
RIVER BEND ASTRONOMY CLUB

NEWSLETTER * July 21, 2003

> NEXT MEETING

The next club meeting will be:

Field trip to Greenville College Observatory

Friday
August 1, 2003
Meet at the Kronk's
7:00 PM

(If the weather is bad, a decision will be made by
6:00 p.m. Friday to try again on Saturday, August 2.)

A convoy will leave from the Kronk's. Jamie strongly suggests
that you follow and not try making the way yourself.
Here's the route Jamie recommends:

From Gary's house, go to I70 East.
Take I70 E to exit 36, the Pocahontas exit.
At the end of the ramp, turn left on Poke road.
Take Poke Rd North to 140 (about 5 miles)
Go Right on 140 and take it to 127.
Go Left on 127 for about a mile and turn right on Hazel Dell road.
(across the street from a large dairy farm)
Go about a mile and turn left on Ayres road.
Take Ayres road 1 1/2 miles until you see the observatory
(roll-off-roof, cinder-block building) on the right.

> PRESENT AND ACCOUNTED FOR

The following persons attended the July meeting:

- Mike Veath
- Kurt Sleeter
- Jamie Goggin
- Mark Brown
- George Roethemeyer
- Mark Young

Gary Kronk
Eric Young
Jace Perham
Deb Wagner
Lois Butler

We were delighted to welcome two prospective members, Deb Wagner and Lois Butler. It was an unusual and welcome change to have ladies present. Therefore, cussing and spitting were kept at a minimum.

Deb said she's always been interested in star-gazing. She bought a small scope for a closer look at the "faint fuzzies," as she calls them. Deb writes computer training courses, so she speaks the same language as many of us in the club. (Binary code, that is.) Deb got Lois interested in astronomy. Lois is employed as an OB nurse at Anderson Hospital along with Karen Kronk, Gary's wife. Perhaps Lois will enjoy studying the Orion Nebula and other stellar "nurseries..."

Please add Deb and Lois to your e-mail lists:

Deb Wagner
debwagner@starbend.net

Lois Butler
lbutler@starbend.net

> BRAINIAC

Mark Brown has been named adjunct astronomy instructor at McKendree College. He'll be instructing up to 30 students. (That's beats talking down to them.) These will be fortunate folks if they absorb even a fraction of Mark's enthusiasm for the subject.

> IN THE NEWS

A local newspaper reporter wants to do a story on the club and amateur astronomy. He and Mark have arranged for a meeting at St. Jacob Park on Wednesday, July 23rd at 8pm for the interview and pictures of scopes/equipment.

Mark says, "If you'd like to contribute to this interview and you can make the drive, c'mon out and join us. It sounds like a good plug for the club and a chance for RBAC members to put in their two cents worth about why amateur astronomy is so important."

Contact Mark for more information.

> FILTHY RICH

Club Treasurer Ed Cunnius, reporting from his temporary office atop Cerro Tololo peak, Chile, stated flatly that we're broke. Seriously, though, he intends to mail invoices soon in order to fund his next junket to observatories of the Hawaiian islands.

> CLEARLY

It's been a dry July following one of the wettest June's ever and club members were treated to clear skies the night of the 11th. The moon, double stars, and Ring Nebula were among the evening's prize targets. I enjoyed the sky tour provided by Mike Veath's ETX until it began automatically slewing to several Messier objects located behind a neighbor's bathroom window.

> SPEAKING OF MESSIER

The king of France called him the "Comet Ferret." Amateur astronomers know him as compiler of the list of sky targets that provides something of a rite of passage for new star-hoppers. A member asked, how is this French named pronounced? If you're observing...then say Messy-AY. If Kurt's eating a double crust pizza, with extra cheese, then believe me, it's messy-er.

> SPEAKING OF KURT

A squirrel living in Kurt's attic has been apprehended.

> MARS BECKONS

What's big and bright and red all night? This year offers the ideal opposition of Mars. It will be more favorably placed for the next month or so than any time before in recorded history. Members discussed the significance of this event and how best to observe it. Mars presents a challenge for amateurs--but our efforts are often rewarded with views of a world of dark "continents" and polar ice caps that looks a lot like a mirror held up to Earth. (Minus the blue oceans,

of course. But then again, scientists tell us Mars once had those, too...) Get your telescope trained on Mars. Enjoy its spectacle using your highest magnification or just with your unaided eye. What did the ancients think whenever this blood-red "wanderer" grew more menacing every two years...?

> PUTTING SHIRTS ON OUR BACKS

George found a source for club shirts. I will study his catalogs and make a recommendation to the club as to color and style. Shirts embroidered with the club logo could add a touch of class to our next public event.

> ARMCHAIR ASTRONOMERS WANT TO KNOW

What magazine is better--Astronomy or Sky & Telescope? Members offered various opinions. Both magazines print a wealth of information. S&T is a little more in-depth... Astronomy was recently redesigned. Try them both. If five or more members want to subscribe to either we can get it at a discount. Treasurer Ed can set it up.

