



October 2018

Editor -Jack Fritz

The St. Petersburg Astronomy Club has been the center of family astronomy in the Tampa Bay Area for decades. Its 254 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

★ Facebook news last month included a story about the Hubble shutting down into safe mode because of a failing gyroscope. There are three more gyroscopes that are working fine and are expected to work for years to come. A gyroscope is like a spinning top. The gyroscope keeps its orientation while things around it move. This is how the telescope can orbit the earth and stay targeted on a distant star. Anyone who has tried astrophotography without an auto-guider knows the limitations. Hubble would be useless without the ability to stay trained on a target.



While it is expected to be operational again shortly, there are some very important questions to answer. We have retired the Space Shuttle fleet and no longer have a means to go repair the instrument. With Gaia online and the Webb telescope coming up, why would we?

The general public doesn't understand just what the Hubble can do. It is best known for the coffee table books full of exotic pictures from the distant stars. What they don't know is there is a long waiting list of projects

from Scientists all over the world. They have a plan to look somewhere for a new discovery.

An early computer scientist was asked about the rapid speed increases of computer processors one year after the next and how soon we could develop a certain processing speed. She said that in the days of horse drawn wagons the way to pull a large wagon was not to grow a larger horse but to pair them up in teams. That wisdom led to multi-core processors.

The same can be said for continuing to operate the Hubble as long as it will work. Those scientists whose projects can be accomplished with the Hubble will still wait in line. That waiting list may be shorter because the more daunting tasks will wait turns on the more capable telescopes. In all likelihood, the workload for all space telescopes will increase as new questions arise after every discovery.

New Members

We would like to welcome Nicholas Decker & Samantha Walker, Michelle Smith, Lydia Laurel-Hickey, Kenny DeMello Joseph Wippel, Briana Padron, Yu Fan, William Moriarty, and Elaine Morelli to our family of members.

David and Mina Swan

Sadly, we say goodbye to our dear friends and long-time SPAC members, David and Mina Swan. David and Mina have been Benefactor members since 2008. Mina, 80, was an art teacher at Clearwater High School before retiring in 1999. David, 88, was an accountant and author.



David and Mina enjoyed traveling to many countries, including most of Europe, Australia and New Zealand, and in the South Pacific. Their North American travels included taking their RV to Alaska, visiting 48 of the US states, and many Canadian Provinces. For their families, it was not unusual to get a note that they were off on a new adventure, and that they would be in touch whenever they returned.

General Meeting

This month's general meeting is our Annual Meeting, Election of Officers, and Fall Pot-Luck Picnic. It will take place on Friday, October 26th at 7:00 PM, at St. Petersburg College, Gibbs Campus. 6605 5th Avenue North. **Note: Please note the earlier start time, 7:00 PM.**

Club Meeting Hurricane Policy

Hurricane season is upon us. We may cancel the meeting if a hurricane is threatening Pinellas County. If that happens, we will send a cancellation notification via email. Alternatively, you may call Allen Maroney at 727 867-4781 or Jack Fritz at 813 508-5680 to check on the status of the meeting.

Fall Pot-Luck Picnic

JACK FRITZ

We have our Annual Meeting, Election of Officers, and Pot-Luck Picnic in October each year. The nominating committee has the following slate of candidates so far: President, Kyle Brinkman; Vice President, John O'Neill; Secretary, Shirley Vuille; Treasure, Jim Hunter; Director-At-Large, Paul Kraemer. You have until September 30th to submit other nominations.

Please bring a covered dish.

Orange Blossom Special

★ Our annual star party, Orange Blossom Special, will be January 30th through February 3rd. This is the only New Moon Weekend of the year that you must register to attend. Registration is opened and is available online only. Go to <https://www.stpeteastronomy-club.org/obs.php> for details and registration.

National Weather Service

SHIRLEY VUILLE

★ The NWS fall safety campaign has begun! They have focused their outreach on specific hazards during September, October, and November. Please check out [Fall Weather Safety](#) for more information and see more at [NOAA's Weather-Ready Nation](#).

**November Astronomical Events**

STEVE ROBINS

Monday, November 5th, the South Taurid Meteor Shower will bring us a ZHR of about 10 with a thin waning crescent moon making circumstances favorable.

Tuesday, November 6th, Mercury is at greatest elongation, 23.3° east of the Sun. That means it sets 93.2 minutes after the Sun

in the evening. Most non-astronomers have never consciously seen Mercury. Share it with someone outside the hobby!

Monday, November 12th the North Taurid Meteor Show brings us a ZHR of about 15 with a waxing crescent moon that will leave the pre-morning hours moon-free.

Wednesday, November 14th the Moon is at apogee, 404,300 km from Earth.

Thursday, November 15th find Mars 1.1° north of the Moon.

