

Southwest Florida Astronomical Society SWFAS



The Eyepiece December 2017

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A MESSAGE FROM THE PRESIDENT

It is election time! If anyone is interested in a position in the club or needs to leave a position they hold, please let me know before the meeting.

We specifically are looking for help with the Newsletter and web site. Word 2007+ (or equivalent) is needed for the newsletter. Bill Francis can provide information about what is needed to assist with web support.

This past month we had a Science Night at Orangewood Elementary School in Fort Myers. We were able to see Saturn and had lots of handouts for the participants.

The weather was beautiful for our November Star Party at Seahawk Park, but we had very little attendance from the club. Phil Jansen, Mike McCauley and I setup scopes and we had about 8-10 visitors.

Mary Rawl sent in some information concerning FishEating Creek and included in that is an agenda item about Dark Skies. I will be forwarding this information out to the club. If you do not get it and want it, please contact me.

ALCON 2018 will be July 11th to 14th, 2018 in Minneapolis at the Hilton Minneapolis-St. Paul Airport/ Mall of America. I will be sending information out in emails about it or you can visit the Astronomical League website for additional information.

Its annual dues time for 2018. Dues are \$20.00 and can be paid at the meeting or mailed to our PO Box: SWFAS, Inc. PO Box 100127 Cape Coral, FL 33910

I hope everyone has a Happy Holiday Season,

Brian

Program this Month

Fellow Amateur Astronomers:

In lieu of a guest speaker for the December meeting of the South West Florida Astronomical Society we will be showing the planetarium program entitled "Magnetism - Defending our Planet, Defining the Cosmos". This is a full dome planetarium show that demonstrates how the earth's magnetic field protects our planet from energetic particles from the sun and galaxy, and how the magnetic field also protects the water in our atmosphere from being swept away by the solar wind. It shows the first aurora seen simultaneously from the ground and the ISS, and tells about the MMS Mission (Magnetic Multiscale) and its quest to understand the magnetic connection between the earth and the sun.

Scott Flaig Presentation

On Thursday, December 14th, Scott Flaig, SWFAS member, author, and Cosmology Instructor with FGCU Renaissance Academy, will discuss Newton, Planck, and Einstein's theories that describe how the universe works from its beginning to its ultimate fate. Scott's presentation entitled "The Theory of Everything" will be held in the 3rd floor Community Room of the Fort Myers Beach Public Library at 10:30am. The library is located at 2755 Estero Blvd. in Fort Myers Beach

Michael J. McCauley
Program Coordinator
SWFAS

Orangewood Elementary Science Night



In the Sky this Month

Moon:

Full – Dec 3th; Last Quarter – Dec 10th; New – Dec 18th; First Quarter – Dec 26th

The Planets:

Mercury is hiding in the sun until late in the month, when it will make a brief pre dawn appearance.

Venus (magnitude –3.9) rises as dawn begins and shines very low due east as dawn brightens and will basically be lost in the sun until early next year.

Mars (magnitude +1.7, in Virgo) Rises well before dawn in the east-southeast. Mars starts the month out near Spica, but by month's end it will be very close to Jupiter with a conjunction on Jan 7th.

Jupiter (magnitude -1.7) Bright Jupiter rises about an hour after Mars, still well before dawn begins. It is near the binocular double Zubenelgenubi (Alpha Libra).

Saturn (magnitude +0.5, in Sagittarius) glows very low in the southwest at dusk. And will disappear into the sun by mid month.

Uranus (magnitude 5.7, in Pisces) and **Neptune** (magnitude 7.9, in Aquarius) are well placed in the southeast and south, respectively, in early evening.

Use our [finder charts online](#) or in the [October Sky & Telescope](#), page 50.

