



May 2019

Editor - Guy Earle

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



Astronauts on the Moon was one of my favorite popup books as a kid. The early 70s were full of hope that we would all be going to space in our lifetimes. After all, America put a man on the moon with 10 years of deliberate effort. Star Wars came out and the Space Shuttle was unveiled. America seemed well on the way. Then there was the Challenger disaster which slowed down expectations. The shuttle program continued and then there was the Hubble.

The shuttle program ended and then we started hitching rides on Russian rockets. This is a national embarrassment. How can we sink from leaders to bums in such a short timeframe? The president said "lets go to Mars". The next said lets send a robot and let private industry use our idle space centers. Now another says its back to the moon in 5 years. Political will changes way



to fast to achieve any of these goals except the plan to let someone else make the rockets. Political will can't be maintained for more than 2 years these days. We'll never go anywhere that way.

That is where Blue Origin, Virgin and SpaceX come in. Each are working on very different launch systems. Blue Origin unveiled its lunar lander last week. They have had some launch and relaunch success. SpaceX had a setback recently but is proving reusable rockets work. Imagine if we had to build a new airplane each time to take a trip. Who would buy a ticket?

The summer months are usually not very good for astronomical seeing. That has no bearing on rocket launches. They are continuing at the Kennedy Space Center. When you are making your summer plans, be sure to make time to go see a launch. The launch schedule is announced on the NASA website. When you get there and see the rockets go up its not over. That is halftime. Today's rockets make a return trip.

Some other things at Kennedy have changed for the better. Nobody drinks Tang any more. Even the astronauts pass on that Neapolitan ice cream chalk. I recommend the cheeseburgers. Despite a complete lack of political consistency there is still hope that space can open up for others in my lifetime.

New Members

We would like to welcome Wayne Gossett and Ronald & Sterling Algieri to our family of members.

General Meeting

This month's general meeting will take place on Friday, May 24th at 8:00 PM, at St. Petersburg College, Gibbs Campus. 6405 5th Avenue North.

Withlacoochee River Park Clubhouse

GUY EARLE

★ SPAC is still seeking donations for the Withlacoochee observing clubhouse, named the Huff House, to help offset the cost of renovations. You may donate online for our [website homepage](#) or mail a check to SPAC, 17316 Oak Ledge Dr., Lutz, FL 33549.



June Astronomical Events

STEVE ROBBINS

★ Wednesday, June 5 find Mars 1.6° north of the Moon.

Friday, June 7, the Moon will be .2° north of the Beehive Cluster. The Moon will also be at perigee, 368,500 km from Earth.

Monday, June 10, Jupiter is at opposition, 46.2 arcseconds in angular diameter, 30 times brighter than nearby Antares.

Sunday, June 16 Jupiter will be 2.1° south of the Moon.

Tuesday, June 18 find Mercury only .2° south of Mars. On the same night Saturn will be only 1 lunar diameter from the Moon.

Friday, June 21 is the Summer Solstice.

Sunday, June 23 the Moon will be at apogee, 404,500 km from Earth and Mercury will be at greatest elongation, 25.2° east of the Sun.

June's full moon is the Full Strawberry Moon, because the season for picking strawberries was very short during this month.

The Moon

New Moon – June 3

First Quarter – June 10

Full Moon – June 17

Third Quarter – June 25



NASA News

STEVE ROBBINS

★ SpaceX has been acting more and more like a NASA affiliate, which they are. After an “anomaly” (definition: rapid unscheduled disassembly of a Crew Dragon capsule) both [NASA and SpaceX had very little to say](#) about what happened. NASA almost immediately released a message confirming their confidence in SpaceX, and both said that they wouldn’t be saying anything about the RUD until they had thoroughly researched the situation. Look for more of that and less of Elon Musk’s normal exuberance and celebration of setbacks in the future. It’s much less fun,

but to be expected when human lives are at stake.

Jeff Bezos’ Blue Origin, somewhat overshadowed by SpaceX’s spectacular successes and failures, has been amassing an impressive record for reliability. It’s New Shepherd rocket has now launched 11 times without a hitch, landing each time. [Watch their latest flight](#). They are going to be a player in space soon.

