

THE FLINT RIVER OBSERVER

Newsletter of the Flint River Astronomy Club
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Club Calendar. **Fri., June 11:** FRAC meeting, 7:00 (Hong Kong II Buffet Restaurant in Griffin); **Sat., June 12:** Cox Field observing (at dark); **Fri.-Sat., June 18-19:** Cox Field observings (at dark).

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President's Message. After much preparation, hair pulling and grinding of teeth, FRAC's first big star party was held last weekend, May 21st-23rd. Party

duration: Fri. & Sat. nights. Attendees: 82. Problems: **ZERO!!!**

I attribute our lack of problems to our members' willing and helpful hands, and to the thoughtful preparations that were made beforehand. During the star party, never once did anyone have to ask anybody to do anything. Whenever the coffee pot ran low, a member would automatically make a fresh one. Our members made sure paper towels and bathroom tissue were in good supply in the bathrooms. If a piece of trash was seen on the observing field, someone would dispose of it. Late arrivals were handled by whoever was closest to them. Sharing responsibilities made our party appear effortless!

Most of our registered members had attended other star parties, so we pretty much knew in advance what kinds of problems to expect. We had folks from 5 states attending, and all of them were well behaved. Either we're lucky, or else we kept them happy enough to avoid any conflicts! Heh-heh!

Our weather Friday night was hazy: good enough for double stars, but faint fuzzies were out. Most folks just hung around and talked and had a good time.

Saturday night the sky was great! I had good results with my new 16-inch 'scope (love that big aperture!) and most folks stayed up until the wee hours of the morning observing even though everyone had to be out of camp by noon the next day.

We couldn't believe we didn't have a single problem, but all that hard work done in preparation enabled us to enjoy ourselves too – this wasn't work, it was all play!

Before turning the controls back over to **Bill**, let me welcome back to our FRAC family two former members, **Mike & Danielle Stuart**. We're very glad to have you back with us.

-Steven (Saratoga Smitty) Smith

Editor's Message. Strap yourself in securely, because you're in for a *long* journey – about 11 pp. long, to be exact. We have lots to talk about, lots to think about, and lots to be proud of regarding our recently completed **Georgia Sky View 2004** star party.

If you were there, you'll understand why we're still in awe at how smoothly things went – and if you *weren't* there, you missed an event that virtually everyone in attendance agreed was on a par with the very finest star parties they've ever attended. Describing our inaugural **GSV** as successful is like saying that Chiefland is a nice place to stargaze: it's true, but it grossly understates the quality of the experience.

From pre-camp setup to post-camp cleanup, there were no major problems at all, and no minor hitches or glitches that couldn't be solved in a couple of minutes. The cutoff limit meant plenty of room for everyone to move around without feeling crowded, and **Steve's** meticulous planning in the weeks and months before the event anticipated problems and solved them before they arose.

We had video games and parentally supervised swimming at the lake beach for the kids; a computer available for the adults; cinnamon rolls and sausage biscuits (courtesy of **David & Roxanne Ward**) for sale in the dining hall at midnight on both nights; and – best of all in most participants' estimation – a special door prize just for the kids: a 6-inch Hardin Dobsonian reflector and accessories valued at \$300.

The kids-only drawing was Steve's idea; probably more than anything else, that simple, thoughtful gesture exemplifies the depth of Steve's commitment to creating a star party with something for everyone.

-Bill Warren

(Note: For more member and non-member reactions to Ga. Sky View 2004, see pp. 6-9.)

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Membership Renewals Due in June: Joe & Martha Auriemma; Erik Erikson; and Frieda Maddox. Please send your **\$15** check payable to FRAC c/o **Steve Knight** at his address on p. 1.

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Last Month's Meeting/Activities. Our April "Relay For Life" observing at Spalding H. S. was rained out.

We had better luck with the Barnesville "Relay" observing two weeks later, though, with **John Wallace, Felix Luciano** and **yr. editor** joining **Dr. Richard Schmude** to show a *huge* crowd of participants a lovely crescent **Venus**, tiny **Mars**, **Saturn**, a shadow transit by one of **Jupiter's** moons, and **Comet NEAT**. (Well, let's be honest here: under partly cloudy skies that changed about as often as presidential polls, John and Felix found the comet at least 20-25 times during the evening, while yr. editor never found it at all.)

We had 17 members and 16 telescopes set up for our "Astronomy Day" observing in Fayetteville on April 24th, showing roughly 325 visitors the Sun in a variety of ways during the daylight hours and the planets after dark. FRACsters who participated (and enjoyed themselves immensely) included: **David & Brendon O'Keeffe, Dawn & Steve Knight, John Wallace, Dr. Richard Schmude, Larry Fallin, Joe Auriemma, Dan Newcombe, Doug & Laura Maxwell, Chuck Sims, Smitty, Erik Erikson, Felix Luciano, Irene Cole** and **yr. editor**. (Yr. editor was going to alphabetize the names but, being a UGa alum, he couldn't decide which name went first.)

