



Monthly Notices of the Everglades Astronomical Society



Naples, FL
March 2010

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President's Message

Hello EAS

I can almost bet most of you have not had a great time viewing this past month. Of the past 15 years I have been in Florida, this has been the worst. Those of us who went to the Winter Star Party spent most of the time talking about astronomy, as we only had one good viewing night. But as you know, astronomers can spend the night talking about telescopes and the sky without viewing.

This month we have another great program. John Fishwick will be presenting "The Birth, Evolution and Death of the Universe" We continue to enjoy the talents of our members. Make sure you attend this meeting.

We have three scheduled public viewing events in March, the 12th we are at Corkscrew Swamp for a evening program.

The 13th we have another Art in The Park solar viewing and outreach event. And on March 20th we will do a public night time event on the beach for about 300 folks. We will need help for all of these, so please let me know which one you can support. We will finalize this at our meeting March 9th.

Hopefully we will be able to view at the FAK on March 6th and 13th. I plan to go to both, will let you know as the dates come closer.

See you at our meeting
Clear skies

Charlie Paul
Co-President

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).

Date	Sun Set	Moonrise	Moonset
March 6	6:31pm	12:04am	10:44am
March 13	6:35pm	5:12am	4:55pm

Sky Events

Mar 7 -- Last Quarter Moon
Mar 15 -- New Moon
Mar 23 -- First Quarter Moon
Mar 29 -- Full Moon

**No significant Meteor Showers this month.*

Next Meeting

March 9, 2010
Time: 7:00 – 9 pm
At the Norris Center, 755 8th Avenue South, Naples, FL

Astronomical Trivia Question of the Month

What was the name of the hypothesized protoplanet that slammed into Earth, and helped create the Moon?

- Planet Selene
- Planet Sedna
- Planet X
- Planet Theia

**Answer on next page.*



Flipping the Lights on Cosmic Darkness

Exploring the universe is a bit like groping around a dark room. Aside from the occasional pinprick of starlight, most objects lurk in pitch darkness. But with the recent launch of the largest-ever infrared space telescope, it's like someone walked into the room and flipped on the lights.

Suddenly, those dark spaces between stars don't appear quite so empty. Reflected in the Herschel Space Observatory's 3.5-meter primary mirror, astronomers can now see colder, darker celestial objects than ever before—from the faint outer arms of distant galaxies to the stealthy "dark asteroids" of our own solar system.

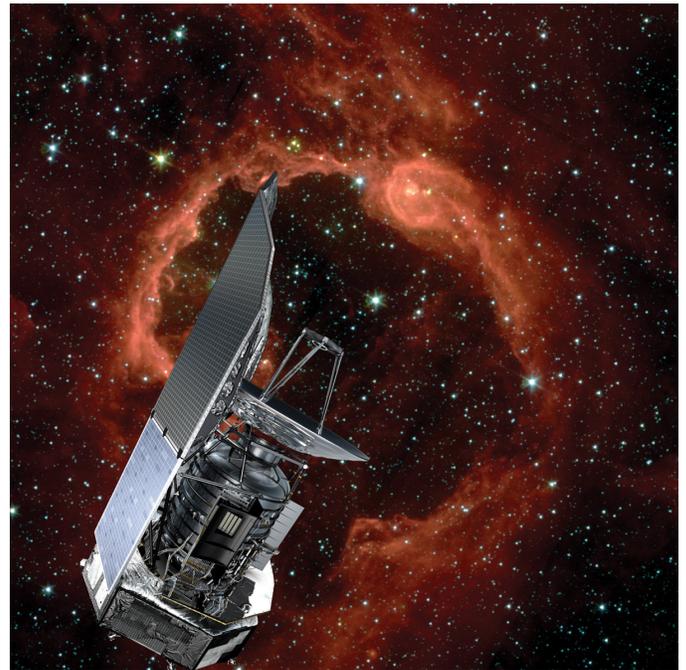
Many celestial objects are too cold to emit visible light, but they do shine at much longer infrared wavelengths. And Herschel can observe much longer infrared wavelengths than any space telescope before (up to 672 microns). Herschel also has 16 times the collecting area, and hence 16 times better resolution, than previous infrared space telescopes. That lets it resolve details with unprecedented clarity. Together, these abilities open a new window onto the universe.

"The sky looks much more crowded when you look in infrared wavelengths," says George Helou, director of the NASA Herschel Science Center at Caltech. "We can't observe the infrared universe from the ground because our atmosphere blocks infrared light, and emits infrared itself. Once you get above the atmosphere, all of this goes away and suddenly you can look without obstruction."

Herschel launched in May from the Guiana Space Centre in French Guiana aboard a European Space Agency Ariane 5 rocket. Since then, it has expanded the number of distant galaxies observed at far infrared wavelengths from a few hundred to more than 28,000. And with the instrument testing and system check-out phases finally completed, the discoveries are only now beginning.

Beyond simply imaging these dark objects, Herschel can identify the presence of chemicals such as carbon monoxide and water based on their spectral fingerprints. "We will be able to decipher the chemistry of what's going on during the beginnings of star formation, in the discs of dust and gas that form planets, and in the lingering aftermath of stellar explosions," Helou says.

And those are just the expected things. Who knows what unexpected discoveries may come from "flipping on the lights?" Helou says "we can't wait to find out."



Herschel is a European Space Agency mission, with science instruments provided by a consortium of European-led institutes and with important participation by NASA. See the ESA Herschel site at sci.esa.int/science-e/www/area/index.cfm?fareaid=16. Also, see the NASA sites at herschel.jpl.nasa.gov, www.herschel.caltech.edu, and www.nasa.gov/mission_pages/herschel. Kids can learn about infrared light by browsing through the Infrared Photo Album at The Space Place, spaceplace.nasa.gov/en/kids/sirtf1/sirtf_action.shtml.

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Answer to the trivia question:

Planet Theia.

In the "Giant Impact Hypothesis" it is proposed that a protoplanet the size of Mars crashed into the early Earth, helping to spread the debris that later accumulated into the Moon, and modern day Earth.

Credit: [http://en.wikipedia.org/wiki/Theia_\(planet\)#Theia](http://en.wikipedia.org/wiki/Theia_(planet)#Theia)

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: _____
Address: _____
Phone: _____
Email: _____