

THE FLINT RIVER OBSERVER

Newsletter of the FLINT RIVER
ASTRONOMY CLUB
(an affiliate of the Astronomical League)

Vol. 12, No. 1 April, 2008

Officers: President/Newsletter Editor, **Bill Warren**; Vice President/Observing Chairman: **Larry Higgins**; Secretary-Treasurer: **Steve Bentley**; Board of Directors: **Felix Luciano, Tom Danei, Tom Moore** and **Charles Anstey**.

Webmasters, **David Ward** and **Tom Moore**; FRACgroups moderator: **Steve Knight**; Ga. Sky View/Astronomy Day Coordinator, **Steve Knight**; Public Observing Coordinator, **Larry Higgins**; Program Co-Chairmen: **Larry Higgins** and **Bill Warren**; NASA contact: **Felix Luciano**; and Event Photographer, **Tom Danei**.

Club mailing address: 1212 Everee Inn Road, Griffin, GA 30224. Web page: www.flintriverastronomy.org; discussion group at FRAC@yahoogroups.com.

Please notify **Bill Warren** (770-229-6108), warren7804@bellsouth.net, if you have a change of home address, telephone no. or e-mail address.

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Club Calendar. Fri.-Sat., Mar. 28-29: Cox Field observings (at dark); **Fri.-Sun., Apr. 4-6:** Ga. Sky View star party (Camp

McIntosh); **Thurs., Apr. 10:** FRAC meeting (7:30 p.m., Stuckey Bldg. on the UGa-Griffin campus); **Thurs., Apr. 17:** Gordon College observing (9 p.m., Barnesville, Ga.); **Fri.-Sat., Apr. 25-26:** Cox Field observings; **Sat.-Sun., Apr. 26-27:** Griffin Mayfling arts & crafts festival booth.

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President's Message. GEORGIA SKY VIEW 2008, the 5th annual installment of our FRAC-hosted weekend star party, is coming up before you can blink twice. We hope you'll make every effort to attend. The event, to be held at Camp McIntosh near Indian Springs State Park, will run from **Friday, April 4th** through **Sunday, April 6th**.

The official opening time is 2 p.m. on Friday, but for anyone interested in helping GSV coordinator **Steve Knight** get the facility ready to go by that time, you're invited to join us at the Huddle House in Jackson, Ga., for breakfast at 8 a.m. before heading out to Camp McIntosh to get started. (Or, you can skip breakfast and meet us at Camp M., or just show up whenever you can, go to Steve and ask what you can do to help.)

There's always a million-and-one little details to attend to – things like setting out trash cans, setting up chairs for meetings in the dining hall, getting the coffee supplies in place, and ensuring that the restrooms are well-stocked with tissue so we won't see **Larry Higgins** darting from one place to another asking frantically, "Anybody got a Sears, Roebuck catalog or a corncob?"

Charles Anstey wrote a great article about what it feels like to attend GSV; if you missed it when it appeared in the February issue of

The Observer, it's on our website's "GSV 2008" link. So if you're still undecided whether to attend this year's GSV, go back and read Charles's article again, or talk to any of our many members who have attended past GSVs. Without exception, they'll tell you that, for just **\$26**, there's no better way to have three days of fun.

Here's a sampling of what your 26 bucks will get you:

*Meeting new and interesting people;

*Getting to know your pals in FRAC better than you ever could in a 2-hr. club meeting or club observing;

*Seeing top-of-the-line telescopes and equipment that you've heard or read about (or dreamed of owning);

*Chances to win door prizes – hey, last year **Curt Cole** won not one, but two **very** nice door prizes: a pair of 12x60 binoculars and an astrocamera!;

*Attending entertaining and informative talks by speakers such as **Dr. Richard Schmude** (see p. 4);

*Enjoying a potluck dinner on the grounds on Sat. afternoon; and

*Staying up till all hours at your telescope, chasing down Messiers in your own personal "Messier Marathon;" taking astrophotos if that's your thing; chatting with friends or swapping late-night jokes over coffee in the dining hall; or simply cruising the night sky with your telescope (or MySky, in **Steve Mann's** case) – and all of it to the background accompaniment of snores from tent campers who have already packed it in for the night.

