

# The Flint River Observer

## Newsletter of the Flint River Astronomy Club

April 2006

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

### President's Message:

Thanks for your vote of confidence in electing me FRAC president for 2006. Some of my qualifications for holding the office in FRAC include holding most elected and appointed positions in a caving club and a sailing club, including president, treasurer, newsletter editor, etc. Having been in numerous other clubs I've seen that there are many different ways to run them. One constant is that every member needs to feel that his/her voice counts. And since we all have different priorities and desires, it's important that everyone speaks up to let the leadership know what they want out of the club, what's right with the club, and what's wrong. If you see an organizational problem or perceive a personal slight, the problem can't be addressed if you aren't willing to talk to people about what's bugging you. Other people may feel the same way as you. Communication is a two-way street. So if there's a problem, please let me know about it. I know of no one being kicked out of the club, so the door is always open to any past members who want to rejoin or just attend meetings.

As far as my plans for the club, I don't foresee any major changes since we've got a pretty good club as is. But there's always room for improvement. I'll set out three goals to achieve before my term is up next March. 1. Increase membership at least 35% from the April '06 level. 2. Improve the utility and looks of the club's web site, to include keeping it updated. 3. Increase attendance at meetings and observing sessions, and not just for primary members, but for spouses and kids as well.

I also want to thank the folks who have held, and those who continue to hold, club positions, both elected and appointed. Much of a club's work goes underappreciated. It takes a good bit of volunteerism to keep any club going, and there are always a few people that take on more than their fair share of work. I want particularly to thank outgoing president Steve Knight. He had a considerable burden on him last year getting the club through some turbulence and at the same time organizing and carrying out a last-minute GSV. A lot of weaker people would've thrown in the towel. Another person who does a lot more work than we realize is Dawn Knight. Treasurer is her official title but she does much more. I've been bringing up ideas or asking if this or that is being done, only to find out Dawn is already taking care of it. She is an important and integral part of GSV's success. Smitty, David, Felix, Doug, thanks! All of you are more knowledgeable than me about astronomy, so I'll concentrate on the business end of the club, and count on the membership to let me know if I start heading down the wrong road. After all, it's your club!

**Club Calendar:** March 31 - April 1; April 13, Club Meeting, UGA Campus; April 20 - 23, GSV 2006; April 28 - 29, Cox Field Observing

**Membership Renewals:** All renewals were due during the month of February.

**April Meeting:** We will discuss the upcoming GSV. We hope to have samples or pictures of the t-shirts. We will have sign up list for the different jobs. We will finish ironing out any details and will discuss any foreseeable problems, etc.

**Calendar of Events:** April 1, The Moon moves in front of the Pleiades; March 31-April 2, Tennessee Spring Star Party, Fall creek Falls State Park

#### **Club Notes:**

- March 4, the club hosted a family of seven home-schooled children and their parents for a night of observing at Cox field. The following members were at Cox field that evening and assisted with the observing (huge thanks to all), in no particular order, Curt, Dan, Chuck, Charles, Dawn & Steve and Felix (who organized the event). Dawn handed out copies of Night Sky magazine and sky charts to navigate the skies. We were able to show them craters on the Moon, Saturn, several Open Clusters and the Eskimo Nebula. The family was most grateful for our time and having them over during our monthly club observing.

- The club has joined the NASA Space Place and we are receiving astronomical news and happenings from a NASA/JPL source for publishing in the newsletter. That should be enhancing our newsletter and keeping us more up to date on current events. We might publish the newsletter with photos. If that is a burden for you receiving an electronic copy of the newsletter via dial up let me/us know.

-We also had a great club turnout for the Girl Scouts observing. There were 162 girls and adults present with 11 club members and one guest. The members

included Doug, Matt, Chuck, Charles Anstey, Smitty & Littler Smitty (Josh), David, Brendon & Sara O'Keeffe, and Steve & Dawn.

Smitty's mailwoman also came out with her new scope and learned a little about the sky and her scope. The weather held out long enough for the girls to see the moon, some got to see Saturn and a few saw some other things before the clouds completely took over. All in all it was a great event and we look forward to having more great events with them in the future.

## **Member Profile for April**

Since some of you may be curious about the new FRAC president, I thought that I might as well feature myself, Curt Cole, in this month's member profile.

