

# Southwest Florida Astronomical Society

SWFAS



## The Eyepiece January 2012

### A MESSAGE FROM THE PRESIDENT

I hope everyone has a happy New Year!

Our meeting for January has been moved to FGCU. They are planning the events, so there will be no agenda. Dr. Manuel Mon and Angela Osterman Meyer, Ph.D. will be speaking about the Lunar Phases Project, an observational project they developed for the astronomy and physical science classes. See you on Thursday Jan 5, 2012 at 7:30 pm in front of the Egan Observatory at FGCU!

I would like to welcome Tim Moore as our new Treasurer.

As it is a new year, it is annual dues time again. Dues are \$20.00/year. I will be sending out a reminder notice for those who have not paid in full for 2012. Please pay at the meetings or events we are holding or send your payment in to SWFAS, P.O. Box 100127, Cape Coral, Florida 33910. If you have any questions about your dues, contact Tim Moore or me.

January is a very busy month for us. Please see the details below about upcoming events.

CRP Star Party Schedule for 2012: January 21st, February 18th, March 24th, April 21st, May 19th, June 23rd, July 21st, August 18th, September 15th, October 13th, November 10th, and December 15th. Please contact Bruce Dissette if you have any questions.

Ron has been busy scheduling our meeting programs:

February 2nd: Dr Theo Koupelis from Edison College will speak on the findings from the 2010 Solar Dynamics Observer Satellite, particularly in view of the Earth's changing Magnetosphere.

March 3rd: Jack Berninger – Search for Extra Terrestrials

April 5th: Jack Berninger – Comets, Asteroids and Extinctions

The sky this month:

Venus dominates the evening sky after sunset, but Jupiter is slowly moving westward.

Mars is getting brighter in the back part of Leo and Saturn is very nicely placed near Spica in the morning sky.

The Quadrantid Meteor Shower is on the 4th, with a sharp peak expected at about 2:00 am. The moon will be setting at about 3:00 am.

Moon in January: 1st Quarter on the 1st, Full moon on the 9th, Last Quarter on the 16th and New on the 23rd and 1st Quarter again on the 30th.

## Club Positions

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## January Meeting

We will be meeting at FGCU, and NOT at the Calusa Nature Center Planetarium on Thursday January 5th at 7:30 pm. We will be meeting in front of the Egan Observatory.

Dr. Manuel Mon and Angela Osterman Meyer, Ph.D. will be speaking about their Lunar Phases Project, an observational project they developed for our astronomy and physical science classes.

An FGCU Map can be found online at

[http://www.fgcu.edu/Admissions/files/MapwithLegend\\_Hi\\_Res.pdf](http://www.fgcu.edu/Admissions/files/MapwithLegend_Hi_Res.pdf)

P1 parking lot is closest. The campus is closed that evening, so we should be able to park close to the observatory in the reserved area.

Keep in mind that we will be back on the FGCU campus at Alico Arena for the Edison Festival Day of Discovery/Discovery Village Saturday Jan 14th at 8am for solar observing and presentations.

## Upcoming Events

### Public Events

Jan 10th 6:30PM South County Regional Library, Estero Program: Looking at the Night Sky  
This is an indoor presentation at 6:30pm. Loan-A-Scopes will be available. Brian Risley can use an additional person or two. Please let him know if you can help out. Address: South County Regional Library, 21100 Three Oaks Parkway, Estero, Florida 33928  
<http://library.lee-county.com/services/locations/SC/pages/default.aspx>

Jan 14th 10am-4pm Alico Arena FGCU Edison Festival Day of Discovery/Discovery Village -Solar Observing/Presentation

This year the event has moved to Alico Arena at FGCU. We will set up in a grassy area with room for telescopes. We plan to do Solar observing along with any other objects that we can locate. If you have a solar telescope or solar filters, we could use your help and equipment. We will have

our displays set up and many handouts, so we can also use help handing out items. If someone is interested in doing group presentation work, we can do things like the Pocket Solar System and the Meteorite/Meteorwrong. We also plan to have Loan-A-Scopes available. Please let Brian Risley know if you can attend, even if it is only for part of the day. We need to arrive around 8am for setup.

