

THE FLINT RIVER OBSERVER

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

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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. Sat., Sept. 26: FRAC trip to the U. S. Space & Rocket Center, Huntsville, AL; **Thurs., Oct. 8:** FRAC meeting (7:30 p.m. in the Stuckey Bldg. on the UGa-Griffin campus); **Fri.-Sat., Oct. 16-17:** Cox Field observings (at dark); and **Fri.-Sat., Oct. 23-24:** Cox Field observings (at dark).

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President's Message. Last year's Oct. issue of the *Observer* featured **Phil Sacco's** wonderful "Howl-een Fun" observing hunt for scary-sounding deep-sky

objects such as **Mirach's Ghost** (NGC 404, a small galaxy near the star **Mirach [Beta Andromedae]**).

This year, I'm recommending that you take author **Stephen James O'Meara's** "Ghost Hunt Challenge" (*Astronomy*, Oct. 2009, pp. 56-59).

Admittedly, not all of his 109 deep-sky targets have ghostly nicknames, but he justifies it by saying that "many deep-sky objects appear as pale specters of fuzzy light." That's a stretch, but it's all in fun. His Ghost Hunt Challenge is intended to be the Fall equivalent of a Messier Marathon in March (in which participants try to find all 110 Messiers in a single, sundown-to-sunrise observing session).

O'Meara's Ghost Hunt has its share of creepy delights: not just **Mirach's Ghost**, but also: **the Ghost of Jupiter** (NGC 3242, a planetary nebula in *Hydra*); **the Ghost of Saturn** (NGC 7009, a planetary nebula in *Aquarius*); **the Owl Cluster** (NGC 457, an open cluster in *Cassiopeia*); **the Phantom Galaxy** (M74, in *Pisces*); **the Outer Limits Galaxy** (NGC 891, in *Andromeda*); **the UFO Galaxy** (NGC 2683, in *Lynx*); **the Flying Witch Cluster** (Melotte 111, an open cluster in *Coma Berenices*); **King Hamlet's Ghost** (NGC 3628, an edge-on galaxy and companion to **M65-M66** in *Leo*); **the Mothra Cluster** (NGC 6940, an open cluster in *Vulpecula*); **the Screaming Skull Cluster** (NGC 7789, an open cluster in *Cassiopeia*); **the Ghost's Goblet** (NGC 559, an open cluster in *Cassiopeia*); **Hagrid's Dragon** (NGC 2301, an open cluster in *Monoceros*); and **the Ghost Puppet** (M16, an emission nebula in *Serpens*). All of these, along with the other 95 Ghost Hunt targets, can be seen in a 4-in. telescope in a marathon observing session in October – if you're willing to stay up all night to find them.

I'm not interested in doing the entire Ghost Hunt – but I'll look for some of the targets listed above, and I'd like for you to join the fun at Cox Field and we'll look for them together.

Now, if the sky will just cooperate for a change...

While I'm at it: if you're serious about learning more about astronomy than you knew when you joined FRAC, and about keeping up-to-date with

what's happening in astronomy, the best way to do it is to *read*.

Every issue of the two best monthly astronomy magazines, *Sky & Telescope* and *Astronomy*, is jam-packed from cover to cover with articles, features and photos of interest to amateur astronomers. You can subscribe to either or both of them, of course – but several of our members use a cheaper method, i.e., visiting their local libraries to read the latest issues. The federal government hasn't figured out a way to tax that yet.

It's simple: the more you read about astronomy, the more you'll know. And the more you know, the better equipped you'll be to join in astronomy discussions with your friends in FRAC.

No one knows all there is to know about astronomy or any phase of it – except **Prof. Stargazer**, that is – but you should learn enough to sound intelligent and informed, or else you'll avoid joining conversations about astronomical matters for fear of sounding ignorant or uninformed. And it doesn't have to be that way.

Read.

Finally, I know you'll want to join me in welcoming FRAC's newest members, **Rusty & Dorrene Blaydes**, of Locust Grove. They're just starting out in astronomy, and our goal is to teach them what they need to know in order to enjoy themselves to the fullest.

