

THE FLINT RIVER OBSERVER

NEWSLETTER OF THE FLINT
RIVER ASTRONOMY CLUB

An Affiliate of the Astronomical League

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

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

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. Sat., Oct. 1: Rock Ranch public observing (7-9:00 p.m.); **Mon., Oct. 3:** Orrs Elem. PreK observing ((6:30-8:30 p.m.; rainout date **Tues., Oct. 4,** same time); **Fri., Oct. 7:** UGa-Griffin public lunar observing (7-10:00 p.m.); **Sat., Oct. 8:** Rock Ranch public observing (7-9:00 p.m.); **Thurs., Oct. 13:** FRAC meeting (7:30 p.m., Rm. 305, Flint Bldg., UGa-Griffin campus); **Sat., Oct. 15:** Rock Ranch public observing (7-9:00 p.m.); **Sat., Oct. 22:** Rock Ranch public observing (7-9:00 p.m.); **Fri., Oct. 28:**

Cox Field observing (at dark); and **Sat., Oct. 29:** Kurtz Rock observing (arrive before dark).

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President's Message. Having nothing better to do with my time at the moment, I searched the web for astronomy humor. Here's what I found:

*Black holes: What you get in black socks.

*When Copernicus was 12 years old, his father said to him, "Young man, sooner or later you'll realize that the world doesn't revolve around you!"

*The New York Times recently published a Hubble Space Telescope photo of colliding galaxies. The resolution is so good that you can actually see lawyers racing to the scene.

*A teacher asked her students, "Which is more useful, the **Sun** or the **Moon**?" Little Johnny replied, "The Moon, because it shines at night when you need the light. The Sun shines during the day when you don't need it."

*Did you hear that NASA launched a bunch of cows into orbit? They're calling it the "herd shot 'round the world."

*Here's your Solar System "Fact For The Day": You could fit 7,000 **Pluto's** into **Uranus.**

*Living on **Earth** may be expensive, but it includes an annual free trip around the Sun.

*Describing his first meal on the Moon, one of the Apollo astronauts reportedly said, "The food is good, but the place lacks atmosphere."

And then there's my all-time favorite:

***Sherlock Holmes** and his trusty assistant **Dr. Watson** went on a camping trip. After dinner they retired for the night.

A few hours later, Holmes nudged his friend. "Watson, wake up! Look at the sky and tell me, What do you see?"

"I see thousands of stars," Watson replied groggily.

"And what do you deduce from that?," Holmes asked.

Watson thought about it. "Well, astronomically, it tells me that the Milky Way contains countless numbers of stars. Astrologically, it tells me that **Saturn** is in *Leo*. Horologically, my watch tells me that the time is approximately a quarter past three in the morning. Meteorologically, I suspect that we will have a beautiful day tomorrow. Theologically, I can see that we are a small and insignificant part of the universe. What does it tell you, Holmes? What do you see?"

Holmes was silent for a moment. "Watson, you idiot, someone has stolen our tent!"

Finally, I know you'll want to join me in welcoming our newest member, **John Smith** of Forest Park, Ga. John brought his 12-in. Orion Dob to one of our Aug. Cox Field observings, and joined the club that night. He has GoTo capability with his 'scope, but prefers to learn his way around the night sky the old-fashioned way before using it. Good thinking, John.

-Bill Warren

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Last Month's Meeting/Activities. Ten members and four visitors attended our Cox Field observings on Aug. 26th-27th: **yr. editor** (both nights); new member **John Smith** and visitors **Debra Smith** – no relation to John -- of Jackson, Ga. and **Woody & Ben Jones** of Sunnyside (Fri.); and **Dwight & Laura Harness, Larry Higgins & ex-member Stephen Byous, Mike Stuart, Alan Pryor, Felix Luciano and Carlos Flores** (Sat.).

The weekend's highlight was, of course, observing **Comet Garradd (C2009 P1)** nestled within the cozy confines of the tiny constellation *Sagitta (the Arrow)*. Sporting no visible tail but an extremely bright area of central condensation within a circular, diffuse coma that was about 4' in dia., Garradd resembled an

elliptical galaxy with a bright, compact core and indistinct halo.

Other weekend highlights included: Woody, a newcomer to astronomy, identifying the constellations *Delphinus and Sagitta*, and then getting to see familiar favorites such as **Andromeda Galaxy, Ring Nebula, the Double Double and Albireo** in a telescope for the first time; Mike, showing everyone the tiny blue disk of **Neptune**; Laura, busily gathering Messiers in *Sagittarius*; and the appearance of Stephen Byous -- Larry's cousin -- who moved to Washington, D.C. several years ago.

