



Monthly Notices of the Everglades Astronomical Society



Naples, FL
March 2018

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President's Message

WOW! I just don't know how else to describe the fabulous photos and presentation given by Ted Wolfe at our February meeting. If you were unable to be there, I suggest you go to his website to enjoy the extraordinary work he does.

Thank you to all the volunteers that brought their telescopes to Lovers Key for the viewing program for the Friends of Lovers Key. We had 6 telescopes set up with long lines at each of them. Everyone really seemed to be impressed with the show that was put on. Although the moon was at first quarter, there were several objects that were visible. I also want to thank Todd for always sharing his meteorites with everyone. People loved holding them. It took a bit of convincing that they were real.

Jack Berninger will be our guest speaker for the March meeting. Jack always presents an interesting, family-friendly program. As Jack's schedule is tight, he will be speaking first. The club announcements and business will be after the break.

I have a couple of requests for volunteers for observing events. If you are interested in volunteering for our community events, please e-mail me to let me know when you are available and what you can do. I will be going over dates and times of events at the next meeting.

Meeting at the Norris Center in February was like being home.

Denise

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

Date	Moonrise	Moonset
March 10	1:50 a.m.	12:49 p.m.
March 17	6:48 a.m.	6:56 p.m.

Sky Events

March 9 - Last Quarter
March 14 - Jupiter Transit (Io)
March 17 - New Moon
March 23 - First Quarter
March 31 - Full Moon

Next Meeting

March 13, 2018: Time 7:00 – 9:00 pm
Norris Center, Cambier Park, Naples

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WSP 2018 Chiefland, FL, Report by Mary Ann Wallace and Mike Usher

Camp Wesumkee located on Scout Key where the previous winter star parties were held was heavily damaged by Hurricane Irma. The girls' restrooms and showers were destroyed; others condemned. There was significant beach erosion, as the eye of the hurricane was only 8 miles away from where it first came ashore. Although Micki's Kitchen wasn't in Chiefland this year, Michelle donated brownies to be raffled off with proceeds



Photo of EAS members that attended the 2018 WSP in Chiefland, Florida.

going directly to the Camp. You can view photos on the Camp's Facebook page: <https://www.facebook.com/CampWesumkee/> The girl scouts are doing all they can to rebuild the camp but need help and you can also help by going to www.girlscoutsfl.org.

Held in Chiefland this year, WSP 2018 will go down as the watery star party. It seems that many people looked ahead at the weather forecast and decided to pass it up this year. They made the right decision. I had rented an RV so I was committed to coming and when I pulled up to the entrance road Saturday evening, I was shocked to see I was only the third person in line! There would have been a long line if it were at the Keys! Self-contained, I was able to spend the night there with the others. By morning, there were less than 15 people lined up. Noon came and perhaps 30 of us entered at opening time. Mike was staying at an offsite campground with more amenities to pass the time. Lou hunkered out at a motel until the rain stopped and then put up his tent. Armando was resilient in tenting but Thursday night when the skies clouded up after less than 2 hours of viewing, he packed up and left early Friday. It was tough on astrophotographers - not a single photo of a planet was taken! Most of us left on Saturday since fog was forecast again for that night.

There was no water at the campsites; just electricity. They had built 4 showers with hot water for the event; but it was rustic with no sinks to brush your teeth and you had to make sure you had your own fresh water to drink. I was glad to have rented the RV because late on Sunday, Monday and Tuesday we had rain.

Few familiar vendors from earlier WSP events showed up. Explore Scientific was there; popular CCTS had RV mechanical problems and was not. There were Pixinsight workshops to keep the astrophotographers busy during the daytime and various talks on Night Vision, Astrophotography tips, Mercury, Pluto, and Mirror mechanics in the meeting hall.

However, when the skies did cooperate, the sky at Chiefland Sky Village was as dark or darker than in Scout Key. The dew was heavy, though. You had to have your dew heaters on at the start. The horizon was unobstructed. Trees that surrounded the campsite were not an impediment to viewing. At 29 degrees N. Latitude versus 24 for the Keys, the Southern Cross was not going to be in full view. As it was, skies were foggy and cloudy in the early morning hours after 1:00 a.m. so it precluded early morning viewing. A thing to remember when checking the <http://www.cleardarksky.com/> is that it doesn't indicate fog. There may be no clouds in the sky; but if fog is present, you're out of luck. We had a lot of fog in Chiefland the last 3 days.

Although it was discouraging, it was nice to see familiar faces from previous winter star parties. I estimate the total observers were around 200. Our only consolation was things could not be any worse! The best part? No mosquitoes!!

