



ASTRAL PROJECTIONS

JANUARY 2015
VOLUME 26 ISSUE 1

President

Matthew McCue

President@astra-nj.org

Treasurer

Ro Spedaliere

Treasurer@astra-nj.org

Newsletter Editors

Anthony Vicidomini

Megan Vicidomini

astra.newsletter@gmail.com

Vice President-Secretary

Sarah Waters

VP@astra-nj.org

Webmaster

Donald Durett

Webmaster@astra-nj.org

A look inside this issue

Upcoming Events	Page 1
Recap	Page 2-3
NASA's Space Place	Page 4
NASA Highlight	Page 5
2015 Calendar	Page 5
President's Message	Page 6
ASTRA Library	Page 6
Celestial Events for Jan.	Page 6
ASTRA Wear	Page 6
Club Telescopes	Page 6

Upcoming Events

Monthly Meeting on Friday, January 9th

The next meeting will be held at the [Robert J. Novins Planetarium](#) located on the Ocean County College campus (Bldg. 13 next to parking lot 2) from 7pm to 10pm.

Telescope Workshop

Star Party on Saturday, January 24th

Join us as we set up our telescopes and observe the universe from 5:00pm to 8:00pm at [Jakes Branch County Park, 1054 Sunset Road, Beachwood NJ](#)

A.S.T.R.A.

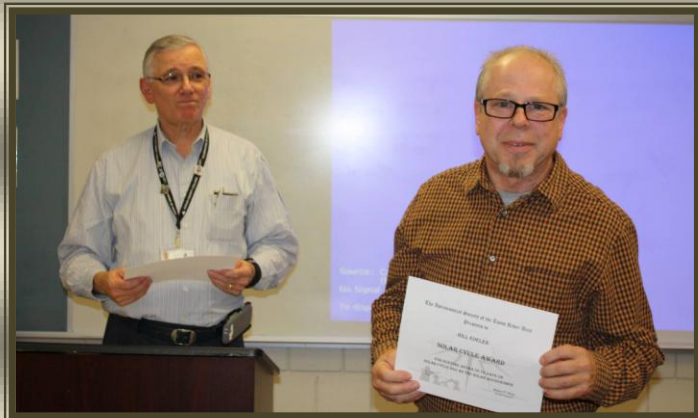
Robert J. Novins Planetarium
Ocean County College
P.O. Box 2001
Toms River NJ 08754-2001

EVENT CANCELLATIONS

Two hours before the event start time please check out the ASTRA Message Board at <http://forum.astra-nj.org/viewforum.php?f=4> or call the ASTRA Hotline: 609-971-3331

Recap

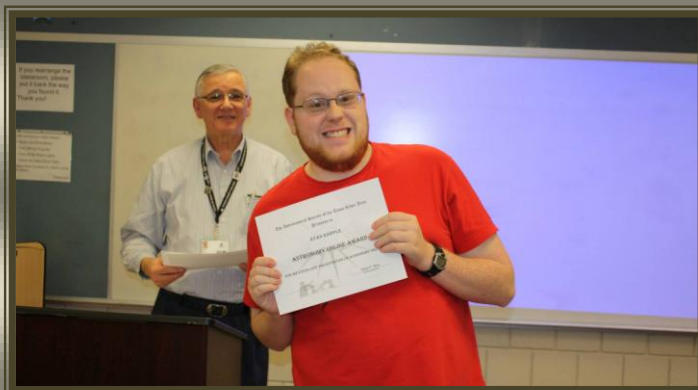
2014 ASTRA AWARDS



Bill Edelen: Solar Cycle Award!
For keeping ASTRA up to date on Solar cycle #24 as the solar astronomer.



Ro Spedalieri: Most Star Parties Cancelled Award!
Even though she keeps trying, the weather sometimes just doesn't cooperate.



Ryan Knipple: Astronomy Online Award!
For his excellent presentation on astronomy online.

ELECTED 2015 ASTRA OFFICERS

President: Matthew McCue
Vice-President – Secretary: Sarah Waters
Treasurer: Ro Spedalieri



Megan Vicidomini:
Youngest Newsletter Editor Award!
For helping her father to publish the monthly newsletter – Astral Projections.

Also: Best Student Presentation Award!
For her great presentation about the planet Mars.



Matthew McCue: Chemistry of the Universe Award!
For an excellent presentation on the chemical evolution in the universe

Sam Micovic: Mysteries of the Solar System Award!
For giving a great presentation on the solar system.

