

THE FLINT RIVER OBSERVER

Newsletter of the FLINT RIVER
ASTRONOMY CLUB
(an affiliate of the Astronomical League)

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

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Club Calendar. Fri.-Sat., Sept. 7-8: Cox
Field observings (at dark); **Thurs., Sept. 13:**
club meeting (7:30 p.m. at Stuckey Hall on the
UGa-Griffin campus); and **Fri.-Sat., Sept.
14-15:** Cox field observings (at dark).

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Vice President's Message. Living here in the
U. S., if we're unhappy with the current crop
of scoundrels and thieves running our local,
state and federal governments, we can vote
them out of office and elect a new set of
scoundrels and thieves.

Fortunately, FRAC and its star party, the
Georgia Sky View, aren't run by scoundrels
and thieves, but by honest men and women
who volunteer their time and efforts on behalf
of a club they love. Thus has it always been,
is now and ever shall be.

So if, at the Sept. meeting, you hear
divergent views discussed regarding our
annual Ga. Sky View star party, whether it
should be continued and, if so, how it should
be run, please remember that everyone's goal
is ultimately the same, namely, making FRAC
the best it can be.

Remember, too, that the only one who
might conceivably regard your (or your family
unit's) vote as unimportant is *you* or your
family unit. Everyone else thinks your vote is
pretty darn important, so you should, too.

We're trying to make voting as easy as
possible by using absentee balloting as well as

voting at the meeting. We're expecting a large turnout at the Sept. meeting and hope you'll be able to attend – but remember, too, that your vote counts the same either way.

You can request an absentee ballot anytime after you receive your Sept. *Observer*. (See p. 3 for other important details regarding voting.)

Finally, I know you'll want to join me in welcoming two new club members: **Tom Moore**, a former member who served as our club librarian from 2001-2005 and as Alcor from 2002-2005; and long-time AAC member and ex-Peach State Star Gaze coordinator **Ken Poshedly**, who spoke at our May meeting. They are fine gentlemen who have much to contribute to FRAC.

-Bill Warren

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Last Month's Meeting/Activities. Sixteen members – **Alan & Sally Bolton, Steve & Betty Bentley, Charles, Erica & Jeffrey Anstey, Steve & Aimee Mann, Curt & Irene Cole, Larry Higgins, Steve Knight, Felix Luciano, yr. editor** and new member **Tom Moore** – and one visitor, **Dan Pillatzki**, were present at our Aug. meeting to hear **Steve Bentley's** excellent and engaging talk on every amateur and professional astronomer's No. 1 Enemy, *light pollution*.

Steve, who is naturally shy but hides it by talking 70 miles an hour to anyone and everyone within shouting distance, is quickly becoming one of FRAC's more valuable contributors. We wanted to ask **Betty**, his lovely and talented wife, to tell us more about

Steve at the Perseids Party, but she couldn't get in a word edgewise. (Or maybe it was because her mudpack had hardened.)

Curt announced at the meeting that he was assuming the duties of Alcor for the club.

During the latter portion of the program, **Steve Knight** asked to be allowed to speak to the group. After announcing that he is not going to Iraq after all, Steve apologized profusely for whatever shortcomings GSV '07 experienced under his leadership this year and vowed that, if GSV '08 were to be reopened for discussion and voted in with him at the helm, things would be very much improved in '08.

As a result of Steve's statement and support by various members present for reopening discussions, the Sept. program will be devoted to discussion and voting regarding GSV '08 and the nature of Steve's role in it.

The turnout for our **Perseids Potluck Party** at Cox Field was superlative: 22 members – **Joel & Anne Simmons; Charles, Lisa, Erica & Jeffrey Anstey; Matt, Suzanne & 3-1/2-year-old Samantha (Sam) McEwen; Steve & Betty Bentley; Heather Sherbourne; Larry, Linda & Randi Higgins; Steve & Aimee Mann; Felix Luciano; Tom Moore; Curt Cole; and yr. editor** and wife **Louise** – and one guest, Randi's housemate **Marilyn Lewis** – showed up to devour the mountain of food that everyone brought. We enjoyed the thousands of Perseids meteors that appeared, although all but a handful of them were cleverly disguised as stars, airplanes, satellites and empty sky.

For more about the evening's festivities, see p. 4.

Of our three other scheduled Aug. Cox Field observings, one was rained out, one was

clouded out, and the third found **Joel Simmons** and yrs. truly braving the heat and so-so skies to visit old friends **Ring Nebula, M13, the Blinking Planetary (NGC 6826)** and **Veil Nebula** – well, the eastern portion, **NGCs 6992-95**, anyway.

