



# Monthly Notices of the Everglades Astronomical Society



Naples, FL  
October 2015

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

## President's Message

Hope everyone had an opportunity to view the full Lunar Eclipse. Locally most areas had some clear moments. Several members took pictures which are included in the newsletter. We should have opportunities for some nice club viewing events coming up during the coming months as skies continue to clear up. Let's try to make this season one of the highest attendance for FAK viewing nights. Also please check our calendar for upcoming events.

Mike Usher will be running this Tuesday's meeting in my absence and Denis Albright will be presenting. For those newer to the club, our typical meeting agenda includes the first 15-30 minutes for club business discussions, a quick break to socialize (sorry I won't be there with refreshments) and then into the presentation.

Don't forget to get yourself a fresh new EAS club shirt or hat. Those items are on sale at every meeting. During the break it's also a great time to make sure you are current on your dues.

Lastly Winter Star Party tickets have gone on sale to the general public. Attendance should be up again and may sell out. If interested don't waste time and get your ticket! Here is the link. <http://www.scas.org/wsp/registration/form.php>

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
Nov. 7	3:07 a.m.	3:28 p.m.
Nov. 14	9:09 a.m.	8:16 p.m.

## Sky Events

Oct. 4 - Last quarter  
Oct. 12 - New Moon

Oct. 20 - First Quarter  
Oct. 21-22 - Orionids Meteor Shower  
Oct. 27 - Full moon

## Next Meeting

**October 13, 2015: Time 7:00 – 9:00 pm**  
Norris Center, Cambier Park

## Telescopes, Eclipses and Stars, Oh My By Jackie Richards

I couldn't have been at a better place than New Mexico/Arizona to view and photograph the total lunar eclipse on Sunday, September 27<sup>th</sup>, with club members, Rick and Lori Piper. From the darkness at totality, the Milky Way glowed from horizon to horizon as did all of the stars. I've never seen it look so beautiful. See photos of the eclipse on page 2. If you missed it, the next total lunar eclipse is October 8, 2033. We observed the eclipse at former EAS President Gene Turner's place, Rancho Hidalgo, near Animas, New Mexico, near Portal, Arizona. Gene is also affiliated with the Arizona Sky Village which is a community dedicated to the preservation of its pristine natural surroundings, native habitat and dark skies. On his property sat a monstrous 16-inch f/10



16" f/10 reflector telescope built by Clyde Tombaugh (discoverer of Pluto). Rancho Hidalgo, New Mexico. Photo by Jackie Richards, 9/27/15.

Reflector telescope built by American astronomer, Clyde Tombaugh, who discovered Pluto in 1930. This telescope was not the one used to discover the reclassified “dwarf planet” (ugh, I hate how that sounds), but it was an awesome scope. The telescope and mount required about a ton of steel and is so sturdy that Tombaugh decided not to use any dome or sliding roof structure around it. It sits in the desert naked but not afraid. The scope was relocated to Rancho Hidalgo in 2008 and is used for educational programs run by Gene Turner.

Also, while in Arizona, we visited the Lowell Observatory in Flagstaff and Meteor Crator. We also found ourselves standing on a corner in Winslow, Arizona, and were able to “Take it Easy” as recommended by the Eagles.

## Photos of Lunar Eclipse September 27, 2015



Beginning of the lunar eclipse. Still daylight. Rancho Hidalgo, New Mexico. Photo by Jackie Richards 9/27/15. Former EAS Pres. Gene Turner in photo.



Total lunar eclipse. Rancho Hidalgo, New Mexico. Photo by Rick and Lori Piper 9/27/15.



Total lunar eclipse. Rancho Hidalgo, New Mexico. Photo by Jackie Richards 9/27/15.

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### Published Articles by EAS Members

Ted Wolfe’s article in the Naples News/Collier Citizen on September 23, 2015, Looking up: Twinkle, twinkle, little star, now I know just where you are:

[http://www.naplesnews.com/community/collier-citizen/looking-up-twinkle-twinkle-little-star-now-i-know-just-what-you-are\\_32420242](http://www.naplesnews.com/community/collier-citizen/looking-up-twinkle-twinkle-little-star-now-i-know-just-what-you-are_32420242)

TO VIEW THIS ARTICLE, PRESS “CTRL” AND LEFT CLICK BUTTON.



Beginning of the lunar eclipse. Still daylight. Rancho Hidalgo, New Mexico. Photo by Jackie Richards 9/27/15.



Club Members, Charlie Paul, Bob Francis and Chuck Pavlick volunteered at the Palmetto Ridge High School solar event (third year for this event) for 250 freshman students. Chuck Pavlick and Bob Francis in photo. Photo by Charlie Paul.

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## Protecting the Forest

By Katie McKissick

National Aeronautics and Space Administration

When you think about NASA, you probably picture outer space, comets, and galaxies. But there is also much to explore

on our home planet Earth. We still have a lot to learn about the weather, the water cycle, Earth's interior, and our planet's many ecosystems.

And NASA doesn't only research big systems like the atmosphere; it also looks at much smaller things like individual trees. In fact, NASA is using new technology to help protect forests from pesky bugs.

In the northeastern United States, millions of pine and ash trees are in danger because of two small insects, the southern pine beetle and the emerald ash borer. They burrow into trees and kill them. Technology from NASA's Goddard Space Flight Center in Greenbelt, Maryland, will help the U.S. Forest Service understand how much these bugs are hurting trees. Then researchers can make decisions to save as many trees as possible.

They use a machine called G-LiHT (pronounced *gee-light*). G-LiHT stands for "Goddard's LiDAR, Hyperspectral, and



G-LiHT sits inside the airplane's cockpit, over an open camera port that allows it to look down from about 1,000 feet high.  
Credits: NASA/Goddard Space Flight Center

Thermal Imager." It uses lasers and special cameras to see details in big ecosystems like forests. To get measurements, they put this device in an airplane and fly it over a large area. It sits on the floor over a window and looks down at the ground while it gathers information.

This machine flew over forests in Massachusetts, New Hampshire, New York, and Rhode Island this summer. It collected information about forests and how these insects are affecting them. It helped build 3-D images of each tree in the forest so scientists have detailed maps.

G-LiHT can see slight changes in the colors of leaves, which can show if trees are sick. This technology can even measure how much heat is coming off each tree. This is important since trees get a little warmer when insects damage them.

These insects are killing trees quickly, so researchers need to work fast. G-LiHT is great because it gathers data on large forests rapidly. Making detailed maps of forests without machines like G-LiHT takes years. The more information we

have now, the better we can save our trees from pests like the southern pine beetle and the emerald ash borer. After all, healthy forests are important for a healthy planet.

*Did you know we can see trees from space? Read about how two satellites can tell the difference between a pine tree and a maple tree at NASA Space Place: <http://spaceplace.nasa.gov/trees-from-space>*

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**Items For Sale or Trade or Wanted:**

[http://www.naples.net/clubs/eas/equipment\\_sales.html](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:

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Address:

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