

The Flint River Observer

Newsletter of the Flint River Astronomy Club

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Officers: President, **Curt Cole:** 24e29d55c@speedfactory.net
Vice President, **Steven (Smitty) Smith:** Saratoga@flintriverastronomy.org
Secretary, **Doug Maxwell:** doug@flintriverastronomy.org
Treasurer, **Steve Knight:** sdknight@flintriverastronomy.org
Board of Directors: **David Ward:** dward@flintriverastronomy.org **John Wallace:** JWCOSMOS@att.net and Matt McEwen mbmcewen@bellsouth.net:
Public Observing Liaison: **Felix Luciano:** felix.luciano@flintriverastronomy.org
Webmaster: **David Ward** Webmaster (see above);
Club Librarian: **Curt Cole:** 24e29d55c@speedfactory.net
Event Photographer: **Doug Maxwell** (see above)
Newsletter Composer: **Felix Luciano** (see above)
Newsletter Editor: **Chuck Sims** cssims1022@yahoo.com

Club mailing address: 190 West James Circle, Hampton, GA 30228.

Web page: www.flintriverastronomy.org

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:

Recently, after a day of some white water paddling on Georgia's rhododendron-lined Cartecay R., I camped at Carter's Lake, ready to rest my scrawny muscles and hopefully enjoy the dark sky that night. As I lay in my hammock late that afternoon on a hilltop overlooking the lake, I read some of *Meditations of John Muir: Nature's Temple*. The book is a compilation of quotations of the famous outdoorsman, garnered from his various writings.

One selection that struck a chord with me was titled *On and On into Infinite Mystery*. He wrote about his observation of how small animals such as birds, gnats, flies, etc. can overcome the obstacles that face them, or as he put it, "...the vicissitudes of the weather and hosts of enemies, and come forth in full vigor and perfection to enjoy the sunny world." The passage ended with a line that caught my attention as an amateur astronomer— "When we think of the small creatures that are visible, we are led to think of many that are smaller still and lead us on and on into infinite mystery."

I sometimes catch myself observing the brighter objects in the night sky and ignoring the dull, more distant or not so pretty ones, typically very small and dim—kinda like a gnat. But just as the gnat must fight against enormous odds, think of the obstacles that the light from that distant object had to overcome to reach my eye! In the first place, the star had to coalesce out of the great "emptiness" of

space, quite a feat in itself considering the individual particles of dust, gas, asteroids, etc. that have been floating around for billions of years, waiting to partner up with enough mates to amount to something. Then the tiny little photons had to make it past all the aforesaid junk, to make it uninterrupted to my eye. All things great and small, including we humans, have obstacles to overcome. If we keep banging away at it, we can overcome obstacles to shine brightly in the end.

The Hubble telescope has solved some mysteries for us, but has (think of the deep field images) opened even more. Think about the worlds that may be orbiting about or within these tiny points of dim light. What mysteries do they hold? As we look deeper into the sky, the world and even the people that surround us, we are led "...on and on into infinite mystery."

Club Calendar: Thursday, July 13, 7:30 p.m., Club Meeting at UGA campus, Griffin: **Thurs. - Sat., July 20-22**, Association of Lunar & Planetary Observers conference, Fernbank Science Center, Atlanta.

Calendar of Events: Mercury some 9° degrees from Saturn (look below and to the right); Saturn is low in the West skies and is low in the horizon after 10:30 PM; Jupiter shines bright by evening twilight; Venus still rules as the "morning star"; July 10 Full Moon; July 17 Last Quarter Moon; July 25 New Moon; early morning July 28 the Delta Aquarids meteor shower takes place (no Moon means black skies to enjoy the meteor shower)

Cox Field Club Observings: Fridays & Saturdays, July 21 & 22; July 28 & 29.

June Meeting: Last month we had 6 visitors—the most in a long time. They were: the **Hardeman family** from Hampton, and **Steve and Betty Bentley** of Forsyth (from MGAS.) The **Bentleys** sent in their FRAC membership dues a few days later. They seem to be good folks so we welcome them to the club. Members attending were **Steve Knight, Steven "Smitty" Smith, Chuck Sims, Charles, Erica & Jeffrey Anstey**, and **Curt & Irene Cole**. The Coles, Anstey's & Smitty ate at Maria's afterward.