-Bill Warren

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Last Month's Meeting/Activities. We had 16 at our Sept. meeting, including new member **Rusty Blaydes, Betty & Steve Bentley, Charles Turner, Patsy Lwowski, Steve Knight, Cynthia Armstrong, Bev & Jerry Williams, Laura & Dwight Harness, Larry Higgins, Jessie Dasher, Felix Luciano** and speakers **Joel Simmons & yr. editor**. Joel's talk on *Ophiuchus* (pronounced: Oh fee YOU kuss) was outstanding, although Joel wishes the Greeks had used simple names like Joe, Frank, Bob and Ed instead of tongue-twisters like **Asclepius**.

Yr. editor talked about "The Best Star Atlases in Print." It must have been a pretty good talk, too, because Charles Turner didn't fall asleep. (You'll understand what we mean when you read p. 3.)

The transcript of Bill's talk appears in the Articles section of our website, in case you want to find out more about any of the atlases he mentioned.

Various members discussed the thrills and chills in store for us on our club trip to Huntsville on Sept. 26th. We hope you'll want to join us on that date.

On Fri., Sept. 11th, **Stephen Ramsden** took his solar traveling road show to The Campus, a private h.s. in Peachtree City, to show the students in **Larry Higgins's** astronomy class how the **Sun** *really* looks. Naturally, that was the morning that the clouds held their annual convention over PTC.

Undismayed, Stephen went inside for his classroom presentation, and he proceeded to dazzle the kids for 2-1/2 hours.

Folks, have you ever tried to keep a group of teenagers focused on anything but themselves or each other for 2-1/2 hours? Well, Stephen does that sort of thing regularly with Atlanta-area middle-, junior- and high-school students. How? By combining a variety of splendid solar computer programs and graphics with the passionate zeal of a missionary and the unerring instincts of a master salesman for knowing which psychological buttons to push to make the sale.

Hey, you were there; you heard him speak at our August meeting. (Well, 24 of us were there, anyway.) He's selling people on the glories and wonder of our nearest star, not ginsu steak knives. But if it were the other way around, Stephen would be a millionaire and Japanese restaurants all over Atlanta would be rejoicing that customers were no longer stealing their steak knives. Stephen could sell water to a fish.

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This 'n That. Here's a mystery for you:

Steve Bentley recently sent us an item that appeared on the web courtesy of *Pravda*, Russia's news agency, on Sept. 17th. It concerns an abnormality that showed up recently in a Cassini photo of **Saturn's** rings.

“Planet Saturn (the article states) “has a prominent system of rings, consisting mostly of ice particles with a smaller amount of rocky debris and dust. NASA’s Cassini spacecraft has recently discovered new objects and strange shadows on the rings.

“The unusual objects were detected due to a sharp angle of sunlight cast on the rings. Cassini captured the object shaped as a tower on the outside of the F ring...

“The shadow cast by the object implies that it is protruding upward for about 2 kilometers. The object is a little inclined, that’s why scientists called it the ‘(Leaning) Tower of Pisa’...

“In the astronomers’ opinion, the object appeared after a cosmic body, an asteroid or a big meteorite, passed through the ring.

“Scientists spotted similar objects in other rings.

“Earlier, Cassini captured a strange shadow cast on the Saturn rings, (but they) quickly found the source. The shadow was cast by the inner moon of Saturn, **Mimas** (about 396 kilometers in diameter), NASA said.”

A photo accompanies the news item. You can find the article by Googling “Saturn (Tower of Pisa).”

Take a look-see at it, and let us know what you think. (And thanks, Steve, for alerting us to it.)

*Do you remember **Jackie Gleason’s** classic portrayal of Sheriff Buford T. Justice in the movie “Smokey and the Bandit”? Well, “The Great One” -- Gleason -- passed away 22 years ago, in 1987, but we’re proud to announce that Buford T. Justice is still with us. He’s changed a bit, though: now he’s wearing the uniform of a Spalding Co. deputy sheriff.

If you don’t believe it, ask **Charles “Undesirable” Turner**. (That’s not our description of Charles, it’s the way he signed the roll at our Sept. meeting.)

Before daylight on the morning of our meeting, Charles, who lives in Milner, came to Griffin for breakfast. As he walked in, he noticed Buford T. sitting at another table, talking with some of the diners. Charles gave him no further thought, but seated himself and ordered breakfast.

Unfortunately, while finishing his coffee Charles dozed off momentarily. When he awakened shortly thereafter, Buford T. was standing by him within

halitosis range, with his hand on his gun. The look on his face was anything but friendly.

