

THE FLINT RIVER OBSERVER

NEWSLETTER OF THE FLINT RIVER
ASTRONOMY CLUB
An Affiliate of the Astronomical League

Vol. 13, No. 5 **July, 2009**

Officers: President, **Bill Warren:** (770)229-6108, warren7804@bellsouth.net; Vice President, **Larry Higgins;** Secretary-Treasurer, **Steve Bentley.**

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Alcor/Webmaster, **Tom Moore;** Ga. Sky View Coordinator, **Steve Bentley;** Public Observing Coordinator, **Dwight Harness;** Program/Club Observing co-Chairmen, **Larry Higgins** and **Bill Warren;** NASA Contact, **Felix Luciano;** Event Photographer, **Tom Danei;** and Newsletter Editor, **Bill Warren.**

Club mailing address: 1212 Everee Inn Rd., Griffin, GA 30224. Web page: www.flintriverastronomy.org.

Please notify **Bill Warren** if you have a change of home address, telephone no. or e-mail address.

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Club Calendar. Thurs., July 9: FRAC meeting (7:30 p.m., Stuckey Bldg., UGa-Griffin campus);
Fri.-Sat., July 17-18: Cox Field observings (at dark);
Mon., July 20: Hampton Library observing (8 p.m.);
Fri.-Sat., July 24-25: Cox Field observings (at dark).

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President's Message. I'm spoiled. Or senile. Or stupid. Or maybe all three. (My wife votes for the latter.)

Watching the "Journey to Palomar" DVD about the building of **George Ellery Hale's** four massive telescopes during the late 1800s-mid-20th century, I

kept thinking: *What a drab presentation, all black and white and sepia tones! Don't those fools know anything about color?*

Well – yes, they do. But color film didn't exist until long after Hale began his quest to build the largest telescopes in the world.

When my parents wanted a color portrait of me as a toddler in the early 1940s, the photo was taken in sepia and the colors painted in afterward. And it wasn't until 1955 when *Life Magazine* published what they advertised as "the first true color photos of space."

As the Palomar video reminds us, we've come a long way, baby!

Paved roads and motorized vehicles were other luxuries that Hale and his peers didn't have. They had trains to transport the mirrors, optical tube assemblies (OTAs), etc., cross-country when necessary – but they relied on narrow, rocky paths carved out of the steep mountainsides and mule-drawn wagons to lug the supplies and equipment to the tops of Mts. Wilson and Palomar. For the opening ceremonies, presidents and other dignitaries rode those same carts to the mountaintops. It wasn't very dignified, but it beat climbing the steep slopes on foot.

Near the end of his life, **Sir Isaac Newton** wrote that "If I have seen farther than most, it is because I have stood on the shoulders of giants." The Palomar DVD gives us an intimate look at some of astronomy's latter-day giants, the men whose lofty visions paved the way for today's monster telescopes.

It would be a huge mistake to overlook – as I did – the massive obstacles that Hale and his cohorts had to overcome simply because our advanced technology has changed the nature of the obstacles that telescope makers face.

My favorite line was from the 1890s astronomer who said that a 100-in. telescope would be impossible to build, just like aircraft. And I thought: *Now, there's a guy with a clear vision of the future!*

Just think: If another of astronomy's 20th-century giants, **John Dobson**, hadn't been determined to find a way to build an inexpensive big telescope back in the 1960s, most of us wouldn't be able to afford a large-aperture telescope today. Prior to the advent of the "Dobsonian"-design telescopes (which feature

inexpensive OTAs and mounts without sacrificing optical quality), a “large” telescope referred to any telescope with an aperture of 10 in. or more – and the “large” referred as much to purchase price as to aperture.

Finally, please join me in welcoming two new club members, **Reese Forshee** (pronounced For SHAY), of Hampton, and **Dan Newcombe**, of McDonough.

Reese joined the club at our June meeting and donated an extra \$25 beyond his annual dues. That act alone stamps him as a really cool guy – but we already knew that.