Business discussed included a motion by **Smitty** to donate some money to the man who runs the Clear Sky Clock. Figures were kicked around & it was decided to donate \$25 this year with the intent, but no formal commitment, to donate \$15/year in the future. **Dawn** has stepped down as treasurer & **Curt** appointed **Steve Knight** to fulfill **Dawn's** term. (She remains a member.) The subject of door prizes was discussed. We will probably reduce the frequency of giving door prizes so we can increase the value of each prize. GSV 2007 & Astronomy Day 2007 were briefly discussed. **Steve Knight** agreed to be Astronomy Day Coordinator. Curt has distributed club flyers at several locations including libraries. The June 3 astro class for Fayette Co. Rec. Dept. went well although only 4 people signed up for the class (3 showed up). **Steve Knight** helped **Curt** with it. **Charles** has been doing astrophotography and showed some very nice photos of Jupiter, a star cluster, a nebula and Andromeda. **Steve Knight** gave an excellent program about eyepieces.

July meeting: No urgent business to discuss so should be a fairly short meeting. The program will be a brief introduction by Curt to some Native American star myths. We'll then head over to Maria's Mexican Restaurant.

Public Observings: The public observing for the Cub Scouts at Providence United Methodist Church on Bernhard Rd., South of Fayetteville, took place Thursday night, June 22. At least 27 kids were there with an estimated 15 parents. Clouds kept anything but Jupiter and several stars from being observed. The kids seemed to go home happy though. Scoutmaster John Dorney was working on building an 8" Odyssey scope from a kit. FRAC members attending were **Matt McEwen, David O'keefe** and daughter, and **Curt Cole**.

Member Profile: Charles Anstey

Charles Anstey is one of at least 4 Ph.D.s in FRAC. (With luck, some of their schooling will rub off on the rest of us!) He's approaching 40 and has a wife Lisa, and a young son and daughter. The latter has completed her work for the Sky Puppy pin. He's been in the Atlanta area for about 8 years and lives in Newnan.

Charles grew up in Vermont in a family interested in the outdoors. At about age 8, he took quickly to cross country skiing, as well as a little down hill thrown in to round out his skills. He and his father did some canoe camping in the Adirondacks and Canada. He got his first scope, a drugstore refractor, at about age 6. To earn money, he raked leaves during the famous New England autumn. Once he had some dough saved up he had to choose between a baseball glove and a scope. The scope won out and he's had his head turned to the sky ever since. He considers himself an intermediate observer and currently has a CGE 1100 (an 11" SCT.) which he acquired about a year and a half ago. Charles also recently bought an advanced astro camera and is learning the ropes on it. Photos he and his dad brought to a recent meeting indicate he'll do excellent work with it. The skies around Atlanta aren't the best so he sometimes drives down to the Conecuh National Forest, near the Alabama/Florida line, to image. He's been a member of FRAC since 2005.

He got his electrical degrees, a Bachelor and then straight to a Ph. D., from Clarkson University in New York. He now makes his living as a software developer.

When he's not working on lines of code or playing with computers, he and the family like to explore the outdoors. They do a good bit of camping and hiking, lately roaming the hills of North Georgia.

Other hobbies include home theater and pinball. They have 4 pinball machines and the whole family competes on them. Charles is an interesting guy and worth getting to know. Say hi to him when you get a chance.

FRAC Online Communication:

FRAC has 5 Yahoo groups for discussion and communication. Usage of the groups is free to the club and to you, all one needs to do is create a Yahoo i.d. You do not need to use or sign up for any of the other features such as YahooMail, Yahoo Messenger, etc. Please note that for most of these groups you will have to apply and be approved for membership - this lets us keep only FRAC members in the membership groups and also keeps spammers out of the open groups.

<http://groups.yahoo.com/group/FRAC>

This is our original and main group. Membership is open to anyone and what is discussed here is open for the general public. We have a lot of links, photos, and files. The photos section is almost full, please post your new pics in the FRAC-a group. *Don't forget to check here for any upcoming *public observings*. (Ed.)

<http://groups.yahoo.com/group/FRAC-a>

Membership is limited to FRAC members only. Here we can post messages and discuss items internal to FRAC and it's members. This is also an overflow from our main FRAC Yahoo group for posting additional photos, files, etc.

<http://groups.yahoo.com/group/FRAC-2>

This is a special use group. Used for FRAC officers, board members, committees, planning, etc.