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Photo of the Orion Nebula taken by Lou Tancredi at the WSP in Chiefland. His first attempt at astrophotography.



Photo of the Flame and Horsehead Neulas in the constellation Orion taken by Armando Merlo at the WSP in Chiefland.



Photo of Mike Usher's 20" Dob at the WSP. The telescope was made by Mike.

Photos by Club Members



Photo of the Rosette Nebula by Chuck Pavlick. This image was taken with the moon out in a very light-polluted area. 18 300-sec. subs with the Ha 5nm filter, 36 300-sec. subs with the O3 5nm filter, and 24 300-sec. subs with the S2 5nm filter. "Thank you filters."



Photo of the Tarantula Nebula by Ted Wolfe. "Here we can see him scurrying out from his starry den in pursuit of some hapless celestial insect."

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A STUNNING 'FLAG SHIP' GALAXY GATHERS ITS ARMADA IN SPACE

By Ted Wolfe

This is New General Catalog object 253. It is the largest galaxy in the nearest group of galaxies found beyond the "Local Group" of galaxies, which includes our own Milky Way.

This nearby "armada" of galaxies is called the Sculptor Group. It lies about 12.7 million light years away, and contains at least 13 separate members. NGC 253 lies somewhat closer to us from the group's center at 11.4 million light years.

The Sculptor Group is at an early stage of gathering around itself. Galaxies are still falling into the group from the outside due to its gravitational attraction. In this mode the Flag Ship galaxy, shown here, plays a major role in attracting new members because of its size.

Galaxies will cluster together and travel through space as a group. The larger members will gravitationally dominate the assemblage and keep them herded together. Such groups are, themselves, part of even greater gatherings known as "Super Clusters."

Our own galaxy, the Milky Way, lies inside the Local Group, which in turn belongs to a Super Cluster known as the Laniakea Super Cluster. Laniakea extends an enormous distance in space - about 500 million light years across, compared to the size of the Local Group which covers "only" 10 million light years.



Photograph taken from here by Ted Wolfe with his telescope in Chile

The current estimate for the number of Super Clusters in the universe is 10 million.

Local Groups of galaxies or clusters are ruled by gravity. Their members are held together by gravitational attraction to one another. Not so for most Super Clusters. The component clusters are usually shifting away from each other due to the Hubble flow. (Rate of expansion in the universe).

How many galaxies are in these basic or "Local Groups"? This varies widely. Our own Local Group contains about 54 members. Poor clusters may contain only 1/2 that, and the really gigantic clusters will contain hundreds or even thousands of galaxies.

Let's go back to the picture of NGC 253 above. This galaxy is popularly known as the "Silver Dollar" Galaxy because of its white or silver appearance when viewed visually through a telescope. However, its true color range is drawn out with a charge coupled device (CCD) camera here. Such a camera is used on the Hubble Telescope and in all major observatories throughout the world.

NGC 253 was discovered in 1783 by Caroline Herschel, the sister of the great astronomer William Herschel, while she was searching low on the southern horizon for comets from their observatory in England. Alan Sandage, a famous astronomer, wrote this about NGC 253 - "Dust lanes and patches of great complexity are scattered throughout the surface. Spiral arms are difficult to trace."

It is about 90,000 light years across - just about the size of our own galaxy.

Objects in spiral galaxies like this one rotate around but they also go up and down some. The relationship of the circular motion to the up-and-down motion is similar to riding on a merry-go-round. More going around than up and down.

Our own star, the sun, and its retinue of planets, including the earth, does the same thing as we circle the galaxy.

In this image we can see the undulations of material (gas, dust and stars) rising up and down some like ripples on the surface, as they ride around the plane of the galaxy - just like our merry-go-round.

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Published Articles by EAS Members

Ted Wolfe's article in the Naples News/Collier Citizen on March 3, 2018: Looking Up: A stunning "flag ship" galaxy gathers its armada in space.

https://www.naplesnews.com/story/news/local/communities/collier-citizen/2018/03/03/looking-up-stunning-flag-ship-galaxy-gathers-its-armada-space/383700002/?utm_source=google&utm_medium=amp&utm_campaign=speakable

TO VIEW THE ABOVE ARTICLE, PRESS "CTRL" AND LEFT CLICK BUTTON.

The below link provides previous articles in the Collier Citizen by Ted Wolfe that appeared over past years.
<http://www.naplesnews.com/search/Ted%20Wolfe/>

To view all of Ted Wolfe's photos, visit his website @ www.tedwolfe.com.

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EAS 2018 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 1451, Marco Island, Florida, 34146.

Name: _____

Address: _____

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