[http://www.fgcu.edu/Admissions/files/MapwithLegend\\_Hi\\_Res.pdf](http://www.fgcu.edu/Admissions/files/MapwithLegend_Hi_Res.pdf)

Jan 17th 6:30pm-7:30pm South County Regional Library, Estero - Observing Session

This second of two events is an observing session 6:30-7:30 pm (Be setup by 6:30)

Loan-A-Scopes will be available. Please let Brian Risley know if you can help out. Address:

South County Regional Library, 21100 Three Oaks Parkway, Estero, Florida 33928

<http://library.lee-county.com/services/locations/SC/pages/default.aspx>

### **Club Sponsored Events**

Jan 6th 7-10pm Mother of God House of Prayer Fundraising Event, Alva - Private Star Party

It will be from 7pm to 10pm but arriving by 6pm to setup is recommended. The address is Mother of God House of Prayer, 17880 Cypress Creek Drive, Alva FL 33920. This is up off SR 78 east of the CRP, west of Alva.

Directions: From I-75 Exit #141 (Palm Beach Boulevard/SR 80 East), (or use the Bayshore Road/SR78 Exit and go East to SR 31), Turn left on to SR 31 (traffic light), Go approximately 2½ miles and turn right onto North River Road (SR78). Go approximately 8.5 miles and turn right on Cypress Creek Road. 17880 is the 3rd driveway on the left (This is just a few miles past CRP on SR 78.)

Please let Bob Francis or Brian Risley know if you are planning to participate.

Jan 11th 6:30 - 8 pm, Star Party for up to 75 adults

Carole Holmberg is having an event for a group that member RoseAnn Hoffman is part of for a planetarium show. They would also like to do some observing at the Nature Center. She needs some help. Please contact her directly if you need more info or to help. (Brian Risley won't be there, it's his wife's birthday!)

Jan 26th 6:30pm Canterbury School, Fort Myers - School Star Party

Canterbury School is off College Parkway just west of Edison College on Thursday, Jan 26th 2012. They are planning to be observing at 6:30, so it would be good to be there by 5:30 so that we are fully setup. Part of their plans are constellation stories/identification.

We can use a few people to help with this. It is a weeknight and we have another event Friday Night in Cape Coral. Please let Brian Risley know if you can help out.

The address is Canterbury School, 8141 College Parkway, Fort Myers, Florida 33919

<http://www.canterburyfortmyers.org/page.cfm?p=232>

Jan 27th 6:00 pm Christa McAuliffe Elementary, Cape Coral - School Star Party

We are again holding a star party at Christa McAuliffe Elementary School in NW Cape Coral on Friday, Jan 27th from 6:00 to 8:30 pm for their Young Astronaut Club. They have thirty 3rd-5th graders plus their families. If you can help out, please let Brian Risley know. For those that worked a star party here in the past, you know finding the school can be somewhat of a challenge. From Veterans Blvd/Burnt Store Road turn at the Walgreens (just north of Pine Island Road in front of the Publix). You will go back just a little and have to then turn. Go to the left. There are signs there pointing the way. The school is right next to the park. We will probably be setting up in the parking lot that faces the park. (If coming from Ft Myers, use the MidPoint/Veterans bridge and follow Veterans out till it crosses Pine Island Road.)

Location: Christa McAuliffe Elementary School, 2817 SW 3rd Lane, Cape Coral, Florida 33991

Jan 27<sup>th</sup> 6:45 pm Hickey's Creek telescope observing – Astronomy for Amateurs

Kelly Williamson is holding her monthly program at Hickey's Creek park. This is also the night of the Christa McAuliffe Elementary School star party. She could use some help with observing. Please contact her directly if you can help her that night.

This program is designed to show beginning astronomers how to easily find stars, constellations and planets. Bring binoculars, water, bug spray, a flashlight and a lawn chair or something to sit on. We will meet in the parking lot. This program is free with paid parking but may be cancelled due to inclement weather, clouds, or if the minimum of 6 participants is not met. For more information or to register, call Kelly at (239) 822 – 5212. Registration is required.

## **New Resources for Those who Teach Astronomy**

The nonprofit Astronomical Society of the Pacific announces a number of resources that may help you if you are teaching or explaining astronomy:

1. A New Classroom Activity: How High Up is Space

[http://www.astrosociety.org/education/activities/I11\\_How\\_High\\_Space.pdf](http://www.astrosociety.org/education/activities/I11_How_High_Space.pdf)

2. Frank Drake, the father of the search for extra-terrestrial intelligence (SETI), tells how he came up with the Drake Equation for estimating the number of intelligent civilizations in the Galaxy: <http://www.astrosociety.org/drake/>

3. An "Astronomy Behind the Headlines" podcast on "Science from the Moon" (on current and future Moon missions, with guest Dr. Jack Burns, University of Colorado):

