

The Focal Point

The Atlanta Astronomy Club
Established 1947

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October 1998

Editor: Peter Macumber

AAC Board Meeting - 13 September, 1998

In attendance:

Phil Sacco, Rich Jakiel, Keith Burns, Sharon Carruthers, Peter Macumber, Willie Bower, Phil Bracken, Don Hall, Art Russell, Tracy Wilson, Alex Langoussis, Gil Shillcut: Tom Faber, Dave Riddle

The offering of an affiliate membership to the Agnes Scott College Astronomy Club was presented for approval of the Board. The motion reads "In recognition of the unique relationship between Agnes Scott College and the Atlanta Astronomy Club, those members in good standing of the Agnes Scott College Astronomy Club, will be recognized as affiliate members of the Atlanta Astronomy Club. Agnes Scott College Astronomy Club Affiliate Members shall enjoy the same rights and privileges enjoyed by Atlanta Astronomy Club Members except that they may not vote in club actions, hold club offices, nor will they be enrolled by the Atlanta Astronomy Club in the Astronomical League, or receive individual Focal Point Newsletters". The motion passed unanimously.

The Presidents report of the Large Scope Committee was presented to the Board. The findings of the committee are that a 25 inch Dobsonian Telescope manufactured by Obsessions at a cost of \$6695 would best fit the current needs of the club. This telescope will be the cornerstone of the new dark site observatory that is currently sought by the club and yet can be transported to major club events, such as star parties. Comprehensive insurance for the scope will be around \$60 a year and the club's current liability insurance will cover any accidents associated with the telescope.

Gil Shillcut and Ken Posedly were nomination to fill the board vacancy created by the departure of Joe Sheppard. Mr. Shillcut was elected to fill the vacated board position by a vote of 9 to 2.

New Business

The recommendations of the Dark-Sky committee were presented to the Board. The goals of the Dark-Sky committee are to seek a lease/grant of land rather than purchase land for a dark site observatory, as the latter option is prohibitively expensive. Once a suitable site is procured a warm-up shed and storage facility for the 25 inch Dobsonian telescope would be constructed. This initial phase is within the financial capacity of the AAC. Funding for further equipment and construction will be sought through educational grants and/or philanthropic sources. In a related issue, the board moved to have one half the cost of the 25 inch Dobsonian, up to \$4500, come from existing Dark-Sky Fund and the balance from fund raising events and member donations.

News

They are here — the *Astronomy* 1999 Calendar. Well not really, they are now available for ordering. The club, will again this year, be offering you a great calendar at a great price. The reprinted cover will be available for viewing at the general meeting or at any club function for the next four weeks. Sign the sheet, (or send me an e-mail) and reserve your copy. Only a few extras will be available, so please order one today.

The 1999 Explore the Universe Annual is now available for ordering. This year's newly expanded skyguide is filled with maps, photos, diagrams, and star gazing facts to help amateur astronomers follow sky events. You will receive a 20% discount off the \$5.95 cover price. This also must be ordered through the club. So if you want the 1999 Explore the Universe Annual, sign up at the next meeting (or send me an e-mail).

Kalmbach Publishing, publishers of *Astronomy*, have sent us the details of the group subscription plan. The *new rate* for *Astronomy* magazine through the club will be **\$29.00**

LADIES OF THE NIGHT...SKY MEETING

by Chrissy Mondell

Hi Gals,

Ladies of the night...Sky meeting will be held at Chrissy Mondell's home on October 19th. Hope to see you Ladies there. It was great to see a couple of ladies from Agnes Scott, Nola and Erika. Hope to see you next meeting. We may need some double boilers and some other equipment. So please call me if you can help with any of the supplies we may need for our "Soap Venture." This Should prove to be Very interesting. Hope to see ya there.

Many hands make light Work

Many talents in those hands

Chrissy :o)

From the Oval Office

by Philip Sacco, President

Happy Halloween everyone! I hope you enjoy the cool weather and hopefully the clearer Fall Skies.

I am Happy to welcome the following new members to the club and hope that They don't make strangers of themselves...Let's give a big "Welcome" to this past months new members: Holt Sanders, Joyce Doyle, Allen & Francesca Jensen, Marianne McDonald, Milton & Paulette Clipper, Forest Deupree, Donna Deupree, Sam Shearman and John Lentini

I hope that everyone will mark his or her calendars for the 24th of this month, as that is the date for the big picnic at the observatory. The club will be providing hot-dogs and sodas, and if you would like to join in the fun.... Bring along a side dish or some other delectable delight to share with your friends. If you would like to coordinate things with the Hospitality Committee, contact Julie Moore (770-242-6735). Julie is our new Hospitality Chairperson. Thanks Julie.

I am happy to see so many observing awards being given out at our meetings and observing sessions...If you don't know what they are all about talk to Keith Burns your Observing VP (770-427-1475). I would like to put a plug in for the Urban Club as I am still the only member NATIONALLY, and it is a very good list of objects to get to know. PHIL HARRINGTON, our last month's speaker specifically chose them, to be easily seen from light polluted skies like where most of us live.

