

The Focal Point

The Atlanta Astronomy Club
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Editor: Keith Burns

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FROM THE PREZ'S DESK...

In honor of Dr Calder, the founder of the Atlanta Astronomy Club, our new observatory at the Woodruff Boy Scout Camp will be called "The W A Calder Observatory".

I want to invite all the members of the Atlanta Astronomy Club to the dedication of the W A Calder Observatory on Saturday December 15 at 4:00 p.m., at Woodruff Boy Scout Camp. Refreshments will be served. (RAIN DATE: Sunday December 16, 2001, Noon). We will follow the ceremony with a "side-walk" session for our guests and then a night of Dark Sky astronomy.

Mrs Calder and many of the Directors of the Atlanta Area Council of the Boy Scouts will be attending. We will get a rare opportunity to show these people what we do as amateur astronomers.

On Friday Dec 21st, we will be having our annual Holiday tradition of a pot-luck supper and planetarium show during our General Meeting at the Bradley Observatory, Agnes Scott. Food will be served at 7:00 p.m. and the show will be at 8:00 p.m.

It has been quite a year. Bad weather during the first half made astronomy almost impossible. Now our good skies have come at the expense of the continuing drought throughout Georgia. On a personal level, we have endured the shock of the September 11th attack on America. To be a witness to history is a terrible thing, especially when so many of us knew the victims or their family and friends. In this festive season, I think of how many are spending their first holiday without a beloved family member.

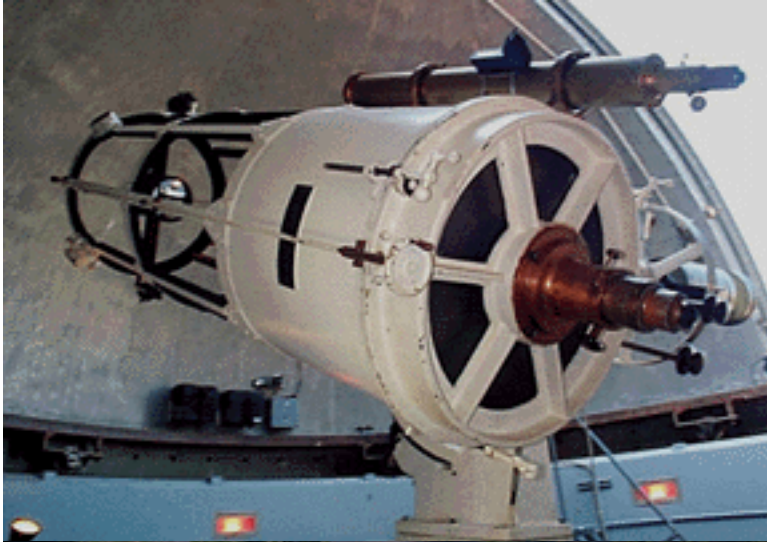
So, during this holiday season, I ask you – Celebrate your families; appreciate your friends and count your blessings.

December General Meeting: Pot-Luck Supper

Our General Meeting on Friday Dec 15th will be moved to the Bradley Observatory, Agnes Scott. We will be having a pot-luck supper starting at 7:00 p.m., followed by a Planetarium show at 8:00 p.m. Ham, turkey and drinks will be provided; we ask that you bring a side dish or dessert. Contact either Sharon
Continued on next page.



Carruthers or Carol Abernathy with your selection, to RSVP, and/or for more information. Both ladies can be reached via email or phone. See phone listing section in this publication on the second to last page.