OSIRIS-REx was innocently orbiting the smallest object ever orbited by a spacecraft, the asteroid, Bennu, when it sighted something completely unexpected. Bennu was ejecting a plume of rocky particles actually higher than the orbit of OSIRIS-REx! On closer inspection, some of these gravel sized rocks were observed being ejected from the planet, orbiting the spacecraft a few times, and then falling back to the asteroid. An emergency safety assessment concluded that the relative velocities of Bennu, the spacecraft and the particles weren’t high enough to represent a hazard to the probe. To those who say that NASA fakes their missions, what mind on Earth could have conceived of such a thing beforehand? They would have been laughed all the way to Bennu.

Telescope Outreach

JIM HUNTER

★ On May 11, I set up a scope at a shopping center. Nothing visible but the first quarter moon. I had a great night however, including at least 14 rookies, including a family of seven, none of whom had looked through a scope. Another young

couple enjoyed it and went home to get their two young daughters, who also were awed – the moon – not me.

Not much happening this time of year except inside solar program at two libraries, an aging center and scouts.

Don't forget 7/20 is 50th anniversary of Apollo 11 landing. It is third quarter, so no easy viewing.

May New Moon Weekend

KELLY ANDERSON

★ The forecast for the May 3–5 New Moon Weekend was pretty lousy. As it turned out the forecast was accurate and astronomical activities were pretty much washed out, so not much in the way of news or wonderment to report from Withlacoochee. However, on the previous Tuesday, April 30th, the sky above the light dome of the Tampa/Brandon/Riverview complex was about as good as it gets (not so good) but at least it was clear, so your intrepid Field Reporter set up in his backyard to make sure everything was copacetic for our upcoming Summer trip out West. After a good polar alignment, Backyard EOS and PHD were fired up. Tracking was great and I exposed my Canon 70D to the wonders of the Leo Triplet with 50x90 sec lights @ 500 ISO. All the stars in the resulting images were almost perfectly round, the detail of M65 was pretty good and the dust band of NGC 3628 was very clear. Considering the noctilucous glow (actually, light pollution) I think the image came out fairly well. Now if only I knew how to use PixInsight better, but I think this is a passably fair result. During the last days of

May I'll be attending a four-day course in astro-imaging and PixInsight processing in West Texas at the Comanche Springs Astronomy Campus of the Three Rivers Foundation (<https://www.3rf.org/>). I'll be happy to share my new-found knowledge upon my return in July. 'Till then, keep smiling!

SPAC Mirror Lab

BRAD PERRYMAN

★ Every Saturday this month, Dimitri has been pressing and figuring his 12.5" mirror. At one point in the process, the surface measured 1/4 wave. Visually, a well-polished mirror, but for some reason other axes revealed a strikingly different surface. While most viewers would be hard pressed to find an issue with an image produced by this mirror, Dimitri wanted better. He looked at it as an opportunity to hone his skills. This journey would not be easy. Akin to 'chasing the dragons tail', you can't fully control where the corrections are made on the mirror while figuring. So, determining the right polishing pattern to even out the surface requires strategy, art and fortitude. Dimitri's determination paid off with an outstanding 1/9th wave mirror. We are excited for first light.





Bill's telescope is coming together. He recently picked up the mirror from Spectrum Coating.



I have been polishing my 16", trying to correct a turned edge. It started at 3/4" from the edge and now I have less than a 1/8" to go for a spherical surface.



Allan and Ralph finished putting together Bill's base while he was recovering from hip replacement surgery.



SPAC Astrophotography

GUY EARLE

Here are some outstanding SPAC photos for the month of May, and I encourage members to submit for future newsletters. More photos can see on our [SPAC Facebook page](#).



