

THE FLINT RIVER OBSERVER



Vol. 1, No. 9

FLINT RIVER ASTRONOMY CLUB

November, 1997

Officers: President, Larry Higgins (227-2233); 1st Vice President/newsletter editor, Bill Warren (1212 Everee Inn Rd., Griffin, GA 30224 / 229-6108); 2nd Vice President/Secretary-Treasurer, Ken Walburn (954-9442); AlCor, Melanie Handy (228-6214); Librarian, Keith Cox (227-8171); Hospitality Chairman, Lee Russell (228-0704); Observing Chairman, Steven "Smitty" Smith (583-2200). Club mailing address: 2431 Old Atlanta Road, Griffin, GA 30223. All of these phone numbers have 770 area code prefixes, if it matters.

Please notify **Bill Warren** and **Melanie Handy** promptly if you have a change of address.

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Club Calendar. Mon., Nov. 10:

Observing for Flint Middle School (to be held at the field above the track and behind the old Flint St. MS facility that now houses Orrs Elem., 7:00); **Thurs., Nov. 13:**

Club meeting (Beaverbrook media center, 7:00); **Fri., Nov. 14:** "First Light"

Beaverbrook Astronomy Club meeting (BB media center, 7:00), *followed by FRAC club observing behind the school at dark;*

Fri., Nov. 21st: Observing for Girl Scout Troop 90 (Orchard Hill Baptist Church, they'll feed us at 6:00); **Fri., Nov. 28:** deep-sky observing (Cox Field at dark).

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President's Message. I'll start off with a *very* important announcement:

We're planning to have an entry in this year's Christmas parade in Griffin, and we'd love for you to join us. We'll have specific information regarding the date, precise location, time, etc., in the Dec. newsletter. In the meantime, **please let me know as soon as possible if you or someone you know has a pickup truck with a trailer hitch and a small flatbed trailer that we can use in the Christmas parade.**

I want to give a hearty FRAC welcome to our newest club members, **Michael, Danielle** and **Shane Stewart**. We hope you'll enjoy being in our club, and that you'll let us know how we can make your time with us exciting and productive.

We had to move the Nov. 1st Cox Field observing back to **Thurs., Oct. 30th**, due to an unforeseen conflict in field usage that arose after the Oct. newsletter was mailed to you.

We have four observings scheduled for November, on the **10th, 14th, 21st, and 28th**. I hope that you'll want to take advantage of these viewing opportunities, and to get out on your own whenever possible, now that it's getting dark earlier and the cooler weather is starting to drive away the humidity. The best observing skies of any year are those of late fall and the winter months.

I hope, too, that you've been a good little girl or boy this year, and that you

haven't forgotten to make a wish list of what you'd like for Santa to bring you on Christmas morning. It'll be one of the best opportunities you'll have all year to add a Telrad, an eyepiece, or a book or two on stargazing to make your observing more enjoyable.

Finally, I have the unhappy task of informing you of the recent death of **Jack Warner's** son **Stephen**, 36, in Illinois. Although not a FRAC member, Stephen was interested in stargazing; all of us share in Jack's grief at the passing of one so dear.

-Larry Higgins

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October Meetings/Activities. FRAC members **Larry Higgins, Ken Walburn, Smitty Smith, John Wallace, Art Russell, Rich Jakiel**, yr. bleary-eyed reporter, and probably several other AAC/FRAC members whose 'scopes I failed to stumble over attended the Atlanta Astronomy Club's "Diehard" weekend observing at Dauset Trail on **Oct. 3-4**. **John W.** stayed up till 5 a.m. and found 17 Messiers, bringing his total to 53. I found 2 Herschels in 7-1/2 hrs. of observing and called it quits to the mournful hum of **Larry H.'s** snoring at 4 a.m.

Eighteen enthusiastic members and guests attended our **Oct. 9th** meeting. **Jerry Armstrong** dazzled one and all with his splendid collection of meteorites and stories of their origins. It's an incredible experience to hold in your hand objects whose origins are extraterrestrial. The last meteorite Jerry passed around was five billion years old -- about .4 billion years older than the planet you're sitting on while reading this.

