



Monthly Notices of the Everglades Astronomical Society



Naples, FL
February 2010

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President's Message

Well the weather has brought us a lot of clouds lately. We have had to cancel a couple of programs but successfully completed one. The program Todd, Charlie & I did at the Marco Marriott turned out well. Many people viewed Jupiter, the Orion Nebula, the Moon, Andromeda Galaxy and other objects.

Several members will not be at the meeting this month due to the Winter Star Party in the Keys. I'm not leaving until Thursday morning so I will attend. On February 9th at 7:00pm Jack Berninger will present "Comets, Meteors & Extinctions". It sounds like a great one! See you there.

Good skies – clean glass.

Co-President
Rick Piper

Dates for the "Fack"

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).

Date	Sun Set	Moonrise	Moonset
Feb 6	6:14pm	1:16am	12:02pm
Feb 13	6:19pm	6:38am	6:09pm

Sky Events

Feb 5 – Last Quarter Moon
Feb 13 -- New Moon
Feb 21 -- First Quarter Moon
Feb 28 -- Full Moon

**No significant Meteor Showers this month.*

Next Meeting

February 9, 2010

Time 7:00 – 9 pm
At the Norris Center

Astronomical Trivia Question of the Month

How many spiral arms are known in the Milkyway Galaxy?

- a. 2
- b. 5
- c. 21
- d. a googolplex

**Answer on next page.*



A Real Shooting Star!

Jet planes are really fast. They leave long, skinny clouds across the sky like fat chalk lines. These "clouds" are called contrails. Contrails form from the jet engines' exhaust. The exhaust contains water, which quickly freezes into sparkling ice crystals trailing behind the plane.

Well, scientists were surprised to discover recently that a really fast star can leave a sort of contrail too. Mira (MY-rah) is a star that scientists have studied for 400 years. But NASA's Galaxy Evolution Explorer telescope captured a very surprising image of Mira. It showed for the first time that Mira has a long tail of dust and gas—13 light-years long! That is 20,000 times longer than the average distance from the Sun to Pluto!

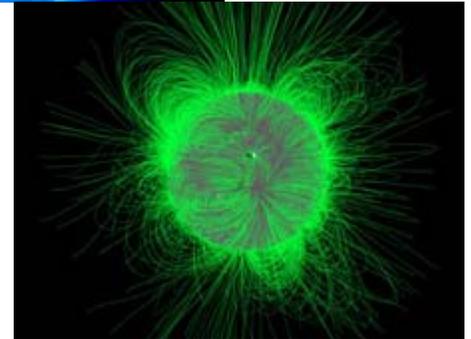
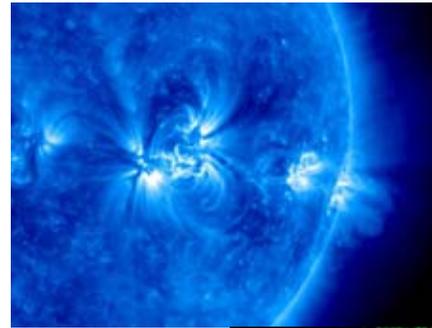


A star's life has a beginning, middle, and end, just like ours. Only a star's life is much, much longer. Mira is a red giant star near the end of its life. It is blowing off much of its mass in the form of gas and dust. It has already flung out enough material to construct at least 3,000 Earth-sized planets!

Mira is moving at **291,000 miles per hour!** This is much faster than the other stars in our part of the Milky Way galaxy. This speed and the huge amount of material coming off Mira have created its contrail-like tail.

Now the light our eyes can see is only a teensy part of all the light that exists. Mira's tail is visible only in ultraviolet light, which our eyes cannot see. But the Galaxy Evolution Explorer can. The Explorer is a space telescope whose job is to survey the universe in ultraviolet light. As you can see from Mira, this special telescope is helping scientists make new discoveries about the universe.

Credit: <http://spaceplace.jpl.nasa.gov/en/kids/galex/mira/index.shtml>

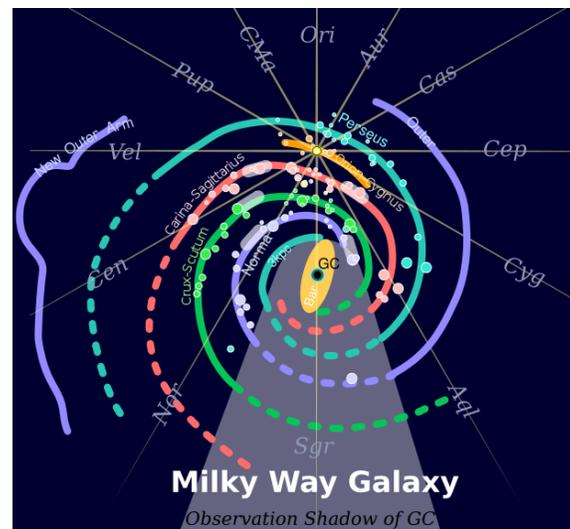


Credit: http://www.nasa.gov/mission_pages/sdo/main/index.html

Answer to the trivia question:

There are 5 arms.

1. 3-kpc and Perseus Arm
2. Norma and Outer arm (Along with a newly discovered extension)
3. Scutum-Crux Arm
4. Carina and Sagittarius Arm
5. Orion-Cygnus arm (which contains the Sun and Solar System)



Credit: http://en.wikipedia.org/wiki/File:Milky_Way_Arms.svg

Solar Dynamics Observatory Set For Launch

The Solar Dynamics Observatory, or SDO, is set to launch from Florida no earlier than 10:30 a.m. EST on Feb. 9, on an unprecedented mission to study the sun and its dynamic behavior.

Onboard telescopes will scrutinize sunspots and solar flares using more pixels and colors than any other observatory in the history of solar physics. And SDO will reveal the sun's hidden secrets in a prodigious rush of pictures.

2010 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.
- ✓ Reduced price for Sky & Telescope and Astronomy subscriptions.

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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