

THE FLINT RIVER OBSERVER

Newsletter of the Flint River Astronomy Club
Vol. 7, No. 9 November, 2003

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Club Calendar. Fri. & Sat., Oct. 24-25: Cox Field observings (at dark); **Sat., Nov. 8:** special total eclipse observing (Cox Field, at dark); **Thurs., Nov. 13:** Club meeting (Beaverbrook, 7:30); **Fri., Nov. 14:** BB observing (at dark); **Sun.-Sun., Nov. 16-23:** Chiefland (Fla.) Star Party; **Fri.-Sat., Nov. 21-22** and **Fri.-Sat., Nov. 28-29:** Cox Field observings (at dark).

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President's Message. Have you ever wanted to forget the observing programs and just run wildlly through the cosmos? I did that at the Oct. 18th Cox

Field observing. I decided to finish something that I was led into at the TNSP last month, and I had a great time doing it.

Using my O-III filter, I hit the big, bright, pretty nebulas along the Milky Way, starting at the **Helix**, then on to the **Dumbbell**, all around the **Veil** and on to the **North American** and **Pelican Nebulas**. The **Ring** had a 3-D effect I'd never noticed before.

Then I decided to hit some galaxies, starting with **Andromeda**, then down to **NGC 253** in *Sculptor*. **M33** looked great, with some fine structure in the outer arms. I helped **Doug** find Caldwell 51, a true challenge object if I ever saw one, and then took in **Mars, Uranus** and **Saturn**, finishing with **M42**.

That may not sound like much of a challenge, but remember the thing I was led into? It was to find details that I had never seen before in familiar objects. Really study the object, not just look and move on. What do you see now that you didn't before?

I've been spoiled by aperture for 3 years now, and I was always after the thrill of the hunt, not the kill. Knowing all those objects by heart, the hunt was nothing. But in them were details I had never seen before. For example, NGC 253 extends well past the field of view, past the mottled sections, and despite the mottling it doesn't extend above or below. It ends sharply in one direction but fades in another.

The Helix has lobes that, with effort, can be seen directly. **David O'Keeffe** showed me that one. The Veil has much more detail in the middle than I had seen before, I just never looked for it. The North American nebula has very consistent fading, and I tried to take in its size – three fields of view, and that's without the Pelican.

I picked up the globulars in M31 for the first time. It has a strange effect, knowing that they are *2.4 million light-years away*. Sit and look at it sometime; it's a humbling experience.

And that's what this hobby is all about. New discoveries and expanding your mind in ways you never thought possible. That's the root of being human, to think in ways outside of convention. Trying to wrap your mind around something that's so much bigger than you, yet it's right there for your own personal examination and conclusions. Who cares what the pros think? You're taking in the latest data,

looking at it right now with your telescope, your eyes, your mind. You and the universe; what could be better?

-Steve Knight

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Membership Renewals Due in November: Mark & Bryan Christopher. Please send your \$15 check payable to the Flint River Astronomy Club c/o **Steve Knight** at his address on p. 1.

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Last Month's Meeting/Activities. Four members attended our Sept. 26th Cox Field observing: **Bill Snyder, John Wallace, Smitty** and **yr. editor**. John was tracking down double stars; Smitty, **Caldwells**; **yr. editor**, galaxy groups and clusters; and Bill was doing whatever Bill does at observings.

Attendance was better at our October meeting, with 12 members turning out to hear **Richard Schmude's** Mars presentation. **Doug Maxwell**, responding to **Scott Hammond's** question as to how the meeting went, wrote that "I thought Dr. Schmude's presentation was top-notch. The man knows his stuff, and it was fun as well as being very interesting and informative."

Meeting attendees included **Bill Snyder, Larry Fallin, Dawn & Steve, Felix Luciano, Erik Erikson, John Wallace, Smitty, Doug, Irene & Curt Cole** and **yrs. truly**.

