

December 2016 Editor - Jack Fritz

The St. Petersburg Astronomy Club, has been the center of family astronomy in the Tampa Bay Area for decades. Its 273 adult members are dedicated to promoting and sharing the wonders and science of astronomy. We host dark-sky and local star parties, telescope-making workshops, science lectures, astronomy lectures, educational outreach sessions and much more.

President's Message

KYLE BRINKMAN

Conce again we are in the season of giving. One familiar story of the season is the three wise men who brought gifts to the newborn king. These men, renowned for their wisdom, were astronomers from the east. As-



tronomers have always had a respected place in society as people of learning. Isn't it nice to be regarded in the company of generous and knowledgeable people? Our club carries on the tradition of learning and generosity in a number of ways.

If you came to the club meetings this year, you would have learned about many different things. We heard about ion engines last month, relativity, and stellar evolution. We did a little future forecasting listening to the author Chap Percival tell us about the 2017 eclipse. There was even a wise man from Baghdad, now a proud American citizen, who shared his career highlights in astronomy.

We have given back to our community as well. There have been public demonstrations at schools, libraries, on sidewalks, and science festivals. We had star parties at Boyd Hill, the Science Center and of course our big

annual event the Orange Blossom Star Party. Our club funded repairs to the observatory at SPC.

And most recently, we provided a large gift to the Science Center that will help restore the Carol Samuels Observatory. Carol Samuels was a long time benefactor of the Science Center who strongly believed in the programming and general science education provided by the center. Our club benefited from her contributions that made the center our home for the last 28 years. A memorial gift paid for the construction of the observatory. It was built with our club's know how and sweat equity. Members of our club met with the Science Center representative early in December, and we think the restoration will be achievable. One day we will be opening the dome again and putting that whopping 16" scope to use showing off the stars.

This is the season to be glad, give generously to the things that are important to you, and always keep looking up.

New Members

We would like to welcome Steve Gabor & Keren Sell, Greg Legas, and Kelly McGrew to our family of members.

General Meeting

This month's general meeting and Annual

Christmas Party will take place on Friday, December 16th at 7:00 PM, at the Science Center of Pinellas County, 7701 22nd Ave. N, St. Petersburg, FL. Please note that this is the third Friday and we meet one hour earlier than normal.

<u>Main Program</u> - Annual Christmas party. As usual, it's pot luck. So bring a covered dish and celebrate with us.

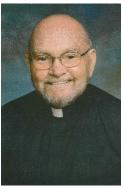
Upcoming Programs

January 27th - No general meeting due to conflict with the OBSP.

March 25th - Spring Picnic at Withlacoochee. Please refer to the SPAC calendar on the website.

Fr. Thomas Tobin

Fr. Thomas Tobin, a very long-time SPAC member, passed away in March, after completing only 68 trips around our Sun. Shirley had this to say about Reverend Tobin; "I sold him my first telescope, a Meade EX 90mm



with eyepieces, several years ago. He knew I had bought the C8 and asked me for the Meade because it was light enough for him to handle. I only really charged him for the eyepieces and gave him the scope for free. He became a priest later in life after his wife passed away."

He is survived by his daughter, Sarabeth Gall, her husband Brett and children, Ryan, Isabella, Julia, and Eden of Mashpee, MA; his daughter, Andrea Brown, her husband, Brian, and children, Brenden and Kayla of Rock Hill, S.C.

2017 Orange Blossom Star Party



Registration for our annual star party will be open until December 28th. You only have a few more days to register.

Examiner Subscriptions

JACK FRITZ

Please remember that beginning in January, membership dues will increase to \$30 for single and \$35 for family and include a \$25 subscription fee for those members electing to receive the newsletter via US Mail.

RASC Handbooks and Calendars

Jim will have them available at our December meeting.

National Weather Service

SHIRLEY VUILLE

SPAC Members, consider participating in the National Weather Service Spotter training sessions this winter.

Training is provided by the NWS



at different Tampa Bay area counties and locations throughout the winter. Please check the dates asap because these are coming up in the near future.

Though the web page says registration is not necessary, I've learned it's better to contact the center ahead of time.

http://www.weather.gov/tbw/skywarn

January Astronomical Events

STEVE ROBBINS

Monday, January 2nd, Venus can be found 2° south of the Moon. In the morning of

the 3rd the Quadrantid Meteor Shower peaks, with a ZHR of about 120. That's two per minute. The early setting Moon is our ally here.

Tuesday, January 3rd, Mars will be .3° south of the Moon.

Wednesday, January 4th the Earth is at perihelion, only .9833 AU from the Sun.

Monday, January 9^{th} , Aldebaran will be .4° south of the Moon.

Saturday, January 14th, Regulus will be .9° north of the Moon.

January's full Moon is the Full Wolf Moon. Ooooooooooo! Hungry wolves are gathering outside your lodge.

