil Tirion Dinner

For those folks not attending the PSSG 2002 this year, there will be a dinner on Monday October 7th. Social hour starts at 6:30 PM with dinner scheduled for 7:30 PM. Choices of dinner selections include Hawaiian Chicken, Salmon, or Top Sirloin. Dinner cost is \$20 per person. Send check made out to the
Continued on Page 7.



Above picture taken by Roth Ritter. Information above the image include in caption above.

Picture to the right taken By Dan Llewellyn. Video taken of the shot of the Saturn Occultation of last year. This is a still shot of the video.



Atlanta Astronomy Club to Harry Falise, 4300 Jimmy Carter Blvd., No. 107, Norcross, GA 30093-5059. Please indicate which Entree you want. You can contact him at 678-420-3523 if you want to make reservations. The reservation deadline is October 1, 2002.

Seminole Twin

A long time ago there was a set of twin boy born in a Seminole village. As the boys grew up, they were terribly rude. They would not listen. They would not do what they were told. All they wanted to do was wrestle, kick up dust they would run through the center of the village knocking over the water pots, Hitting the fire with sticks and making the sparks fly. When they were scolded, they would just laugh. When they became young men, they saw a place in the sky they thought would be a good place to go, so people wouldn't tell them what to do. So they tried to jump up into the sky, After a week of trying, they made it up to the sky, never to be seen again in that village. If you look up in the sky you can see these brothers with their arms around each other. Sometime in the spring, when it's cloudy. You can hear them rolling around. The people in the village say don't be afraid it just those thunder twins. When the lightning comes, they say Oh those terrible boys; they are hitting the fire with those sticks. When it rains, they say those boy kicked over the water pots again. Sometimes you will hear the wind howling. But don't be afraid it is just those Seminole Twin.

Atlanta Area Astronomers Listserv

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

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

Amatuer Telescope Makers Group

Interested in building your own telescope? Want to enhance your current scope with some features or fix problems with it? Do you want to grind your own mirror or learn how it is done? This is the group for you. Contact him via phone (404-325-4987) or email (scz9@cdc.gov) for more information and di-

rections. Tracy Wilson runs the group and has much expertise to offer. You can contact him via email (tracy@c2optical.com). Announcements of meetings will be posted on the AAC listserv. You can also find out about upcoming meetings from Skip.

AAC Contacts

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Newsletter of The Atlanta Astronomy Club, Inc.

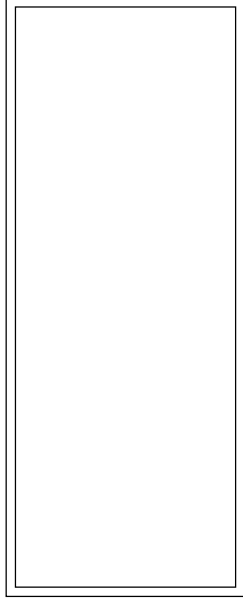
FROM:

Keith Burns
3740 Burnt Hickory Road
Marietta, Georgia 30064

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

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

FIRST CLASS



Calendar

September 7th- Dark Sky Observing at Woodruff.

September 14th- Orientation and Open House at Walter F Barber Jr. Observatory.

September 20th- General Meeting at White Hall on the Emory University Campus. Meeting at 8PM. Brian Cudnik. Lunar Meteor Observation Results.

September 28th- CEWMA Chapter Open House. Meeting at Visitors Center and Observing in parking lot following meeting.

October 3rd-6th- PSSG 2002. Guests David Levy and Wil Tirion. Fee for event. Must register in advance.

October 18th- General Meeting at White Hall on the Emory University Campus. Meeting starts at 8PM. Speaker and topic be Announced later.

October 19th- Charlie Elliott Chapter Meeting at the Visitors Center. Observing to follow at observing field.

October 19th- GASP talk and sidewalk astronomy at Cloudland Canyon State Park.

October 26th- Annual Picnic at Villa Rica. Open House to follow in the evening.

Visit the new Charlie Elliott Chapter Website for more information on upcoming meetings and happenings. <http://touchmoon.com/ce/index.shtml>