*I don’t know what you think you’re doin, Buford T. growled, but I been watchin you and you ain’t gonna sit here sleepin all day. This here’s a business ee-stablishmint, not a YMCA. I think what you oughta do is get up and get your lazy carcass outta here, **right now!** We don’t need your kind here in Griffin.*

Charles left, rather than pursue an argument that, at best, he couldn’t win, and at worst, he could lose in a most unsavory and embarrassing manner. Unlike The Bandit (**Burt Reynolds**), though, Charles didn’t give Buford T. the old one-fingered salute or peel rubber on his way out of the parking lot.

***Alan Pryor** is hard at work adapting his 16-in. Meade Dobsonian telescope for astrophotography. His QSI CCD camera came in, and he had to make new truss tubes to shorten the ‘scope. He had to add 8 lbs. of counterweights and replace the lazy susan bearings on his Dob with Teflon pads to stabilize the telescope.

“I also made my first try at actually putting the ‘scope on the equatorial platform,” he said. “That proved to be tricky.”

“I think,” Alan added, “that on my next visit to Cox Field I’ll bring my 20-in. and no photography equipment. Visual is still a lot of fun. Until I iron out all the wrinkles that exist now, I’ll do my astrophotography in my pasture. There’s a lot of setup time, and I’m still in the early learning phase. For instance, I haven’t yet figured out how to fit the equatorial platform in the minivan.”

*If you’ve never seen it before, you owe it to yourself to drag out the binoculars and find **The Coathanger** (a.k.a. **Collinder 399** or **Brocchi’s Cluster**), a well-known asterism in *Vulpecula*. (An asterism is a group of stars that resembles something familiar on Earth – in this case, a coathanger.)

Cr. 399 is an easy find; in fact, you can see it naked-eye as a small, faint blur against the night sky, if you know where to look.

First, find the tiny, 4-star constellation *Sagitta, the Arrow*. (It lies between **Deneb (Alpha Cygni)** and

Altair (Alpha Aquilae), two of the three stars in the **Summer Triangle**. (**Vega [Alpha Lyrae]** is the other star.)

Then, using your binoculars, find the 2 stars that form the arrow's feather. Place the star that's closest to **Cygnus (Alpha Sagittae)** at the lower edge of your binocular field of view (fov), and the coathanger will be in the upper right portion of your fov. Its ten stars are bright, measuring between mag. 5-7, so the coathanger will be immediately recognizable. Six stars form the bar, and the other four form the hook in the middle.

Don't bother to look for it in a telescope: the coathanger is too wide to fit in a telescopic fov.

*From **Bob Berman's** amazing book, *Secrets of the Night Sky* (p. 76): **Sirius B** (the small companion star of **Sirius**) is a tiny sphere – a star only about the size of **Earth**, yet with a mass some 350,000 times greater...

“The combination of toy size and large mass means that its material is packed to a density that challenges comprehension. A pailful of Sirius B weighs more than 6 million pounds, as much as the 36-story Saturn 5 rocket that sent the astronauts to the Moon. A cupful equals the weight of two cement trucks. Such extreme compression is hard to grasp: a lollipop constructed of Sirius B material would outweigh a car.”

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Upcoming Meetings/Activities. On **Sat., Sept. 26th**, FRAC will visit the U. S. Space & Rocket Center in Huntsville, AL. On that date, admission for you and one more person will be free upon presenting your ticket at the door. (One free ticket per family.) We've printed tickets for everyone in the club. We gave some of them to those who attended our Sept. meeting, and we'll give out the rest when we see you on the 26th.

If you go over on Fri. – or if you go on the 26th but prefer not to carpool or caravan with us – **yr. editor** will meet you at the Space Center's front door at 9:00, 9:30 or 10 a.m., and you can pick up your ticket and join us then.

If you go with us on Sat. morning, we'll meet at the Waffle House on Ga. Hwy. 16 on the west side of Griffin at 5 a.m. And yeah, that's early, but it's a 3.5 to 4 hr. drive from Griffin, and we'll want to make a few pit stops along the way, including one for breakfast. You can either carpool with someone who plans to come back Sat. night, or caravan with us in your own car if you want to stay overnight.

The Space & Rocket Center will be open from 9-5. (Remember, it's an hour earlier there than it is here. You'll be an hour younger when we cross the Chattahoochee.)

To get to the Hwy. 16 Waffle House from, say, McDonough, come S on U S. Hwy. 19/41 like you're going to Cox Field, but get off one exit earlier, at the Griffin-Newnan exit (Hwy. 16). Turn left, cross over the 4-lane, and the Waffle House will be on the right just beyond the 2nd stoplight. Try to be on time, because we plan to leave precisely at 5 a.m.