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Upcoming Meetings/Activities. The first of our two Sept. Cox Field observing weekends will be on **Fri.-Sat., Sept. 7th-8th**. Bring some clear, dark skies and cool weather with you, if you can find some. Or at least bring some cold soft drinks.

Our club meeting will be held as usual in the Stuckey Bldg. on the UGa-Griffin campus, at **7:30 p.m. on Thurs., Sept. 13th**. The program will consist of discussion and voting on several items relating to whether (and how) FRAC should host **GSV '08**.

***Please note:** An absentee ballot will be e-mailed to you prior to the meeting if you let yr. editor know in advance that you cannot attend the meeting.* That ballot must be completed and returned no later than **Wed., Sept. 12th**, to:

Bill Warren
1212 Everee Inn Road
Griffin, GA 30224.

You can, of course, try to e-mail it back to me at warren7804@bellsouth.net when you're finished voting – but if, for whatever reason, your e-mail doesn't go through or I can't open your attachment – and that happens to me more than just occasionally -- your vote won't count.

If you e-mail it to me, immediately upon receipt I'll reply that I got it. If you don't hear from me within 24 hours of e-mailing it, that means I didn't receive it (or couldn't open the attachment).

Frankly, if I were you and considered my vote important (as you should), I wouldn't take that chance. Bad as it is, snail mail is better in this case. Just mail it early.

At any rate, since we plan to announce the voting results at the meeting, *any absentee ballots received after the cutoff date of Wed., Sept. 12th will not be counted.*

Please note, too: ***FRAC's Bylaws stipulate that, in matters being voted on by the entire club, voting is restricted to one vote per family unit or individual membership.***

Our other Cox Field observations will be held on **Fri.-Sat., Sept. 14th-15th**. If they're rained out, should we be disappointed or overjoyed?

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This 'n That. **Tom Danei** is now the proud owner of an 11-in. Starmaster Versascope. His new telescope's features include: a 1.6-in. Zambuto pyrex primary mirror (Zambuto is to telescope mirrors what Lamborghini is to luxury sports cars), a 2-in. Crayford focuser with 1.25-in. adapter, aluminum truss poles, oak construction and polyurethane finish, light shroud, dust cover and Telrad.

Maybe Tom will take us all out for a test drive.

(Incidentally, for those who didn't already know it, Tom's last name is pronounced: "Dah NEE," with emphasis on the last syllable. His

first name is, of course, pronounced just like it sounds: Edgar.)

***Steve** (pronounced: Steve) & **Aimee Mann** have a couple of new toys, too, one of which is a 25mW SABER Series PGL-A Green Laser Pointer from On-Point Lasers, Inc. Its powerful beam probably will be visible to inhabitants of Iowa, if not **Io**. (**Prof. Stargazer** wanted us to point out that their laser pointer also has a “Safety Interlock Dongle” feature, too, but in the interest of decency we refuse to print the Prof’s lewd and salacious comments about it. Let him pout.)

By now the Manns should also have received their new Meade “mySKY,” an intriguing little device that can be either hand-held or attached to a ‘scope like a Telrad. Either way, it identifies, shows and tells you all that can be shown and told about whatever you point it at.

So here’s a tip regarding using it, Steve and Aimee: Don’t *ever* point it at **Larry Higgins**.

***A Perseids Potluck Party Report From Steve Bentley**. “Although a little on the hot side initially, the PPP was a roaring success. The meteor shower may not have been quite as good as we’d hoped it would be, and the skies weren’t as clear as they were the previous night, but the friendship and camaraderie were outstanding. There were people attending whom **Betty** and I had never seen before but hope to meet again. There were a few noticeable absences, too, and they were sorely missed. There was also lots of delicious food available.

“The main attraction of the event, though, turned out to be **Larry Higgins’s** clever “Observ-A-Potty.” It was truly a marvelous

(and much-needed) bit of engineering. I’m sure that all of the ladies present – the guys were barred from using it, nature having provided a much larger Port-A-Potty for the gents behind Mr. Cox’s workshop – appreciated its presence. The most ingenious feature of Larry’s creation was that, while they were taking care of business, the ladies could still watch for incoming meteors.

“A good time was had by all. Can’t wait till next year’s party.”

***Potluck Party Plus: A Perseids Report from Charles Anstey**. “The weather had cleared up nicely in our area when we got home from the PPP, so I decided to do some imaging. I stayed up till 3 a.m., looking for meteors while the camera was busy.

“I saw many bright meteors, including one fireball – my first direct sighting – around 2:15 a.m. It came from the meridian, just E of *Cygnus*, leaving behind a green trail about the length of the Northern Cross.

“The bolide was a brilliant white that reminded me of a sparkler without sparks or sound. It lit up the ground until it vanished like a streak of lightning.

