

THE FLINT RIVER OBSERVER

Newsletter of the Flint River
Astronomy Club

Vol. 11, No. 6 August, 2007

Officers: President, **Curt Cole:** (770)946-3405, 24e29d55c@speedfactory.net; Vice President/Newsletter Editor: **Bill Warren:** (770)229-6108, warren7804@bellsouth.net; Secretary-Treasurer, **Irene Cole:** (770)946-3405, 24e29d55c@speedfactory.net;

Board of Directors: **Larry Higgins:** (770)233-6933, higgmo1@yahoo.com; **Tom Danei:** (770)320-8802, daneil00@hotmail.com; and **Felix Luciano:** (770)471-4160, <montb02@yahoo.com>.

Webmaster, **David Ward:** (770)898-5201, dward51@bellsouth.net; Alcor, **Steven "Smitty" Smith:** (770)583-2200, sara60@bellsouth.net; Ga. Sky View/Astronomy Day Coordinator, **Steve Knight:** (770)616-2676, saknight1@comcast.net; Observing Chairman/Public Observing Coordinator, **Larry Higgins**; Program Co-Chairmen: **Larry Higgins** and **Bill Warren**; Publicity: **Curt Cole**; Night Sky Coordinators: **Smitty** and **Steve Knight**; NASA contact: **Felix Luciano**; Event Photographer, **Tom Danei**.

Club mailing address: 190 West James Circle, Hampton, GA 30228,. Web page: www.flintriverastronomy.org; discussion group at <FRAC@yahoogroups.com>.

Please notify **Bill Warren** or **Curt Cole** if you have a change of home address, telephone no. or e-mail address.

* * *

Club Calendar. Thurs., Aug. 9: Club meeting (7:30, Stuckey Bldg. on the UGa-Griffin Campus); **Fri., Aug. 10:** Cox Field observing (at dark); **Sat., Aug. 11:** Perseids Potluck Party (7:00, Cox Field); and **Fri.-Sat., Aug. 17-18:** Cox Field observings (at dark).

* * *

President's Message. I was thinking recently about the ways in which all members of a club or organization contribute to its goals and effectiveness.

Everyone leaves a legacy of some kind. Organizations are never static. They constantly pick up new ideas or move in new directions based on decisions and interactions among the group, as well as outside influences.

The elected leaders are usually the most visible contributors, but FRAC's rank-and-file members also contribute by supporting the club in many ways, such as attending meetings and participating in activities, presenting programs or teaching classes, conducting public observings, offering suggestions or advice, helping new members, and generally providing direction for the club's leaders. We've usually had members step up to the plate and pitch in whenever and wherever they have seen a need. I'm particularly proud of those members.

We have gotten five new members so far in 2007. As of July 21st, we have 25 paid

memberships and three honorary members. Each new member brings to the club a variety of experiences, interests and abilities. I always look forward to what both the new and existing members have to offer the club, and to what they can teach me. I also look forward to helping them learn about not just astronomy, but also the workings of a democratic organization such as FRAC. Such knowledge, gained from being in this and other clubs, has helped me better understand and appreciate the workings of our government and the difficult task that our elected government leaders have in trying to please a diverse constituency and not go broke in the process.

Our club, and other small clubs, can be viewed as a mirror of our government, working in many ways like the federal, state, county and municipal governments do (but without the lobbyists, salaries, pensions and kickbacks). We elect officers, then trust them to take care of the day-to-day business and look after the club's long-term interests. That trust is maintained through openness -- that is, ensuring that the dealings and decisions are made public so as not to break the trust.

Leaders rarely can please everyone, so to keep the group satisfied we need the input of all members, we need to be willing to compromise, and we need to work as a team to carry out all the responsibilities.

I believe that FRAC, which celebrated its 10th anniversary last March, has a bright future. That future has been built on the foundation of members who have come before me. I applaud their hard work, unselfishness, self-sacrifice and steadfastness in making FRAC a great astronomy club. I look forward to the future when other people will step up to

the plate and improve on a great thing. My thanks to you all – past, present and future.

Finally, let me give a hearty FRAC welcome to our newest members, **Al & Sally Bolton** of Stockbridge and **Heather Sherbourne** of Hamilton, Ga.

