



# ASTRAL PROJECTIONS

May 2013  
Volume 24 Issue 5



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**APRIL MEETING:** Bob Salvatore presented Famous Astronomers VIII. These were all of the astronauts from Apollo 1 through 10. He put jokes in here and there including his now famous Peggy Fleming joke. At a future meeting he will talk about Apollo 11 through 17. Will he include Apollo 18??

**MAY MEETING:** May 10, 2013, "Telescope Equipment Show & Tell" Presented by All Members. If you have any new equipment (or even something old) and you would like to show it to the club, bring it along.

## Announcements

**DUES ARE DUE:** Annual dues for ASTRA were past due as of the March meeting. Dues will be collected at the next meeting for any new members and any old ones who "forgot." Whether you mail your payment or bring it in person, *please include the registration form*. It's the only way we can keep track of your payment. Membership application form is available online.

**MEMBERSHIP IN THE ASTRONOMICAL LEAGUE** – is separate and requires an additional dues payment of **\$7.50**. The Astronomical League Membership Form is also available online.

## What's up this month?

**CITTA SCOUTS:** A night under the stars with the Scouts. Saturday, May 11, 2013, 7:30 PM - 10:30 PM. Location: Joseph A. Citta Scout Camp, 229 Brookville Road, Barnegat, NJ 08005

**JAKE'S BRANCH COUNTY PARK:** Come join us under star filled skies to observe the Universe. Saturday, May 18, 2013, 7:00 PM - 10:00 PM. Location: Jakes Branch County Park, Double Trouble Rd, Beachwood, NJ 08722

Check the online message board on the date of the star party for up to date information on these events.

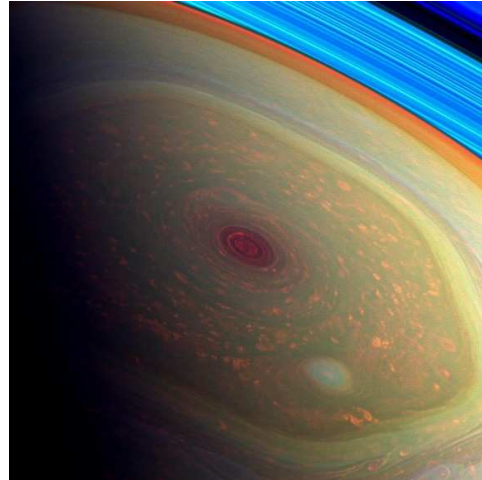




**CELESTIAL EVENTS FOR MAY:** Mercury appears in the evening sky by mid month. Venus is low in the evening sky in the west – not good for northern observers. Mars is not visible this month. Jupiter is visible low in the western sky and disappears into the twilight at the end of the month. Saturn is now visible during the night. Highlights for the month:

- 2 Last Quarter Moon
- 10 New Moon
- 12 Jupiter 3° north of Moon
- 18 First Quarter
- 23 Saturn 4° north of Moon
- 25 Mercury 1.4° north of Venus  
Full Moon
- 27 Mercury 2° north of Jupiter
- 28 Venus 1° north of Jupiter
- 31 Last Quarter Moon

## Storm on Saturn



A false-color view of Saturn's storm, as seen through Cassini's wide-angle camera. You can see the eye in dark red, the jet stream in yellowish-green, and low-lying clouds in orange. The blue bands at the edge are Saturn's rings. Credit: NASA/JPL-Caltech/SSI  
Seen on Universe Today

<http://www.universetoday.com/101836/saturn-storms-suck-zone-shown-in-spectacular-cassini-shots/#more-101836>



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## Astronomy Day Reports

**Astronomy Day April 13:** We had a good turn out during the day. Some displays were set up. Bob did his comet making twice. There was only a little solar observing as the clouds were thick during the day. We were concerned that the clouds would hang around for the night. Fortunately the clouds broke up at night and it was clear. We had a very good turn out at night. There were at least 6 scopes set up. We had a good view of the 3 day old crescent moon in the west. Some of the objects that were seen: Jupiter, M42, M82, the double cluster, Mizar and Alcor, and M41. The last object to be seen was Saturn which had risen above the horizon. It was still a bit blurry because we were looking through the atmosphere, but it was a big hit with the visitors.

**From Bob Salvatore:** I arrived around 11:30 and there were 5 or 6 kids with their parents working with Sara, Bill and Erin. After about a half hour they came inside to the Planetarium lobby where I started the Solar System presentation. The kids had fun as well as the parents. I was finished with the Solar System and about to make the comet when the Planetarium show let out. This was a group that was there for a birthday party and many of them stayed for the comet making before going to the party. We all fun and they went in for the party. It was quiet for a while after that, and then around 2:00 the second show let out and I did another comet for the 3 kids and their parents. There were 2 pajama parties scheduled for the evening which I couldn't make. Hope there was good turnout. Thanks to all that helped.

### **Astronomy Day April 20: (From Bob Salvatore)**

First let me thank all the ASTRA members that showed up to help at Jake's Branch, Ro, Vinny, Vic, Bill, Bill, Erin, Phil and Ryan. We had about 60 people in and out from 1- 4 in the afternoon. There were plenty of Solar Scopes outside but not much sun. Many people learned about the sun anyway and got some cloudy views of sunspots. Indoors we had lots of books and charts on display and there were lots of questions and discussions. I had about 8 kids and their parents for the first Solar System and Comet making show. The second show I had about 15 kids and maybe 20 adults so both shows were lots of fun and informative for the kids. At night the sky didn't cooperate at all but we still had the Moon and Jupiter so the 75 or so guests we had were satisfied never having seen either before. In all it was a very successful ASTRA event and we look forward to doing it at Jake's Branch again next year. Once again thanks to all who came.

## Exploring the Water World

*This article was written by Diane K. Fisher and provided through the courtesy of the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.*

In some ways, we know more about Mars, Venus and the Moon than we know about Earth. That's because 70% of our solar system's watery blue planet is hidden under its ocean. The ocean contains about 98% of all the water on Earth. In total volume, it makes up more than 99% of the space inhabited by living creatures on the planet.

As dominant a feature as it is, the ocean—at least below a few tens of meters deep—is an alien world most of us seldom contemplate. But perhaps we should.

The ocean stores heat like a “fly wheel” for climate. Its huge capacity as a heat and water reservoir moderates the climate of Earth. Within this Earth system, both the physical and biological processes of the ocean play a key role in the water cycle, the carbon cycle, and climate variability.

This great reservoir continuously exchanges heat, moisture, and carbon with the atmosphere, driving our weather patterns and influencing the slow, subtle changes in our climate.

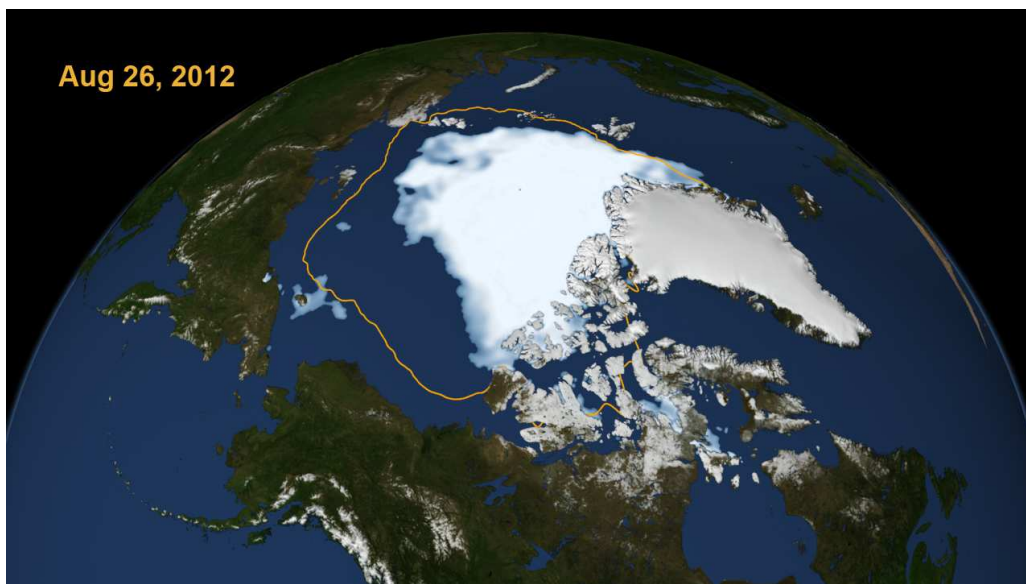
The study of Earth and its ocean is a big part of NASA's mission. Before satellites, the information we had about the ocean was pretty much “hit or miss,” with the only data collectors being ships, buoys, and instruments set adrift on the waves.