Like ships that pass in the night, **Dawn & Steve** and **yr. editor** went out to Cox Field at different times on Fri., Oct. 17th and, finding no one else there, went home. Better weather the following evening brought out the **Knights, David & Brendon O'Keeffe, John Wallace, Smitty, Dougmax** and **yr. editor**. In response to **David Ward's** having missed it, **Smitty** wrote, "Well, David, you weren't the only one who missed a fairly good night. It was pretty clear and very steady until some ground fog rolled in, hampering our viewing just before the Moon came up. So it wasn't bad.

"The observing wasn't quite good enough for those dim, faint fuzzies, but it was pretty good anyway since

the front moved through earlier. Shoot, even though I couldn't see **Caldwell 51 (IC 1613)** that I need to nab in my 10-inch, **Doug** and **Steve**, after mucho time at their eyepieces, made it magically appear in their bigger 'scopes...

"My favorite object, **M31**, was showing much more detail than usual (though not nearly as well as on an excellent night). **NGC 253** looked very good, and **North American Nebula (NGC 7000)** stood out pretty well. So under these conditions everyone had pretty good observing runs and **Doug & I** happily logged some more **Caldwell** objects."

Doug's reply: "When I think of how faint (**IC 1613**, **Caldwell 51**, a galaxy in *Cetus*) was in **Steve's** 'scope, and eventually in mine, too, with the sky we had that night, it makes me wonder how they can call the **Caldwells** the next step after the **Messiers**. I'm ready to move on to another program that is nearer to being what it is advertised as being.

"I wouldn't have minded if the **Caldwells** were touted as a program of objects, some mediocre, some pretty and some invisible to nonexistent. At least I'd have known what I was up against." (*Editor's Note: Doug may be ready to move on to another program, but it's a safe bet that he's not going to abandon the Caldwells at this stage of the game, not when he has 69 in the bag and only one left to earn his Caldwell certificate and pin.*)

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Upcoming Meetings/Activities. We'll start things off with Cox Field observings on **Fri.-Sat., Oct. 24th-25th**, with the new moon on the 25th.

Then, on **Sat., Nov. 8th**, we'll have a Cox Field total lunar eclipse observing. (And to anticipate the question we know you're dying to ask, **Tom Moore**, *No, the full moon won't interfere with observing.*)

Our club meeting will be at Beaverbrook at 7:30 on **Thurs., Nov. 13th**. **David Ward** will be our speaker, talking about the bright comets that will grace our night skies between now and next spring, and the **Astronomical League's** new "Comet Observing Program".

On **Fri., Nov. 14th**, we'll hold a Beaverbrook observing at the school at dark.

The Chiefland Star Party will run from **Sun., Nov. 16th** through **Sun., Nov. 23rd**. For those who don't plan to make the trip, we'll have Cox Field observings on **Fri.-Sat., Nov. 21st-22nd**, and again on **Fri.-Sat., Nov. 28th-29th**.

FRAC's annual Christmas Dinner Party/Meeting will be on **Fri., Dec. 12th**, at 6:30 at the Hong Kong II Buffet Restaurant on Hwy. 19/41 in Griffin, just north of Blockbuster Video and opposite the Racquethouse Health & Fitness Club.

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This 'n That. Congratulations to FRAC's latest published author, **Steve Knight**, whose article "Putting Heat In Its Place" appears in the Winter, 2003, issue of *Amateur Astronomy* (pp. 46-48) It's a great article and a great accomplishment; keep up the good work, Chief, we're all proud of you.

*Did anyone else notice how much **David Helfand**, the chairman of Columbia University's astronomy dept., resembles FRAC co-founder **Larry Higgins** in the photos on pp. 51-2 of the Oct. '03 issue of *Astronomy*? Take away the glasses and ponytail and you'd have the spittin' image of ol' Hig himself.

*Beaverbrook is raffling off a brand-new, 50" Hitachi TV set, with the drawing slated for **Dec. 9th**. You don't have to be present to win. Chances are \$5 apiece, or three for \$10.

If you'd like to enter, you can purchase chances at the Nov. FRAC meeting or send a check for the appropriate amount made out to Beaverbrook P.T.A., c/o **Louise Warren**, Beaverbrook Elementary School, 251 Birdie Road, Griffin, Ga. 30223. Be sure to include your name, address and phone no.

*So who put back the old FRAC sign at Cox Field? Whoever it was, **Thanks!** from all of us.