Larry Higgins showed us the new Beaverbrook telescope, a nifty 6" Dob

that's going to get a universe of use in the months and years to come. The following night, **Oct. 10th**, he showed it to the kids at BB's astronomy club meeting. About 30 students and parents attended the meeting and/or observing, along with FRAC members **John Wallace, Mitch Hammond, Doyne Tallman, Neal and Cody Wellons, Tim and Celia Astin, Larry, me**, and my wife **Louise**.

Folks, if you weren't there you missed a remarkable display of astronomical knowledge by the Beaverbrook kids. Between us, Larry and I must have asked them 30 questions about telescopes, space and the planets -- and they answered almost every one of them correctly with little or no assistance from us! One of the students, 4th-grader **Michael Moroz**, told us about Galileo being threatened with prison if he didn't stop saying that the planets revolved around the Sun, and not the Earth. And later, when we were outside observing, **Louise** asked Michael's 3-yr.-old brother, "May I look through your binoculars?" "Yeah," he replied, "but you won't see anything with them. They're not real. That's Jupiter up there by the Moon."

Somewhere down the line when we're too old and senile to remember where we left our teeth or why we need them, FRAC will be capably led by a new generation of dedicated amateur astronomers like these Beaverbrook kids.

The **Oct. 24th** observing at East Coweta H. S. for the students in **Kimberly Novak's** astronomy class was cancelled due to -- *surprise!* -- overcast skies.

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Upcoming Meetings/Activities. We'll have an observing for the students at Flint Middle School on **Nov. 10th** at, say, 7:00 or dark, whichever comes first. The

observing is sponsored by the school's science club. Meet us on the soccer field located above the running track and behind the old FSMS facility, which presently houses Orrs Elem. School. Plan to get there early enough to let your telescope cool down.

The speaker for our **Nov. 13th** club meeting will be **Ron Harrison**, a new FRAC member who teaches astronomy at the Griffin branch of Mercer University. Ron's topic will be "Weather in the Universe." (Cool and overcast with temps in the mid 50s in the Pinwheel Galaxy?)

Rich Jakiel, who talked about the Virgo (galactic) Cluster at our April meeting, will be our guest speaker in December. His topic will be "Spiral Galaxies: A History of Observation from Edwin Hubble to the Hubble Space Telescope."

Beaverbrook's "First Light" meeting will be at 7:00 on **Nov. 14th**, with FRAC and BB observing afterward. (Remember, they have their own telescope now.) Our FRAC deep-sky observing will be at Cox Field on **Nov. 28th**.

We've scheduled an observing for the Girl Scouts of Troop 90 at Orchard Hill Baptist Church on **Nov. 21st**. They've invited us to eat with them at 6:00. **Larry H.** can tell you exactly how to get there. (It's very easy to find.)

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John Wallace posed an interesting question recently: *What constellations look exactly like what they're named for?* We agreed on two: **Delphinus**, which certainly looks like a dolphin leaping out of the water, and **Scorpius** (the Scorpion). What would *you* add to that list? Let me know before next month's newsletter.

Ask **Doyne Tallman** to show you his

new telescope, a Celestron 8" Dobsonian. And while you're at it, ask **Ken Walburn** to show you the improvements he's made on his 4-1/2" reflector.

* * *

The Planets in November. **Mars** and **Venus** will be low in the SW, with Mars setting at 7 p.m. and Venus at 8 p.m. **Jupiter** sets 3 hrs. later. **Saturn** has the sky practically to itself in November, riding high all evening and setting at 3 a.m. **Uranus** will be 8° west (i.e., to the lower right) of Jupiter, **Neptune** 5-6° directly west of Uranus, and **Mercury** far below and to the right of Venus about half an hour after sunset around the middle of the month. (At least, that's what the "experts" tell us; for a contrasting view, see my startling investigative expose on pp. 4-5.)

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People You Should Know: Steven "Smitty" Smith. Even if you've never met him, you'll know **Smitty** when you see him: he wears a dark stocking cap whenever the temperature dips below about 75°, and he sports more facial hair than an English sheep dog. Like his hero (and ours too), the remarkable **John Dobson**, Smitty is passionately committed to sharing his love for the night sky with those who have never experienced its wonders at the telescope.

