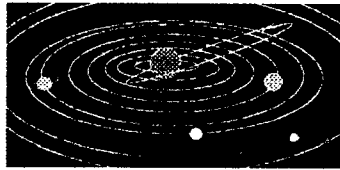


THE FLINT RIVER OBSERVER



Vol. 3, No. 10

FLINT RIVER ASTRONOMY CLUB

December, 1999

Officers: President, **Steven (Smitty) Smith** (583-2200); Vice President/newsletter editor, **Bill Warren** (229-6108 -- or, if you prefer e-mail: warren1212@mindspring.com); Secretary-Treasurer, **Ken Walburn** (P. O. Box 1179, McDonough, GA 30253 / 954-9442; AlCor, **Neal Wellons**, and Web Site Coordinator, **Cody Wellons** (946-5039); Librarians, **Tom and Katie Moore** (228-6447); Telephone/Hospitality Committee Chairman: **Dan Pillatzki** (707-0270). Club mailing address: 1212 Everee Inn Road, Griffin, GA 30224. All of these phone numbers have 770 area code prefixes. FRAC web page address: <http://welcome.to/frac>.

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

* * *

Club Calendar. Fri.-Sat., Dec. 3-4: FRAC deep-sky observings, Cox Field at dark; **Fri., Dec. 10:** Beaverbrook observing (behind the school, at dark); **Sat., Dec. 11:** FRAC party (Dan Pillatzki's house, 7:30).

* * *

Vice President's Message. If you haven't already done so, let me encourage you to purchase some kind of easily accessible calendar or "Day Runner" system that will enable you to keep up with FRAC events on a monthly basis. (Leaving your current copy of the *Observer* in a familiar location and checking it frequently is another option.) We try to do a lot of things -- as witness our two public observings last month, two club observing weekends at Cox Field, a dynamic presentation by **Neal Wellons** at our

November club meeting, our monthly public observing at Beaverbrook and the party we're having at **Dan & Kathy Pillatzki's** house in December -- but none of it matters if you aren't there to enjoy what's going on. Previous engagements can be a problem sometimes -- *but so can forgetting about upcoming events if you don't mark them down somewhere and refer to that schedule regularly!*

I mentioned in last month's newsletter that many of **Rich Jakiel's** astrodrawings appear in *The Night Sky Observer's Guide*; well, you can see some other examples of Rich's splendid artwork (in the form of white-on-black drawings) accompanying his article, "The NGC 1023 Galaxy Group," in the Dec. '99 issue of *Sky & Telescope*, pp. 126-128. The multi-talented Mr. Jakiel functions equally well as an observer, writer and artist.

Let me remind you that, if you're a new member and you've never received a membership handbook (that contains, among other things, directions and maps to Cox Field and Beaverbrook) -- or if you don't have a list of members' addresses, phone nos., e-mail addresses, etc. -- please notify me promptly (see the upper left hand portion of this page for details) and I'll be happy to send you what you need. I'm still working on getting Louise to produce some more FRAC buttons to distribute to members.

To get information regarding any of the various AL observing programs, you can: (a) write to the addresses listed on p. 19 of the Nov. '99 issue of the *Reflector*; (b) get what you need off the Internet (I just type in "astronomical league" in the Search section and go from there); or (c) contact me for help. (Be advised, though, that the *Universe Sampler* and *Herschel II* sites won't give you everything you

need to get started: that information is enclosed in booklets that can be purchased from AL for \$8.00 and \$15.00, respectively. (Hey, don't complain: it's their way of making a few bucks to help defray their operating expenses so they won't have to raise our annual dues from the current \$3.00 per member.)

I'll close with that -- and, of course, my hope that you'll have a happy, healthy holiday season filled with starry nights and dark, clear skies. Now, if you'll be so kind as to help me sweep the Tribbles out of the way and engage the tractor beam to take us for a flyby of the Orion Nebula, **Mr. Hancock**, we'll see what's going on in the Trapezium tonight!

-Bill Warren

* * *

Last Month's Meetings/Activities. On Oct. 28th, eight FRACsters -- **Mike Stuart, Katie & Tom Moore, Celia & Tim Astin, Dawn & Steve Knight, Dan Pillatzki** and a guest, and **yr. humble reporter** -- ventured out to Cox Field to show the sky to a group of teens representing the GHS Science Club.

Everything was going fine when a girl asked Steve how we knew so much about what's up there and Dawn replied, "Oh, they're making it all up." Thanks, Dawn; when they organize a local chapter of the Flat Earth Society, we're nominating you for its president.

