THE FLINT RIVER OBSERVER

NEWSLETTER OF THE FLINT RIVER ASTRONOMY CLUB

An Affiliate of the Astronomical League

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Officers: President, Bill Warren: (770)229-6108, warren7804@bellsouth.net; Vice President, Larry Higgins; Secretary-Treasurer, Steve Bentley.

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Club mailing address: 1212 Everee Inn Rd., Griffin, GA 30224. Web page:

www.flintriverastronomy.org; discussion group at FRAC@yahoogroups.com.

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

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Club Calendar. Fri.-Sat., Oct. 31-Nov. 1: Cox Field observings (at dark); Thurs., Nov. 13: Club meeting, 7:30 p.m. (Stuckey Bldg., UGa-Griffin campus); Wed., Nov. 19: Fairburn Pub. Library presentation (4:30 p.m.); Thurs., Nov. 20: Gordon College observing (9:00 p.m.); Sat., Nov. 22nd: Henry Co. council observing (Lake Dow Dam near McDonough, at dark); Fri.-Sat., Nov. 28-29: Cox Field observings (at dark).

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President's Message. Not long after hand-held calculators became commonplace, some math

educators said that it was no longer necessary to teach children how to perform the most basic math functions, because calculators could do that work for them with far greater speed and accuracy.

Today, something even more ominous – depending on your point of view – looms on the horizon, i.e., the contention by some educators that, in the near future, children won't need to learn to read, either, since interactive computers will be able to talk to them and tell them what they need to know.

Still...scary as that might appear, what does it have to do with astronomy?

I'm glad you asked.

It has to do with learning, and with the desire to acquire new knowledge to broaden your understanding of the world and universe around you. The more computers can do for you, the thinking goes, the less you need to learn beyond how to operate a computer.

The wave of the future in amateur astronomy is, unquestionably, GoTo computer technology. I haven't conducted informal polls, but it's probably a safe bet that at least ¾ of the people who use telescopes at Cox Field use GoTo technology – and that's a very good thing. GoTo finding systems permit relative newcomers to astronomy, seasoned veteran observers and astrophotographers alike to find things literally at the push of a button, thereby eliminating the frustration and time-consuming scanning involved in finding targets by conventional star-hopping techniques.

So where's the problem?

Well, there's *not* a problem – at least, not if you retain the same curiosity about the universe that you had when you joined FRAC and became an astronomer.

Consider a recent e-mail I received from **Steve Bentley:** "Basically I used last night to hone my object-finding skills. I found most of the objects in short order. It seems that I find more satisfaction in finding what I'm looking for than in studying the object once I've found it. I think it's time for me to shift gears and put more emphasis on the latter. I think I'd be better off just finding two or three things and then taking the time to look at them and study what I'm seeing." (My emphasis.)

To quote Jack Torrance (**Jack Nicholson's** character in the movie, *The Shining*): "Words of wisdom, m'boy. Words of wisdom."

If, as is common with most of us, one of your main goals in taking up astronomy was to see what's out there to be seen in the universe, then GoTo will help you do so in the quickest and most efficient manner possible. Hopefully, though, you won't stop there. Hopefully, you'll want to emulate Steve and take the time to *see* what you're looking at; and to endeavor (like, say, **Felix Luciano**, see p. 5) to learn what that object and others like it represent in the universal scheme of things.

And that's where reading comes in.

If you really want to understand what you're seeing when you look at, say, M11 (the Wild Duck Cluster in *Scutum*), there are three wonderful sources for information.

First, of course, there's the computer. Just Google "M11", hit Go, and click on any of the many sources that will appear.

Second and third, the two finest astronomy books ever written for observers of the night sky are Burnham's Celestial Handbook, a 3-volume, out-ofprint set by the late **Robert Burnham**; and the 2volume Night Sky Observer's Guide by George **Kepple** and **Glen Sanner.** Either of those two books will tell you whatever you need to know to enjoy M11 and countless other deep-sky objects to the fullest extent possible. At writing, those books were listed at \$46.50 new and \$1.13 for all 3 used (*Burnham's*) on amazon.com, and NSOG for \$25 used and \$35 new at the same source. They – and other books like them (e.g., Christian Luginbuhl and Brian Skiff's *Observing Handbook & Catalogue of Deep-Sky* Objects [(\$25 used, \$35 new at amazon.com]) will broaden your understanding of the universe in ways that you never would have imagined.

