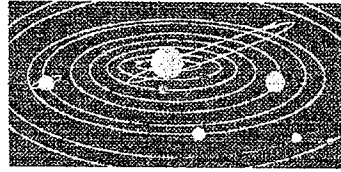


THE FLINT RIVER OBSERVER



Vol. 4, No. 9

FLINT RIVER ASTRONOMY CLUB

November, 2000

Officers: President, **Steven (Smitty) Smith** (583-2200) -- or, if you prefer e-mail: <starship-saratoga@dellnet.com>; Vice President/newsletter editor, **Bill Warren** (229-6108; <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); Librarian, **Katie Moore** (228-6447); Observing Chairman & Public Observings Coordinator: **Larry Higgins** (884-3982), e-mail <larrylhiggins@yahoo.com>. All of these phone numbers have 770 area code prefixes. Club mailing address: 1212 Everee Inn Road, Griffin, GA 30224. FRAC web page address: <<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., Nov. 9: FRAC meeting (Beaverbrook media center, 7:30); **Fri., Nov. 10:** Beaverbrook observing (behind the school, at dark); **Fri.-Sat., Nov. 24-25:** Cox Field observings, at dark).

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President's Message. First, I'm pleased to welcome back one of our charter members, **Keith Cox**, and his lovely wife **Denise**. It's good to have you back with us, friends.

What follows is the text of a "Letter to the Editor" I sent recently to the Newnan *Times-Herald* regarding light pollution:

"Sirs: Your front page article, 'Pick your favorite pole: citizens can voice opinion' really caught my eye. I was unaware that the

streetlights and light poles are being changed in downtown Newnan. I agree that the 'look' of whatever type of lighting is installed should match and convey the rich heritage that has evolved over the many years of Newnan's existence.

"What concerns me, though, is the many billions of dollars spent nationwide on practices that waste lighting. Any light that does not shine down toward the ground, where it is needed, is wasted and needlessly brightens and lights up our night sky.

"At night, if you find an area with a good view and look toward Atlanta, you will see an immense sky glow in that direction, the result of bad lighting practices. Get out in the country and look toward Newnan and you will see the same thing.

Many area residents can remember when, years ago, we could see thousands of stars in the sky at night, including the fuzzy cloud of stars that is our own galaxy, the Milky Way. Do your children know what the Milky Way looks like? Lighting that shines not only down, but sideways and up, can waste 50% or more of its energy lighting up the sky and benefitting nobody. Whereas the streetlights shown in your photos appear to be of the old, wasteful technology, many modern and efficient lighting systems exist that appear properly nostalgic or antique but use new methods to shine the light where it is needed -- *downward!*

"If efficient, downward pointing lighting is used to replace wasteful lighting, a major savings in the cost of electricity will result. No matter what type of bulb is used, if the light is going where it is needed a smaller wattage bulb can supply the same level of brightness on the ground. The taxpayers of Newnan are paying the bill; do you want to spend more for

electricity just to light up the sky? Sincerely, Steven Smith, president, Flint River Astronomy Club and member, Intl. Dark Sky Assn."

Finally: Re the recent Boy Scout Flint River Council Fall Camporee that fell on our September FRAC meal/meeting date: on Fri. night I showed the sky until the clouds rolled in, and Saturday I gave the scouts views of sunspots with my 'scope and solar filter. I am indebted to **John Wallace** and **Joe Auriemma** for bringing out their 'scopes and helping me on Sat. night. This was also the first public observing for my recently built "bino box", and the scouts and their leaders were impressed with the view it gave and the innovative way it works. There were approximately 125 scouts attending, and although not all of them came over to view through our 'scopes they managed to keep us busy for quite awhile.

About 12:30 p.m., the last of the adult leaders who had stayed with us crawled into bed, and the "Three Stooges Astronomical Observing Team" called it a night, with John & Joe leaving and me crawling into a van for some much-needed sleep:

The owner of the farm this event was held on is an active supporter in our troop. I know him fairly well and, afterwards when things were more or less back to normal, we showed him & his wife some views through the 'scopes, talked with them about the night sky for awhile, and he offered his place to us if we need a place to observe! I thanked him for his offer, and told him that he has a great place for his own little observatory, and he just might get hooked on stargazing if he comes out to join us under the night sky.

-Steven (Saratoga Smitty) Smith

Last Month's Meeting/Activities. We had 20 in attendance at our Sept. meal, meeting & observing at Cox Field: **Jerry & Carol Williams; Larry & Toni Higgins; Loyd & Beulah Cox; Steve & Dawn Knight; Larry & Veronica Fallin; yr. editor & his wife Louise; Ken & Doris Walburn; Joe**

Auriemma; Neal Wellons; John Wallace; Smitty; and Keith Cox and a friend.

At that meeting, **Smitty** received his SunSpotter's certificate and pin, and **Larry H.** was awarded a **Katie's Club** certificate for finding three of Stephan's Quintet at the Fri. observing. (Also attending on Friday were: **Steve & Dawn, Charles Sykes** and a friend, **Donald Harden, Ken Walburn, Raymond Hughes, Mike & Danielle Stuart, Larry Fallin, John Wallace,** and yrs. truly.)

The Coxses were told that they would be receiving a little gift in the mail from FRAC as our way of thanking them for letting us use their land for observing during the past 3 years: that gift was four steaks from Omaha Steak, and they have since received them.

Fifteen members showed up to enjoy **Dr. Richard Schmude's** fine talk on planetary nebulae at our October meeting.

Katie, Steve & Dawn, and yr. editor attended the October Beaverbrook observing.

This 'n That. "Thanks to everyone who participated in the picnic on the grounds at Cox Field on Sept. 30th. We appreciate the help very much. Hopefully, now the Coxses have a small idea of the great appreciation our club has for everything they do for us. Once again, a world of thanks." - **Steve & Dawn Knight.** (And thanks, too, to **Steve & Dawn** for a masterful job of arranging the event. -Ed.)

*Thanks are also in order for **David Ward,** for presenting the club with a softbound copy of the Universe Sampler handbook for our library. You might want to borrow that copy -- or mine, for that matter -- if you decide to participate in the program, since the booklet costs \$15 if you order it from the AL. (I also have copies of the abbreviated Universe Sampler checklist containing all 55 required tasks [but no information on where the objects are, what they look like or how to find them]; I'll be giving out copies at the Dec. meeting.)

Here are the answers to the questions we posed in last month's *Observer*: 1. Which

constellation has the most stars visible to the naked eye? (*Orion* contains 40 stars of magnitude 5 or brighter.) 2. Where is the oldest astronomical observatory on earth located? (The oldest observatory still standing is the "Tower of the Winds" in Athens, Greece. It was used by **Andronichus of Cyrrhus** around 100 B.C., and was equipped with sundials and a *klepsydra*, or water clock.)

*Ain't this the way life goes? **Katie** wins the Horkheimer 2000 award, and her father, **Tom Moore**, gets his picture on p. 5 of the August issue of the *Reflector*.

Katie's picture *did* appear on p. 84 of the Nov. issue of *Sky & Tel*; **Steve Knight** was the first club member to get Katie to autograph her photo.

*Let **Neal Wellons** know if you still haven't received your Aug. *Reflector*; his phone no. is listed on p. 1 of this newsletter.

* * *

Membership Renewals Due in October: **Mike, Danielle & Shane Stuart.** (*Remember, our club dues will go up at least \$0.50 a year as of Jan. 1, 2001; if you want to save a bit of pocket change, you might want to renew your FRAC membership before that date regardless of when it's scheduled to expire.*)

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Upcoming Meetings and Activities. **Katie** is on tap as the speaker at our **Thurs., Nov. 9th**, club meeting. Her presentation will recap her experiences last July at ALCON 2000, including a side trip to Mt. Wilson. Our postponed discussion and vote on raising club dues beginning in Jan., 2001, will also be on the agenda.