Oh, there was one other noteworthy highlight that occurred early Sun. morning. We'll let Alan tell you about it:

"Felix, Carlos and I left Cox Field at 4:57 a.m. Sunday morning. Before then -- around 3:30 a.m. -- there was a huge meteor, a fireball. It was tremendously bright, and cast a shadow behind our telescope mounts as it blazed across the sky. Carlos said he had never seen one that bright. I don't recall ever seeing one before that was bright enough to cast shadows. That was really neat!"

Members outnumbered visitors at our Sept. UGa-Griffin lunar observing. Members present included **Steve & Betty Bentley, Larry Higgins, Steve Knight and Tom Moore**. Only 2 visitors showed up.

Art Zorka was the speaker at our Sept. meeting. His topic "Worlds of Wonder: the WOW Factor," was aptly named: everyone enjoyed Art's talk, especially his hands-on demonstration of the vast spaces between the planets in our Solar System.

Also at that meeting, **yr. president** was reimbursed for sixty 9-in. day-glo cones that he purchased for use at Kurtz Rock observings and GSV '12, and for purchasing *Cosmos: A Personal Journey*, the splendid 13-part **Carl Sagan** series that yr. editor wrote about in last month's *Observer*.

Last, but certainly not least, **Dr. Richard Schmude** gave a brief but highly informative presentation regarding geostationary satellites moving into Earth's shadow twice a year, during the March and September equinoxes.

Besides Art and Dr. Schmude, other attendees included: **Jessie Dasher, Tom Moore, Betty & Steve Bentley, Laura & Dwight Harness, Larry**

Higgins, Smitty, Frank Hiller, Felix Luciano, Erik Erikson and yrs. truly. After the meeting, everyone enjoyed Betty's incredible edibles (sausage balls, cupcakes and cookies).

We had 8 members and a guest at our Sept. 17th Cox Field observing. Members included: **Julie Avery & Sam Harrell, Larry Higgins, Laura & Dwight Harness, Richard Schmude, Tim Cunard and yrs. truly.** Our very special guest was **Jeremy Schiffer**, whose attendance at PSSG and GSV star parties at Camp McIntosh goes back more than a decade. It was great seeing Jeremy again.

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This 'n That. From our "**Boys and Their Toys**" Dept. : On May 15th, FRAC co-founder and all-around nice guy **Ken Walburn** finished a distant second in a collision between his motorcycle and a car that ran a stop sign.

Happily, the lady driving the car wasn't hurt, and her car suffered only minor damages. On the other hand, Ken's bike was totaled and he sustained broken ribs, a "messed up leg" and more cuts, gashes, scrapes and bruises than he'd have gotten in a fight with a grizzly bear.

"Finally," Ken writes, "I'm sleeping in my bed. I'm not getting another cycle, that's it for me. Hope to see you guys when it cools off and I can look up."

*Despite rumors to the contrary, Atlanta's only astronomy store, the Camera Bug is still open for business. And that's very good news: it's a treasured resource among FRACsters and other area astronomers. Owner **Tim Nix** is great to work with, and we strongly encourage you to check with Tim next time you're in the market for astronomy stuff. You can call him at 404-873-4513, or visit his store at 1799 Briarcliff Road in Atlanta.

A huge "Thank You!" is due to **Art Zorka** for checking out the rumor and finding it baseless. (And boos and hisses to **yrs. truly** for spreading the rumor without checking it out. Shoddy journalism, man.)

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Upcoming Meetings/Activities. October will be a busy month for public observings. In addition to our UGa-Griffin lunar observing on **Fri., Oct. 7th** (7-10 p.m.), on four consecutive Saturday evenings (**Oct. 1st, 8th, 15th & 22nd**) FRAC will conduct observings at Chic-Fil-A founder **Truman Cathy's** "Rock Ranch," a 1,250-acre cattle ranch and "agri-tainment center" for family fun. The observings, each lasting roughly from 7-9 p.m., will be part of the Rock Ranch's NASA-sponsored Space Farm 7 program.

Admission will be free for participating FRAC members and their families. And here's the best part: you can come as early as you want and partake of the full range of onsite activities, including: a "50 Years of Space Exploration" corn maze; train rides; hay rides; a petting zoo; zip lines; pony rides; jumping pillows; paddle boats; cane fishing; a Pumpkin Cannon; Tiny Town; and a produce stand (open till 6 p.m.) selling products grown on-site.

The Rock Ranch is located in The Rock, Ga., 7 mi. west of Barnesville. To get there from, say, Hampton, Ga., come south on U. S. Hwy. 19/41 like you're going to Cox Field. Instead of getting off the 4-lane at Williamson Road (Ga. Hwy. 362), set your odometer at 0.0 and continue south for 16.2 mi. to Ga. Hwy. 36 in Barnesville. (There's a yellow "ROCK RANCH" direction sign at the stoplight where you turn.) Turn right onto Hwy. 36, go 7 mi. and the entrance to the Rock Ranch will be on your left.