A marvelously gifted and well-rounded spokesman for amateur astronomy, Smitty also occasionally manages to make *me* look brilliant, which isn't always easy to do. Whenever anyone comes to me regarding any kind of problem with their telescope or any technical aspect of observing I tell them, "See the guy over there who looks like Rumpelstiltskin? That's Smitty. Go talk to him, he'll set you straight." And he

does. Smitty goes to the heart of problems and solves them. And that makes Smitty an extremely valuable person for you to know.

Smitty and his wife **Deborah** have one child, **Steven**, 11. Smitty, a self-employed motorcycle mechanic, owns a lovely red Coulter 10" Dobsonian; it's one of the nicest 'scopes I've ever tripped over.

Although professing to enjoy open clusters most among the various delights in the night sky, Smitty admits to having a special affection for Andromeda's **Great Spiral Galaxy**, M31, and its satellite galaxies **M32** and **M110**. "I never pass up a chance to see Andromeda," he says.

An Investigative Expose: The Uranus/Neptune Coverup

humor by Bill Warren

I've been trying in vain for the past three months or more to find Uranus and Neptune. At about mag. 6, Uranus should be easily visible in binoculars and a pushover for any telescope larger than a \$19.98 K-Mart Blue Light Special. It isn't, though. I've looked everywhere it's supposed to be, and it's just not there. Neptune, 3 mags. fainter, is 15x more invisible to me than Uranus.

Before giving up on them, I decided to ask a few people who I thought should know about things like where Uranus is, so I talked to **Larry Higgins** and **Rich Jakiel**. They hemmed and hawed when I asked them where to find Uranus, and finally they suggested that I check the monthly charts in the magazines Astronomy and Sky & Telescope. Well, I did that, but the charts showed this wavy line across the sky with several Moons in various stages on it and Uranus, Neptune and other planets

dangling from the line like fish on a stringer. Then I compared the chart with the night sky and, lo and behold, *there wasn't any wavy line up there -- and no Uranus or Neptune, either!*

And then it dawned on me with startling clarity, a disturbing notion with such far-reaching consequences that it will forever change the way future astronomers regard the solar system and our place in it:

No wonder I can't find Uranus or Neptune: *They don't exist!*

It's all part of an enormous subversive plot, I've decided, to keep **Sir William Herschel**, the man who "discovered" Uranus in 1781, from being discredited. Charles Messier had his mistake (putting M101 on his list twice), and Uranus was Herschel's mistake. But they don't want you to know that. Admitting after all these years that we have only five planets (Mercury and Pluto don't exist, either) would mean changing all the astronomy textbooks; it would make astronomers everywhere look like complete and utter fools; and it would completely undermine and discredit NASA's efforts to expand its planetary exploration program. Would *you* advocate the federal government using your tax dollars to support multi-billion dollar scientific expeditions to planets that don't exist?

Larry H. says he's *seen* Uranus, but who's to say that our beloved President Higgins isn't part of the continuing conspiracy to fool us into believing that Uranus and Neptune actually exist?

For that matter, who's to say that Larry Higgins wasn't on that grassy knoll in Dallas on Nov. 22, 1963? Don't you find it strangely convenient that neither the Dallas police, the Texas rangers, the Warren Commission, the FBI, the CIA, nor any other investigative agency even bothered to ask Larry where he was when JFK was

assassinated? Larry has often mentioned "Lee" in conversations, and all the time I naively assumed he was talking about FRAC member **Lee Russell**. But what if the "Lee" he was referring to was actually *Lee Harvey Oswald*?

But enough about that.

I don't care if the experts say that Uranus and Neptune are blue, green, blue-green or plaid; the fact is, *they don't exist!* If you believe in the Tooth Fairy, you at least get a quarter under your pillow; with Uranus and Neptune, all you get is *heartache!*

All of which leads me to introduce you to my new observing program, the "If You Don't See It, It Ain't There (And Doesn't Exist) Club." After all, with such superb observing skills as yours and mine, don't you suppose we'd see those faint fuzzy wuzzies in the night sky if they were really there?

In my new observing club, which is vastly superior to the Astronomical League's Messier club and the rest, you simply aim your 'scope where you think an object ought to be, and you only get credit for it if it's not there. You earn your certificate and pin by failing to find any 150 objects in the night sky, with double credit for missing the Moon and quadruple credit for failing to find the sky (e.g., by forgetting to take off your lens cap).