Al participated in our Quiz Bowl contest at the May meeting. A longtime astronomy buff, Al owns an 8" SCD, an 80mm f/7 refractor and 10x50 binoculars. He plans to start working on A. L. pins. (*See pp. 7-8. –Ed.*)

Heather, who attended our June meeting, is married to a chaplain in the army and has a bunch of kids, but she is the only one in her family who is interested in astronomy. Heather got into astronomy about five years ago, and she has an 8" Newtonian reflector and a 6" Dob. She says she may try to start a club in Hamilton, since she found out that the mayor and some other folks in town get together to observe casually.

Folks, please don't hesitate to let us know what we can do to help you maximize your enjoyment of your FRAC membership. That's what FRAC is all about: friends helping friends, and enjoying ourselves in the process.

* * *

People You Should Know: David Ward.

Apart from appearances at GSV and his work there with wife **Roxanne** in preparing those mouth-watering late-night sausage biscuits, we don't see nearly as much of David Ward as we'd like. And *No*, David, that doesn't mean we want you to show up at club meetings or Cox Field observings in the nude so we can see more of you! (Still...if he showed up in the buff with bruises on his posterior, it would give **Larry H.** the opportunity to declare,

“David, we haven’t seen you in a blue moon!”)

Anyway, you already know David through his role as FRAC’s webmaster. He’s been our webmaster since 2002, and we hope he’ll want to continue in that capacity for at least another decade or two.

David joined FRAC in Feb., 1999, but his interest in astronomy dates back to his childhood discovery that there were other heavenly bodies in the universe besides *Playboy* centerfold models. He used a rickety old 60mm telescope back then, and he has since upgraded his observing equipment three times, most recently to 12.5-in. Dobsonian. Says David, “After honing my observing skills in FRAC on 6-in. and 8-in. ‘scopes, moving up to a 12.5-in. Dob was like going from a 12” TV with rabbit ears to a big screen HD model. I just need to find time to get out and observe again.”

He sure does. David plays a telescope with the precision of a concert violinist.

Discussing David’s skills with his Celestron C-6 ‘scope (by Vixen) with a Super Polaris mount, **Smitty** once said, “David is a very good observer. The times I’ve seen him find very faint objects under less than ideal conditions is unreal...He is very efficient with that 6-inch ‘scope. I think if you gave him enough time, he could make it sing!”

David works with the Clayton Co. Police Dept. He and Roxanne have two daughters – **Rachel** (age 20) and **Melissa** (age 15).

David was the first person in FRAC to view the **Moon** by hooking up his telescope to a TV set, back in April, 2002. He has earned two A. L. observing pins (Messier and Binocular Messier), but his observing interests are – well, universal. He simply enjoys

finding things. His finds with the 6-in. Vixen alone include **Pluto**, the E and F components of the **Trapezium** in **M42**, and more than half of the Herschel 400 faint fuzzies.

David’s advice to beginners is, “Start observing the A. L. lists. And write it down.”

It’s good advice from a *very* talented observer.

* * *

Last Month’s Meeting/Activities. Thirteen members – **Curt & Irene Cole; Larry Higgins; Tom Danei; Joel Simmons; Charles, Erica & Jeffrey Anstey; Steve & Betty Bentley; Steve & Aimee Mann;** and our speaker, **Dr. Richard Schmude** – and one visitor, **Al Bolton**, who joined FRAC that night – attended our July meeting.

After Dr. Schmude’s outdoor presentation on how to find Venus in the daytime using setting circles, club business was discussed.

At writing, no information was available regarding who attended the July Cox Field observings.

FRAC’s Board of Directors met at **Brit & Tom Danei’s** lovely home on July 21st to discuss and resolve a variety of club concerns, among them:

The annual “Picnic on the Grounds” at Cox Field is being moved from its former October date to August in order to coincide with the **Perseids meteor shower**. (More about that later.)

The Board also voted unanimously to discontinue our involvement with the NASA Night Sky program, which was not being utilized other than the monthly article for our newsletter.

As a token of appreciation for **Phil Sacco's** valuable help with our promotional video, and for his contributions to past GSVs as well, his status as an honorary member of FRAC has been reinstated for one calendar year.

Dr. Richard Schmude's honorary membership was also extended for another year.

