

THE FLINT RIVER OBSERVER

Newsletter of the Flint River Astronomy Club
Vol. 8, No. 8 October, 2004

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

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Club Calendar. **Sat., Sept. 25th:** Boy Scout observing (Cox Field, 4-10 p.m.); **Thurs., Oct. 14th:** FRAC meeting (Beaverbrook media center, 7:30 p.m.); **Fri.-Sat., Oct. 15th-16th:** Cox Field observings (at dark).

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President's Message. While it's still very pleasant observing now temperature-wise, cold weather observing is not too far off. WallyMart (at least the one nearest me) has put out its stock of cold weather insulated hunting clothing and accessories in the sporting goods department.

I just picked up for \$4.00 a face mask/neck warmer with pockets to hold those chemical heat packs. Haven't opened the package yet, but supposedly the heat packs mount near your ears, a really nice idea.

The time is now to start purchasing any cold weather items you may want, no matter where you do your buying. Once the hunters buy everything, you'll be left in the cold.

Finally, please join me in welcoming to FRAC **Che' Judon** and his mother **Bonita**. They live in Fayetteville, and Che' was an eager young visitor last spring at our Astronomy Day observing at Kohl's in Fayette Pavilion.

-**Steven (Saratoga Smitty, a.k.a. "The Astronomy Guy") Smith**

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Membership Renewals Due in October: None.

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Last Month's Meeting/Activities. On Aug. 25th, **John "The Night Sky Guy" Wallace** kicked off his television career with a splendid 5-min. astronomy lesson for kids on BBTv (Beaverbrook's in-school television).

Patterning his performance after **Jack Horkheimer's** long-running late-night astronomy series, John used an attractive, self-prepared chart to show the BB kids and their teachers where to find **Venus** and other bright early-morning objects. Afterward, he left his chart in the media center where, according to media specialist **Louise Warren**, every day a steady stream of children coming to the media center to check out books and take Accelerated

Reader tests stopped by to study John's chart and discuss its contents.

This was the first in an ongoing series of "What's In the Sky" presentations that he plans to make at the school.

John returned to BB on Wed., Sept. 15th, and talked about the constellation *Orion*, another early-morning target that his youthful audience has had no trouble finding when going outside on their way to school.

The only down side of John's morning visits to the school, he reports, is that he has to set his alarm and get up early, something that his retirement seldom requires otherwise.

He won't get much sympathy from those of us who have to do it every weekend.

Also at the school, **yr. editor** spent four lunch periods talking with 4th-grade classes about telescopes and showing them filtered views of the **Sun** and sunspots, using panes of #14 welder's glass and his 3-1/2" refractor. Like John, yr. editor will make such presentations an ongoing process, extending them to other grade levels and classes.

Thirteen members attended our Sept. meeting: **Bill Snyder, John Wallace, Kathy Davis, Scott Hammonds, Mike Stuart, David Ward, Curt Cole, Larry Fallin, Smitty, Chuck Sims, Steve & Dawn Knight, and yr. editor.**

Inclement weather negated our first Sept. observing weekend, but the skies were more forgiving the 2nd time around at Cox Field. On Fri., Sept. 17th, **John Wallace** and **yr. editor** hosted a couple of visitors, **Matt McEwen** and **Chris Gibson**; and on the following night, Matt and Chris were joined by Matt's wife **Suzanne, Chuck Sims, David & Sarah O'Keeffe** and Sarah's friend **Madeline Tootle, Smitty, Joe Auriemma, Felix Luciano** and, last but certainly not least, yr. editor (12:30 a.m.). On both evenings, the skies were surprisingly good considering the abominable weather we've been having.

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Upcoming Meetings/Activities. **Steve K.** advises us that the Boy Scout observing at Cox Field is back on

for **Sat., Sept. 25th**, with the same schedule as before (i.e., starting with solar observing at 4 p.m. and an evening session that will last till around 10 p.m.). Please come if you can, since the crowd will be huge and we'll need all the members and telescopes we can get.

Our October meeting will be in the BB media center at 7:30 p.m. on **Thurs., Oct. 14th**. Our speaker will be A.L. Secretary **Dr. Richard Schmude Jr.**

With the new moon on the 13th, we'll have just one observing weekend this month, on **Fri.-Sat., Oct. 15th-16th**.