The Moon

- New Moon January 9, 20:30
- First Quarter January 16, 06:26
- Full Moon January 23, 20:45
- Third Quarter January 31, 22:27

Outreach

JIM HUNTER

I set up at the usual "bright sky" location on Dale Mabry. There were about 30-35 viewers including about ten rookies. A Dad and a daughter who goes to Northwest Elementary. She remembered our star parties there. We had a good view of Venus, the Moon, and Mars until they went below the parking lot lights. A very good night.

SCOTT WALSH

Scott Walsh writes from Gulfport. We had another successful Gulfport Outreach viewing on December 2nd. Attending SPAC members were Greg Simpson, Diane and Scott Walsh. Approx. 150 patrons, of all ages, viewed the Crescent Moon, Venus, Mars, Uranus M15 and M42 through a 5-inch Refractor and 11 inch SCT.

A reporter from The Gabber, Pinellas County's oldest independent weekly newspaper

was on hand. They took pictures and interviewed the astronomers and observers. It was good exposure for our Club. Also utilized our new light shade to cover the LED street light at Gulfport. Helped knock down the direct light and darken the street corner."



Scott tries his new light shield



Both Scott & Greg at work

On November 19th, about 100 people attended our Gulfport Outreach sidewalk viewing. Diane and Scott Walsh put their 8 inch SCT Meade LT telescope to good use.



Scott keeps busy

Under a heavily light polluted sky, we were able to view Venus, Mars, M45, M27, M11, M31, M15, M2, and Albireo. Pics attached.

KELLY ANDERSON

Reporting from the Little Manatee River State Park on November 19th. We had a great time at the Little Manatee River State Park Saturday night, November 18th. Jim Hunter, Mike Partain, Dannon Vick, and I set up our scopes in the equestrian parking area in the Park (good news: no horse apples). This was part of the Park's "Park after Dark" series of programs for the public. After a short PowerPoint presentation, we hosted a bevy (official count: 112) of people of all ages. Skies were perfectly (well, almost perfectly) clear, and we were able to show our guests a variety of celestial wonders. As an extra added attraction, just before the beginning of the program, we watched the GOES satellite launch from The Cape. Wow! Park officials were delighted with our show and asked if we'd come back and do it again. I responded

that, while we can't influence NASA's launch schedule, we will be happy to do it all again.

Astronomy Nights at Boyd Hill



Boyd Hill Observing Schedule

NASA News

STEVE ROBBINS

Elon Musk, of SpaceX, says their next launch of the first of 7 missions to replace the constellation of more than 60 Iridium satellites will lift off in the next couple weeks from Vandenburg, California. This is in spite of an ongoing investigation into the explosion of a Falcon 9 during refueling in September. If approval of NASA and the FAA is received, this launch will carry ten new Iridium satellites into orbit.

However, the investigation has revealed that the refueling explosion was not "routine" at all. SpaceX is using a new procedure where the oxygen is kept 40° colder than normal. This caused the oxygen flowing into the second stage tank to freeze solid. This set off a

catastrophic chain of events that in 90 milliseconds destroyed the vehicle. Furthermore, SpaceX proposes that boosters be fueled while astronauts are actually in the Dragon capsule, contrary to 50 years of international manned spaceflight procedure.

What appears at first glance to be an inexplicable accident during a routine procedure then emerges as a marked departure from proven procedures of the past. SpaceX says it will react to the findings of the investigation to update its procedures.

Meanwhile, Juno lost a Jupiter flyby when just 13 hours from perijove, when it collects its precious data, a detector reported a computer anomaly, putting the spacecraft in safe mode, shutting off all scientific instruments during the flyby. The cause of the anomaly is not known. The spacecraft was outside the intense radiation belts and magnetic fields that are expected to kill the spacecraft eventually. After the flyby, the spacecraft exited safe mode routinely and is 100% healthy for its next pass December 11.

Meanwhile, Cassini fired its maneuvering engines to begin its 20 orbit ring grazing series, passing close to the outer edge of the main ring system. Observing only before and after crossing the ring plane, for safety, ring crossing 1 was a great success. #2 of 20 comes December 11.

Mirror Lab

Notice: The mirror lab will be closed Saturday, December 24th. It will be open Noon-4pm New Year's Eve.



Dave Pearson has returned to finish his 8" mirror that had been put on hold for a while. He finished fine grinding it rather quickly and is ready to polish. Jean Paul is now fine grinding his 10" mirror and should be polishing it

soon. Mike Davis also finished fine grinding and is ready to polish his 3rd generation hexbacked 12.5" mirror. Allen, Paul, and Dimitri have also been "hogging out" some mirrors for the lab. They are 16", 14" and 12" mirrors respectively.



Brent's completed mirror.

Ron has been refining the images from the Bath Interferometer to take our Robo-Foucault testing to the next level.

Keevy is working on updating the mirror lab web page, so keep your eyes open for new pictures.

Pictures are on the mirror lab web page at www.telescopelab.com and on Mike Davis's web page at www.mdpub.com and also on Allen Maroney's web page www.knology.net/ama-roney.

