

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

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Club Calendar. Fri., Oct. 26: UGa-Griffin lunar observing (7-10 p.m.); **Thurs., Nov. 8:** FRAC meeting (7:30 p.m., Rm. 305 of the Flynt Bldg. on the UGa-Griffin campus; **Mon., Nov. 12:** Pike Co. Middle School observing (7:30 p.m.); **Tues., Nov. 13:** PCMS rainout date (same time);

Thurs., Nov. 15: Gordon College observing (Abbott's Farm S of Barnesville, 9:15 p.m.); **Fri.-Sat., Nov. 16-17:** JKWMA club observings (at dark); **Fri., Nov. 23:** UGa-Griffin lunar observing (7-10 p.m.).

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President's Message. I'm pleased to welcome new member **Andy Hasluem** to FRAC. Andy, who lives in Senoia and came here from England, is a veteran astronomer and has actually visited **Sir Patrick Caldwell-Moore's** home in Selsey, West Sussex, England. We're proud to have you in FRAC, Andy!

Having said that – and having waited until the rest of the Nov. issue was written to begin working on the Pres. Message -- I find that I've already said everything else that I wanted to say. So rather than bore you with b.s., I'll simply say that I hope you enjoy this issue, and thanks to all of you for being a part of our cozy little club.

-Bill Warren

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Last Month's Meeting/Activities. On Fri., Oct. 5th, FRAC's three founders – **Larry Higgins, Ken Walburn & Bill Warren** – conducted an observing at Lake Dow in Henry Co. for a small group of home-schooled teenagers. It was a grand reunion for three guys who haven't seen nearly enough of each other in recent years. (The last time anyone in FRAC told Ken that we hadn't seen enough of him lately, he showed up at the next meeting wearing flip-flops and a thong. [*Just kidding. –Ed.*])

Seventeen members – **Olga & Carlos Flores, Dwight Harness, Erik Erikson, Betty & Steve Bentley, Tom Moore, Larry Higgins, Doris & Ken Walburn, Woody, Ben & Brandon Jones, Roger Brackett, Jessie Dasher, Felix Luciano** and yr. editor – and a visitor, **Andy Hasluem** –

attended our Oct. meeting to hear **Anita Westlake's** (Ga. Meteorite Assn.) powerpoint presentation, "Meteorites and Meteor Wrongs." (The latter refers to suspected meteorites that people bring to her for verification; invariably, they *aren't* meteorites.) Several members are now proud possessors of bits of rocky or iron debris from **Mars**, the **Moon** or the asteroid belt.

Ten members got to see just how magnificently dark the skies are at JKWMA at our Oct. club observings: **Carlos Flores, Dwight Harness & yr. editor** (both nights); **Larry Higgins & Erik Erikson** (Fri. night); and **Aaron Calhoun & Felix Luciano** (Sat. night). Carlos & Felix imaged, and Dwight looked for Messiers and B.M.'s – that's Binocular Messiers, **Steve Bentley**, get your mind out of the gutter.

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This 'n That. Steven "Smitty" Smith is back home after a rather lengthy hospital stay. He's lost a lot of weight – hospital meals will do that to you, since they tend to consist of shredded wallpaper or microwaved roadkill that a starving coyote wouldn't touch – but he's very, very glad to be home. He sends his thanks for your thoughts and prayers.

The next step in Smitty's recuperation will be for us to hear the patter of his size 12s at JKWMA as he stumbles over telescopes in the dark. We're looking forward to it – not the stumbling, but to having him with us again. Smitty has always been (and always will be) one of FRAC's MVPs. He's the kind of guy who makes a mediocre astronomy club good and a good club great.

***It's Never Too Early to Plan Ahead, Part I.** Alcon, the A.L.'s national convention, will be held in Atlanta on July 7-13, 2013.

***It's Never Too Early to Plan Ahead, Part II.** Early indications regarding newly discovered **Comet C/2012 S1 (ISON)** have astronomers drooling at the prospect that ISON might turn out to be one of the brightest comets in mankind's recorded history.

After it reaches its closest approach to the **Sun** – about 1.2 million miles – a year from now, ISON may be visible to the naked eye for a few months, and possibly even brighter (but not larger) than the **Full Moon**. If so, it will be bright enough to be seen in the daytime.