Whatever the case, we hope you'll want to join us at GSV' 08 on the weekend of April 4th-6th. Star parties are always fun, but being a small party, Georgia Sky View offers more

space and intimacy than you'll get at a bigger event with 450 people crowded together like cattle on the observing field. Steve Knight works very hard to put on a stellar event every year -- and, as Charles A. and other FRACsters will tell you: like the mailman, Steve always delivers.

To get to Camp McIntosh, take Ga. Hwy. 16 East from I-75 through Jackson, and when you reach the intersection where Hwy. 16 East turns left toward Monticello and U. S. Hwy. 23 goes straight, follow Hwy. 23. About 3 mi. ahead on 23, bear right onto Ga. Hwy. 42 to Flovilla. Drive past both entrances to Indian Springs State Park on the right, and turn right at the caution light and convenience store on the right. The entrance to Camp McIntosh is about a mile ahead, on a paved road that goes straight where the main road curves to the left.

-Bill Warren

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Last Month's Meeting/Activities. We had five members – newcomer **David Mitchusson** (who joined FRAC that night), **Joel Simmons**, **Charles Turner**, **Mike Stuart** and **yr. editor**, at our Sat., Mar. 7th Cox Field observing, the previous evening's festivities having been clouded out.

Our birthday party/officer election meeting drew 19 members: **Curt & Irene Cole**, **Mike Stuart**, **Tom Moore**, **Carlos & Olga Flores**, **Steve Knight**, **Dwight Harness**, **Charles & Jeffrey Anstey**, **Larry Higgins**, **Steve & Betty Bentley**, **Steve & Aimee Mann** (the latter back from successful eye surgery), **Felix Luciano**, **Charles Turner**, **Robert McCarty** and **yr. editor**. **Lisa Anstey** prepared the

most incredible – and incredibly delicious – astronomy cake in the history of baking, and everyone ate themselves senseless. Thanks, Lisa!

Our third attempt at holding a home schooling observing near Covington was clouded out. Same song, third verse. You'd think we'd take the hint.

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This 'n That. Science-fiction writer **Arthur C. Clarke**, whose sci-fi novel, *2001: A Space Odyssey*, was the basis for the movie of the same name that ushered in the era of high-tech special effects in movie-making, died in Colombo, Sri Lanka on Mar. 19th. He was 90 years old.

***Jack Horkheimer** is well-known, not just in astronomy circles, but to millions of ordinary citizens as well, due to the immense popularity of his 5-minute, late-night TV show, “Jack Horkheimer: Star Gazer,” which appears on certain PBS stations.

With just five minutes to grab viewers' attention and convince them to do something they had no intention of doing beforehand (i.e., go outside and look at the night sky), Jack's style is necessarily loud, urgent and highly motivational. His “Keep Looking Up!” signoff is as familiar and greatly anticipated by his many fans as **Ed McMahon's** “Heeeeeeeere's Johnny!” opening was for **Johnny Carson's** “Tonight” show.

You don't need a telescope, or even binoculars, to see what Jack is talking about on his shows: his subject matter is limited to unaided-eye objects.

Well, Jack has done it again: he's written a children's book, *STARGAZING WITH JACK HORKHEIMER: Cosmic Comics for the Skywatcher*. Advertising for his book proclaims, “Every curious kid eventually looks up into the night sky and asks what it's all about. Let Jack Horkheimer, host of PBS's ‘Star Gazer,’ give them the big picture in this wonderful fact-filled book about the cosmos. From the sun and the moon to the stars, constellations, and the vastness of space – it's all here in a totally fun, accessible way.”

Jack's book, written with collaborator (and well-known astronomy writer) **Stephen James O'Meara** and illustrated by **Rich Harrington**, is 48 pp. (hardcover) in length. It sells on amazon.com for as little as \$8.80, and would make an excellent early purchase for next Christmas for the little ones in your life.

To find out where and when the “Star Gazer” show appears on TV, Jack suggests going to:

<http://www.pbs.org/stationfinder/index.html>. Well, we did that, and found that it appears on Atlanta's Channel 30 on April 1st at 2:27 a.m., and on April 2nd and 3rd at 1:27 a.m. His topic: the occultation of the Moon and the Pleiades on April 8th.

Right about now you're probably thinking, *I'm gonna stay up till 1:30 or 2:30 a.m. just to watch a 5-minute teevee show? Yeah, right!* If you do it, though, you're likely to find out why millions of Americans do just that. Horkheimer's presentation is so simple that anyone, even a dedicated armchair cowboy, can follow it. And he's so wildly enthusiastic that, even if you're watching in bed, you'll want to leap up, rush outside and give the sky a quick look. Just don't forget to put on your pajamas or a bathrobe.