Saturday, November 17th is the Leonid Meteor Shower, ZHR about 15. We'll have a waxing gibbous moon with the new moon 5 days away. The moon moves about 11° per day, relative to the Sun, so it will set 3 hours 40 minutes before sunrise.

Monday, November 26th the Moon is at perigee, 366,600 km from Earth.

Tuesday, November 27th see the Moon .8° south of the Beehive Cluster

November Moon Phases

- 7th - New Moon
- 15th - First Quarter
- 23rd - Full Moon
- 29th - Third Quarter

Mirror Lab

RALPH CRAIG



★ Bill has finished his 10-inch, f/5 mirror. He finished the mirror very quickly and is gathering parts to build his telescope now. He is also thinking about doing a larger mirror now that Paul has "taught him everything he knows" about mirror grinding.



Bill proudly displays his finished mirror.

Dave Pearson is still rough grinding the 12.5-inch mirror he started before going on vacation. Ron has pretty much finished his 8-inch, f/3 mirror and plans to telescope-test it soon. Brad and Dimitri have been doing some final finishing of telescopes they built a while ago. Dennis Farr is taking a break from the summer heat and will get going again once it cools off a little.

More pictures are on the mirror lab web page at; <http://www.telescopelab.com>, Mike Davis's web page at; <http://www.mdpub.com/> and Allen Maroney's web page at <http://www.knology.net/amaroney/>.

October New Moon Weekend

KELLY ANDERSON

★ Those who didn't partake of this weekend's Dark of the Moon event missed a good one. For openers, THERE WERE ACTUAL STARS TO VIEW!!! On Thursday, Allen and Betsy Force joined your intrepid Field Reporter for a very enjoyable evening of star gazing, for me the first time since May. The usual fair-weather cumulus cleared up nicely and skies were unobstructed. Also, temperatures were more moderate than we've been experiencing lately. The seeing was not the greatest, but more than adequate to get some very nice exposures. Allen was working wide field while I chased deeper images, and we both did well.

Friday was even better, with transparency improving significantly. Blake Harding joined us for the rest of the weekend, while Tim and Erin, newly transplanted from New Jersey, stopped by for the evening. Happily, we were able to show them a lot of things that were orders of magnitude more interesting than the bottoms of clouds (no offence to cloud lovers).

Saturday night was a party! Joining us 'til the wee hours were Mark Anderson and his daughter Casey, Mike Partain, Guy Earle and

friends Kyle and Casey Mallard and their son Cameron, and Dannon Vick. Mark Bruns brought his 5th wheeler for some serious sky watching. There were several other visitors, but I failed to get everyone's names, so apologies to them.

We were also joined by 8 students from the USF Astronomy Club. It seems their President noticed that we would be having an astronomy event at Withlacoochee River Park from an announcement on our Facebook page. Social media, as it turns out, can be useful for getting the word out. One of the students brought his Celestron 11-inch, F/2 astrograph. We had a lot of fun watching that monster work out.

Jack Fritz and Tom Spano arrived Sunday morning to get ready for the second act ... moving our clubhouse to its permanent location and preparing for the renovation. The cloud monsters returned that evening, so our three-day stretch of good viewing came to an end.

Monday morning the Clubhouse Crew convened at Jack's coach for breakfast, after which Jim Hunter appeared in his Miata (sad to say, you can't install a trailer hitch on a little convertible). Shortly thereafter the moving guys arrived with their monster hydraulic shed-moving trailer, and an hour later the clubhouse was happily settled in the southwest corner of the field, a mere 50 feet from the electrical panel that we had installed the month before. We got some demolition accomplished, but then we got the phone call. Sam, our good friend and head ranger for the park advised us that the county Powers-What-Be were implementing emergency procedures in preparation for Hurricane Michael. In short, we had to vacate the park before sundown. Needless to say, this put a wrinkle in our clubhouse renovation plan.

The Clubhouse Crew will be reconvening October 18th for four days. We'll be upgrading

the electrical service (red and normal lighting, of course) and hooking the works up to the power grid (we hope at least one of the two air conditioners works, although I must say I'll be a little surprised if they do. Then we'll put in new walls, ceilings and floors, create a storage space at the rear of the building, and make a bunk room with (probably) 8 beds.

Anyone who'd like to join us for all or part of that effort is cordially invited to join us. No previous carpentry skills required. Also, doing this right ain't cheap. Please note our plea for donations in the monthly newsletter, the *Examiner*.

Our next New Moon Weekend will be November 2 - 4. My guaranteed clear skies finally came through last weekend ... I'm gonna make the same guarantee for November. Join us!