Or maybe not.

Comets, like red-headed women, are notoriously unpredictable, especially sungrazers like ISON. On the plus side, ISON is a fairly large comet and thought to be making its first pass through the solar system since being nudged out of the Oort Cloud or wherever it came from. If so, it will have a full complement of dust and gases to be dispersed when it falls prey to the Sun's intense radiation and solar winds. Thus its anticipated brightness.

On the negative side, its close encounter with the Sun's heat and gravity could tear apart the dirty snowball before its light show ever reaches its hoped-for peak.

Regardless of how ISON behaves, though, another upcoming comet, **Comet C/2011 L4 (Pan-STARRS)** is expected to reach a brightness of up to mag. -1 next March. That could give us two chances of seeing a naked-eye comet in the brief span of eight months next year. It's the shortest interval between bright comets since **Comet Hyakutake (C/1996 01)** in 1996 and **Comet Hale-Bopp (C/1997 B2)** in 1997.

Hyakutake sported a tail that stretched 80° across the sky; Hale-Bopp was much smaller, but bright enough to be visible to the unaided eye for *eighteen months!* Their combined appeal brought millions of

newcomers worldwide into astronomy; hopefully, Comets ISON and Pan-STARRS will have a similarly beneficial effect.

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Upcoming Meetings/Activities. We'll hold our monthly UGa-Griffin public lunar observing on the lawn in front of the Flynt Bldg. on **Fri., Oct. 26th** from 7-10 p.m.

Daylight Savings Time ends on **Sun., Nov. 4th**, making it easier for us to conduct early evening observings for schools, libraries and the like.

Our FRAC meeting will be at 7:30 p.m. on **Thurs., Nov. 8th** in Rm. 305 of the Flynt Bldg. on the UGa-Griffin campus. **Yr. editor** will talk about basic observing techniques and equipment.

Also at that meeting, we'll give you a sneak preview of the door prizes to be awarded at our Christmas dinner party at Ryan's on Dec. 8th.

On **Mon., Nov. 12th**, we'll conduct a 7:30 p.m. observing at Pike Co. Middle School in Zebulon, Ga. To get to the school from, say, Hampton, come S on U. S. Hwy. 19/41 like you're going to Cox Field or JKWMA. Instead of getting off the 4-lane at Ga. Hwy. 362/Williamson Rd., however, go 2.4 mi. farther and turn right -- west -- with U. S. 19 at the BP station stoplight.

Go 6.5 mi. on U. S. 19 to Zebulon. Stay on the 4-lane into Zebulon where it becomes a one-way, two-lane street. When you reach the town square on the left, continue straight ahead on U. S. 19 at the stoplight. Go 1.7 mi. beyond the stoplight, and turn left at Hughley Rd. (Ignore Pike Co. Elementary and Pike Co H. S., both of them on your left.) When you see a yellow Hughley Rd. sign, get in the left-hand lane and turn there.

Go 0.4 mi. on Hughley Rd., and Pike Co. Middle School will be on the left at 406 Hughley Rd. Go about 100 yds. past the main entrance, turn left and go to the back of

the parking lot. We'll set up our 'scopes behind the school.

There may be a large crowd, so we may need a bunch of 'scopes. Dress for cool weather.

The rainout date will be the following night, **Tues., Nov. 13th**.

On **Thurs., Nov. 15th**, we'll conduct a 9:15 p.m. observing for **Dr. Schmude's** Gordon College students at Abbott's Farm, located a couple of miles S of Barnesville. To get there from Griffin, set your odometer at 0.0 at Williamson Rd. on the 4-lane U.S. Hwy. 19/41 Bypass. Go south for 19.1 mi. on the 4-lane, and Brent Rd. will be on the left. Turn there, and turn left again into the unpaved driveway of the first house on the left.

Our club observings will be on **Fri.-Sat., Nov. 16th-17th** at the Joe Kurz Wildlife Management Area. **Dwight & Larry** have found another site on the JKWMA property that's even better than the one we used for our Oct. observings, and we'll use it for our Nov. observings. We're calling it **Site #3**. It's better than Sites #1 & 2 because (a) Site #3 is located on a little hilltop and the horizons to the E, S & W are very low, and (b) a treeline to the N will block out the Hotlanta skyglow. There's nothing to obstruct our view of the distant universe except stars.