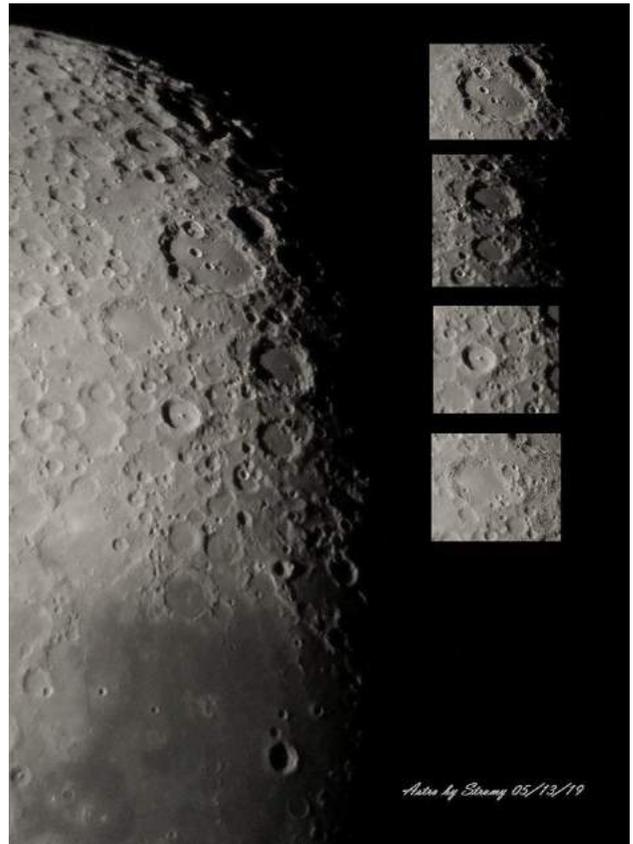
Leo Triplet by Kelly Anderson



Omega Centauri (NGC 5139) by Jamie Kenas



Jupiter by Kyle Denny on May 7



Crater Clavius & area by Marek Stromayer



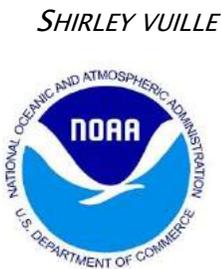
Ganymede & Europa on 3-25 by Greg Shanos

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.

National Weather Service

★ NOAA has been gearing up for the 2019 Hurricane Season. It's better to be prepared than caught wanting.



This is their website for more information: <https://www.weather.gov/wrn/hurricane-preparedness>

For Sale

★ Meade LX200R-8 Cassegrain telescope, 2000mm FL, F10 w/various eyepieces (26-9mm), electric focuser, diagonals, filters and heavy duty tripod with case. It is in excellent condition and the seller is asking \$1000 cash. There are numerous other items with this listing, so please contact [Joanne Pearson](#) via the email link provided for more details.



★ Also for sale by [Joanne Pearson](#) is Celestron Nexstar 6SE Cassegrain telescope, 1500mm FL, F10. Asking price \$400 cash with original tripod, is in excellent condition with various eyepieces (40mm-25 both 1-1/4 and 2"0, GSO RACI finder, barlows, eyepiece adapters, Bahtinov Mask focusing shield, and hard shell transport case. Again, there are numerous other items so please



contact for more details.

SPAC Business Meeting 

Our next business meeting is Wednesday, June 12th, 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

| | | |
|-------------------|--------------------------------|--------------|
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| Vice Pres. | John O'Neill | 727 637-5945 |
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| Treasurer | Jim Hunter | 813 507-8415 |
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| Public Relations | John O'Neill | 727 637-5945 |
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| Outreach Chair | Jim Hunter | 813 507-8415 |
| Star Party Chair | Mike Partain | 859-339-0828 |
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| Club Webmaster | Chris Curran | 813 653-2604 |

Click on the name to send email

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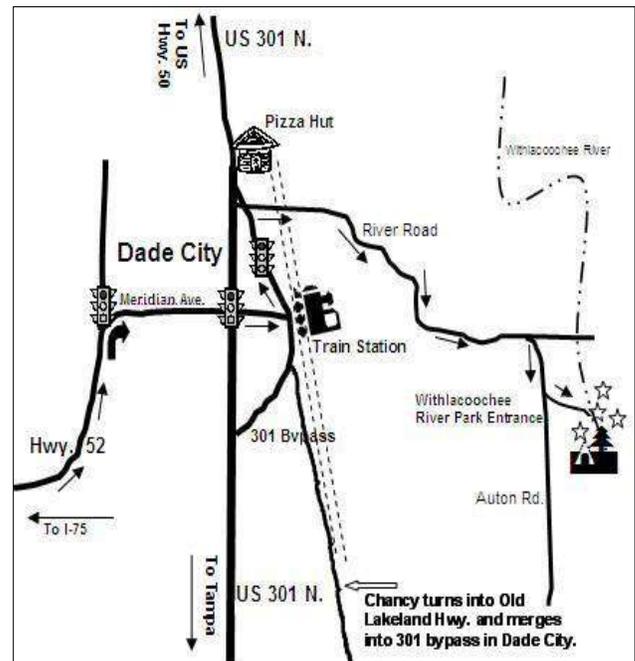
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| Reporter | Kelly Anderson | 813 672-2751 |
| In the News | Steve Robbins | 386 736-9123 |
| Mirror Lab | Ralph Craig | 727 384-2086 |

Withlacoochee New Moon 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.

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



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.