



October 2019

Editor - Guy Earle

The St. Petersburg Astronomy Club has been the center of family astronomy in the Tampa Bay Area for decades. Our 272 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



Looking at the stars is looking back in time. The light they give traveled years to get here, sometimes centuries or millennia. Every time we are looking at a star we are looking backwards in time. Somewhere there might be a little green man looking at us through his scope when the pyramids were built.

I too have been looking back on the last three years as president of the club. There have been good times, tough times and an optimistic hope for the future. The good times far outweigh the tough ones. I've seen friendships grow. I've seen people volunteering to do more and greater things. I'm stepping down as president but leaving a healthy club under the fresh leadership of Brad Perryman and Paul Krahmer. (This is assuming no surprises at the next meeting). I'm looking forward to serving as a Director at Large and seeing what new things our club will do.



One of the things I did when first started was lifting up volunteers who made this the best club in America. There was a brief newsletter article each month called Member Appreciation of the Month. I want to bring this back one more time to thank and highlight some of the people who make this club rock. If the newsletter was longer I'd include everyone.

Some of the people who stepped up to take on new things include Mike Partian, Dave Richmond, Steve Gabber and Guy Earle. New leadership and enthusiasm will keep our club great for a long time. There are the dependable long time members such as Greg Shanos, Greg Simpson, Dimitri Leventis, Ralph Craig, Allen Maroney, John O'Neil and others. They keep us connected to the long history of the club under their sustained leadership.

Shirley Vuille has been a consistent contributor doing whatever is needed. She stepped in as secretary doing a fantastic job of things, welcoming new members, arranging events and keeping us in touch with the weather service.

Jim Hunter our secretary and outreach chairman who keeps our books and spends his time going to schools and parks demonstrating astronomy to the public

Paul McNabb started the mirror lab and had it going for 25 years. Volunteers with that steadfast dedication are hard to come by. We lost the lab with the Science Center and finding a new one is a current opportunity. We could use help in that.

Nancy Huff has been that welcoming face at OBS for many years. Now the clubhouse at Withlacoochee bears her name. That announcement was a true pleasure during my tenure.

Most of all, I appreciate Jack and Roni Fritz. Jack has been an amazing volunteer. He was the editor of the newsletter, VP and leader of this club for a long time. He led the effort to build the Huff House. Roni was right beside Nancy for years at OBS. I don't recall seeing her look through a scope but she was also a big contributor at OBS and social events.

I'm still a member of the club. I'm not planning on going anywhere. I'm still looking up and hope you do also.

New Members

We would like to welcome Billy Kidney, Duane & Diane Archibald, Alana Jones & Michael Koepnick, Bret Brennan, Alyssa Hendricks & Tony Gaddis, David & Amy Stanton, and Laura Rauch to our family of members.

General Meeting

This month's general meeting will take place on Friday, October 25th at 7:00 PM, at St. Petersburg College, Gibbs Campus, 6405 5th Avenue North. The annual elections and potluck dinner will be in the Philip Benjamin Social Arts Building, Room 114..

Main Program

The October meeting will also include the election of club officers and the post potluck dinner. Please see the map near the end of the newsletter for location and directions.

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.

November Astronomical Events

STEVE ROBBINS

★ Friday, November 1 the moon will be at furthest southern declination for the month, 23° south.

Saturday, November 2, Saturn will be .6° north of the Moon.

Tuesday, November 5 is the South Taurid Meteor Shower with a ZHR of about 10 and first quarter Moon setting in the early AM.

Thursday, November 7, the Moon is at apogee, 405,100 km from Earth.

Tuesday, November 12, the night of the full Moon, is the North Taurid Meteor Shower with a ZHR of about 15.

Saturday, November 16, the Moon will be at furthest northern declination for the month, 23.6° north.

Early morning of Monday, November 18 is the Leonid Meteor Shower, with a ZHR of about 15. Although the Leonids sometimes produce meteor storms, none is predicted this year. The waning gibbous Moon will be up all during the pre-dawn hours of best meteor observing.

In the evening of that same day, though, the Moon poses for a great wide-angle photo, being .9° south of the Beehive Cluster.

Saturday, November 23, the Moon is at perigee, 366,700 km from Earth.

Thursday, November 28, Mercury is at greatest elongation, 20.1° west of the Sun. And Jupiter, Venus and the Moon will be in close conjunction.

Friday, November 29, Saturn will be 1° north of the Moon.

November's full moon is the Beaver Moon. It's time to set those beaver traps before the swamps freeze over.

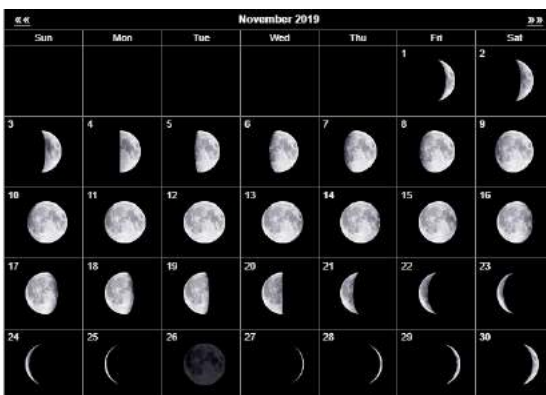
The Moon

First Quarter - November 4

Full Moon - November 12

Third Quarter - November 19

New Moon - November 26



Space Exploration News

STEVE ROBBINS



SpaceX announced that a Falcon 9 will attempt to launch the Intuitive Machines Nova-C autonomous lunar lander in 2021. Under contract from NASA to land NASA payloads on the Moon, Nova-C will be Falcon 9's second moon landing mission and if successful, Nova-C will be the first private spacecraft to soft land on the Moon.

As I write this we're in the middle of Spacewalktober! Here is the impressive list of spacewalks for October:

Sunday, October 6, US spacewalk #56, Christina Koch and Drew Morgan.

Friday, Oct 11, Christina Koch and Drew Morgan, US spacewalk #57.

Wednesday, Oct 16, US spacewalk #58, Andrew Morgan and Jessica Meir.

Monday, Oct 21, US spacewalk #59, Christina Koch and Jessica Meir will make the first all-female spacewalk.

Friday, Oct 25, US spacewalk #60, Jessica Meir and Luca Parmitano. This will be Parmitano's first spacewalk since his helmet filled with water, nearly drowning him in 2013.

Including these there will be ten American and one Russian spacewalk in the next few months.

On October 1, no fewer than 4 asteroids, ranging in size from 16 feet to 47 feet in diameter had relatively close passages by Earth, passing various distances from 99,000 miles to 3 million miles. Although none posed a threat, three of them were discovered only hours before their flybys. After last month's hit by a previously undiscovered asteroid in the Pacific, we

know we have work to do in finding and tracking NEOs.

October (9/27–28) New Moon Weekend

KELLY ANDERSON



Sky conditions for the September New Moon Weekend were the best they've been since May. Even the temperatures were a bit more moderate, and a refreshing breeze kept the mosquitoes away (mostly) although the love bugs were out in full force. They don't bite or sting because they have neither mouths nor stingers, but they can be a bit annoying. It's a burden we must bear in our search for astronomical wonders.

Friday night the clouds cleared well before sunset and stayed away for the night, although ground fog rose in the wee hours and coated everything with dew. We had a good group who attended the stellar activities this weekend. Jamie Karas and his 11-inch SCT/CGX mount got a jump by coming out Thursday. He was joined on Saturday by Alan and Betsy Force. Alan chased images with his 10" Celestron SCT and CGX mount. Doug Sliman arrived with his Meade 10-inch SCT and his Celestron Mount (fortunately they played well together ... no brand rivalry was in evidence). Ron and Dee Wayman parked in their usual place under their live oak tree. Ron chased comets with no luck, and his camera was acting up a bit. I brought my Explore Scientific 127mm APO refractor and it's CGEM-DX mount, and I also added a Sky Adventurer GEM designed

for wide-field and time-lapse photography. Back Yard EOS enabled me to run both DSLRs simultaneously ... it was a fun experiment and I learned a bunch about wide-field photography at night (spoiler alert: it ain't easy!).

Joining us just for the evening were Erik Grossman and his 6-inch reflector and iOptron mount, Guy Earle and his 10-inch Case Astrola (manufactured in 1959! ... it's about 6-feet long but, with a custom GEM takes great images), Brett Brennan brought his iOptron SkyGuider and Nikon DSLR combination, and Tim & Ethan Sonberg learned a lot about how to use their 6-inch NexStar. With a little help from Jamie they were able to make some significant progress in learning the intricacies of polar alignment. I helped by suggesting they invest a couple of hundred bucks in a GPS add-on.

Seeing Friday evening was not great but most enjoyable after our summer hiatus. Saturday morning dawned bright and clear, with temperatures in the mid-70s, climbing to the high-80s by afternoon, but the breeze was helpful. RV air conditioners were humming until dusk.

Once again the local high schools arrived during the week hours Saturday morning to run their Cross Country competition. We enjoyed their company. Nice to see young people enjoying sporting activities in the great outdoors.

Our little star village was enhanced by Tom & Chris Spano. Tom brought his SharkDob, which performed flawlessly as usual.

Jack Fritz and Joe Canzoneri came out for a few hours' visit that afternoon. David Lavallee and Patti Nelson also arrived with their Zhumell Z10 Dobsonian and enjoyed overnighting in their tent.

Also arriving were about a dozen members of the USF astronomy club.

The clouds were supposed to clear by 10:00 that evening, but took their time moving out, not leaving us until about 10:45. Seeing was a bit better than Friday, but the clouds returned about 2:00 so those of us who like to pull all-nighters (certainly not me) were a bit disappointed.

Our next New Moon Weekend will be October 25 thru 27. As usual, good seeing is guaranteed. Also on the 25th is the annual SPAC Pot-Luck Dinner and election of next years officers at St Pete College. Even if you don't want to spend the weekend star gazing, at least come out for a really good feed. If you walk away hunger it's your own fault.

Astronomy Outreach

JIM HUNTER

★ On October 4, Jack Fritz, Dave Pearson and I trekked to a SWFWDMD park Pasco County for a Rangers Space Exploration star party. Since the entire park is tree covered, we ended up between two gigantic high tension power line towers (giant "men") on a dirt road.

There were over 60 - 80 in the group.

We had Saturn, moon and Jupiter for a while, then intermittent clouds.

The Rangers were enthusiastic, as most had never seen a scope.

Long trip up to Rte. 52 but worth it.

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](#).



Target: Full Moon rising on October 14th
by Allen Force



Target: NGC 6888 the Crescent Nebula
Date: 2019-09-26, 27
Exposures: HA 180s x31, O3: 180s x 23 —
at [Withlacoochee River Park](#) by Jamie Kenas



Target: The Moon at Hillsborough state park by
Richard Tobin



Target: Jupiter and Saturn at Hillsborough state park
by Richard Tobin



Target: The Moon w/10" f/7.1 Cave reflector through
eyepiece w/Samsung s9+

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>

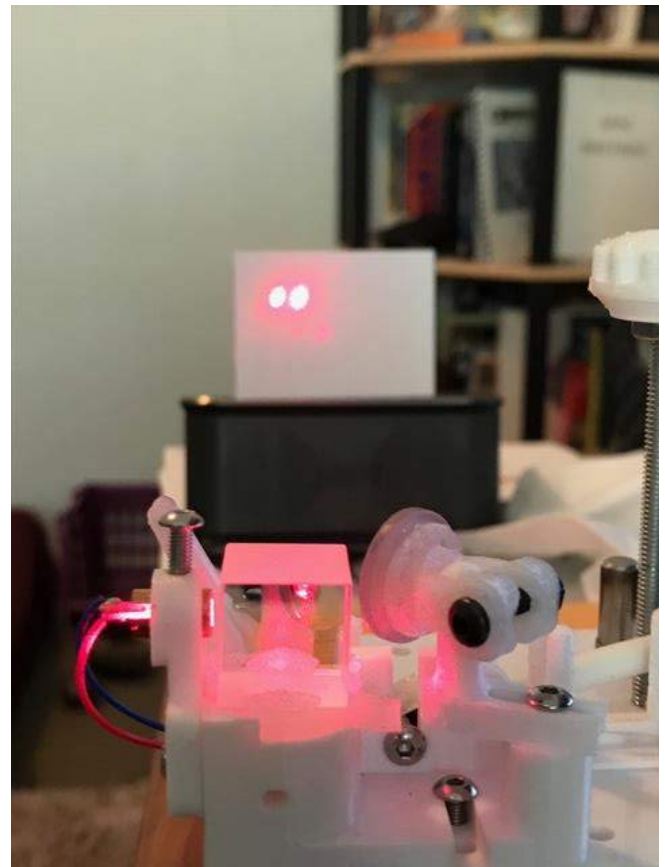
SPAC Mirror Lab Report

BRAD PERRYMAN

★ Steve Gabor has been working tirelessly to find the mirror lab a new home for the last few months. The process has involved writing letters and calling SPC, Eckerd College, PTEC as well as other facilities in the area. His efforts have been greatly appreciated by the mirror lab group and the club at large. The mirror lab has been an important part of the club for over twenty years, providing a place for hobbyists to build their own telescopes and provide the local astronomy community a place for technical assistance with their equipment. We hope to have a new location open soon.



In the meantime, the lab members have been working on projects. Ralph has received the the finishing part for his interferometer he has building. It is now ready to make precision measurements.



For over 12 years our current Robo-Foucault tester has proved to provide fast and accurate results, but for the last few months it has slowed down a bit. Everyone in the lab took turns trying to figure out what was wrong with it. Finally, Ron solved the problem. A fastener on one of the drive axis had loosened causing the camera to canter during the test. It's a testament to how well of a program James Lerch wrote. Even with an issue that should have prevented it from finishing a test, it perpetually readjusted the camera until it lined up again to provide accurate results.

Congratulations go out to the newlyweds of the Mirror Lab, Leslie and Mike! They had a beautiful ceremony and reception on the water. We all wish them a lifetime of love, happiness and many cloudless nights.



For Sale

★ A collection of eyepieces are for sale, comprising of 8mm and 13mm Hyperions, a 40mm Meade 2", an 18mm, and a 25mm 2", along with a laser collimator

and case for \$200. Please contact Mark Anderson at 727-215-6730 for more information and availability.



★ An injury to my shoulder is forcing me to downsize my equipment. This is a classic C11 (not the Edge) with both Celestron Losmandy style and Vixen mounting bars (I used the Vixen bar to mount my guidescope). It comes with a Starizona Hyperstar Version 3 (in "like new" condition) that includes an adapter for Canon EOS and one for C-mount. It also has the complete Celestron OAG (also "like new") in the original box including the instruction manual. Also a Starizona Cool

Edge SCT Cooler (again "like new"). It also has the original Celestron finder scope and a JMI Motofocus electric focuser with both hand controller and the Shoestring Astronomy FCUSB module which lets you focus from your computer. It has the Celestron f/6.3 reducer/corrector and the SCT-to-T2 adapter. The scope has both a home modified steamer trunk case, with rollers, and a Pacific Design soft case. It has the Celestron dew shield, a hard plastic Bahtinov mask and a homemade flats screen and an artificial star for collimation although this scope holds collimation extremely well. Not shown (they're on my RV) is a Kendrick dew zapper for the 11" SCT and a 2" to 1-1/4" adapter.

I love the versatility that this setup has given me but I can no longer handle the weight. I would consider trading down in



size to a C8 or C9.25 which of course would involve negotiation depending on what you have. Sorry, no Meades.

The following is for general information and not intended as a price list if sold separately:

C11 OTA between \$600 and \$1,250 on Astromart

Hyperstar w/counterweight and Hardigg

Storm Case \$1,000

OAG \$260

Cool Edge \$149

JMI focuser \$199

FCUSB \$79

Reducer/corrector \$113

Soft case \$169

Celestron T-adapter \$21

Hyperstar to Canon EOS \$89

Hyperstar to C-mount adapter \$?

Hard case (trunk), flats screen and 2" to 1-1/4" adapter, finderscope \$???

All told this is a lot of stuff. Add a mount, guider and camera and you're pretty much set for astrophotography for everything between wide field and deep sky. With the Hyperstar you don't even need the guider for most targets. I believe that \$1,800

is a fair asking price. I don't want to pack and ship this stuff so a local sale is preferred. I live in the Tampa area of Florida and would be willing to drive to meet someone reasonably close (100 miles). I will be at the Chiefland Star Party in October and going to north Georgia after that and can bring it with me if given notice. Paypal add 3% or FF.

Yes, I will be willing to sell the items separately if they do not sell in a reasonable

amount of time (at least a couple of weeks). At that time I will edit this to add a price list. The major items, the OTA and Hyperstar, will be \$800 each.

To club members I will take \$200 off of the complete package or \$100 off of the scope or Hyperstar if I can't sell as a package.

If interested, please contact [Allen Force](#) in New Port Richey.

Astronomy/Telescope Swap Meet

FOO (The Farr Out Observatory) is a very informal group of Astronomers who get together on occasion on a piece of land at 10942 Singletary Road, Dade City. It is about 2 miles south of the Withlacoochee River State Park. The group is hosting a very informal swap meet on Saturday, November 2 at the site. Time is 10AM to 2PM. All interested folks are welcome. Bring stuff to swap, to sell, or bring cash to buy. If you bring stuff, you will have to provide your own table(s) and chair. We will have water available. Toilet facilities are somewhat primitive, so a stop enroute is recommended. We did one several months ago, our first, and it was attended by some 30 people. We are doing a better job of advertising this time, and expect more people. Questions, call Mike at 727-771-1835.

SPAC October Meeting 10/25/19: Annual elections and Pot Luck Dinner 7PM

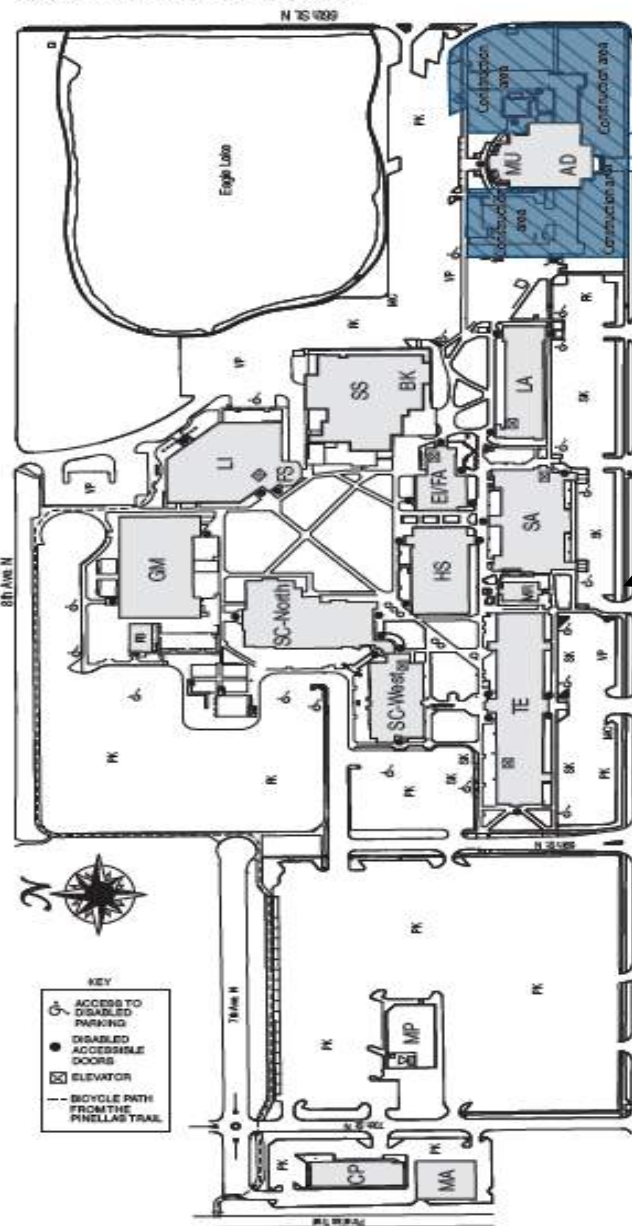
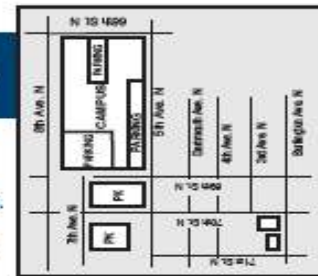
Location: Philip Benjamin Social Arts Building - Room 114

Barbecue Pork provided by SPAC. Please bring a dish to share.

Park on the south side of the building. It is ok to park in several Staff Parking spaces during this time. The only unlocked door to the building will be the Room 114 outside access door facing the south parking lot. The rest of the building's outside doors will be locked.

St. Petersburg/Gibbs Campus

St. Petersburg/Gibbs Campus
6605 Fifth Ave. N, St. Petersburg



New Student Success Center under construction. All services have been moved to the TE building.

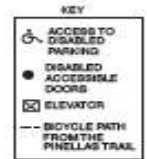
ST. PETERSBURG/GIBBS CAMPUS BUILDING CODES

- AD - ADMINISTRATION
The Administration Building is under construction and will become the new Student Success Center. The Provost office has been moved to SC 231. All other administrative departments have been moved to either the Technical Building (TE) or the Social Arts Building (SA). Please see the list of departments for each building.
- EI - ETHICS
Applied Ethics
Music
- GM - GYMNASIUM
- HS - HUMANITIES
Humanities and Fine Arts
- LA - LANGUAGE ARTS
Communications
- LI - LIBRARY
Cafe
Library
Writing Studio
- MA - MAINTENANCE
Facilities/Receiving
- MC - MUSIC CENTER
- MR - MIRA
Music Industry/Recording Arts Shop
- PB - PORTABLE 201
GED Program
- RT - RUNNING TRACK
- SA - SOCIAL ARTS
Career Services (Rm 137)
CROP (College Reach Out Program (Rm 101))
International Programs/International Student Center (Rm 111)
Mathematics
Social and Behavioral Science
Special Programs (Rm 101)
Student Support Services (Rm 101)
Veteran's Services (Rm 139)
WOW Women on the Way (Rm 124)
- SC - NATURAL SCIENCE
Planetarium
Provost Office (Rm 231)
Science
- SS - STUDENT SERVICES
Bookstore
St. Petersburg Collegiate High School
Student Life and Leadership
- TE - TECHNICAL BUILDING
Accessibility Services (Rm 126)
Associate Provost (Rm 128)
Admissions and Registration (Rm 100)
Business Office (Rm 128)
Career and Academic Advising (Rm 100)
College of Business
College of Computer and Information Technology
College of Education
Financial Assistance (Rm 101)
Learning Support Commons (Rm 200)
Security (Rm 210)
Teeling (Rm 103)
- WE - WELLNESS CENTER

Outside access door to Room 114

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SPAC Business Meeting 

Our next business meeting is Wednesday, November 3rd, at 8:00 PM via conference call; details upon request.

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.	John O'Neill	727 637-5945
Secretary	Shirley Vuille	727 864-2624
Treasurer	Jim Hunter	813 507-8415
Dir.-at-Large	Paul Krahrmer	727 535-5827
Dir.-at-Large	David Pearson	727 215-1526
Dir.-at-Large	David Richmond	727 692-9831
SPACE Editor	Guy Earle	813 785-1972
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	Jack Fritz	813 508-5680

Click on the name to send email

Recognition of Patrons & Benefactors:

Clifford B. Benham	Benefactor
Andy Demartini	Benefactor
Jack & Roni Fritz	Benefactor
David Knowlton	Benefactor
David & Tara Pearson	Benefactor
John Stepanov	Benefactor
Gus Waffen	Benefactor
Ronald & Sterling Algieri	Patron
Peter & Jaclynn Dimmit	Patron
Steve & Cindy Fredlund	Patron
Richard & Mary Garner	Patron
Charlie & Linda Hoffman	Patron
Scott & Beth Irwin	Patron
Matt Labadie	Patron
Robert Myers	Patron
Brad & Lisa Perryman	Patron
Alan Polansky	Patron
David & Rusty Richmond	Patron
Anthony Staiano	Patron
Wally & Ramona Vazquez	Patron

Examiner Staff

Editor	Guy Earle	813 785-1972
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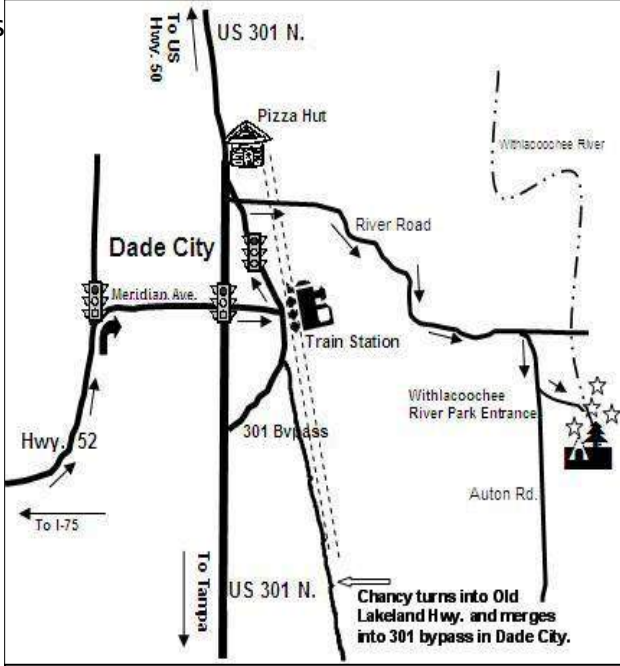
Reporter	Kelly Anderson	813 672-2751
In the News	Steve Robbins	386 736-9123
Mirror Lab	Ralph Craig	727 384-2086

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



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.