Our Beaverbrook observing will be held on **Fri., Nov. 10th**, and our Cox Field observings on **Fri.-Sat., Nov. 24th-25th**, the latter date falling on the new moon.

Yr. esteemed (in his own eyes, anyway) **editor** is tentatively slated to talk at the Dec. meeting, his equally tentative topic the

Universe Sampler observing program.

* * *

A Sky Full of Birds and Things They Eat

article by **Philip Sacco (Lunatic #82)**

It's Turkey Time again. In celebration of this time of year, I couldn't resist the urge to create yet another interesting hunting list for the season; how about an entertaining hunt for objects that are at least remotely related to birds?

I'm indebted to **Hartmut Frommert** and his website of deep sky objects with common and uncommon names. He has a good catalog and I drew many of the objects found in the first section from his source at:

<spider@seds.org> I'm sure that you who have already found this website are of the deep sky perversion ... er, excuse me, *persuasion* (hee hee hee)...

So with no further delay, let's delve into these deep sky tasties. I hope you enjoy, 'scoping out these winged beauties...

Which Came First? The chicken or the egg? This question is about as old as time itself, and has stupefied even the staunchest Darwinists. Without the egg, we wouldn't have the birds -- but on the other hand, without the birds we wouldn't have the egg.

ENJOY!

The Egg Nebula (PK80-6.1, located at 21:02.3, +36:42; also known as the **Cygnus Egg**);

The Pelican Nebula (ICs 5067 & 5070 in *Cygnus*, the Swan);

The Seagull/Eagle Nebula (IC 2177, in *Monoceros*);

The Eagle Nebula (M16, in *Sagittarius*);

The Owl Cluster (NGC 457 in *Cassiopeia*);

The Owl Nebula (M97, in *Ursa Major*);

Parrot's Head Nebula (Barnard 87/LDN 1771, a dark nebula in *Sagittarius*, located at 18:04.3, -32:30);

The Pavo Glob (globular cluster NGC 6752 in *Pavo*, the Peacock);

The Phoenix Dwarf Irregular Galaxy

(located at 1:51.1, -44:26, the Phoenix being the legendary bird that was periodically consumed in flames and rose anew out of its own ashes);

The Running Chicken Nebula (IC 2944 & 2948, an open cluster with associated nebulosity in *Centaurus*);

The Swan Nebula (M17, located in *Sagittarius*);

The Wild Duck Cluster (M11, an open cluster in *Scutum*);

Cygnus A (an 18th-mag. galaxy 500 light-years away and a powerful radio source, located at 19:59.4, +40:43);

The Cygnus Loop (NGCs 6960, 6992-5, also known as *Veil Nebula*; a supernova remnant);

The Grus Quartet (spiral galaxies NGC 7552, 7582, 7590 & 7599, *Grus* being the "crane" constellation);

The Pegasus Dwarf Elliptical Galaxy (UGC 12613. OK, OK, so it's not a bird...but Pegasus was the Winged Horse of Greek mythology! I think that qualifies with the spirit of the list. Anyway, it *is* MY list, hee hee hee...)

Now that we have a sky full of winged beauties...they need to eat! So let's take a look at the lower end of the food chain (*yr. editor hastens to point out here that Phil is NOT referring to Ken Walburn*) and see if we can grab some grub:

The Cocoon Galaxy (NGC 4490 in *Canes Venatici*);

The Cocoon Nebula (IC 5146 in *Cygnus*);

The Butterfly Cluster (M6 in *Scorpius* -- but M93 in *Puppis* has also been likened to a butterfly);

The Butterfly Nebula (IC 2220, an emission nebula in *Carina*; also, a less common name for M76, the "Little Dumbbell" planetary nebula in *Perseus*);

The Bug Nebula (NGC 6302 in *Scorpius*);

The Spider (UGC 5829, a spiral galaxy in *Bootes*, located at 10:42.6, +34:27);

The Tarantula Nebula (NGCs 2030 & 2070 in *Dorado*);

The Ant Nebula (PK 331-1.1, located in

Norma at 16:17.2, -51:59);

The Beehive Cluster (M44, or Praesepe, in *Cancer*); and

The Antennae (NGCs 4038-4039; I know, I know, I'm reaching a bit here, but antennae *are* common elements among these crunchy critters. Anyway, the Antenna galaxy pair is located in *Corvus*, the Crow, so there and hah!