Despite FRAC's outnumbering our Beaverbrook PTA visitors by a mere 3-0 margin in May, we had a *great* observing at the school that night, our visitors including a Griffinite who had seen our BB observing listed on FRACgroups, a teenage couple who came by and stayed till 11 p.m., and 10-12 neighborhood residents, young and old, who had been alerted to the occasion by **Doug Maxwell**. Too bad Doug couldn't make it that evening, because it was one of the most enthusiastic groups we've ever encountered. **Curt Cole, John Wallace** and **yr. editor** were constantly busy for nearly 3 hours. We finally had to tell them, "Look, folks, we're enjoying this as much as you are, but we've gotta get up and go to work tomorrow."

Our May meeting was held in the BB gym. **Steve K.** covered the bases regarding the then-upcoming star party, after which we went inside for the program.

Dawn Knight and **John Wallace** received their Double Star Club certificates and pins, and John also received his Binocular Deep Sky certificate and pin. **Dan Newcombe** won the door prize, i.e., the newly revised *Norton's Star Atlas* that was donated by

Smitty when no one won his contest by guessing that he had bought a new 16-inch Meade Dobsonian reflector.

In all, we had 16 present at the May meeting, including **Smitty, Larry Fallin, Doug Maxwell, Steve & Dawn Knight, John Wallace, Dan Newcombe, Curt & Irene Cole, Felix Luciano, Chuck Sims, Bill Snyder, yr. editor**, and two ex-members, **Mike Stuart** and his daughter **Danielle**, who are now FRAC's newest members. **David Ward** was a welcome late-comer, arriving after the meeting was over and bringing with him the still-warm **Ga. Sky View** tee shirts that were promptly distributed to members who had preordered them.

We don't know who showed up early and left on the evening of our only scheduled Cox Field observing in May, but **Curt Cole** and **yr. editor** showed up about 10:30 and stayed till 1 a.m. under skies that, when cloud-free, were as transparent as **Kobe Bryant's Not Guilty** plea.

Six FRAC members won door prizes at **GSV: David O'Keeffe, Jamey and Drew Jenkins, Curt Cole, Larry Fallin**, and Smitty's son **Stephen**.

Other FRAC attendees/workers included: Dawn's mother **Sylvia Adams; Chuck Sims; Dan Newcombe; Doug Maxwell; Felix Luciano; John Wallace; David, Roxanne & Melissa Ward; Scott & Alisa Hammonds; Brendon O'Keeffe; Tom & Katie Moore; Smitty & Josh Smith; yr. editor**; and Dawn & Steve's niece **Brittany Chappell**.

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Upcoming Meetings/Activities. With Beaverbrook closed for the summer, we've decided to return to **Hong Kong II Buffet Restaurant** in Griffin for our June meeting. We'll meet there at **7 p.m. on Fri., June 11th**, with a brief meeting either before or after everyone chows down (preferably before, since the sight of **Larry Fallin** and **Dan Newcombe** shoveling down food with both hands at a rate of 22 forksful a minute might deter anyone from staying around for the meeting).

To get to the Griffin restaurant from, say, Jonesboro, come S on U. S. Hwy 19/41 and Hong Kong II will be on the left (east) side of the divided

roadway beyond the McIntosh Road stoplight. Specifically, it's opposite the Racquethouse fitness center on the right and sandwiched between a Shell service station and Blockbuster's on the left. There's a stoplight at that corner.

On the following evening, **Sat., June 12th**, Cox Field observing weekend attendees can enjoy the aftereffects of Larry's and Dan's overeating: the haze enveloping Cox Field that night might not be ground fog, if you know what we mean.

We'll return to Cox Field on **Fri.-Sat., June 18th-19th**, for two more observing sessions, that extra week giving the Moon – and any lingering emission nebulae as well – ample time to disperse. The new moon occurs on **June 17th**.

Our July FRAC meeting will be held at the home of **Curt & Irene Cole** in Hampton. Directions will appear in the July issue of the *Observer*.

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This 'n That. One order of business likely to be discussed at the June meeting is **Smitty's** recent suggestion that FRAC should switch to a standardized date at which *all* memberships would be due for renewal. Although details have yet to be finalized and voted on by the club, at this stage it sounds like a *very* good idea, and one that is worthy of adoption by FRAC.

Such a change would require an amendment of our Bylaws.