If you have any surplus telescope parts, the mirror lab could use them for various projects.

New Moon at Withlacoochee

KELLY ANDERSON

A bunch of people came out for December's dark-of-the-moon weekend, hoping the seeing would be better than what we experienced. Joe Canzoneri and Ron & Dee Wayland came out Thanksgiving Day but had no luck with the clouds that evening. On Friday,

Natalie and I joined the group, along with Kyle Brinkman, Jack Fritz, Jim & Penny Hunter, and Tom Boyko. Later that afternoon Allen and Betsy Force arrived with their new 200-foot motor home (OK, it's only 39 feet, but it takes them two lights to get through and intersection). I think they should name it the "Leviathan." They're gearing up for the big trip out west next August for the Solar Eclipse.

We got several hours of fairly good seeing Friday night, but the Cloud Gods turned against us about 10:00 o'clock. Joe and I got a couple of images, and I did see a bolide ... longest-lived meteor I've ever seen! But it soon became overcast until the wee hours, and by then we were all snug in our beds/cots/tents.

Saturday evening, we were joined by Vince Titone and Alex Nas for the evening. Vince was trying out his new 4" Cassegrain, and the stars peeked out from behind the clouds. We got a few hours of good seeing here and there, but imaging was a challenge. Later that evening the overcast set in for real.

Allen & Betsy, Joe, and I stayed over for one last try Sunday night, but alas, it was not to be. It was not only clouded in but the dew set in so heavily we almost needed raincoats.

So all in all, not a great weekend for astronomy, but not a total loss either. The fellowship was great, and it's always fun to get out of town for a few days. Withlacoochee River Park is a pretty awesome place to spend a weekend.

The next DOTM will be the New Year's weekend. I can think of worse places from which to ring in the New Year; so come out to join us. Guaranteed clear skies!

Little Manatee River State Park

We received a very nice thank-you from Yatska Valentin of the Florida Conservation Corps. She writes: "Thank you for your participation at Little Manatee River State Park's Star Light, Star Bright Astronomy program this past Saturday.

It was a great honor to have the St. Pete Astronomy Club participate in our event. Please feel free to visit our park at your leisure.

Again, thank you, without your participation, the program would not have been a success."



Astrophotography

Here are some recent photos by our members:



Joe Canzoneri's Ring Nebula



Horsehead and Flame by Kelly Anderson

SPAC Business Meeting



Our next meeting is Wednesday, January 11th, at 8:00 PM at the Science Center. All interested members are invited to attend. All club business decisions are made at the business meeting so as not to encumber the general meeting.

Officers & Directors

President:	Kyle Brinkman	727 455-6931
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Click on the name to send email

Recognition of Patrons & Benefactors:

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Examiner Staff

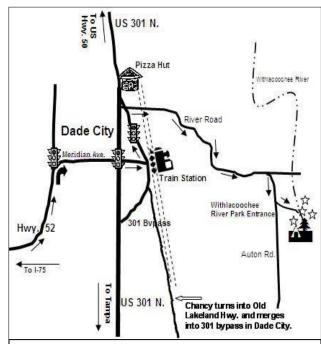
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Reporter	Kelly Anderson	813 672-2751
In the News	Steve Robbins	386 736-9123
Mirror Lab	Ralph Craig	727 384-2086

Withlacoochee New Moon Weekend

Our next New Moon Weekend falls on February 24^{th} and 25^{th} .

The park gate is locked at Sundown, so you will need to arrive before then. The year-round camping fee with electrical use is \$10/night for club members and \$20 for non-members. Tent camping without electric is \$5/night.

Be reminded that if you are not camping, you must pay the \$2/vehicle fee. Vehicles displaying the handicap parking tag are exempt. For further information, contact Bill or Nancy Huff. starhopr3@msn.com or 813 621-3606.



Withlacoochee River Park - Dade City, FL
Detailed directions can be found at:
www.StPeteAstronomyClub.org



15406 Stonecreek Lane Tampa, FL 33613

SPAC, INC. MEMBERSHIP INFORMATION

Membership in St. Petersburg Astronomy Club, Inc. is open to anyone, regardless of age, who is interested in astronomy. Dues are considered donations and are non-refundable. Membership options are available as listed below:

To join or renew your membership:

Complete the following form and return it with your payment to: Jim Hunter - Treasurer, 17316 Oak Ledge Dr., Lutz, FL 33549-7626 - Telephone number (813) 909-7013 (checks should be made payable to SPAC, Inc.)

Name:			Telephone Number:			
Spouse:			Children (<i>Under 18</i>):			
Address: _			City: St.	•	Zip:	
E-Mail add	ress	:	Newsletter Preference: Email	l[]	US Mail [] \$25	
Single:	[]	\$ 30.00/YR.	Includes one adult, minor children, the "SPACE" newsletter, and all leges of membership.	the ri	ights and privi-	
Family:	[]	\$ 35.00/YR.	Includes two adults, minor children and the above rights and privileg	ges.		
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