Birds At Play and Birds of Prey. All of these flying animals are constellations and naked-eye objects, so gimme a little slack here.

Apus. The Bird of Paradise.

Aquila. The Eagle.

Columba. Noah's Dove.

Corvus. The Crow.

Cygnus. The Swan.

Grus. The Crane.

Musca. The Fly. Alright, it ain't a bird. So sue me.

Pavo. The Peacock.

Pegasus. The Flying Horse. OK, gimme a little artistic license here.

Phoenix. The Phoenix.

Sagitta. The Arrow. Look, not only does it have feathers, but it *flies!*...

Tucana. The Toucan.

Volans. The Flying Fish. (OK, it may not have feathers -- but *it flies!*)

I hope you've enjoyed this list. If you note any errors or would like to make any additions such as the coordinates of some of the objects or new objects, feel free to contact me at (404296-6332 or <ppsacco@mindspring.com>

(*Editor's Note: The "M" prefix refers to Messier, "NGC" to New General Catalogue, "UGC" to Uppsala General Catalogue, and "PK" to Perek & Kohoutek (Catalogue of Planetary Nebulae).*

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FLINT RIVER ASTRONOMY CLUB LIBRARY

BOOKS

A Brief History of Time
"All We Did Was Fly To The Moon"
An Introduction to Astronomy
Astronomy Made Simple
Astronomy!
Billions and Billions
Brother Astronomer
Dynamic Astronomy
Everybody's Comet: Guide to Comet Hale-Bopp
Exploring the Sky
Halley's Comet
Observational Astronomy for Amateurs
Seeing and Believing (2 copies)
Skywatching
The Guinness Book of Astronomy Facts & Feats
The Lawnchair Astronomer
The New Patterns in the Sky
The Practical Astronomer
The Sky Observer's Guide
To The Red Planet

Hawking, Stephen
Lattimer, Dick
Baker, Robert H.
Degani, Meir H.
Kaler, James B.
Sagan, Carl
Consolmagno, Guy
Dixon, Robert T.
Alan Hale
Moeschl, Richard
Arneson, D.J.
Sidgwick, J.B.
Panek, Richard
Levy, David H.
Moore, Patrick
Descoteaux, Gerry
Staal, Julius D. W.
Jones, Brian
Mayall, R. Newton
Burgess, Eric

OBSERVING GUIDES & MAPS

An Observer's Guide to Comet Hale-Bopp
Introduction to Observing Mars
Observer's Guide to the Herschel 400
Observe the Herschel Objects
A Chart of the Heavens
Edmund Scientific Star and Planet Locator
First Quarter and Last quarter Moon Map
Moon Map
Spring Maps
The Earth's Moon (poster)

Machholz, Don
Richard W. Schnude, Jr., Ph.D.

Ancient City Astronomy Club

MAGAZINES/NEWSLETTERS

Astronomy Magazine, October 1994
Mercury, May/June 2000
New Horizons, Summer 1999
Reflector, May 1998
Sky & Telescope, May 1998

POSTERS/ARTICLES/OTHER

Hubble Space Telescope: New and Improved
NASA Information Summaries (Major NASA Launches)
NASA Solar System Exploration Video Collection- Teacher's Guide and Student's Notes
NASA Solar System Lithograph Set
National Geographic- Palomar Sky Survey Charting the Heavens poster
Textbook Activity: Life in the Universe
Textbook Activity: Plotting the Apparent Daily Motion of the Sun
Textbook Activity: Solar System, Parts 1 and 2
The Celestron C5 Instruction Manual
Saturn poster
Starbirth in the Orion Nebula (National Geographic poster)
What a View- First Mission to Service the Hubble Space Telescope