Smitty's proposal is that, instead of a monthly "Membership Renewals Due in ..." section of every month's *Observer*, we should simply announce once a year, one month in advance of the scheduled month, that *everyone* should send their dues payments to the club treasurer. Late renewals would be charged an additional \$5.

If such a plan were to be adopted with, say, *February* as our universal renewal date (Smitty's suggestion, based on Feb. being the anniversary of our first-ever FRAC meeting back in 1997), your next dues payment would be pro-rated downward to cover your membership between then and next February, at which time a full annual payment of \$15 would be due.

*Congratulations to the **Davids, O’Keeffe and Ward**, for the design of the **Ga. Sky View 2004** tee shirt. It’s one man’s opinion here, but in 11+ years of rubbing shoulders with other stargazers wearing star party tee shirts, **yr. editor** has never seen one as pretty as ours. The two shirts he bought will be worn proudly – and often – at FRAC functions and public observings.

Additional congratulations are due to **Dawn Knight**, who designed the attractive registration badges (name tags) worn by **GSV** attendees – and to hubby **Steve Knight**, who came up with the idea of making it a lanyard. Nice touch, Steve.

In each case – tee shirts and name tags – both the design and quality of workmanship offer further evidence, if any were needed, that **Ga. Sky View** was never intended by Steve, **GSV**’s guiding light, to be anything less than a first-rate affair.

***Random Thoughts Regarding a Largely Clouded Out Friday Night at GSV 2004.** 1. With nothing better to think about, it occurred to **yr. editor** (after twice almost walking into trees on the way to the john) that, for incredibly dark, New Mexico-type pitch black skies, you can’t beat a heavy cloud cover. Now, if someone would only come up with a practical and enjoyable way of seeing the night sky through the clouds, our observing problems would be reduced by about 2,000 percent.

2. Instead of worrying about setting aside areas on the observing field for generators and non-generators, **Dan Newcombe** says, tongue-in-cheek, we should have “GoTo” and “non-GoTo” areas so those high-pitched whines (of the telescopes, not the observers) wouldn’t disturb those who are trying to sleep.

Although absolutes are rare in astronomy or anywhere else in life, the one thing you can always count on at star parties is that *Whoever parks next to you will do something to disturb the tranquility of the situation*, whether it be guys tossing around a football near your telescope, kids playing Tag in and out of the telescopes, a passerby spilling soda or beer on your observing charts at 2:30 a.m., or loudly snoring at one end or the other while you’re trying to doze off. (Or,

we might add, smoking foul-smelling cigars whose smoke invariably drifts your way.)

At **GSV**, we might point out, only the latter occurred, **yr. editor** and **John Wallace** being the chief offenders, of course. Maybe next year we need to set aside “Smokers” and “Non-Smokers” areas, with the smokers setting up their camp sites far enough away to avoid offending other campers – say, somewhere deep in the bayou country of Louisiana.

*It was nice seeing **Katie Moore** and her dad **Tom** at **GSV 2004**. Having Katie back with us even for a couple of hours felt like a family homecoming – but if we’d told her that, she probably would have handed us her laundry bags, *Go easy on the bleach and no starch in the undies*.

*****“Have you ever wondered,”** we asked **Dawn Knight** at **GSV**, “how far it is in miles to the farthest known point in the universe?”

“No, I haven’t,” she said.

Poor Dawn, never having been sufficiently bored to perform such tedious mathematical calculations herself, must be content to stand on the shoulders of a mental giant such as **yr. editor**, who *was* sufficiently bored to muddle through such a meaningless and unimportant task.

Since you asked, Dawn: *The distance in miles from here to the end of the known universe is 792 sextillion, 409 quintillion, 336 quadrillion miles (give or take a furlong or two), or 792,409,336,000,000,000,000 miles if you need the figures for mileage reimbursement.*

Driving at a leisurely 55 mph to avoid speed traps along the way, a one-way trip would take you 118 trillion, 341 billion years, so you might want to pick up the pace a bit on the way back. (And don’t forget to tell them to hold the mail and stop newspaper delivery before you leave.)

Those figures, arrived at by **yr. editor** without benefit of a calculator, have been certified as accurate by the same folks who counted the south Fla. votes in the 2000 presidential election.

And having driven such a long way over such a very long time, what might one expect to see at the far end of the universe? Probably **Tom Moore**, moaning,

“Why did they leave out ‘*A Stellar Experience*’ in my winning entry for the name of our star party, **Georgia Sky View 2004?**”

*Finally: Those of you who for so long have had to raise your voices to shouting levels in order to make yourselves understood by **yr. hearing-impaired editor** -- or who have cringed at his shouting at you from two feet away because he couldn't hear how loudly he was talking -- will be pleased to learn that he has purchased a pair of hearing aids that, for the present, at least, bring his hearing in both ears virtually to normal levels.