To me, at least, astronomy involves the quest to both see and understand what the universe is all about. We'll never have all the answers, of course – no one does, except that pompous windbag, **Prof. Stargazer** – but it's the desire to know more than we presently know that can make us more than we presently are.

Larry Higgins says that there haven't been many nights in his adult life when he hasn't read something

astronomy-related before falling asleep. And from where I sit, that's not a bad way to live.

-Bill Warren

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Last Month's Meeting/Activities. We somehow neglected to mention it at the time – advancing senility probably had something to do with it – but five members – Dwight & Laura Harness; Kevin Murdock; Tom Moore; and yrs. truly – attended our Aug. 11th Perseids Meteor Shower observing at Cox Field. The sky was overcast, but we had a great time anyway. All we needed to make the evening complete was clear skies and meteors.

On Sept. 26th, three members – **Dwight Harness**, **Patsy Lwowski** and **yr. editor** – were joined at Cox Field by large, cumbersome and hugely unwanted guests, i.e., more clouds than you could ever have hoped for under drought conditions.

More poor skies notwithstanding, we finally had our picnic observing on Sept. 27th, with 16 in attendance: **Steve Knight & Angela Smith; Dwight, Betty, Elizabeth & Laura Harness** and Laura's friend, **Evelyn Clark; Charles Turner; Steve & Betty Bentley; Kevin Murdock; Felix Luciano; Tom Moore; Doug Maxwell** – gee, it was great seeing ya again, Doug! – **Patsy Lwowski;** and **yr. editor.**

There's an old familiar saying that applies here: *Good food, good meat, good heavens, let's eat!*Three out of four ain't bad – but an occasional visible star would have been nice, too.

Great skies greeted ten members and guests at Cox Field on Oct. 3rd: Carlos Flores; Dwight Harness; Joel Simmons; Felix Luciano; Kevin Murdock; Alan, Vicky & Cassandra Pryor and Cassandra's guest, Ros Bell; and yr. editor. The evening's overriding theme was, *It's amazing what all you can see up there when the sky cooperates!*

The following evening, only three members showed up – **Tom Danei, Felix Luciano** and **yr. editor** – and if you weren't there you missed out on a heavenly delight, one of the cutest asterisms (star configurations resembling earthly objects) in the sky:

Poskus I (the Flyswatter). Felix found it, of course, lying 16' away from **Gamma Delphini**, the star that forms the Dolphin's nose. In another of the sky's remarkable coincidences, Poskus I lies near another, more familiar and brighter asterism that also looks exactly like its name, **The Coathanger** (a.k.a **Brocchi's Cluster** or **Collinder 399**) in *Vulpecula*.

The Flyswatter is an easy find. Just center your finderscope or Telrad on the Dolphin's snout, and it's in the same low-power telescopic field of view. Poskus I isn't large or bright – but it IS a flyswatter, with 3 stars forming the handle and four more forming a rectangular swatter. Be sure to look for it next time you get out your telescope.

(Oh, and lest we forget: although The Coathanger is a naked-eye blur slightly NW of **Alpha** and **Beta Sagittae**, it's a binocular target, too large to be recognized as a coathanger in a telescope unless you're using a rich-field telescope or wide-angle eyepiece.)

Thirteen members - Tom Moore, Ken Walburn, Raymond Hughes, Dwight Harness, Tom Danei, Joel Simmons, Felix Luciano, Carlos Flores, Steve Bentley, Jerry & Beverly Williams, Patsy Lwowski and yr. emcee for the evening's program – attended our October meeting. For our program, two sixmember teams slugged it out in "TRIVIA II," which explains why you recently received copies of Trivia II, Trivia I and Quizbowl via e-mail. (After the contest, which was won by the team with the most points, several members requested copies of the tests for educational or curiosity purposes.) Thanks to Tom Moore, FRAC's webmaster, those items have also been added to our website's "Articles" link, which is growing by leaps and bounds with every passing month.