My \$100 challenge still stands for donations for the clubs bench/tables at The Walter Barber Observatory. Several members have taken me up on it, and there is room for one or two more challengers before the opportunity is gone.

Keith Burns assures me that if you would like to have one of the club piers devoted to your personal use; you had better speak up soon as they are going fast.

I look forward to seeing you all at the Zombie party the 16-17th of this month. It is being co-hosted by the Flint River Astronomy Club at their observing field, and camping is allowed. Cost is \$5 a night to cover the portajohn. Goodies will be provided, and we will have a bonfire nearby. I hope we will even have hot coffee and hot chocolate on the observing field! The party starts the night of our next membership meeting, and they are prepared for any of us that may decide to go down after the meeting.

Guy's hang on to your hats, 'cause I know the 'Ladies of the Night' are picking up steam! What a creative bunch of women!

For those interested, a road trip is being planned to go to Cape Kennedy to see John Glenn's launch. Contact Charles Hinely if you are interested (404-352-4290).

Keep Looking UP!

Bradley Notes October 1998

by Chris De Pree

Late last week a radio telescope was installed on the roof of the Bradley Observatory. The telescope will allow students at Agnes Scott to observe phenomena in the universe at a completely different wavelength. They will be able to use the dish to observe the magnetic fields at the surface of the sun, the emission from the gas in the Orion nebula, and the strong radio emission from the center of our own Galaxy, the Milky Way. What I've been calling a "radio telescope" is really a standard 10-foot diameter wire-mesh satellite dish that is common in the front (and back) yards of rural areas that are beyond the reach of cable television. The recent move to smaller 1-foot diameter satellite dishes means that many the old 10-foot dishes are available and cheap. The installation of the Bradley Radio Telescope (BRaT) has caused me to reflect on the humble origins of the field of radio astronomy.

Karl Jansky, employed as an engineer by Bell Laboratories to identify sources of noise at a wavelength being considered for telecommunications, discovered the radio hiss from the center of our Galaxy. And it was an engineer named Grote Reber who constructed a 30 foot paraboloidal radio dish in his back yard and made some of the first images of the "radio sky", or the night sky as seen at radio frequencies. Professional astronomers were slow to realize the potential importance of the field, and amateurs did the first imaging in a field of astronomy that would boom after W.W.II. Many military radio engineers who were radar technicians during the war put their experience to use as astronomers in the 1950s and 1960s, and the result was an explosion in our knowledge of the universe. Since 1950, radio astronomy has made contributions to such fundamental areas as: the structure of the Milky Way, the nature of supernovae, the processes of star formation for both low and high mass stars, the nature of pulsars, and the presence of so-called "radio galaxies" that dwarf their optical cores.

Since the 1930s, radio astronomy has become an expensive venture with modern radio telescope arrays like the Very Large Array (VLA) in Socorro, NM costing some \$11 million to operate each year. Nevertheless, even a retired satellite dish can give us a new window on the universe.

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Survey Analysis

1. Question 1 was asked in an effort to find out why people joined the Atlanta Astronomy Club. People could check as many as six specific responses. The number of people who checked a particular response was tabulated. The answers could be divided into three groups of about equal response. The first group (62%) indicated that most people joined because they had a long-time interest in astronomy or were interested in observing. The second group (46%) indicated that they wanted to find out more about astronomy or wanted to meet others interested in astronomy. The last group (16%) indicated that they were either interested in building or buying a telescope or made other comments. For example some people indicated that they had joined because their children were interested in astronomy. Others saw the members of the club as a resource for advice or guidance about equipment or topics in astronomy. Still others liked the publication discounts available through the club or wanted access to the club's observatory resources in Villa Rica.

2. Question 2 was asked to get an idea of the astronomical topics that interested people. Members could check as many as 17 responses covering a wide spectrum of topics. Many were interested in observing (82%), learning about the night sky (68%), and hearing about the latest findings from the Hubble Telescope (61%). A cluster of people were interested in astrophotography (54%), planetary missions (52%), galaxies and their evolution (52%), the formation of the universe and cosmology (49%), planetary nebulae (47%), and stellar evolution (41%). Others were interested in solar and lunar eclipses (38%), planetarium programs (36%), the manned space program (35%), and the history of astronomy (33%). Even the topics checked the least showed a sizable interest by club members: the Sun, Solar flares and the Solar wind (28%), orbits and celestial mechanics (24%), and radio astronomy (16%). The club is clearly interested in a wide variety of topics. These responses may be useful in selecting topics for our monthly meetings, making decisions about library facilities for the club, selecting speakers in the invited speaker program, or evaluating the benefits of offering mini-courses to the club by other club members.

3. The third question asked members to indicate a degree of interest in the topics outlined in Question 2. The scale ran from 1 (not too interested) to 5 (very much interested). When that scale was applied to the responses the degree of interest showed a that although people might not have checked some topics as frequently as others, they were quite interested in what they checked. This is shown in Figure 1.