<http://astrosociety.org/abh/index.html>

4. An Astronomer Looks at Astrology (an information sheet for both students and instructors on looking at astrology with a skeptical eye): <http://www.astrosociety.org/astrology.pdf>

5. A new issue of "The Universe in the Classroom" with information and activities for the 2012 Transit of Venus: <http://www.astrosociety.org/education/publications/tvl/78/78.html>

6. The Universe at Your Fingertips 2.0 (a DVD-ROM with 133 hands-on classroom activities, and lots of articles, resources, images, and how-to videos for teaching astronomy at many levels and in many settings): <http://www.astrosociety.org/uayf/>

## **Kepler Finds First Earth-like Planet in Extra-solar Habitable Zone**

For the first time, astronomers using NASA's Kepler space telescope have confirmed a roughly Earth-size planet orbiting a sun-like star in the so-called "Goldilocks" zone where water can exist in liquid form on the surface and conditions may be favorable for life as it is known on Earth.

"Today I have the privilege of announcing the discovery of Kepler's first planet in the habitable zone of a sun-like star, Kepler-22b," said Bill Borucki, Kepler principal investigator. "It's 2.4 times the size of the Earth, it's in an orbital period (or year) of 290 days, a little bit shorter than the Earth's, it's a little bit closer to its star than Earth is to the sun, 15% closer.

"But the star is a little bit dimmer, it's a little bit lower in temperature, a little bit smaller. That means that planet, Kepler-22b, has a rather similar temperature to that of the Earth. If the greenhouse warming were similar on this planet, its surface temperature would be something like 72 Fahrenheit, a very pleasant temperature here on Earth."

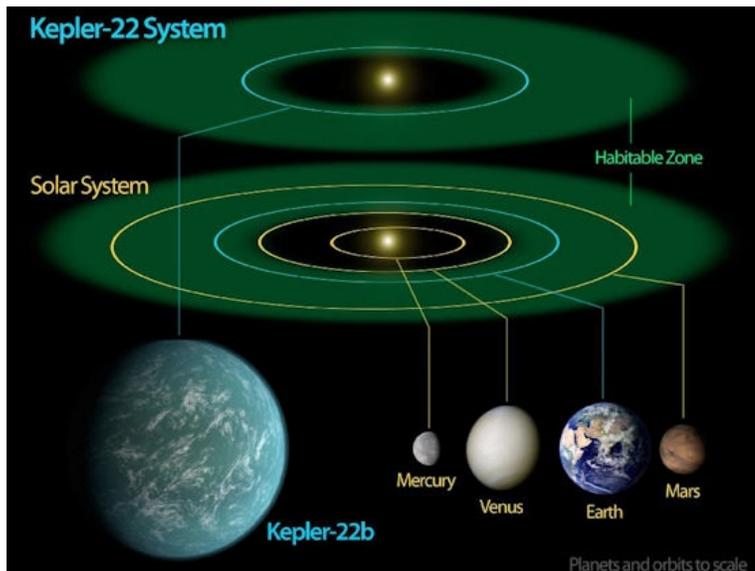
It is not yet known whether Kepler-22b is predominantly rocky, liquid or gaseous in composition, but the finding confirms for the first time the long-held expectation that Earth-size planets do, in fact, orbit other suns in the habitable zones of their host stars.

"I think there are two things that are really exciting about Kepler-22b," said Natalie Batalha, the deputy science team lead. "One is that it's right in the middle of this habitable zone.

"The second thing that's really exciting is it's orbiting a star very similar to our own sun. This is a solar analogue, almost a solar twin, very similar to our own sun and you've got a planet 2.4 times the size of the Earth right smack in the habitable zone."

Kepler's camera is aimed at a patch of sky in the constellation Cygnus that's the size of an out-stretched hand that contains more than 4.5 million detectable stars. Of that total, some 300,000 are believed to be the right age, have the right composition and the proper brightness to host Earth-like planets. More than 156,000 of those, ranging from 600 to 3,000 light years away, will be actively monitored by Kepler over the life of the mission.

To find candidate planets, the spacecraft's camera monitors the brightness of target stars in the instrument's wide field of view, on the lookout for subtle changes that might indicate a world passing between the star and the telescope. By studying the slight dimming - comparable to watching a flea creep across a car's headlight at night - and by timing repeated cycles, potential extra-solar worlds are identified, even though the planets themselves cannot be seen.



Twenty-eight confirmed planets have been found in the Kepler data. Including Earth-based telescopes, more than 600 extrasolar planets have been found to date. But most of them are huge Jupiter-class worlds orbiting well outside the habitable zone.