> CALLING ALL COMET FERRETS

Jamie mentioned the new Astronomical League Comet Observing award--could be just the thing when some bright comets swing our way. League observing programs are fun and help focus your observing efforts.

> MESSY-YAY

We discussed the notion of having a Messier marathon next spring. Members vetoed my plan to run the ETX'S on auto (see bathroom problem above.)

> SLEEPING UNDER THE STARS

Jamie will tent camp and barbecue at this year's Astrofest. Astronomy gatherings such as this, held around the country, are great opportunities to observe, meet people and buy equipment at reasonable prices.

> IMPROVE YOUR VOCABULARY

(This from Merriam-Webster's "Word of the Day.")

canicular \kuh-NIK-yuh-lur\ adjective
: of or relating to the dog days of summer

Example sentence:

My canicular cravings are few, but they are irresistible:
a cold drink, a soft hammock, and a good read.

Did you know?

The Latin word "canicula," meaning "small dog," is the diminutive form of "canis," the word that ultimately gives us the English word "canine." "Canicula" was also the name for Sirius, the star that represents the hound of the hunter Orion in the constellation named for that Roman mythological figure. Because the first visible rising of Sirius occurs during the summer, the hot sultry days that occur from early July to early September came to be called "dies caniculares," or as we know them in English, "the dog days."

> IMPROVE YOUR VOCABULARY SOME MORE

The Word of the Day for July 20 is:

gibbous \JIH-bus\ adjective
1 a : marked by convexity or swelling *b _of the moon or a planet_ : seen with more than half but not all of the apparent disk illuminated
2 : having a hump : humpbacked

Example sentence:

Though nights had been cloudy for most of the previous week, we knew that tonight's gibbous moon, with its hump on the right, was waning.

Did you know?

The adjective "gibbous" has its origins in the Latin noun "gibbus," meaning "hump," and in the Late Latin adjective "gibbosus," meaning "humpbacked," which Middle English adopted in the 14th century as "gibbous." "Gibbous" has been used to describe the rounded body parts of humans and animals (such as the gibbous back of a hunchback or camel) or to describe the shape of certain flowers (such as snapdragons). The term is most often identified, however, with the study of

astronomy. In fact, if you run across the word "gibbous," chances are you'll find the word "moon" somewhere nearby. A gibbous moon is one that is more than a half-moon but less than full.

*Indicates the sense illustrated in the example sentence.

> FROM THE BELLY OF AN AIRPLANE: GALAXIES

By Dr. Tony Phillips

On April 28th a NASA spacecraft named GALEX left Earth. Its mission: to learn how galaxies are born, how they grow, and how they die.

"GALEX-short for Galaxy Evolution Explorer-is like a time machine," says Caltech astronomer Peter Friedman. It can see galaxies as far away as 10 billion light years, which is like looking 10 billion years into the past. The key to the mission is GALEX's ultraviolet (UV) telescope. UV rays are a telltale sign of hot young stars, newly formed, and also of galaxies crashing together. By studying the ultraviolet light emitted by galaxies, Friedman and colleagues hope to trace their evolution spanning billions of years.

This kind of work can't be done from the ground because Earth's atmosphere absorbs the most energetic UV rays. GALEX would have to go to space. To get it there, mission planners turned to Orbital Science Corporation's Pegasus rocket.

"Pegasus rockets are unusual because of the way they're launched-from the belly of an airplane," says GALEX Project Engineer Frank Surber of JPL.

It works like this: a modified L-1011 airliner nicknamed Stargazer carries the rocket to an altitude of 39,000 feet. The pilot pushes a button and the Pegasus drops free. For 5 seconds it plunges toward Earth, unpowered, which gives the Stargazer time to get away. Then the rocket ignites its engines and surges skyward. The travel time to space: only 11 minutes.

"The aircraft eliminates the need for a large first stage on the rocket," explains Surber. "Because Stargazer can be used for many missions, it becomes a re-useable first stage and makes the launch system cheaper in the long run." (To take advantage of this inexpensive launch system, GALEX designers had to make their spacecraft weigh less than 1000 lbs-the most a Pegasus can carry.)

A Pegasus has three stages--not counting the aircraft. "Its three solid rocket engines are similar to the black powder rockets used by amateurs. The main difference is that the fuel is cast into a solid chunk called a 'grain'-about the consistency of tire rubber. Like black powder rockets, once the grain is lit it burns to completion. There's no turning back."

In this case, turning back was not required. The rocket carried GALEX to Earth orbit and deployed the spacecraft flawlessly. On May 22nd, the UV telescope opened its cover and began observing galaxies-"first light" for GALEX and another success story for Pegasus.

For adults, find out more about the GALEX mission at <http://www.galex.caltech.edu/> . Kids can read and see a video about Pegasus at <http://spaceplace.nasa.gov/galex/pegasus.html>.

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

> Clear skies,
Eric Young
River Bend Astronomy Club Secretary