

THE FLINT RIVER OBSERVER

NEWSLETTER OF THE FLINT
RIVER ASTRONOMY CLUB

An Affiliate of the
Astronomical League

Vol. 15, No. 11 **January, 2012**

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

Board of Directors: **Dwight Harness;** **Tom Moore;** **Mike Stuart;** and **Jessie Dasher.**

Facebook/Scouting/Ga. Sky View Coordinator, **Steve Knight;** Alcor/Webmaster, **Tom Moore;** Observing Coordinator, **Dwight Harness;** NASA Contact, **Felix Luciano.**

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

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

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Club Calendar. Thurs., Jan. 12: FRAC meeting (7:30 p.m., Rm. 305, Flint Bldg., UGa-Griffin); **Fri., Jan. 20:** Cox Field observing (at dark); **Sat., Jan. 21:** Kurtz Rock observing (at dark).

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President's Message. After much soul-searching, your officers, board members and I have agreed to serve for one more year if re-elected to our positions in FRAC at the Feb. meeting. If you find that thought comforting, you can show your support by voting for us in the Feb. elections.

If, on the other hand, you'd like to join FRAC's leadership team, whether as an officer or board member, you need to let me know asap so I can plan accordingly. Otherwise, I'll suspend our (unofficial) practice of rotating members on and off the board.

We – meaning the present officers and board members – recognize the need for periodic changes in leadership in order to infuse new life into the club. That's why **Tom Moore** suggested a couple of years ago that we adopt a rotation policy re board membership.

Please understand: neither I nor any other officers or board members regards our service as an ego trip or power grab. We simply want to ensure that FRAC retains effective leadership on an ongoing basis, and in the absence of other candidates we will extend our service for another year. There are other members who could serve admirably, but they haven't indicated a desire to do so and I'm not inclined to seek them out purely for the sake of change. While I welcome change, I certainly do not want to leave the impression that I'm dissatisfied with any of the present officers or board members. Nothing could be farther from the truth. Their service and support has strengthened FRAC in many, many ways.

-Bill Warren

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Last Month's Meeting/Activities. On Dec. 2nd, scouting coordinator **Steve Knight** conducted a solo observing for nine Fayetteville scouts and six parents on the lawn of the UGa-Griffin campus where we hold our monthly lunar observings. Said Steve, "We covered the requirements for the belt loop, the more complicated items from the merit badge. We were out for a bit over three hours with the scouts getting to see the **Moon, Jupiter, M31, M42**. Plus they got a lesson in basic telescope operation, focusing and finding objects."

FRAC's Christmas parties are always special occasions, but our 2011 dinner party at Ryan's in Griffin was extra-special. We had our largest crowd ever: **38** attendees, including regulars **Charles Turner; Cynthia Armstrong; Erik Erikson; Carlos Flores; Mike Stuart; Larry Higgins; Dr. Richard Schmude; and Felix Luciano**. We also had **Robert Hall, Dan Pillatzki, Rick Staylor and Stephen Ramsden**; they cannot always attend our meetings and observings on a regular basis, but they were delightful additions to the festivities on Dec. 10th. And we had a number of couples, families and friends to further brighten the occasion, including **Woody & Ben Jones; Bagitta & Chris Smallwood; Betty & Steve Bentley; Martha & Joe Auriemma; Louise & Bill Warren; Laura & Dwight Harness; Julie Avery & Sam Harrell; Angela & Steve Knight** and daughter **Ashley; Deborah & Steven "Smitty" Smith** and **Mckenzie, Ethan and Robert; and Phil Sacco & Courtney Seabolt**, along with friends **Victoria Walters and Leigh Shulz**.

As befits an astronomy group's party, the socializing was stellar and the food out of this world. We gave out 31 door prizes, and Cynthia walked off with the grand prize, the Orion Telescope & Toe Saver.

This 'n That. *Skygazer 4.5: A Guide to the Heavens* is an interactive software program from Carina Software, a California firm. The cd contains both Macintosh and Windows versions, with manual in Adobe PDF format. Its database includes: 300,000+ stars and 14,500 clusters, nebulae and galaxies; a solar system database that includes 5,000 asteroids, 500 comets and 500 satellites; and educational demos of important astronomical concepts like eclipses, precession, phases and orbital motions.