4. Question 4 stated that the club had a variety of ways to apportion its financial resources and asked members to indicate their support for a variety of topics that the club either supported now or might support in the future. Again the scale was from 1 (no support) to 5 (strong support). The strongest support was given to acquiring a dark-sky observing site for the use of club members' (4.5). There was also strong support for the invited speakers program (4.2) which the club instituted several years ago. Third priority was an upgrade to the Villa Rica observatory (3.9). Club members also showed a strong interest in field trips to astronomical facilities or to special events such as eclipses (3.7). Interest in acquiring a large portable telescope for the club (3.5) or several smaller telescopes for club member's use (3.4) was nearly equal. Club members also indicated approval for acquiring some audiovisual equipment for use at club programs (3.4), for acquiring educational materials such as slides and videos for member's use (3.3), for setting up a library so that members could check out books (3.3), and for increasing the number of club publications (3.2).

5. Question 5 tried to determine the interest of members in participating in club activities. Although about 18% of the members who responded indicated that they were content to enjoy the monthly meetings, a sizable number indicated that they wanted to observe at remote dark sky sites (78%), use the facilities of the Villa Rica site (67%), or attend star

parties (66%). Others were interested in attending classes (52%), helping with outreach programs such as sidewalk astronomy (36%), building or testing a telescope (28%), or attending social gathering such as club picnics (27%). Club members seem to be eager to be active in club programs and activities.

6. Question 6 showed that about 63% of the members who responded thought that a range of \$21-\$30 was about right for club dues. However, almost 10 % indicated a range of \$41-\$50 as OK, and almost 4% stated that they would pay over \$50 annually in club dues if the activities or resources were compelling enough.

7. Question 7 asked about the driving time members would be willing to spend in travelling to a distant observing site. Most people indicated that they would be willing to spend from 60-90 minutes (40%); another group indicated that they would be willing to spend from 30-60 minutes (32%), while still a third group indicated that they would drive up to 120 minutes (19%) to reach a dark sky site. Others preferred to drive less than 30 minutes or didn't actively observe.

8. Question 8 asked about the travel distance to club meetings. Over 60% of the respondents indicated that they traveled over 12 miles to attend the club meetings, and some indicated that they traveled in excess of 100 miles every third Friday to attend meetings. An examination of the zip codes of member's addresses reveals that a large number of members live well outside the metro Atlanta area.

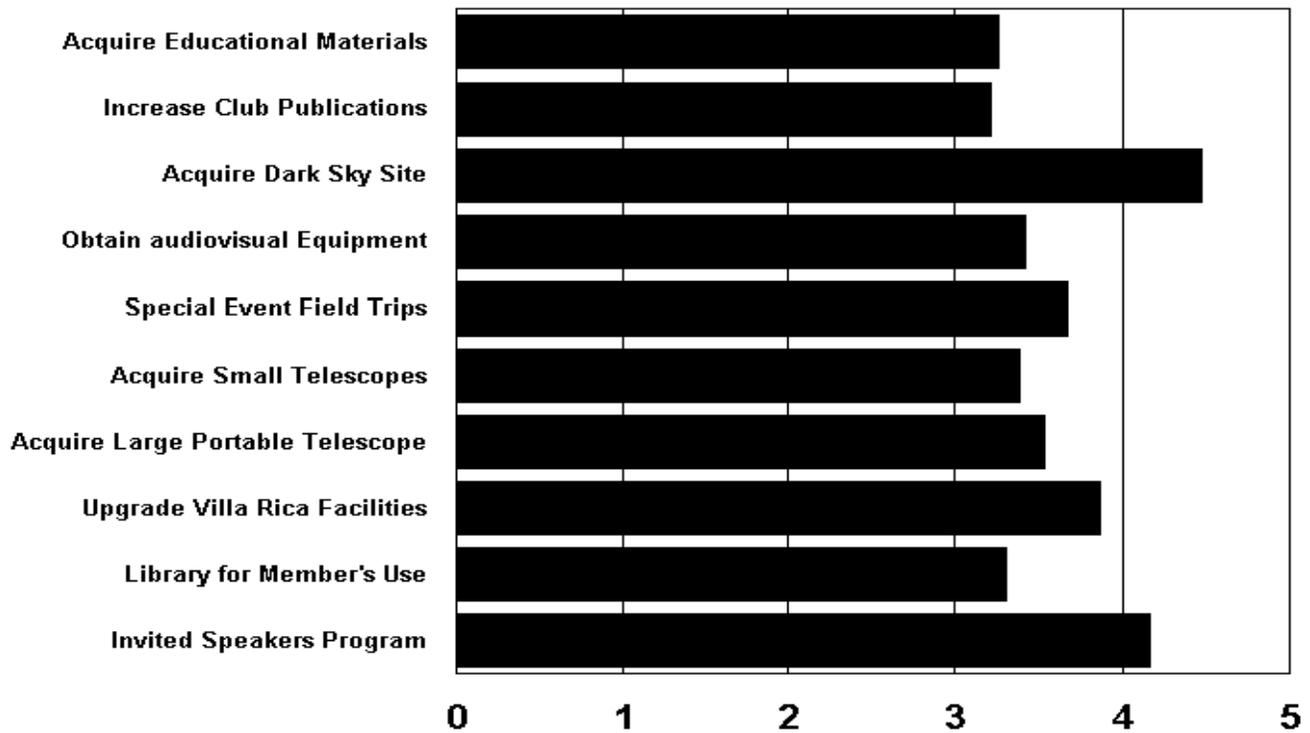
9. Over 85% of the people who responded indicated that they were satisfied with the day and time of the club meetings. It would probably be difficult to select another date and time that would show an increase in this preference.

