



August 2019

Editor - Guy Earle

The St. Petersburg Astronomy Club has been the center of family astronomy in the Tampa Bay Area for decades. Our 258 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*



25 Years is a long time for a person to do anything. That is how long our mirror lab had been operating at the Science Center. That kind of dedication only comes about by the warm comradery by the men who made it happen. The Paul McNabb Mirror Lab at that location is now a memory. It will be remembered as fondly as the old Hickory Hill observing site. Just like Hickory Hill, the club moved on before and is looking for a new solution to have a mirror lab once again. This is a pause, not the end, of our club's telescope building.

Our relationship with the Science Center is now complete. The Center is being sold to the City of St Petersburg in order to expand the sewage treatment facility. Anyone paying attention to the news knows that is a necessary public works project that will protect the health of Tampa bay. As necessary as it is, it is still sad to see an



educational institution shut down. Our club's relationship with them used to be so close that people didn't know we were different organizations. That science center was a field trip destination for children for many years.

The separation from the Science Center ended with a parting gift. Career Source Pinellas has an obligation to pass on proceeds from the sale of the property to science based institutions and educational facilities. We are one such organization and they permitted us to take possession of the telescope from the Carol Samuels Observatory. We now have in storage the 16" Meade. We are in the early stages of planning for a new home.

I'd like to thank our club members who took part in the planning and activities that have brought us to this point. Jack Fritz, Jim Hunter and John O'Neil were instrumental in gaining the permissions we needed. Jennifer Brackney of Career Source was gracious in supporting our request for the telescope. Michael Davis led the group who

removed the telescope and found a place to keep it for now.

One chapter of our club's history is now over. Thanks to our dedicated volunteers a new chapter is beginning. That part just isn't written yet.

Keep looking up.

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### New Members

We would like to welcome David Lavellee & Patti Nelson, Brian & Cynthia Hammond, Sue Ann Wolff, Kevin & Kevin Mulford, Craig Joseph, and John O'Neil & Krista Bledsoe to our family of members.

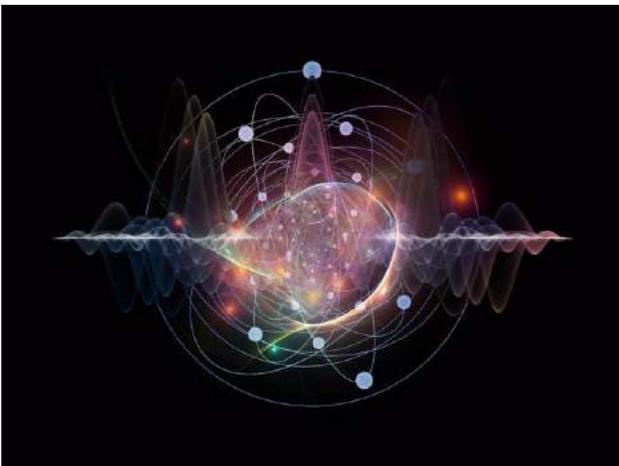
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### General Meeting

This month's general meeting will take place on Friday, August 23<sup>rd</sup> at 8:00 PM, at St. Petersburg College, Gibbs Campus. 6405 5<sup>th</sup> Avenue North.

### Main Program

Nature's Forces and their Unification by Dr. Chris Vuille, Professor of Physics at Embry Riddle Aeronautical University, Daytona Beach & author of textbook "College Physics".



Dr. Vuille with Kyle Brinkman

Dr. Vuille's presentation will discuss the Grand Unified Theory of Physics, current thinking of this unsolved mystery, and share his own theory of a solution.

Chris grew up in St. Petersburg and graduated from Lakewood High School. Bring your thinking caps and please join us!

### Club Meeting Hurricane Policy

Hurricane season is upon us. We may cancel the meeting if severe weather is threatening Pinellas County. Please check the Club Meeting Hurricane Policy on the website prior to leaving home.

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### September Astronomical Events

*STEVE ROBBINS*

★ Monday, September 2, Mars will travel only 1°02' from the Sun, passing on the far side 1 AU plus Mars' distance from the Sun. That means for several weeks Mars will be lost in the solar glare and unobservable by any reasonable means.

Tuesday, September 3, Mercury is at superior conjunction, which means it also is

passing behind the Sun at its most distant position from Earth. Why is a planet hidden from the Sun considered at **superior conjunction**?

Sunday, September 8, there is no separation between the Moon and Saturn. That means an occultation for at least some viewers, where Saturn is hidden behind the Moon.

Tuesday, September 10, Neptune is at opposition, NOT hiding and visible from sunset until sunrise!

Friday, September 13, the Moon is at apogee, 406,400 km from Earth's center of mass.

Monday, September 23 is the Autumnal Equinox this year. You can have fun asking people what day the equinox is, and I'll bet they say the 21<sup>st</sup>. Not this year!

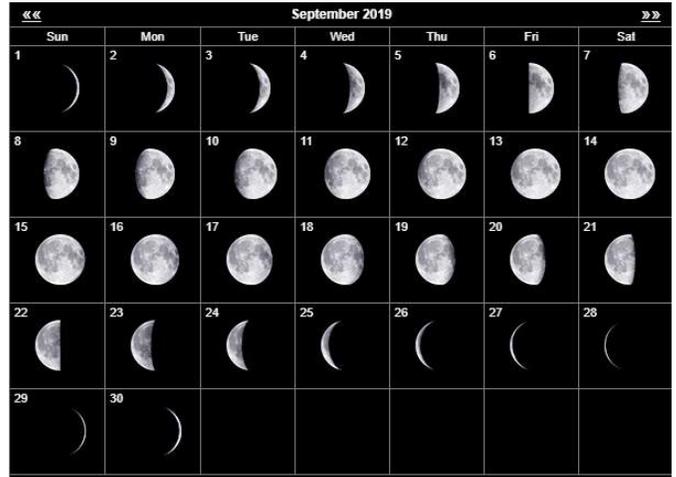
Friday, September 27, the Moon is at perigee, 357800 km from Earth.

Sunday, September 29, Mercury will be 1.3° south of Spica.

September's full moon is the Full Harvest Moon, because it is the closest full Moon to the autumnal equinox.

### The Moon

- First Quarter – September 5
- Full Moon – September 14
- Third Quarter – September 21
- New Moon – September 28



## Space Exploration News

STEVE ROBBINS



Following quickly after the failure of its last launch to ignite its second stage engines, [Arianespace successfully launched AEHF-5](#), and advanced American communications satellite, at 6:32 AM, August 8. Launching into the pre-dawn sky, pay special attention to the shadow of the rocket on the rocket plume when the rocket emerges into the light. You can watch the payload [fairing deployment in the shadow](#) before the fairing passes by in direct view. It's pretty spectacular.

Previously, at 7:23 AM, August 6, [SpaceX launched a freebie, AMOS 17](#), expending the block 5 booster, even removing grid fins and landing legs to give the craft more delta V. AMOS 17 launched from a pad only several hundred yards from the ULA's AEHF-5 million, standing on their pad as SpaceX launched. This was a make-up mission from the ill-fated AMOS 4 on-pad explosion which destroyed that satellite. For the first time in the Atlantic Ocean, SpaceX [recovered the \\$6 million dollar fairing](#) directly in the

net of their catch boat before it hit the water, keeping it dry.

Meanwhile, our New Zealand upstart launching service, [Rocket Lab, announced](#) that they were changing their long-standing policy of expendable boosters. They will be parachuting the boosters to Earth and snatching them in flight with helicopters. This is a longstanding recovery technique for American spy satellites, dating from the 1960s. Good on 'em!

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### August New Moon Weekend

*GUY EARLE*

★ August, go figure.

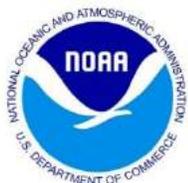


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### National Weather Service

*SHIRLEY VUILLE*

★ 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>

### Club Outreach

*JIM HUNTER*

★ On July 23rd, I did the solar presentation for about ten senior ladies. There was mild interest.

Steve, and Tom set up scopes as did I. We only had two ladies who stayed plus a gentleman and a young couple. Wally assisted but don't set up as there was no need. We could only see Jupiter and Saturn - clouds, trees and lights. This was the worst event in years.

Steve left without setting up as he had caught pink eye from the folks at Safety Harbor Library Saturday.

I helped add an astronomy section to the Tall Tales at Cracker Country on Saturday October 12. This is a paid event which includes visiting several of the historic buildings and listening to old Florida tales. It is very family oriented. Last year, the first, we had well over 100 guests. We will setup on the parking lot as the guests exit the evening program, with an unobstructed view to the south. All SPAC members are invited to the State Fair Grounds in east Tampa.

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### SPAC Astrophotography

*GUY EARLE*

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



Jamie Kenas (IC 1396) The Elephant Trunk Nebula in Celestron 11" RASA f/2



Robert O Nan at Steens Mountain, Oregon



The Moon's "Straight Wall" on 8/9



Jupiter and the Great Red Spot on 8/9

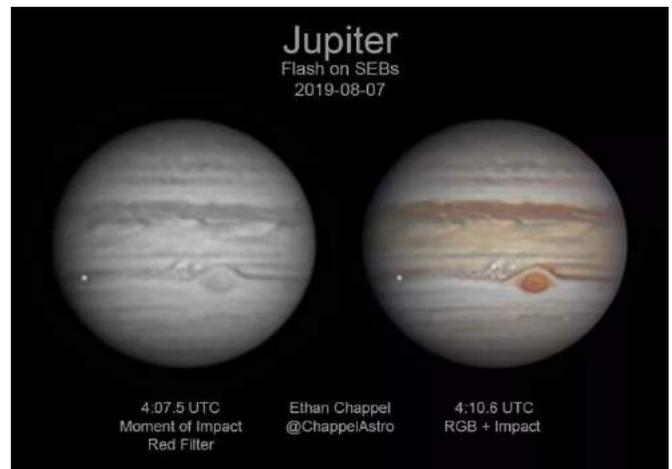
### Jupiter's Meteor Impact

*GUY EARLE*

★ Around 4 AM on Wednesday, August 7<sup>th</sup>, amateur astronomer Ethan Chappel of Texas imaged a bolide (meteor) impact into Jupiter's Southern Equatorial Belt (SEB), with a flash that is roughly the size of the Earth. The SEB is most well-known for the famous Great Red Spot, a cyclone of unbelievable statistics, roughly the size of 2-3 Earths

with wind speeds in the hundreds-of-miles per hour.

For those who were observing Jupiter back in July 1994 it was a bit of a flashback to the impact of Comet Shoemaker-Levy 9 and the trail of pieces that slammed into Jupiter's atmosphere. This meteor impact was the seventh since Shoemaker-Levy 9 and the first in two years.



### SPAC Mirror Lab Report

*BRAD PERRYMAN*

★ A recent mirror lab alumni entered the Stellafane 2019 Convention Telescope Competition. Steven Maiaroto and his grandson finished in second place for Optical under 12-1/2" and received honorable mention in mechanical design.



Congratulations to the Steves!!!



## We Get Mail -

Big "Thank You" to SPAC and specifically to the guys of the Mirror Lab.

I started grinding my 10" mirror in 2015. I was amused to see my name is still on your website picture of the white board, near the top as "Richard M". I spent many enjoyable afternoons grinding away under the shade trees with Irv quietly watching everything.

Shortly after finishing the mirror we sold our live-aboard boat and moved to North Carolina. My telescope project was put on hold for almost 4 years but I finally finished it and I have to say I was blown away with how well it performed. First light was of course, the moon, followed by Arcturus and Jupiter. Ron always said I would be amazed by the quality and he was so right.

Special thanks to Ralph, Allen, Ron, Mike and Paul for your expert guidance and support. Whenever I meet someone even remotely interested in astronomy I always tell them about my wonderful experiences at the Mirror Lab. Keep up the great work.

Richard & Alicia Munson



It's the end of an era. For over 20 years the Science Center in St. Petersburg has been home for the SPAC Mirror Lab. But on July 27th we packed up the last of our equipment and reminisced about the good old days until it was time to say goodbye to our Saturday sanctuary of solace. In 1997, Paul McNabb founded the Mirror Lab in order to provide local amateur astronomers an opportunity to learn about mirror making and build their own telescopes. The added benefits for the students were the mirrors performed better and cost less than the commercial equivalent. Everyone was welcome. Mother/daughter teams, father/son teams, couples, those young and young at heart spent their Saturday afternoons in the small building behind the Science Center honing a craft developed centuries ago.



Hazel Gehlsen



Paul McNabb and James Lerch



Donna and Nicholas



Pedro and Giovanni



Brent and Joey



Dave and Erin

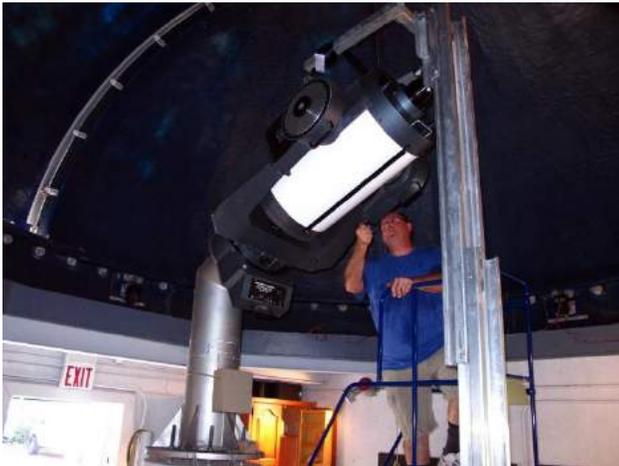
We knew this day would come (but hoped it would be later rather than sooner). Alas, we have to keep moving forward and looking up. We are still in the hunt for a new location and are hopeful to find a better home soon.



## Telescope Removal Photos

*BRAD PERRYMAN*

★ A huge thanks goes out to Mike Davis, Jim Hunter, Paul Krahmer and Ralph Craig for taking on the arduous task of removing the 16" Meade SCT scope from the Carol Samuels Observatory on August 6th. The telescope is currently in storage until we can properly evaluate the optics and find it a new home.





**SPAC Business Meeting** 

Our next business meeting is Wednesday, September 11th, 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	<a href="#">Kyle Brinkman</a>	727 455-6931
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Secretary	<a href="#">Shirley Vuille</a>	727 864-2624
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Dir.-at-Large	<a href="#">David Pearson</a>	727 215-1526
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Club Webmaster	<a href="#">Jack Fritz</a>	813 508-5680

Click on the name to send email

**Recognition of Patrons & Benefactors:**

Kelly & Natalie Anderson	Benefactor
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Reporter	<a href="#">Kelly Anderson</a>	813 672-2751
In the News	<a href="#">Steve Robbins</a>	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.





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**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.