And why didn't he take such a drastic step years ago? Well, he did, back in the pre-computer days when amplifying the sound of voices also amplified the background noises. It didn't work out then, to the tune of \$1,900 bucks down the drain. Let's hope for better luck this time around.

This will be interesting: with “normal” hearing, will he continue to say “Huh?” or “What?” whenever spoken to, just out of habit?

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The Sky in June. Forget everything else going on in June: at sunrise on **June 8th**, you need to be somewhere with a very good view of the eastern horizon (e.g., a hilltop), so you can see the first transit of the **Sun** by **Venus** since 1888. Venus's diameter will be 1/30th that of the Sun, so it won't be like you'll be watching a tiny dot slide along the Sun's face. The transit will already have begun by the time the Sun rises high enough to see it, so you need an early start.

The normal rules apply: *Don't look at the Sun through an unfiltered telescope or binoculars. Don't use your finderscope to find it. Cover the aperture of your finder so you won't set yourself or anyone else on fire when you (or they) are standing behind the 'scope while the Sun is in your field of view. And don't use any kind of solar filter that attaches to your eyepiece: use only the kind that fits over your telescope's aperture (reflector) or objective lens (refractor).*

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FELIX LUCIANO: Three Observing Reports

1. Date/Time: May 6, 2004, 9:15-10:25 p.m. EDT

Location: Jonesboro, Ga.

Seeing: 3-4/10, sky glow almost circling the horizon

Equipment: Orion XT8 Dob; 14mm, 12mm & 8mm Radian, 2.5x Powermate and 32mm & 20mm Plossl eyepieces; and Oberwerk 11x70 binoculars.

Edie Foster (neighbor) and I saw three satellites crossing different parts of the sky, two of them coming from opposite directions (south & north) at the same time. We were able to follow them for more than a minute. (*Editor's Note: **Larry Higgins** always said that, if you see a satellite moving E-W or vice versa, it's a communications satellite; and if it's moving N-S or vice versa, it's a spy satellite. Is that a fact, or is it an urban myth? Anybody know for certain?*)

Io was very close to the western edge of **Jupiter** at 10:02 EDT; by 10:10 the moon was occulted by the planet. Jupiter looked extremely sharp with the 8mm Rad and 2.5x Powermate: a large, dark, roundish feature on the North Equatorial Belt preceded the Central Meridian.

I scanned the low SW skies toward the horizon with binoculars (10:15 EDT) to find **Comet NEAT c/2001 Q4**. Moved to the telescope, and with the 32mm Plossl I was able to easily pick up the comet. Changed to the 12mm and 14mm Rads, and the view improved some. I saw the comet as a large, fuzzy patch of light with a very bright and well-defined nucleus.

2. Date: May 8, 2004

I arrived at Cox Field shortly after 9 p.m.

David & Sara O'Keeffe were already set up and stargazing. The skies were partly cloudy, and there was a bit of haze in the air.

I began by looking for the comet and found it in my binoculars (great views!). We could detect the faint tail of the comet extending to the east. I was not able to see the comet's tail with my 'scope, but David's 12.5" Discovery Dob was really bringing in some outstanding views of the comet and Jupiter.

As the evening got darker, we were able to see the comet naked-eye as a faint patch of light. It sure was nice observing the comet from a dark site.

As the hour progressed, the skies improved but the mosquitos were deadly. We packed up and left the field a little after ten o'clock.

2. Date/Time: May 19, 2004, 8:45-9:50 p.m.
EDT

Temp: 72 degrees F

Seeing: 4-5/10

Transparency: Fair, some cloud cover

Instrument: Orion XT8 Dob and Oberwerk 11x70
Binoculars.

Venus (150x). Very thin crescent phase, with a small edge of the planet seen extending out from the limbs of the crescent.

Saturn (150x). Sharp views, the A and B rings and the Cassini Division very clear. Some surface detail visible in the form of a wide, faint, dark band around the Southern Equatorial Belt.

Jupiter (9:10-9:25 EDT). Using the 8mm Rad with an 80A Light Blue filter and the 14mm Rad with the 2x Barlow and a Polarizing filter, the Great Red Spot was past the Central Meridian. I could easily see a "dip" on the southern component of the Southern Equatorial Belt. A small, dark feature was above and to the right of the Great Red Spot. I could not quite distinguish the Great Red Spot, with the views coming in and out. The Northern Equatorial Belt showed a "finger-like" feature extending into the Equatorial Belt and curving toward the Central Meridian. The feature was right below the Great Red Spot but on the Northern Equatorial Belt and extending into the Equatorial Zone. There seemed to be a break on the band where the finger-like feature was located, and at the right of the break there was a very dark, roundish feature.

