

THE FLINT RIVER OBSERVER

Newsletter of the FLINT RIVER ASTRONOMY
CLUB, an Astronomical League affiliate

Vol. 13, No. 12

February, 2010

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

Board of Directors: **Tom Moore;** **Tom Danei;** **Felix Luciano;** and **Joel Simmons.**

AlCor/Webmaster, **Tom Moore;** Ga. Sky View Coordinator, **Steve Bentley;** Observing Chairman/Public Observing Coordinator, **Dwight Harness;** Program Co-Chairmen, **Larry Higgins** and **Bill Warren;** NASA Contact, **Felix Luciano;** Event Photographer, **Tom Danei;** and Newsletter Editor, **Bill Warren.**

Club mailing address: 1212 Everee Inn Road, 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., Feb. 5-6: Cox Field observings (at dark); **Tues., Feb. 9:** Crescent Elem. School observings (6:30 p.m.); **Thurs., Feb. 11:** FRAC meeting (7:30 p.m., Stuckey Bldg. on the UGa-Griffin campus); **Fri.-Sat., Feb. 12-13:** Cox Field observings (at dark); and **Fri.-Sat., Feb. 19-20:** Cox Field observings (at dark).

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President's Message. Several of our members – **Felix Luciano, Alan Pryor, Carlos Flores** and **Joel Simmons** come to mind, although there may be others

– have recently become involved in astrophotography. They're becoming quite adept at it, too. Some of them – most notably Felix – are confident enough in their newfound skills to post some of their astrophotos on our fracgroups site.

And that brings to mind a related point, i.e., that some of our members haven't yet joined fracgroups.

Folks, if you haven't signed up for fracgroups, you're missing a great opportunity to expand your understanding and appreciation of astronomy and FRAC. Aside from our website, fracgroups probably is our best link to nonmembers and ex-members, some of whom periodically contact us with news or astronomy-related tidbits. It's also used by our members to share photos, articles, ideas, etc. We've had at least three recent fracgroups submissions – including **Stephen Ramsden's** incredible solar astrodrawings that were featured APODs -- Astronomy Photos of the Day -- that you can enjoy only if you are enrolled in fracgroups. (The others were from two guys named **Jerry Williams** – one a current member of FRAC and the other an ex-member.)

So here's how to enroll, courtesy of **Tom Moore:** "Go to our website. At the bottom of the page, click on 'Click to join FRAC Yahoo Groups.' Create and fill in a Yahoo ID of your choosing, one that you'll remember. Fill in the form to create an account. Then all you have to do is sign in." (It's free, did I mention that?) Enroll now, then read the fracgroups messages from Stephen and the Jerrys – does that sound like a rock band from the '70s, or what? – and follow their links. You'll be impressed, edified and glad you signed up for it.

Finally, in case I haven't mentioned it lately and all of us get zapped by a killer asteroid before I see you again: I love you guys & gals. Your friendship is a blessing that enriches my life, and these newsletters and the work that goes into preparing them are my way of thanking you. If that's corny or maudlin, so be it. But what good is it to love people if they don't know it?

-Bill Warren

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Last Month's Meeting/Activities. Can you believe it? All of our January Cox Field observings were clouded out. It was difficult to complain, though, since the temps dipped into the teens on most of those nights, and none of them was above freezing.

Fourteen members – **Cynthia Armstrong, Steve & Betty Bentley, Brianna Mills, Joel Simmons, Dwight & Laura Harness, Charles Turner, Tom Moore, Tom & Brit Danei, Jessie Dasher, yr. editor** and speaker **Carlos Flores** – attended our Jan. meeting.

Joel talked about *Taurus*, the oldest constellation. (It dates back around 5,000 years -- and wouldn't that make a good trivia question?) Carlos showed and told us about his visit to the Steward Mirror Lab, which is located directly beneath the football field at the University of Arizona. (That's another good trivia question). Those are the folks who manufacture the mirrors for the megamonster telescopes that are being built today.

Thanks, Joel and Carlos, for two fascinating and informative presentations.

On Jan. 20th, **Dwight Harness & yr. editor** conducted a lunchtime astronomy presentation for about 100 members of the Griffin Kiwanis Club. A week later, **Stephen Ramsden** gave a solar presentation for the same group.

