

# THE FLINT RIVER OBSERVER

Newsletter of the Flint River Astronomy Club  
Vol. 8, No. 11 January, 2005

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**Club Calendar.** **Fri.-Sat., Jan. 7-8:** Cox Field observings (at dark); **Thurs., Jan. 13:** FRAC meeting (Beaverbrook, 7:30); **Fri.-Sat., Jan. 14-15:** Cox Field observings (at dark).

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**Editor's Message.** Let me start by wishing each of you a happy new year, along with the hope that Santa was sufficiently impressed with your good behavior

last year to have brought you everything that you wanted for Christmas.

Beyond that, there are two very important upcoming events – one in February and one in March – that merit your attention.

First, you should be aware that, starting next month, everyone's FRAC dues renewal date will be Feb. 1<sup>st</sup>. We'll have more to say about it in next month's *Observer* (including how much you'll need to pay when prorated dues are factored in). For now, though, you simply need to be aware that that change will go into effect in February, 2005.

Second, we'll elect a new slate of officers – president, vice president, secretary, treasurer and board members – at our March meeting. If you'd like to serve, whether as a first-timer or as a repeating incumbent, please contact **Smitty** and let him know which position(s) you'll be willing to fill. Smitty's home address, phone no. and e-mail address appear in the upper left-hand corner of this page.

-Bill Warren

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**Last Month's Meeting/Activities.** Our Dec. Cox Field observings were weathered out, of course.

We had better luck with our dinner/meeting at Hong Kong II Buffet Restaurant, which was held indoors on Dec. 17th. Attendees included: **Smitty & Mrs. Smitty (Deborah); Curt & Irene Cole; Doug & Laura Maxwell; Steve & Dawn Knight; Larry & Veronica Fallin; David, Roxanne, Rachel & Melissa Ward; Dr. Richard Schmude; Chuck Sims; Mike Stuart;** and last, but certainly not least, **yr. editor**, who had to be dragged away bodily, kicking and screaming, from the buffet bar on his 19<sup>th</sup> visit for refills.

Elsewhere at the meeting: **Smitty** presented **Dawn** a sculpture of two bears mauling an unsuspecting camper (or something like that), in gratitude for Dawn's many contributions to FRAC. While hubby **Steve** and others are constantly praised in these pages -- and rightly so -- for all they do for our club, Dawn applies herself to numerous tasks, large and small, and

gets them done in an efficient, quiet manner that is all too often overlooked.

Also, **Curt** discovered to his surprise and delight that the way to receive your Honorary Messier certificate and Binocular Messier certificate and pin is to show up for our meetings; **Dr. Richard Schmude** was recognized for his photo on p. 13 of the Dec. '04 issue of the *Reflector*; and door prizes were won by **David Ward** and **yr. editor**, the latter of whom showed our newly framed "MOST FOR ITS SIZE" Astronomy Day award and a framed astrophoto of **North America Nebula (NGC 7000)** by **Scott Hammonds**. Both items (but not Scott) will be on permanent display at Beaverbrook.

**Matt McEwen** braved the frigid Dec. weather to watch the **Geminids meteor shower** on Dec. 13<sup>th</sup>. His report: "It was pretty cold out. Add the wind on top of the temperature, and it made for some *cold* observing for this 8<sup>th</sup>-generation Florida native.

"The best meteor of the evening was the very first one I saw, a bright sporadic that wasn't part of the Geminids. I first saw it in *Lyra*, and I followed it through *Cassiopeia* until finally it passed beyond the NE horizon. It changed brightness a few times from, say, mag. -4 to 0 as pieces flew off.

"The rest of the evening was a steady stream of Geminids. I counted close to a hundred in the three hours before midnight. Then I wimped out, went back inside and stood in front of the fireplace until I defrosted. -Matt."

*(That wasn't wimping out, Matt; it's called "obeying your survival instincts." -Ed.)*

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"You will eventually want to buy a telescope with greater light grasp, but don't rush the process. If you learn to push your current equipment to its limit you will be a better observer and be more able to make good use of better equipment when you do buy it."

-David E. and Billie S. Chandler

*Sky Atlas for Small Telescopes and Binoculars* (p. 6)

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**Upcoming Meetings/Activities.** Having grown weary of playing tricks on us in terms of scheduling our club observings in recent months, the **Moon** has graciously granted us *two* Cox Field observing weekends in January, although the weekends fall earlier in the month than previously.