Comet NEAT C2001/Q4. The comet was easily seen, a hint of its tail extending to the northeast in my 14mm Radian eyepiece. A huge glow with a very small, dense core.

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REACTIONS TO GEORGIA SKY VIEW 2004

Non-Members' Comments

*Hello **Dawn, Steve** and the rest of the FRAC gang. I just wanted to say thank you for a great star party!...

My daughter **Dallis**, who won the Hardin 6" Dob, really loves it. We looked at **Comet NEAT, Jupiter, M3** and **M13** last Saturday night at Indian Springs. Dallis had a BLAST, and told all her friends at school on Monday that she won the telescope. We went out again last night to view the Moon and Jupiter, and she did all the work with the telescope. I just stood back and watched her operate it. She is really proud of it.

I will be contacting Hardin Optical to thank them for the nice door prize that they offered.

When I get a chance to get some photos of Dallis with the 'scope I will post them in the photo section of FRAC Yahoo. Again, thanks for a GREAT star party.
–**Jim, Janet & Dallis Stratton**

*Thanks for a great star party! It was a pleasure to meet you and enjoy the good skies Saturday night. Hope to see many of you at the Tennessee star party in November. –**Scott Smith, Cumberland Astronomical Society (CAS), Gallatin, TN**

*Hello!!!! To FRAC friends, Old and New: I just wanted to take a moment to say what a wonderful time I had at the **Georgia Sky View** Star Party. Mazel Tov to everyone who was in on the planning of this marvelous event. Regardless of the heat, ticks, mosquitos, humidity, etc. – Can you tell I'm a city girl? – I had the most fun! Can't wait until next year.

Oh, and on a personal note: **Steve**, my husband thanks you for encouraging me to purchase the auto-collimator.

Hope to see you all at TNSP! – **Karma Gardner, Cumberland Astronomical Society**

*I had a great time this weekend at the **GSV**, and hope hosting another one this fall will be possible to pull off. I spoke with **Bill Warren** about the possibility of using FDR State Park.

If anyone is interested in any of the books I mentioned in my talk, send me a private e-mail and I will send the list over. -- **Phil Sacco, Master Observer #11**

FRAC Members' Comments

*It was excellent!

I can't say enough about the work **Steve & Dawn** put in, but a hearty thank you will do for starters.

I'd like to say thank you to the club members who were able to come out and help make this a great star party. I spoke to many people this weekend and they all had great things to say about this event. The dedication you all put into helping out this weekend made the event pass smoothly and, to my surprise, almost easily. It made life a little easier knowing that we were surrounded by good help and people who wanted to be problem solvers and doers.

Many times Dawn, Steve and I were asked, "What can I do?" At no point did I ever feel that we had to find someone to help with a particular project. We had ready volunteers standing by all weekend. That was GREAT!

Special thanks are due to the die-hards who broke down the dining hall and cleaned up the field in the wee hours of Sun. morning. That greatly cut down on the amount of work the final cleanup needed.

The ISSP ranger told us that we left the park in fantastic condition and, because of that, they would have less work to do to get ready for the next group using the facility.

A special thanks goes to **Scott** and **Smitty** for coming out to help even while you guys were under the weather. Y'all didn't show it, but I know that the heat we had this weekend must have been a real bear. I appreciate your dedication.

Fantastic job, FRAC! – **Larry Fallin**

*Congratulations, everyone! Our first big star party went off very well and I think it pleased everyone who attended. I know I enjoyed it!

A big pat on the back goes to all who helped, and a big **THANK YOU!** to **Steve & Dawn** for all their hard work organizing the **Ga. Sky View!** – **Smitty**

*I couldn't agree more! I wish I had been feeling better for the weekend. I was there Friday evening and although the weather didn't cooperate it was still an enjoyable time for me. The two speakers I heard on Saturday were great, and I'm sure glad the weather cooperated for Saturday night.

I was proud to be a member of FRAC. Everyone who helped to pull this thing off should be very proud. Very big kudos to **Steve, Dawn** and all who helped. -- **Scott Hammonds**

*While I was there, I spoke with as many non-FRAC visitors as I could. All were pleased with the accommodations, etc. Most had been to Indian Springs before and were glad that someone was keeping a party at this site.

FRAC has a good thing going. **Steve and Dawn** – way to go! Hats off to you. – **Tom Moore**

*I really enjoyed listening to **Phil Sacco** both nights and on Saturday afternoon. That alone was worth the price of admission to me. I also enjoyed listening to **Dr. Schmude** and picking his brain later.

(Stay tuned for next month's blockbuster front page headline: "Is Chuck Sims a Cannibal? –Ed..)