A 1976 survey of what Americans fear most indicated that our second greatest fear is having to speak in public before a large group of people. (First on the list was fear of losing a loved one.) The Jan. 20th program was Dwight's first attempt at public speaking – at least, before a group that large – and we're happy to say that he passed the test with flying colors.

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This 'n That. The last time that **yr. editor** and his lovely wife **Louise** heard the patter of tiny feet around the house, it was his brother-in-law's dog, **Herschel**, looking for someplace to download the remnants of his latest meal.

Well, the **Blaydes – Rusty & Dorrene** – are gonna be hearing a different (and infinitely more delightful) patter of tiny feet around the house, after Dorrene

blesses the world with a young astronomer-to-be a few months from now. We'll keep you up to date on their progress.

Prof. Stargazer suggests that, if it's a boy, they name him Galileo and call him "Guy." And if it's a girl, name her Galilea and call her "Gal." Those are names that everyone recognizes. Isn't that right, guys & gals?

***Joe & Martha Auriemma's** new e-mail address is: auriemmaj735@charter.net .

*Just a reminder: FRAC's annual dues of \$15.00 are up for renewal during the month of February. You can either give your check (payable to FRAC) to **Steve Bentley** or **yrs. truly** at the Feb. meeting, or mail it to either of us c/o:

Steve Bentley	Bill Warren
950 Boxankle Road	1212 Everee Inn Road
Forsyth, GA 31029	Griffin, GA 30224

If you go to our website, please download a membership application, fill it out and send it in with your check, so we can ensure that our records and your contact information are accurate and correct.

Please remember, too, that if you want to receive the *Observer* via hard copy in 2010, you need to give **Bill Warren** – not FRAC -- \$10.00 to cover the cost of mailing them.

*As reported in the Oct. issue of the *Observer*, **Alan Pryor** fell at home and injured his wrist. When the pain persisted and his wrist didn't heal quickly, he had it x-rayed in a North Carolina hospital while traveling in that state. The intern who examined him said the x-rays showed no breaks.

Alan's wrist still didn't get any better, though, so during the holidays he went to his doctor for more x-rays and a second opinion.

You guessed it: his wrist was broken, all right – *in two places!* Treatment required a month of immobilization for the first break, and then surgery in Feb. for the other break.

That's the bad news. The good news, according to Alan, is that "I ordered an Astro-Physics mount and a

Takahashi TOA-130F 5", f/7.7 (1000mm f.l.) Ortho-Apochromatic refractor to go with my QSI583 ccd camera. So I should be able to do some imaging by the time my wrist heals."

That's good news for Alan, of course. But the rest of us were kinda hoping that his good news would be that he had decided to donate his 20-in. Obsession telescope as a door prize for our Feb. meeting.

*It's not customary or polite to discuss wife-swapping in astronomy newsletters – or most other places, for that matter – but the time has come for **yr. editor** to have a little sit-down chat with **Steve & Betty Bentley**.

Yr. editor got some nice Christmas presents this year. But while he was ooh-ing and aah-ing over stuff like a sweatshirt, tee shirts and three pairs of socks, Steve was thanking Betty (and **Stephen Ramsden**, whose assistance was invaluable) for a Lunt solar telescope and double-stacked 50mm etalon filters. (Have you priced those babies lately? They cost about \$1,150 apiece. And hey, **Larry Higgins**, we're talking about H-alpha etalon filters here, so get your mind out of the gutter!)

*In FRAC, we often tell new and prospective members, "Don't buy a telescope until you know what you need. Talk to us before you buy. We aren't trying to sell you anything, we just want you to buy the telescope that's right for you (i.e., one that you'll enjoy using regularly.)"

Well, here's an addendum to that statement: *If or when you decide to purchase a solar telescope or h-alpha or etalon filters, don't buy anything until after you've talked with **Stephen Ramsden**.* Stephen is our resident expert on things solar, and he'll be glad to share his expertise with you.