Seventeen members visited the massive Wetumpka Meteor Crater Impact Site on Oct. 19th: **Dr. Richard Schmude, Charles Turner, Steve Knight & Angela Smith, Tom Danei, Patsy Lwowski, Alan & Sally Bolton, Dwight Harness, Larry Higgins, Jerry & Beverly Williams, Joe Auriemma, John Wallace, Carlos & Olga Flores and yr. editor.** The weather was perfect, and our host, Auburn geology professor **Dr. David King,** literally left no stones unturned in

ensuring that our trip was everything we hoped it would be.

You'll see and hear much more about our trip in the future: Tom filmed a video that we'll show at an upcoming meeting; Steve, Alan, Jerry and Carlos took about a zillion photos that will wind up in a "Wetumpka" link on our website; and we'll also send out a "Wetumpka Special Edition" of the *Observer* to commemorate and celebrate the occasion. For now, however, we'll simply point out that it was a very special occasion: exciting, educational, awe-inspiring, humbling – and tiring. (Someone pointed out that the only thing missing was escalators.)

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The new Earth, freshly torn from its parent Sun, was a ball of whirling gases, intensely hot, rushing through the black spaces of the universe in a path and at a speed controlled by immense forces. Gradually the ball of flaming gases cooled. The gases began to liquefy, and Earth became a molten mass. The materials of this mass eventually became sorted out in a definite pattern: the heaviest in the center, the less heavy surrounding them, and the least heavy forming the outer rim.

-Rachel Carson The Sea Around Us

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This 'n That. A Quotable Quote from Felix Luciano: "Fall is here...my favorite stargazing time of the year, along with winter and spring :-)." (And somewhere Ken Walburn is reading this and thinking: Wait a minute! Felix mentioned fall, winter and spring, but that's only three seasons. Now, what's that other one? "Doris, where's my Farmer's Almanac?")

*For his sake, we hope that **Steve Bentley's** middle name isn't "Oliver" or "Otto". If it is, that would mean his initials are...well...uh...

Yr. editor, who greatly admires Steve and always has, would be the last person in the world to suggest

that such initials might be a personality sketch as well as a lovely monogram for Steve's sweaters.

*Bug Juice, Part I: Felix Luciano. (Editor's Note: Bug season is largely over now, thank goodness, but considering yr. editor's tendency to forget anything longer than his name, he didn't want to try to save back the following information until next spring):

At our Oct. meeting, Felix conducted a Show & Tell re a new bug repellent, ThermaCELL. Says Felix, "After reading about it in several Cloudy Nights forums I purchased a unit. I can attest to the claim that it is very effective. I am considering purchasing a second unit.

"Your local Wal-Mart, Sports Authority, etc., sell them. They come with 3 blue mats/pads and one cartridge/bottle. Each blue pad lasts some 4 hrs. and the bottle some 10 hrs., so plan accordingly. Make sure you look for refills. The units sell in Olive, White and Woodlands Camo colors.

"Read the directions before using it!"

ThermaCELL dispenses a small amount of repellent into the air over a long period of time. It is powered by a butane cartridge that provides the cordless, portable heat necessary to operate the device (batteries are not needed). It directs the heat to a metal grill. A blue mat saturated with (repellent) is placed on top of the grill. The heat generated by the butane cartridge vaporizes the repellent, allowing it to rise into the air, creating a 15x15 ft. (225 sq. ft) mosquito-free zone in minutes. When used as directed, the repellent will not harm humans or pets.

(And if you use it without reading the directions, your nose will fall off. [Just kidding.] –Ed.)

*Bug Juice, Part II: Phil Sacco. Says Phil, "I know keeping the biting pests off is a concern for everyone but, as many of you know, aerosol sprays can damage the coatings of our optics...

"A solution I have found is the Coleman sonic projector. It has a key ring attachment for affixing to a belt loop, runs on AA batteries, is all but inaudible to human ears, and best of all, it works! I have been using it for years now and can't recall ever being bitten by a 'skeeter while it was turned on.

"Bounce fabric softeners also work well." Thanks for those insights, Felix and Phil.

