

The Flint River Observer

Newsletter of the Flint River Astronomy Club

December 2006

Vol 10 No 10

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Webmaster: **David Ward** Webmaster (see above);
Club Librarian: **Curt Cole** (see above);
Event Photographer: **Doug Maxwell** (see above)

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Discussion group: FRAC@yahoogroups.com

Please notify **Steve Knight** if you have a change of address, telephone number and or new e-mail address.

President's Message: I believe FRAC is made up of very good people so I've passed the word on to Santa to bring all members some astro goodies for Christmas. Hope I've not been so mischievous that he won't grant my wish for you!

Thanks to all those who have helped make this an enjoyable club to be in. I especially want to thank all those who have taken on responsibility within the club by accepting elected and appointed positions. In all small organizations the work load often falls to a small core of people, many of them taking on positions year after year. That dedication is what keeps the club going. I also want to encourage those who haven't held such a position in the club to volunteer for one. Start with an easy one (none of them are difficult or time-consuming.) You'll find the current list of FRAC jobs as a file in the FRAC-a Yahoo Group.

Thanks also to those who have presented a program at a FRAC meeting. We all enjoy them and they're important to attract and retain new members. Thanks to everyone who helped out at GSV 2006. By all accounts it was a very rewarding star party. We all owe a great debt of thanks to **Steve** and **Dawn** for doing practically all of the work involved in organizing the event. Thanks again to all who participated in the new club events that we've tried this year, including the field trip and Christmas parades. I imagine all the visitors who came out to our public observings would want me to thank those of you who helped out with those observings. After 2 years or more as Public Observing Liason **Felix** had to step out of that position recently but he was a great help in this outreach program. The reactions from many of the kids (and some

of the adults) indicated they got a lot out of the experience. That made it worth our sacrificing an evening now and then.

So on behalf of the Flint River Astronomy Club, **Irene** and I hope all of you have a very good holiday season. Merry Christmas.

Club observing dates: December 16, 22 & 23 Cox Field

Club Calendar: December 15, 7:00 PM, Club Christmas Party, Griffin Hong Kong II Restaurant. (1440 North Expressway. 770.233.1122 North end of Griffin on east side of Hwy 19/41. Across from IHOP. Several hundred yards south of intersection of 19/41 and 92/McIntosh Rd.)

November Meeting Minutes: **Smitty** ran the meeting in lieu of **Curt's** absence. We discussed the Astronomy Day/GSV conflict. Pending input from Steve K. (coordinator for both events) it was recommended that since we are not "locked in" to holding Astronomy Day on it's specified date, we would hold ours before or after GSV. It was explained that we need to raise the membership rates by \$5.00 for those who wish to receive a hardcopy of the club newsletter, in order to cover rising postage costs and encourage people to get their newsletter by e-mail. This will reduce the burden on those who have to mail out the newsletter each month. No objections were raised. Bill's presentation on globular clusters was good - **Steve Bentley** made the comment "That's the reason I joined this club!" as he is a visual observer and the Macon club near him is more photo/imaging oriented. Attending were: **Bill Warren, Larry Higgins, Doyne Tallman, Steve & Betty Bentley, Charles & Erica Anstey** and **Smitty**.

December Meeting: No club meeting will be held on the usual 2nd Thursday. Instead, we will meet Friday (seafood night!) at Hong Kong II for the party. No business to speak of will be discussed there, just have a good time. It's an opportunity to get the non-observing spouse, kids, boyfriend/girlfriend, etc. out to a club function to show them we don't all wear white lab coats and are capable of talking about something other than astronomy. We will have numerous door prizes to give away.

Public Observings: The Fairburn school observing was cancelled due to weather issues. No others scheduled at this time.

Member Profile: **Tom Danei** and his wife **Brit** of McDonough joined our club this summer. **Tom's** a Texan from San Antonio and Corpus Christi who moved to the Atlanta area in 1984. He earned a Bachelor of Arts, majoring in communication, then worked as a television producer/director and **Brit** is a scriptwriter. **Brit** has a mild interest in astronomy. They have five kids, all grown.

Asked at what age he got his first scope, **Tom** replied: *"I became involved with Astronomy when I was twelve years old. It was Christmas; I remember receiving my first telescope from Mom and Dad. It was a four-inch Dob with a blue paint job. What a beauty! Since that day, astronomy became one of my passions. Much later, for some unknown reason, astronomy faded and I became involved with other pursuits.*

Looking back on it now, I feel it was living in a heavily light polluted city. One day, some ten years ago, we moved to the less congested and light polluted small town of LaGrange, Georgia. That first night out, I was walking with my wife and happened to look up. I could see stars! Something I hadn't been able to do for years! The next day, I used the "web" to find the closest astronomy club to my area and later joined. Today, astronomy takes up to 50 to 75 percent of my time, depending on the weather and "honey dos". Professionally, I've worked as a Managing or Executive Television Producer/Director for various government agencies. Also, I've had my own television production company under the name of Danei Productions, Inc., now known as DPI."

Tom considers himself at an intermediate level of the hobby and his latest scopes are Williams Optics 80mm & 132mm refractors. He hasn't worked on any AL observing pins yet but hopes to soon. He also is gearing up to do some astro-imaging. Besides astronomy, **Tom's** interests include canoeing, art, walking & hiking, birding, biking, reading and photography.

Astronomy Highlights for December

Dec 10 – "Jupiter, Mercury and Mars are gathered in a tight bunch (only about 1 degree wide) deep in the glare of sunrise." *Nightsky* magazine, Nov/Dec 2006, page 15.

Dec 14 – Geminid Meteor Shower

Dec 21 – December solstice, winter beginnings in the Northern Hemisphere

Dec 22 – "Catch Venus beginning to emerge low...about 30 minutes after sundown. Venus glimmers more than a fist-width at arm's length to the Moon's lower right." *Nightsky* magazine, Nov/Dec 2006, page 15.

Astronomy News



Martian Devils

by Dr. Tony Phillips

Admit it. Whenever you see a new picture of Mars beamed back by Spirit or Opportunity, you scan the rocks to check for things peeking out of the shadows. A pair of quivering green antennas, perhaps, or a little furry creature crouched on five legs...? Looking for Martians is such a guilty pleasure.

Well, you can imagine the thrill in 2004 when scientists were checking some of those pictures and they *did* see something leap out. It skittered across the rocky floor of

Gusev Crater and quickly disappeared. But it wasn't a Martian; Spirit had photographed a dust devil!

Dust devils are tornadoes of dust. On a planet like Mars which is literally covered with dust, and where it never rains, dust devils are an important form of weather. Some Martian dust devils grow almost as tall as Mt. Everest, and researchers suspect they're crackling with static electricity—a form of "Martian lightning."

NASA is keen to learn more. How strong are the winds? Do dust devils carry a charge? When does "devil season" begin—and end? Astronauts are going to want to know the answers before they set foot on the red planet.

The problem is, these dusty twisters can be devilishly difficult to catch. Most images of Martian dust devils have been taken by accident, while the rovers were looking for other things. This catch-as-catch-can approach limits what researchers can learn.

No more! The two rovers have just gotten a boost of artificial intelligence to help them recognize and photograph dust devils. It comes in the form of new software, uploaded in July and activated in September 2006.

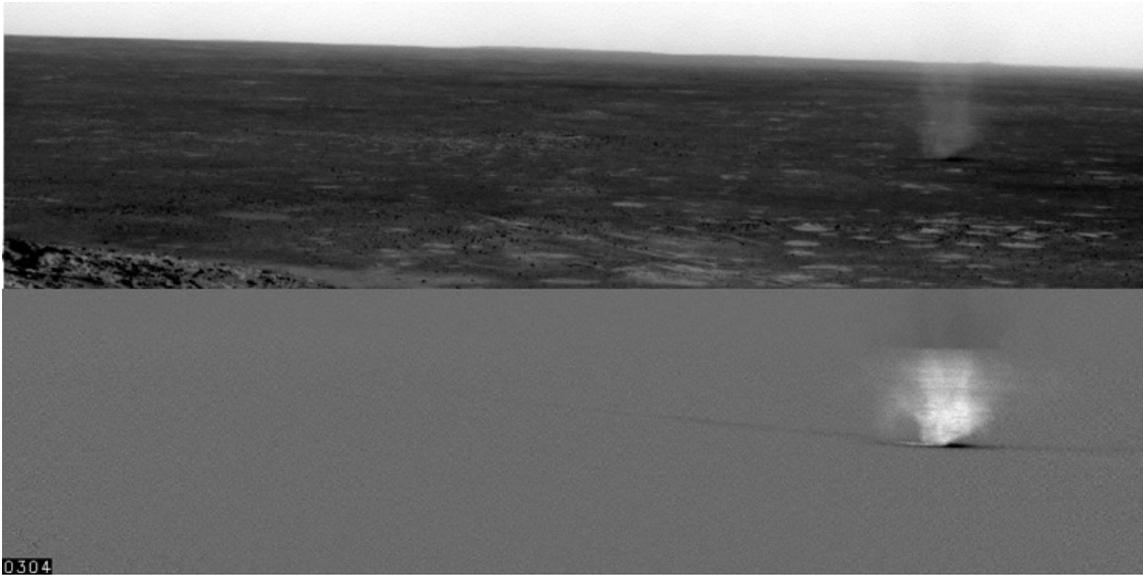
"This software is based on techniques developed and tested as part of the NASA New Millennium Program's Space Technology 6 project. Testing was done in Earth orbit onboard the EO-1 (Earth Observing-1) satellite," says Steve Chien, supervisor of JPL's Artificial Intelligence Group. Scientists using EO-1 data were especially interested in dynamic events such as volcanoes erupting or sea ice breaking apart. So Chien and colleagues programmed the satellite to notice change. It worked beautifully: "We measured a 100-fold increase in science results for transient events."

Now that the techniques have been tested in Earth orbit, they are ready to help Spirit and Opportunity catch dust devils—or anything else that moves—on Mars.

"If we saw Martians, that would be great," laughs Chien. Even scientists have their guilty pleasures.

Find out more about the Space Technology 6 "Autonomous Sciencecraft" technology experiment at nmp.nasa.gov/st6/TECHNOLOGY/sciencecraft_tech.html, and the use of the technology on the Mars Rovers at nmp.nasa.gov/TECHNOLOGY/infusion.html. Kids can visit spaceplace.nasa.gov/en/kids/nmp_action.shtml and do a New Millennium Program-like test at home to see if a familiar material would work well in space

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 top half of this image is part of a series of images of a passing dust devil on Mars caught by Spirit. In the bottom half, the image has been filtered to remove everything that did not change from one image to the other. Notice the faint track left by the dust devil. Credit NASA/JPL/Mark T. Lemmon, Univ. of Arizona Lunar and Planetary Laboratory.

December

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
					1	2
3	4 First Qtr Moon	5	6	7	8	9
10	11	12 Last Qtr Moon	13	14 Geminid Meteor Shower AM	15 Christmas Party, 7:00 PM, Hong Kong II, Griffin	16 Cox Field Observing
17	18	19	20 New Moon	21 Winter Solstice	22 Cox Field Observing	23 Cox Field Observing
24	25 Merry Christmas!	26	27 First Qtr Moon	28	29	30
31 Happy New Year						

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