*Speaking of **Stephen**, he recently donated several hundred pairs of solar sunglasses to FRAC for distribution to students on our visits to schools for daytime presentations. That gift, combined with the solar telescope that **Steve Bentley** got for Christmas, is guaranteed to delight a lot of children in the Flint River area.

Thanks, Stephen, for thinking of FRAC and the kids in such a meaningful way.

And lest we forget, there's also **Carlos Flores's** recent donation to FRAC of hundreds of NASA astrophotos and other attractive handouts to be given out at our school presentations, and his donating speakers to be used with our powerpoint presentations.

So here's a huge FRAC "**THANKS!**" to Stephen, Steve & Betty and Carlos, all of whom want to make their little corner of the world a better place through their thoughtfulness and generosity. We are extremely fortunate to have them in FRAC.

*One of **Tom Moore's** latest improvements in our FRAC website is to add three shortcut links to an article that's already on our website, "How to Request a FRAC Observing," thereby making it easier for visitors to set up a public observing and learn what we expect of them and what they can expect from us.

Tom is a really funny guy, both in the "ha-ha" sense and in his role as one of FRAC's most endearing oddball personalities – but he takes his responsibilities as webmaster very seriously. It shows, too, in the glowing praise that members invariably direct Tom's way whenever anyone mentions our website. We're a small club, but our website is undeniably big-league in every sense of the term.

***A Personal Aside from Yr. President.** "It has been said in the past, by me and others, that being FRAC's president isn't a difficult job. (My exact words were, *The hardest part of being president is finding speakers for our meetings.*) But that can be – and in my case it definitely **is** – an understatement. It *can* be easy, depending on how much time you are willing or able to devote to the responsibilities of the position. But it's seldom a simple task for me to keep things running smoothly.

"I have the utmost respect for **Curt Cole** and others who have served as FRAC's president over the years. Having served as your president for two years, I admire their leadership skills. To whatever extent I may have fooled you into thinking that running FRAC is easy, it's because I have three highly talented

individuals – **Larry Higgins, Steve Bentley and Tom Moore** – whose invaluable assistance smooths over the rough edges of my sometimes-shaky leadership skills. Neither you nor they will ever know how much I depend on them, or how much I appreciate their support, advice and technical expertise on a day-to-day basis. Their hard work behind the scenes is seldom noted in these pages because, like any good actor, I prefer to keep the spotlight focused on *me*. But they are a major reason why a little club like FRAC, wedged between the metro areas of Atlanta to the north and Macon to the south, like the Energizer bunny keeps on going and going and going...

“Thanks, guys, from all of us in FRAC, but especially me.”

*Prolific astronomy writer (and ex-FRAC member) **Rich Jakiel** has done it again: he has an article, “Dancing With the Galaxies,” in the Feb. 2010 issue of *Astronomy* (pp. 58-61). In it, he lists (and describes) a dozen interacting galaxy pairs, using the familiar tandem of **M51 (“Whirlpool Galaxy”)** and its satellite galaxy, **NGC 5195**, as his example.

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Upcoming Meetings/Activities. February starts off with Cox Field observing on **Fri.-Sat., Feb. 5th-6th**.

On the morning of Feb. 5th, **yr. editor** will conduct an astronomy presentation for the 4th graders at Orrs Elementary, our Partner In Education.

Then, on **Tues., Feb. 9th**, **yr. editor** will visit Crescent Elementary School in Griffin for a 3 p.m. astronomy talk with the school’s Science Club. Later on, at 6:30, FRAC will conduct an observing for the entire school. That means a lot of kids and parents will be there, so we need lots of telescopes (and their owners, of course). We’d love to have you join us.

To get to Crescent from, say, Hampton, come S on U. S. Hwy. 19/41 like you’re going to Cox Field, but stay on the 4-lane past Williamson Road and turn left at the stoplight at Airport Road. Stay on Airport Rd. through and beyond the 4-way stop at Everee Inn Road, and ½ mi. ahead turn left at the stoplight where the road deadends at Hill Street. (Rose’s Shopping Center will be ahead on your right where you turn

left.) Go down the long hill, and halfway up the other side turn right at the stoplight at Crescent Road.