*From the A. L.'s Outreach Club website link: "Outreach Awards Update (posted Oct. 9th by [A.L. president **Terry Mann**]): Due to personal issues, **Mike Reynolds**, the League's Outreach Coordinator, is severely behind in reviewing and issuing Outreach Certificates. Please bear with us as he catches up on these awards and hopes to have all caught up by Nov. 15, 2008. For further inquiries, please email Mike at his college address: mreynolds@fccj.edu."

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Upcoming Meetings/Activities. We'll end up one month and begin another with Cox Field observing on Fri., Oct. 31st and Sat., Nov. 1st. On both evenings, we invite you to join us in tracking down celestial ghosties and beasties from Phil Sacco's "Howl-Een Fun" observing list.

Our November meeting will be at 7:30 p.m. on **Thurs.**, **Nov. 13**th, in the Stuckey Bldg. on the UGa-Griffin campus. Our speaker, **Steve Knight**, will fill us in on his progress and plans re **Ga. Sky View 2009.** It'll be a great opportunity for you to ask Steve what you can do to help him get ready for the event.

From early indications it appears that this may well be our best GSV yet. Running a star party takes a lot of hard work and many helping hands, and we're sure that Steve will appreciate your volunteering to help out.

At 4:30 p.m. on **Wed., Nov. 19th, Steve Bentley** and **yr. editor** will conduct a presentation for kids at the Hobgood-Palmer Branch Public Library in Fairburn, Ga.

Next day, on **Thurs.**, **Nov. 20th**, FRAC will conduct a public observing for **Dr. Schmude's** Gordon College students, beginning at 9:00 p.m. To get to the site from anywhere N of Thomaston, come S on U. S. Hwy. 19/41 like you're going to Cox Field, but stay on 19/41 past the Ga. Hwy. 362 exit, and past the next two stoplights (at Airport Rd. and Zebulon Rd., where Hwy. 19 crosses the 4-lane).

About 10 mi. ahead, stay on the 4-lane past the Thomaston exit on the left, and stay on 41S after it

becomes U. S. Hwy 341. Beyond Thomaston, look for paved Brent Road on the left, turn left there, and turn left again into the driveway of the 1st house on the left.

If those directions are too detailed, just remember that, when you get on the 4-lane U. S. Hwy. 19/41S, stay on it all the way to Brent Rd, S of Thomaston. Turn left on Brent Rd., and the house where the observing will be held is the 1st house on the left.

For those of you who live in the McDonough area, we'll have a smallish observing beginning at dark on **Sat., Nov. 22nd,** for 10-15 adult members of a Henry Co. council at the community center and dam at Lake Dow. To get there, travel E from McDonough on Ga. Hwy. 81 until you reach North Bethany Rd. on the left. (There's a church at the corner.) Turn left, and stay on N. Bethany Rd. until you reach Lake Dow Rd. Turn right, and the community center and dam will be on the right about a mile ahead.

We'll wind up November with Cox Field observing on **Fri.**, **Nov. 28**th-**Sat.**, **Nov. 29**th. With the New Moon on the 27th, those nights should be perfect for deep-sky observing.

(Incidentally, a Jackson Rd. Elem. School observing is being scheduled for sometime in Nov. – they're the folks who raised \$80 by selling hot chocolate and donated the money to us at last year's JRE observing – but at press time the date hadn't been finalized. We'll let you know when the plans are complete.

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Right now, I am a passenger on the Space Vehicle Earth, zooming about the Sun at 60,000 miles per hour somewhere in the solar system.

-R. Buckminster (Bucky) Fuller

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Observing Report: Felix Luciano

Date: 9/21/08; Location: Jonesboro, Ga. Equipment: Orion Classic XT8 (8-in) Dob, Telrad. Eyepieces: 16 Nagler (75x/187x), 12 Radian

(100x/250x), 2.5x Powermate.

*M57 (Ring Nebula in *Lyra*). Small, oval shape easily seen at 75x. At 100x and 250x, a larger outline of the ring is visible, the annular structure showing as two distinct rings, with some white material filling the gap between the double ring. The center area is well defined and very dark.

*M13 (The Great Hercules Cluster). 250x shows lots of star chains radiating away from the cluster. Roundish, very dense, large and bright. Averted vision showed mainly white and light yellow stars in this well-known globular.