*With our star party, the **Georgia Sky View**, a reality now (and set for **Fri.-Sat., May 21-22, 2004** at Camp McIntosh, until two years ago the site of the Peach State Star Gaze, 8 mi. S. of Jackson, Ga.), the organizing committee will be needing some operating

capital to cover a wide range of expenses between now and then. You can help out by paying your \$15 dues for 2004 *now*, rather than waiting until next year to do so. And if you *really* want to help, register for the star party now.

I gave **Dawn** a check for \$50 to cover my own dues and registration; if other members will do likewise, the committee should have more than enough money to buy the zillion-and-one incidentals (e.g., toilet paper, trash bags, etc.) that will be needed.

Registration fees are as follows: \$26 for adults, \$10 for children under age 10, \$2 for weekend parking (required by Indian Springs State Park), \$5 for dorm space (if you don't want to camp out) and \$18 for a tee shirt.

Those fees are a flat rate; that is, there will be no per-night fees for camping, dorm use or parking. Walk-ins will not be admitted, so you'll need to register in advance. Registrations are both non-refundable and non-transferable.

The star party committee is presently considering logo ideas for the tee shirt. The winner, to be selected by the committee, will receive a year's free membership in FRAC plus full credit for the logo. Send your logo ideas to **Steve Knight** c/o his home or e-mail address on p. 1, or through the FRACgroups address.

The committee is hard at work finalizing plans for Ga. Sky View. For example (and we'll have much more to say about this in future editions of the *Observer*), they have already collected more than \$250 worth of door prizes, and they presently are finalizing the registration letter and form that will soon be sent out to prospects (which includes you, of course). A good turnout is expected from the Atlanta Astronomy Club (AAC) and the Middle Ga. Astronomical Society (MGAS); with a cutoff limit of 75 registrants, you're well advised to return your application promptly when you receive it. Waiting until the last minute to register might well mean that, as the deadline approaches, you could find yourself on the outside looking in.

*Our sincerest condolences to **Smitty**, whose father passed away in late September.

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The Sky In November. First, there's the **total lunar eclipse** of **Sat., Nov. 8th**; come watch it with us at Cox Field. Although the eclipse will begin at 5:15 p.m. and end at 11:22 p.m., totality will last only from 8:16 to 8:31, after which the full Moon will begin moving out of the Earth's shadow.

(**Tom M.**, hair-splitting again: "*How can it be a total eclipse if the Moon is one day short of being full?* OK, Tom, we'll call it "almost nearly, not quite but for all practical purposes, generally speaking, roughly a total eclipse." Now, be a good little boy and go back to the Mr. Potato Head you were playing with, while the rest of us are talking about astronomy.)

The **Leonids meteor shower** will be more like a drizzle this year, with no more than 10-20 meteors per hour at peak on the morning of **Nov. 18th**.

As for the planets – well, **Mars** will still be bright throughout November, although advancing steadily westward. **Venus** will be visible low in the W sky for an hour or so after sunset, with **Mercury** to its right and below it; **Saturn** will rise at 7 p.m. by the end of the month; and **Jupiter** will rise about midnight at month's end. Sheer laziness prevented us from finding out what **Uranus, Neptune, Pluto** or **Ken Walburn** will be up to in November.

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MODIFICATION MANIA

humor by **Bill Warren**

Once upon a time, you bought a telescope, took it home, assembled it and went outside to look at the sky. But that's no longer true in FRAC. We're light-years beyond that primitive approach to astronomy.

Nowadays, the name of the game is *modification*, i.e., seeing how many ways you can change your telescope. With **Doug Maxwell** and **Steve Knight** leading the way, FRACsters are, in increasing numbers, looking for – and finding – innovative ways to improve their telescopes.

Here, then, are six great inventions and equipment modifications by FRACsters. Such innovative thinking is helping to shape the way amateur and professional astronomers regard us (i.e., the same way they regard slugs, snails and other creatures that leave trails of slime behind them when they move).

1. The Lucianomicon Filter. (Modifier: **Felix Luciano**). Taking the renowned Lumicon filters to newfound heights, Felix has created a dual purpose filter that blocks unwanted light transmission and, when attached to your kitchen faucet, purifies your family's drinking water.

