



Monthly Notices of the Everglades Astronomical Society



Naples, FL
October 2009

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Presidents Message

Another month rolls around and here we are.

On Sunday October 25th we will set up scopes and show the sky to approximately 200 people. This is in support of an event called "Leading the way to Sustainability". By meeting day, I should know which of the two possible places it will be held, Lowdermilk Park or Seagate Park.

We can use assistance with our table next month at Art in the Park. On Saturday November 14th just someone to wear an EAS t-shirt and talk to people who look interested, and steer them over to the solar scopes where we will be showing the Sun.

The Orionids Meteor shower peaks on October 21st but early ones can be seen this Saturday night (Oct 17th) at the Fakahatchee, odds are better after midnight and better yet around 4:00am. This shower is left over debris from Halley's Comet. At it's peak on the 21st, the hourly rate is only 20 meteors per hour, in a good sky, so everything considered early on the morning of Sunday the 18th I would expect to see about 8 meteors per hour (at the Fakahatchee). I'd love to say I'll be there but it's not happening, so I'll expect a report from you.

See you at the meeting on Thursday, October 22nd 7:00pm at the Norris Center, 8th & 8th.

Good skies – clean glass.

Co-President
Rick Piper

Astronomical Trivia Question of the Month

Aristotle thought comets were phenomena of the atmosphere and this view held sway in western thought for two millennia. Who first provided definite proof that he was wrong?

- Charles Messier
- Seneca the Younger

- Galileo
- Tycho Brahe

Answer on next page.

Sky Events

Oct 18 – New Moon
Oct 21 – Orionid Meteor Shower
Oct 25 – 1st Quarter Moon
Nov 2 – Full Moon
Nov 9 – 3rd Quarter
Nov 16 – New Moon

Next Meeting

October 22, 2009
Time 7 – 9 pm
At the Norris Center

Meeting Date to Change

The Norris Center has been hit with a Naples wide city employee reduction. As a result they are consolidating all the evening events into 4 nights a month. We are being asked to move our meeting nights to one of the following:

2nd or 3rd Monday's

1st or 2nd Tuesday's.

This will start with the November meeting and continue for 2010.

This change will be discussed at our meeting this month on OCT 22nd.

Please send me (Charlie Paul cpaul651@earthlink.net) your comments, so Rick and I know which way you are leaning...

Dates for the “Fack”

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
Oct 17		6:22PM
Nov 14	4:35AM	



Staring at Lightning

There’s something mesmerizing about watching a thunderstorm. You stare at the dark, dramatic clouds waiting for split-second bursts of brilliant light — intricate bolts of lightning spidering across the sky. Look away at the wrong time and (FLASH!) you miss it.

Lightning is much more than just a beautiful spectacle, though. It’s a window into the heart of the storm, and it could even provide clues about climate change.

Strong vertical motions within a storm cloud help generate the electricity that powers lightning. These updrafts are caused when warm, moist air rises. Because warmth and lightning are inextricably connected, tracking long-term changes in lightning frequency could reveal the progress of climate change.

It’s one of many reasons why scientists want to keep an unwavering eye on lightning. The best way to do that? With a satellite 35,800 km overhead.

At that altitude, satellites orbit at just the right speed to remain over one spot on the Earth’s surface while the planet rotates around its axis — a “geostationary” orbit. NASA and NOAA scientists are working on an advanced lightning sensor called the Geostationary Lightning Mapper (GLM) that will fly onboard the next generation geostationary operational environmental satellite, called GOES-R, slated to launch around 2015.

“GLM will give us a constant, eye-in-the-sky view of lightning over a wide portion of the Earth,” says Steven Goodman, NOAA chief scientist for GOES-R at NASA’s Goddard Space Flight Center. Once GLM sensors are flying on GOES-R and its sister GOES-S, that view will extend 18,000 km from New Zealand, east across the Pacific Ocean, across the Americas, and to Africa’s western coast.

With this hemisphere-scale view, scientists will gather an unprecedented amount of data on how lightning varies from place to place, year to year, and even decade to decade. Existing lightning sensors are either on the ground — which limits their geographic range — or on satellites that orbit much closer to Earth. These satellites circle the Earth every 90

minutes or so, quickly passing over any one area, which can leave some awkward gaps in the data.

Goodman explains: “Low-Earth orbit satellites observe a location such as Florida for only a minute at a time. Many of these storms occur in the late afternoon, and if the satellite’s not overhead at that time, you’re going to miss it.”

GLM, on the other hand, won’t miss a thing. Indeed, in just two weeks of observations, GLM is expected gather more data than NASA’s two low-Earth orbiting research sensors did in 10+ years.

The new data will have many uses beyond understanding climate change. For example, wherever lightning flashes are abundant, scientists can warn aircraft pilots of strong turbulence. The data may also offer new insights into the evolution of storms and prompt improvements in severe weather forecasting.

Staring at (FLASH!) Did you miss another one? The time has come for GLM.

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The Geostationary Lightning Mapper (GLM) on the next generation of GOES satellites will detect the very rapid and transient bursts of light produced by lightning at near-infrared wavelengths. This image was taken from the International Space Station and shows the Aurora Australis and lightning.

Answer to Trivia Question

The answer is d. Tycho Brahe. Tycho showed in 1577 comets had no measurable parallax (by the standards of his day) thus showing comets were far beyond the atmosphere.

Halloween Treat

Here is an idea that came out a few years back in the *Reflector*: set your telescope up outside on the sidewalk at Halloween. Give the children another kind of treat! For a very large number it will be the first time they have ever looked through a telescope of any kind. Both the Moon and Jupiter are good targets in the early evening of October 31, although the Moon is a little too close to full. You might even dress up as your favorite *Star Trek* character for fun.