-By William Harwood, CBS News

**Left:** This diagram compares our own solar system to Kepler-22, a star system containing the first "habitable zone" planet discovered by NASA's Kepler mission. The habitable zone is the sweet spot around a star where temperatures are right for water to exist in its liquid form. Liquid water is essential for life on Earth.

- Picture Credit: Science@NASA, see also [http://science.nasa.gov/science-news/science-at-nasa/2011/05dec\\_firstplanet/](http://science.nasa.gov/science-news/science-at-nasa/2011/05dec_firstplanet/)

## Kepler Discovers Earth-size Exoplanets

NASA's Kepler mission has discovered the first Earth-size planets orbiting a sun-like star outside our solar system. The planets, called Kepler-20e and Kepler-20f, are too close to their star to be in the so-called habitable zone where liquid water could exist on a planet's surface, but they are the smallest exoplanets ever confirmed around a star like our sun.

The discovery marks the next important milestone in the ultimate search for planets like Earth. The new planets are thought to be rocky. Kepler-20e is slightly smaller than Venus, measuring 0.87 times the radius of Earth. Kepler-20f is a bit larger than Earth, measuring 1.03 times its



radius. Both planets reside in a five-planet system called Kepler-20, approximately 1,000 light-years away in the constellation Lyra.

**Left:** This chart compares artist's concept images of the first Earth-size planets found around a sun-like star to planets in our own solar system, Earth and Venus. Image credit: NASA/Ames/JPL-Caltech

Kepler-20e orbits its parent star every 6.1 days and Kepler-20f every 19.6 days. These short orbital periods mean very hot, inhospitable worlds. Kepler-20f, at 800° Fahrenheit, is similar to an average day on the planet Mercury. The surface temperature of Kepler-20e, at more than 1,400° Fahrenheit, would melt glass.

"The primary goal of the Kepler mission is to find Earth-sized planets in the habitable zone," said Francois Fressin, lead author of a new study. "This discovery demonstrates for the first time that Earth-size planets exist around other stars, and that we are able to detect them."

The Kepler-20 system includes three other planets that are larger than Earth but smaller than Neptune. Kepler-20b, the closest planet, Kepler-20c, the third planet, and Kepler-20d, the fifth planet, orbit their star every 3.7, 10.9 and 77.6 days. All five planets have orbits lying roughly within Mercury's orbit in our solar system. The host star belongs to the same G-type class as our sun, although it is slightly smaller and cooler.

The system has an unexpected arrangement. In our solar system, small, rocky worlds orbit close to the sun and large, gaseous worlds orbit farther out. In comparison, the planets of Kepler-20 are organized in alternating size: large, small, large, small and large.

Scientists are not certain how the system evolved but they do not think the planets formed in their existing locations. They theorize the planets formed farther from their star and then migrated inward, likely through interactions with the disk of material from which they originated. This allowed the worlds to maintain their regular spacing despite alternating sizes.

- Production Editor: Dr. Tony Phillips | Credit: Science@NASA

[http://science.nasa.gov/science-news/science-at-nasa/2011/20dec\\_earthsized/](http://science.nasa.gov/science-news/science-at-nasa/2011/20dec_earthsized/)

## **NASA's Voyager Hits New Region at Solar System Edge**

NASA's Voyager 1 spacecraft has entered a new region between our solar system and interstellar space. Data obtained from Voyager over the last year reveal this new region to be a kind of cosmic purgatory. In it, the wind of charged particles streaming out from our sun has calmed, our solar system's magnetic field is piled up, and higher-energy particles from inside our solar system appear to be leaking out into interstellar space.

"Voyager tells us now that we're in a stagnation region in the outermost layer of the bubble around our solar system," said Ed Stone, Voyager project scientist. "Voyager is showing that what is outside is pushing back. We shouldn't have long to wait to find out what the space between stars is really like."

Although Voyager 1 is about 11 billion miles from the sun, it is not yet in interstellar space. In the latest data, the direction of the magnetic field lines has not changed, indicating Voyager is still within the heliosphere, the bubble of charged particles the sun blows around itself. The data do not reveal exactly when Voyager 1 will make it past the edge of the solar atmosphere into interstellar space, but suggest it will be in a few months to a few years.

Scientists previously reported the outward speed of the solar wind had diminished to zero in April 2010, marking the start of the new region. Mission managers rolled the spacecraft several times this spring and summer to help scientists discern whether the solar wind was blowing strongly in another direction. It was not. Voyager 1 is plying the celestial seas in a region similar to Earth's doldrums, where there is very little wind.