“The green trail remained bright for about ten seconds, and then it began to fade into a squiggly line that was visible for another twenty seconds.

“I went outside about 4:30 Monday morning to watch the Perseids peak, but there were only a few to be seen and none of them was very bright.”

***From “The Vent” (AJC, 7-28-07, p. B2):** “If a dyslexic stargazer spots strange lights in the sky, is he seeing an OFU?”

*From **Heather Sherbourne**: “Would you believe that I’ve been reading a book called *The Cloudspotter’s Guide* by **Gavin Pretor-Pinney**?!! I suppose if all I have to look at is clouds in the summer, I might as well learn how to identify them.”

*An important observing tip from new member and Master Observer **Tom Moore** (well, actually, Tom’s not a Master Observer yet, but he will be as soon as he earns ten more pins): “If you’re steadying your binoculars against a tree while observing the **Moon** and the lunar feature you’re looking for is hidden in the shadowy part, move to the other side of the tree.”

Hey, we warned you about Tom: he’s the guy who bought his daughter **Katie** a dew shield because he thought it would keep the doggies away from her telescope.

*At the Aug. meeting, someone laid a *Family Circus* cartoon on our clipboard. It showed Grandma and her two grandchildren looking out the window at the Second Quarter Moon. Grandma is telling them, “Pessimists see it as half empty, and optimists see it as half full.”

Larry Higgins, who sees it not as half-slow but as half-fast, wonders, “When the **Moon** is in its Second Quarter Phase, do people turn into half-werewolves?”

***Timothy Ferris**’s popular book about amateur astronomy, *Seeing In the Dark*, has been made into a critically acclaimed Public Broadcasting System (PBS) special with the same title. **Curt** investigated and found that the special will be aired at **7:00 p.m.** on **Sunday, Sept. 23**, on Atlanta’s PBS channel

WPBA 30. It is scheduled to air on channel 8 on Sept. 18, at 9:00 PM, and Sept. 23, at 2:00 AM. You **don’t** want to miss it. We’ve seen demo clips of *Seeing in the Dark*, and it is simply exquisite.

*If you’re shopping for a new telescope, or if you’d just like to know a bit more about telescopes than you do now, you might want to check out the 20-pp. “2008 Telescope Buyers Guide,” a pullout section in the Sept. issue of *Astronomy*.

Incidentally, that Guide includes a photo and description of a Starmaster Versa 8 telescope, a smaller version of the telescope that **Tom Danei** bought in New Jersey.

(Did we mention how to pronounce Tom’s last name? It’s easy, just remember this: *Danei* is the only name in the world that rhymes with orange.)

*Since he’s no longer in the club and thus is unable to defend himself, we might point out that, whenever **Dan Pillatzki** told anyone his name, the usual reply was “Gesundheit” or “Bless you.”

(Before anyone objects to such lame humor at others’ expense: Dan read and approved of this portion of the newsletter and agreed to its propriety and inclusion. Now we’re trying to get him to agree to come back to FRAC.)

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The Sky in September. Jupiter (in *Ophiuchus*), **Mercury** (lurking near the W horizon), **Mars** (in *Taurus*), **Uranus** (in *Aquarius*) and **Neptune** (in *Capricornus*) will be visible at various times of night in Sept.

Venus and **Saturn** will be targets for predawn early risers.

With temperatures reaching three digits nine times in Atlanta in August, *Orion's* rising near dawn brings the comforting reminder that winter isn't really that far away, after all.

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“DARK SKIES, ANYONE?”

article by Steve Bentley

(Editor's Note: This is Part Two of Steve's article, Part One having appeared in last month's Observer.)

The Effects of Light Pollution on Stargazing. This is likely the most difficult major point to make since, as **Smitty** has pointed out many times, people often regard amateur astronomers as “kooks and crazies” who spend their nights in the dark with their expensive toys. Too, when most people who aren't interested in astronomy look up at night and see a few stars, they don't realize how much else there is to see from a darker site. They don't realize (or care) that all they're seeing in a light-polluted area is the brightest stars.

There are two points you can make here.

First, you can challenge your readers to take a ride outside the city and far away from its lights, and look at the sky under darker conditions. They'll see immediately the difference it makes. Tell them that the summertime “cloud” they'll see stretching all the way from the southern horizon to the northern horizon under dark skies isn't really a cloud at all, but the glow of untold billions of

stars that comprise our galaxy, the Milky Way. And then challenge them to go back home and try to find it again from their front or back yard.

Second, and even more convincingly, you can point out that, with the increased public awareness and concern regarding the possibility of a killer asteroid or comet striking the Earth, most of these objects are discovered by amateur astronomers. Only when an amateur makes such a discovery are the “pros” called in to verify their existence. The chances of discovering such a potentially deadly Near Earth Object is greatly reduced by having to search for them through light-polluted skies.

A Recap. In your letter, you might want to point out that you're not advocating a return to the Dark Ages or using candles to light our houses, but just trying to bring the problem of light pollution to everyone's attention. The use of properly designed light fixtures not only produces more usable lighting but will also reduce air pollution and save money in energy conservation.

Unlike all other forms of pollution, *light pollution is the only one that costs more to maintain than to eliminate.* You might suggest that, whenever someone is going to install a new outdoor light fixture or replace an old one, they look for a fixture that carries the “IDA Approved” label on the box. These light fixtures will provide the necessary level of illumination without wasting light and energy, thereby reducing energy consumption and resulting in lower operating costs. They will also provide better “night friendly” appearance to the areas they illuminate. Such fixtures are designed to reduce glare, and

thereby to enhance the safety of the illuminated area. They direct the light downward where it is useful, not upward into the sky.

The International Dark Sky Association.

On a more personal note, I used a term in the previous paragraph that some of you may not be familiar with: “*IDA Approved.*” That acronym stands for the International Dark Sky Assn., which was formed in 1988 to address problems involving light pollution.

Unlike, say, the National Rifle Assn (NRA) with its millions of members, the IDA is a small organization with about 12,000 members. Its purpose is to educate the public and lobby the political parties to reduce light pollution. Imagine how much the IDA could accomplish if its membership were closer to that of the NRA. The way IDA grows is the way FRAC grows, i.e., one member at a time.

If I have generated any interest in your attempting to get rid of sky glow, you can get all the information you need about the subject at the IDA’s web site at www.darksky.org/. By joining this immensely worthwhile organization, you will be taking a step toward attempting to reduce the light pollution that plagues all of us. And in a very real sense, the future of amateur astronomy depends on it.

Errata. **Larry Higgins** has five A. L. observing pins including Urban Club. **Dan Pillatzki** has three pins including Binocular Messier and Lunar. In all, FRAC members past and present have earned 75 pins, although none of **Phil Sacco’s** eleven pins were earned through FRAC.

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Cosmic Cockroaches

By Dr. Tony Phillips

Cockroaches are supposed to be tough, able to survive anything from a good stomping to a nuclear blast. But roaches are wimps compared to a little molecule that has recently caught the eye of biologists and astronomers—the polycyclic aromatic hydrocarbon.

Polycyclic aromatic hydrocarbons (PAHs for short) are ring-shaped molecules made of carbon and hydrogen. “They’re all around us,” says Achim Tappe of the Harvard Center for Astrophysics. “PAHs are present in mineral oils, coal, tar, tobacco smoke and automobile exhaust.” Aromatic, ring-shaped molecules structurally akin to PAHs are found in DNA itself!

That’s why Tappe’s recent discovery may be so important. “PAHs are so tough, they can survive a supernova.”

The story begins a few thousand years ago when a massive star in the Large Magellanic Cloud exploded, blasting nearby star systems and interstellar clouds with hot gas and deadly radiation. The expanding shell, still visible from Earth after all these years and catalogued by astronomers as “N132D,” spans 80 light years and has swept up some 600 Suns worth of mass.

Last year “we observed N132D using NASA’s Spitzer Space Telescope,” says Tappe. Spitzer is an infrared (IR) telescope, and it has a spectrometer onboard sensitive to the IR emissions of PAHs. One look at N132D

revealed “PAHs all around the supernova’s expanding shell. They appear to be swept up by a shock wave of 8 million degree gas. This is causing some damage to the molecules, but many of the PAHs are surviving.”

Astronomers have long known that PAHs are abundant not only on Earth but throughout the cosmos—they’ve been found in comet dust, meteorites and many cold interstellar clouds—but who knew they were so tough? “This is our first evidence that PAHs can withstand a supernova blast,” he says.

Their ability to survive may be key to life on Earth. Many astronomers are convinced that a supernova exploded in our corner of the galaxy 4-to-5 billion years ago just as the solar system was coalescing from primitive interstellar gas. In one scenario of life’s

origins, PAHs survived and made their way to our planet. It turns out that stacks of PAHs can form in water—think, primordial seas—and provide a scaffold for nucleic acids with architectural properties akin to RNA and DNA. PAHs may be just tough enough for genesis.

Cockroaches, eat your hearts out.

Find out about other Spitzer discoveries at www.spitzer.caltech.edu.

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



Caption:

Using the IR spectrometer on the Spitzer Space Telescope, scientists found organic molecules in supernova remnant N132D.