This month, we urge you to wear all the winter clothing you own and attend some (or all) of our weekend observing dates: **Fri.-Sat., Jan. 7<sup>th</sup>-8<sup>th</sup>** and **Fri.-Sat., Jan. 14<sup>th</sup>-15<sup>th</sup>**. (The new moon will be on Jan. 10<sup>th</sup>.) **Tom Moore** won't bag many new Lunar Club targets on those weekends, but those of us who are involved in other pursuits should do very nicely - weather permitting, of course.

Between those dates, our club meeting in the BB media center at **7:30 p.m. on Thurs., Jan. 13<sup>th</sup>**.

Note: We will NOT hold a Beaverbrook observing in January, and we'll let you know about an Orrs PTA observing if and when we know more about it ourselves.

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**This 'n That. FOR SALE:** Here's an item that would be a bargain for anyone with an available chunk of change now that Christmas is past us. It comes from **David Dempsey**, one of our "cousins in MGAS, down 'cross the river in Macon":

"It is with much regret that I have to part with some of my astronomy toys.

"I am offering my **13.1-inch Discovery Dob** for sale. It is a hybrid version of their DHQ and PDHQ 'scopes. The optics are very good. It comes with an 8x50 finder and a Telrad. I will let the 'scope go for \$850.00 with local pickup. **Steve (Knight)** has seen and looked through it in the past and can vouch for the quality.

"I will be happy to answer questions or provide more info for anyone who is interested. The new 12.5-inch PDHQ from Discovery is listed at \$1299 + \$185 shipping."

You can contact David at (478)474-4949.

His original e-mail to FRACgroups was dated 11/2/04, and in a followup in early December he said that the 'scope had not yet been sold.

If you contact him, be sure to ask what eyepieces and accessories come with it beyond what is listed above. It's unlikely that anyone would buy a telescope that didn't come with at least one eyepiece. To **yrs. truly**, at least, that would be like buying a car with a tire missing.

**\*How to Add Your Gear List to the FRAC-a List** (courtesy of **Curt Cole**). "As you know, we are presently compiling a club-wide listing of members' telescopes, equipment and accessories. Participation is strictly voluntary; the information will be available only at our FRAC-a web site, and only to members who have been approved by the site moderator.

"Since the list cannot be edited except by the originator or the group moderator, you'll need to copy and paste the column headings into your spreadsheet and then mail it to me.

"If you don't have a spreadsheet, such as Excel, just type or write down the information and mail it to me, either by snail-mail or by e-mail, and I'll paste it into the one that's online.

"Here's how to add your gear:

1. Open your spreadsheet.
2. Go online and get into the FRAC-a Yahoo Group.
3. On the left side of the screen, click on Files.
4. Click on FRAC Member's Gear.xls.
5. Go to Row Two, Column T (the cell under 'Miscellaneous'), left click on it and continue to hold the button down as you drag the mouse pointer to the cell in the upper left ('Name').
6. Select File, Copy (or Cntrl + C) to copy those two rows to the clipboard.
7. Go into your spreadsheet.
8. Paste (Cntrl +V) the two rows into your spreadsheet.
9. Fill in your information.
10. E-mail the file to me at: [24e29d55c@speedfactory.net](mailto:24e29d55c@speedfactory.net).
11. Save this file in case I need for you to re-send it.

"If you have any questions, please feel free to write, call or e-mail me at:

Curt Cole  
190 West James Circle

Hampton, GA 30228  
phone: (770)946-3405  
e-mail: [24e29d55c@speedfactory.net](mailto:24e29d55c@speedfactory.net)."

**\*Please Note: It is considered both ethical and acceptable to use a Sky Commander, GOTO or any other computerized finder in the pursuit of ALL A. L. observing pins and certificates except the Messier, according to the League's Southeastern Regional representative, Phil Sacco.**

With that declaration, achieving advanced observing pins in the deep-sky observing clubs (i.e., the Caldwell, Herschel 400, Arp Peculiar Galaxies, Herschel II and Galaxy Groups and Clusters) just got a whole heap easier for anyone who has access to such a finder system and a telescope with sufficient aperture to pull in the fainter objects in those programs.

The A. L.'s obvious rationale for including computerized finding systems is that, when people go out and find objects regularly, they will continue to pursue those pins and their observing skills will improve quickly because they don't have to spend countless wearying hours searching in vain for the very faint fuzzies that characterize much of those advanced observing programs.