During this past year, Voyager's magnetometer also detected a doubling in the intensity of the magnetic field in the stagnation region. Like cars piling up at a clogged freeway off-ramp, the increased intensity of the magnetic field shows that inward pressure from interstellar space is compacting it.

Voyager has been measuring energetic particles that originate from inside and outside our solar

system. Until mid-2010, the intensity of particles originating from inside our solar system had been holding steady. But during the past year, the intensity of these energetic particles has been declining, as though they are leaking out into interstellar space. The particles are now half as abundant as they were during the previous five years.

- *The full version of this story with accompanying images is at:*

[http://www.jpl.nasa.gov/news/news.cfm?release=2011-372&cid=release\\_2011-372](http://www.jpl.nasa.gov/news/news.cfm?release=2011-372&cid=release_2011-372)

## **VL T Finds Fastest Rotating Star**



ESO's Very Large Telescope has picked up the fastest rotating star found so far. This massive bright young star lies in our neighboring galaxy, the Large Magellanic Cloud, about 160,000 light-years from Earth. Astronomers think that it may have had a violent past and has been ejected from a double star system by its exploding companion.

An international team of astronomers has been using ESO's Very Large Telescope at the Paranal Observatory in Chile, to make a survey of the heaviest and brightest stars in the Tarantula Nebula, in the Large Magellanic Cloud. Among the many brilliant stars in this stellar nursery the team has spotted one, called VFTS 102, that is rotating at more than two million km per hour — more than 300 times faster than the Sun and very close to the point at which it would be torn apart due to centrifugal forces. VFTS 102 is the fastest rotating star known to date.

The astronomers also found that the star, which is around 25 times the mass of the Sun and about one hundred thousand times brighter, was moving through space at a significantly different speed from its neighbors.

This difference in speed could imply that VFTS 102 is a runaway star — a star that has been ejected from a double star system after its companion exploded as a supernova. This idea is supported by two further clues: a pulsar and an associated supernova remnant in its vicinity. The team has developed a possible back story for this very unusual star. It could have started life as one component of a binary star system. If the two stars were close, gas from the companion could have streamed over and in the process the star would have spun faster and faster. This would explain one unusual fact — why it is rotating so fast. After a short lifetime of about ten million years, the massive companion would have exploded as a supernova — which could explain the characteristic gas cloud known as a supernova remnant found nearby. The explosion would also have led to the ejection of the star and could explain the third anomaly — the difference between its speed and that of other stars in the region. As it collapsed, the massive companion would have turned into the pulsar that is observed today, and which completes the solution to the puzzle.

- <http://www.eso.org/public/news/eso1147/>

## **Annotated Listing of Astronomy Apps for Phones & Tablets**

An annotated overview of 98 astronomy applications for smart phones and tablets has been

published in the on-line journal "Astronomy Education Review." Compiled by Andrew Fraknoi, the list features a brief description and a direct URL for each app.

You can access the article free of charge at:

[http://aer.aas.org/resource/1/aerscz/v10/i1/p010302\\_s1](http://aer.aas.org/resource/1/aerscz/v10/i1/p010302_s1)

The listing includes a variety of apps for displaying and explaining the sky above you (some using the GPS function in your device); a series of astronomical clocks, calculators, and calendars; sky catalogs and observing planners; planet atlases and globes; citizens science tools and image displays; a directory of astronomy clubs in the U.S.; and even a graphic simulator for making galaxies collide. A number of the apps are free, and others cost just a dollar or two. A brief list of articles featuring astronomy app reviews is also included.

Astronomy Education Review is on-line journal about astronomy education and outreach -- published by the American Astronomical Society -- which celebrated its 10th anniversary this fall. You can find it at <http://aer.aas.org>

## And Another New App

A new app for iPhones and iPads harnesses the power of citizen scientists to help NASA track meteoroids hitting Earth.

- FULL STORY at [http://science.nasa.gov/science-news/science-at-nasa/2011/13dec\\_meteorcounter/](http://science.nasa.gov/science-news/science-at-nasa/2011/13dec_meteorcounter/)



## Dawn Takes a Closer Look

*By Dr. Marc Rayman*

Dawn is the first space mission with an itinerary that includes orbiting two separate solar system destinations. It is also the only spacecraft ever to orbit an object in the main asteroid belt between Mars and Jupiter. The spacecraft accomplishes this feat using ion propulsion, a technology first proven in space on

the highly successful Deep Space 1 mission, part of NASA's New Millennium program.