Once you're on the grounds, the site map that we sent out will guide you to the Handicapped Parking area where we'll park initially. Later, around 6:30 p.m., we'll move to the observing site.

Elsewhere, we're conducting an observing from 6:30-8:30 p.m. for the Pre-K classes at Orrs Elementary School on **Mon., Oct. 3rd**. The rainout date is **Tues., Oct. 4th**, also at 6:30.

To get to Orrs from, say, Hampton, come south on U. S. Hwy. 19/41 like you're going to Cox Field, but get off the 4-lane Bypass one exit early, i.e., at Ga. Hwy. 16 (the Newnan-Griffin exit). Turn left toward Griffin off the exit, cross over the 4-lane and turn left at the 2nd stoplight. Go past the side of Home Depot on the right, and turn left at the 4-way stop. Turn right at the next corner, and then turn left into the Orrs parking lot. We'll set up our 'scopes near the gym.

Our UGa-Griffin lunar observing will be from 7-10:00 p.m. on **Fri., Oct. 7th** on the lawn in front of the Flint Bldg.

Our club meeting will be at 7:30 p.m. on **Thurs., Oct. 13th**, in Room 305 of the Flint Bldg. on the UGa-Griffin campus. **Jessie Dasher** will conduct a brief presentation on “How Lenses Work,” after which we’ll watch some of the *Cosmos* dvd.

On **Fri., Oct. 28th**, we’ll have a Cox Field observing. On the following evening (**Sat., Oct. 29th**), however, we’ll experience the dark, dark skies of Kurtz Rock for the first time. If at all possible, try to get there before dark so you’ll understand the layout of the site.

To get to Kurtz Rock from, say, Griffin, set your odometer at 0.0 at the 19/41 Bypass 4-lane at Williamson Road/Hwy. 362. Go west on 362 for exactly 16 miles to the paved intersection of Mt. Carmel Rd. (Turner Rd. is 9.2 mi. from the Bypass, so Mt. Carmel Rd. is 6.8 mi. beyond that.)

Turn right at Mt. Carmel Rd. Go 0.5 mi. and turn right onto Sullivan Mill Rd. Go exactly 3 mi. on Sullivan Mill Rd., and you’ll come to a gray mailbox on the left with “3045” on the post. (There’s no house at the road where you turn, just an unpaved path into a wooded area. Turn left onto that path, and follow directions to be sent out closer to the event.

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Mastering the Art of Observing

article by **Bill Warren**

The Astronomical League (A. L.) is the world’s largest organization of amateur astronomers, with about 25,000 members. FRAC is an affiliate of the A.L., so you’re a member too.

Of those roughly 25,000 A.L. members, only about 120 have achieved “Master Observer” status. To our knowledge, only three Georgians are on that exclusive list – and *all three of them are FRAC members!* They are: **Bill Warren** (M.O. #4), **Phil Sacco** (M.O. #11), and **Art Zorka** (M.O. #119, the A.L.’s newest Master Observer). Congratulations, Art!

To become a Master Observer, it is necessary to earn five required observing pins (Messier Club, Messier Binocular Club, Double Star Club, Lunar Club and Herschel 400 Club), plus any five other pins. (The Outreach pin doesn’t count unless you reach Master Outreach status.) Becoming a M.O. is a lengthy process that normally takes 5-10 years to work through the various lists. But that’s the idea behind the observing clubs and their pin programs: to give you reasons to go out and observe regularly. As we’ve often noted, it isn’t quick and easy to become a Master Observer, or else everyone would do it.

Yr. editor leads the way with 15 pins: the 5 required pins + Arp Peculiar Galaxies Club, Caldwell Club, Deep Sky Binocular Club, Globular Cluster Club, Herschel II Club, Outreach Club, Sunspotters Club, Universe Sampler Club, Urban Club – and, of course, the Master Observer Club.

Art is second with 12 pins: the required pins + Constellation Hunter Club (Northern Skies), Deep Sky Binocular, Globular Cluster Club, Outreach Club, Universe Sampler Club, Urban Club and Master Observer Club.

Phil has earned 11 pins: the required pins + Caldwell Club, Deep Sky Binocular Club, Solar System/Planetary Observers Club, Universe Sampler Club, Urban Club and Master Observer Club.

The A.L.’s observing club list is constantly expanding. When yr. editor started in astronomy in the early 1990s, there were just seven clubs, and no Master Observer program. The list presently includes 35 clubs. There has been talk of adding an Advanced Master Observer program with a separate pin, but as yet no action has been taken that we know of.