I'm a native-born Texan, but have been in the Atlanta area since the age of ten. After high school, I enlisted for a two-year hitch in the Army, spending a year in Korea in an artillery unit. Two years of college after that, but I dropped out to work with my Dad in the sandblasting and painting business. I'm currently working on a business of my own doing commercial and residential painting. Have a wonderful wife, Irene, but no kids. Built my home in Hampton and lived there for almost 20 years now.

As for hobbies, for years I've been interested in astronomy, and joined the Atlanta Astronomy Club in Jan. '98, going to my first star party that spring, at Camp McIntosh. But I didn't have a scope! Bought my first binocular at age 14 and a cheap spyglass a little later. I used them years later to view Comet Halley. These were my observing tools 'til I joined FRAC in 2003. Then I got an Orion 10" Dob. I may arguably be past the beginner stage now but I'm still a pretty casual observer. Besides astronomy, I do hiking, camping, canoeing (have both whitewater and flatwater boats), motorboating, photography, lots of traveling, including a two-month trip to Alaska 10 years ago. I've been to all 50 states, most of Canada, and a couple trips to Europe. Used to go caving a good bit, though not so much any more. My Goldwing is gathering dust with mechanical problems, but I used to ride motorcycles a lot. I soloed in gliders and powered planes as a teenager, but money ran short so I never got my pilot's license. Used to sail, used to SCUBA dive, and still snow ski every year or two. I find the world a fascinating place with lots of interesting things to try. Jack of all trades, master of none!

## **Astronomy News:**



NASA Space Place Column

**Moving a Mountain of a Dish** by Patrick L. Barry

Your first reaction: "That's impossible!" How on earth could someone simply *pick up* one of NASA's giant Deep Space Network (DSN) antennas—a colossal steel dish 12 stories high and 112 feet across that weighs more than 800,000 pounds—move it about 80 yards, and delicately set it down again?



Yet that's exactly what NASA engineers recently did. One of the DSN dishes near Madrid, Spain, needed to be moved to a new pad. And it had to be done gingerly; the dish is a sensitive scientific instrument full of delicate electronics. Banging it around would not do.

"It was a heck of a challenge," says Benjamin Saldua, the structural engineer at JPL who was in charge of the move. "But thanks to some very careful planning, we pulled it off without a problem!"

The Deep Space Network enables NASA to communicate with probes exploring the solar system. Because Earth is constantly rotating, a single antenna on the ground can communicate with a probe for only part of the day, when the probe is overhead. By placing large dishes at three locations around the planet—Madrid, California, and Australia—NASA can maintain contact with spacecraft around the clock.

To move the Madrid dish, NASA called in a company from the Netherlands named Mammoet, which specializes in moving massive objects. (Mammoet is the Dutch word for "mammoth.")

On a clear day (bad weather might blow the dish over!), they began to slowly lift the dish. Hydraulic jacks at all four corners gradually raised the entire dish to a height of about 4.5 feet. Then Mammoet engineers positioned specialized crawlers under each corner. Each crawler looks like a mix between a flatbed trailer and a centipede: a flat, load-bearing surface supported by 24 wheels on 12 independently rotating axes, giving each crawler a maximum load of 194 tons!

One engineer took the master joystick and steered the whole package in its slow crawl to the new pad, never exceeding the glacial speed of 3 feet per minute. The four crawlers automatically stayed aligned with each other, and their independently suspended wheels compensated for unevenness in the ground.

Placement on the new pad had to be perfect, and the alignment was tested with a laser. To position the dish, believe it or not, Mammoet engineers simply followed a length of string tied to the pad's center pivot where the dish was gently lowered.

It worked. So much for "impossible."

Find out more about the DSN at <http://deepspace.jpl.nasa.gov/dsn/> . Kids can learn about the amazing DSN antennas and make their own "Super Sound Cone" at The Space Place, <http://spaceplace.nasa.gov/en/kids/tmodact.shtml>

# April

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
						<b>1</b> Moon in front of The Pleiades Cox Field Observing
<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b> First Qtr Moon	<b>6</b>	<b>7</b>	<b>8</b>
<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b> Club Meeting Full Moon	<b>14</b>	<b>15</b>
<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b> Last Qtr Moon GSV 2006	<b>21</b> GSV 2006	<b>22</b> GSV 2006
<b>23</b> GSV 2006	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b> New Moon	<b>28</b> Cox Field Observing	<b>29</b> Cox Field Observing
<b>30</b>						

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