A number of people made comments in the last section, almost all of which were positive about the club and its activities. Many commented on the excellent quality of the *Focal Point*. Others wanted more information, help, articles, and observing for the beginner. One person suggested a buddy system, where an experienced observer would be paired with a novice and help train him/her in the arcane art of astronomy.

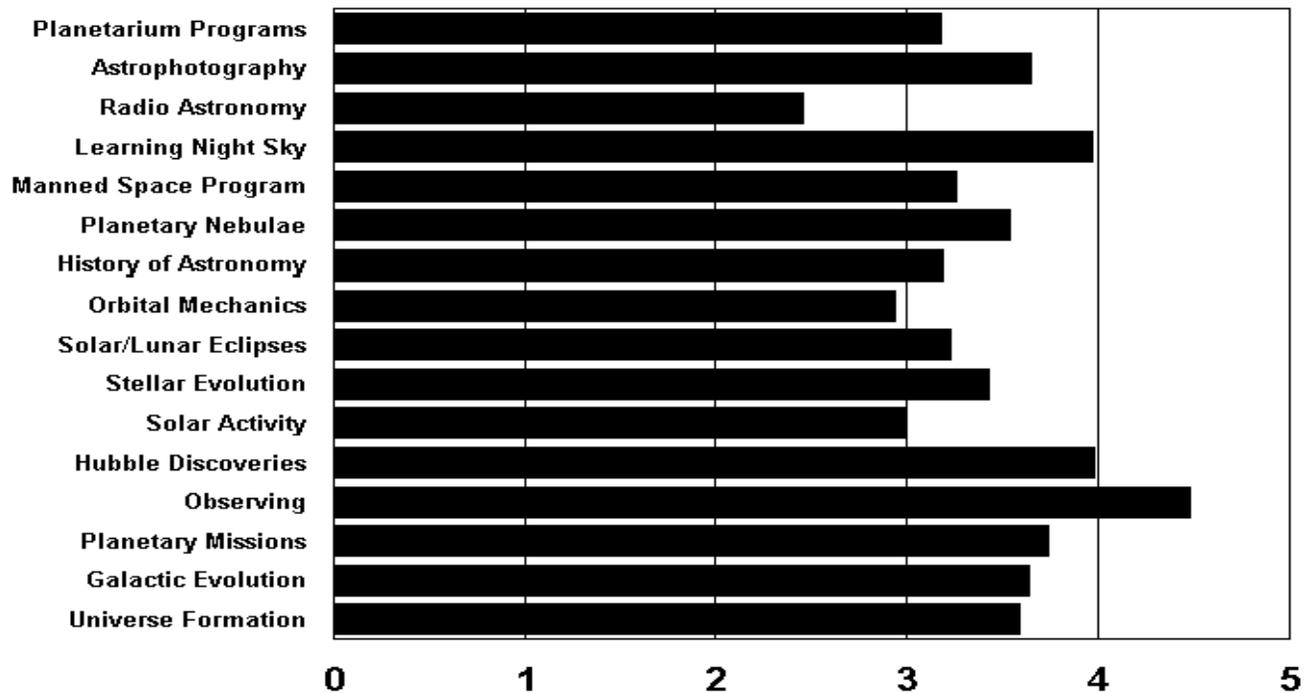
A theme that ran through many of the comments was the need for structure in the club. Because of busy schedules and other activities by club members many indicated that they would like to have regular schedules of club classes and instruction, rather than just dropping by Villa Rica to seek help or information. Others indicated somewhat the same theme by indicating that because of the size of the club, perhaps one observing site or one club meeting was not enough, and raised the idea of regional meetings and sites. In this regard others indicated the need for some club goals which would carry members through the next 5-10 years. Still others indicated a desire for more substance to the club meetings by having professional astronomers for speakers. Several comments indicated that they felt the speaker's topic at the meeting was very important for the development of member's interest. There were many references to help for the beginner on a variety of topics.

One thing to remember is that while the response to the questionnaire was 34 %, that means that 66 % of the members did not respond, even though a stamp was provided and the survey was self-addressed for an easy return. As we look at developing goals and resources for our club, we need to remember and address the majority of our members who did not respond. If we can address their concerns, interests, and needs we are limited as a club only by our imagination!

Support for Club Activities Scale of 1 (low) to 5 (high)



Degree of Interest in Astronomy Topics Scale of 1 (low) to 5 (high)



Lunatic Observing Challenge #4

by Lunatic #82, Philip Sacco

Hello all you Budding Lunatics!

