

# The Flint River Observer

## Newsletter of the Flint River Astronomy Club

January 2007

Vol. 10 No 11

**Officers:** President, **Curt Cole:** [24e29d55c@speedfactory.net](mailto:24e29d55c@speedfactory.net)  
Vice President, **Steven (Smitty) Smith:** [Saratoga@flintriverastronomy.org](mailto:Saratoga@flintriverastronomy.org)  
Secretary, **Doug Maxwell:** [doug@flintriverastronomy.org](mailto:doug@flintriverastronomy.org)  
Treasurer, **Steve Knight:** [saknight1@comcast.net](mailto:saknight1@comcast.net)  
Board of Directors: **David Ward:** [dward@flintriverastronomy.org](mailto:dward@flintriverastronomy.org) **John Wallace:** [JWCOSMOS@att.net](mailto:JWCOSMOS@att.net) and **Matt McEwen:** [mbmcewen@bellsouth.net](mailto:mbmcewen@bellsouth.net)  
Public Observing Liaison: **Curt Cole** (see above)  
Webmaster: **David Ward** Webmaster (see above);  
Club Librarian: **Curt Cole** (see above);  
Event Photographer: **Doug Maxwell** (see above)

Club mailing address: 190 West James Circle, Hampton, GA 30228  
Web page: [www.flintriverastronomy.org](http://www.flintriverastronomy.org)  
Discussion group: [FRAC@yahoogroups.com](mailto: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:** Every leader has his/her own style and mine is to perform my presidential duties in as open a manner as possible so that each member has a say and everyone knows how their money is being spent. But not everyone is interested in hearing every detail so this year I plan to handle more business behind the scenes rather than at the club meetings. The meetings will be used more for fun and learning and less for business. I'll use the board and other elected members to help make decisions and then post the details on the FRAC-a Yahoo Group. As always, I not only welcome diversified opinions but request them. Tell me if you like my decisions or dislike them. It's your club!

**Larry Higgins** has volunteered to take the Observing Chair, effective immediately, and I'm confident he'll do a great job of coordinating the club observings, including Public Observings.

On behalf of the membership I want to thank all those who presented programs in 2006. Please let me know what programs you'd like to have, and please volunteer to present one. It doesn't have to be anything fancy or lengthy. Everyone has some knowledge that is worth sharing with the rest of the club.

Effective with the February newsletter, **Bill Warren** will be the newsletter editor. **Bill** has done a great job in the past with the newsletter and we look forward to reading **Bill's** brand of humor and his informative articles again.

**January meeting:** The program will be "Proper Cleaning Methods for Eye Pieces" by **Felix**. Minimal business to be discussed. Accepting nominations/volunteers for elective/appointed positions for March election.

**Club observing dates:** January 19 & 20, Cox Field.

**Club Calendar:** January 11, 7:30 PM, Club Meeting, UGA campus, Griffin. January 20, tour of Star Instruments telescope mirror plant in Newnan. February 1, membership dues are due. Mail your \$15 to Steve Knight. February 28, 2006 memberships expire.

**December Minutes:** Attendees at Xmas party/meeting: **Charles, Lisa, Erica & Jeffrey Anstey, Steve & Betty Bentley, Curt & Irene Cole, Tom & Brit Danei, Steve Knight, Felix Luciano, "Smitty" & Deborah Smith**. No business was discussed except to announce that no mailing fee will be instituted now. The FRAC Board had approved the fee but Bill Warren has graciously offered to not only print, collate, staple, and mail the newsletters, but to pay for the stamps as well. This is the kind of dedication and selflessness that keeps a club going. Several other club members that we're aware of donated money in 2006 totaling over \$150. But obviously there's a limit to what any one person can or will or should do to go above his/her share of the responsibility, so anything a member can do to ease the burden on those who take an active part in the club is always appreciated.

