

Monthly Notices of the Everglades Astronomical Society



Naples, FL February 2018

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President's Message

Controlling the lights at our January meeting as member after member got up to share with our group the eclipse experience filled me with a deep sense of pride. I've actually tried to analyze this feeling. Was it the fact that so many of our members went outside to witness this event, either total or partial? Perhaps it was that our members shared with their friends and family members an indescribable event. It could have even been that our club was part of a greater American experience. For sure, it was all of those things, but it goes further. Our group is passionate, kind, and just a great bunch of people. I am so proud to be a part of the EAS.

Our February meeting is not to me missed. Ted Wolfe will be sharing his remarkable photos from his southern observatory. Ted never disappoints. His work is second to none. Hopefully you will be there to take advantage of his work.

Great News! I just heard from the City of Naples. The Norris Center is ready for us to go back. Our next meeting will be in our usual room at the Norris Center. Thanks to Jackie and Mike for doing a great job on keeping our group updated on where to show up for the meetings.

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 Saturday nights that you will often find fellow club members out there enjoying the skies with you (weather permitting).

Date	Moonrise	Moonset
Feb. 10	3:07 a.m.	2:09 p.m.
Feb. 17	8:13 a.m.	8:08 p.m.

Sky Events

February 7	- Last Quarter
February 15	- New Moon
February 23	 First Quarter
March 1	- Full Moon

Next Meeting

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



Ted Wolfe will Speak at February Meeting

Ted Wolfe will present "Nights in the Atacama" at our February 13th meeting. Below is one of his recent photos (the Trifid Nebula (M20)) remotely taken from his Naples home with his telescope in Chile.



Photo by Ted Wolfe of the Trifid Nebula (M20)

Photos by Club Members



Photo by Chuck Pavlick of the Orion Nebula (M42). The Orion nebula is probably the most photographed object in the night sky. It is the first object everyone tries because it is so bright. Most beginners blow out the core of this object. The trick is to take short exposures of 30 seconds and longer exposures of 300 seconds or more and combine them in processing software like photoshop using layers. This brings out the four stars called the Trapezium. I took this shot at the Fak.

Published Articles by EAS Members

Ted Wolfe's article in the Naples News/Collier Citizen on January 23, 2018: Looking Up: A puff of color in the depths of space.

https://www.naplesnews.com/story/news/local/communities/c ollier-citizen/2018/01/23/looking-up-puff-color-depthsspace/1054928001/

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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WEATHER WEBSITE FOR ASTRONOMERS

Contributed by Chuck Pavlick

Chuck came across a good website for astronomers and asked that we pass it on to our club members for their use. If you are interested in trying it, go to: <u>www.astrospheric.com</u>



Sixty Years of Observing Our Earth By Teagan Wall

Satellites are a part of our everyday life. We use global positioning system (GPS) satellites to help us find directions. Satellite television and telephones bring us entertainment, and they connect people all over the world. Weather satellites help us create forecasts, and if there's a disaster—such as a hurricane or a large fire—they can help track what's happening. Then, communication satellites can help us warn people in harm's way.



Photo of partial Lunar Eclipse taken by Bart Thomas on January 31, 2018.

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There are many different types of satellites. Some are smaller than a shoebox, while others are bigger than a school bus. In all, there are more than 1,000 satellites orbiting Earth. With that many always around, it can be easy to take them for granted. However, we haven't always had these helpful eyes in the sky.

The United States launched its first satellite on Jan. 31, 1958. It was called Explorer 1, and it weighed in at only about 30 pounds. This little satellite carried America's first scientific instruments into space: temperature sensors, a microphone, radiation detectors and more.

Explorer 1 sent back data for four months, but remained in orbit for more than 10 years. This small, relatively simple satellite kicked off the American space age. Now, just 60 years later, we depend on satellites every day. Through these satellites, scientists have learned all sorts of things about our planet.



For example, we can now use satellites to measure the height of the land and sea with instruments called altimeters. Altimeters bounce a microwave or laser pulse off Earth and measure how long it takes to come back. Since the speed of light is known very accurately, scientists can use that measurement to calculate the height of a mountain, for example, or the changing levels of Earth's seas.

Satellites also help us to study Earth's atmosphere. The atmosphere is made up of layers of gases that surround Earth. Before satellites, we had very little information about these layers. However, with satellites' view from space, NASA scientists can study how the atmosphere's layers interact with

light. This tells us which gases are in the air and how much of each gas can be found in the atmosphere. Satellites also help us learn about the clouds and small particles in the atmosphere, too.

When there's an earthquake, we can use radar in satellites to figure out how much Earth has moved during a quake. In fact, satellites allow NASA scientists to observe all kinds of changes in Earth over months, years or even decades.

Satellites have also allowed us—for the first time in civilization—to have pictures of our home planet from space.

Earth is big, so to take a picture of the whole thing, you need to be far away. Apollo 17 astronauts took the first photo of the whole Earth in 1972. Today, we're able to capture new pictures of our planet many times every day.

Today, many satellites are buzzing around Earth, and each one plays an important part in how we understand our planet and live life here. These satellite explorers are possible because of what we learned from our first voyage into space with Explorer 1—and the decades of hard work and scientific advances since then.

To learn more about satellites, including where they go when they die, check out NASA Space Place: https://spaceplace.nasa.gov/spacecraft-graveyard

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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: _____

Phone: _____

Email: _____