Welllll....October is here and with it comes your monthly Lunatic challenge. Remember to keep the hunt up for those Lunar Domes listed in challenge #1. They are the targets of opportunity!

Naked Eye Targets:

1. Mare Serenitatis - Sea of?
2. Mare Fecunditatis - Sea of?
3. Challenge: Sinus Aestuum - This could be tough, need sharp eyes!

Pickerings Naked Eye Challenge:

1. Mare Nectaris - Sea of? This is a Pickering's Challenge (rated 2)
2. The area of Gessendi without optical aid? This is a rated 5 challenge....

Binocular Targets:

1. Crater Maurolycus - How many days after 1st quarter must you wait to see this crater?
2. Crater Gassendi - What "Sea" is it near? Can you see any features in it?
3. Crater Eratosthenes - At the end of what mountain range is it found?
4. Crater Vendelinus. How old must the moon be to see this crater in sunset lighting?
5. Challenge: Crater Aristoteles Hint: A frigid area!

Telescope Targets:

1. Vallis Schroteri - Schroter's Valley. What type of sport field/court does the rough isolated area around V.Schroteri appear like under sunrise lighting?
2. Lacus Mortis - Lake of ? Hint:Something more than a dream!
3. Palus Putredinis - Marsh of?
4. Challenge: Promontorium Heraclides What naked eye feature is it part of? (Hint: What a place to see a rainbow)! For whom is this feature named(Heraclides), and what 'unusual' idea did he espouse?
5. Calculate the appropriate viewing date and time to view crater Hedervary during lunar sunrise or sunset for best viewing. Draw this feature and a surrounding detail.

ASTRONOMICAL LEAGUE OBSERVING CLUB SPOTLIGHT

by Keith

After finishing the Messier list, the next logical step is the Herschel 400 and then the Herschel II. These lists are a small part of a much larger list that contains almost 5097 deep sky objects.

Sir William Herschel started this list with the intent of surveying the entire night sky from England. He would observe small slices of the night sky each clear night and have his sister Caroline log the entries for him. This had to be done because William had to stand on a tall ladder while observing. He would yell out his observations to Caroline who would write them down on paper. Caroline also did some observing and discovered some deep sky objects of her own. Williams, son (John), continued the sky survey from South Africa. I guess you can say it was a family business.

William discovered the planet Uranus. He discovered several moons of Jupiter and Uranus. Herschel cataloged about one thousand binary star systems. Besides observing, William was a musician and composer. He would have become well known for his music but his interest in astronomy changed that. Since William could not afford to buy large telescopes, he developed the ability to build them. This makes him the first amateur telescope maker. Herschel continued to make bigger and bigger telescopes with the idea that he could resolve all the nebulas in the sky into individual stars in his telescope. The largest scope William built was a 48-inch reflector telescope. All his scopes had metal mirrors, which meant that he had to polish the mirrors all the time.

Most people usually quote the number of deep sky objects discovered by William Herschel only to be about 2514. Note that his list did have errors in it. If you remove the errors, the list would only consist of 2397 objects. It is from this list that the two AL Herschel observing clubs lists have been drawn from. Sir William and John did discover 5097 deep sky objects according to most sources.

The Herschel 400 club consists of 400 deep sky objects visible in an eight-inch scope. Your observations must include time, date, seeing conditions, aperture (of scope), power used, and a note of what you see in the eyepiece. You must observe all 400 objects to receive an award and pin. Upon completing the club you can submit your list to the AAC observing chairman. Note that you can use digital setting circles or other type of telescope computer. Most of these objects are faint and hard to see. So it is best to observe them in a dark sky environment.

The Herschel II observing club consists of another 400 deep sky objects visible in an eight-inch or larger aperture scope. However, the creators of the program suggest using a ten-inch aperture or larger scope. The deep sky objects on the list consist of galaxies, open clusters, planetary nebulas, and globular clusters. Three quarters of the list consist of very faint galaxies. This list makes the Herschel 400 club look easy in comparison. Your observation log should consist of the NGC number, date, time, site(location where you observed), seeing, transparency(of the sky), telescope, eyepiece, and note (of what the object looks like to you in the eyepiece). You are free to use a telescope computer, digital setting circles, or star hopping to find the objects in the telescope. I suggest you purchase the Herschel II booklet and log. The cost is \$10 which covers the cost of the booklet and materials used for certification of your completed list. You can order the booklet from the AL (AL Sales, PO Box 572, West Burlington, Iowa 52655). Once you have observed all 400 objects, submit your list to the AL at (Herschel II Operations Group, Rose City Astronomers, OMSI, 1945 SE Water Avenue, Portland, Oregon 97214). You can also email Carol Cole (StarsCarol@aol.com) or Candace Pratt (Candace@europa.com). Who will be the first person in the AAC to complete this task?

Howl-een Fun

by Philip Sacco, Lunatic #82

Well it's that time of year again....Witches, Ghosts and Goblins and 'Things that go Bump in the Dark'.....