The following evening, **Mike, Steve, Dawn, Neal Wellons** and **yrs. truly** brought the sky down to earth for a group of BB parents and children, one of whom appeared intent on bringing our telescopes down to earth, too.

We had a total of 16 present for our Nov. 5-6 weekend observings, including **Steve & Dawn Knight, Michael Chappell** and **yrs. truly** (all of us both nights) and one night each for **Joe Auremma** (who brought two guests), **Smitty** and his son **Steven, John Wallace, Mike Stuart** and **Robert Hall**. Michael, we'd love for you to earn a Messier pin and certificate; see **Bill** or **Smitty** next time we're at Cox Field and we'll show and tell you how to go about getting started finding, observing and

recording them.

On Nov. 6th, **David Ward** and **Smitty** became our first repeat **Zombies**, staying out all night observing at AAC's "Dark Sky Zombie Party" at CEWMA.

We had one of our all-time largest crowds -- 19 members and two guests -- in attendance for our November club meeting. If you're one of the unfortunates who missed **Neal Wellons's** excellent talk on his participation in the "SETI@home" computer project -- or if you merely want to know more about it -- there's an article, "SETI@Home: Catching the Wave," in the Oct., '99 issue of *Sky & Telescope* (p. 68-72). Or you can contact the SETI@home Web site at setiathome.ssl.berkeley.edu for more information about the project.

Once again, **Tom Moore** won the door prize, an accessory case supplied by **Smitty**. Tom says his secret lies in using ESP; if so, maybe the January door prize will be a Lunar pin! (We're kidding, of course -- but we *do* have the extra Messier pin we ordered when we lost our original pin and then found it months later; we'll be glad to swap it for, say, a 12-1/2" Dob.)

Dan Pillatzki, who apparently needs a Driver Ed course as much as he needs a new 'scope (*Kathy, are you reading this, hint, hint?*) drove over 2 cones in front of the school as he was leaving BB after the meeting. That may influence your decisions regarding whom you might not want to park next to at future FRAC events.

Our Nov. 12th club observing at Cox Field was clouded out, and on the next night **yr. longsuffering UGA fan/club reporter** arrived at Cox Field at 10:30 p.m. after a hasty drive back from Athens to find clear but hazy skies and a truly dismal sight: *no one was there to enjoy the night or the view!* We spent about 30 min. looking at NGC 1990, a mysterious emission/reflection nebula surrounding the star *Epsilon Orionis* (the middle star in Orion's belt), and wishing you were there, too. We called it a night when the ground haze thickened at about midnight.

On Nov. 17th, **Dan P., Joe Auremma & yrs. truly** braved the wilds of Henry Co. to conduct an observing for about

50 students and parents of Cotton Indian Elem. School of Stockbridge. (Thanks, incidentally, to Dan, who arranged the event.) It was literally a "blast from the past," showing them what **Andromeda Galaxy** looked like 2.7 million years ago when the light they saw from it began its long earthward journey.

The following evening, Nov. 18th, the same above-named unholy trinity plus **Mike & Danielle Stuart, Katie Moore & her mom, Neal & Cody Wellons** and **Chuck Hancock** showed up at Oakland Elem. School near Hampton to tour the night sky with more than a hundred students and parents. Despite the presence of a post-first quarter Moon that bleached out much of the sky, it was a magical evening filled with the quiet beauty of the heavens, and it allowed us to pay our respects -- first, to Cody and Neal (who arranged the observing) for all they do for us; and second, to the late **Cindy Wellons**, whose untimely passing on June 11, 1997, left a painful void in the Wellons and FRAC families that is keenly felt even today. Cindy was a teacher at Oakland Elementary. *This one was for you, Cindy* -- and for Neal, Cody and Suzy as well -- *with all our love.*

* * *

Membership Renewals Due in November: **Tom & Katie Moore.** Send your \$10 check to Ken Walburn at the address listed on p. 1.

* * *

Upcoming Meetings/Activities. HOLY GUACAMOLE, WE'RE HAVING A PARTY!!! December is always a busy month; instead of having a club meeting per se, we're having a party at **Dan & Kathy Pillatzki's** house in Hampton on **Sat., Dec. 11th**, at **7:30 p.m.** The Pillatzkis will supply coffee, the club will supply soft drinks, and all you need to supply is yourself and something edible. (Sorry, no roadkill, visiting in-laws or family pets, please. One envisions **Ken Walburn** realizing at the last minute that he hasn't anything to bring, and then raiding the goldfish bowl for a few morsels, painting them silver

and trying to pass them off as sardines or sushi.)