*M92 (globular cluster in *Hercules*). Used 75x to find it, observed it at 187x and 250x. Smaller than M13, very dense and compact

*M27 (Dumbbell Cluster in *Vulpecula*). Found it at 75x, where it was seen as a large, fuzzy patch of light. 100x and 250x showed more detail, averted vision revealing the "apple core" outline, with one end brighter than the other.

*NGC 6826 (the Blinking Planetary in *Cygnus*). Located at 75x. Using 100x and switching back and forth between direct and averted vision, the disk of the planetary nebula blinks in and out as a large, roundish glow.

*Trumpler I in Cassiopeia. At 75x, Trumpler I is a small, dense open cluster; increasing the magnification to 250x reveals two distinct rows of stars. I refer to this cluster as "the Six of Dominos, because that's exactly what it looks like." (Hey, Felix: be sure to remind Dr. Schmude of your "Six of Dominos" when he starts writing his upcoming book on asterisms; it'll get your name in his book as the one who named it. –Ed.)

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"You Need to Get Your "Stuff" Together!"

article by Steve Bentley

Have you ever driven out to an observing site, started setting up your equipment, and found you'd forgotten something? I sure have.

On one occasion, I got to my set-up site only to discover that I hadn't put the truss tubes for my 18" Obsession 'scope in the truck. Had I been at Cox Field – or worse, somewhere even farther away like *Chiefland* – the occasion would have been largely ruined before it even began. I shudder to think what people around me might have heard me saying.

Fortunately, I was observing in my yard that evening, and the forgotten poles were a mere 300 feet away.

The point is, I needed to get my "stuff" together. Preparation is the key. By carefully organizing your equipment and making a checklist, you can avoid the sort of misfortune I faced. Here's how to do it.

Telescope. I have three telescopes. I keep them in my shop, and I keep all of the parts and pieces of each telescope together and separate from the others – kinda like parking spaces for my 'scopes. When I choose which telescope I'm going to use for an upcoming observing session, everything for that 'scope is in one place. Still, I have to make sure that I don't leave any of the parts behind when I'm packing the car.

Equipment Cases. I use three different cases for my equipment. In one case I keep my eyepieces, filters, diagonals, laser pointer, flashlight, and a pair of reading glasses. Another case houses my Telrad, finderscope, laser collimator and spare parts such as: extra batteries that fit every piece of battery-powered equipment I use, spare screws and other hardware, a few Allen wrenches and a Leatherman tool. I even have extra counterweights for my Obsession, in case I need to change the counterbalance.

My third equipment case contains dew heaters and their accessories. Since I have three telescopes, this is a special situation for me. I use dew heaters on two of my 'scopes. And since there are some differences between the two heating systems, I keep ALL my dew heater gear (except the battery that powers them) in this equipment case, including plug multipliers, controllers, heat elements and connecting cables.

By doing it this way, I'm sure I have all my dew prevention equipment with me regardless of which 'scope I decide to take with me. I take pains to remember to take along the battery that powers all that gear. And if I'm going on a long trip (e.g., Chiefland), I make sure to take along a battery charger as well. One of the small "wall warts" units will work in all but the most demanding cases.

The Checklist. This is the most important organizational step of all. The checklist should include EVERYTHING you want to take with you – your telescope and all its separate parts; accessories; batteries; observing list and/or star charts or atlases (if you use them); tables & chairs; weatherappropriate clothing; insect repellent; and possibly even something to eat or drink. (Editor's Note: We will include a checklist for Georgia Sky View 2009 on our GSV web link in the near future.)

As you read the checklist, you can decide whether to pack certain items, depending on the nature and length of the trip. You can also use the checklist to make sure you don't leave anything behind after the observing session is over, too. Make sure you load each item into your vehicle as you check it off: It's decidedly unpleasant to discover that you left your eyepiece case sitting on the top of your car or on the ground beside your trunk when you pull out to leave.

Organization is the key to ensuring that you at least have a chance at having a good outing. You can't control the weather, but you *can* control what goes into and comes out of your car before you leave home and again before you leave the observing site. So if you choose not to be organized and use a checklist, you shouldn't be surprised later when, having forgotten something important that you meant to bring along, you hear someone telling you, "You really need to get your 'stuff' together."

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