

THE FLINT RIVER OBSERVER

Newsletter of the Flint River Astronomy Club
Vol. 6, No. 11 December, 2002

Officers: President/Treasurer, **Steve Knight**, sdknight@bellsouth.net; Vice President, **Larry Fallin**: lbfj@mindspring.com; Secretary, **Dawn Knight** (see above); Board of Directors: **David Ward**: dward@flintriverastronomy.org; **Steven (Smitty) Smith**; **Doug Maxwell**: dougmax1@bellsouth.net; and **Felix Luciano**: Montbo2@yahoo.com. Newsletter editor/ observing chairman, **Bill Warren**: warren1212@mindspring.com; Webmaster, **David Ward** (see above); Alcor/Librarian, **Tom Moore**: tmoore@dfiequipment.com; Event Photographer, **Doug Maxwell** (see above). Public Observing Liaison, **Felix Luciano** (see above). 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** if you have a change of address, telephone no. or e-mail provider.

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Club Calendar. Fri.-Sat., Nov. 29-30: Cox Field observings, at dark; **Fri.-Sat., Dec. 6-7:** Cox Field observings, at dark; **Thu., Dec. 12:** FRAC meeting/Christmas party (Griffin Buffalo's Cafe, 7:00); **Fri.-Sat., Dec. 27-28:** Cox Field observings, at dark.

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President's Message. If I thought I could do it, I'd relocate FRAC to Chiefland. Its dark skies, friendly people and overall peacefulness just make you want to stay.

Eight FRAC members attended the **Chiefland (Fl.) Star Party**. **Dawn** and I stayed the whole week, and wanted more. Other attendees included **Cory & Grady Dukes, Larry Fallin, Scott Hammond, Bill Warren** and **Smitty**. Dawn won a door prize, a LED flashlight. Overall, the skies weren't as good as last year, but with a limiting magnitude of 6.4 on Thursday night you couldn't have convinced Bill that it gets much better than that. Dawn & I *will* be there at their Spring Picnic weekend in April. And the star party next November? You can bet we'll go, and stay as long as we can. You need to start making plan for those events *now*, so you can join us.

If you have an e-mail address, please read the following *very* carefully and respond promptly: **Starting with the Jan. issue of the *Observer*, we'll be sending out the newsletter by e-mail to those who have an e-mail address. This move will result in substantial savings to the club in mailing expenses, but is by no means mandatory on your part. If you prefer to continue receiving the *Observer* by regular (snail) mail, please let me or Bill Warren know no later than December 15th.** Otherwise, you'll receive the *Observer* by e-mail starting in January. (Incidentally, be sure to notify us promptly regarding any change in your e-mail address, so you won't miss any newsletters along the way.)

As you'll recall, we recently revised FRAC's bylaws to change officer terms of office to one-year terms and expand our officer list to include 3-4 Board Members to serve in advisory roles. **Bill Warren** has already announced that this will be his last term of office in FRAC, so the vice presidency will be open, too.

Officer elections will be held at the Feb. meeting. (We'll tell you next month how to register your vote if you can't attend the meeting.) **If you'd like to run for any office in FRAC in 2003** – President, Vice President, Secretary, Treasurer or Board Member – the best way for you to proceed is to (a) decide exactly which position you'd like to run for and (b) make your wishes known to me or Bill as soon as possible. (Our home and e-mail addresses and phone numbers are listed on p. 1.) And just in case some members might not know you, you might want to

write a paragraph or two about yourself to be included in the Jan. newsletter. Just tell who you are, what office you'd like to be considered for, and why you think you should be elected. (Don't worry if you aren't a skilled writer: Bill edits everything I write for the *Observer*, too. He'll do you right.)

Of course, you don't have to write anything unless you want to. If you do, the deadline for Bill to receive items for the newsletter is the 20th of every month, or **Dec. 20th** in this case.

Finally, our **December meeting** will be held at the Griffin **Buffalo's Café**, on Hwy. 16, located in front of the Home Depot store. It will be a combination Christmas party/meeting on **Thurs., Dec. 12th at 7:00 p.m.** As has been the case in the past, we'll have some great door prizes to give away.

Anyway, here's to the future, may your skies be clear, temperatures mild and optics clean. Merry Christmas and Happy New Year.

-Steve Knight

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Last Month's Meeting/Activities. We had 11 members – **Smitty, Steve & Dawn Knight, Doug Maxwell, Bill Snyder, Larry Fallin, Tom Moore, Felix Luciano, David Ward, Louise Warren** and yr. **editor** – and one guest, **Curt Cole** of Brooks, at our November meeting. Our program topic, "FRAC's Second Year," covered the period from Feb. '99 through Jan. '99. Larry Fallin won the door prize.