*Please note: *April will be the last month that members who haven't paid their '08 FRAC dues will receive the Observer.* Please send your \$15 check (payable to the Flint River Astronomy Club) to:

Steve Bentley
950 Boxankle Road
Forsyth, GA 31029 .

*We'll have much more to say about this in an upcoming Special Edition of the *Observer*, but we couldn't wait to share the news with you regarding the following e-mail we received from **Terry Mann**, president of the Astronomical League, on Fri., February 22nd:
"Hi, Dr. Warren,

"Thank you for your nomination of **Dr. Richard W. Schmude, Jr.** Our selection committee (consisting of Ms. Mann, A. L. past-president **Bob Gent** and 2nd past-president **Chuck Allen**) discussed the nominees and have chosen Dr. Schmude to be the recipient of the **2008 ASTRONOMICAL LEAGUE AWARD**. It will be presented to him at the banquet at 'AlCon 2008' (the A. L.'s national convention) in Des Moines, IA in July. I will read part of your nomination letter before presenting the Award."

The ASTRONOMICAL LEAGUE AWARD is the highest award given by the A. L. Be sure to congratulate Richard at our next meeting for the well-deserved honor he will be receiving this summer. (As in so many times in the past, he's speaking at our April meeting.)

*We're sure you'll want to offer a hearty welcome to FRAC's newest members, **David**

& Anna Mitchusson of Williamson, Ga., and **Patty, Ron & Aaron Rynders** of Tyrone, Ga. Folks, I think you'll find our members ready and willing to assist you in any way possible in achieving your goals in astronomy, whatever they may be. We look forward to seeing you at our upcoming meetings and Cox Field observings (and maybe at GSV, too – at least, we hope so).

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Upcoming Meetings/Activities. On **Fri.-Sat., Mar. 28th-29th**, we'll have Cox Field observings accompanied by a Last Quarter Moon on the 29th.

April's highlight will be, of course, our **Ga. Sky View '08** star party, to be held on the following weekend, **Fri.-Sun., April 4th-6th**. You *are* going, aren't you?

Our club meeting at 7:30 p.m. on **Thurs., April 10th**, will feature a talk on Jupiter by **Dr. Richard Schmude**. We will meet, as always, on the 2nd floor of the Stuckey Bldg. on the UGa-Griffin campus.

At 9 p.m. on **Thurs., Apr. 17th**, FRAC will help Dr. Schmude conduct an observing for students in his astronomy class at Gordon College. Directions to the site will be posted on our website prior to the observing.

We'll have Cox Field observings on **Fri.-Sat., April 25th-26th**.

On **Sat., April 26th** and **Sun., April 27th**, FRAC has been allotted space for a booth at the **Griffin Mayfling** arts & crafts festival, an annual event that draws large crowds of area residents. Starting and closing times for each day will be listed on our website, along with directions to Griffin's City Park where the event is held.

When we've had a FRAC booth at Mayfling in the past, we've used signup sheets at FRAC meetings to ensure workers at each of four half-day shifts. We'll be talking to the public about FRAC and astronomy, showing them the **Sun** and discussing the various displays we'll have set up.

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The Sky in April. On the evening of **April 8th**, a thin crescent **Moon** will graze the edges of the **Pleiades (M45)** in *Taurus* in the W sky.

Best seen in binoculars or a rich-field telescope, the occultation will feature the 2nd-brightest object in the sky crossing in front of the brightest open cluster in the night sky. It should be worth more than just a quick peek or two. Hopefully, some of our members will take some astrophotos of the event.

Mars will be up in *Gemini* near **Castor** and **Pollux** in April. Martian surface features cannot presently be seen in ground-based telescopes due to the planet's diminishing size as it moves away from us in its orbit around the **Sun**. To many observers, though, there's always a thrill in seeing the orange disk of a planet that's roughly half the Earth's size and lies nearly 140 million miles away.

Saturn will be up in April, still lying near bright **Regulus**, the dot at the bottom of the sickle that forms *Leo's* face and mane. At mag. -0.4, Saturn will be the brightest of the visible planets in April.