**FRAC Christmas Party:** Had a good turnout for the FRAC Christmas party at Hong Kong II, Griffin, Friday night, December 15. No urgent business to attend to so it was just eating from the seafood buffet and afterward drawing for the \$125 worth of door prizes. That was a higher amount than normal or planned but some of it was donated. We stopped giving out small door prizes each month to allow us to give away more at the Xmas party and at the club's birthday party. The top prize was the book *Astronomy Hacks* by Robert and Barbara Thompson. **Erica Anstey** received a prize for completing her Sky Puppy Club. **Smitty** won the award for "Most FRAC Meetings Attended" with 8 appearances, starting with the April meeting. He will receive a \$10.00 gift certificate for a purchase from Sky Publishing's catalog. **Curt & Irene** (who recused themselves from the contest) had 7 each. **Steve Knight** had 6 appearances, and **Charles Anstey** attended 5 times.

The award for most attendances at FRAC observings was a tie between **Charles Anstey, Tom Danei**, and **Bill Warren** with 5 each, counting from mid-July. This number was based on the cooperation Curt received. If he wasn't present at Cox Field, he relied on those who were to report it. A random drawing among these three will be held at the January meeting to determine who receives the \$10 gift certificate. These two awards were unofficial contests that Curt instituted and funded. It's up to the membership to decide whether or not to repeat it and fund it this year.

**Public Observings:** None scheduled this month.

**Member Profile:** We start the New Year by profiling long-time member **John B. Wallace, Jr.** He joined the club only a month or so after its founding in 1997. He was raised in Griffin and lived there pretty much all his life but he and wife **Heidi** have just moved to Athens. He graduated from the University of Georgia with a BA in history. **John** spent over 30 years working in contracting, budgeting and finance for the Ga. Dept. of Labor. Now an intermediate observer, his first scope, an Orion 8" Dob was acquired at age 54. He's still using it to work down the Herschel 400 list, having spotted nearly 140 of 'em so far. **John** has earned numerous Astronomical League pins, including Messier, Binocular Messier, Deep Sky Binocular and Double Stars. He also served as FRAC's AL Correspondent and is on the FRAC Board of Directors. When not studying the sky, you might find him out hunting turkeys in the spring or trout fishing.

### **Astronomy Highlights for January**

Jan. 14 – "Jupiter is left of the Moon at dawn. Closer to Jupiter's lower right is Antares." *night sky* magazine, Jan/Feb 2007, page 10

Jan. 18 – New Moon

Jan. 25 – First Quarter Moon

Feb. 2 – Full Moon

### **Constellation of the Month: Andromeda**

The tale of Andromeda is one of the most famous Greek myths. The beautiful Princess was chained to a rock by her royal father, Cepheus, as a sacrifice to appease the avenging sea monster, Cetus. The hero of this story, Perseus, slew the monster and married Andromeda. Adjacent constellations represent all the characters in this myth: her parents Cepheus and Cassiopeia, her rescuer, Perseus, and the sea monster, Cetus. (From an excellent book, *The Night Sky Observer's Guide*, by George Robert Kepple and Glen W. Sanner)

---

From another popular book we recommend, *A Guide to Skywatching*, by David Levy, page 132-133:

Andromeda is one of the earliest constellations to have been named and the mythology surrounding it is a rich and varied one, including the stories behind several other star groups.

The Great Andromeda Galaxy (M31): The closest major galaxy closes to us, the Andromeda Galaxy was first thought to be a nebula, and was listed in comet hunter Charles Messier's eighteenth-century catalogue of nebulae. A spiral galaxy much like our own Milky Way, it is a maelstrom comprising 200 billion suns and clouds of dust and gas. It is bright enough to be seen with binoculars from city sites and with

the naked eye beneath a dark sky, being one of the most distant objects visible to the unaided eye. In the field of larger binoculars, or using a small telescope, you can see its two neighboring elliptical galaxies. **M32** is a small and compact; **M110** is larger and more diffuse, and therefore harder to see.

Gamma Andromeda: This is a beautiful double star. The brighter member of the pair is a golden yellow, and its companion is greenish blue.

NGC 752: This open cluster lies about 5 degrees south of Gamma ( $\gamma$ ) Andromedae and is easy to find because of its relatively bright stars. Because it is spread out over such a large area, it is actually easier to see through binoculars than through a telescope. If using a telescope, use it at its lowest power.