Grady & Cory Dukes, Smitty, Larry Fallin, Dawn & Steve, Scott Hammond and yr. **editor** represented FRAC at the **Chiefland (FL) Star Party**.

Meanwhile, **Dan Newcombe** describes his observing experiences at Cox Field that weekend:

"Well, I was all alone last night (when) ... I got there at 10:30. It was an eerie feeling driving down the field and seeing no red lights to guide me. I kept expecting to see Dobs suddenly springing up in my parking lights.

"It was not too bad, but there was a lot of moisture in the air. Being out all alone was kinda fun, but there was no one to ask, 'Is that thing supposed to have any discernible shape?' I finally found that I got much better results by walking to the edge of the strip and

just staring at the cotton: it looked about the same, just brighter."

Yr. editor was at Cox Field on the morning of Nov. 19th to watch the Leonids display, along with **David & Cherrie O'Keeffe** and visitors **Jason Goodall, George Cleary, Kel Parrish** and **Victoria Cline**. I counted exactly 100 meteors between 4-6 a.m., although there may have been maybe 25-50 others that were so faint that I wasn't sure I'd seen anything at all, esp. along the edges of my peripheral vision. Lots of bright ones. Most of them traveled 2-3 degrees or less before vanishing. Several meteors, bright and faint, were by far the briefest I've ever encountered, blinking on and off like fireflies on the move. I didn't see any sporadic meteors at all. (For more reactions to the Leonids, see p. 3)

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Membership Renewals Due in December: Carl, Patti & Josh McKinney; Terry & Michael Parks; and Bud Sosebee. Please send your check for \$12 payable to either Steve Knight or FRAC c/o Steve's address listed in the upper left hand portion of p. 1.

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Upcoming Meetings/Activities. For whomever might be free to come out and observe during the holiday season, we'll have Cox Field observings on **Fri.-Sat., Nov. 29th-30th** (Thanksgiving weekend), **Fri.-Sat., Dec. 6th-7th** (the new moon is on the 4th), and **Fri.-Sat., Dec. 27th-28th** (five days before the new moon, which means that we'll also have observings on **Fri.-Sat., Jan. 3rd-4th**).

Our club meeting/Christmas party will be at **7:00 p.m. on Thur., Dec. 12th**, at the Griffin **Buffalo's Café**. (Got that, **Dave**?) To get there from, say, Jonesboro, come S on Hwy. 19/41 past the Griffin Hardee's and McDonald's, through the Hwy. 362 (Fayetteville) stoplight at McIntosh Rd., over the RR overpass, and take the Griffin exit just beyond it. Follow that road through the stoplight at Ellis Rd. and go up the long hill to the Hwy. 16 intersection and stoplight with Wendy's on the right. Turn right on Hwy. 16, and just past Mrs. Winner's on the right you'll see Buffalo's, with Home Depot and Office

Max behind it. Turn right just before you get to Bruster's, and park in Buffalo's parking lot.

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This 'n That. Starship Saratoga, relaying message via subspace frequencies to FRAC from Starfleet: "Your last FRAC newsletter transmission received at Starfleet. In section called "Smitty's Snippets," the author of the book *STAR TREK: I'm Working On That* was incorrectly listed twice as "Richard Shatner." It is actually *William* Shatner. I know the author well, and I'm sure it would please him if you would remember this. (Signed) Admiral James T. Kirk, Starfleet Command." (*Editor's response: Sorry 'bout that, Admiral. I guess what threw me off was those long, pointy ears of yours.*)

*From **David Ward**, our Webmaster: "**Tom Moore** (our club librarian) has provided me with a listing of the publications – books and magazines – in the FRAC library; I've posted that list to a new area of the club website. Check it out and let me know what you think.

"Thanks, Tom, for doing a great job!"

***Warren's Warning**. "Having finally gotten to spend a couple of nights stargazing under the legendary dark skies of Chiefland, call me a **Monkee** because *I'm A Believer!* **Steve** and **Larry** weren't exaggerating. Compared to Chiefland, Cox Field is lit up like a Kroger parking lot at night. And I'm not belittling Cox Field here, either, since I earned 11 of my 13 observing pins at Cox Field. Chiefland is just a whole new ballgame.

"Still...If you ever go to Chiefland – and you owe it to yourself to do so if you're serious about stargazing – you'll do well to remember **Warren's Warning**: *Try to spend at least three nights down there*, because **sensory overload** comes with the territory. You'll see so many more stars than you're used to seeing that it takes awhile to get used to it.

"Incredible skies. Low horizons in all directions, with only marginal – and manageable – sky glow. Huge telescopes dotting the landscape. Great door prizes, and lots of 'em. More friendly, likeable people

than you'll find anywhere outside a FRAC observing at Cox Field.

"I can't wait to go back next spring."

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FRAC and the Leonids Meteor Storm

***Dan Newcombe**. "Set my alarm for 4:15. Didn't notice it was for 4:15 *p.m.* *DUH!!!*"

***Chris Thompson**. "OK, I got myself up, it looks really cloudy and the Moon is making a pretty sheen of light on the clouds. I am staying up to check on the sky but I don't think I will drive down to Cox Field if it stays like this. Maybe 2094 will be clearer, heh heh heh!"

***Larry Fallin**. "Got up at 4 a.m., and it was socked in. Couldn't even see the Moon. Got up again at 5:15 a.m. The clouds were thin and a giant sucker hole opened up over Leo, plus a few open streaks across the SE sky. Leo was very close to zenith, so meteors were traveling in all directions. We watched for about 20 minutes, and saw about 25-30 meteors, including two exceptionally bright ones (one of which we saw through the clouds)! It was waaayyyy cool!"

***David O'Keeffe**. "I agree it was not as good as last year's (storm), but the brighter meteors were spectacular. It was cool to see the vapor trails swirl in the upper atmosphere. Red ones, green ones. One exploded with a big flash! I estimated 90-100, or maybe more, from 4:30 a.m. to 6 a.m. It was hard to count the 3-5 that shot at the same time. Cox Field had some nice breaks in the clouds. **Cherrie, Jason, George** and I loved it!..."

"I even saw one in the blue sky just before sunrise when I got home."

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Of Mukluks and Messiers

article by Steven "Saratoga Smitty" Smith

(Editor's Note: This article, reprinted from the Jan. 1999 issue of the Observer, offers abundant tips on how to stay warm during wintertime observing. It is one of the most popular and important articles ever to appear in the Observer.)

Winter skies are a treat for me. The view of the heavens at night is usually crystal-clear and rock-steady. Such conditions seldom occur during the warmer months because moisture in the air degrades the seeing.

Oh baby, it's cold outside! Have you ever wondered how soldiers in foxholes or sailors at sea cope with frigid temperatures? They stay warm by trapping air in pockets around them and insulating their bodies from the outside air.

Long underwear, boots, gloves, etc., are made with materials such as Thinsulate, but even they need some help in keeping us toasty warm. Standing next to your 8" Dob for 2-3 hours at night in the dead of winter can be like standing artillery duty in Korea at Christmas. Astronomers viewing the universe and military personnel standing watch tend not to move around very much. When we're inactive, our bodies do not generate enough warmth to replace the heat that is lost to the outside air; we need to cover our bodies in layers, including head, trunk, hands and feet, in order to minimize our heat loss.

Long underwear is the first layer. Wear the bottom *and* the top, or a one-piece union suit, in either case with an undershirt or tee shirt beneath it. Next, put on a sweatshirt, thermal shirt or sweater. (I prefer a sweatshirt with a hood.) Wear heavy pants such as jeans, and not polyesters. Better yet, wear a pair of bib overalls. You'll feel like a farmer, but the overalls will help to trap the air around your torso.

Now that you're dressed in a fair amount of layers, you may think your favorite winter coat will keep you warm. It may, but there's a better way. The ideal final topping in your winter ensemble is a pair of one-piece, insulated coveralls. I call them *walking sleeping bags*, and have slept out under the stars in mine numerous times. Made with tough cotton outer shells or lightweight nylon outers, they are known familiarly as coveralls, hunting suits or snowmobile suits. They come in colors ranging from camouflage

to day-glo orange. I prefer the more rugged cotton or brown duck outer type because it's more durable.

A good selection of insulated overalls can be found in the Sears Workwear catalog. You can also find them in K-Mart, Wal-Mart and Army-Navy surplus stores. Every major city has such stores; if you're looking for cold weather gear, a trip to one of them definitely should be on your agenda.

With the major portions of your body covered with at least 3 layers of insulated clothing, you shouldn't expect any admiring glances from the opposite sex because, in all seriousness, you'll look like a waist gunner in a B-17 bomber flying on a mission to Berlin. So now that the major areas are protected let's progress to the extremities, starting at the top.

We lose an enormous amount of heat from our heads. Many people don't like to wear hats, and others say that it's not their head that's cold, it's their hands and feet. While their feeling is correct, their reasoning is faulty. Your metabolism is designed to keep your 2 most important organs, your heart and brain, warm and functional. When you're cold, your circulatory system pumps warm blood to your head to keep your brain working. An uncovered head functions as a radiator, giving up heat to the cold air!