International Space Station: The ISS is visible in the night skies over Ft Myers from Dec 14 to the 29th! See this link for specific times and routes for ISS:

<http://www.heavens-above.com/PassSummary.aspx?satid=25544&lat=26.6406&lng=-81.8723&loc=Fort+Myers&alt=3&tz=EST>

The **Hubble Space Telescope** appears in the night from Dec 2 to Dec 31th

See this link for specific times and routes for HST: <http://www.heavens-above.com/PassSummary.aspx?satid=20580&lat=26.6406&lng=-81.8723&loc=Fort+Myers&alt=3&tz=EST>

Geminid Meteor Shower This year we have excellent dark skies with no moon to interfere. The shower is best from about 10pm to dawn on Dec 13/14. Meteors will appear to radiate from the area of the twins (Pollux and Castor). Meteors will appear days before and for several days after the peak. Rates can exceed 50/hr in a dark sky. The Geminids are noted for the bright and sometimes colorful meteors. They are of a medium speed and some will leave trains behind them.

Southwest Florida Astronomical Society, Inc. Event Schedule 2017/2018

Date	Event	Location	Time/Note
Dec 7 th , 2017	Monthly Meeting	Calusa Nature Center & Planetarium	7:30pm
Dec 9 th , 2017	Solar Observing	Harbour Heights Park Port Charlotte	9am-12noon
Dec 15 th , 2017	Public Observing	Moore Observatory FSW, Punta Gorda	Dusk
Dec 16 th , 2017	Monthly Star Party	Caloosahatchee Regional Park	Dusk (Arrive before gate closes, park fee)
Jan 19 th , 2018	Public Observing	Moore Observatory FSW, Punta Gorda	Dusk
Feb 16 th , 2018	Public Observing	Moore Observatory FSW, Punta Gorda	Dusk
Feb 24 th , 2018	Burrowing Owl Festival	Rotary Park Cape Coral	Solar Observing / Displays (10-4)
Mar 9 th , 2018	CC Parks and Rec Star Party	Rotary Park Cape Coral	Dusk (Arrive before gate closes, park fee)
Mar 16 th , 2018	Public Observing	Moore Observatory FSW, Punta Gorda	Dusk
April 20 th , 2018	Public Observing	Moore Observatory FSW, Punta Gorda	Dusk
May 18 th , 2018	Public Observing	Moore Observatory FSW, Punta Gorda	Dusk

All events are Weather Permitting. If it is cloudy, we may not setup at all. There may be no way to provide advance notice of cancellation.

Monthly Star Parties: These are held at either Caloosahatchee Regional Park (CRP) off SR78 7 miles east of SR31 or at Seahawk Park in Cape Coral. Other than park fees noted, these are free and open to the public.

CRP has a gate that closes at dusk, you can check the county's website for current gate closing times and the status of the park's Northside entrance as that is where we observe from. (They may close the area if there are issues with the trails.) There is a parking fee of \$1/hr or \$5/day at CRP. Park in the main Northside parking lot. We sometimes setup down the dirt road that goes to the east. That area is grassy and may not be level, so one should walk on the dirt road as much as possible and watch their step.

Seahawk Park is in North Cape Coral off Wilmington Blvd. (Nelson Rd or Chiquita Blvd are the nearest cross streets.) There is a brown sign in the center median at the entrance to the park. (GPS may not get you to the park, as some of the local roads have been closed.) You will make a big J hook before getting to the parking area. Seahawk Park is utilized by the Radio Controlled Planes and they have priority. They are usually done by sunset but may be there before sunrise. Park in the lot and transport your equipment to the concrete staging area before the runway. This park is handicap capable as there is level concrete leading from parking to the staging area.

Big Cypress: The Big Cypress Visitor Center is located off US41 5 miles east of SR29 about 25 miles east of Naples. Big Cypress has earned a Dark Sky Park designation. They hold observing events down the road that extends south of the Visitor Center during the winter months. This is a real dark sky site. One of their events this year is timed to a full moon with a penumbral eclipse, so that night will not be dark. Their observing events are free. After the fires of March, it has been decided the site will be closed till next season.