Now ocean-observing satellites measure surface topography, currents, waves, and winds. They monitor the health of phytoplankton, which live in the surface layer of the ocean and supply half the oxygen in the atmosphere. Satellites monitor the extent of Arctic sea ice so we can compare this important parameter with that of past years. Satellites also measure rainfall, the amount of sunlight reaching the sea, the temperature of the ocean's surface, and even its salinity!

Using remote sensing data and computer models, scientists can now investigate how the oceans affect the evolution of weather, hurricanes, and climate. In just a few months, one satellite can collect more information about the ocean than all the ships and buoys in the world have collected over the past 100 years!

NASA's Earth Science Division has launched many missions to planet Earth. These satellites and other studies all help us understand how the atmosphere, the ocean, the land and life—including humans—all interact together.

Find out more about NASA's ocean studies at <http://science.nasa.gov/earth-science/oceanography>. Kids will have fun exploring our planet at The Space Place, <http://spaceplace.nasa.gov/earth>.



Caption:

*This image from September 2012, shows that the Arctic sea is the smallest recorded since record keeping began in 1979. This image is from NASA's Scientific Visualization Studio at Goddard Space Flight Center.*



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## CLUB TELESCOPES:

A.S.T.R.A. owns four small telescopes:

- 6-inch Dobsonian (in need of repairs)
- 8-inch Dobsonian
- 80mm Celestron Refractor
- 120mm EQ AstroView Refractor.
- Lunt 35mm H-Alpha solar scope

These telescopes are available for club members to borrow and use for a month or two at a time.

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## 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](mailto:astra-wear@estitches.com). Order form is on the ASTRA website.

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**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 [revnovick@verizon.net](mailto:revnovick@verizon.net) or call her at 732-840-3111.

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## 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](http://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](mailto:Treasurer@astra-nj.org))

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**ASTRONOMICAL ITEMS FOR SALE, OR HELP WANTED ADVERTISEMENTS:** If you have an item to sell, or need help with an astronomical problem (a question, or telescope setup) contact the President [President@astra-nj.org](mailto:President@astra-nj.org) to announce it at a meeting and send the advertisement to the newsletter (See Newsletter below).

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**NEWSLETTER:** E-mail material (meeting reports, observing reports, or other items of interest) to [Newsletter@astra-nj.org](mailto:Newsletter@astra-nj.org).

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## EXECUTIVE BOARD

President – Rich Brady [President@astra-nj.org](mailto:President@astra-nj.org)  
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Webmaster – Donald Durett [Webmaster@astra-nj.org](mailto:Webmaster@astra-nj.org)

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**Schedule for 2013:** If anyone would like to do a presentation or suggest one, please contact the executive board.

**ASTRA TENTATIVE SCHEDULE FOR 2013**

(Comments and Suggestions are Welcome)

- Jan 11 Telescope Workshop
- Feb 8 Cancelled
- Mar 8 Top Stories for 2012 – Rich Brady
- Apr 12 Famous Astronomers VIII – Bob Salvatore
- May 10 Telescope Equipment Show & Tell – All Members
- Jun 14 Astronomical Pronunciation Guide – Matthew McCue
- Jul 12 Pluto and Kuiper Belt Objects – Ryan Knipple
- Aug 9 No Meeting
- Aug 10 *Saturday - Perseid Picnic*
- Sep 13 Open
- Oct 11 Open
- Nov 8 Open
- Dec 13 Awards, Open Meeting

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**Check us out on Facebook, search groups for (ASTRA Astronomy) and look for our logo.**