It's somewhat like a game of chess, and your body is a pretty smart player. It's not too concerned about your toes or feet being cold because, like pawns, they are important but expendable. Protecting the brain (i.e., the king) is what wins the match; lose the king and you lose the whole shebang. Even if your head isn't cold, you should wear head protection so the blood-borne warmth that your brain doesn't need will circulate to other parts of your body rather than being lost to the air around you.

When it's chilly, you'll see me wearing a wool knit hat; when it's cold, I'll have the hood of my sweatshirt pulled down over my hat. At frigid temperatures, I wear 2 knit hats. And at the temperature at which French-Canadian fur trappers might appear on the observing field I'll put on a balaclava, or knit face mask, under everything else.

Wearing winter gloves while observing creates problems in turning the pages of your favorite atlas or manipulating eyepieces, focusers, and especially set screws. When it's really cold, I wear glove liners –

thin gloves that are worn inside the regular gloves and can usually be found in Army-Navy stores or motorcycle shops. I wear those liners under a pair of snowmobile-type mittens. (Leather gloves, while providing warmth, are too stiff to work effectively.) When I have to pull off the mittens to change eyepieces, the glove liners keep my hands away from direct contact with the cold air and my fingers can grasp and function reasonably well.

The hardest part of the body to keep warm in wintertime is your feet: they're the farthest extremities from your heart, and your footwear is in direct contact with the cold ground. Wet feet get cold quickly, so a good pair of insulated leather or rubber boots is important when walking around in dew-laden grass or snow.

Leather insulated boots can be purchased for as little as \$30, but they should have insulated toes. Look closely before you buy. Insulated leather boots should be treated with preservative or else water will soak through the leather.

Rubber insulated boots are usually made with rubber lowers and cloth or nylon from the ankle up. They usually have a removable insulated liner and are similar in design to Eskimo mukluks. Such boots can be purchased for around \$30.

Some excellent boots of both types can be found in the \$90-\$150 price range, but unless you're spending a lot of time in the cold a less expensive pair will keep your feet comfortably dry. A cheap pair of insulated work or hunting boots beats a pair of sneakers that absorb moisture, no matter what they cost! Expensive boots of better quality and comfort will probably keep your toes and feet a little warmer. Still, it doesn't matter whether your feet are clad in first class or economy, there are benefits to be gained from layering your clothing here, too.

First, remember that wet feet are cold feet, and apply powder liberally to your feet to help keep them dry. Put on a pair of thin socks, and then a pair of the thickest wool hunting socks you can buy. This is the minimum you should wear to keep your feet warm and dry. Purchase a pair of Dr. Scholl's "Double Air Pillo" cushioned insoles; they're twice as thick as regular insoles, and they'll add another layer of insulation between your feet and the soles of your

boots. If your boots have removable liners, insert the insoles under the liners.

You may have known someone who has tried to cram 6-8 inches of insulation into a 3-1/2" wall space in his home, expecting to insulate it better. Well, it doesn't work that way because insulation is just material that keeps the air from moving and being lost. Trapping air is what keeps our houses and our bodies warm.

With extra layers of clothing and insoles trapping the air around your feet, don't expect your size 10 feet to be comfortable in size 10 boots. The fit will be too tight, and you'll wind up squeezing the warm air right out of your boots. When purchasing insulated boots, buy them at least one full size larger than the size that fits. You may feel like you're wearing Bozo the Clown shoes, but you'll have extra room to wear another pair or two of socks. I have a second pair of boots that is 2 sizes larger than I need, leaving room for me to put a couple of chemical heat packs in the toes!

To recap: The best way to insulate your body from the cold lies in trapping air in layers. Try to dress with thin layers at the skin and gradually build thicker layers outward. My recommendations are flexible, and you can add or change anything you wish, such as more shirts, hooded coveralls, neck warmers, thinsulate socks, etc. But don't depend on anything by itself to keep you warm; build boundary layers. A loose fit is important: you'll want to be able to bend over and move easily, and be able to maneuver in the restroom, too!

Winter has a large number of easy-to-find Messier objects; it is, therefore, a good time for you to start earning your Messier certificate. It's a great time for binocular observing, too. When you see me out at Cox Field this winter, I'll be the farmer on the observing field who looks like he just parachuted out of a B-17 bomber, wearing clown shoes and letting a group of fur trappers look through his telescope.

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Why did not somebody teach me the constellations, and make me at home in the starry

heavens, which are always overhead, and which I
don't know to this day?

-Thomas Carlyle, 1795-1891

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