Award Photographs by John Endreson

Dr. R. Erik Zimmermann Award
Ro Spedaliere



Because of her interest in the hobby, enthusiasm for the club, her personal efforts to keep the club running smoothly financially, her push to get new people into Astronomy and her never ending dedication to Public Outreach, we the members of ASTRA present Ro Spedaliere, our highest honor, "The Dr. R. Erik Zimmerman Award".
We All Thank You Very Much.





Keeping an Eye on Storms and More

By Kieran Mulvaney

In late July 2013, Tropical Storm Flossie barreled furiously toward Hawaii. The question was not if it would strike, but when and where it might do so.

During the afternoon hours of July 29, forecasts predicted landfall later that week on the state's Big Island; however, by the time residents of the 50th state awoke the following morning things had changed. NOAA's Central Pacific Hurricane Center warned that the islands of Oahu, Molokai and Maui were now at a greater risk.

This overnight recalculation was thanks to the Day/Night Band viewing capabilities of the Visible Infrared Imaging Radiometer Suite, or VIIRS, on board the Suomi National Polar-Orbiting Partnership (Suomi NPP) satellite. VIIRS is able to collect visible imagery at night, according to Mitch Goldberg, program scientist for NOAA's Joint Polar Satellite System (JPSS), of which Suomi NPP is a part. That means it was able to spot some high-level circulation further north than expected during the nighttime hours. This was an important observation which impacted the whole forecast. Without this forecast, said the Hurricane Center's Tom Evans, "we would have basically been guessing on Tropical Storm Flossie's center."

Polar-orbiting satellites, like Suomi NPP and the future JPSS-1 and JPSS-2 (scheduled for launch in 2017 and 2021, respectively), sweep in a longitudinal path over Earth as the planet rotates beneath them—scanning the globe twice a day. VIIRS, the imager that will be aboard all the JPSS satellites, images 3,000 km-wide swaths on each orbit, with each swath overlapping the next by 200 km to ensure uninterrupted global coverage. This high-resolution, rapidly updating coverage allows researchers to see weather patterns change in near real-time.

Instruments on Suomi NPP allow scientists to study such long-term changes too—things like, "the patterns of sea surface temperature, or coral bleaching," says Goldberg. They are even used by the World Bank to determine how much energy is burned off and wasted from natural gas flares on oil drilling platforms.

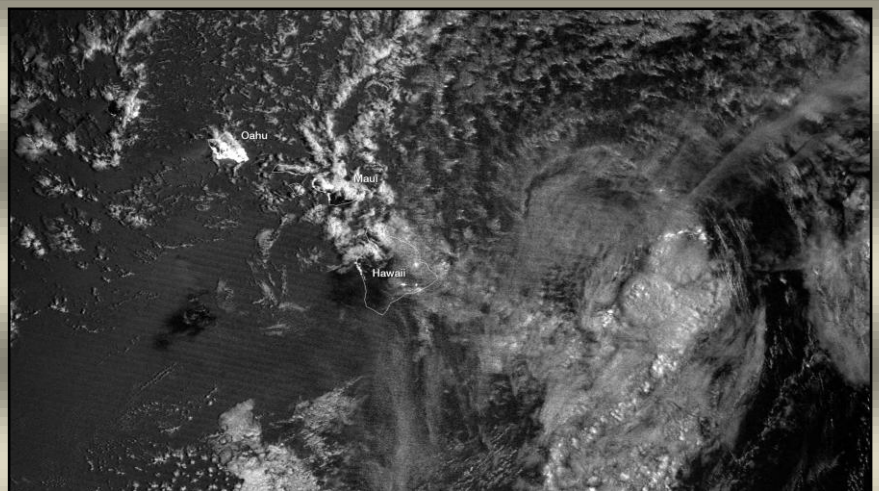
While scientists are excited by the JPSS series' wide range of capabilities, the ability to address pressing immediate concerns is, for many, the most tangible value. That was certainly the case in July 2013, when thanks to Suomi NPP, authorities had ample time to close ports and facilities, open shelters, activate emergency procedures, and issue flash flood warnings. Despite heavy rains, high surf, and widespread power outages, accidents and injuries were few. By the time the storm passed, Hawaii was soaked. But it was largely unharmed.

Learn more about JPSS here:

<http://www.jpss.noaa.gov>.

S-NPP captured this image of Tropical Storm Flossie heading toward Hawaii using its VIIRS Combined Day-Night Band sensor.

Credit: NOAA.



NASA Highlight

Information from www.nasa.gov/



NASA's New Orion Spacecraft Completes First Spaceflight Test

NASA marked a major milestone Friday as the Orion spacecraft completed its first voyage to space, traveling farther than any spacecraft designed for astronauts has been in more than 40 years.