About 50 yds. ahead, turn left like you’re going into the CVS Pharmacy parking lot, but instead of turning left again to get to CVS, go straight through the chain-link gate and drive behind the school. You’ll find us set up in the teachers’ parking lot.

Our club meeting will be held at **7:30 p.m. on Thurs., Feb. 11th**, on the 2nd floor of the Stuckey Bldg. on the UGa-Griffin campus. We’ll elect officers and board members to serve in 2010 at that time, and after conducting club business as usual we’ll celebrate FRAC’s becoming a teenager.

HAPPY 13TH BIRTHDAY, FRAC!!!!!!

On **Fri.-Sat., Feb. 12th-13th**, we’ll enjoy crystal-clear skies and unseasonably moderate temperatures for our second Cox Field observing weekend. And for reasons that are explained (vaguely) in the following section, we’ll have a rare *third* Cox Field observing weekend on **Fri.-Sat., Feb. 19th-20th**. That will give us *six* chances of getting at least one clear night for observing in February. That’s not too much to ask of the weatherman, is it?

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The Moon in 2010. Okay, so here’s what you already knew about the **Moon** before you joined FRAC: it’s our nearest neighbor in space, roughly 240,000 miles away. When full, it’s the 2nd-brightest object in the sky, and the brightest in the night sky.

So here are some things you may not have known about ol’ Luna if you’re new to astronomy or haven’t paid much attention to the Moon:

The word “moon” comes from the Anglo-Saxon word *moneth* (which also is the obvious root of the word “month”).

Here’s where it gets complicated: there are six different kinds of months, so let’s talk about the three simplest ones to explain.

First, there’s the *calendar months* we use to measure the passage of days, as in the familiar

“Thirty days hath September,
April, June and **Larry Higgins...**”

(Thirty days in the slammer for unpaid parking tickets.)

Second, there's the *sidereal* (sih DEER ee ul) *month*, or the time it takes the Moon to complete one revolution around the Earth, i.e., 27.3 calendar days.

Finally, there's the *synodic* (sy NAHD ick) *month*, or the time between two New Moons (i.e., when the Moon lies between the Earth and the Sun).

A synodic month is 29.5 calendar days in length. It's longer than a sidereal month because the Earth and Moon orbit the Sun in the same direction that the Moon orbits the Earth. So it takes 2.2 days longer for the Moon to reach a New Moon alignment every month.

A calendar month is however many days your calendar says it is. But with a year consisting of 365.25 calendar days divided into 12 months, calendar months average 30.43 days in length.

Are you confused yet? If so, welcome to astronomy, where *everything* is confusing if you delve deeply enough into it.

What all this means for us, though, is that our Cox Field observing dates, which are scheduled as near as possible to the New Moon, change from time to time in terms of when the New Moon occurs each month. For example, for most of 2010 our Cox Field observings will be during the first half of the month, because that's when the New Moon is. (This cycle began in December with the "blue moon," or extra Full Moon, on Dec. 31st.)

This new cycle also means that, while February and October will give us three Cox Field weekends, we'll have just one observing weekend in November. (Actually, we'll have only one Cox Field weekend in May, too, but we'll be at **Ga. Sky View 2010** for the other one.)

Remember, though: it's not FRAC's observing planners playing tricks on our members, it's the **Moon** playing tricks on all of us.

(Oh, and by the way, just in case you were wondering: the other three kinds of months are **draconic, tropical and anomalistic**. But you don't need to know about them, any more than you need to know that New Moons and Full Moons are examples of *syzygies* (i.e., three celestial objects aligned in a row within a gravitational system).

See what we meant by things getting complicated in a hurry in astronomy?

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BELATED NEW YEAR'S RESOLUTIONS

by Bill Warren

***DAN PILLATZKI.** I resolve to go out to Cox Field and observe regularly in 2010 – if, that is, my teevee quits working and I have to sit around the house talking to **Kathy** (Dan's wife) and **Megan** (his daughter) every night. But don't tell them I said that.

***DWIGHT HARNESS.** I resolve to lose weight and get physically fit in 2010. (On second thought, I think I'll do something easier and more realistic, like becoming an astronaut.)

***TOM MOORE.** It won't be easy, but I resolve to work just as hard and as often in 2010 to complete my Lunar Club pin requirements as I've worked on it for the past ten years.

***TOM DANEL.** My New Year's resolution is to enjoy my new 20-in. Starmaster telescope and not even think about selling it and buying another telescope for at least six months. (But didn't I hear somebody say that Orion is coming out with a new line of 42-in., 48-in. and 55-in. 'scopes? I wonder how much I could get for my Starmaster...)

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GREAT IDEAS WHOSE TIME HAS COME

by Bill Warren

Although you wouldn't know it by attending one of our club meetings, FRAC members possess some of the sharpest, most intelligent and creative minds in mankind's recorded history. As proof of that daring statement, we offer two astonishingly clever and innovative ideas advanced by FRAC members.

TOM MOORE: Losing Weight the Quick and Easy Way. "I'm tired of going through each day

feeling like I'm carrying a sumo wrestler on my back," **yr. editor** complained to Tom recently. "It bothers me that my bathroom scales say that I weigh more than my refrigerator.

"I could exercise and quit eating so much, of course, but exercising makes you tired and sweaty, and not eating eventually leads to starvation.

"Surgical removal of fatty tissue leaves you looking like a used Baggie, so that's not an option. I could emulate the ancient Roman Epicurean philosophers and build a "puke pit" to visit between trips to the serving line during all-night eating orgies, but that's certainly not what Weight Watchers has in mind for me.

"So what's a guy to do if, like me, your beltline has drifted down to somewhere just above your kneecaps?"

Naturally, given his massive brilliance and flair for the dramatic, it took Tom about ten seconds to come up with a simple, effortless alternative to traditional weight loss plans: *move to the Moon*.

"The Moon's gravity is only 1/6th of that on Earth," Tom explains. "So if you weigh 390 pounds on Earth, you'll weigh just 1/6th as much – 65 pounds – on the Moon.

"Just think: you'll lose 325 pounds during the 3-day trip to the Moon – and you'll have done it without exercising, starving yourself or doing anything else.

"Best of all, when you arrive on the Moon you'll need to start eating immediately in order to get your weight back to a healthy level, because at 65 pounds you'll weigh less than most of today's fashion models."

BILL WARREN: Revamping the A. L.'s Observing Clubs. "The problem with the A. L.'s observing clubs," says Bill, "is that they expect you to get out and find things in the sky and observe them."

Such expectations, according to Bill, are archaic, unrealistic, and worst of all they discriminate against nearly 300 million Americans, including more than a few undocumented immigrants from south of the border.

"If you aren't a member of the A. L.," Bill goes on, "or if you don't care about astronomy and would rather sit at home watching *Dancing With the Stars*

than go outside and look at the stars, you won't get an A. L. observing pin. And that's not just unfair, it's un-American!"

So whose fault is it that so few Americans receive A. L. pins?, we asked Bill. *And what can be done to correct the problem?*

"The A. L. has a monopoly on those observing pins," Bill replied. "Congress should break up that monopoly, take over the A. L., and issue observing pins to everyone living within our borders.

"And while I'm at it," he continued, "if they can afford to spend hundreds of billions of dollars every year on stuff like foreign aid, disaster relief and pork barrel projects back home, they should be able to afford to give a telescope to everyone in the U. S.

"It wouldn't have to be much – say, a 20-in. 'scope like **Alan Pryor** and **Tom Danei** have. But it would be a real boost to our economy, and it would show everyone that our government really cares about all of us.

"And just think how FRAC's enrollment would soar if everybody in the U. S. had a telescope!"

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Aristotle maintained that "comets" were nothing more than "meteors generated in the upper regions of the atmosphere." Seneca conceived that they were real stars, but that their appearance was indicative of important changes in the affairs of mankind. "For six months," he says in his book *Naturalium Questionum*, "was this comet to be seen by us, in the happy beginning of the reign of Nero..."

The comet, in the estimation of the ancients, was beyond all other things in their regard, a *political star*. It was "the star of kings, emperors and rulers; it indicated a destiny to them, and through them was supposed to affect the conditions of the people over whom they presided as sovereigns.

-Author unknown
London Review, July 13, 1861, p.

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