The club has two copies of the cd, and members are free to borrow them, whether to download the contents onto your pc or to use for school or group presentations. They'll be available at our Jan. meeting.

We also have another cd, *Voyager 4: Dynamic Sky Simulator*, available on loan for downloading or other personal or educational use. Like *Skygazer 4.5*, it will be available at the Jan. meeting.

***Lest We Forget:** We have a star party coming up less than three months from now. At present, two people – **Felix Luciano** and **yrs. truly** – have registered for **Georgia Sky View 2012**. We're hoping that others will sign up so we won't have to sit around all day playing two-handed Honeymoon Bridge.

Seriously, though, we need healthy member support if **GSV '12** is to be all that the club wants it to be. Admittedly, just after Christmas isn't a good time to talk about money – that's why we hold off our dues renewals until February – but the truth is, in times like these there's never a good time to ask for money, but we have to start somewhere. We hope you understand that building a "successful" **GSV** requires "u" and "u".

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***Art Zorka** (who is also a vice president of the Atlanta Astronomy Club) was presented with his Master Observer certificate and pin by no less than A. L. President **Carroll Iorg** at the AAC's Oct. meeting. And in the grand old tradition of "fools' names and fools' faces showing up in public places," the photo commemorating that milestone event on p. 5 of the Dec. *Reflector* also included **yr. editor**, who was trying to appear intelligent for the photo. To further degrade the occasion, yr. editor was described as "Art's mentor, (sharing) in his student's celebration."

Mentor? Yeah, right. All we did was suggest to Art that, for the pin that would complete his M. O. requirements, he might pursue a fun, quick and easy Globular Cluster Club pin. But it was nice of Art to want us to share that wonderful evening with him. He's a highly gifted observer, one of the best anywhere as evidenced by that lovely M. O. pin. (And by the way, did we mention that Art will be a speaker at our upcoming **Ga. Sky View 2012?**)

Tom Moore and **Dwight Harness** were cited in that same issue of the *Reflector* (p. 20) for having received their Stellar Outreach certificates.

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Upcoming Meetings/Activities. Our club meeting will be at **7:30 p.m. on Thurs., Jan. 12th** in Room 305 of the Flint Bldg. on the UGa-Griffin campus. Our speaker will be **Charles Turner**, who will show and tell us about *Skygazer 4.5, A Guide to the Heavens*, an interactive software that can be customized as needed and used for a variety of personal and/or educational purposes. (See p. 2.)

Before that, however, a small group of boy scouts who will be attending our meeting to complete their requirements for a merit badge in Astronomy will interview our

members en masse, with each boy asking the group a few questions. We've never done that sort of thing before – not at a meeting, anyway; it should be an interesting and fun departure from the norm for us. The event was arranged by scouting coordinator **Steve Knight**.

On **Fri., Jan. 20th**, we'll hold our regular monthly Cox Field observing. And on the following evening, **Sat., Jan. 21st**, we'll observe at Kurtz Rock. Try to make it before dark if at all possible.

In case you've forgotten or misplaced the directions to Kurtz Rock:

To get there from, say, Griffin, set your odometer at 0.0 at the U. S. Hwy. 19/41 Bypass 4-lane at Williamson Road/Ga. Hwy. 362. Go west for exactly 16 mi. to the paved intersection at Mt. Carmel Road. Turn right onto Mt. Carmel Rd., go 0.5 mi. and then turn right onto Sullivan Mill Road.

Go 2.8 mi. on Sullivan Mill Rd. and, after passing a yellow house on the left, you'll come to a white house and mailbox on the left. About 30 yds. past the driveway to that 2nd house you'll see a little FRAC sign on the left. Turn off Sullivan Mill Rd. onto that path, and safety cones will guide you to the rock and observing sites. Stay to the right of the cones, and drive slowly. The observing site is about 50 yds. from Sullivan Mill Rd.

We'll resume our UGa-Griffin lunar observing schedule in March when the weather warms up.

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THE LITTLE COMET THAT COULD

by Bill Warren

The British biologist **J. B. S. Haldane** once declared that "The universe is not only stranger than we suppose, it is stranger than we *can* suppose." It is always changing,

along with our perception and understanding of it.

Case in point: a tiny, recently discovered comet, **Comet Lovejoy (C2011 W3)**. It was discovered on Nov. 27, 2011, by Australian amateur astronomer **Terry Lovejoy**.

On Dec. 15, 2011, Comet Lovejoy (which measures a scant 660 ft. in diameter) began the final stage of a kamikaze-like suicide plunge into the **Sun**.

It's a common fate among comets: the Sun's relentless, overwhelming gravitational influence pulls them in like a yo-yo on a string. Then, depending on any of a number of factors such as trajectory, planetary influences, etc., it either devours them or slingshots them back out into space. Comet Lovejoy was categorized as a **kreuzer sungrazer**, i.e., a member of a class of comets whose orbits bring them very close to the Sun.

Soon after its discovery, Lovejoy was tracked by NASA, the European Space Agency and the Japan Aerospace Exploration Agency. Virtually every astronomer in the world fully expected Comet Lovejoy to be vaporized as it passed through the solar corona where temperatures reach 1,100,000° C. (Lovejoy's trajectory brought it to within 87,000 mi. of the Sun. That's less than 40% of the distance from the Earth to the **Moon**.) Few objects, large or small, can withstand such staggering heat – especially objects such as comets that are often described as “dirty snowballs.”

Karl Battams, a scientist at the British Naval Research Laboratory, anticipated the outcome: “We have here an exceptionally rare opportunity to observe the complete vaporization of a comet. We have 18 instruments in five different satellites that are trying to do just that.”

There was just one small problem. Comet Lovejoy refused to play by the rules.

Two cameras aboard the Solar and Heliospheric Observatory (SOHO) recorded the little comet's dive into the Sun's fiery corona. A few hours later, they also recorded the little comet's emergence on the other side of the Sun, its head visible on one side and remnants of its long tail visible on the other side.

“We are witnessing one of the most extraordinary events in cometary history,” said comet guru **John Bortle**, who has observed and studied more than 350 comets during the past four decades. “The manner in which Comet Lovejoy is evolving is, to my knowledge, totally unique in the comet record. Its brilliant, starlike appearance (after such a close encounter with the Sun), when only at an extremely small heliocentric distance, harkens back once again to the reports of ‘brilliant stars’ being occasionally reported close to the Sun down through history.”

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THE SUN'S HEARTBEAT: And Other Stories from the Life of the Star That Powers Our Planet, by **Bob Berman**
(New York: Little, Brown, 2011. 290 pp.)

book review by Steven “Smitty” Smith

The Sun's Heartbeat is a detailed yet entertaining look at how our **Sun** and other stars work. Berman's book explains the theories, discoveries and the people behind them in a jovial, scientific, fact-filled book. I consider Bob Berman to be the “**Mark Twain**” of astronomy literature. If you enjoy his monthly column in *Astronomy* magazine, I urge you to seek out this work. What an enjoyable way to learn about science! One could only wish that Berman had authored school textbooks!

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FRAC New Year's Resolutions

Prof. Stargazer: I resolve to attend every scheduled meeting with my parole officer in 2012.

Prof. Stargazer's Judge: I resolve to keep a cot available in the Spalding Co. Correctional Institute in case the professor skips any more of those meetings. I'm still trying to figure out how a guy can miss 127 weekly meetings in a 52-week year.

***Dan Pillatzki:** I resolve to attend every FRAC meeting in 2012, except those that I don't.

***Dwight Harness:** I resolve to read the book I received for Christmas, *How to Improve Your Memory*, as soon as I remember where I put it.

***Larry Higgins:** I resolve to lose weight this year by eating just one meal a day. I'll start at 6 a.m. and continue eating until 11:45 p.m.

***Phil Sacco, Rick Staylor, Steve Mann, Steve Bentley and Bill Warren:** We resolve not to send out any off-color e-mail jokes in 2012 – except the one about the guy who comes home at lunch and finds his wife (*material deleted.* –Ed.).

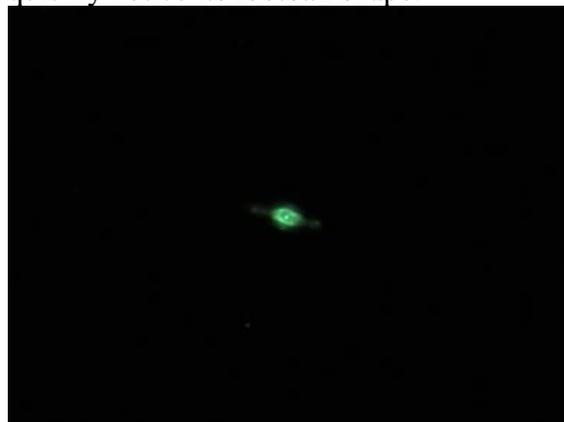
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Upper right-hand corner: Steve Bentley used his cell phone to capture a lovely double rainbow from Riverside Drive in Macon.



Below: NGC 7009 (Saturn Nebula), a planetary nebula in *Aquarius*. Photo by **Alan Pryor** (5 sets of 1 min. LRGBs and 3 sets of 3-min. LRGBs).

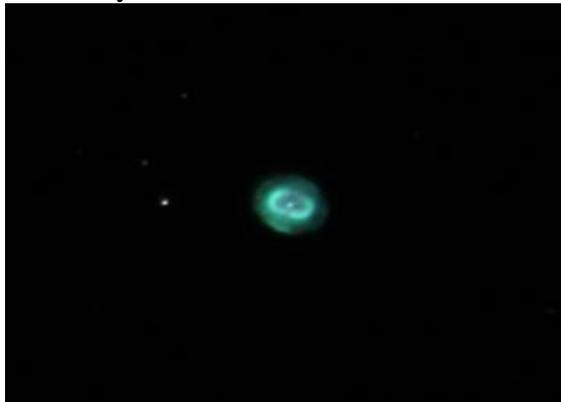
This lovely little bluish-green gem is easy to find and observe. It is located 1° west of mag. 4.5 **Nu Aqr**. A perennial favorite among observers, Saturn Nebula was discovered in 1782 by **Sir William Herschel**. Later, in 1850, **William Parson (Lord Rosse)** spotted Saturn-like extensions (called **ansae**) projecting from either side of the little planetary's disk while observing it in his 72-in. reflector, the "Leviathan of Parsonstown." You won't see the ansae in a small 'scope, but you'll quickly notice its football shape.



Next page, upper left: NGC 7662 (The Blue Snowball), a planetary nebula in *Andromeda*. Photo by **Alan Pryor** (8 sets of

200-sec. LRGBs and 3 sets of 3-min. LRGBs).

Tiny but lovely in any telescope, this bright little planetary nebula is another favorite among observers. Taking its nickname from its rich blue color, the Blue Snowball takes high magnification extremely well.



Upper right-hand corner: NGC 6946 (Fireworks Galaxy), a spiral galaxy in *Cepheus*. Photo by **Alan Pryor** (18 Luminescents of 5 min. each, 6 sets of LRGBs of 5 min. each, and 3 sets of LRGBs of 10 min. each).

From **yr. editor's** Herschel 400 observing notes: "NGC 6946 is a face-on spiral galaxy, very large and diffuse with low surface brightness. No core or structure was evident in my 10-in. Dob at 147x. 6946 was similar to **M101** except oval and oriented E-W rather than round. I found it on my 3rd night of searching for it, located 1/2° SE of open cluster **NGC 6939** in the same 47x field of view."



Below: Sharpless 2-155 (Cave Nebula) in *Cepheus*. Photo by **Felix Luciano** (10 exposures of 10 min. each).

Also known as Caldwell 9, this nebula is a faint, elusive visual target. Its nickname derives from a dark region on the E side that measures 50' x 10' and resembles the interior of a cave.



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