Two personal examples should suffice. First, in searching out the 400 Herschel II targets over a 2-1/2 year period, **yr. editor** spent an average of 3 hrs. per session over more than 170 visits to Cox Field— and *on 26 of those visits he found NO Herschel IIs at all!*

It was even worse with the Galaxy Groups and Clusters: after another 2-1/2 years of searching, he had found and observed just 59 of the required 120 GG&Cs – and those were the *easiest* ones! He finally gave up, discouraged and defeated.

That is NOT what the A. L. had in mind when they devised those clubs. Their obvious intent was to provide long-term, challenging *but achievable* observing projects that will give members reasons to keep on taking their 'scopes out to observe after the initial novelty and excitement of seeing the more familiar celestial sights has subsided.

Not everyone is interested in pursuing pins and certificates, of course. If you are one of those who *is* interested, however, Sky commander *et al* is the way

to go. They do a very nice job of separating the needles from the haystacks.

**\*All of Which Leads Us To...** a report from **Doug Maxwell** regarding his new Sky Commander:

“Bear with me just a moment, folks (Doug writes). I’m just about as excited as a poor country boy can be right now. Just came in from a couple of hours of playing with my new Sky Commander.

“I ran through all of the Messiers that were listed as Fall/Winter objects, at a speed that was just about as fast as I could press buttons and move the ‘scope.

“When was the last time you found **M81/M82** in the northern sky glow, about 15 degrees above the horizon, with a full Moon? I had no problem finding them, because the Sky Commander dropped me dead on them. I had a little trouble seeing them, of course, but there was no doubt as to what they were. And I couldn’t even make out a single star in *Ursa Major*, naked-eye, that low and in the glow...

“The darn thing is so intuitively easy to use that I went ahead and turned off the internal clock and started using it with the equatorial platform after about 30 minutes of getting used to it. It was *sweet*.

“I personally think this is the best investment for the money spent that a Dob owner could ever make. I wonder if they sell stock in the company... You’d think I was a major shareholder after reading all this. –Doug.”

**\*Thanksgiving in January.** (*Editor’s Note: Although written as a Thanksgiving message that, due to computer problems, did not make it into the Dec. issue of the Observer, the following message from Steve Knight clearly illustrates that thankfulness is not [and should not be] confined to any day or season of the year.*)

“As I look back over my years with FRAC, I realized that I’ve never really said just what this crew means to me. And since, like most people, I tend to be fairly quiet about such things, it’s no surprise that I haven’t.

“I’m thankful for having such a tightly knit group of people I’m able to call my friends. My “friends” list is short and exclusive; in fact, until I joined FRAC

I didn’t have anyone outside family I was anywhere near close to.

“Perfectly happy being an introvert, I was literally pushed to the FRAC booth by **Dawn** at the Griffin Mayfling in 1999; I took a peek at the Sun, grabbed a flyer and walked away. Now, nearly five years later, I have trouble believing where I am. I have a group I can call on for anything, anytime, and they can call on me for the same.

“I met my best friend at one of the first spring picnics, started writing, and articles of mine have since appeared in the *Observer* and *Amateur Astronomy* as well. I now have friends across the southeast, gathered from star parties, discussion groups, combined club functions and chance encounters – and it’s all because of FRAC, and all because of you, my friends. Being involved with you has brought all this to me. I still don’t have many close friends outside this somewhat strange, extremely varied group of people. I get truly disappointed when only a few people make it to an observing or event, because I look forward to seeing all of you, even the crazy Cousins from across the river, as often as possible.

“I’m thankful for other things such as health and family, of course. I wish I could be thankful for clear skies, but thanks to **Doug, Scott** and the rest of you who keep messing up the weather by buying things, I can’t be. It’s a cliché, but it’s also true that *You get to pick your friends*, and I’ve got the best group of friends anyone could ask for. So one of the things I’m most thankful for is the group of people whom I choose to be around – and more importantly, who choose to be around me. I love you guys, and I really couldn’t imagine what my life would be like without you in it. –Steve.”

*(In like manner, the rest of us might ask ourselves, What would FRAC be like without Steve [and Dawn, of course]? We’d probably still be a club, of course, since a love for astronomy is the common denominator that binds us together – but the richness and quality of our experiences within FRAC would be greatly diminished without those two fine people.*

*Who among us has not benefited greatly from Steve’s friendship and his devotion to FRAC? Who is not immensely proud to call Steve Knight a friend of*

ours? And who among us does not believe that Steve would gladly go the proverbial extra mile for any of us in need? Such a list would be exceedingly short.

