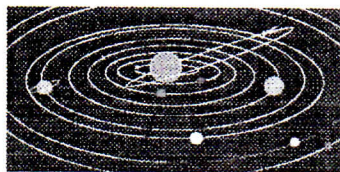


THE FLINT RIVER OBSERVER



Vol. 5, No. 6

FLINT RIVER ASTRONOMY CLUB

August, 2001

Officers: President, **Larry Higgins**; Vice President/newsletter editor, **Bill Warren**: (770) 229-6108 <warren 1212@mindspring.com>; Secretary (**Dawn Knight**)/Treasurer (**Steve Knight**): (770)227-9871, membership renewals to Steve at 114 Central Lake Circle, Griffin, GA 30223 <sdknight@bellsouth.net>; AICor, **Neal Wellons**, and Web Site Coordinator, **Cody Wellons**, (770)946-5039; Librarian, **Tom Moore** (770)228-6447. Club mailing address: 1212 Everee Inn Road, Griffin, GA 30224. FRAC web page: <<http://welcome.to/frac>>.

Please notify **Bill Warren** promptly if you have a change of address or e-mail.

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Club Calendar. Thurs., Aug. 9: FRAC meeting (BB, 7:30); **Sat., Aug. 11:** Perseids Meteor Shower observing (Cox Field, at dark); **Fri.-Sat., Aug. 17-18:** Cox Field observings (at dark).

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Vice President's Message. With summer recreation programs, vacations, etc., affecting attendance at FRAC meetings and observings from June through August, we always try to scale back club activities during those months.

This summer has been more difficult than most, though: between **Neal's** vacations and my recent surgery, *Observer* deadlines have been all out of whack and likely will remain so until we get caught up in the next month or so. (Case in point: this portion of the Aug. newsletter is being written on July 4th.) I -- and the club as well -- owe a *huge* debt of thanks to **Dawn & Steve** for taking over and keeping things running smoothly during what

has been a very trying time for me. They've been wonderful. Steve's willingness to do the July *and* August programs has taken a massive load off my frazzled feet and worried mind.

I hope to be back in full swing soon, albeit at a slower pace until my feet can catch up with what my brain wants them to do. It's a new experience for me: normally, my problem involves trying to keep my mouth from racing ahead of what my mind wants it to say.

At any rate, be assured that there *are* -- and have been -- drivers at the helm of the runaway train we refer to as FRAC; and that the light at the end of the tunnel is *starlight*, not another train coming from the opposite direction.

-Bill Warren

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Last Month's Meeting/Activities. Our Friday, June 22nd, Cox Field observing was clouded out; Sat. night produced ten observers: **Joe Auriemma** and two guests; **Smitty** and his son **Steven** (who, at age 14, isn't "Little Smitty" anymore); **Steve & Dawn Knight**; **Larry Fallin**; **Keith Cox**; and yr. editor. Apart from **Keith's** serendipitous reappearance -- how long has it been, Keith? -- the evening's highlights included **Joe A.** completing his Messier observations -- **M55** was his last dilemma -- and a dazzling fireball that we'll have *much* more to say about later.

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Membership Renewals Due in August: **Grady & Cory Dukes**; **Chuck Hancock**; and **Phil Sacco**. Send your \$12 check to **Steve Knight**. His address is listed on p. 1.

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This 'n That. Thanks to **Steve Knight**, FRAC now has its own e-mail address for members to use: <flintriverastronomyclub@hotmail.com>. As Steve points out, it's "long but easy to remember." The password is **messier110** (all lower case).

***Katie's** barely gone off to college at the Univ. of Arizona, and already we're feeling her absence. (Maybe if she hadn't taken the club library with her...)

*"**All in the Family**" Dept.: We were just kidding about Katie stealing our library, of course. But with Katie gone, will new Chief Librarian and Bottle Washer **Tom Moore** get wife **Cathy** to carry the books for him?

*With blatant disregard for the wishes of FRAC members at our June pool party, **Louise Warren** exercised nonexistent executive veto powers to shoot down **Steve's** motion that all future club meetings be held at the Warrens' house and include banana splits.

Attending that function were: **Lenora Allen; Charles & Bert Sykes; Steve & Dawn Knight; Bill & Louise Warren; Mike & Danielle Stuart; and Joe Auriemma.** We're happy to note that, for the 3rd consecutive year at our pool party, Danielle didn't drown.