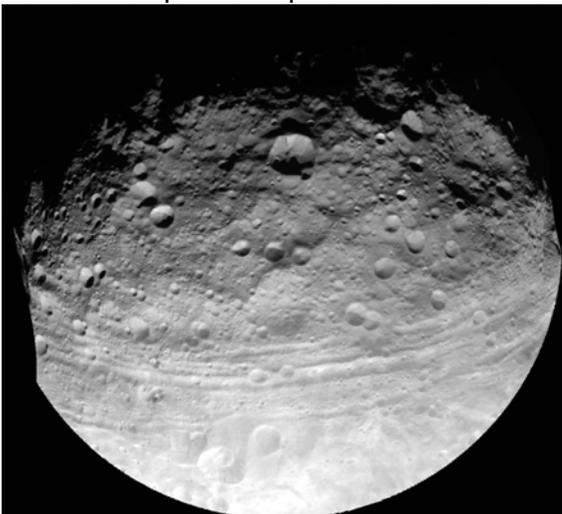
Launched in September 2007, Dawn arrived at protoplanet Vesta in July 2011. It will orbit and study Vesta until July 2012, when it will leave orbit for dwarf planet Ceres, also in the asteroid belt.

Dawn can maneuver to the orbit best suited for conducting each of its scientific observations. After months mapping this alien world from higher altitudes, Dawn spiraled closer to Vesta to attain a low altitude orbit, the better to study Vesta's composition and map its complicated gravity field.

Changing and refining Dawn's orbit of this massive, irregular, heterogeneous body is one of the most complicated parts of the mission. In addition, to meet all the scientific objectives, the orientation of this orbit needs to change.

These differing orientations are a crucial element of the strategy for gathering the most scientifically valuable data on Vesta. It generally requires a great deal of maneuvering to change the plane of a spacecraft's orbit. The ion propulsion system allows the probe to fly from one orbit to another without the penalty of carrying a massive supply of propellant. Indeed, one of the reasons that traveling from Earth to Vesta (and later Ceres) requires ion propulsion is the challenge of tilting the orbit around the sun.

Although the ion propulsion system accomplishes the majority of the orbit change, Dawn's navigators are



enlisting Vesta itself. Some of the ion thrusting was designed in part to put the spacecraft in certain locations from which Vesta would twist its orbit toward the target angle for the low-altitude orbit. As Dawn rotates and the world underneath it revolves, the spacecraft feels a changing pull. There is always a tug downward, but because of Vesta's heterogeneous interior structure, sometimes there is also a slight force to one side or another. With their knowledge of the gravity field, the mission team plotted a course that took advantage of these variations to get a free ride.

The flight plan is a complex affair of carefully timed thrusting and coasting. Very far from home, the spacecraft is making excellent progress in its expedition at a fascinating world that, until a few months ago, had never seen a probe from Earth.

Keep up with Dawn's progress by following the Chief Engineer's journal at <http://dawn.jpl.nasa.gov/mission/journal.asp>. And check out the illustrated story in verse of "Professor Starr's Dream Trip" at <http://spaceplace.nasa.gov/story-prof-starr>.

**Caption:** This full view of the giant asteroid Vesta was taken by NASA's Dawn spacecraft, as part of a rotation characterization sequence on July 24, 2011, at a distance of 3,200 miles.

Credit: NASA/JPL-Caltech/UCLA/MPS/DLR/IDA

- This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



## Reserve Your "Transit of Venus" Annual Award Pins for Outreach Stars

NSN club members really make a difference in the public understanding of the universe and we'd like to help you thank those who have gone above and beyond in your club's outreach efforts with the NSN annual award pin. This year's pin features the Transit of Venus and is sponsored by the Astronomical Society of the Pacific.

If your club has logged at least five events held during 2011 where NSN resources were used then your club is eligible to receive the pins and you can download a template for a Certificate of Appreciation to present to your outreach stars. Pins must be reserved by January 4, 2012. The pins are shipped free of charge and you'll be getting them by the end of January 2012.

### How do I reserve my club's award pins?

Club coordinators may reserve pins. First, in order to qualify, please make sure your club's qualifying 2011 outreach events are logged by January 4, 2012. Qualified clubs automatically receive three pins, so you don't need to notify us at all.



### Transit of Venus Telecon, January 19, 2012, 9:00 p.m. EST

Save the date for January 19, 2012 when the dynamic Chuck Bueter, amateur astronomer tells us about many resources available for sharing the Transit of Venus with your community. The transit is happening on Tuesday, June 5th, 2012. More telecon details coming in January. Check out Chuck's website <http://transitofvenus.org>.

