Monthly Notices of the Everglades Astronomical Society

Naples, FL
January 2009

Officers: **Co-Presidents:** Charlie Paul, Rick Piper; **Secretary** Todd Strackbein; **Treasurer**: Jean Mundell
Newsletter: Editor – V.P.; Michael Usher eas-newsletter@earthlink.net
(Newsletter publisher address 1689 Northgate Drive, Naples, FL 34105)
Home Page: http://gator.naples.net/clubs/eas **Webmaster:** John Culter johnculter@embarqmail.com
Fack Coordinator & information on viewing Charlie Paul cpaul651@earthlink.net 410-8192

Presidents Message
Happy New Year to each of you!!
What a great viewing month this has been. The skies have been clear and many of you have driven out to the Fakahatchee Strand to view the wonders we can see from there.

As was stated in last months newsletter, our outreach programs are in full swing. Many thanks to all who helped with Art in The Park and the Moonlight Madness. Sidewalk astronomy was a hit on 5th avenue We had lines people waiting to view the moon at all four telescopes. Several new people at our December meeting stated they had found us through our outreach efforts. We will need help on January 10th Art in The Park.

We are will need a new Treasury Secretary starting in February. Please consider taking over this club job for a year. After the dues are collected the rest of the years duties are few. Jean Mundell has done a great job, Thanks a lot Jean!!

Our program this month will be presented by Chuck Pavlick, his astrophotography talents are well known by our club members that view at the FAK. Chuck is a member of the Fort Myers astronomy club.

We have to move our February meeting up one week, to the 19th. This was necessary because all of our club officers will be in the Keys attending the Winter Star party. Mark your calendars.

Clear Skies

Charlie Paul
Co-President

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	Moonrise	Moonset
Jan 17	12:51AM	
Jan 24		4:43PM

Next Meeting
January 22, 2008
Time 7:00 – 9 pm
At the Norris Center

Sky Events
Jan 11 – Full Moon
Jan 14 – Venus at greatest eastern elongation
Jan 18 – 3rd Quarter Moon
Jan 26 – New Moon
Feb 2 – 1st Quarter Moon
Feb 9 – Full Moon
Feb 13 – Mercury at greatest western elongation

February's Meeting Changed
Not this month, but next month our meeting date will be changed to February 19th. We are sorry for any inconvenience but all of our officers (and some regular members) will be attending the Winter Star Party in the Keys.

Astronomical Trivia Question of the Month
Who constructed the first telescopes?

a. Lippershey, Janssen, and Metius
b. Galileo Galilei
c. Laurent Cassegrain
d. Isaac Newton

Answer on next page.

Superstar Hide and Seek
by Dr. Tony Phillips

It sounds like an impossible task: Take a star a hundred times larger in diameter and millions of times more luminous than

the Sun and hide it in our own galaxy where the most powerful optical telescopes on Earth cannot find it.

But it is not impossible. In fact, there could be dozens to hundreds of such stars hiding in the Milky Way right now. Furiously burning their inner stores of hydrogen, these hidden superstars are like ticking bombs poised to 'go supernova' at any moment, possibly unleashing powerful gamma-ray bursts. No wonder astronomers are hunting for them.

Earlier this year, they found one.

"It's called the Peony nebula star," says Lidia Oskinova of Potsdam University in Germany. "It shines like 3.2 million suns and weighs in at about 90 solar masses."

The star lies behind a dense veil of dust near the center of the Milky Way galaxy. Starlight traveling through the dust is attenuated so much that the Peony star, at first glance, looks rather dim and ordinary. Oskinova's team set the record straight using NASA's Spitzer Space Telescope. Clouds of dust can hide a star from visible-light telescopes, but Spitzer is an infrared telescope able to penetrate the dusty gloom.

"Using data from Spitzer, along with infrared observations from the ESO's New Technology Telescope in Chile, we calculated the Peony star's true luminosity," she explains. "In the Milky Way galaxy, it is second only to another known superstar, Eta Carina, which shines like 4.7 million suns."

Oskinova believes this is just the tip of the iceberg. Theoretical models of star formation suggest that one Peony-type star is born in our galaxy every 10,000 years. Given that the lifetime of such a star is about one million years, there should be 100 of them in the Milky Way at any given moment.

Could that be a hundred deadly gamma-ray bursts waiting to happen? Oskinova is not worried.

"There's no threat to Earth," she believes. "Gamma-ray bursts produce tightly focused jets of radiation and we would be extremely unlucky to be in the way of one. Furthermore, there don't appear to be any supermassive stars within a thousand light years of our planet."

Nevertheless, the hunt continues. Mapping and studying supermassive stars will help researchers understand the inner workings of extreme star formation and, moreover, identify stars on the brink of supernova. One day, astronomers monitoring a Peony-type star could witness with their own eyes one of the biggest explosions since the Big Bang itself.

Now that might be hard to hide.

Find out the latest news on discoveries using the Spitzer at www.spitzer.caltech.edu. Kids (of all ages) can read about "Lucy's Planet Hunt" using the Spitzer Space Telescope at www.spaceplace.nasa.gov/en/kids/spitzer/lucy.

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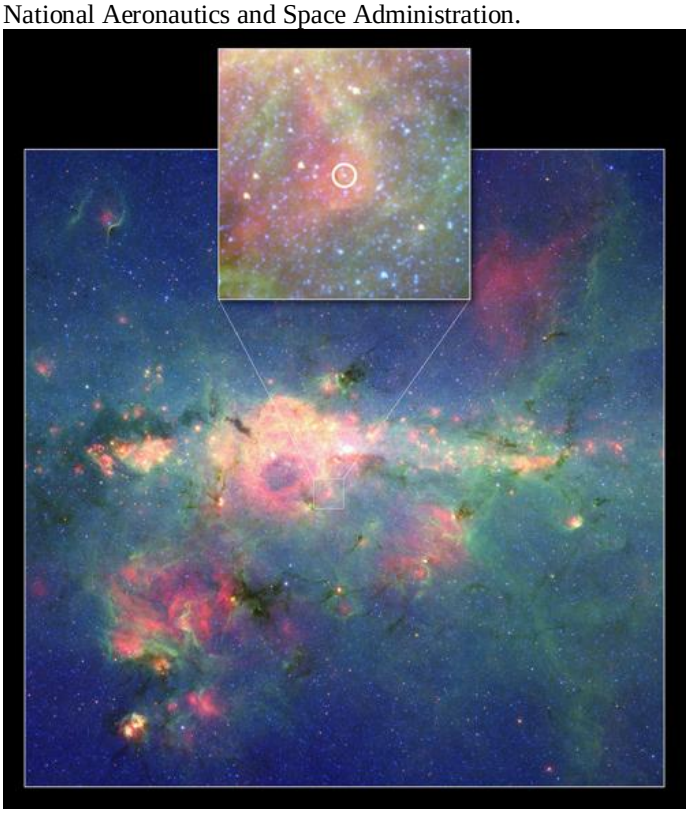

The "Peony Nebula" star is the second-brightest found in the Milky Way Galaxy, after Eta Carina. The Peony star blazes with the light of 3.2 million suns.

Answer to Trivia Question

All of them are deeply involved in the history of the telescope, but the answer is a) Lippershey, Janssen, and Metius. They constructed the first telescopes in 1608. The very next year Galileo made some major improvements. In 1668 Isaac Newton invented the first useful reflector and in 1672 Cassegrain described a reflector that used a convex mirror to reflect light through a hole in the main mirror.

2009 DUES ARE COMING

For the bargain price of only $20.00, 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*, to PO Box 10406, Naples, FL 34101

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