Yeep....Hard to believe it's almost Halloween again. This is a time of year when we prepare ourselves for the unusual, the scary things to present themselves. But more curious than that, is the fact that many of us will go out of our way to go do something a little unusual or even spooky in the 'Spirit of the Season'.

If you are one of those individuals who like to hunt out the unusual and scary.....than this 'Halloween Trick-or-Treat List' will be right up your alley! So fix yourself a cup of hot witches brew, put on something warm and take a trip on the Dark Side with a friend for an evening of a Howl-eeen good time.....!

The Howl-eeen Hunt- or 13 Un-Lucky Objects

Let's do a little observing warm up before we get to the "13 Un-Lucky Objects" and do a little naked eye hunting to get in the mood of the evening.

If we're going to have ghosts and goblins and such creatures of the night.....everything has a beginning and 'the end' is no different, so to start off this seasonal pleasure...something needs to be laid to rest. First stop will be somewhere high overhead by mid evening. Commonly known as the constellation 'Delphinus', located just N.E. of the Eagle(Aquila) this little constellation was at one time called '**Job's Coffin**'. I figure the name comes from the odd ol' timey coffin shape of this small group of stars. The second constellation to hunt down is just south of Pegasus....find the Sea Monster **Cetus**. The third easy monster to hunt down is the constellation **Draco- The Dragon**.

A little hunting thru some old atlas' will be required to locate the following lost constellations, but to the intrepid hunter of the obscure, these will bring you some satisfaction once you have learned them and found them....after all this is a Hunt....

The False Cross- I'll give you a hint....Iota and epsilon Carinae and Kappa and Delta Velorum...good luck these are 'deep in the ground' so to say....hehehehehe.....or is that ..."Ah-Haa-Haaaa!"

The Horse and Rider- Zeta and 80 Ursae Majoris....

The Sickle- Just Try to find this one at this time of year.....This ones a real Trick....

Cerberus- The three headed dog guardian of hell....**I'll give a Halloween treat to anyone who can tell me where to avoid this beast.....**wellll, I did say you may have to get out an old atlas...didn't I? (this is a very uncommon constellation.....after all...How many Three Headed Flesh Eating dogs have YOU seen?! find this one and you will have a real Treat to share with others...

This last constellation I have included not so much for it's content- **Tubus Herschelii Minor-** but rather for the fact that it was created by a Jesuit astronomer named....**Father Maximilian Hell....!**

Now, if you began this trek about 9PM, you should now be approaching the 'Witching Hour' so let's get to the good stuff.....after one last easy naked eye object. Turn your attention to the constellation Perseus and

hunt down "**The Demon Star**" commonly known as Algol. This star is one of the shortest term variable stars, and can be seen to brighten and dim in the course of just a few days....!

OK....OK....it's dark out now and the sky is full of creatures of the night...you just need to spy them out now....It's time for the "13 objects for a Howl-eeen Good Time"! A telescope will be required for these little monsters, after all.....they would rather you didn't see them and they can only be found under cover of night!

1. Markarians Chain- M84/86/88...You'll have to hunt early to find this chain in a womans hair! Wellll....it was a LOT of hair so maybe a chain was necessary!?

2. The Dragon Nebula- NGC 5623, M 8...reputed to live in a tea pot!

3. The Ghost of Jupiter- NGC 3242...under the tail of Hydra....Good LUCK!

4. The Cat's Eye- NGC 6543...can be found under the first curl of the dragon....

5. The Owl Nebula- NGC 3587, M 97...you'll have to crawl under the belly of the Big Bear to find this guy...

6. The Owl Cluster- NGC 457...This one is a treasure of a Queen.....

7. The Veil- NGC 6960...Just slipped off Job's Coffin!

8. The Blinking Nebula- NGC 6826...careful or this one will drop on your head when your not looking....or rather when you can't see it! Tricky little fella'....now ya' see him...now ya' don't! Flies with swans....

9. The Ghost Ring- IC 5148...hehehehehe Happy Hunting!! dig REAL DEEP to find this one.....and up comes a GHOST.....BOO!

10. Miracks Ghost- NGC 404....this guy is related to a Chained up Princess.....Monster Meat if you will....he'll be hovering over head soon.....

11. The Spider- NGC 5829...no tellin' where you will find this little guy....try looking under your chair....!

12. Medusa- This one is an unable-Abell 21.....Are you sure you want to look for this one?!

(13.) The Witch Head Nebula- IC 2118 this one will be up early in the morning near the right foot of Orion.

Well there you are! Looks like you made the trip OK.....you did didn't you AH-HAA-HAAAA!!!.....

For those of you interested, or not owning a telescope who would like to hunt these spooks down....I will be conducting "A Howl-ing Hunt" on October the 24th at our observatory the evening of the picnic. That will be a fun packed day and night, so I hope to see you all then! Let's all get a *shiver* together!!

A small "Thank You" to Art Russell, Philip Sacco, and the Atlanta Astronomy Club for the Orientation at the Walter Barber Observatory.

The Night My Soul Did Fill With Stars

In a field of Dobsonians and Schmidt-Cassegrains
A myriad of worlds were to be gained.
But as I began to learn of them,
My head and heart began to spin.

My Eyes caught Shooting Stars that sought
From their appointed place to part
And tucked them (GREEDILY)
In my heart.

Satellites and Galaxies did sing of grander mysteries
Than 'ere my finite brain could grasp.
But Ears - they clasped this Siren's Song
And tuned my Soul to sing along.

The Universe then asked to dance.
Draped in Diamonds thrown by Chance
Stars were tossed across her gown -
Caught in clusters off the cuff
In whirling pools about her neck
Or placed "just so" within a cleft -
The Universe did Dance --

And filled

My Soul

With Stars.

And through the Night the Dance did last
As Earth and Sky did spin and pass.
I took the Hand of Hercules
Caught the hem of Pleiades
Waltzed with Lyra and Draco . . .
The planets were the last to go
But Jupiter, Uranus, too,
All bid, "Farewell!" with Morning Dew.

And now in Light of Day I dream
Of Night when next I may be seen
Dancing through the Milky Way
As when the Heavens called to Play.



OBSERVING CHAIRMAN

Keith Burns, Lunatic # 100 and Excellent Observer

With the month of October here now, meteor shower activity is starting to pick up. Everyone knows about the Orionids meteor shower that peaks on October 21 this year. There is a little known meteor shower that may turn into a meteor storm this year. This is known as the Draconid Meteor shower. The shower occurs in the constellation of Draco. The shower is the dust left by comet Giacobini-Zinner. Occasionally the Draconids become active. This year the earth's position favors a meteor storm or at least a meteor shower. The shower starts on October 6th and lasts through October 10th. The peak of the shower is October 8th. Since the Draconids have a dense narrow meteor stream, this shower only lasts for a couple of days. Draco is the large constellation up near the north celestial pole. It is above Hercules and below the Little Dipper. Look around the area of the north celestial pole for meteor activity.

I hope to have the observatory improvements completed soon on the Villa Rica site. The sale of the steel piers that Ralph Bowen donated is going well. As of this writing, we have sold three piers. The money is going to be split between Villa Rica and fund raising for the new big scope. Construction on the observatory annex will be starting shortly. This is a reminder that anyone who wants to get checked out on the observatory scopes, contact me. I will set up a date and time we can do this. Note that we have a new twelve inch scope completed by members of the ATM group. This was a kit that the club bought several years ago. The scope is ready to use but still needs some work done on it. The twelve-inch scope is in the observatory. There is also a six-inch scope that is part of the loaner scope program. See me for details about this scope. This scope is ready to use.

This month we are holding the third annual zombie party. Flint River Astronomy Club is co-sponsoring the event and offering us the use of their observing site. The event will take place at Cox Field. Cox field is a private airstrip located west of Griffin, Georgia. The cost is five dollars per adult per night. This charge will cover the rental of two port-a-potties. October 16th and 17th are the scheduled nights of the event. You can register in advance by sending a check to me at Keith Burns 3740 Burnt Hickory Road Marietta, Georgia 30064. For those registering in advance, make checks payable to the AAC (and be sure to write zombie party on the check). The FRAC membership will be handling onsite registration. Camping will be allowed and encouraged. This is a chance to meet members of FRAC.

Food, restaurants, and stores are located in and around Griffin. It is only about a six to ten miles drive. The choices are many. There is no alcohol allowed on the site. This is the rule of Mr. Cox (who's land this is). See me for details. My phone number and email address is on the back of the focal point. You can also talk to Smitty Smith. Call him at 770-583-2200.

The annual picnic is scheduled for October 24th. We plan on starting around 11AM. Come join us and celebrate two things. One is the 21st anniversary of the Villa Rica observatory. Second is the affiliation of the Agnes Scott College Astronomy Club. Come for the day and stay for the night. The orientation is scheduled for 5PM that night. Phil Sacco has a special program scheduled for the evening. This is a program for all to enjoy. Party all day and star gaze all night.

Here is what to look for in the coming months. November's deep sky session is to be held at Charlie Elliott Wildlife Center. The site is located southeast of Covington, Georgia. The date for this event is November 21st. The November orientation is to take place on November 14th at Villa Rica. The start time is 5PM. We are currently working with the Von Braun Astronomy Club(Society) to do a deep sky session in Alabama this December. I will have more details coming on this next month. December 12th is the date of the orientation and open house at Villa Rica.

VILLA RICA UPDATE PART TWO AND A HALF

It should be noted that we have a renewed telescope out at Villa Rica. It is a F/4.5 20 inch fork mounted telescope. Of course you have to get through the new MACUMBER security door to see it. Trust me when I say that even artillery would not get through that door. Might as well leave the Sherman tank at home to. The best way to get in is to use the code for lock.

DIRECTIONS TO COX FIELD

From I-75 southbound:

Take I-75 south to Exit 77 which is Tara Blvd(US 41/19). Take US 41/19 south to Griffin bypass. Take Bypass(US 41/19) south to exit 3 which is GA 362. Turn right onto Ga 362 at end of exit ramp. Head southwest on 362 to town of Williamson, Ga. AFTER PASSING OUT of the city limits of Williamson you will pass Wood Creek Road on the left side of the road followed by Beeks Road. Note that there are other roads on the left side but they don't have street signs so just ignore them. After passing Beeks Road, the next road on the left is Turner Rd. The road is marked by a concrete sign post. It is also a gravel road. Turn left onto Turner Road and proceed for 3/4 of a mile to small grassy drive on the right. Turn right and enter onto the grass runway. The runway is also perpendicular to the road. This is the spot.

From I-85 southbound:

Take I-85 south to Exit 10 which is McCollum-Sharpsburg Rd(Ga 154). Turn left at end of exit ramp and head southeast on Ga 154. Ga 154 deadends into Ga 54 upon entering the town of Sharpsburg. Turn right onto Ga 54 and head south to Ga 16. Turn left onto Ga 16 and head east to Ga 85/74. Turn right onto Ga 85/74 and head south to Ga 362. Turn left onto Ga 362 and head east for 6 miles. After passing 6 miles start to look for Turner Road on the right. The road is marked with a concrete pillar with Turner painted on it. The road is made of gravel. Turn right onto Turner Road and proceed for 3/4 of a mile to grassy airfield on right side of road. Turn right onto grassy airstrip. Note that the strip is also perpendicular to the road. This is the spot.

OCTOBER METEOR SHOWERS

Shower	Dates	Peaks	ZHR
Draconids	Oct 6-Oct. 10	Oct. 8	Varies (Storm this year?)
Epsilon-Geminids	Oct 14-Oct 27	Oct. 18	2
Orionids	Oct 2-Nov 7	Oct. 21	20
Southern-Taurids	Oct 1-Nov 25	Nov. 5	5
Northern-Taurids	Oct 1-Nov 25	Nov. 12	5

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AAC CALENDAR of EVENTS

October 16, Friday	General Meeting	Emory White Hall
October 16, Friday	Deep Sky - Zombie	Cox Field
October 17, Saturday	Deep Sky - Zombie	Cox Field
October 24, Saturday	Orientation - BFQ 27% Annual Picnic	Villa Rica 11AM
November 14, Saturday	Orientation - ALQ 21%	Villa Rica
November 20, Friday	General Meeting	Emory White Hall
November 21, Saturday	Deep Sky	
December 12, Saturday	Orientation - ALQ 36%	Villa Rica
December 18, Friday	General Meeting	
December 19, Saturday	Deep Sky	
December 31, Thursday	New Years Eve	

Focal Point

The October Focal Point is here.

November's Focal Point will be published on November 9th, please submit your articles before **November 5th.**

The Focal Point is available in color online via e-mail in PDF format. The free Adobe(R) Acrobat(R) Reader allows you to view, navigate, and print PDF files across all major computing platforms. PDF stands for Portable Document Format. The reader, Adobe Acrobat, can be downloaded from <http://www.adobe.com>. This is a *free* product. More information is available at the ADOBE web site.

Send me and e-mail, I will send you a Focal Point. If you like it, we will stopsending you a copy snail-mail. It will also save the club a dollar.

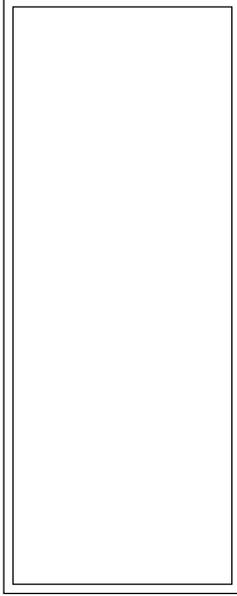
The club membership is 321. Twenty-seven people receive their Focal Point via e-mail.

For all those people who submit or want to submit articles to the Focal Point, send them via e-mail in a file that is MS compatible. SUBMIT prior to the deadline, next month there will be NO exceptions.



Newsletter of The Atlanta Astronomy Club, Inc.

FIRST CLASS



FROM:

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

Atlanta Astronomy Club
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Atlanta Astronomy Club OCTOBER

General Meeting - Emory White Hall - Friday, October 16th - 8:00 PM

Refreshments will be served from 7:30 - 8:00. Come early and socialize before the meeting.

Space Art with Jerry Armstrong (or how *not* to paint by the numbers!)

Ever wanted to make a stunning astronomical painting? Are you curious about "how" it is done, or just coming up with an original subject? Well-known space artist Jerry Armstrong will demonstrate his skills by making a painting before our eyes at the October meeting. Come watch a master at work, and listen to his many unusual anecdotes. At the end of the general meeting, the painting will be raffled off! Tickets will be \$3 apiece, or two for 5 dollars. This promises to be a very different, interesting type of meeting that will discussed for many years to come.

October 12 - Last Quarter Moon

October 20 - New Moon

October 25 - Daylight Saving Time ends.

October 29 - First Quarter Moon

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://stlspb.gtri.gatech.edu/astrotxt/atlastro.html>