Bradley Observatory

All though many of you have heard about Bradley, this is for those of you who haven't. The dinner is a great opportunity to see the place and enjoy many of things offered there. Plus hangout with Chris De Pree, Amy Lovell, and the students. And of course, your fellow club members will be to. I have placed these pictures in here to convince you to come on down. If you can't be there for the dinner, perhaps you can come to one of the free open houses they offer each month. The next open house is on February 18th, 2002. For more information please contact them via phone at 404-471-5142 or email at bradley@agnesscott.edu

W A Calder Observatory Dedication

The W A Calder Observatory at the Woodruff Boy Scout Camp will be dedicated on Sat Dec 15th at 4:00 p.m. We will serve refreshments then follow with some “sidewalk astronomy” for our guests and then a night of Dark Sky observing. Mrs Calder and many of the Directors of the Atlanta Area Council of the Boy Scouts will be attending. Please join us for the celebration!



Above is a picture of the observing field located at Woodruff BSC near Blue Ridge, Georgia. The picture was taken facing northeast. Picture below is the Calder Observatory building. Resting on the cement pad is the 24 inch scope. The three white piers located on sides are setup for SCT telescopes. The site has power and water. Inside the building there are cabinets located on one wall with counter space. There's also a microwave and several coffee makers for those late night observing runs. Future plans call for another building to house either the 24 inch or 16 inch.



Directions to Woodruff Observing Field

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.

Take the main entrance road (Turner Gap Rd.) and follow it past the lake (on your left). Once you go past the second ranger's house, turn left onto Chestnut Gap Road. It's now a gravel road at this point. Go about a half mile, and turn right onto another gravel road. Drive through the gate. There's a sign that says "private property, do not enter". Ignore the sign and go down the road. There will be another gate on the road near the cabin. Drive on through the gate. Follow the road until it ends at the Observing Field.

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. The ATM group meets every couple of weeks at Skip Cook's house. He has generously offer this location for this purpose. Contact him via phone (404-325-4987) or email (scz9@cdc.gov) for more information and directions. 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.

They are using Skip's house currently but are interested in moving the group to another location. If you have a place where they can meet and work on those projects, please contact Skip.

I have recently seen the scopes that the regular ATMers have built, and I was impressed with the quality of their scopes. It's amazing what hard work, determination, shared knowledge, and a little money can do to make these wonderful instruments.

Get the Focal Point Online

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

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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 Peter Macumber an e-mail at pmacumber@nightsky.org. The Focal-Point web can be entered by using the Username of **AAC** and a password of **Aries**. These names are case sensitive! Type **AAC** and **Aries** exactly as you see it here.

Saturn Moon Occultation

The night of November 30th, Rich Jakiel and I went out to the club's Walter Barber Observatory to view the Occultation. The event was to start at 7:30PM and end about 8:30PM. Thanks to a traffic mishap, I missed the disappearance but was able to see the planet's reappearance. Above is a picture of Saturn as it moved away from the moon. The planet reappeared around the Mare Crisium region of the moon. I've seen the moons of Jupiter disappear and reappear before. This my first time to see a full size planet. Pretty cool.

The picture taken with a Kodak Digital 210 camera. Eyepiece projection method used. Taken through a 6 inch Schmidt Newtonian Telescope. Magnification used was 29x. Moon glare reduced with a variable polarizing filter.



The Leonids on November 18, 2001

By Richard W. Schmude, Jr.

Members of the Association of Lunar and Planetary Observers (ALPO) have been monitored several meteor showers for over a decade and at least one paper has appeared in the professional literature as a direct result of ALPO data. This brief article will describe my observations of the Leonids and it is hoped that this article may inspire others to carry out systematic meteor observations. On the morning of November 18, I observed the Leonids for 2.50 hours and was able to count 607 Leonids, a half-dozen other meteors and two fireballs. (A fireball is a meteor with a magnitude of -4). I had a fairly good observing site and my limiting magnitude was $+5.3$. The only problem with my site was some residual haze (or smoke) from a nearby forest fire. There was also a glow to the northwest on the horizon, which had not been seen in previous nights. My observing site is located at $+33.12^{\circ}\text{N}$ and $+84.11^{\circ}\text{W}$ and is at an elevation of 650 feet or 200 meters.