How is it working?, we asked him.

"Oh man, you gotta see it!," Felix told us. "Now I'm getting orange water in my house, and the images I'm getting with the filter are soapy and smell bad!"

2. The Smitty-Cassegrain Telescope. (Inventor: **Smitty**). Having misunderstood the word cadioptric to mean that his wife should serve as caddy for his optics, Smitty nevertheless designed a revolutionary short-tube telescope with enclosed mirrors. Due to badly folded blueprints, however, his tube wound up having only one end, and the resulting images revealed nothing but the inside of his eyeball.

Smitty merely laughed it off, saying, "I guess I'm like the TV helicopter traffic reporters – you know, FRAC's 'Eye in the Sky.'"

3. Steensplitter Telescopes. (Founder: **Mike Steen**). Mike took Starsplitter's truss tube design a bold step farther by eliminating the truss tubes that hold up the eyepiece end of the telescope. In Mike's Steensplitter telescope, the two ends are kept apart and in place by powerful electromagnets located in the four corners of the two boxes.

"It worked great at first," Mike said, "until the night my battery suddenly went dead."

"Did you know," he went on, smiling sadly, "that a 22-inch mirror consists of 3,672,438 tiny pieces that aren't there until something falls on it?"

4. The Newcombian Telescope. (Builder: **Dan Newcombe**). Dan's first venture into telescope making literally fell through when, to save expenses,

he attached the primary mirror to its cell with Scotch tape.

Like Thomas Edison before him, though, Dan doesn't give up easily. He regards mistakes as positive learning experiences. After finding that Scotch tape failed to bond the mirror to its cell, on his second try he used what he thought was a more powerful adhesive, Elmer's glue.

On his third attempt, Dan used the black dot in the center of the primary mirror as a guide in nailing it to the cell.

5. The Duksonian Mount. (Modifier: **Grady Dukes**). Finding his stolen car on blocks with the tires missing gave Grady all the inspiration he needed to improve the basic Dobsonian mount.

He took his car home, set it back on blocks, placed a tripod on the roof of the car and set a Dobsonian base rather precariously on top of the tripod. Every time he sneezed, the resulting crashes could be heard three blocks away.

To stabilize everything and reduce the telescope's altitude because he's afraid of heights, Grady dug a hole in his backyard that was deep enough to hold the car and tripod, one atop the other. He buried them, tamped down the dirt, and replaced the Dob base above them at ground level.

How does it work?, we asked.

"Oh, it works fine," he said, "but I can't get in my house because I left the keys in the car."

6. The Maxwellsutov Telescope. (Inventor: **Doug Maxwell**). One thing you have to admire about Doug, he's a quick thinker.

Having studied the way light beams are reflected inside a Maksutov 'scope, Doug decided that he could do better. He replaced the focuser on his telescope with another mirror that relays the incoming starlight to the side view mirror of his car. From there, the beam travels inside his house, through the kitchen window and onto a large mirror over his sofa. That mirror further deflects the light toward the rear of his house and onto (a) his shaving mirror, (b) a tubful of water and (c) his bathroom medicine cabinet mirror, which is angled precisely to direct the light back outside through his bedroom window. His car's

rearview mirror then sends the image next door where the process is repeated.

At least, that's the story Doug gave his wife **Laura** when she found him late one evening standing in his neighbor's yard, holding a pair of binoculars and a camera.

See what we meant about Doug being a quick thinker?

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Smitty's Snippets

Amateur astronomers are naturalists of the night, captivated by the mystique of the vast universe that is accessible only under a dark sky.

-Terence Dickinson & Alan Dyer
The Backyard Astronomer's Guide, 2nd ed.
Toronto (Firefly Books, 2002), p. 37

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...But consider how amateur astronomy has changed in two generations... Practical reference material was practically nonexistent in the 1960s. Most of what there was came from England, and virtually all of it was written by one man, Patrick Moore. Amateur astronomy was like a secret religion – so secret, it was almost unknown.

-Dickinson & Dyer, *ibid.*, p. 38

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