*"**Gotcha!**" Believe it, folks, **Steve K.** is a pro when it comes to the fine art of collimation. Those of you who have always suspected that **yr. editor** has a screw loose were only half right: Steve found *two* loose screws in our secondary mirror, which was all set to come tumbling down onto our primary mirror. We had our back turned and were telling **Louise** about the close call when Steve, who was still collimating the secondary mirror, purposely dropped his screwdriver on the pavement, producing two loud **clunk!**s. (The second **clunk!** was yr. editor's heart hitting his feet.)

Cute kid, that Steve. Is the going rate for secondary mirror collimation really \$65 an hour?

***From Our "Reasons Why Katie Shouldn't Major in Astronomy at the Univ. of Ga." List:** Consider this actual item quoted verbatim from the "Q&A" section of the Wednesday, June 27, issue of the *Atlanta Journal/Constitution* (p. B2, emphases ours):

"**Q:** At around 10 p.m. Saturday I saw what looked like a comet. It was at a low altitude and had a tail, which seemed to disappear. I've seen plenty of shooting stars, and this definitely wasn't one. Any idea of what it was? -Jim Cofer, Atlanta

"**A:** For sure it wasn't a comet, said *J. Scott Shaw, professor of astronomy at the University of Georgia.* Comets stay in the same constellation for a week or two at a time, so they essentially rise and set like stars, he said.

"Meteors take a second or a few seconds, and are usually faint, so it probably wasn't a meteor.

"And satellites, such as the International Space Station, take a minute or two to cross half or all of the sky, and often disappear suddenly as they go into Earth's shadow. But they don't have tails.

"*So if what you saw had a tail on it, it most likely was a jet, Shaw said.*"

*Not surprisingly, the above item generated discussion among amateur astronomers who witnessed the event and knew it wasn't a jet plane. What follows is from the next day's *AJC* (Thursday, June 28th), again quoted verbatim:

"**Meteor Sighting.** Q&A reported Wed. on what might have been a meteor, a comet, a jet airplane or a shooting star last Saturday night, with an astronomer concluding from the reader's description that it was a jet.

"However, members of the Atlanta Astronomy Club, the North Georgia Astronomy Club and the **Flint River Astronomy Club** (emphasis ours) saw the object and disagreed.

"Sharon Carruthers, president of the Atlanta Astronomy Club, said members of the clubs debated whether it was a regular meteor or a piece of space debris. Because of the direction it fell -- from west to east, while most satellites

orbit from south to north -- the consensus was that it couldn't have been from a satellite, and because it was so bright, it wasn't a jet. So it must have been a bolide-type meteor, Carruthers concluded, 'one of the longest lasting many of us had ever witnessed.'"

(For an account of the fireball as seen from Cox Field, see Smitty's article on p. 4.)

***Smitty & Larry H.** made their own; now *you*, too, can own a **Sky Window table binocular mount** for only \$209.95, courtesy of Trico Machine Products. See "New Products Showcase," *S&T* (p. 60), Aug., 2001.

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Upcoming Meetings/Activities. Our August club meeting will be held at 7:30 on **Thurs., Aug. 9th**, at Beaverbrook. **Steve Knight** will become the first person ever to serve as speaker at two consecutive meetings; he'll demonstrate the techniques involved in collimating a secondary mirror.

We won't have a BB observing in August, since the kids won't be back in school by then.

We will, however, be at Cox Field on three nights this month, starting with **Sat., Aug. 11th**. The **Perseids Meteor Shower**, one of the best annual meteor showers, will peak during the morning hours of Aug. 11th-12th, offering up to 50-60 meteors per hour -- *in your dreams* -- not including the sporadic meteors that aren't associated with the Perseids but decide to join the show anyway.

They're called the Perseids because, as the Italian astronomer **Ken Walburnini** -- no, actually it was **Giovanni Schiaparelli** -- noted in 1866, they appear to be coming from somewhere in the constellation *Perseus*. They share an apparent common origin (called the *radiant*) because the meteors are debris from the periodic **Comet Swift-Tuttle**. While S-T has an orbital period of something like 120 years, its fragments share a much smaller orbit, returning every year during a 2-week period around Aug. 12th. Those that stray too close to the Earth are captured by our planet's gravitational tug and produce fireworks as they streak through our atmosphere at speeds of up

to 25,000 mph.