### Our Magnetic Sun ToolKit

The new "Our Magnetic Sun" ToolKit will be released in time for your solar observing events as you watch the Venus Transit. It's a great time to plan your Transit of Venus observing around this last-in-a-lifetime event.

### Publicity on NASA Sun Earth Day

When you post your events on the NSN calendar, they show up on Go StarGaze, the iPhone app. For the Transit of Venus events, once you post your events on the NSN website, they'll automatically post to the NASA Sun Earth Day calendar, giving your club even more publicity. Please note, this event stream will be live in 2012.

## **EarthSky Partnership Brings Sky Charts and Publicity to Clubs**

NSN has paired up with EarthSky to provide our daily sky charts. EarthSky's easy to understand charts are ideal for new and experienced stargazers and support club outreach efforts. We almost always post the daily charts on Facebook and link to them on Twitter - refer your guests to NSN social media to keep their interest peaked in astronomy. You can also find them on the NSN Planner Page.

The EarthSky partnership brings NSN clubs more publicity via the the NSN Find Events and Clubs widget, which has been added to the Tonight page of Earthsky. As a reminder, you can bring your club more publicity by asking local organizations to add the widget to websites and blogs. Find the widget and instructions here.

## **Nominations for the Astronomical Society of the Pacific Awards**

The Astronomical Society of the Pacific (ASP) is accepting nominations for the 2012 awards honoring excellence in astronomy research, technology, education, and public outreach.

Nominations are welcomed either online or in writing until January 1, 2012. Recipients receive a cash award, an engraved plaque, and travel and lodging to accept the award at the ASP's 124th Annual Meeting. These awards are as follows:

The Thomas J. Brennan Award is given for excellence in the teaching of astronomy at the high school level in North America.

The Las Cumbres Amateur Outreach Award seeks to honor outstanding educational outreach by an amateur astronomer to K-12 youth and the interested lay public.

Read more about the submission guidelines, lists of past recipients, and additional information on the ASP website.

To make inquiries or get additional information about the ASP Awards, please contact Albert Silva at 415.337.1100 x 100 or [asilva@astrosociety.org](mailto:asilva@astrosociety.org).

- *Marni Berendsen, Kenneth Frank and Jessica Santascioy, Night Sky Network*

## **SWFAS Minutes**

Meeting Date: December 1, 2011

**CALL TO ORDER:** The monthly meeting of the Southwest Florida Astronomical Society was held at the Calusa Nature Center and Planetarium, Ft Myers, Florida, on Thursday, December 1, 2011. The meeting convened at 7:30pm, President Brian Risley presiding, and Kathleen Hendrix, secretary.

**MEMBERS IN ATTENDANCE:** There were approximately 25 members and visitors in attendance.

**OPENING REMARKS:** President Brian Risley began the meeting by announcing the sad news of the passing of our club treasurer, Stewart Rorer, following a long illness. We observed a moment of silence together in his memory.

Recent events were discussed, including the Spring Creek Star Party, and the October solar observation at Ding Darling Park on Sanibel Island, which unfortunately clouded over. The Edison State Girl Scout sleep-over was very successful, with over 100 scouts, leaders and parents in attendance. The club acknowledges those who assisted with this event, including Tony, Bruce, Marvin, Mary Lou and others.

Upcoming events on the calendar include:

1/10/12 Brian will give a talk at the Lee County South Regional Library

1/11/12 Calusa Nature Center Planetarium, private event

1/14/12 Edison Festival Day of Discovery Regional Science Fair at FGCU Alico Arena

1/17/12 South Regional Library observation

1/20/12 Brian will be out of town and unavailable for club events

1/27/12 Star Party at Christa McAuliffe Elementary

1/27/12 Hickey's Creek Star Party

Also requesting assistance for 2012 is Mother of God School in Alva, to be decided

VICE PRESIDENT'S REPORT: Bruce Dissette, Vice President had no news to report.

NEWSLETTER EDITOR'S REPORT: Carol Holmberg, Newsletter Editor, reported that the Newsletter for last month has been emailed to members.

SECRETARY'S REPORT: Secretary, Kathleen Hendrix. There were no November minutes due to the fact that there was no formal November meeting. November 3rd was "Renaissance Night" at the Planetarium, a night of telescope instruction. Unfortunately the weather did not cooperate with this event.

The secretary recognized the continued efforts of Bob Francis to communicate news to members, as well as corresponding with members of the community, speakers and persons of interest. His continued contributions to the club are invaluable.