There is no entry fee for my new club, but I do have shipping & handling expenses to consider. Just make out your check for \$250.00, payable to me. Don't mail it to me, though; just palm the check to me while we're shaking hands, and I'll get you a pin, certificate, and a night's free lodging in the Lincoln bedroom at the White House.

* * *

We'll wind things up for this month with a little math puzzler about a double star.

The larger of two binary stars is 40 million years old -- 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?*

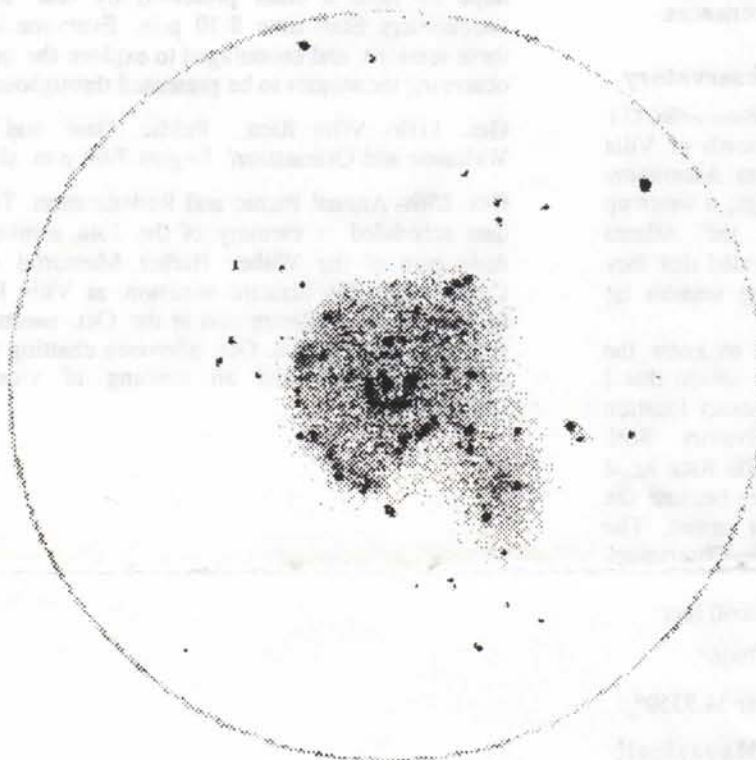
P. S.: Don't tell **Mitch Hammond** the answer; make him figure it out for himself. ("Hmmm, let's see. Divide by three, carry the two -- *Wait a minute! How can it have a remainder of seven????!!!"*)

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Beginners' Star-Hop: November, 1997

By Art Russell

The first days of fall have finally arrived. With its arrival we see the departure of the summer Milky Way to the west and the arrival of less densely populated skies. Does this mean that there is less to see and that perhaps the skies are less rich in observable objects? Not really. True, the brighter deep sky objects may be spaced a bit further apart, but this season's skies are every bit as rich as the skies of summer. You simply have to search a little bit harder than the halcyon days of summer would require.



This month we'll search for and find two of the night skies more spectacular objects, the globular clusters M15 and M2. Of course the first question one always starts with is, where in the sky is it located. This is an important question, particularly in this season as many of the summer's familiar markers are now passing rapidly westward. However, we can still use the constellation Cygnus, 'the Swan', as a marker. We can also conveniently use the zenith (sometimes marked as a 'z' or '+'), or that part of the sky directly overhead as a marker as well. Our first chart points the way from Cygnus to the constellation Pegasus. From Pegasus, we'll begin our journey to M15 and M2.