Although he doesn't think of himself in such terms, Steve epitomizes what true, unconditional friendship is all about. Whether or not he chooses to have many close friends outside astronomy, his many friends in astronomy and FRAC are by far the better for having known him and enjoyed the depth of his friendship. —Ed.)

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“What caused me to undertake the (Messier) catalog was the nebula (**M1**) I discovered above the southern horn of *Taurus* on September 12, 1758, while observing the comet of that year... This nebula had such a resemblance to a comet, in its form and brightness, that I endeavored to find others, so that astronomers would not confuse these same nebulae with comets just beginning to shine. I observed further with the proper refractors for the search of comets, and this is the purpose I had in forming the catalog...”

-Charles Messier

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“The nebula (**M1**) was discovered by the English physician and amateur astronomer **John Bevis**, in 1731, but was independently found by Charles Messier some 27 years later.

-Robert Burnham  
*Burnham's Celestial Handbook*  
NY: Dober Publications, 1978  
p. 1843

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**The Sky in January.** During the first two weeks of January, **Mercury** will lie close above **Venus** in the SE morning sky; **Mars** will lie to the upper right of them.

**Jupiter** will rise around 1 a.m. on January 1<sup>st</sup>, and will rise about 11 p.m. by the end of the month.

**Saturn**, on the other hand, will be up all night in January. Between **January 25<sup>th</sup>-27<sup>th</sup>**, Saturn will

move through **NGC 2420**, a faint but fairly large and fairly obvious open cluster in *Gemini*.

**Comet C/2004 Q2 (Machholz)** will be an easy mag. 4 naked-eye object all month, passing through *Taurus* and *Perseus* in January. Along the way, it will pass 2 to 3 degrees W of **M45 (the Pleiades)** on the evening of January 7<sup>th</sup>, and between the 12<sup>th</sup>-mag. galaxy **NGC 1275** about 1 degree to its E and **Algol** about 2 degrees to its W, on January 15<sup>th</sup>. Charts in the January issues of *Astronomy* (p. 67) and *Sky & Telescope* (p. 85) show where to find the comet in January (and, in the latter, during the latter portion of December as well).

The **Quadrantids meteor shower**, one of the year's more dependable annual showers, peaks at around 7 a.m. on January 3<sup>rd</sup>, its radiant lying between the head of *Draco* and the end of the **Big Dipper's** handle, in the NW corner of *Bootes*.

Unfortunately, the last quarter moon will still be high in the sky at 7 a.m., limiting the number of meteors that can be seen.

(Incidentally, the Jan. '05 issue of *Sky & Telescope* contained an uncharacteristically large mistake in saying that “The first-quarter Moon will have set around midnight, leaving the sky potentially quite dark.” (p. 88) Perhaps some of our readers can suggest ways that a first quarter Moon might set at midnight and leave a last quarter Moon high in the sky at dawn...

At any rate, there'll be a last quarter Moon up.

Unlike most meteor showers, Quadrantids meteors don't begin arriving several days or weeks early or hang around late; rather, they are clustered in the few hours before or after the peak. As *Astronomy* notes, “Observers rarely see many (Quadrantids) meteors even 1 day before or after the peak.” (p. 66)

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## December Observing Reports: Felix Luciano

1. Date: Dec. 2, 2004 (8:00 p.m.-10:25 p.m.)

Location: Jonesboro, GA

Temperature: 40s (F)

Conditions: Some cloud cover with large areas of clear, dark skies. Stars seen as steady points of

light, no twinkling.

Equipment: Orion XT8 Dob (f.l. 1200 mm), Telrad and Orion 9x50 RACI finderscope.

**44 Zeta Persei** (240x). Double star system, main component white and very bright. Companion located SSW, very small compared to primary star but seen as a bright, steady point of light.

**5 Gamma Arietis** (240x). Matched white stars oriented N-S, sharp, equally bright.

**51 Pegasi**. Astronomers at the Univ. of California at Berkeley and San Francisco State Univ. found a planet orbiting 51 Peg. The Jupiter-sized planet orbits some 4 million mi. from its host, with an orbital period of about 4 days. In my 240x eyepiece, 51 Peg was a small, steady point of light sporting a somewhat yellowish color.

**M34** in *Perseus* (75x). An irregularly shaped open cluster with a nice, large, widely scattered group of some 20 bright members.

**M36** in *Auriga* (120x). A large open cluster with 20+ members located at the E end and the central area largely empty. Two strings of stars extend to the E, with black sky between the arms, 2 bright components in the middle of the 2 arms. The main group of stars located in the W portion of the cluster.