You can bring: finger sandwiches (my wife **Louise** says they're easy to make. I guess it depends on whose fingers you're using and how you obtain them); crackers or chips (potato, not wood); a batch of your own special recipe dip or spread; cookies; dessert; or whatever you or anyone else might like to eat that isn't still breathing or flopping around.

For entertainment, our first thought was that we'd ask **Dan** to dazzle us with his clever repertoire of stale jokes, barnyard imitations and finger-shadow silhouettes on the wall -- but then we thought it over and decided instead to bring along a few astronomical books you might be interested in seeing. And who knows? If the action slows down so much that even **Ken Walburn** or **Tom Moore** seems interesting to talk to, we may go out in Dan's backyard and look for Double Stars or Binocular Messiers. Dan says his dog will be put up, so we won't have to worry about stepping in open clusters.

Incidentally, since the party likely will be primarily indoors, it's permissible to use an antiperspirant and cologne or perfume to hide those otherwise odious odiferous emanations. (Not that any of us needs such artificial sweetening, of course -- but we *did* see a few mosquitos at Cox Field last summer wearing gas masks.)

To get to the Pillatzkis' house from Griffin, go N on 19/41 and turn rt. at Hwy. 20 at the Wendy's in Hampton. Follow that road across the RR tracks and turn left at the next intersection (the Old Atlanta Hwy.). Go N through Hampton, and when you pass Greenleaf Subdivision on the right start looking for the Emory St. road marker on the right. Turn there, and Dan's house at 13 Emory St. will be the 7th house on the left, just beyond a tall hedge.

(Incidentally again: there *will* be one order of business at the party: our Christmas door prize will be a *Deep Map 600.*)

Our Cox Field observations will be held on **Fri.-Sat., Dec. 3rd-4th**, the weekend before the new moon. And on **Fri., Dec. 10th**, we'll be at Beaverbrook, our Partner In Education, to

show the sky to BB children and their parents. We'll meet **behind the school**; just follow the road to the right around the school. Go through the gate and look for us at the middle or W end of the field (i.e., near the gym).

At our **January** meeting, **Smitty**, our beloved leader and an ardent proponent of dark skies, will be our featured speaker, talking to us about current state, national and international efforts to curb light pollution.

In **February**, **Neal Wellons** will be back on center stage, this time giving us an interesting look at the world's premier observing site atop 13,800-ft. **Mauna Kea** in Hawaii. Using slides and a home video, Neal will discuss the 9 optical and 4 radio observatories that are located over 2-1/2 mi. above sea level on the summit of an inactive volcano. You won't want to miss Neal's presentation: the view from such heights is literally breathless, and he's taking us along for the ride.

* * *

The Sky in December. If you're looking to kill two planetary birds with one stone in December, the Roman war god and the Greek god of the heavens will be happy to oblige you. On **Dec. 14th**, **Mars** (mag. 1.0) will cast its orange glow in the SW sky in the same low power field of view as **Uranus** (mag. 5.9). Look for the small, steady green disk of Uranus (it doesn't twinkle like the stars), and then give it all the magnification you've got.

Elsewhere, **Jupiter** (mag. -2.5) will remain an outstretched pinky-to-index finger width against the sky to the W of **Saturn** (mag. 0.2), the pair up all night like **Steve Knight** with a caffeine buzz. **Venus** (mag. -4.1) will be the bright showcase of the early pre-dawn hours -- that's *sunrise* we're referring to, not Mrs.

Knight in curlers and a mud pack -- along with **Mercury**, at mag. -0.5 an easy find in the SE sky all month. Don't waste your time looking for **Neptune** or **Pluto**; Neptune is too low, and Pluto too near the Sun from our point of view.

The **Moon** will be the closest it's been to us all year on **Dec. 22nd**; we can't wait to hear what excuse **Tom Moore** will come up with for not finding it this time around. (He's

already used the one about "It's a new moon, and I hadn't finished observing the old moon yet!")

* * *

Recording Deep-Sky Observations

article by Art Russell

(Editor's Note: This is our second reprinting of Art Russell's excellent article telling you what to look for in observing deep-sky objects. While we're doing it primarily for the benefit of our newer members, it should also be helpful in reminding veterans how to observe, describe and record what they see, too.