NASA News

STEVE ROBBINS

What is the most important astronomical work being done today? It would be very difficult to disagree that it's the basic identification and positional astronomy being conducted by ESA's Gaia probe. As of April, this year, Gaia has collected the precise positions, magnitudes, spectra, proper motion for 1.7 billion stars. The brightest 150 million also had their radial velocities measured. When we consider that the positional era of astronomy supposedly began to fade with Tycho Brahe's 777 stellar positions, just yikes! Before we can analyze anything, we need to know what's out there. [Gaia is providing the bedrock](#) of the science of astronomy.

SPAC Business Meeting 

Our next business meeting is Wednesday, November 7th, at 8:00 PM at SPC Gibbs Campus, Natural Science Building, Room 139. 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
Vice Pres.	Jack Fritz	813 508-5680
Secretary	Shirley Vuille	727 864-2624
Treasurer	Jim Hunter	813 507-8415
Dir.-at-Large	John O'Neill	727 637-5945
Dir.-at-Large	David Pearson	727-215-1526
Dir.-at-Large	David Richmond	727 692-9831
SPACE Editor	Jack Fritz	813 508-5680
Public Relations	John O'Neill	727 637-5945
Membership Chair	Shirley Vuille	727 864-2624
Outreach Chair	Jim Hunter	813 507-8415
Star Party Chair	Mike Partain	859-339-0828
Librarian	Ralph Craig	727 384-2086
Club Webmaster	Chris Curran	813 653-2604

Click on the name to send email

Recognition of Patrons & Benefactors:

Clifford B. Benham	Benefactor
Jack & Roni Fritz	Benefactor
David & Tara Pearson	Benefactor
David & Mina Swan	Benefactor
Gus Waffen	Benefactor
Andy Demartini	Patron
Anthony Staiano	Patron
Brad & Lisa Perryman	Patron
Joe Bradley & Diane Ortiz	Patron
Kyle Brinkman	Patron
Matt Labadie	Patron
Peter & Jaclynn Dimmitt	Patron
Robert Myers	Patron
Wally & Ramona Vazquez	Patron

Examiner Staff

Editor	Jack Fritz	813 508-5680
Assistant Editor	Nancy Huff	813 621-3606
Reporter	Kelly Anderson	813 672-2751
In the News	Steve Robbins	386 736-9123
Mirror Lab	Ralph Craig	727 384-2086

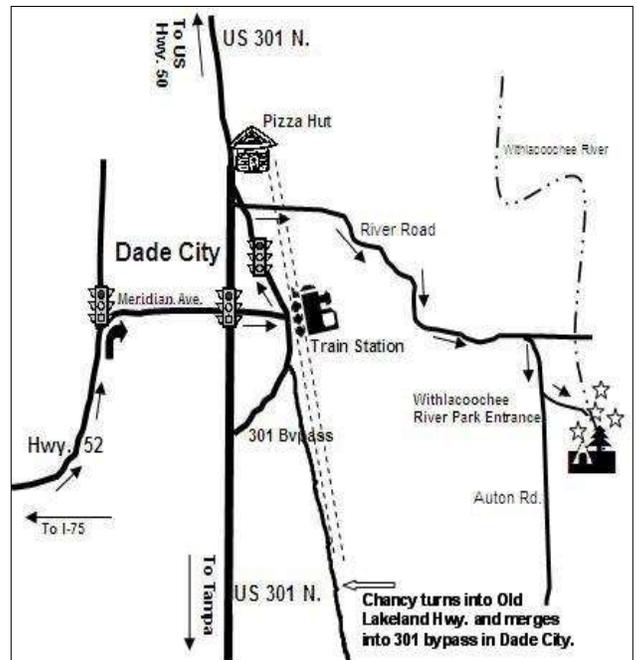
Withlacoochee New Moon Weekends

There's no need for reservations. However, the park closes at sundown, so you will need to arrive before then. The park rangers will give you the gate-code once you're inside the park. Please do not call for the gate code as they are not allowed to give it out over the phone.

The year-round camping fee with electrical use is \$10/night for club members and \$15 for non-members. Tent camping without electric is \$5/night.

Reservations are not necessary. Please print and display our [Friends-Of-The-Park Pass](#) on your dashboard.

Please join us! All astronomy enthusiasts are welcome. You do not need to be a club member to attend. Please refer to our [Club Calendar](#) for details and scheduled dates.



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 (*Under 18*): _____

Address: _____ City: _____ St. ____ Zip: _____

E-Mail address: _____

Single: [] \$ 30.00/YR. Includes one adult, minor children, the "SPACE" newsletter, and all the rights and privileges of membership.

Family: [] \$ 35.00/YR. Includes two adults, minor children and the above rights and privileges.

Student: [] Free. Expected date of graduation: _____

Patron: [] \$ 50.00/YR. A Patron member is entitled to the above rights and privileges.

Benefactor: [] \$100.00/YR. A Benefactor member is entitled to the above rights and privileges.