Table 1 lists my observations. The first column lists the Universal Time increment. (Universal time is the time standard used by astronomers around the world). The second column lists the number of Leonids observed in the 15-minute interval listed in the first column. The third and fourth columns list the number of Taurids and other meteors observed during the time

interval. The fifth column lists the faintest star that I could see in the direction that I was look at; my eyes are not the best and I have never seen stars fainter than about $+5.7$. The altitude of the radiant (the part of the skies where the Leonids meteors appear to be coming from) is listed in the sixth column and the last column lists the Zenith Hourly Rate (ZHR) of Leonids. The ZHR represents the number of meteors that would be visible for a limiting magnitude of $+6.5$ and when the radiant is at the zenith. The zenith is the point directly over your head. If the ZHR exceeds 1000 then there is a meteor **storm** instead of a meteor **shower**. As can be seen in Table 1, the ZHR exceeded 1000 for about an hour and so there was a Leonid meteor storm on Nov. 18. After talking with other Atlanta Astronomy Club members, the results in the table are about what was observed elsewhere.

The Association of Lunar and Planetary Observers are interested in systematic studies of meteor showers such as this. In order for your data to have scientific value; however, one must record the following information for the observing session:

1) The number of Leonids observed (Leonids are all

Continued on the next page.

- meteors that appear to come from the constellation of Leo)
- 2) Record the exact time of the beginning and end of the observing session
 - 3) Note the limiting magnitude; this is the faintest star that you can see in the direction that you are looking at; star magnitudes can be found in standard star atlases such as the AAVSO star atlas.
 - 4) Percentage of the sky covered by clouds.
 - 5) The longitude and latitude (to within a degree) of your observing site; this can be obtained from a map of the United States.
 - 6) Your name and address.

Meteor data can be sent to Robert Lunsford at: lunro.imo.usa@home.com or it can be mailed to: Robert Lunsford, 161 Vance Street, Chula Vista, CA 91910.



Table 1: Observations of the Leonids made by Richard W. Schmude, Jr. from a location near Barnesville, GA on the morning of Nov. 18, 2001.

Time(U.T.)	# of Leonids	# of Taurids	Other meteors
Limiting Magnitude	Altitude (degrees)	ZHR	Interval
8:39-8:54	28	0	1
5.0	47.7	599	
8:55-9:10	40	0	1
5.3	51.0	618	
9:10-9:25	35*	0	2
5.3	54.1	519	
9:25-9:40	39	0	0
5.3	57.2	557	
9:40-9:55	49	1**	0
5.3	60.2	678	
9:55-10:10	73	0	0
5.3	63.2	982	

10:10-10:25	81	0	0
5.3	66.1	1064	
10:25-10:40	96	0	0
5.3	68.9	1236	
10:40-10:55	95	0	0
5.3	71.5	1203	
10:55-11:10	71	1	0
5.0	73.9	1168	



*A fireball was observed at 9:17:45 U.T. The fireball was a Leonid, which briefly flared to around -8 ; the flare was so bright that it hurt my eyes a little. This event may have hurt my night vision during this time interval. This fireball left a cloud that was visible for 3-4 minutes.

** A slow moving fireball occurred at 9:47:45. The fireball was moving south and reached a magnitude of -4 . At least one spark came off of this fireball. At first I thought that this object was a plane.



The pictures on this page were provided by Ken Adams. I (the editor) have resized and cropped these pictures. Pictures taken from the top of Fain Mountain which is located north of Murphy, North Carolina. Pictures taken on morning of November 18th

after 2AM. Ken used a 35 mm camera with a 60 mm micro lense set at 2.8. Exposures from 10 to 15 minutes long. Camera faced the constellation of Ursa Major for all exposures.



Above picture M31, M32, and part of M110 in lower right hand corner of picture. Picture taken by Bob Holzer. Copyright 2001.

