



# Monthly Notices of the Everglades Astronomical Society



Naples, FL  
February 2011

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**Home Page:** <http://gator.naples.net/clubs/eas>

## President's Message

We had some wonderful viewing at the Fakahatchee on January 29th! It was so clear that I saw M41 without optical aid for the second time in my life. For Florida that is excellent transparency. There was also quite a crowd out there; I was surprised when Charlie arrived at the head of a convoy.

The Fakahatchee is a long way to drive if the weather is questionable. I want to take this opportunity to tell our new members about an internet service called the Clear Sky Chart. It can be found at:  
<http://www.cleardarksky.com/c/FkhtchSPFLkey.html>.

This gives a detailed hour by hour cloud, transparency and seeing forecast up to 48 hours in advance.

Three people have risen to my challenge to build their own telescopes; we have already purchased materials and construction has begun. With any kind of luck new telescopes will be seen at the Fak next month. We may have to schedule a breakout session at the meeting where the telescope builders can compare notes.

I'll see you on the 8th!  
Clear Skies,  
Mike Usher

## 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
Feb 2	6:13 pm	8:22 a.m.	8:38 p.m.
Feb 26	6:27 pm	2:27 am	1:09 pm
March 5	6:31 pm	6:54 am	7:24 pm

## Next Meeting (Bring a friend!)

February 8th, 2011  
Time 7:00 – 9 pm  
At the Norris Center, 755 8th Avenue South, Naples, FL

## Sky Events

Feb 2 -- New Moon  
Feb 11 -- First Quarter Moon  
Feb 18 -- Full Moon  
Feb 24 -- Last Quarter Moon

**Meteor Shower:** No major showers this month.

## Start Parties:

The 27th ANNUAL WINTER STAR PARTY  
February 28 - March 6, 2011  
<http://www.scas.org>

## Astronomical Trivia Question of the Month

What is the most intrinsically luminous Hypergiant star visible to armature astronomers?

- a. Eta Carinae
- b. LBV 1806-20
- c. Betelgeuse

*\*Answer on next page.*



## Planets in Strange Places

By Trudy E. Bell

Red star, blue star, big star, small star—planets may form around virtually any type or size of star throughout the universe, not just around mid-sized middle-aged yellow stars like the Sun. That's the surprising implication of two discoveries in 2006 from the 0.85-meter-diameter Spitzer Space Telescope, which is exploring the universe from orbit at infrared (heat) wavelengths blocked by the Earth's atmosphere.

At one extreme are two blazing, blue "hypergiant" stars 180,000 light-years away in the Large Magellanic Cloud, one of the two companion galaxies to our Milky Way. The stars, called R 66 and R 126, are respectively 30 and 70 times the mass of the Sun, "about as massive as stars can get," said Joel Kastner, professor of imaging science at the Rochester Institute of Technology in New York. R 126 is so luminous that if it were placed 10 parsecs (32.6 light-years) away—a distance at which the Sun would be one of the dimmest stars visible in the sky—the hypergiant would be as bright as the full moon, "definitely a daytime object," Kastner remarked.

Such hot stars have fierce solar winds, so Kastner and his team are mystified why any dust in the neighborhood hasn't long since been blown away. But there it is: an unmistakable spectral signature that both hypergiants are surrounded by mammoth disks of what might be planet-forming dust and even sand.