I need to find those books Phil recommended to me.

(Hmm...Recipe books, Chuck? -Ed.)

Overall, I enjoyed myself, although most of my time was spent playing Halo with the kids, including **Larry** and **Steve**...

Thanks for a fun time. – **Chuck Sims**

*This was my first star party, and it was mostly enjoyable. If you didn't hear me moaning about it, my car died at lunch Friday at the Burger King in Jackson, so that was always in the back of my mind. Too, my stomach was bothering me most of the weekend. Despite those distractions, however, I had a really great time. It was probably the first time I've gone camping in over 10 years. I'm already thinking of some things to do differently next time, like camping farther away from **Doug** so I don't have to hear his snide comments about my snoring all weekend. (Just kidding, Doug.)

Steve & Dawn did a great job of getting everything ready and thinking of all sorts of little details to make things go smoother. While I may have a lot of club pride in how well we pulled it off, I think that it could be considered a very smooth and organized event. While I'm not usually a social type, I liked the idea of spreading FRAC people around the field. Steve also answered a ton of questions about the dew system I was building, and in the end it worked great although I still have a few modifications to make.

I had a chance to look briefly at **Smitty's** 'scope. **M4** through his 'scope looked like **M13** through mine. Impressive. And I found myself holding one of **Larry's** Pentax eyepieces for a bit: trying it out in my 'scope showed me how much difference a quality eyepiece can make.

David & Roxanne provided a much-needed service with the biscuits and rolls. Their daughter was a very polite salesperson – a rarity for a teenager!

The speakers were wonderful. **Dr. Schmude's** presentation on **Mars** was interesting, and seeing him "perform" makes me think I'd really enjoy taking one of his astronomy classes. **Phil's** talk was very interesting as well. I wish I had found him on the field later to hear more. **Rod's** talk on SCTs was good as well. I know very little about SCTs, so it was interesting to hear about.

I'd have to say, though, that the highlight for me was presenting the 6" Dob to the little girl who won it in the kids-only drawing. I'm hoping that she makes great use of it. – **Dan Newcombe**

*I was extremely impressed. **Brendon** and I had a wonderful time. Everyone who pitched in to help deserves a big pat on the back! **Steve & Dawn** have the biggest hearts for sacrificing so much of their time to make this event a resounding success. Thanks again, Steve, for repairing the car.

This was the first star party we've ever been to, and probably the best we will ever go to. With the experience FRAC has gained from this event we can only improve on what is already an exemplary star party. Thanks to **Larry** for purchasing the official FRAC plunger, and no thanks to me for being the cause of its being needed.

I hope **Dr. Richard Schmude** will be there next year. The same goes for **Phil Sacco**. I'm sure he will make good use of the green laser pointer that likely will be added to his lecture tools in the near future.

We had great neighbors, too. The guy next to me had never seen the **Ring Nebula** before, and he was very appreciative when I showed it to him. That was just great.

I am going to save up and plan to take the entire family to **GSV 2005** next year. I never knew this event would be so family-oriented. – **David O'Keeffe**

*I want to echo the comments others have already made as to what a great star party we just had. Great thanks to: **Steve & Dawn** for an outstanding job of organizing and executing the event; our club members for supporting **GSV 2004** in every way possible and going the extra mile to make sure the event was in fact a success; and all of our attendees (some of whom came from far away) for making our very first star party a success.

The evening snacks were a lifesaver...

I enjoyed meeting some new folks, spending a little time talking with club members, listening to the speakers, and I'm just glad I was able to be there for our very first star party. Thank you! -- **Felix Luciano**

*Major kudos to **Steve & Dawn** for tirelessly spearheading this event. Hard work and perseverance make the difference at any event, and FRAC's certainly was showing this past weekend. Many hands make for light work, and everyone in attendance seemed willing to help in any way needed, which definitely made it easier for FRAC to look good.

The **GSV #1** speakers were very stimulating. I've never before seen anyone so interesting as to make his listeners put off things like going to the bathroom in order to keep from missing what he will say next, either about mythology or otherwise. I'm referring to **Phil Sacco**, of course. His talks on the field were a major highlight of **GSV**.

Dr. Schmude's and **Rod Mollise's** presentations were also very interesting, and far too short.

Thanks to the **Wards** for the sausage biscuits, etc. They were greatly appreciated by many of us.

A special thanks to **Doug** for letting us use a battery of his when ours died the second night. Some of the best views we saw this weekend were Sat. night through Doug's Dob: the collimation was dead-on and the images tack sharp.

The **GSV #1** was a great experience. The bar FRAC has set for itself is quite high and speaks directly to the caliber of our membership.