**M37** in *Auriga* (120x). The majority of stars located in clumps or groups in the W portion of this open cluster. The E portion much less heavily populated.

**M38** in *Auriga* (120x). Irregularly shaped, scattered open cluster with stars forming a line outward toward the N. Averted vision showed a small group of stars with some nebulosity, direct vision showed a 2-3 star group.

**M45, the Pleiades** (*Orion*). Naked eye revealed just 4-5 components, but the 9x50 finder showed a beautiful cluster of stars that fit neatly into the field of view.

**M103** in *Cassiopeia* (240x). A triangle of 18 stars in all, 5 or 6 of them very bright, with the brightest stars in a N-S line and a single star closing the triangle at the W corner of this open cluster.

**NGCs 869/884 (the Double Cluster)** (*Perseus*). Looking toward the “bent **W**” end of *Cassiopeia*, I detected a very faint patch of light where I thought the Double Cluster should be. I pointed the Telrad, looked into the 9x50 finderscope, and there it was! It was, I believe, the first time I’ve ever seen it naked-eye from my backyard in Jonesboro. 48x showed 2 nice splashes of stars with lots of other stars extending between them.

**Theta Orionis, the Trapezium** (*Orion*). The four main components of this familiar multiple star – A, B, C and D – were easily visible at 240x. A 5<sup>th</sup> component, E, was also faintly visible, smaller but steady like the others.

2. Date: Dec. 4, 2005 (7:50 p.m.-8:25 p.m.)

Conditions: Mainly cloud cover, a few visible stars

Location, Temperature and Equipment: same as on Dec. 2<sup>nd</sup>.

**M103** (see above). I read that the cluster is shaped like a Christmas tree and “decorated with stars.” After looking at it carefully tonight at 240x I saw both the shape and the stars illuminating the “tree”.

**Trumpler 1** in *Cassiopeia* (150x). A small, compressed open cluster with its stars forming close, parallel lines. The NW line was brighter, averted vision showing its brighter members.

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### Trivia

1. What is **dark matter**?

Answer: “Matter that emits no discernible electromagnetic radiation but exerts a gravitational

force.” (**Megan Donohue**, “Cosmology With Gravity Clusters,” *Sky & Telescope*, December, 2004, p. 35)

2. True or False: Like the **Moon/Earth** relationship, **Mercury** has a “dark side” that never receives sunlight.

Answer: False. This myth arose when observers noted that, whenever **Mercury** was visible from Earth, it showed the same hemisphere. The myth was revealed as such when, during the early 1960s, radar measurements showed that, while Mercury orbits the **Sun** approximately every 88 days, it rotates on its axis every 58.7 days. So for every two Mercury years – actually, 175.9 days – the planet rotates three times (176.1 days). All parts of the planet’s surface thus eventually receive sunlight sometime during those two years.

**Yr. editor**, who predates most of you by more than a day or two, recalls reading books as a teenager in which Mercury’s “dark side” was described as the coldest place in the solar system because it never received sunlight.

3. Who were the **Celestial Police**?

Answer: They were a group of 16<sup>th</sup>/17<sup>th</sup>-century German astronomers who, inspired by **Johannes Kepler**’s calculations that another planet might be found somewhere in the vast emptiness between the orbits of **Mars** and **Jupiter**, set out to find this “**Planet X**.”

They didn’t find it, of course – but they *did* discover three asteroids: **Pallas** (1802), **Juno** (1804) and **Vesta** (1807). Their search led to the discovery of an asteroid belt where “Planet X” was supposed to be.

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### **Astronomy History Dates in January**

**Jan. 1.** **Giuseppi Piazzi** discovers the asteroid **Ceres** (1801)

**Jan. 2.** The Russian spacecraft **Luna 1** becomes the first craft to leave Earth’s gravity (1959)

**Jan. 7.** **Galileo** discovers **Jupiter**’s moons **Io**, **Europa** and **Callisto** (1610)

**Jan. 10.** The U. S. Army Signal Corps makes first contact with the **Moon** (1946)

**Jan. 13.** **Galileo** discovers Jupiter’s moon **Ganymede** (1610)

**Jan. 24.** The U. S. spacecraft **Voyager 2** flies past **Venus** (1986)

**Jan. 27.** Fire on launch pad kills Apollo 1 crew. (1967)

**Jan. 28.** **Johannes Hevelius** born (1611). Space shuttle **Challenger** explodes, killing crew (1986)

**Jan. 31.** **Explorer 1** launched, first orbiting American spacecraft (1958).

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