Earning a Master Observer pin is like wearing tight shoes: uncomfortable while you’re doing it, but *sooooooooooooo* satisfying when it’s over!

(*Phil, Art and yr. editor will do a joint Master Observer presentation at Ga. Sky View 2012. –Ed.*)

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Above : **DWB 111 (Propeller Nebula)** is an emission nebula in *Cygnus* and part of a larger HII association of ionized hydrogen gas. Its nickname derives from the obvious **S**-shape in the center of **Felix Luciano's** photo. North is at the right edge, center. (H-alpha filter, 12 subs X 300 seconds)



Above: **Barnard 72 (Snake Nebula)** in *Ophiuchus*. Located in an area teeming with dark nebulae, the Snake is a sinuous dust cloud that obscures the Milky Way stars that lie behind it. Several other dark nebulae of various sizes can be seen in the photo. North is at the bottom center of **Felix Luciano's** photo. (AP 130, AP 1200, ST8300/FW5, Lum 5 subs X 180 seconds, RGB 7 subs X 180 seconds. Imaged, dark calibrated & stacked/combined using MaxIm DL. Post-processing in P.S.)

Above right: **NGC 891** (Caldwell 23 and a Herschel 400 target) is a large edge-on spiral

galaxy in *Andromeda*. The larger your telescope, the more likely you are to see the dust lane that bisects 891's bright core along its major axis. North is at the bottom center of **Felix Luciano's** photo. (RGB set of five subs each filter X 300 seconds.)



Below: The bright core and delicate spiral arms of **M31 (Andromeda Galaxy)** dominate **Alan Pryor's** photo. Two elliptical galaxies, both of them satellites of M31 and Messier objects, can also be seen in the photo: **M32** at the top center and fainter **M110** at the lower left edge. North is at the bottom center. (QSI 583 wsg camera, Takahashi 130 'scope using a 0.75 reducer, f.l. 750mm. 3 sets of 5 min. LRGBs)



Next page, upper right: There is considerable debate as to whether **NGC 6840**, the obscure little star group in the upper right-hand corner of **Alan Pryor's** photo, qualifies as a true open cluster. No question exists, however, that the Milky Way starfield in which it resides is a

very impressive sight. (Three 5-min. Luminescent exposures.)

Opposite, lower right: The **Moon's** naked-eye image is reversed in **Alan Pryor's** photo – but the dark outline of “Jack” (of Jack and Jill in the familiar children’s rhyme) and his pail of water are clearly defined in upright manner on the left side of the photo. Jack is wearing a cap and looking left, and the dropped pail is to the left of his leg.

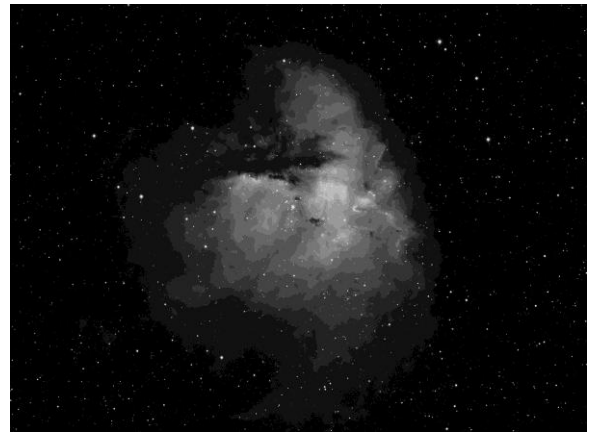
On July 19, 1969, the Apollo 11 lander “Eagle” set down on the Moon near the lower right corner of Jack’s torso (the Sea of Tranquillity) where it joins his rear leg, allowing Apollo 11 astronauts **Neil Armstrong & Buzz Aldrin** to become the first humans to walk on the Moon. (TAO 130 at 1000mm. Ten images using an H-alpha filter with 0.1 exposures. Registax was used to stack the images.)



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For my part, I know nothing with any certainty, but the sight of the stars makes me dream.

-Vincent van Gogh



Above: **NGC 281 (Pacman Nebula)** is both a small open cluster of 25-30 stars (**IC 1590**) and an HII region of ionized hydrogen gas in *Cassiopeia*. The nebulosity is best seen when using an O-III nebula filter.

The nebula is named for its similarity to the PacMan character in the video game. North is at the bottom center of **Alan Pryor's** photo. (Takahashi 130 camera at 1000mm f.l., ten H-alpha exposures of 20 min. each.)

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There is just one thing I can promise you about the space program: your tax dollars will go a long way.

-Dr. Wernher von Braun