Incidentally, these are guidelines and suggestions for Messier hunters, not requirements; you should study the printed materials of whatever AL observing program(s) you're pursuing for precise information regarding required data to be collected.

A. Basic Data. Date, location, observing instrument, eyepieces (magnification), and filters used, if any.

B. General Observing Conditions. 1. weather; 2. transparency (estimate the limits of visual magnitude directly overhead, whether naked-eye or telescopic); and 3. seeing. (Test for atmospheric turbulence over your observing site by viewing the slightly out-of-focus image of a star or planet: "poor seeing" is evidenced by a rapidly shimmering image, "good seeing" by a slow, rippling image, and "superb seeing" by a dead calm image. Rate your seeing on a scale from 1 [worst] to 5 [best]).

C. General Questions (respond only to those questions which apply to the object under observation): 1. Sketch the object. (A picture is worth a thousand words.) 2. How did you find the object? Was it easy or difficult to find? Were there any bright stars, double stars or other notable objects nearby? 3. How difficult or easy was the object to see once you found it? Did it require averted vision, or

could you observe it directly? 4. Was there anything unusual or peculiar about the object? 5. How large was the object? (If possible, use arc minutes and arc seconds.) What was its shape? If not round, (a) How was it oriented in the sky?, and (b) What, if any, earthly objects did its shape suggest? 6. Could you resolve individual stars? How many? 7. What color was the object and/or individual stars within it? How bright was it? How bright were the individual stars? 8. Were some parts of the object brighter than other parts? How did the brightness change with distance from the center? 9. Were there any dark areas indicating the possible presence of a dark nebula? 10. What was the best magnification for observing the object?

D. Questions Specific to the Object Under Observation:

Open Clusters. 1. Was the cluster ((**r**) rich with 100+ stars?, (**m**) moderately rich with 50-100 stars?, or (**p**) poor with less than 50 stars? 2. Were the stars in the cluster (a) detached from the surrounding star field and concentrated toward the center?, (b) detached but weakly concentrated toward the center?, (c) detached with no concentration toward the center?, or (d) not well detached from the surrounding star field? 3. Was any nebulosity present? Does a nebula filter suggest that there may be a bright nebula associated with the cluster?

Globular Clusters. 1. Were there any chains of stars? 2. How centrally located were the resolved stars, if any? Compare the size of the unresolved glow with the distribution of the resolved stars.

Bright Nebulae. 1. At high magnification, does the nebula (a) remain?, (b) resolve?, or (c) disappear? 2. Does a filter improve contrast and/or expand the apparent size of the nebula?

Planetary Nebulae. 1. Using the Vorontsov-Velyaminov scale, describe the appearance of the nebula: (a) stellar, (b) smooth disk (bright center, uniform brightness,

traces of ring structure), (c) irregular disk (irregular brightness, traces of ring structure), (e) irregular form (similar to a diffuse nebula), or (f) anomalous form (no regular structure).

Galaxies. 1. Was there a nucleus? If so, what was its size, shape and brightness? 2. Were there any bright spots outside the nucleus to possibly indicate the presence of star clusters or nebulae? 3. Was the galaxy's surface (a) mottled?, or (b) smooth? 4. Were the edges of the galaxy (a) clearly defined?, or (b) vague? 5. Were there any dust lanes? Spiral arms?

* * *

The Lunatix Challenge Series: #10

by Philip Sacco (Lunatic #82)

(Editor's Note: This is the 10th in a series of 12 monthly "Challenges" devised by AAC's Phil Sacco to make your Lunar Club award quest more interesting. Remember: If you miss a given feature one month, you can always look for it next month; and you can look for naked eye or binocular targets with a telescope or binoculars if you prefer to do so.)

Naked-Eye Targets. 1. When referring to the moon, what is a "dorsa"? 2. Of all the known moons in our solar system, now numbering 65, where does our moon rank in size? 3. With what major moon feature is the *Altai Scarp* associated? 4. *Mare Moscoviense*.

Binocular Targets. 1. Crater *Maginus*: Why does this crater do a disappearing act when the sun gets too high in the moon's sky (greater than 7-10 days)? 2. Crater *Longomontanus*. 3. Crater *Alphonsus*.

Telescopic Targets. 1. Crater *Linne*. 2. Crater *Lalande*. 3. Crater *Censorius*. 4. After observing these 3 targets, what is the central theme they share? 5. Crater *Pitatus*. 6. *Gemma Frisius*. 7. Crater *Trumpler*.

##