Monthly Notices of the Everglades Astronomical Society

Naples, FL
March 2017

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President's Message

Thanks to all of you for your kind comments regarding my presentation last month. Our upcoming meeting will be hosting Jack Berninger as our guest speaker. His presentations are inspirational and encourage us to share our passion with others, especially our youth.

The March issue of *Reflector* arrived this week. In reading through it, I was delighted to see a brief article on variable stars on page 9 (at the bottom). I'm bringing this to your attention one month early as I'm afraid that you will misplace the magazine before our April meeting. The topic of the April meeting is variable stars. I thought this might help you get the most of this presentation.

For those who attended the Winter Star Party, be prepared for me to call on you for a report. For those of you who did not attend, be prepared to share with us any observing reports or news you may have. I consider this part of our meetings strategic in fostering the growth and enthusiasm of our club.

If you have already made plans to go see the eclipse, you can skip this paragraph. Perhaps you may be tired of me harping on you to go, **BUT**, I really don't want you to miss one of the most exciting astronomical experiences. The main reasons I'm being so annoying in trying to get everyone to partake in this experience is because, as eclipses go, it is an easy one to get to. Also, it is in the summer. You don't have to contend with cold and snow. If you are considering experiencing this phenomenon, make your plans as soon as possible. Hotels and campgrounds are already filling up. You can thank me later.

Clear skies, Denise Sabatini

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
March 18	Midnight	10:29 a.m.
March 25	4:45 a.m.	4:27 p.m.

Sky Events

March 5 - First Quarter
March 12 - Full Moon
March 20 - Last Quarter
March 20 - Spring Equinox
March 27 - New Moon
March Comets and Transits of Jupiter on page 4.

Next Meeting

March 14, 2017: Time 7:00 – 9:00 pm
Norris Center, Cambier Park

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Winter Star Party 2017

Another awesome Winter Star Party in the Florida Keys! This year, 17 EAS club members attended the WSP: Todd Strackbein, Charlie Paul, Jon Paul, James Paul, Mike Usher, Jackie Richards, Rick and Lori Piper, Bob Francis, Jim Francis, Bob Gurnitz, Mary Ann Wallace, Lou Tancredi, Eric Uthus, Victor and Maryann Farris and Armando Merlo. The

WSP 2017 Group Photo. Victor Farris, Jackie Richards, Eric Uthus, Lori Piper, Rick Piper, Mike Usher, Bob Gurnitz, James Paul, Jon Paul, Charlie Paul, Bob Francis and Jim Francis.

weather was crazy with rain and wind storms but more than half the week provided clear skies. Our club members claimed three door prizes this year: Bob Gurnitz won Annals of the Deep Sky (Vols. 1-4) by Kanipe Webb; Lori Piper won a mini telescope; and Jim Francis won a telescope collimator.

Good times, good people, good food and mostly clear skies in the Florida Keys. What more could you ask for? Well…I'll tell you…NO GIANT PALMETTO BUGS in your tent. Yes, I had one…EEEEEK.

Mike Usher chillaxing at the WSP 2017.

Photo of the Southern Cross by Lori Piper at the WSP 2017. Eta Carina can be seen peaking over the top of the plant on the right side.

Lou Tancredi at the WSP 2017.

It was a little windy one day…just a little. Bob Gurnitz's tent at the WSP.

Photo of IC 405 (in the Constellation Auriga) by Armando Merlo at the WSP 2017.

Canis Major (Big Dipper) and Polaris by Bob Gurnitz at the WSP 2017. Ten seconds. See below picture also by Bob Gurnitz of same shot but at 10 minutes.

Canis Major (Big Dipper) rotating around Polaris by Bob Gurnitz at the WSP 2017. 10 minute exposure.

Seagull Nebula taken by Armando Merlo at the WSP 2017.

Orion Nebula by Bob Francis at the WSP 2017.

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Published Articles by EAS Members

Ted Wolfe's article in the Naples News/Collier Citizen on February 22, 2017: Looking Up: Way beyond huge: Super-sized galaxy has a giant black hole.

http://www.naplesnews.com/story/news/local/communities/collier-citizen/2017/02/22/looking-up-way-beyond-huge-super-sized-galaxy-has-giant-black-hole/98266996/

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://search.naplesnews.com/jmg.aspx?k=looking+up+ted+wolfe

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Interactive Site for
best solar eclipse locations
Contributed by Bart Thomas

http://xjubier.free.fr/en/site_pages/solar_eclipses/TSE_2017_GoogleMapFull.html?Lat=33.6647&Lng=-80.7789&Zoom=9&Map='ROADMAP'&OMap=0

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Solar Eclipse Provides Coronal Glimpse

By Marcus Woo

On August 21, 2017, North Americans will enjoy a rare treat: The first total solar eclipse visible from the continent since 1979. The sky will darken and the temperature will drop, in one of the most dramatic cosmic events on Earth. It could be a once-in-a-lifetime show indeed. But it will also be an opportunity to do some science.