Solar Events: We have daytime solar events where one can safely look at the Sun. Things such as sunspots and prominences may be visible. These are free unless tied to another event that may have an entrance fee.

Rotary Park Star Party: This is a free public star party held at Rotary Park at the south end of Pelican Blvd in South Cape Coral. Park to the west of the main building and walk to where we are setup to the east of the main building. If the weather is bad, we will try again the next night.

Moore Observatory, FSW Punta Gorda Campus: The campus is located off Airport Rd just east of I-75. Go to the right around the lake and park. The observatory is located down the path along the lake. Besides the telescope in the observatory, additional scopes may be setup around the observatory. This is a free event.

Star Party Etiquette: Bright white flashlights are not welcome. We use red flashlights to preserve our night vision. At the parks, please use just your parking lights if possible. As there may be cords and tripod legs that are hard to see in the dark, we ask that all children be well behaved and cautious around the telescopes. If you need help in moving around in the dark, just ask. Someone will be happy to guide you with a red light. If you have a telescope and need help with it, just ask. Someone will be glad to show you how to use it.

Golden Rules to Telescope Observing: Move your eye to the telescope, don't try to move the telescope to your eye! Ladders/chairs are there for your support, the telescopes do not provide support and should not be touched.

Minutes of the Southwest Florida Astronomical Society – November 2, 2017

The regular monthly business meeting of the Southwest Florida Astronomical Society was called to order at 7:29 pm by president Brian Risley in the Calusa Nature Center Planetarium.

Twenty-eight people were present, including four visitors.

David Feller presented the program on the development and evidence for the plate tectonics theory and how it impacts planetary evolution.

The business meeting resumed at 8:23pm.

Annual officer elections will be held at the December meeting. If anyone is interested in a position, or wants to leave a position, contact President Brian Risley.

A Newsletter editor, or at least someone willing to help, is needed for 2018

The past events listed in the printed agenda were reviewed.

Upcoming events listed in the printed agenda were discussed.

Vice President Bruce Dissette reported that the Planetarium has several telescopes for sale, some for less than \$100. Bruce said that the Planetarium is looking for volunteers to help out.

Bruce Dissette made a motion, seconded by Mike McCauley, to approve the minutes of the October 5 meeting as published in the November newsletter. The motion carried on a voice vote.

In the absence of treasurer Tim Barrier, Brian Risley reported an October ending balance of \$1258.77.

Brian reported that post-Irma conditions at the Fakahatchee Strand State Preserve viewing area are unknown to him, but the area behind the Big Cypress National Preserve visitor's center is available.

Equipment is available for checkout, contact Brian.

Website coordinator Bill Francis stated that he would be glad to have help keeping the website updated.

The membership roster for the Astronomical League has been updated.

The business meeting was adjourned at 8:48 pm.

submitted by Don Palmer, secretary

This article is provided by NASA Space Place.

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Why do we care about water on Mars?

The first spacecraft from Earth to visit **Mars** was Mariner 4 in 1965. Since then, several robotic spacecraft have flown by, orbited, or landed on Mars and sent back lots of information about this world so different from our own.

Mars is a cold, bleak wasteland, with very thin air that we Earthlings could never breathe. However, many of the pictures our telescopes, orbiters, and rovers have sent back show signs that liquid water might have been on the surface of Mars long ago. Also, we can see ice caps at the north and south poles.



This picture of Mars was taken by the Hubble Space Telescope.

Notice the ice clouds.

All these signs of water are very exciting. Why? Because on Earth, almost everywhere there is water, there is life. Whether the water is boiling hot or frozen, some sort of creature seems to thrive in it. Is it the same on other planets? If water once flowed on Mars, did life once thrive there too? Or, maybe there is still water on Mars, only it has gone underground. Could there be tiny life forms—like bacteria—on Mars even now?

NASA's Mars Exploration Program is about "Following the Water." Even if we do not find life on Mars, if there is water, perhaps someday Mars could be inhabited by us!

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