



Monthly Notices of the Everglades Astronomical Society



Naples, FL
September 2015

Officers: **President:** Todd Strackbein (tstrackbein@gmail.com); **VP/Secretary:** Denise Sabatini (dsabatini2@embarqmail.com);
Treasurer: Bob Gurnitz; **Newsletter Editor:** Jackie Richards (jmrichards2005@yahoo.com)
Mailing Address: P. O. Box 1868, Marco Island, FL 34146
Fak Coordinator & information on viewing: Charlie Paul (cpaul651@earthlink.net) 410-8192
Home Page: <http://naples.net/clubs/eas> **Webmaster:** Martin Zombeck (mvz@alum.mit.edu)

President's Message

Welcome back! This Tuesday is our first regular meeting at the Norris Center of the season. I am looking forward to the upcoming meetings and wonderful observing opportunities at the FAK as a club. This Tuesday's meeting we will have a video and some time for discussion. Let's share info/ideas on upcoming astronomical events and how we can make this an even better club. We will also be discussing volunteer needs for our upcoming calendar and looking for presenters for several meetings this year. Let us know your ideas.

As a follow up on our summertime YMCA partnership, the weather had been less than cooperative. Only one out of the three scheduled rooftop events happened. We have been asked about additional nighttime and daytime solar observing but have yet to coordinate dates with other special family events at the YMCA. I'll keep everyone posted when further opportunities come up. I think those of us who helped with the first event felt this is a worthwhile partnership.

I'm looking forward to seeing everyone back.

Clear Skies, Todd Strackbein

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
Sept. 5	after midnight	1:11 p.m.
Sept. 12	5:36 a.m.	6:17 p.m.

Sky Events

Sept. 5 - Last quarter
Sept. 12 - New Moon

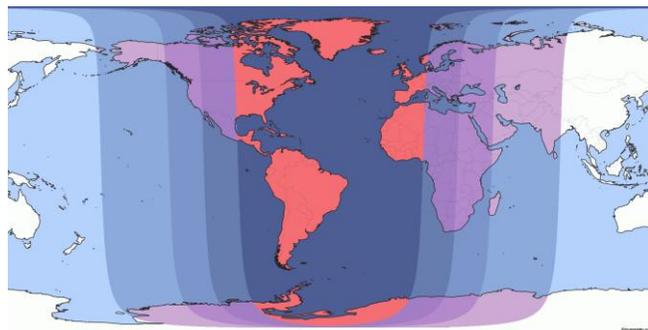
Sept. 21 - First Quarter
Sept. 23 - Autumn Equinox
Sept. 27 - Full moon
Sept. 27 - Total Lunar Eclipse

Next Meeting

September 8, 2015: Time 7:00 – 9:00 pm
Norris Center, Cambier Park

Total Lunar Eclipse-September 27th By Jackie Richards

The fall has so much to offer amateur astronomers in Florida. Mainly, it's a sign that clear skies are coming. Woo hoo! The first day of fall, also known as the autumn equinox, will occur on September 23rd. That day provides us with the same amount of daylight as darkness. On September 27th, all of Florida and the eastern half of the U.S. will have 100% viewing access to a total lunar eclipse from beginning to end,



100% visible (start to end).
More than 75% of the event is visible.
Less than 75% of the event is visible.
Less than 50% of the event is visible.

Percentage values (%) are of the overall eclipse event. Lighter shadings left (West) of center will experience the eclipse after moonrise/sunset. Shadings right (East) will experience until moonset/sunrise. Actual eclipse visibility depends on weather conditions and line of sight to the Moon. Chart and percentages are from timeanddate.com.

weather permitting of course. The above table shows the percentages of visibility for North America and other continents. Hope you all get to see it!

While we have no recent night sky photos to share from this past summer, Chuck Pavlick continues to “wow” us all with yet another gorgeous shot of the sun taken on August 21, 2015.