The Board also unanimously approved payment of a once-only \$200 outlay to cover the cost of background music used in the FRAC video, and reimbursing Tom for the cost of the DVDs and videotapes to be distributed, said cost not expected to exceed \$100; and the Board voted unanimously to discontinue the club's insurance, since the places where we conduct our public observings have their own liability coverage.

Finally and most importantly, the Board voted unanimously to table **Georgia Sky View 2008**. We'll reconsider GSV next year at this time to see whether GSV '09 might be feasible, but for now, at least, FRAC is dropping out of the star party scene.

Officers and board members present at the meeting included **Curt Cole, Irene Cole, Larry Higgins, Tom Danei** and **yr. editor**.

Felix Luciano could not attend the meeting because he was away on a business trip. (He's an international jewel thief whose business card reads, *Felix "Ice" Luciano, Cat Burglar*. Due to the success of his jewel heists, he no longer steals cats.)

* * *

Upcoming Meetings/Activities. Our club meeting at **7:30 p.m.** in the Stuckey Bldg. on the UGa-Griffin campus will feature a talk on "Sky Pollution" by **Steve Bentley**. (For more

about the subject, see Steve's article on pp. 8-10 of this issue.)

Our **Fri., Aug. 10th**, Cox Field observing will be a dark-sky affair, with the New Moon on the 12th.

On **Sat. Aug. 11th**, we're substituting a family-oriented evening of fun at Cox Field for our regular deep-sky-oriented observing: We're holding a "**Perseids Potluck Party**," beginning at 7:00 and continuing as long as you, the spouse and kids (but no pets, please) choose to stay.

The sky should be dark, so whatever Perseids meteors appear should be easy to see. Just bring enough deck chairs for everyone in the family to be able to kick back and look at the skies, and enough warm clothing to combat whatever evening chill we'll have in mid-August. You can bring your telescope and/or binoculars if you want to, but you won't need them if all you'll be doing is looking for meteors.

We're asking everyone to contribute one item to the meal. As **Curt** put it in a fracgroups message, "The club will supply the cups, utensils and paper products. (If anyone has these to donate, it'll save us money. But you must let me know before we purchase them.) Attendees are asked to bring a covered dish or drinks." Pizzas, anyone?

After eating, we'll just sit around digesting our meal, talking, flying kites, yo-yoing or throwing Frisbees, and looking for meteors after dark. No special skills or equipment are required. Even if you've never done this sort of thing before, we think you and yours will have a good time.

One week later, on **Fri.-Sat., Aug. 17th-18th**, we'll have our other Cox Field observings.

* * *

This 'n That. Our prayers and best wishes for a speedy recovery for young **Jeffery O'Keeffe**, who, according to dad **David**, is “doing much better” after recent brain surgery. Please keep us updated on Jeffery’s progress, David.

*On an even more somber note, our heartfelt condolences are extended to **David Ward** and his family on the passing of David’s father a couple of weeks ago.

*We read where actress **Sandra Bullock** is working on a new romantic comedy called *All About Steve*. Okay, guys, ‘fess up: Which one of you Steves is it? **Bentley? Mann? Knight?** Or **Steve Smith**, a.k.a. **Smitty?**

Speaking of **Steve Bentley**... Thanks, Steve, for the great job you did of solving the problem **yr. editor** was having with the mount for our Meade 390 refractor. Works like a charm now. (See what **Curt** meant by “friends helping friends,” **Al, Sally and Heather?**)

*We see where **Matt McEwen** is up to his old tricks again, this time scrapping the 4-pole truss tube ‘scope – “It was aesthetically beautiful, if I do say so myself, but it had some issues in the functional department” -- in favor of “another cooper tube around the mirror...an 8”, f/7 ‘scope with 16 strips instead of 52 and will consist of 2 tubes joined by wooden struts. This is purely aesthetic. It will not break down into components...70% cherry, 30% maple...Pics are in the photo section under ‘Matts8inchescope’.”

Know what the problem is, Matt? You’re in the wrong profession. Your brain says, *You’re a cabinet maker*, but your heart keeps telling you, *You’re a telescope maker*. And a darned good one, at that.

*For the 43rd consecutive month, **Ken Walburn**, the answer is still *No*, we will NOT consider moving one of our monthly observings to the men’s-only “Bubbles, Booze and Babes” Club in downtown Buckhead! But if you come to one of our Cox Field observings, you might catch **Betty Bentley** wearing a mud pack, a pink chenille bathrobe and matching mules, with her hair in curlers. Then again, you might not.

***Tom Danei** says the FRAC promotional DVD, *The Night Sky Explorers*, is almost ready for distribution and will be made available for sale to members at \$5.00 each. If you attended our June or July meetings, you already know that it’s a top-notch production from start to finish, and, at \$5.00, one of the best bargains you’ll ever find.

*Here’s a trivia question we bet even FRAC’s charter members can’t answer: *Who was FRAC’s first webmaster?*

The answer: **Cody Wellons**, teenage son of **Neal Wellons**, set up our web site in Sept., 1998, and served as our webmaster until May, 2002, when Cody went off to college and **David Ward** took over the position.

*And that brings up another trivia question – two questions, actually: *How many of FRAC’s original 18 charter members are still in the club, and who are they?*

The answer: Five (**Larry Higgins, Ken Walburn, Smitty, John Wallace** and yr. **editor**). John has since moved to Athens, but has remained in the club. Ken comes around about as often as Halley's Comet.

*A brief backyard observing report from **Steve Bentley**: "Last night (July 4th) **Betty** and I got out the 6-in. Meade and looked for **Comet C/2006 VZ₁₃**. We found it in *Draco* near where the Dragon's tail switches back up. It wasn't well-defined in the small 'scope, but appeared as a bright spot with a slight haze to one side. Still, we had fun looking for it and the night was very pleasant. We saw a few small meteors, too, but nothing impressive."

For those who don't already know it, Steve also has an 18-in. Obsession Dob, but he likes to take out the 6-in. 'scope for quick observing runs.

*Congratulations to **Curt Cole** for completing his 4th A. L. observing program, the Lunar Club. His certificate and pin will be presented to him at a future meeting.

* * *

The Sky in August. Although the Leonids meteor storm of 2001 generated lasting memories for those of us who were fortunate enough to watch it at its peak, the annual **Perseids meteor shower** in mid-August is, on average, more productive, normally offering about a meteor a minute at peak. This year's Perseids will be especially good because the New Moon occurs on the evening of Aug. 12th, with the peak occurring before dawn on the 13th.

If that sounds like we'll be missing a lot by not scheduling a predawn Cox Field "Perseids Pancake Party" on the morning of the 13th instead of a **Perseids Potluck Party** at 7 p.m. on Aug. 11th – well, no, it ain't necessarily so.

The Perseids run from July 17th through August 24th this year, so if you observed anytime from mid-July on, you've already seen some Perseids meteors. The hourly meteor rate rises as Aug. 12th-13th draws near, and shrinks after peak.

Not all of the meteors you'll see will be Perseids. A weaker shower, the **Delta Aquarids**, co-exists with the Perseids, its meteors slower than its Perseids counterparts. And on any given evening of the year, you're likely to see **sporadic** meteors that aren't associated with a meteor shower.

The way to tell Perseids meteors from others is to follow their line of flight back to its origin: if it's a Perseid, it will appear to have come from somewhere in the northern portion of the constellation *Perseus*, regardless of where you see it in the sky. That common point away from which the Perseids meteors appear to be coming is called the *radiant*.

So NO, you aren't more likely to see meteors by looking in the direction of Perseus. You're just as likely to see them anywhere, and heading in any direction.

What you'll be seeing are meteors entering Earth's atmosphere and burning up. And since the atmosphere extends everywhere around us, those meteors aren't confined to a small portion of the sky. Perseus just happens to be where the radiant of that particular meteor shower is always located.

The Perseids are debris left behind by **Comet Swift-Tuttle** centuries ago. Trapped in

a solar orbit after the comet passed, these countless billions of tiny fragments, ranging in size from grains of sand to pebbles, return every year in mid-August (although the comet returns only every 130 years). We see only the ones that enter Earth's atmosphere, where their 37 miles-per-second velocity heats them up and burns them.

And for those of you who tend toward nit-picking – we don't actually *see* the meteors at all. What we see is the ionized air behind them in their wake. (Think: a jet's vapor trail, only much faster.)

Further nit-picking: A **meteoroid** is any cometary leftover of any size that is orbiting the **Sun**. A **meteor** is a meteoroid that reaches Earth's atmosphere and produces light as it burns. A **bolide**, or **fireball**, is a very bright meteor that sparkles or blazes. And a **meteorite** is a meteor that reaches the ground in one or more pieces.