NGC 891: This galaxy is a challenge even for 6 inch (150mm) telescopes. However, with good eyes and a dark sky, you will see one of the best examples of a spiral galaxy, viewed edge-on.

#### **READ IN ASTRONOMY MAGAZINE BLOG:**

Astronomy Magazine Blog, November 2006. **Please join me in welcoming Stephen James O'Meara to the *Astronomy* magazine community. Beginning with the March 2007 issue**, Steve will share with you his impressive observational expertise in a new, exclusive, monthly column. A celebrated observer, writer, and naturalist, Steve is well known for being the first, in 1985, to visually recover Halley's Comet. Our whole staff is proud and excited to have this legendary observer as a regular contributor to our pages.

*Astronomy* also looks to increase our amount of product reviews and coverage. Starting in January, Astronomy.com will feature a new series of telescope and equipment reviews, available online to anyone who loves the stars. This new series of reviews will highlight the latest, best equipment hitting the market from a wide variety of companies. While you can continue to look forward to telescope and equipment reviews in the magazine, the online reviews will keep you up to date on the latest must-have observing aids and gadgets."

#### **Astronomy News**



## **Space Weather for Air Travelers**

By Dr. Tony Phillips

At a time when much of the airline industry is struggling, one type of air travel is doing remarkably well: polar flights. In 1999, United Airlines made just twelve trips

over the Arctic. By 2005, the number of flights had grown to 1,402. Other airlines report similar growth.

The reason for the increase is commerce. Business is booming along Asia's Pacific Rim, and business travel is booming with it. On our spherical Earth, the shortest distance from Chicago to Beijing or New York to Tokyo is over the North Pole. Suddenly, business travelers are spending a lot of time in the Arctic.

With these new routes, however, comes a new concern: space weather.

"Solar storms have a big effect on polar regions of our planet," explains Steve Hill of NOAA's Space Weather Prediction Center in Boulder, Colorado. Everyone knows about the Northern Lights, but there's more to it than that: "When airplanes fly over the poles during solar storms, they can experience radio blackouts, navigation errors and computer reboots—all caused by space radiation."

In 2005, United Airlines reported dozens of flights diverted from polar routes by nasty space weather. Delays ranged from 8 minutes to nearly 4 hours, and each unplanned detour burned expensive fuel. Money isn't the only concern: Pilots and flight attendants who fly too often over the poles could absorb more radiation than is healthy. "This is an area of active research—figuring out how much exposure is safe for flight crews," says Hill. "Clearly, less is better."

