



Monthly Notices of the Everglades Astronomical Society



Naples, FL
January 2015

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President's Message

We had another nice turnout of members for the 2nd edition of Mike Usher's *Star Quest* game show pitting some of the top talent at our meeting against opposing teams. I think Mike has come up with a fun event enjoyed by everyone. Hopefully it can become a yearly tradition with a trophy next year that can be passed from winning team to winning team. Hopefully he agrees and starts working on a new set of questions for next year. I'll work with him on the trophy.

Unfortunately the weather did not cooperate for the Naples Botanical Gardens evening event on Dec. 27th. I believe our next big event is the Collier Schools "Super Science Saturday" daytime event on January 31st. Typically we get to share views of the Sun to a large group of various ages that come and go from the North Collier Regional Park Exhibit Hall. Please check our calendar for other upcoming events and consider helping if needed.

The Winter Star Party (WSP) held in the Florida Keys is around the corner for some of us in February. It tends to consume my thoughts and prayers for warm clear skies.

This month's meeting will feature Chuck Pavlick teaching us about astrophotography. He has had great success in taking some exceptional images which I'm sure he will also be sharing with us. I'm sure there will be useful info for anyone interested in doing astrophotography.

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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 | Moonrise | Moonsset |
|------------|------------|------------|
| January 10 | 10:49 p.m. | 10:39 a.m. |
| January 17 | 4:13 a.m. | 3:22 p.m. |

Sky Events

January 4 - Full moon
 January 13 - Last quarter
 January 20 - New Moon
 January 26 - First Quarter

Next Meeting

January 13: Time 7:00 – 9:00 pm
 Norris Center, Cambier Park

COMET LOVEJOY C/2014 Q2 By Jackie Richards

Comet Lovejoy C/2014 Q2 is currently at 4th magnitude and can be seen with the naked eye in dark skies so if you haven't



Comet Lovejoy (C/2014 Q2) taken by Rick and Lori Piper and Jackie Richards at Rick Piper's house on 1/7/15. Canon XSi, Orion 80 mm refractor f/5; German Equatorial Mount; ISO 800; 81 seconds; enlarged in Canon ZoomBrowser.

already seen it, get out there! The comet made its closest approach to Earth on January 7th, when the above picture was taken at Rick Piper's house, but as moonlight declines each night, we should have another week or so of fantastic viewing of the comet. While Lovejoy is a naked eye comet, you will probably first need to find it with binoculars. It looks as large in the sky as the blue area of the coma in the picture compared to the surrounding stars but appears white and fuzzy. We can only see the color in photos. The below picture was taken under darker skies on January 10th at the Fak and you can see more detail in the tail.



Comet Lovejoy (C/2014 Q2) taken by Rick Piper and Jackie Richards on 1/10/15. Canon XSi, Orion 80 mm refractor f/5; German Equatorial Mount; ISO 1600; 2 minutes, enlarged in Canon ZoomBrowser.

So if you want to take a look at Comet Lovejoy C/2014 Q2, you'll need to do it quickly. It won't be back for another 8,000 years. Below is a link to an article and finder chart for Comet Lovejoy provided by Sky & Telescope.

<http://www.skyandtelescope.com/astronomy-news/observing-news/spot-comet-lovejoy-tonight-12292014/>

Hope you find it!

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GEMINIDS METEOR SHOWER

By Jackie Richards

The Geminids Meteor Shower was a big hit this year with up to 58 meteors per hour well before the peak on December 13th. It seemed that every time we looked up at the sky, a meteor could be seen. Most were blue/green in color but some were yellow / orange. With lounge chairs and blankets, meteor

counts were as follows: Rick Piper: 14 meteors from 10:00 – 10:30; Rick Piper: 26 meteors from 10:30 – 11:00; Jackie Richards: 20 meteors from 10:34 – 11:04; and 38 meteors from 11:07 – 11:37. Great meteor shower!

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President's Message Continued

Last but not least we still have comet Lovejoy for a few more days. Peak intensity was on Jan. 7th and supplied a wonderful binocular or small telescope target high in the sky. Please take a look at all club images in the newsletter. As always thanks to our members for sharing. Hope to see another big turnout at the meeting.