You’ve helped us, Reese; now let us know how we can help you.

Dan is actually an old member who rejoined FRAC at one of our June Cox Field observings. Blessed with an outgoing personality and considerably more than half a wit, Dan served in fine fashion as program emcee at the past two GSVs.

We’re very glad to have you back with us, Dan.

-Bill Warren

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The treasures hidden in the heavens are so rich that the human mind shall never be lacking in fresh nourishment.

-Johannes Kepler

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Last Month’s Meeting/Activities. We had 18 attendees at our June meeting, including new member **Reese Forshee, Betty & Steve Bentley, Joel Simmons, Dwight Harness, Patsy Lwowski, Charles Turner, Steve Knight, Tim Astin, Olga & Carlos Flores, Brit & Tom Danei, Larry Higgins, Irene & Curt Cole, Tom Moore** and **yr. editor**.

Five FRACsters – **Charles Turner, Dwight & Laura Harness, Dr. Richard Schmude** and **yr. editor** – showed the sky to Dr. Schmude’s Gordon College students on Feb. 18th.

Clear skies that measured 20.8 on **Charles Turner’s** sky quality meter greeted five members – **Charles, Larry Higgins, Dwight Harness, Joel**

Simmons and **yrs. truly** – and a very exciting guest, **Dan Newcombe**, of McDonough – at Cox Field on June 19th. Dan rejoined FRAC that night.

Handsome, urbane, witty, intelligent (sorry, Dan, we forgot the other adjectives you wanted us to use in describing you), Dan is the kind of person you’d describe as a ton of fun if he weighed that much. (Fortunately for all concerned, Dan doesn’t weigh a ton. But if he did, we could use that unforgettable line that **Jackie Gleason** as Ralph Kramden said to his wife on *The Honeymooners*: “I remember what your mother said at our wedding, Alice: ‘I’m not losing a daughter, I’m gaining a ton!’”)

As for the 20.8 sky quality figure cited earlier: last month’s Cox Field SQ reading was slightly lower at 20.4, but still above average quality. (For comparison, downtown Atlanta probably would read somewhere between 15-18, and the fabled dark skies of Chiefland, Fla., are listed at 21.4. So Cox Field is toward the upper end of the scale.)

Only two of us – **Tom Moore** and **yr. editor** – showed up at Cox Field the following evening. The SQ reading probably would have been about 20, but we had fun anyway, doing what astronomers do in the dark. We swapped gossip about club members, complimented ourselves on what really fine persons we are, looked at some bright and not-so-bright globular clusters, and stayed out till midnight, at which time Tom turned into a pumpkin.

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Trivia Question: What object in the night sky did **Aristotle** refer to as a “star with hair”? (Answer on p. 6.)

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Mortal as I am, I know that I am born for a day.
But when I follow at my pleasure the multitude of the stars in their circular course, my feet no longer touch the earth.

-Ptolemy, c. 150

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This ‘n That. If you saved the membership list we sent out recently, you might want to note the following additions or changes:

-**Dwight Harness’s** e-mail address is now rdharness@yahoo.com;

-**Larry Higgins’s** new home address is 124 Second Avenue, Griffin, GA 30223;

-**Tom & Brit Danei’s** new e-mail address is danei@bellsouth.net;

-**Steve & Angela Knight, Ashley & Joshua Smith;**

-**Reese Forshee:** 585 Chastleton Dr., Hampton, GA 30228; 540-878-7403, rkevin2003@yahoo.com; and

-**Dan Newcombe:** 331 Dylan Way, McDonough, GA 30252; 678-583-1307, danneucombe@mail.clayton.edu.

*According to a survey conducted by the Royal Astronomical Society of Canada (RASC), there are 49 annual star parties in the U. S.