FYI: a **meteoroid** is a space rock of any size; a **meteor** is a meteoroid that reaches Earth's atmosphere and produces light as it burns; a **bolide**, or **fireball**, is a very bright meteor that sparkles or blazes; and a **meteorite** is a meteor that reaches the ground.

Most of the meteors we see zipping across the sky are in fact no larger than grains of sand. Although our planet has absorbed many meteorite blasts in the past, the largest single meteorite ever discovered or recovered was found in 1920 in South West Africa (now Namibia). It measures 9' x 8' and weighs an estimated 65 tons.

When done properly, meteor observing is the easiest kind of astronomical observing. Besides a comfortable reclining chair (to keep you from getting a crick in your neck the next day from tilting your head back to look at the sky), all you need to enjoy the Perseids is a sweater, light jacket or thin blanket if you plan to stay long enough for the air to cool down; insect repellent; a thermos of iced tea; and maybe even some binoculars if you want to see what those Cox Field mosquitos look like up close.

The Aug. issue of *Sky & Tel* (p. 109) offers basic tips for observing meteor showers and a map showing the location of the radiant.

Our regular Cox Field observations will be held on **Fri.-Sat., Aug. 17th-18th**, with the new moon falling on Saturday. The theme of our Aug. observations will be "Binocular Messiers." We should be able to track down 20-25 of them, i.e., about half of the required number required for a certificate & pin. And if you arrive while there's still daylight, **Steve** will check (and adjust, if necessary) the collimation of your primary and secondary mirrors -- free of charge, of course.

(Incidentally, **Charles & Bert Sykes** are bringing some Boy Scouts to Cox Field for a brief observing on the **17th**, prior to our club observing. Participation on your part is strictly voluntary, and is neither required nor expected of you.)

At our September meeting, we'll discuss (a) the results of our recent membership survey, (b) what to do to get ready for the Peach State

Star Gaze, and (c) ways to keep a straight face around **Tom Moore**. (Just kidding about the last part; *nobody* can keep a straight face around Tom. Hey, here's a guy who once suggested that, when we're observing at Cox Field, we should all wear red goggles and use regular flashlights.)

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A GRAND DISPLAY

observing report by Steven (Smitty) Smith

An unexpected visitor made a brief but spectacular appearance somewhere between 10-11:00 at our Cox Field observing on Sat., June 23rd. It was the kind of experience that those of us who were present likely will talk about for years to come.

It all began with **Bill Warren** suddenly shouting, "Look at that!" Quickly gazing upward in the direction he was pointing, everyone present saw a large fireball moving across the sky from north-northwest to south. Its tail was about 35° long, and the bolide was moving very slowly like a low-flying aircraft (which it clearly wasn't). Small pieces constantly broke off from its head as it moved; these pieces didn't separate from the head and veer off like fireworks particles, nor did they slow up or trail behind the fireball. They simply stayed with it.

From the time I saw the fireball until it finally faded away, it crossed approximately 80° of sky, so its total distance traveling across our line of sight could easily have been 120° or more. It was a very, very slow and long burner of magnitude -5 or brighter. Everything around us was bathed in its soft but bright light -- bright enough to have cast shadows on the ground behind us, if anyone had been looking that way.

My son **Steven** remarked that it was the best meteor he had ever seen. I told him that he was very lucky, as I had never seen such a grand display in all the years I've been looking at the skies. In truth, I've never seen an object behave quite like this one.

But *was* it a large meteor? Maybe so, but I

kept thinking that it might have been an old satellite or large piece of space junk like a booster rocket that was finally coming down.

When it was over and everyone was voicing their *oohs* and *aahs* over it, I called out loudly, "One more time, I wanna see it again!" -- but there was, of course, no repeat performance. There never is.

The next day I heard from folks in the Atlanta Astronomy Club that the fireball was seen from the CEWMA site, and from Brasstown Bald, Woodruff Observatory and AAC's Villa Rica observing site as well. The North Georgia Astronomers also reported seeing it from Dahlonega. It's a safe guess that observers from South Carolina to Mississippi probably tracked this object.