Our club meeting will be held at 7:30 p.m. on **Thurs., Oct. 8th**, in the Stuckey Bldg. on the UGa-Griffin campus. The program will consist of (a) **Joel Simmons's** monthly constellations talk, and (b) **Steve Bentley** and **yr. editor** presenting our new “The Solar System” powerpoint program. We think you'll find both presentations enjoyable and informative.

At 8 p.m. on **Sat., Oct. 10th**, Columbus State Univ. and the Coca-Cola Space Science Center will host a slide presentation and public observing at Providence Canyon State Park, near Lumpkin, Ga. Visitors may bring their own telescopes, but some will be provided. The slide show and observing are free except for a \$5 parking fee required by all Ga. state parks.

Providence Canyon is located about 20 mi. S of Columbus, Ga. and Ft. Benning, in the same general area of the state as **Matthew Gauthier's** Deer Run Observatory, an area known for its dark skies.

There's no quick and easy way to get to Providence Canyon S. P., but here's one way to go:

Go S on 4-lane U. S. Hwy. 19 in Griffin, past Williamson Rd. Follow Hwy. 19 when it bears right at the Ingles stoplight, and go to Zebulon.

In Zebulon, turn right onto Ga. Hwy. 18. Stay on 18 through Concord and past Molena, and stay on 18 until you reach Ga. Hwy. 85 at Woodbury. Turn left onto Ga. Hwy. 85S, and stay on it after it merges with

U. S. Hwy. 27A. Stay on 27A/85S until it merges with I-185 in Columbus.

Follow I-185 until it merges with U. S. Hwys. 27S/280E. Follow 27S when 280E turns left. Stay on 27S until you reach Ga. Hwy. 39 Conn(ector) near Lumpkin. Turn right onto 39 Conn, and then turn left onto Providence Canyon State Park Rd.

Our Cox Field observings will be held on **Fri.-Sat., Oct. 16th-17th** and **Fri.-Sat., Oct. 23rd-24th**. Try to make it on the 16th or 17th if possible, since the New Moon on the 18th will make those dates ideal for deep-sky observing. If you come out on the 23rd or 24th, plan to stay late because the nearly-1st Qtr. Moon will hinder observing somewhat early in the evening.

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The Planets in October. At mag. -2.6, **Jupiter** will truly dominate the night sky in October. Three-fourths the size of the **Moon**, the king of planets and his court of four Galilean moons should be *very* impressive this month.

Both Jupiter and mag. 7.9 **Neptune** are located in *Capricornus*. The Sept. issue of *Sky & Tel* (p. 55) contains a finder chart for blue-gray Neptune and another for grayish-green **Uranus** (mag. 5.7), the latter located below the **Circlet**, a pentagon of five stars lying below the **Great Square of Pegasus**. Although tiny in size, Neptune and Uranus should appear as recognizable disks in telescopes of any size. They take high magnifications extremely well.

We'll have the Sept. issue of *S&T* at Cox Field, in case you want to find them manually.

Mars, glowing redly at mag. 0.5, rises shortly after midnight in Oct. On Halloween night, Mars will share a low-power telescopic field with **M44 (Praesepe, the Beehive Cluster in Cancer)**.

Mercury (mag. 0.4), **Venus** (mag. -3.9) and **Saturn** (mag. 1.1) will be "morning stars" in Oct.

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BACKYARD OBSERVATORIES **- FRAC STYLE**

humor by Bill Warren

Virtually every amateur astronomer secretly dreams of buying or building a backyard observatory. However, not everyone who harbors such dreams has the financial freedom or handyman skills to make such dreams a reality.

Fortunately, FRAC possesses some of the most technologically advanced minds in astronomy today. Several of our members recently shared with me the results of their adventures in backyard observatory design and construction. I think you'll be impressed with their creative alternatives to traditional geodesic domes and observing sheds with roll-back roofs.

***Larry Higgins.** Who but someone as brilliantly innovative as Larry could come up with the ultimate answer to the age-old problem of observing when nature calls? Larry's **Port-A-Perseids Observatory** answers the call by turning the traditional Port-O-Let into a backyard observatory.

Larry's quest to build his all-purpose observatory hasn't been easy, though. "Frankly, I'm straining to find ways to use the Port-O-Perseids properly," Larry admitted. "For example, there's no room in there for the telescope, and if you drop an eyepiece you're in deep (difficulty). But when I get the top of the Port-A-Potty sawed off and the other problems solved, I think everything will fall into place."

***Steve Bentley.** Are you bothered by trees blocking your view of the night sky in your backyard? You won't be when Steve markets his revolutionary new **Sky Cannon Observatory**. It requires two GoTo systems: one for your telescope, and one for the howitzer cannon with which you'll fire mortar rounds into the treetops to clear your view (and keep nosy neighbors away). Not recommended for children under 14, or for use in urban areas. 12-lb. shells not included in the purchase price.

Dan Pillatzki. There are some pretty fancy roll-back and domed backyard observatories available on the market nowadays. Because they sport hefty price tags, though, Dan opted instead for a low-cost, low-tech alternative. He calls it the **Sliding Sheet Observatory**.

Dan stretched a bedsheet over two clotheslines, anchored it on both sides with small weights so the sheet wouldn't blow away, and he stores his telescope and accessories under it. When it's time for him to observe, he simply slides the sheet out of the way, then slides it back when he's finished observing.

Have you had any problems with it?, I asked.

"Sometimes I find socks or underwear in my telescope tube. And I had to improvise a doggie dew shield because the puppies think my telescope is a fire hydrant. But it works fine otherwise.

"Oh, and by the way," Dan added, "here's an example of the Sliding Sheet Observatory's versatility: you can cut two holes in it and wear it to Klan meetings on nights when you're not observing."

Bill & George Warren. Move over, **Orville & Wilbur Wright**, there's a new pair of inventors in town, the Warren brothers!

"Recently," Bill said, "George called me from California to say that he thought we ought to team up to build a backyard observatory.

"Overlooking the facts that (a) neither of us is capable of sawing a board in half, and (b) with him on one side of the country and me on the other, one of us was gonna have a hard time hammering nails, I decided to hear him out.

"Whaddaya got in mind?" I asked.

"We'll build a geodesic dome and call it **George's Geodesic Dome**," he said.

"I thought about it for maybe two seconds. 'Here's a better idea: let's make it a bubble and call it **Bill's Bubble**.'

"Naw," said George, "That's all wrong. 'Bill's Bubble' sounds like something you'd make sitting in a bathtub. Anyway, why should it be named after you? I'm the only one who owns a hammer or saw, so we should call it the **GeoBubble**.'

"Mama would want it named after me," I said.

"Mama always liked you best," George replied.

"It's hard to tell who hung up on the other first," Bill said, "but I like to think it was me."

Tom Moore. Let's face it: unlike the other ideas presented here, Larry Higgins's "Port-A-Perseids" idea is downright silly. Leave it to Tom Moore to

come up with a truly revolutionary portable observatory.

"It's truly revolutionary," Tom gushed when I talked to him about his **Port-A-Bubble Observatory**. "And best of all, it's portable."

But bubbles aren't revolutionary, I reminded him. *Bubble-top domes have been around for years.*

"Yes, but they don't have my secret ingredient: *bubble gum*. That's what makes it portable. I like to describe it as 'the only backyard observatory you can fit in your pocket.'

"It's disposable, too," Tom went on. "When you're finished observing, you just pop the bubble, wad up the gum and throw it away."

But isn't bubble gum too fragile?, I asked. *Assuming that you can get inside the bubble in the first place -- which won't be easy -- what's to keep it from blowing against you and your telescope when the wind blows? That could be a sticky situation.*

"Aah," said Tom, beaming with pride. "That's what makes my Port-A-Bubble truly revolutionary. (It's portable, too; did I mention that?)

"When I'm ready to inflate the observatory, I add my other secret ingredient -- *Super Glue* -- to the bubble gum, and *Presto!*, an instant observatory.

"Here, I'll show you."

Tom crammed eighteen pieces of Dubble Bubble gum into his mouth, chewed frantically for awhile, and then he opened wide, squirted Super Glue into his mouth and chewed some more.

Is it working?, I asked.

"Mmmmf mmbllgrbr," he replied (although I may be misquoting him here).

Tom never got his bubble blown up, or got the gum out of his mouth. But if you think Tom's experiment with the Port-A-Bubble was a failure, you're wrong:

Tom's wife **Cathy** (who thinks he talks too much anyway) says his bubble observatory with Super Glue has succeeded beyond her wildest dreams.

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