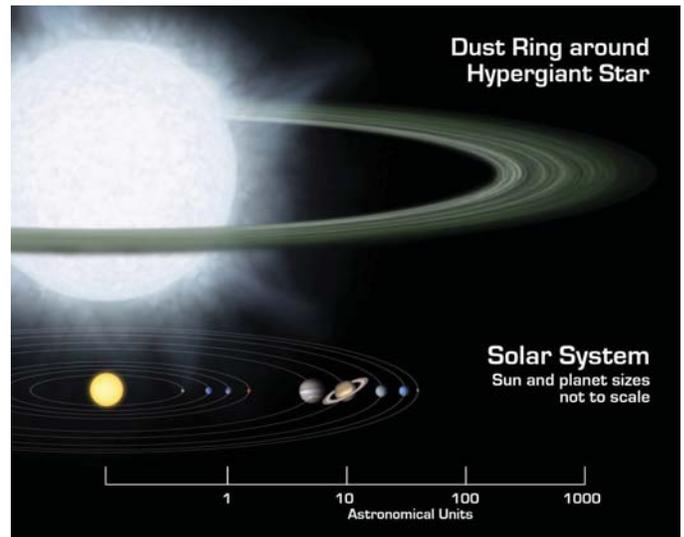
At the other extreme is a tiny brown dwarf star called Cha 110913-773444, relatively nearby (500 light-years) in the Milky Way. One of the smallest brown dwarfs known, it has less than 1 percent the mass of the Sun. It's not even massive enough to kindle thermonuclear reactions for fusing hydrogen into helium. Yet this miniature "failed star," as brown dwarfs are often called, is also surrounded by a flat disk of dust that may eventually clump into planets. (This brown dwarf discovery was made by a group led by Kevin Luhman of Pennsylvania State University.)

Although actual planets have not been detected (in part because of the stars' great distances), the spectra of the hypergiants show that their dust is composed of forsterite, olivine, aromatic hydrocarbons, and other geological substances found on Earth.

These newfound disks represent "extremes of the environments in which planets might form," Kastner said. "Not what you'd expect if you think our solar system is the rule." Hypergiants and dwarfs? The Milky Way could be crowded with worlds circling every kind of star imaginable—very strange, indeed.

Keep up with the latest findings from the Spitzer at [www.spitzer.caltech.edu](http://www.spitzer.caltech.edu). Kids and their grownup friends can enjoy beautiful images from Spitzer while playing Spitzer Concentration at The Space Place ([spaceplace.nasa.gov/en/kids/spitzer/concentration](http://spaceplace.nasa.gov/en/kids/spitzer/concentration)).

*Space Place Partners' Article January 2011 This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.*



*Caption: Artist's rendering compares size of a hypothetical hypergiant star and its surrounding dusty disk to that of our solar system.*

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### Set For Launch:

<http://www.nasa.gov/missions/highlights/schedule.html>

Date: Feb. 24 +  
Mission: STS-133  
Launch Vehicle: Space Shuttle Discovery  
Launch Time: 4:50 p.m. EST

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### Answer to the trivia question:

The answer is **A**. Eta Carinae is the largest, most intrinsically luminous, and yet still close enough to see with small scopes. LBV 1806-20 is possibly the brightest hypergiant yet found, but it is on the other side of the Milky Way Galaxy and therefore not in the realm of backyard astronomy. Betelgeuse is certainly big and luminous, but not in the category of a hypergiant. It is considered a red supergiant.

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### News From our web site:

Mike has published a wonderful how to guide for buying a first telescope.  
[http://www.naples.net/clubs/eas/tutorials/Buying\\_Your\\_First\\_Telescope.pdf](http://www.naples.net/clubs/eas/tutorials/Buying_Your_First_Telescope.pdf)

### Items for Sale

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

Aluminum ramps that telescope to 5-10' long. Perfect to roll your big dob into a van, SUV or pickup truck. New condition. \$150. See mfg. website. David Eimers, 239-353-4828, fishflash1@gmail.com, Club Affiliation: EAS; date posted: 27 November 2010.

Handbook of Space Astronomy and Astrophysics - New; 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 click [here](#).

Martin Zombeck, [mvz@alum.mit.edu](mailto:mvz@alum.mit.edu), Club Affiliation: EAS; date posted: 23 November 2010.

I have a 20" Dobsonian reflector that I am willing to part with at a very low price. It has an objective mirror with a figure few reflectors have regardless of aperture (1/18 wave peak to peak wave front error). This telescope is a great value for anyone or group who is considering a large aperture telescope. Email me at [jedw.1@netzero.net](mailto:jedw.1@netzero.net) for a complete description, photos and price.

Jim Edwards, date posted: 15 November 2010.

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# 2011 Membership Dues:

For the bargain price of only ***\$20.<sup>00</sup> 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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