Later, when I told a friend in British Columbia about our sighting, he dug up a website for me that lists expected reentries of manmade satellites and debris: <http://www2.satellite.eu.org.sat/vsohp/decay.html>. What we saw might have been parts of **#1347 Cosmos 61**; **#26457 CBERS LM4**; or **#24247 STEP-2 Pegasus**. I have no idea what those designations mean, but some of the entries had "deb" -- debris? -- or "r" (rocket?) by them. I think we saw, not a space rock, but rather space junk that was headed for its final resting place.

Whatever it was, I'm grateful to have witnessed its passing.

(Editor's Postscript: It's interesting that observers in other locations saw the fireball as traveling from W to E, while we saw it traveling from NNW to S. I like Smitty's idea that it was just some space junk coming home.

What do YOU think it was?)

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THE A-TEAM

humor by Bill Warren

You, as a member of FRAC, are part of a small but elite group of amateur astronomers whose technical skills, diverse talents and stellar accomplishments are unmatched anywhere on earth. In fact, no less than **Dan**

Rather himself has referred to us as "**The A-Team.**" "That's **A** as in *asinine*," said Dan, "not **A** as in astronomy."

Loved by some, admired by many and envied by all, FRAC rather painfully straddles the cutting edge of astronomy today. As our Great Silver-Tongued Leader, High Muckety Muck and Grand Guru **Larry Higgins** told a CNN reporter at Cox Field recently, "FRAC represents a unique amalgam and confluence of theoretical cosmology and hands-on observational astronomy. Or something like that. Bill wrote it down for me when we heard you were coming, but I lost his note. Whatever. Anybody got a cigarette I can borrow?"

Words of wisdom from a leader for the ages.

And *these* are the "creme de la creme" -- the individuals, dates and deeds that have led to FRAC's becoming the vanguard of modern amateur astronomy:

***Dec. 27, 1995.** **Bill Warren** learns the hard way why astronomers don't clean their mirrors with steel wool or Brillo pads.

***April 25, 1997.** **Ken Walburn** discovers at the Peach State Star Gaze that perfect happiness and contentment are unattainable in this life unless one also has the key to the men's room.

***Sept. 19, 1998.** Caught up in the spirit of astronomical observing, FRAC newcomers **Tim & Celia Astin** replace all the white light bulbs inside and outside their house with red ones. Two days later, their house is raided by the police at 3 a.m.

***Jan. 13, 1999.** Upon hearing comments at a FRAC meeting by guest speaker **Dr. Richard Schmude** regarding the albedo of Mars, **Tom Moore** raises his hand. "I had an albedo mouse," he announces proudly. "It had white fur and beady little red eyes. But then my brother stepped on it."

***May 8, 1999.** Searching in his garage for a faster way to dry the dew from his mirror, the

late **Joe Auriemma** attaches a rubber hose to the exhaust pipe of his motorcycle.

***Feb. 3, 2000.** When **Dan Byous** proudly unveils his new home-made 18" truss tube Dobsonian reflector at Cox Field, **Larry Higgins** spoils the festivity of the occasion by pointing out just before it topples over and crashes to the ground that the primary mirror is at the wrong end.

***July 21, 2000.** **Katie Moore** receives the Horkheimer 2000 Award at AstroCon in Ventura, California. From her acceptance speech (that she never told you about): "Finally, I'd like to thank the man whose generosity made this possible, Mr. Jack Hookhammer." (Katie laughs nervously.) "Excuse me, of course I meant Mr. Hank Jackhammer -- Jork Horkheever ... Hicklee-hoover." (Weakly) "Hack Jerkwater?..."

***Aug. 30, 2000.** After several hours of trying in vain to find the constellation *Delphinus* from his backyard, **Donald Harden** discovers that he's had his star atlas upside down. "It's Nature's way of telling you to change the batteries in your red flashlight," he explains sheepishly.

***Nov. 14, 2000.** **Steve & Dawn Knight** spend their greatest observing night ever at Clingman's Dome in the Great Smoky Mtns. Nat'l. Park. "The stars were so close you could almost reach out and touch them," Steve remembers fondly. Later, while they sleep in the wee hours of the morning, Park rangers lock the gates for the next six months.

***June 28, 2001.** Upon returning from his vacation trips to Alaska and Nova Scotia, **Neal Wellons** is asked if he took any photos of the Northern Lights. "I tried," he says, "but my camera must not have been working right. When I got the film back, all the pictures showed was this shimmery, blue-green stuff where the sky should have been."

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