If you use GPS to find JKWMA, the amended coordinates that **Tom Moore** prepared last month for Site #2 -- 33.115079 , -84.542132 -- will work as well for Site #3, because both sites are located on the turnoff road located 0.2 mi. beyond the ranger station on Mt. Carmel Rd.

To get to the wildlife management area from, say, Hampton, come S on U. S. 19/41 and stay on the 4-lane past the Hardee's/ McDonald's stoplight at Ga. 92. Continue past the Griffin exit, and past the Newnan-Griffin exit at Ga. 16. Get off the 4-lane at

the Ga. 362/Williamson Rd. exit, bear right (west) and set your odometer at 0.0.

Go 15.8 mi. on Hwy. 362W, and turn left at Mt. Carmel Road. (There's a sign announcing the intersection just before you get to it.)

Go 4.8 mi. on Mt. Carmel Rd., and you'll see a large "Joe Kurz Wildlife Management Area" sign on your right, just beyond a gray mailbox.

Continue past the mailbox and sign for 0.2 mi. on Mt. Carmel Rd., and turn right at the first (unpaved) road. We'll have a couple of orange day-glo traffic cones to mark the road where you turn.

When you reach that turnoff, go through the gate on the right and, after going 0.2 mi., you'll come to Site #2. Continue on that road for an additional 0.8 mi. past Site #2 and you'll see a row of orange cones on the left showing you where to park at Site #3.

If that sounds complicated, -- well, it's not. After turning off Mt. Carmel Rd., just go one mile on that unpaved road and you'll see the open field and cones at Site #3.

We'll wind up Nov. with a UGa-Griffin lunar observing from 7-10 p.m. on **Fri., Nov. 23rd**.

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Theory Vs. Fact With Prof. Stargazer

Prof. Theophilus (pronounced: The Awfulest) Stargazer is, in his own humble estimation, history's greatest authority on astronomy, cosmology, astrophysics and off-color jokes involving a drunk, a bartender and a one-eyed cat.

The professor recently took time out from his weekly poker game to answer five astronomy questions from club members. After adjusting the extra aces hidden up his sleeve, he settled back to talk with us.

Erik Erikson: We all know about the Big Bang theory and **Einstein's** relativity theory, Professor. But what I want to know

is, *What's the difference between a theory and a fact?*

Prof. Stargazer: If *you* believe it, Erik, it's a theory. If *I* believe it, it's a fact.

Woody Jones: Do black holes exist, or are they just a theory?

Prof. Stargazer: Of course black holes exist! Have you noticed our national debt lately?

Tom Moore: If black holes exist, why can't we see them?

Prof. Stargazer: **Larry Higgins** doesn't take off his shoes when he's wearing black socks.

And, I might add, the only times that he takes off his socks is when he's taking a bath, going to bed or counting higher than ten.

Roger Brackett: Well, what about worm holes? Are they a theory?

Prof. Stargazer: You wouldn't ask that if you'd ever seen the beams in my basement.

Steve Bentley: What is the space-time continuum?

Prof. Stargazer: The space-time continuum is a term that astronomers use to describe the relationship between space and time. Basically, it states that space and time will continue until...um...

Dwight Harness: Professor, is the world really going to end on Dec. 21, 2012?

Prof. Stargazer: That makes six questions you guys have asked me. You only paid me for answering five.

Dwight: In school, they give you credit for coming close.

Prof. Stargazer: You must have attended a different reform school than I did, Dwight.

Oh well, FRAC's last three checks to me bounced anyway, so I may as well answer your question about Dec. 21st.

As all of you know (except maybe **Ken Walburn**), research is the foundation and cornerstone of science. So I consulted an infallible source that's never wrong.

The Weather Channel's long-range prediction for Dec. 21st calls for "unseasonably mild temps, partly cloudy with scattered showers, followed by an asteroid impact that triggers sudden reversal of the Earth's poles, a black hole swallowing the entire solar system, and Earth's crust and mantle overheating and shifting due to massive solar radiation, sending cities crashing into the sea."

But hey!, why be gloomy? Look at the bright side:

When the alien invasion force that was hiding behind **Comet Hale-Bopp** arrives on Dec. 21st to destroy, devour or enslave humanity – The Weather Channel forgot about that one – we'll be the least of their problems. Would *you* want to conquer and enslave an entire planet that's as dismal, desolate and disgusting as Detroit?

Here's another positive side of the predicted 2012 apocalypse that is often overlooked: if even one of those things happens, you won't have to worry about the next four years under **Romney or Obama**.

(By the way: everyone who casts a write-in vote for **Prof. Stargazer** will receive a set of ginsu steak knives and a certificate good for \$150 off a weekend for two at Slippery Sam's Spa & Truck Stop.)

Carlos Flores: Since you're in the mood for freebies, Mr. Professor Sir, here's my question: *What's the difference between an asteroid and a comet?*

Prof. Stargazer: First, a correction: it's *Dr. Professor Sir*. I didn't get my doctoral degree in a box of Wheaties. (*The professor takes a laminated card out of his wallet.*)

See? Here's my diploma. It says "Doctor Theophilus Stargazer."

Carlos, examining card: Wait a minute. Aren't you supposed to be a cosmologist? This says "New Jersey School of Cosmetology."

Prof. Stargazer, examining card: Hmm. Must be a misprint or a computer glitch. But I must say, Carlos, your hair looks simply divine! A little upsweep here and highlighting there, and you'd be a dead ringer for **Liberace**.

As for your question about the difference between an asteroid and a comet: you can't pull Santa's sleigh with an asteroid.

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Errata. Yr. mentally challenged editor inadvertently neglected to mention the rest of FRAC newcomer **Dylan Higgins's** family in the Oct. issue. They are: his wife **JoAlison**, son **Ethan** and daughters **Eisley** and 6-month-old daughter **Evangeline**.

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Above: Anyone for spelunking? **Felix Luciano** recently revisited **Cave Nebula** (a.k.a. **Sharpless 2-155**), a reflection and emission nebula in *Cepheus* that **Alan Pryor** imaged for the Nov. 2011 issue of the *Observer* (p. 6). The result, as you can see

in Felix's photo, resembles an artist's surrealist painting of the 3rd Quarter Moon. Cave Nebula is Caldwell Club target #9.



Above: North is at the bottom of **Felix Luciano's** photo of **Cederblad 214**, an emission nebula in *Cepheus*. Look closely near the bottom left of center in the cloud and you'll see a few members of **Berkeley 59**, a faint open cluster.



Above: At mag. 6.7, **NGC 7789** (a.k.a. **The Magnificent Cluster**, **The White Rose** and **Caroline's Rose Cluster**) in *Cassiopeia* is often regarded as one of **Charles Messier's** greatest oversights because he failed to include it in his famous list. It was

discovered in 1783 by **Caroline Herschel**, sister of **Sir William Herschel**.

NGC 7789 is, appropriately enough, a Herschel 400 target. **Yr. editor** described it in his H400 observing notes as "a densely packed cluster of 100-125 faint stars in an area measuring about 10' in dia. My 147x view of 7789 resembles a fainter version of **M37** in *Auriga* – stars everywhere!" NGC 7789 is located about 2-1/2° SSW of 2nd-mag. **Beta Cassiopeiae**.



Above: **Alan Pryor's** photo of the little open cluster and reflection nebula known collectively as **NGC 7129** in *Cepheus* is far superior to the photo of 7129 on p. 140 of **Kepple & Sanner's** *Night Sky Observers Guide, Vol. I*. In Alan's photo, the six bright stars at the center resemble a miniature version of the constellation *Delphinus* (*the Dolphin*), and the nebula resembles Pac-Man of video game fame.

NGC 7129 is a Herschel II target. **Yr. editor** described it as "a lovely little (5.5' x 2') open cluster with five stars visible at 75x and six at 227x. The entire cluster, which is oriented roughly N-S, was washed in nebulosity, especially the area around the four northernmost stars that form the little dolphin's body."