TREASURER'S REPORT: Brian Risley gave a reported balance of \$851.36 in checking, and \$550 in savings, including an impressive \$0.02 in interest for the month. Details are available by request.

VIEWING COORDINATORS' REPORT: Viewing Coordinators, Chuck Pavick and Tony Heiner. Tony reported that recent Fakahatchee viewing was rained out. Details on future viewings will be announced. Bruce Dissette is currently arranging Caloosahatchee viewings for 2012 and will send this information out soon. He informed members that the next full moon is 1/10/12, and the new moon is 1/24/12

LIBRARIAN'S REPORT: Librarian Maria Berni reminded members that books on astronomy, physics and related topics are available during meetings on the book cart at the entrance to the Planetarium.

CLUB HISTORIAN: Club Historian Danny Secary requests that members send photos of interest to him for the club archives.

EQUIPMENT COORDINATOR: Equipment Coordinator Brian Risley reported that a number of telescopes are currently on loan to members and others are still available.

WEBSITE COORDINATOR: Website Coordinator, Dan Fitzgerald, had no report

PROGRAM COORDINATOR: Program Coordinator, Ron Myrick, reported that he is currently working on speakers for 2012. Dr. Theo Koupelis of Edison State is interested in returning to speak to the club. His lecture in February 2011 on astrophysical jets was very well done. He has requested suggestions for his next topic. Ron welcomes input from members.

#### ELECTION OF OFFICERS FOR 2012:

All officers were reelected unanimously with one exception. Due to the loss of our long time treasurer and friend, Stew Rorer, we needed to elect a new treasurer. Tim Moore, a new member, graciously agreed to take on this responsibility, and was elected to fill this position. We look forward to the enthusiasm of Tim and his young son at future meetings and events.

The officers for 2012 are as follows:

President: Brian Risley  
Vice President: Bruce Dissette  
Newsletter Editor: Carol Holmberg  
Secretary: Kathleen Hendrix  
Treasurer: Tim Moore  
Viewing Coordinators: Tony Heiner and  
Chuck Pavlick - Fakahatchee

Bruce Dissette - Caloosahatchee  
Librarian: Maria Berni  
Historian: Danny Secary  
Equipment Coordinator: Brian Risley  
Website Coordinator: Dan Fitzgerald  
Program Coordinator: Ron Myrick

EVENING PROGRAM; Dennis Lazar gave an original presentation on the 1998 Solar Eclipse. This video was created by Dennis and his wife, Ruth, of the Palm Beach Astronomical Society, during a cruise in the Caribbean to observe a total solar eclipse, and included the spectacular phenomena experienced by viewers to this rare event. After the program our enthusiastic audience had many questions and stories to share.

CLOSING REMARKS: Brian thanked Dennis and Ruth Lazar for coming and for sharing their solar adventure with us. It was a fine way to end our final meeting of 2011.

ADJOURNMENT: Thursday, January 5, 2012 was set as the next regular meeting.

The December 2, 2011 meeting was adjourned at 9:45pm., but unofficially continued until Carol closed the gates of the Calusa Nature Center and Planetarium at 10:00pm.

\_Kathleen Hendrix, Secretary

## Future Events

FGCU'S EGAN OBSERVATORY	1-5-12	7:30 PM	MONTHLY MEETING
MOTHER OF GOD HOUSE OF PRAYER	1-6-12	7:00 PM	STAR PARTY
LEE CNTY SOUTH REGIONAL LIBRARY	1-10-12	6:30 PM	ASTRONOMY TALK
CALUSA NATURE CENTER	1-11-12	6:30 PM	OBSERVATION SESSION
FGCU ALICO ARENA	1-14-12	10:00 AM	SOLAR OBSERVING
LEE CNTY SOUTH REGIONAL LIBRARY	1-17-12	6:30 PM	OBSERVATION SESSION
CANTERBURY SCHOOL	1-26-12	6:30 PM	STAR PARTY
HICKEY'S CREEK PARK	1-27-12	6:45 PM	ASTRONOMY FOR AMATEURS STAR PARTY
CHRISTA MCAULIFFE ELEMENTARY	1-27-12	6:00 PM	STAR PARTY
CALUSA NATURE CENTER PLNTRM	2-2-12	7:30 PM	MONTHLY MEETING
CAPE CORAL ROTARY PARK	2-17-12		STAR PARTY
CAPE CORAL ROTARY PARK	2-25-12		BURROWING OWL FESTIVAL – SOL OBSERVING

"Everyone is a moon, and has a dark side which he never shows to anybody." - Mark Twain

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