Takahashi FSQ-106 at f5. Takahashi EM-200 Temma mount. Starlight-Xpress HX916 Camera with True Tech filter wheel. Guided by SBIG STV Deluxe with ST-80 guidescope. LRGB (30:29:24:19minutes) exposure times. Picture taken at the Walter Barber Jr Observatory north of Villa Rica, Georgia.

The only processing the editor has done is to reduce picture size so it would fit on this page.

Picture to right is NGC 253. Picture taken by David Barmore. Copyright 2001.

Exposure time was 29 minutes. Used a 8 inch SC telescope with a ST-237A CCD camera set at f/1.95. 58x30s. Picture cropped, mirrored, and DDP applied in Maxim. Picture taken at Walter Barber Jr Observatory north of Villa Rica, Georgia.

Note that editor cropped picture/reduced picture size to fit the image on this page.



Holiday Observing at Villa Rica

Come join us for some observing at our Walter Barber Observatory north of Villa Rica. The date is Thursday evening December 27th. Starts at 5PM and runs til whenever. The moon will be up but observing can still be done. Besides it's an excuse to socialize to. The rain date is Friday night December 28th.

Note on the Focal Point

Keith Burns

Recently an issue came up in regards to copyright of submitted material to the Focal Point. I won't mention any names but wanted to state the policy in regards to copyrighted material. The policy is that material 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. So ask.

AAC Member of Astronomical League

For more info on the Astronomical League, visit their website at <http://www.astroleague.org>. The AAC astronomical league contact is Keith Burns. You can reach him via email at Keith_B@Bellsouth.net or 7-427-1475.



As part of the benefits of being a member of the AL, you can do one of the many observing programs available. Upon successful completion of the requirements the AL awards you a pin and certificate for your troubles. Hope you also gain knowledge along the way and an interest in some aspect of astronomy.

Focal Point Submission Deadline

I'm looking for 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 in hard copy pictures. Articles can either be sent via snail mail addressed 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 January issue is January 5th and no later.

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.

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Hotline and Website

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

The website has proven itself in attracting new members and keeping members informed of club events. This can only happen if we are given the information to post on the website. If you have any suggestions, comments or ideas please send them along to the webmaster@AtlantaAstronomy.org. Internet Home Page: <http://www.AtlantaAstronomy.Org>

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 \$25 for a family or single person membership. College Students membership fee is \$10. 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.

Clubs address is:	Treasurer's address is:
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The Focal Point

Newsletter of The Atlanta Astronomy Club, Inc.

FROM:

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3740 Burnt Hickory Road

Marietta, Georgia 30064

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

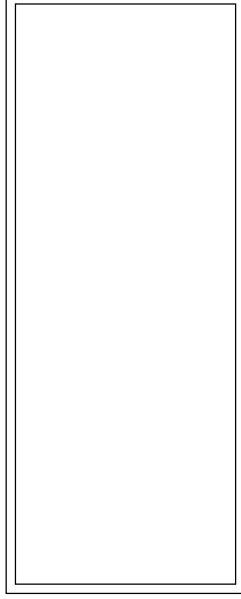
Atlanta Astronomy Club

PMB 305

3595 Canton Road A9

Marietta, GA 30066

FIRST CLASS



Calendar

December 15th- Calder Observatory Dedication. Ceremony starts at 4PM. Deep sky observing to follow in evening.

December 15th- Deep Sky Observing. Calder observatory. Woodruff BSC. Starts after dedication finishes.

December 21st- Christmas Dinner and Show. Bradley Observatory. Dinner at 7PM with Planetarium show at 8PM. Please RSVP either Sharon Carruthers or Carol Abernathy.

December 27th- Observing at Walter Barber Observatory. Starts at dusk and goes til whenever. Note **raindate** is **December 28th**. Observing and socializing. The moon maybe up but we don't care.

January 12th- Deep Sky Observing at Walter Barber Observatory.

January 18th- General Membership Meeting. Emory University. Speaker is Lenny Abbey. Topic to be announced.