



Monthly Notices of the Everglades Astronomical Society



Naples, FL
July 2011

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President's Message:

You can always tell its summer by both the clouds and the Books-A-Million meeting site. I remember one summer in 2005 - we sat there slurping coffee as Hurricane Katrina was passing just to the south of us. Fortunately we are not having that kind of weather this year, but it has been tough getting a good night for viewing.

Come on down and visit us! It's not a formal meeting, you can come and go as you please. This would be a terrific time for some one on one time with the old-timers to discuss that particular project you have wanted to do.

Clear Skies!

Mike Usher
(239) 643-6017

Dates for the "Fak":

Usually the best times to go out to the Fakahatchee Strand viewing site are moonless nights. Below is a list of upcoming Saturday nights that you will often find fellow club members out there enjoying the skies with you (weather permitting).

Fak Dates	Sun Set	Moonrise	Moonset
July 23	8:19 pm	12:39 pm	2:09 pm
July 30	8:15 pm	6:40 pm	8:09 pm
Aug 20	7:59pm	11:55pm	1:47pm
Aug 27	7:52pm	5:25am	6:43pm

Next Meeting: (*Bring a friend!*)

July 12th, 2011
Time 7:00 – 9 pm
At the Books-A-Million, across the street from the Coastland Mall

Sky Events:

Jul 1 -- New Moon
Jul 8 -- First Quarter Moon
Jul 15 -- Full Moon
Jul 23 -- Last Quarter Moon

Eclipse Dates:

July 1: Partial eclipse of the Sun This eclipse will not be visible from North America. The eclipse will be visible only from a small area of the southern Indian Ocean.

Meteor Shower: Class III

Name: **Delta Aquarids (SDA)**
Activity Period: **July 21 - Aug 23**
Maximum: **July 30, 03:00**

Name: **Alpha Capricornids (CAP)**
Activity Period: **July 11 - Aug 10**
Maximum: **July 28, 05:00**

Astronomical Trivia Question of the Month:

Which type of telescope mount is best for astrophotography?

- a. Altazimuth
- b. Dobsonian
- c. Hyperbolic
- d. Equatorial

**Answer on next page.*



Finding Planets among the Stars

by Dr. Tony Phillips

Strange but true: When it comes to finding new extra-solar planets, or exoplanets, stars can be an incredible nuisance.

It's a matter of luminosity. Stars are bright, but their planets are not. Indeed, when an astronomer peers across light years to find a distant Earth-like world, what he often finds instead is an annoying glare. The light of the star itself makes the star's dim planetary system nearly impossible to see.

Talk about frustration! How would *you* like to be an astronomer who's constantly vexed by stars? Fortunately, there may be a solution. It comes from NASA's Galaxy Evolution Explorer, an ultraviolet space telescope orbiting Earth since 2003. In a new study, researchers say the Galaxy Evolution Explorer is able to pinpoint dim stars that might not badly outshine their own planets.

"We've discovered a new technique of using ultraviolet light to search for young, low-mass stars near the Earth," said David Rodriguez, a graduate student of astronomy at UCLA, and the study's lead author. "These M-class stars, also known as red dwarfs, make excellent targets for future direct imaging of exoplanets."

Young red dwarfs produce a telltale glow in the ultraviolet part of the electromagnetic spectrum that Galaxy Evolution Explorer can sense. Because dwarf stars are so numerous—as a class, they account for more than two-thirds of the stars in the galaxy—astronomers could reap a rich bounty of targets.

In many ways, these stars represent a best-case scenario for planet hunting. They are close and in clear lines-of-sight, which generally makes viewing easier. Their low mass means they are dimmer than heavier stars, so their light is less likely to mask the feeble light of a planet. And because they are young, their planets are freshly formed, and thus warmer and brighter than older planetary bodies.

Astronomers know of more than five hundred distant planets, but very few have actually been seen. Many exoplanets are detected indirectly by means of their "wobbles"—the gravitational tugs they exert on their central stars. Some are found when they transit the parent star, momentarily dimming the glare, but not dimming it enough to reveal the planet itself.

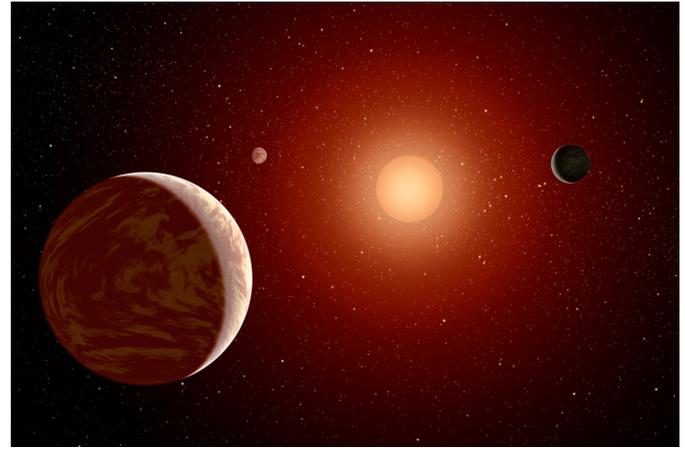
The new Galaxy Evolution Explorer technique might eventually lead to planets that can be seen directly. That

would be good because, as Rodriguez points out, "seeing is believing."

And it just might make astronomers feel a little better about the stars.

The Galaxy Evolution Explorer Web site at <http://www.galex.caltech.edu> describes many of the other discoveries and accomplishments of this mission. And for kids, how do astronomers know how far away a star or galaxy is? Play "How Old do I Look" on The Space Place at <http://spaceplace.nasa.gov/whats-older> and find out!

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



Caption:

Exoplanets are easier to see directly when their star is a dim, red dwarf.

Answer to the trivia question:

The answer is **D**.

Equatorial mounts are the best. Most serious astrophotographers use some more specifically, a type of German Equatorial Mount.

Links of the Month:

1. <http://solarsystem.nasa.gov/grail/home.cfm>
2. <http://www.commercialspaceflight.org>
3. http://www.freewebs.com/revans_01420

Items for Sale

<http://naples.net/clubs/eas/sales.html>

Handbook of Space Astronomy and Astrophysics - Paperback; 782 pages; 338 B&W illustrations; 247

tables. 40% off list price for astronomy club members. A comprehensive compilation of the facts and figures relevant to astronomy and astrophysics. This handbook contains the most frequently used information in modern astronomy and astrophysics, and will be an essential reference for advanced amateur astronomers, university students, graduate students, researchers and professionals working in astronomy and the space sciences. For more information and to purchase the handbook go to:

http://www.astrohandbook.com/astrohandbook_clubs.html

Martin Zombeck, mvz@alum.mit.ed, Club Affiliation: EAS; date posted: 23 November 2010.

2011 Membership Dues:

For the bargain price of only **\$20.⁰⁰ per family**, all this can be yours for the coming year!

- ✓ Meet with your fellow astronomy enthusiasts at least 10 times a year.
- ✓ Many opportunities to freeze/sweat/get bitten by mosquitoes in the Fakahatchee Strand.
- ✓ View planets, nebulae and many other celestial objects.

Don't miss out! Fill out this form (please print plainly) and send it with your \$20 check, payable to:

Everglades Astronomical Society

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Name: _____
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