<http://groups.yahoo.com/group/FRAC-GSV>

Discussion group for past and future Georgia Sky View star parties. Membership is open to anyone and what is discussed here is open for the general public.

<http://groups.yahoo.com/group/gsvdiscussion>

Discussion group for Georgia Sky View star party. Membership is limited to FRAC members for planning and discussing ideas and problems of the GSV.

Astronomy News:

Making some last-minute vacation plans, or getting a jump on planning next year's trip? Check out this National Park Service web site. The NPS has what is called the Night Sky Team which has been measuring the sky brightness, or light pollution, at parks around the nation. They have come up with a list of the ten darkest parks and the only park in the east that makes the list is Cape Hatteras National Seashore, North Carolina. The closest park on that list is Big Bend Nat. Pk., Texas, which ranks second darkest behind Capitol Reef in Utah. The complete list is found in a New York Times article at

<http://query.nytimes.com/gst/fullpage.html?res=9C04E1D7163FF93AA35756C0A9659C8B63&sec=travel&pagewanted=3>

A good Park Service site about Natural Lightscapes (no artificial lighting) as they call it is at <http://www2.nature.nps.gov/air/lightscapes/index.cfm>

Additional info:

<http://www.nps.gov/cany/nature/nightskyteam.htm>

<http://www.nps.gov/cany/pdfs/NightSky2003.pdf> (For our dial up fans, this is a 2.5mb PDF)



NASA Space Place Column

From Thunderstorms to Solar Storms...

by Patrick L. Barry

When severe weather occurs, there's a world of difference for people on the ground between a storm that's overhead and one that's several kilometers away. Yet current geostationary weather satellites can be as much as 3 km off in pinpointing the true locations of storms.

A new generation of weather satellites will boost this accuracy by 2 to 4 times. The first in this new installment of NOAA's Geostationary Operational Environmental Satellites series, called GOES-N, was launched May 24 by NASA and Boeing for NOAA (National Oceanic and Atmospheric Administration). (A new polar-orbiting weather satellite, NOAA-18, was launched May 2005.)

Along with better accuracy at pinpointing storms, GOES-N sports a raft of improvements that will enhance our ability to monitor the weather—both normal, atmospheric weather and “space weather.”

“Satellites eventually wear out or get low on fuel, so we've got to launch new weather satellites every few years if we want to keep up the continuous eye on weather that NOAA has maintained for more than 30 years now,” says Thomas Wrublewski, liaison officer for NOAA at NASA's Goddard Space Flight Center.

Currently, GOES-N is in a “parking” orbit at 90° west longitude over the equator. For the next 6 months it will remain there while NASA thoroughly tests all its systems. If all goes well, it will someday replace one of the two active GOES satellites—either the eastern satellite (75°W) or the western one (135°W), depending on the condition of those satellites at the time.

Unlike all previous GOES satellites, GOES-N carries star trackers aboard to precisely determine its orientation in space. Also for the first time, the storm-tracking instruments have been mounted to an “optical bench,” which is a very stable platform that resists thermal warping. These two improvements will let scientists say with 2 to 4 times greater accuracy exactly where storms are located.

Also, X-ray images of the Sun taken by GOES-N will be about twice as sharp as

before. The new Solar X-ray Imager (SXI) will also automatically identify solar flares as they happen, instead of waiting for a scientist on the ground to analyze the images. Flares affect space weather, triggering geomagnetic storms that can damage communications satellites and even knock out city power grids. The improved imaging and detection of solar flares by GOES-N will allow for earlier warnings.

So for thunderstorms and solar storms alike, GOES-N will be an even sharper eye in the sky.

Find out more about GOES-N at goespoes.gsfc.nasa.gov/goes. Also, for young people, the SciJinks Weather Laboratory at scijinks.nasa.gov now includes a printable booklet titled "How Do You Make a Weather Satellite?" Just click on Technology.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



Caption:

New GOES-N satellite launches, carrying an imaging radiometer, an atmospheric sounder, and a collection of other space environment monitoring instruments.

July

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
						1
2	3 First Qtr Moon	4	5	6	7	8
9	10 Full Moon	11	12	13 Club Meeting	14	15
16	17 Last Qtr Moon	18	19	20	21 Cox Field	22 Cox Field
23	24	25 New Moon	26	27	28 Delta Aquarid Meteor Shower; Cox Field	29 Cox Field
30	31					

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