Only during an eclipse, when the moon blocks the light from the sun's surface, does the sun's corona fully reveal itself. The corona is the hot and wispy atmosphere of the sun, extending far beyond the solar disk. But it's relatively dim, merely as bright as the full moon at night. The glaring sun, about a million times brighter, renders the corona invisible.

"The beauty of eclipse observations is that they are, at present, the only opportunity where one can observe the corona [in visible light] starting from the solar surface out to several solar radii," says ShadiaHabbal, an astronomer at the University of Hawaii. To study the corona, she's traveled the world having experienced 14 total eclipses (she missed only five due to weather). This summer, she and her team will set up identical imaging systems and spectrometers at five locations along the path of totality, collecting data that's normally impossible to get.

Ground-based coronagraphs, instruments designed to study the corona by blocking the sun, can't view the full extent of the corona. Solar space-based telescopes don't have the spectrographs needed to measure how the temperatures vary throughout the corona. These temperature variations show how the sun's chemical composition is distributed—crucial information for solving one of long-standing mysteries about the corona: how it gets so hot.

While the sun's surface is ~9980 Farenheit (~5800 Kelvin), the corona can reach several millions of degrees Farenheit. Researchers have proposed many explanations involving magneto-acoustic waves and the dissipation of magnetic fields, but none can account for the wide-ranging temperature distribution in the corona, Habbal says.

You too can contribute to science through one of several citizen science projects. For example, you can also help study the corona through the Citizen CATE experiment; help produce a high definition, time-expanded video of the eclipse; use your ham radio to probe how an eclipse affects the propagation of radio waves in the ionosphere; or even observe how wildlife responds to such a unique event.

Otherwise, Habbal still encourages everyone to experience the eclipse. Never look directly at the sun, of course (find more safety guidelines here: https://eclipse2017.nasa.gov/safety). But during the approximately 2.5 minutes of totality, you may remove your safety glasses and watch the eclipse directly—only then can you see the glorious corona. So enjoy the show. The next one visible from North America won't be until 2024.

For more information about the upcoming eclipse, please see:

NASA Eclipse citizen science page
https://eclipse2017.nasa.gov/citizen-science

NASA Eclipse safety guidelines
https://eclipse2017.nasa.gov/safety

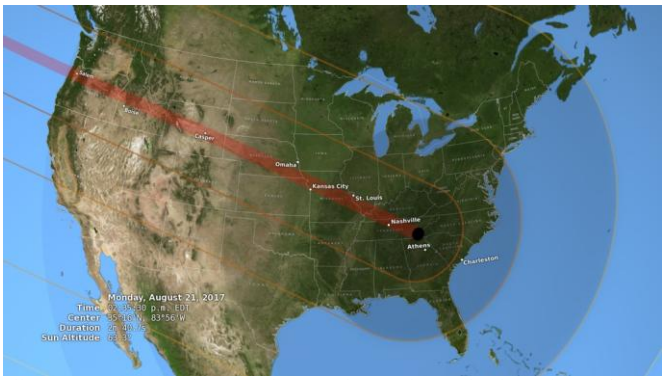

Illustration showing the United States during the total solar eclipse of August 21, 2017, with the umbra (black oval), penumbra (concentric shaded ovals), and path of totality (red) through or very near several major cities. Credit: Goddard Science Visualization Studio, NASA

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More Sky Events

March 10 – Transit of Jupiter (Ganymede)
March 16 – Transit of Jupiter (Europa)
March 18 – Transit of Jupiter (Io)
March 23 – Transit of Jupiter (Europa)
March – Comet 2P/Encke – Brightening (Peak at 5th mag. on March 10). Currently in Pisces.
March – Comet PANSTARRS (C/2015 ER61) – Brightening (Peak at 6th mag. on May 2). Currently in Sagittarius.
March – Comet C/2015 V2 (Johnson) – Brightening (peak at 6th mag. on 6/5/17). Currently in Hercules.
Comet info taken from http://www.in-the-sky.org

EAS 2017 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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Phone: _____

Email: _____