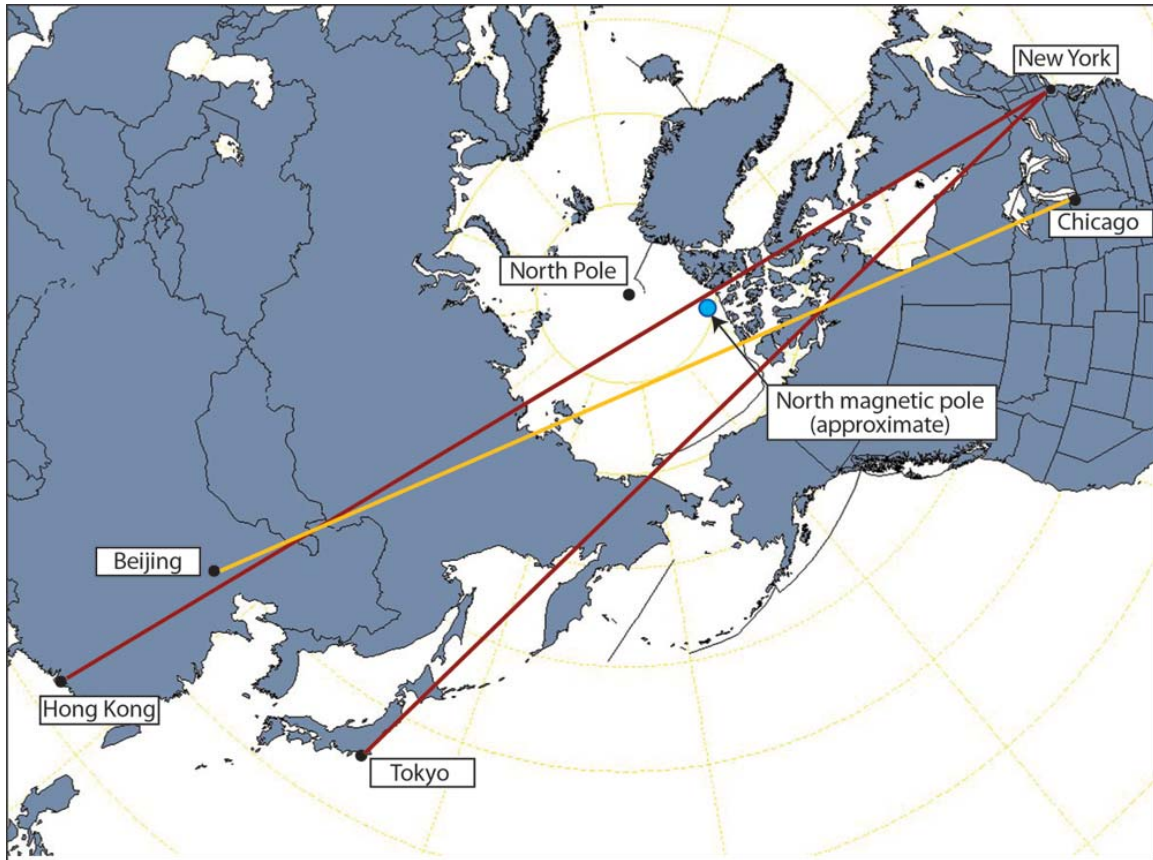
To help airlines avoid bad space weather, NOAA has begun equipping its GOES weather satellites with improved instruments to monitor the Sun. Recent additions to the fleet, GOES 12 and 13, carry X-ray telescopes that take spectacular pictures of sunspots, solar flares, and coronal holes spewing streams of solar wind in our direction. Other GOES sensors detect solar protons swarming around our planet, raising alarms when radiation levels become dangerous.

"Our next-generation satellite will be even better," says Hill. Slated for launch in 2014, GOES-R will be able to photograph the Sun through several different X-ray and ultra-violet filters. Each filter reveals a somewhat different layer of the Sun's explosive atmosphere—a boon to forecasters. Also, advanced sensors will alert ground controllers to a variety of dangerous particles near Earth, including solar protons, heavy ions and galactic cosmic rays.

"GOES-R should substantially improve our space weather forecasts," says Hill. That means friendlier skies on your future trips to Tokyo.

For the latest space weather report, visit the website of the Space Weather Prediction Center at <http://www.sec.noaa.gov/> . For more about the GOES-R series spacecraft, see [http://goespoes.gsfc.nasa.gov/goes/spacecraft/r\\_spacecraft.html](http://goespoes.gsfc.nasa.gov/goes/spacecraft/r_spacecraft.html) . For help in explaining geostationary orbits to kids—or anyone else—visit The Space Place at [http://spaceplace.nasa.gov/en/kids/goes/goes\\_poes\\_orbits.shtml](http://spaceplace.nasa.gov/en/kids/goes/goes_poes_orbits.shtml) .

*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 shortest airline routes from the Eastern U.S. to popular destinations in Asia go very near the magnetic North Pole, where space weather is of greatest concern.*

# January

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
	<b>1</b> Happy New Year!	<b>2</b>	<b>3</b> Full Moon	<b>4</b>	<b>5</b>	<b>6</b>
<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b> Club Meeting, 7:30 PM, UGA Last Qtr Moon	<b>12</b>	<b>13</b>
<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b> New Moon	<b>19</b> Cox Field Observing	<b>20</b> Telescope mirror plant tour, Newnan Cox Field Observing
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b> First Qtr Moon	<b>26</b>	<b>27</b>
<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>			

2007