Star-Hop #1; M15, NGC 7078. M15 is a spectacular globular cluster and the closest rival of M13 in the skies north of the celestial equator. Located in the western most reaches of the constellation Pegasus, M15 makes an interesting contrast to the other globular clusters still visible at this

time of year. Locating M15 will also orient us for our subsequent star-hops this evening. So where to start? Looking directly overhead on the evening of 15 October at 10PM, you'll find the zenith as portrayed by our map of star-hops. From there, you will find the "Great Square of Pegasus" located a little more than 20 degrees, or the distance between the tip of your thumb and little finger when you hold your hand at arms length and outstretched against the sky, to the east-southeast. You may also be able to find the "Great Square of Pegasus" from the constellation Cygnus. From Cygnus, the "Great Square of Pegasus" is located a little more than 40 degrees or two hand spans, also to the east-southeast. The sometimes easily identified "Great Square of Pegasus" is notable by the relative lack of stars within its boundaries. Once we've located the "Great Square of Pegasus" we have completed the toughest part of locating M15. Locate *Alpha* (α) *Pegasi* at the southwest corner of the "Great Square of Pegasus." From there, extend an imaginary line about 15 degrees, or the distance spanned by your fist against the sky, past *Xi* (ξ) and *Zeta* (ζ) *Pegasi*, to the star *Theta* (θ) *Pegasi*. From *Theta* (θ) *Pegasi*, extend an imaginary line to the northwest past the star *Epsilon* (ϵ) *Pegasi*. Past *Epsilon* (ϵ) *Pegasi*, extend the line a little less than 4 degrees or slightly less than your forefinger and index finger held together at arms length. M15 will be just slightly north of this line. In binoculars and small telescopes, M15 appears as a small circular nebulous object without any hint of individual stars. Medium telescopes will resolve many stars and reveal the globular cluster to be nonsymmetrical in shape. Larger telescopes will resolve many more stars and also suggest the appearance of lanes within the globular cluster itself. What does your telescope show?

ATM meeting October 24th at 8pm

by Joe Sheppard

The Amateur Telescope Makers group of the AAC will hold their next meeting at Agnes Scott's Bradley Observatory on October 24th at 8pm. Our club president, Art Russell, has offered to speak on several simple and inexpensive (but important) enhancements he has recently made to his 18" Tectron reflector. As always, there will be the opportunity to test the quality of any telescope mirrors (coated or uncoated). If possible, please bring the appropriate zonal masks for your mirror size, if you wish to have it checked for parabola. Several group members have now begun work on their first, or latest, mirror grinding projects. I hope all of you will come to share your questions and experiences.

Location of the Charles Barber Observatory

by Richard W. Schmude, Jr.; Gordon College, Bamesville, GA

Barber Observatory is located just north of Villa Rica, Georgia and is operated by the Atlanta Astronomy club. The observatory consists of two buildings; a warm-up shed and the observatory. Members of the Atlanta Astronomy club can use the observatory provided that they attend a training session. Monthly observing sessions are carried out at this facility.

There are times when observers need to know the exact location of their telescope. It is for this reason that I have undertaken the task of determining the exact location and elevation of the Charles Barber Observatory. Both U.S.G.S. topographical maps along with a Villa Rica Road map were used. The road map was necessary because the topographical map did not give many street names. The elevation and coordinates of the Charles Barber Observatory are listed below:

Elevation 323 meters (± 2 meters) or 1060 feet

Latitude ($^{\circ}$ N) $33^{\circ}47'26'' \pm 5''$ or 33.7906°

Longitude ($^{\circ}$ W) $84^{\circ}56'06'' (\pm 5'')$ or 84.9350°

Increase in Prices for Astronomy Magazine!!

Effective 10/1/97 the new club rate for Astronomy Magazine is \$24.00. If you have older renewal or membership forms on hand, please change them to reflect this price increase. Also, both Astronomy and Sky & Tel ask that renewals be sent at least 2 months prior to the expiration date. I've been getting a few renewals mailed the month of expiration. If you wait that late you risk missing an issue. If any questions contact me, Pat Sammons, at Psammons@aol.com.

Observing Schedule

Oct. 3rd-5th- Turkey Farm. Annual Zombie Deep Sky Gaze. Show up early for this camping event. Site will be open by 3 p.m. for arrival and setup. Come prepared for a couple surprises this year...This is a Primitive site. Here are the directions...please keep these for future reference:

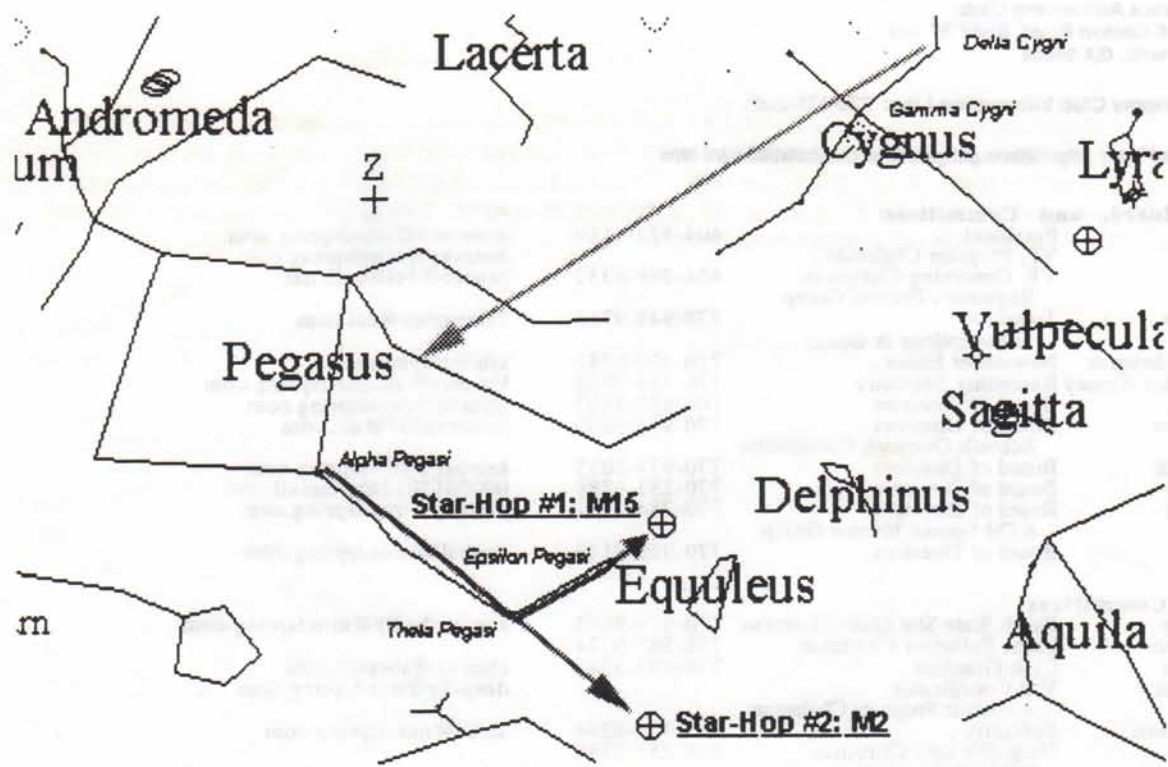
>From Atlanta take I-75 north from I-285. You will go about 80 miles to the site.... Take I-75 to I-575 and head to Elijah/Blue Ridge. Once in Blue Ridge, pass the McDonalds, and go thru the light, looking for the Wendy's

on the right. Go under the overpass and take a right on 'Wendy Ridge Rd.'. Go about 1/4 mile to a three way stop and go left. Go 1/4 mile to 'Aska Rd.' on right. Go right on Aska Rd. for about 6 miles. Look for a sign to Necowa Cove on the right and left side of the road. Go left, uphill, 2/10th of a mile to 'Turkey Farm Rd.' on the right. Go right on Turkey Farm Rd., and follow on in to the Forest Service Property. There is a gate across the road leading in. (The dirt road you will be on has a turn off marked by a blue road sign and a small 'Dry Hydrant' sign to the right. Do not turn off of Turkey Farm Road! Stay to the left at the fork....)

Oct. 10th- 'Training, Tools and Techniques', Villa Rica. I hope to have a class presented by one of our CCD astronomers. Start time 8:30 p.m. Everyone is invited to these sessions, and encouraged to explore the many different observing techniques to be presented throughout the year.