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This 'n That. Citing **John Wallace's** BBTv talk reminds us to offer the following tip to anyone who shows or talks about the sky with children: *Never use the term "naked eye" when referring to ways of seeing something.* (Acceptable substitute: "unmagnified.")

Incidentally, John didn't make that mistake. (Guess who did?)

***Smitty** sent us a chatty letter from an old FRAC member, **Kimberly Novak**, who, since leaving her post as the astronomy teacher at East Coweta H. S., has become something of a world traveler. Says Smitty, "I know Kimberly has been teaching in Japan, visited China, was teaching in England and maybe a couple of other places I don't know about, and now she is teaching in Peru."

*Did anyone else notice the Smiley Face to the right of center in the photo by **Gerard Therin** of the lunar crater **Fracastorius** on p. 61 of the Oct. '04 issue of *Astronomy* ("Meteors and Moons")?

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The Sky in October. On **Oct. 6th**, the mag. 6.6 asteroid **4 Vesta** will be 1 degree S of the star **97 Aqr.**

At its peak on **Oct. 21st**, the **Orionids Meteor Shower** may bring as many as 15-20 meteors per hour, fiery remnants of **Comet Halley** making

kamikaze dives into Earth's atmosphere at 40 miles per second.

If you're gonna watch it, bundle up against the cold and kick back in a comfortable deck chair so you won't have a crick in your neck at work that morning. (You don't have to face *Orion* to find meteors; they may appear anywhere in the sky; that's just where the Orionids meteors appear to be coming from.)

On **Oct. 24th**, the Jovian moons **Io**, **Callisto** and **Europa** will be tightly bunched before dawn.

On **Oct. 27th**, weather permitting we'll enjoy a **total lunar eclipse** when, starting at 9:14 p.m., the **Moon** will begin moving through Earth's shadow. Totality will last for 80 minutes, from 10:23 p.m. until 11:43 p.m. Says *Astronomy* writers **Martin Ratcliff** and **Alister Ling** (Oct. '04, p. 50), "This will be the last total lunar eclipse visible anywhere in the world until March 2007, so it's worth traveling a bit to avoid clouds."

On **Oct. 29th**, between 5:55 a.m. and 7:22 a.m. the only Jovian moon visible will be **Callisto**.

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DougMax and the Tennessee Star Party: a Report.

Date: Sept. 19, 2004.

Just got back from the TNSP this morning. Awesome. It was misting, cloudy and windy when I arrived Friday afternoon, but soon after dark it cleared like you wouldn't believe and stayed that way all weekend. Not one cloud, even the jet contrails were disappearing just behind the engines.

I had a great time. Got the last ten of my Double Stars, started on the Herschel 400 program, knocked out 14 of those, and managed to find **Neptune** with my 13.1-in. Dob.

I really like the TNSP observing field, its huge, great horizons all the way around, 2000-ft. elevation, and the **Big Dipper** never sets. It's the first place I've ever been where there was no sky glow to the north. But man!, that field was thoroughly saturated from all the rain they had before we got there. It was in pretty good shape by noon Saturday, except for the knee-deep ruts that **Steve** made in attempting to get on the field Friday afternoon – but that's a story for another

occasion. Time now for a long overdue shower and sleep.

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Like all stars, the sun formed when local gas and dust drifted together, drawn by gravity, swirling into a sphere. As the mass became larger and larger, hydrogen at the center was crushed by the gigantic pressure, finally sparking a fusion reaction in which hydrogen nuclei come together in a multistep reaction to form helium. The resulting nuclei are just slightly less massive than the component hydrogen nuclei that formed them. The difference is converted into energy according to Einstein's famous equation.

Much of that energy is carried away as light in the form of gamma rays – the most energetic wavelength of electromagnetic radiation. But the solar core is so dense that a single photon, the fundamental unit of light, can't go even a fraction of a millimeter before banging into some subatomic particle, where it is scattered or absorbed and re-emitted. As a result, it can take hundreds of thousands of years for a photon to ricochet its way nearly half a million miles to the sun's surface. By that time, it has shed so much energy that most of it emerges as the fairly puny radiation we call visible light.

-Curt Suplee
National Geographic
(July 2004), p. 17

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The sun, with all those planets revolving around it and dependent on it, can still ripen a bunch of grapes as if it had nothing else in the universe to do.

-Galileo (1564-1642)

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