The United Launch Alliance Delta IV Heavy rocket with NASA's Orion spacecraft mounted atop, lifts off from Cape Canaveral Air Force Station's Space Launch Complex 37 at 7:05 a.m. EST, Friday, Dec. 5, 2014, in Florida.

Image Credit: NASA/Bill Ingalls

2015 CALENDAR

Jan 9 [ASTRA Meeting \(7pm – 10pm\)](#)
Telescope Workshop

Jan 24 [Star Party \(5pm – 8pm\)](#)
Public star party at Jakes Branch

Feb 13 [ASTRA Meeting \(7pm – 10pm\)](#)

Feb 21 [Star Party \(5pm – 8pm\)](#)
Public star party at Jakes Branch

Mar 13 [ASTRA Meeting \(7pm – 10pm\)](#)

Mar 21 [Star Party \(6pm – 9pm\)](#)
Public star party at Jakes Branch

Apr 10 [ASTRA Meeting \(7pm – 10pm\)](#)

May 8 [ASTRA Meeting \(7pm – 10pm\)](#)

Jun 12 [ASTRA Meeting \(7pm – 10pm\)](#)

Jul 10 [ASTRA Meeting \(7pm – 10pm\)](#)

Aug *No Meeting*

Sep 11 [ASTRA Meeting \(7pm – 10pm\)](#)

Oct 9 [ASTRA Meeting \(7pm – 10pm\)](#)

Nov 13 [ASTRA Meeting \(7pm – 10pm\)](#)

Dec 11 [ASTRA Meeting \(7pm – 10pm\)](#)

A MESSAGE FROM THE PRESIDENT

Fellow ASTRA members,

As usual, we are looking for volunteers to give presentations on a topic related to astronomy or space science at our monthly meetings in 2015.

If you're interested, please let us know the subject of your talk and the months you would prefer.

Only the following months are not available at this time:

January (telescope help to the public), March (Al Nagler's talk), August (no meeting), and October (planetarium show).

Guest speakers are welcome to make presentations. Your help in arranging this would also be most appreciated.

You can also let us know what subjects you would like someone else to talk about.

Thank you,

Matthew McCue, President-elect



CELESTIAL EVENTS FOR JANUARY 2015

January 3, 4 - Quadrantids Meteor Shower

January 5 - Full Moon

January 20 - New Moon

Source: <http://www.seasky.org/>

CLUB TELESCOPES:

A.S.T.R.A. owns seven small telescopes

- 6-inch Dobsonian (needs repairs)
- 8-inch Dobsonian
- 80mm Celestron Refractor
- 120mm EQ AstroView Refractor.
- Lunt 35mm H-Alpha solar scope
- 8-inch Celestron NexStar 8i SE
- 60mm Meade EQ refractor

These telescopes are available for club members to borrow and use for a month or two at a time. Contact John Endreson at [Telescope Loan@astra-nj.org](mailto:TelescopeLoan@astra-nj.org) to borrow a telescope

ASTRONOMICAL HELP OR ITEMS FOR SALE

If you have an astronomical item to sell, or need help with an astronomical problem (a question, or telescope setup) contact the President President@astra-nj.org to announce it at a meeting. To advertise in the our monthly newsletter please send all information to astra.newsletter@gmail.com

ASTRA LIBRARY OF BOOKS AND DVDS:

Many books and DVDs are available for loan from the ASTRA Library for a one month period. A list of these items is available on the ASTRA website. Request for these items must be made prior to our regular meeting and returned by the following meeting. Please e-mail your request for these items to our Librarian Barbara Novick at Library-Loan@astra-nj.org or call her at 732-840-3111.

ASTRONOMICAL LEAGUE MEMBER SOCIETY

Astronomical League National Headquarters, 9201 Ward Parkway; Suite 100, Kansas City, MO 64114

1-816-333-7759 or www.astroleague.org

The REFLECTOR is published in March, June, September and December. If you do not receive your copy of the REFLECTOR magazine, contact Astronomical League Coordinator (Alcor) Ro Spedaliere (Treasurer@astra-nj.org)

FEBRUARY NEWSLETTER DEADLINE:

JANUARY 23, 2015



ASTRA-WEAR – Embroidered and / or Printed items with the ASTRA Logo

You can see some samples at ASTRA meetings. To order by mail: Shelter Cove Embroidery Co. 1333 Bay Ave Toms River, NJ 08753 call 732-506-7700 or E-mail astra-wear@estitches.com. Order form is on the ASTRA website.