Spring is the season of galaxies, hundreds (or maybe even thousands) of which can be seen in amateur telescopes of 6" or larger. Even 2" 'scopes will show more than a dozen Spring Messier galaxies. They won't be so bright as to proclaim themselves in neon

lights, but, like Mars, there's a certain thrill to be had in knowing that you're seeing the collective glow of hundreds of billions of stars whose light has taken many millions of years to reach us.

Any star chart that includes the locations of deep-sky objects will show the location of a number of galaxies in *Ursa Major*, *Leo*, *Virgo*, *Coma Berenices* and other Spring constellations. If you're relatively new to astronomy and stargazing, let us help you find some of them.

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----- April 2008

Tracking Wildlife from Space

by Patrick Barry

It's 10 o'clock, and do you know where your Oriental Honey Buzzard is?

Tracking the whereabouts of birds and other migrating wildlife across thousands of miles of land, air, and sea is no easy feat. Yet to protect the habitats of endangered species, scientists need to know where these roving animals go during their seasonal travels.

Rather than chasing these animals around the globe, a growing number of scientists are leveraging the bird's-eye view of orbiting satellites to easily monitor animals' movements anywhere in the world.

The system piggybacks on weather satellites called Polar Operational Environmental Satellites, which are operated by the National Oceanic and Atmospheric Administration (NOAA), as well as a European satellite called MetOp. Sensors aboard these satellites pick up signals beamed from portable transmitters on the Earth's surface, 850 kilometers below. NOAA began the project—called Argos—in cooperation with NASA and the French space agency (CNES) in 1974. At that time, scientists placed these transmitters primarily on buoys and balloons to study the oceans and atmosphere. As electronics shrank and new satellites' sensors became more sensitive, the transmitters became small and light enough by the 1990s that scientists could mount them safely on animals. Yes, even on birds like the Oriental Honey Buzzard.

“Scientists just never had the capability of doing this before,” says Christopher O'Connors, Program Manager for Argos at NOAA.

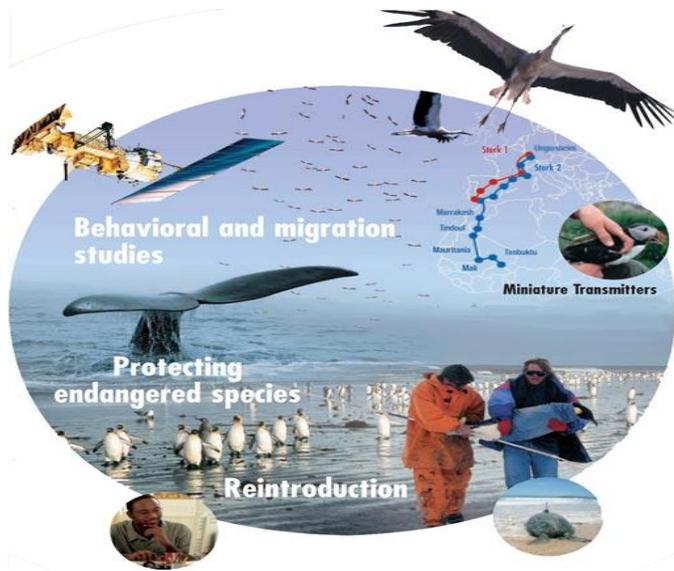
Today, transmitters weigh as little as 1/20th of a pound and require a fraction of a watt of power. The satellites can detect these feeble signals in part because the transmitters broadcast at frequencies between 401 and 403 MHz, a part of the spectrum reserved for environmental uses. That way there's very little interference from other sources of radio noise.

“Argos is being used more and more for animal tracking,” O'Connors says. More than 17,000 transmitters are currently being tracked by Argos, and almost 4,000 of them are on wildlife. “The animal research has been the most interesting area in terms of innovative science.”

For example, researchers in Japan used Argos to track endangered Grey-faced Buzzards and Oriental Honey Buzzards for thousands of kilometers along the birds' migrations through Japan and Southeast Asia. Scientists have also mapped the movements of loggerhead sea turtles off the west coast of Africa. Other studies have documented migrations of wood storks, Malaysian elephants, porcupine caribou, right whales, and walruses, to name a few.

Argos data is available online at www.argos-system.org, so every evening, scientists can check the whereabouts of all their herds, schools, and flocks. Kids can learn about some of these endangered species and play a memory game with them at spaceplace.nasa.gov/en/kids/poes_tracking.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



Caption:

The ARGOS program tracks the whereabouts of endangered migrating animals via miniature transmitters on the animals and the POES satellites in orbit.