Although our planet has absorbed many meteorite blasts in the past, the largest single meteorite ever discovered or recovered was found in 1920 in South West Africa (now Namibia). It measured 9 ft. x 8 ft. and weighed an estimated 65 tons. That's more than the combined weight of **Curt Cole** and everyone else in FRAC who joins him for a hearty meal at Maria's before our club meetings!

No such meteorites are expected at Cox Field any time soon (although you might think one landed nearby if **Larry Higgins** has lunch at Maria's on Aug. 11th).

* * *

GETTING PINNED

article by **Bill Warren**

New members often ask, "How much does it cost to join those A. L. observing clubs?" The answer, of course, is that it doesn't cost anything, it's included in your A. L. dues (which, in turn, is part of your \$15.00 annual FRAC dues).

Anyway, the term *observing clubs* is a misnomer since, for example, the "Messier Club" is actually an observing **program**, not a club. Find the 109 Messier objects – **Charles Messier** included **M101** twice – show us documented evidence that you found and observed them (i.e., your observing log), we send in a request for your certificate and pin, they send it to us and we present it to you. It's as simple as that. No pain, no strain.

To find out exactly what information is required in order to receive a certificate and pin for any given observing club, go to the A. L. web site – just type in "Astronomical League," hit GoTo and click on the link to "Observing Clubs," and there they are. Presently, there are 28 observing clubs.

In FRAC's first 10+ years of existence, present or former members have received 70 A. L. pins. The breakdown is as follows: **Bill Warren**, 14; **Phil Sacco**, 11; **Smitty** and **Dawn Knight**, 5; **Larry Higgins**, **Curt Cole**, **John Wallace** and **Tim Astin**, 4; **Doug Maxwell**, 3; **David Ward**, **Larry Fallin**, **Joe Auriemma**, **Mike Stuart** and **Cory Dukes**, 2; and **Erica Anstey**, **Steve Knight**, **Jerry Williams**, **Grady Dukes**, **Katie Moore** and **Dan Pillatzki**, 1.

By observing club, the breakdown of pins is as follows:

*Arp Peculiar Galaxies- **Bill Warren**, #15
Visual.

*Binocular Messier- **Phil Sacco, #290; Smitty, #343; Bill Warren, #357; David Ward, #420; Larry Higgins, #422; Tim Astin, #429; Joe Auriemma, #486; John Wallace, #507; Dawn Knight, #550; Grady Dukes, #551; and Curt Cole, #640.**

*Caldwell- **Phil Sacco, #7; Bill Warren, #10; Dawn Knight, #17; Doug Maxwell, #42; and Smitty, #48.**

*Deep Sky Binocular- **Phil Sacco, #79; Smitty, #82; Bill Warren, #84; and John Wallace, #167.**

*Double Star- **Phil Sacco, #46; Bill Warren, #68; Larry Fallin, #175; John Wallace, #235; Dawn Knight, #255; Doug Maxwell, #275; and Curt Cole, #345.**

*Globular Cluster- **Bill Warren, #76.**

*Herschel 400- **Bill Warren, #183; and Phil Sacco, #210.**

*Herschel II- **Bill Warren, #24 Manual.**

*Lunar- **Phil Sacco, #82; Bill Warren, #129; Mike Stuart, #151; Tim Astin, #164; Larry Higgins, #217; Jerry Williams, #228; and Curt Cole (U).**

*Master Observer- **Bill Warren, #4; and Phil Sacco, #11.**

*Messier- **Phil Sacco, #1454; Larry Higgins, #1484; Bill Warren, #1539; Smitty, #1629; John Wallace, #1648; Mike Stuart, #1657; Katie Moore, #1683; Joe Auriemma, #1739; Dan Pillatzki, #1740; David Ward, #1751; Tim Astin, #1780; Dawn Knight, #1835; Larry Fallin, #1852; Steve Knight, #1858; Cory Dukes, #1875; Doug Maxwell, #2059; and Curt Cole, #2192.**