Clear Skies,
President Todd Strackbein

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Fak and Other Photos



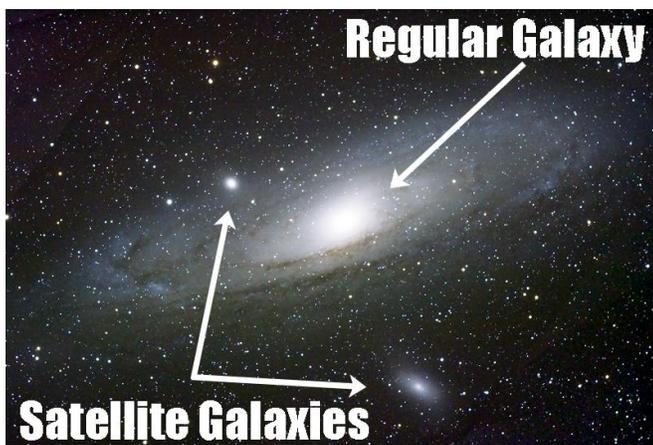
Jellyfish nebula by Chuck Pavlick taken at the Fak on 12/16/14; William Optics FLT 110 f/7 w/field flattener; AP Mac 1; SBIG 8300c; 5 @ 900 seconds

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What Is a Satellite Galaxy?

Our sun is part of a massive collection of stars in the Milky Way galaxy. These hundreds of billions of stars orbit the galaxy's center. But did you know that there are things that are even bigger orbiting the Milky Way's center? Other galaxies orbit it too!



The Andromeda Galaxy with two satellite galaxies surrounding it. Original image credit: Boris Štromar.

These less massive galaxies have their own impressive collection of stars, which all orbit their own center; but the galaxies and everything in them orbit our galaxy too. It's as if our galaxy is the sun and those other galaxies are planets. Astronomers call them "satellite galaxies."

Where Are They and What Are They Like?



The Large Magellanic Cloud

The Milky Way has a number of satellite galaxies, but the biggest one is the Large Magellanic Cloud. It is about 163,000 light-years away and around 1/100th the size of the Milky Way. Unlike our spiral galaxy, this one lacks a clean spiral shape. Some scientists think that is because the Milky Way and other galaxies are pulling and warping it.

In terms of distance, there are two contenders for closest satellite galaxy. One group of stars is small enough that astronomers consider it a "dwarf galaxy." The other group is so close that they still debate whether or not it is part of our galaxy or its own dwarf galaxy.

Astronomers have named the one that everyone agrees on the Sagittarius Dwarf Spheroidal Galaxy. It's about 50,000 light-years away from the Milky Way center. It orbits over the top

and down below the disk of our galaxy, like a ring over a spinning top.

But there is something even closer to our Milky Way—a cluster of stars named by some to be the Canis Major Dwarf Galaxy. Scientists estimate that it contains around a billion stars. It is so close to the edge of the Milky Way that it is closer to our solar system than to our galaxy's center. It's about 25,000 light-years away from us.

Where Does One Galaxy Start and the Other End?

Some scientists don't think the Canis Major cluster of stars is actually its own galaxy or dwarf galaxy. Instead they think it is just a dense area of faraway stars that are still part of the Milky Way. Either way, it is clear that this bunch of stars has been pulled very close to our Milky Way by our galaxy's massive gravity. Over time, this could be the fate of other satellite galaxies in the area. They could all one day merge into an even larger Milky Way galaxy!

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Items For Sale or Trade or Wanted:

http://www.naples.net/clubs/eas/equipment_sales.html

Useful links (software, telescope making, telescope and equipment suppliers, astronomical data sources, iPhone and iPad Apps and more):

<http://www.naples.net/clubs/eas/links.html>

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EAS 2015 DUES

For the bargain price of only \$20.00 per family, all this can be yours this year:

- Meet with your fellow astronomy enthusiasts at least 10 times a year;
- Learn about astronomy and telescopes. Check out our club scope;
- Many opportunities to view planets, nebulae and other celestial objects (even if you don't have your own telescope); and
- Enjoy the many astronomy programs at our regular monthly meetings.

Don't miss out! Fill out this form (please print clearly) and send it with your \$20 check to the

Everglades Astronomical Society, P. O. Box 1868,
Marco Island, Florida, 34146.

Name:

Address:

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