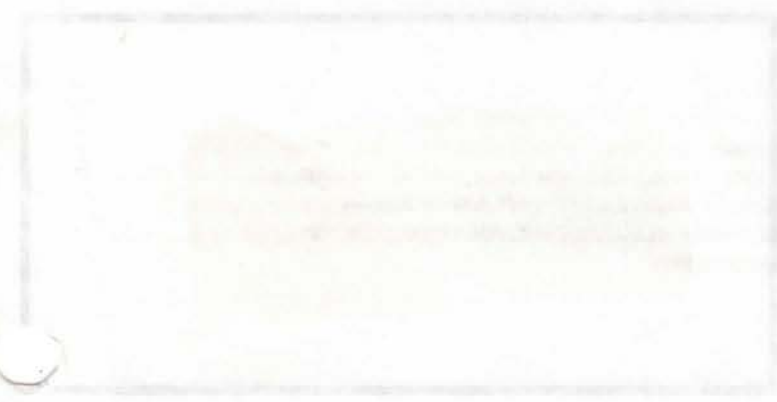
Oct. 11th- Villa Rica. 'Public Gaze and Newcomers Welcome and Orientation'. Begins 7:00 p.m. sharp.

Oct. 25th- Annual Picnic and Rededication. This is a new date scheduled in memory of the 20th anniversary of the dedication of the Walter Barber Memorial Observatory. Come make this historic occasion. at Villa Rica. Details forthcoming on Atlasro and at the Oct. meeting. Plan on spending a nice COOL Oct. afternoon chatting and catching up with friends, and an evening of viewing. Bring sidedishes.



Star-Hop #2; M2, NGC 7089. Just like the star-hop to M15, we use *Alpha (α) Pegasi* in the “Great Square of Pegasus” as our starting point to star-hop to M2. As before, we extend an imaginary line about 15 degrees to the star *Theta (θ) Pegasi*. Extending this line past *Theta (θ) Pegasi* for another 11 degrees, or just a bit more than the distance spanned by your fist at arm’s length will bring you to M2. There are also two alternative ways to locate M2. The planet *Saturn* is about 15 degrees, or the distance spanned by your index and little fingers against the night sky, south of the star *Gamma (γ) Pegasi*, the southeastern star in the “Great Square of Pegasus.” From there, M2 is about 40 degrees due west, or twice the distance spanned by the between the tip of your thumb and little finger against the night sky. A second alternative is to locate the stars *Alpha (α) Aquarii* and *Beta (β) Aquarii* in the constellation *Aquarius*. M2 forms the apex of a right triangle located to the west of *Alpha (α) Aquarii* and north of *Beta (β) Aquarii*. In binoculars and small telescopes M2 appears as a small circular nebulous object with a sharply concentrated nucleus, but without resolving any individual stars. Moderate telescopes will resolve many of the outer stars of M2, but most of the stars in the center of the cluster remain unresolved.

FIRST CLASS



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

Address for New Memberships, Renewals, Magazine Subscriptions, and Book Orders:

Atlanta Astronomy Club
3596 Canton Road, Suite A9-305
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Atlanta Astronomy Club Information Line: 770-621-2661

Internet Home Page: <http://stlsfb.gtri.gatech.edu/astrotx/atlastro.html>

Officers, Board, and Committees:

Art Russell	President	404-373-4119	artussell@mindspring.com
Rich Jakiel	VP, Program Chairman		deepsky@mindspring.com
Phil Sacco	VP, Observing Chairman	404-296-6332	psacco@bellsouth.net
	Beginner's Interest Group		
Pat Sammons	Treasurer	770-949-9715	Psammons@aol.com
	Subscriptions & Books		
Tushar Thrivikraman	Newsletter Editor	770-270-0742	kthrivi@emory.edu
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Chrissy Mondell	Hospitality and Refreshments		0002015032@mcimail.com
Lynn Crowley	Beginner's Contact and Socials		stephen.blalock@gtri.gatech.edu
Stephen Blalock	AAC Webmaster	770-924-6314	

The Focal Point

Newsletter of The Atlanta Astronomy Club, Inc.

FROM:

Tushar Thrivikraman
3629 Winbrooke Lane
Tucker, Georgia 30084
kthrivi@emory.edu



FIRST CLASS

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. Send dues to: **The Atlanta Astronomy Club, Inc., 3595 Canton Road, Suite A9-305, Marietta, Ga. 30066.**

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.**

Check out our ASTRO discussion list on the Internet: ASTRO@Mindspring.com. Also visit our Internet home-page: <http://stlsfb.gtri.gatech.edu/astrotx/atlastro.html>

Dr. William E. & Louise Warren
1212 Everee Inn Rd.
Griffin, GA 30224

9805