I'd also like to mention that being set up on the field next to an 18" Obsession 'scope was both an extreme treat and a great lesson in humility. – **Jamey Jenkins**

*Have you ever been to a star party that ran any smoother? Did anyone hear of any problems, or of anyone who was disgruntled? This event was blessed from start to finish. I am so proud of our club, and I want to thank all of you for everything you did, particularly the ones who were involved in the planning of the event.

We were blessed with a pretty darn fine group of registrants, too. I met as many fine, friendly people this weekend as I've ever met in such a short period of time.

I'm about to go upstairs and shower and pass out.

When I got home I had to go straight back out and over to Peachtree City to work on an air conditioner. A close friend of my wife lost her husband to cancer this weekend, and she had a houseful of people with her when her AC quit cooling. Fortunately, I was able to get it working without too much effort, so I have had yet one more blessing to finish off my perfect weekend.

In a world that's so messed up, everyone needs a weekend like I've just had to remind us that there is hope for humanity, and that there are an awful lot of good, decent, caring, hardworking people in this old world who want to do good things for others and not for their own glorification. I love you guys, and I'm so proud to be a part of it all.

Dang, I'm getting as misty-eyed as I did when the cute little 9-year-old girl won her telescope door prize. Maybe it takes a little sleep deprivation for me to get in touch with my sensitive side... Thank you all.

Hey, **Dan**, sorry for all the snoring jokes, but it was just too much fun to pass up. – **Doug Maxwell**

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ATTACK OF THE MARTIAN MOSQUITOS

article by Steven "Saratoga Smitty" Smith

(Editor's Note: Having first appeared in the May, 1997, issue of the Observer, this article has been reprinted at least three times since then. When you read it, you'll understand why.)

Now that warmer weather is here, mosquitos, redbugs, gnats and other pesky insects aren't far behind. They can turn a potentially great evening of stargazing into an ordeal of annoyance, pain or downright misery. Skywatchers and their guests at springtime and summer observing sessions should begin preparing to combat flying insect pests before heading for the observing site.

Odors attract bugs. Wearing after-shave lotion, cologne, perfume, or any strongly scented powder is an open invitation for insects to inspect the exposed areas of your fair and tender body at point-blank range. Similarly, you might want to consider bathing and changing clothes before going out to observe; by doing so, you will eliminate your "natural" odor that attracts insects and repels friends and observing companions during an evening of warm-weather stargazing.

Shorts, tank-tops and sandals may be comfortable attire for the hot, humid summer months – but you should bear in mind that the temperature drops when the Sun goes down, and dress accordingly. Wear (or at least bring along) a long-sleeved shirt, long pants made of a light, cool material, and shoes or sneakers. Enclosed footwear will protect your toes from rocks and sticks in the darkness, and prevent your feet from getting cold and wet when dew settles on the grass.

Spray your clothes lightly and evenly with insect repellent, but not to the point of saturating your clothing or feeling greasy. Have someone spray vulnerable areas that you cannot reach. Read the application instructions and warnings for your

OBSERVING GALAXIES, Part I

article by **Bill Warren**

repellent, and avoid getting any on your lips or eyelashes, or in your mouth, nose or eyes.

After using insect repellent, wipe your hands thoroughly with a cloth or paper towel before handling your observing equipment. Most repellents contain powerful chemicals that can melt plastic parts in flashlights, Telrad finders, binoculars and telescopes; they can even dissolve the protective anti-reflection coatings on lenses in binoculars, telescopes and eyepieces! You should always avoid touching your lenses with your fingers, of course – but you should also be aware that your eyelashes can foul your eyepiece with harmful amounts of repellent. Eyepiece coatings are so expensive to repair that it's usually cheaper to replace the eyepiece!

Do not use yard spray fogger when you're observing at home, either, for the same reason. I'm not sure what its chemical effects might be on your optical coatings, but I suspect that you might find it expensive to find out.

A final caution regarding insect repellents: if you spray yourself at the observing site, first move downwind and far enough away from other observers that the resulting mist will not reach or settle on your own observing instruments or anyone else's.

Although they may be attractive in your backyard for cookouts or parties, you should avoid the temptation to burn citronella candles or oil lamps in the area where you're observing. First, they constitute a fire hazard; second, the light from even a red-shielded flame will adversely affect your night vision; and third, burning such items fills the air with small waxy, greasy particles, some of which are bound to find their way onto the optics of your observing instruments.

Keeping your optics clean for good light delivery to your eye is very important – but that's a subject for another article. Until then, keep an eye out for those Martian mosquitos, and for those june bugs from the Whirlpool Galaxy. Word has it that they are using cloaking devices to hide their approach, and the repellents we're currently using to stop them are as useless as a Telrad with dead batteries!