*Planetary Observers- **Phil Sacco, #9.**

*Sky Puppy- **Erica Anstey, #8.**

*Sunspotters- **Smitty, #27; and Bill Warren, #36.**

*Universe Sampler- **Bill Warren, #16 Telescopic and #17 Naked-eye; Larry Higgins, #18 Naked-eye; Phil Sacco, #23 Telescopic; Dawn Knight, #25 Telescopic; Tim Astin, #28 Telescopic; and Cory Dukes, #34 Telescopic.**

*Urban- **Phil Sacco, #1; and Bill Warren, #4.**

No FRAC members past or present have earned certificates and pins in the Asteroid Observing Club; Comet Observers Club; Constellation Hunter Club; Earth Orbiting Satellite Observers Club; Galaxy Groups & Clusters Club; Lunar II Club; Meteor Club; Open Cluster Club; Outreach Club; Planetary Nebula Club; Southern Skies Binocular Club; or Southern Sky Telescopic Club.

* * *

“DARK SKIES, ANYONE?”

article by Steve Bentley

Stargazing requires dark skies.

Unfortunately, however, our dark skies are being assaulted and threatened on an ever-increasing basis by light pollution.

When you visit our observing site, Cox Field, and look at the sky after sundown, you'll see broad domes of light called *sky glow* extending from the horizon into the sky in almost all directions, most notably in the east and north.

Sky glow is generated by lights from nearby towns and cities. Metropolitan Atlanta alone numbers more than 2 million residents. With suburbs expanding, new subdivisions being built and towns everywhere growing in size, it's a sure bet that the problems generated

by and associated with light pollution will worsen in the future. Most people don't even recognize light as a form of pollution.

Thus, the obvious question: *As an amateur astronomer, what can I do to combat light pollution?*

And the equally obvious answer: *We've got to get busy and do something, anything, to try to change the situation, or else our dark skies will disappear entirely.* Waiting or hoping for someone else to act on our behalf is a waste of valuable time. It hasn't worked in the past, and it won't work in the future.

Where To Begin? A good place to start would be for you to write a brief – say, no more than 200 words – Letter to the Editor of your local newspaper describing the negative effects of light pollution on amateur astronomy, and on your community as well.

Regarding the latter: Most people aren't aware that a direct link exists between the well known menace of **air pollution** and the less well known problem of light pollution. That link is *wasted energy*.

The “sky glow” that we see at night is caused by light rising into the sky. But unless your community is worried about a nighttime aerial attack by enemy aircraft or aliens from space, there's no real need to light up the sky at night. And since the light from sky glow doesn't produce itself, wasted light amounts to wasted energy.

The energy used to produce light is in itself produced by an electric generating facility. In most of the U. S., coal is burned to generate that energy. The more coal is burned in this process, the more air pollutants are released into the air from those facilities.

The solution to this problem is, of course, to switch from inefficient light fixtures to efficient ones, thereby reducing both air pollution and wasted electric energy. This is true whether we're talking about residential usage (i.e., streetlights and individual security lights) or businesses and the massive amounts of electricity they use for security lighting.

Depending on the type of fixture used, the addition of a relatively inexpensive shield that directs light downward rather than toward the sky where it is wasted will solve the problem.

On Hawaii's Big Island, where a huge array of big telescopes such as the Kecks I and II are housed atop 13,896-ft. Mauna Kea, the astronomers persuaded city officials in the largest nearby town, Kona (pop. 44,000) to install low-energy yellow bulbs throughout the town, and to use shielded fixtures to direct the reduced glow downward.

Safety/Security Considerations. Towns, businesses and families install “yard-blaster”-type lighting because they hope to increase safety and/or security. It's a false sense of security, however, because would-be thieves and vandals don't normally approach their victims from the sky. Too, the glare from the bright light of a “yard-blaster” can serve to blind one to the presence of an intruder beyond the light's overpowering glow, and it creates deep, dark shadows in which intruders can easily hide. Softer, shielded lights that focus light downward permit objects and persons behind the glow to be seen far more easily.

There are other safety considerations that you could point out in your Letter to the Editor, such as the possibility of glare from a poorly designed streetlight fixture blinding a

driver to the presence of a pedestrian crossing the street at night. But such arguments probably belong in a follow-up Letter to the Editor, due to length considerations and possible loss of focus that could draw the readers' attention away from your main points.

(This concludes Part One of Steve's article. The second and final installment will appear in the Sept. issue of *The Observer*.)

##