*FRAC has purchased an InFocus IN2104 multimedia projector for use at our star party, public presentations and meeting programs. From its literature: “Powered by 2500 Lumens, the IN2100 Series project bright images in high ambient light environments. The 2000:1 contrast ratio preserves detail in dark images. The lamp lasts up to 3000 hours.”

***Dwight Harness** is our new public observing coordinator. If anyone asks you about conducting a FRAC public observing for their group, have them contact Dwight at rdharness@yahoo.com or 770-227-9321.

You may, of course, prefer to conduct the observing yourself without going through FRAC – and that’s fine, too. If you do it that way, let **yr. editor** know afterward and he’ll add that event or hours to your Public Outreach Club log.

***FOR SALE:** Complete 8” Meade SCT, excellent condition, always been stored indoors. Original owner. Photos posted on our yahoogroups website. The asking price of \$525 includes:

-Optical tube assembly (OTA) and fork mount with Smart Drive and hand controller (not GoTo);

-hard side foot-locker case for OTA and fork mount (chrome reinforcing on the corners has some tarnish);

-Meade heavy duty equatorial wedge;

-Meade heavy duty stainless steel field tripod;

-6x30 finderscope;

-1-1/4” visual back and diagonal;

-JMI Moto Dec (declination motor);

-JMI Moto Focus (electric focus motor);

-Bob’s Knobs;

-three power cables and plugs;

-110v AC, 12v DC and AA battery pack;

-All original manuals and warranty information; and

-Will include a Meade Series 4000 26mm Super Plossl eyepiece if needed.

If interested, contact **Alan Bolton** at ga_startrekker@yahoo.com.

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Those who study the stars have God for a teacher.

-**Tycho Brahe**

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Upcoming Meetings/Activities. Our club meeting will be at 7:30 p.m. on **Thurs., July 9th**, in the Stuckey Bldg. on the UGa-Griffin campus. We’ll watch the last half of the DVD, “The Journey to Palomar.”

The first of our two Cox Field observing weekends will be on **Fri.-Sat., July 17th-18th**.

On **Mon., July 20th**, we’ll conduct a public observing at 8 p.m. at the **Hampton Public Library** in Hampton, Ga. (Since it doesn’t start getting dark enough to observe until after 9:30, we may have to adjust that starting time. We’ll let you know if we do.)

To get to the library from, say, Griffin, go N to Hampton on U. S. Hwy. 19/41. When you get to the Wendy’s stoplight in Hampton, turn right – east – and follow that road for .9 mi. Then turn right onto a secondary paved road where the main road curves

sharply to the left, and the library will be about 100 yds. down the road on your right. (There's a little "Library" road sign and arrow where you turn right.)

Our second July Cox Field observing weekend will be on **Fri.-Sat., July 24th-25th**.

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The moon and the stars no longer come to the farm. The farmer has exchanged his birthright in them for the wattage of his all-night sun. His children will never know the blessed dark of night.

-Leslie Peltier

*Starlight Nights:
The Adventures of a Stargazer
(1965)*

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The Sky in July. **Saturn** (mag. 1.0) will be a bright "star" in the W sky in *Leo* until it sets around midnight in late July, at which time **Jupiter** (mag. -2.8) returns to the night sky.

The other planets – **Neptune, Uranus, Venus, Mars** and **Mercury**, in the order of their rising – are morning "stars."

Astronomy (July, p. 42) contains a chart showing where to find **Comet c/2007 N3 (Kopff)** in *Aquarius*. Like Jupiter, Kopff will be best seen after midnight, as a circular patch of light because its tail is presently hidden behind its head. Glowing softly at mag. 8, Comet Kopff should be an easy telescopic target and faintly visible in binoculars.

Meteor showers are fun to watch – but they can be frustrating, too. Their peak activity times always come after midnight – usually around dawn – when they hit the Earth's leading edge as our planet rotates. (If that's not clear, think of the way that, when you're driving in the rain, more raindrops hit your front window than your rear window.)

Anyway, July and August are excellent months for meteor showers. The best of them all, the **Perseids**, will peak in August, and we'll have much more to say about it next month.

July's best meteor shower will be the **Southern Delta Aquarids** (which have nothing to do with the airline but are named for the bright star **Delta Aquarii**, where the radiant, or apparent point of origin, resides. That radiant will lie very near the planet Jupiter.)

The Southern Delta Aquarids shower will peak on the night of **July 27th-28th**, with about 10 meteors per hour in the pre-dawn hours of the 28th. A 5-day-old **Moon** will be on the other, western portion of the sky, and therefore won't affect your viewing of the Aquarids as they zip into view and out of sight.

A separate, weaker branch of that meteor stream, the **Northern Delta Aquarids**, peaks in mid-August and features a more northerly radiant near that same star.

Any other meteors you see during July will be either sporadic (i.e., not part of a meteor shower) or early Perseid arrivals.

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Astronomers, like burglars and jazz musicians, operate best at night.

-Miles Kinston

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Two Observing Reports

Alan Pryor. The sky was somewhat hazy but otherwise clear on May 30th, so Alan went out to Cox Field to see one of his favorite deep-sky objects, the lovely globular cluster **Omega Centauri (NGC 5139)**, under a 1st-Quarter Moon.

He says, "Omega looked pretty good, very low in the southern sky around 9:50 p.m. but high enough to be seen above the crops at Cox Field. The humidity was high and the **Moon** made observing rather difficult, but at 100x Omega Centauri filled half of the field of view (fov) and individual stars were easily discernible.

"In my 200x Nagler eyepiece, the globular cluster filled about 90% of the fov and many more stars were resolved.

“I look forward to seeing it again on a less hazy, Moon-free night.”

Earlier that evening, just after sunset Alan had an unexpected surprise while calibrating his big (18-in.) telescope’s PushTo:

“I found what I thought was **Arcturus (Alpha Bootis)** – but when I looked at it in the eyepiece, I saw that it wasn’t a star at all. It was, rather, a high-altitude weather balloon with an instrument pack attached to it.

“It was after sunset when I spotted it, but the balloon was still illuminated by the **Sun**.

“At 200x, I could even make out the tether connecting the balloon and instrument pack, the latter swinging back and forth beneath the balloon.”

And he wouldn’t have seen it at all if he had waited for a Moonless night two weeks later.

Felix Luciano (at home, June 13th).

“Equipment: Orion Classic XT8 Dob (f/1 1200mm), Telrad, 9x50 finderscope, 12” oscillating fan for skeeter protection.

“Magnifications: 75x, 85x, 100x, 150x Nagler and Radian eyepieces.

*“**Saturn** (100x, 150x): The rings formed a fine, dark line across the center of the planet. There was a subtle, creamish color to the S hemisphere.

*“**M65, M66** (*Leo* galaxy pair, 75x): M65 was a roundish, faint, fuzzy patch of light, M66 brighter and elongated.

*“**M51 (Whirlpool Galaxy)** in *Canes Venatici*, 75x, 85x): Two distinct cores visible, the larger (M51) showed a little spiral structure and fuzziness around its core. The other, companion galaxy (**NGC 5195**) was smaller, with a bright core and not much halo.

*“**M63 (Sunflower Galaxy)** in *Canes Venatici*, 75x, 85x, 100x): In the finderscope, M63 was a very faint patch of light; in the eyepiece, it was a large, bright, semi-oval patch.

*“**M12** (globular cluster in *Ophiuchus*, 75x): Very small, faint.

*“**M5** (globular cluster in *Serpens*, 75x, 100x): Small, bright, roundish, very densely concentrated toward the center.

*“**M13 (The Great Hercules Cluster, 75x, 100x, 150x)**: Very large, bright, roundish. Using averted vision, there seemed to be a curving stream of stars ‘flying’ away from the center.

*“**M92** (globular cluster in *Hercules*, 75x, 100x): Small, very dense.

*“**M57 (Ring Nebula)**, planetary nebula in *Lyra*, 75x, 100x): A nice, bright, oval ring of nebulosity.”

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Our fantastic civilization has fallen out of touch with many aspects of nature, and with none more completely than with night.

-Henry Beston

The Outermost House (1933)

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Golden Oldies for Cox Field Observers

humor by Bill Warren

Some folks like to listen to “space music” while observing – you know, the kind of stuff that **Jon Serrie** played at **Ga. Sky View** in 2007-08. Others say that space music sounds like amplifier feedback or a lovesick tomcat’s yowling. Most observers probably don’t care one way or another.

Whichever opinion you hold is fine – but you’ll have to admit, space music (or practically anything else) beats listening to the sounds that **Larry Higgins** makes in the dark at Cox Field when he thinks no one can hear him.

What we need to play at Cox Field, some music lovers say, is “Golden Oldies” – Top Forty “Blasts From the Past” that observers can relate to.

Aside from obvious ones such as **Guy Lombardo’s** “Stars Fell On Alabama,” **Perry Como’s** “Catch a Falling Star,” **The Fifth Dimension’s** “The Age of Aquarius,” **Creedence Clearwater Revival’s** “Bad Moon Rising” and **Frankie Avalon’s** “Venus,” we could also play songs for specific observing situations. And what might such situations and songs be?

Glad you asked.

*When nobody else shows up at Cox Field because you forgot to check the weather forecast: “Are You Lonesome Tonight?” (**Elvis Presley**);

*When it’s the first clear night we’ve had at Cox Field in months and you want to find faint fuzzies from the Herschel 400 Club list: “There’s a Moon Out Tonight” (**The Capris**);

*When someone drives onto Cox Field after dark with his headlights on: “You Light Up My Life” (**Debbie Boone**);

*When it’s really, *really* cold at Cox Field: “Whole Lotta Shakin’ Goin’ On” (**Jerry Lee Lewis**);

*When you can’t get your GoTo to work: “Help! (I Need Somebody!)” by **The Beatles**;

*When you realize that you forgot to take off your binocular lens caps and correct the problem: “I Can See Clearly Now” (**Johnny Nash**);

*When a sudden rainstorm washes over Cox Field: “Splish Splash!” (**Bobby Darin**);

*When you observe the **Sun** for the first time through an h-alpha filter: “Great Balls of Fire!” (**Jerry Lee Lewis**);

*When **Tom Danei** says “Oops!” while setting up his telescope: “Tutti Frutti” by **Little Richard** (which contains the appropriate refrain, “A-bop-bop-a-loo-mah, ba-lop-bam-boom!”);

*When **Bill Warren** overbalances atop **Alan Pryor’s** ladder while viewing **M51**: “Please Help Me, I’m Falling” (**Hank Locklin**);

*When you realize belatedly that you said you’d have your daughter home from Cox Field by 9 p.m.: “At the Midnight Hour” (**Wilson Pickett**) – or “Wake Up, Little Susie (We Gotta Go Home)” by **The Everly Brothers**; and

*When **Larry Higgins** eats chili dogs before coming out to Cox Field: more of **Little Richard’s** “Tutti Frutti,” only louder.

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Answer to Trivia Question on p. 2: A comet.

When you look at the stars and the galaxy, you feel you are not just from any particular piece of land, but from the solar system.

-**Laurel Clark**

The contemplation of celestial things will make a man speak and think more sublimely and magnificently when he descends to human affairs.

-**Marcus Tullius Cicero**

No one regards what is before his feet; we all gaze at the stars.

-**Quintus Ennius**

Two things fill the mind with ever new and increasing wonder and awe – the starry heavens above me, and the moral law within me.

-**Immanuel Kant**

Critique of Pure Reason (1781)

I have loved the stars too fondly to be fearful of the night.

-**Sarah Williams**

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