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Perhaps nothing in observational astronomy is as overrated as galaxies, at least, where beginning stargazers are concerned.

Think back to your first eyepiece view of **M31, Andromeda Galaxy**, and be honest: were you *impressed*, or *disappointed*?

M31 is impressive when you consider that the image you're seeing represents the collective light emissions of 300 billion stars, and that that light has taken 2.2 million years to reach you. Still...

Show M31 to a child, and his or her response is invariable: "Where's **Saturn**?"

To the more-than-casual observer, though – and that includes **you** if you know your way to Cox Field – galaxies offer a broad array of observable features to look for. Not all of those features are always present, nor are they always easy to spot, given the faint light we receive from island universes located millions of light-years from us.

And what might those observable features of galaxies include?

1. Cores. Not every galaxy contains an observable core. Some galaxies are evenly bright (or faint) throughout.

When present, cores are seen as a large or small area of brightly concentrated light within a larger, outer *halo* that defines the galaxy's overall size.

Cores generally are located near the center of the galaxy, although sometimes they are off-set. Cores may be round, oval, or broadly elongated along a galaxy's major or minor axis. Galaxies with unusually bright cores are referred to as **Seyfert galaxies**, after the American astronomer, **Carl Seyfert**, who first studied and classified them.

2. Halos. Halos are the observable portions of galaxies beyond their central cores. By definition, then, halos are hazy and nebulous, at least, when compared to galactic cores.

3. Nuclei. Not every galaxy has an observable

nucleus. When present, a galactic nucleus resembles a star at the center of a core or halo. (So how, you might ask, do you know it's not a star overlying the galaxy from our vantage point in space? Hey, that's one of the reasons why I bought Kepple & Sanner's **Night Sky Observer's Guide!**)

A galactic nucleus is commonly referred to as a "stellar nucleus." There also exists what is known as a "sub-stellar nucleus", but I wouldn't recognize one if it fell on me.

4. Spiral Arms. Spiral arms normally are rather difficult to see except in large 'scopes. The American astronomer **Edwin Hubble**, who was the first person to classify galaxies, classified spiral galaxies primarily on the basis of how tightly or loosely wound the spiral arms are arranged. Probably the most observable spiral arms for amateur telescopes belong to **M51, The Whirlpool Galaxy**, in *Canes Venatici*.

5. Bars. Barred spiral galaxies display (in large telescopes or photos, anyway) bars of light extending through their centers to the spiral arms. Bars are much more difficult to see than spiral arms are. **M91** and **M109** are two examples of barred spiral galaxies.

6. Dust Lanes. Some elongated edge-on galaxies (e.g., **M104, the Sombrero Galaxy** in *Virgo*) feature dark lanes bisecting their major axis; these areas are composed of interstellar dust and other obscuring matter that lies between the galaxy and us.

The best dust lane for amateur telescopes – in my opinion, at least – belongs to **NGC 5128 (Centaurus A)** in – you guessed it, **Doug!** – the constellation *Centaurus*. This peculiar galaxy and radio source looks like a Wendy's double hamburger with buns above and below a thick burger. Seeing it is enough to French fry your brain and give you the shakes.

Two other well-known examples of galaxies containing dust lanes are **M64, the Black Eye Galaxy** in *Canes Venatici* and **NGC 4565** in *Coma Berenices*.

7. Variations in Brightness. Some galaxies appear evenly bright throughout, or else their brightness may diminish evenly or rapidly away from their centers and toward their edges. Some edges are

nicely defined, while others may be diffuse or simply fade away to nothing.

Other galaxies, however, display less uniform variations in brightness for any of a number of reasons.

Mottling. While some galaxies are smoothly textured like the still surface of a lake, others such as the peculiar galaxy **M82** in *Ursa Major* have a mottled, or grainy appearance.

Globular Clusters, Stellar Associations and H II regions. In large telescopes, familiar galaxies such as **M31, M33** and **M101** reveal numerous "knots" of light, some of which are large and bright enough to have their own NGC classification numbers even though they are part of the larger galaxy. These knots may be: **globular clusters** – astrophotos of M31 show at least 28 globulars, most of which are far too small and faint to be seen except in large amateur 'scopes; **stellar (OB) associations**, of hot, massive stars; or **H II regions** of ionized gas. **Rich Jakiel** wrote, "In telescopes of 16 inches or larger, M33 can be visually overwhelming, with two dozen or more knots visible, 15 of which have NGC (New General Catalog) or IC (Index Catalog) designations" (*FRAC Observer*, Aug., 1997, pp. 5-6).

That's good news for **Smitty** and his 16" 'scope. For the rest of us – well, if you happen to see a few faint little knots of light in large face-on galaxies, at least now you'll have some idea of what they might be.

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