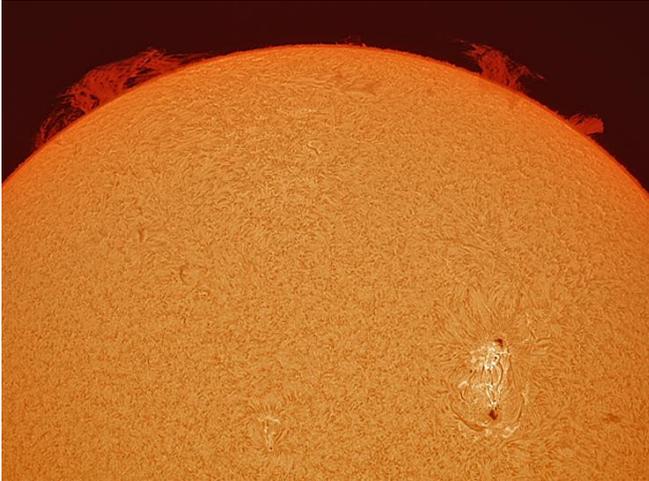


Photo by Chuck Pavlick taken 8/21/15.

* * *

Published Articles by EAS Members

Ted Wolfe’s article in the Naples News/Collier Citizen on August 25, 2015, Looking up: Deep space groupies: Compact groups of galaxies leads to bigger ‘dark matter’ questions: http://www.naplesnews.com/community/collier-citizen/looking-up-deep-space-groupies-compact-groups-of-galaxies-leads-to-bigger-dark-matter-questions_61301752

Mike Usher’s article in the Coastal Breeze News on 8/20/15, Southern Skies: It’s About Time: <http://www.coastalbreezenews.com/2015/08/20/its-about-time/>

TO VIEW THESE ARTICLES, PRESS “CTRL” AND LEFT CLICK BUTTON.

* * *



Earth’s Cousin By Katie McKissick National Aeronautics and Space Administration

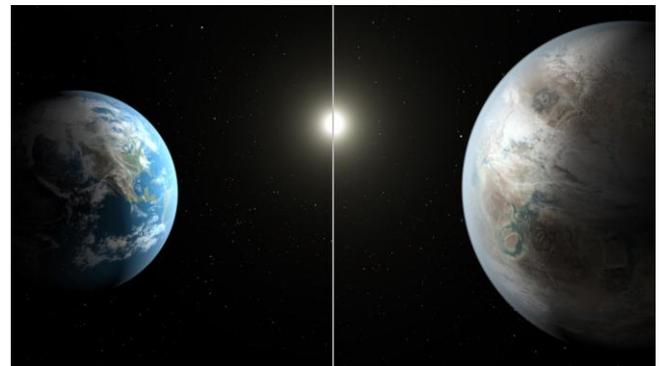
Since it’s always nice to make new friends, NASA is on the lookout for exoplanets. These are planets outside our solar system. They orbit a faraway star or float freely between stars.

We’re especially curious about planets similar to Earth. In our vast universe, with countless galaxies, stars, and planets, are there other planets like our own? Do they have living things we could never imagine? Are there other intelligent living things that are looking for us as we are looking for them?

We don’t know! But we’d sure like to find out.

The Kepler mission could possibly find such an exoplanet someday. The Kepler spacecraft orbits our sun just like Earth does. It scans the starry skies for faraway planets. It looks for distant stars that decrease in brightness as planets pass in front of them. So far Kepler has found 4,696 possible planets. Of those, 1,030 are definitely planets. Some of them are enormous gas giants like Jupiter, and some of them are small rocky planets like Earth.

In July of this year, Kepler made a really amazing discovery. It found a nearly Earth-sized planet orbiting a nearly sun-like star in the *habitable zone*. That’s the sweet spot in a solar system. The habitable zone is the distance from a star where a planet might be the right temperature to have living things. Earth sits in the habitable zone of our own star, the sun.



This artist's concept compares Earth (left) to the new planet, called Kepler-452b, which is about 60 percent larger in diameter. Credits: NASA/JPL-Caltech/T. Pyle

This newly discovered planet is named Kepler-452b It’s named after the star it orbits, which we call Kepler-452. Planet Kepler-452b is about one and a half times bigger than Earth, and it’s probably rocky like Earth is. One year on Kepler-452b lasts 385 days, just a little bit longer than a year here on Earth. The star it orbits is bigger, brighter, and older than our sun is. That means the planet is older too. Could there be life there?

It’s hard to say. Kepler-452b is 1,400 light-years away. That means it takes light, which travels staggeringly fast, 1,400 years to get there. It also means that any communications between the planets would take 1,400 years to be received. So we won’t be sending any text messages to Kepler-452b just yet. But we’ll be watching from afar.

Want to know more about exoplanets? Read about the “lone planet,” a Jupiter-sized planet without a star at NASA Space Place: <http://spaceplace.nasa.gov/lone-planet>

* * *

EAS 2015 DUES

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>

* * *

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:

Phone:

Email:
