



SPACE

St. Petersburg Astronomy Club Examiner

December 2021

Editor – Guy Earle

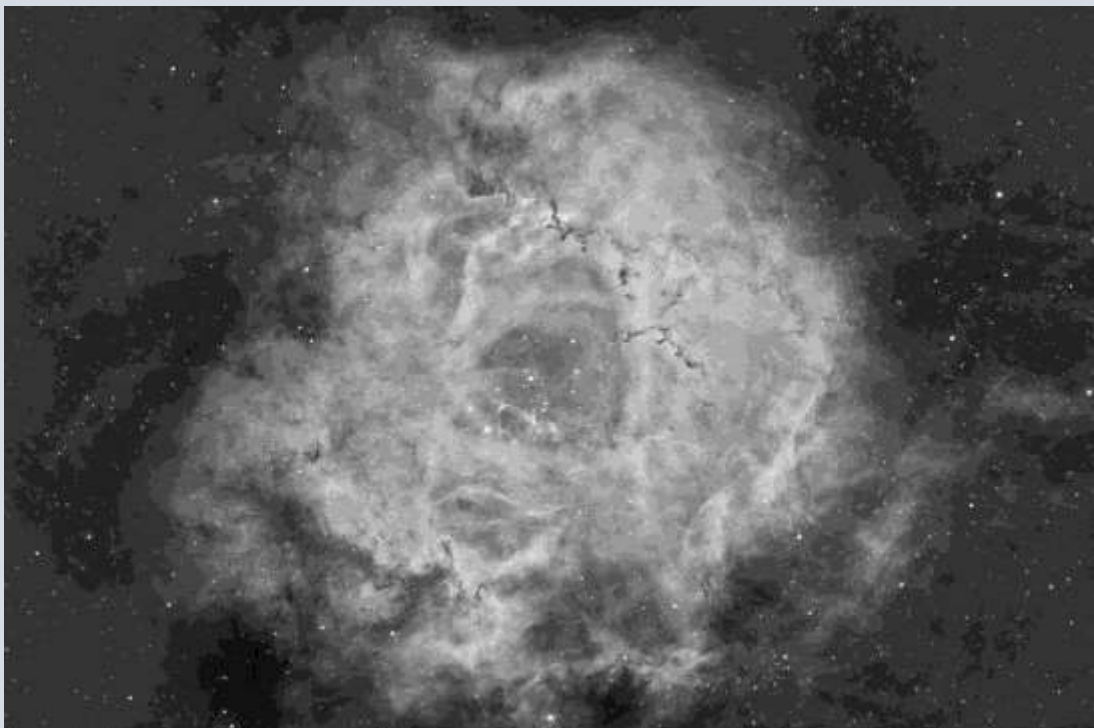
The St. Petersburg Astronomy Club has been the center of family astronomy in the Tampa Bay Area since 1927. Our 348 adult members are dedicated to promoting and sharing the wonders and science of astronomy. We host a dark-sky star party each New Moon at Withlacoochee River Park, along with local star parties, telescope-making workshops, science lectures, astronomy lectures, educational outreach sessions and much more.

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Astronomy Image of the Month

The Rosette Nebula, taken with RASA 11" CME 70 and ASI2600MM by Jamie Kenas



Beautiful Pair, Comet Leonard & NGC 4631

Here's a beautiful photo by new SPAC member Joe Reichle of Comet Leonard (C/2021 A1) passing NGC 4631, the Whale Galaxy. Leonard will reach perihelion on January 3rd and is around magnitude 11, and is passing near the end of the Big Dipper's handle.



December General Meeting

This month's general meeting will take place on Friday, December 17th at **7:00 PM**. The meeting will be *in person* at St. Petersburg College, Gibbs Campus, 6405 5th Avenue North, Philip Benjamin Social Arts Building - Room 114

This will be our end of the year holiday party, so come on out to enjoy the festivities! The club provides meats and ice. Please bring sides and deserts.



Please see a map to the event location near the end of the newsletter.

The club's **New Moon observing weekend** will be held December 31st-January 2nd at [Withlacoochee River Park](#) east of Dade City.



New SPAC Members

We would like to welcome Joseph & Kelly Lopez, Christian & Wendy Rubach, Tyler Gunnells, William Hughes & Mary Ann Yadsko, Joe Reichle, Shane Eigell, Lee & Linda Jarvis, Philip & Felecia Roey and Mark Prange to our family of members.

Registration for 2022 OBS is now open!



Greetings all,

I am happy to announce that registration for our annual **Orange Blossom Special** opened on October 9th. Advanced registration continues till January 2nd, 2022. Late registration will run from January 3rd till February 19th with a \$25 late fee. Our 2022 OBS will return to our normal operations complete with a site cooked and catered B-BQ Dinner Saturday night from D&D BBQ and Catering. We will have chicken and pork for the meats. The meals must be pre purchased with registration to be able to participate.

Please keep in mind that RV spots on the observing field are limited and on a first come first site basis. We do reserve the entire park for our event and there are plenty of camping sites in the regular campground located just behind our observing field. Please let me know if you should desire to be in the campground vs the observing field. Lastly, we are always on the look-out for donations for our giveaways and door prizes. If you happened to have that new eyepiece, old charts, binoculars etc. which aren't isn't getting used, please feel free to donate!

Mike Partain, Star Party Chair

New Moon Weekend, December 2021

KELLY ANDERSON

The first of two New Moon Weekends that we'll celebrate this December brought out many of our stalwart observers, imagers, and astronomy enthusiasts. With clear (!) skies in the offing Rich Tobin, Joe Canzoneri, David Knowlton, Jack Brockhurst, and your Intrepid Field Reporter arrived on Wednesday, December 1st and quickly set up our equipment. Well, OK, maybe not so quickly, but we were ready by nightfall. It turned out to be an excellent night for viewing ... most of the time. The skies cleared up nicely at sundown, but general cloudiness formed around 8:00. Around 9:30 the clouds decided to go away, and we had a clear, albeit dew-ish, experience until about 11:30 when guess who returned. It was a good time to turn in anyway.

We awoke to a stunningly clear sky, coolish temperatures, and light breezes. The weather for the remainder of the day was almost balmy, and we welcomed Les Gatechair



and Tim Harris to our happy ranks. Viewing was good that evening, clearing at sunset with occasional clouds moving through. Altogether a very satisfactory evening assuming you don't mind being

soaked with dew and enjoy dense

fog rising out of the ground around midnight. I managed to acquire a couple of not bad images of M33 (left) and the Horsehead Nebula (right). Not ready for APOD but they'll do for now.



Elizabeth & Roy Wood expanded our happy band of sky gazers on Thursday, along with Chris & Margaret Green, and Jack & Roni Fritz. The weather pattern of clear but dewy/foggy interrupted with episodes of clouds continued unabated. No rain, coolish temps at night with warmish, sunny daytimes. Jack F. and Joe repaired several electrical outlets as part of our preparation for Orange Blossom Special (registered yet?).

On Friday our newest members Dave Conner & Alana Jones and Billy Hughes joined us for their first New Moon Weekend at the Withlacoochee River Park. Saturday, we welcomed

Mike Davis and Mike Partain. That evening graced us with a shaky start with scattered clouds, gradually increasing until observing was pretty much shut down until close to midnight. After a few hours (I heard) the scattered clouds returned. We awoke to these same fair-weather cumulus clouds scattered about, a pretty good predictor for the pleasant weather that followed.

Overall, an excellent weekend at our Dark Site, practicing our favorite hobby in the dark and enjoying each other's company by day. Our next New Moon weekend begins December 31st, obviously rolling into 2022. As usual, clear skies are guaranteed, but can you imagine a more comfortable, safer, funnier way to bring in the New Year? Why not watch the ball-drop in Times Square under the friendly skies over our great dark site? Mark your calendars.

Happy Holidays!

November Astronomical Events

STEVE ROBBINS

- **New Moon** January 2
- Saturday, January 1, the Moon will be at perigee, 358,037 km from Earth.
- Sunday, January 2 the Moon will be at greatest southern declination, $-25^{\circ} 59'$.
- Monday, January 3 is the Quadrantid Meteor Shower, one day after the new Moon with a ZHR of about 100. The Quadrantids have a very short peak of only a couple of hours, which should occur after midnight in the morning of January 4.
- Tuesday, January 4 is Earth perihelion day, when Earth will be only 0.98333 AU from the Sun.
- Friday, January 7, Mercury will be at greatest elongation from the Sun, 19.2° E, setting after the Sun in the evening sky.
- Saturday, January 8, Venus will be at inferior conjunction and closed for viewing.

- **First Quarter** January 9
- Friday, January 14, The Moon will be at apogee, 405,806 km from Earth.
- **Full Moon** January 17, the Full Wolf Moon
- Monday, January 17 Pollux will be 2.6° north of the full Moon.
- Monday, January 17 the Moon will be at greatest northern declination, $+26^{\circ} 08'$.
- Sunday, January 23 Mercury will be at inferior conjunction, only 16 days after it was at greatest elongation. Earth takes ~ 92 days to complete the same portion of its orbit.

- **Third Quarter** January 25
 - Sunday, January 30 the Moon will be at perigee, 362,250 km from Earth.
-

Space Exploration News

STEVE ROBBINS

The [Hubble Space Telescope resumed](#) full scientific operations on December 6, putting the Space Telescope Imaging Spectrograph back online again. October 26, Hubble detected “a loss of specific data synchronization messages” and the spacecraft went into protective safe mode. Now all four instruments on Hubble are fully operational.

A [“mystery hut”](#) sighted on the Moon by China’s Yutu 2 moon rover has turned out to be more a product of Chinese press sensationalism. Yutu 2 imaged a rock on the rim of a crater it will investigate in January, and the low-resolution photo showed the rock with a roughly rectangular shape. Fortunately, that is exactly where Yutu 2 is headed, so it won’t remain a “mystery hut” for long.

The day before Hubble went into safe mode from their data synchronization error, it took a stunning portrait of part of the Running Man Nebula, NGC 1977, including a [2 light-year long outflow jet](#) from an unknown new star embedded in the nebula. The outflow is only visible because it has been ionized by radiation from the nearby star 42 Orionis.

On its way to a mission that sounds like a Star Trek plot, the DART spacecraft embarked on its one-way suicide mission to the Didymos asteroid system. Why does it make sense to crash a spacecraft into an asteroid? Wouldn’t it take years to accurately measure changes to its orbit around the Sun? The Didymos system has the answer with a binary system. Didymos, 780 meters in diameter, has a moon, Dimorphos, ~160 meters in diameter, orbiting with a tight orbit much faster than one per year. Colliding in a retrograde path at about 6 km/s, DART will shorten Dimorphos’ orbital period around Didymos by several minutes, scientists hope. Piloted entirely autonomously, success will yield a great scientific bounty. And the mission is much wilder than I’ve portrayed. [Follow the link.](#)

SPAC December Christmas Party 7:00PM Friday, 12/17/21

Location: Philip Benjamin Social Arts Building - Room 114

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 251. 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 Studio
- PB - PORTABLE 201
- RT - GED Program
RUNNING TRACK
- SA - SOCIAL ARTS
Career Services (Rm 101)
CROP College Readiness Program (Rm 101)
International and Transnational Student Center (Rm 111)
Mathematics
Social and Behavioral Science
Student Programs (Rm 101)
Student Support Services (Rm 101)
Veteran's Services (Rm 125)
WOW Women on the Way (Rm 124)
- SC - NATURAL SCIENCE
Planetarium
Process 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 126)
Admissions and Registration (Rm 100)
Business Office (Rm 126)
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)
Testing (Rm 103)
- WE - WELLNESS CENTER

Outside access door to Room 114

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KEY

- ⊕ ACCESS TO DISABLED PARKING
- ⊙ DISABLED ACCESSIBLE DOORS
- ⊠ ELEVATOR
- BICYCLE PATH FROM THE PINELLAS TRAIL

SPG_8-21-17

SPAC Business Meeting

Our next business meeting is **Wed., January 12th, 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	Brad Perryman	727 420-1957	Public Relations	John O'Neill	727 637-5945
Vice Pres.	Paul Krahmer	727 535-5827	Membership Chair	Shirley Vuille	727 864-2624
Secretary	Shirley Vuille	727 864-2624	Mirror Lab Chair	Paul McNabb	727-345-5713
Treasurer	Jim Hunter	813 507-8415	Outreach Chair	Jim Hunter	813 507-8415
Dir.-at-Large	Kyle Brinkman	727 455-6931	Star Party Chair	Mike Partain	850 339-0828
Dir.-at-Large	Steven Gaber	727 215-0464	Librarian	Ralph Craig	727 384-2086
Dir.-at-Large	Jack Fritz	727 692-9831	Club Webmaster	Jack Fritz	813 508-5680
SPACE Editor	Guy Earle	813 785-1972	Dark Sky Chair	Leeann Muszynski	813-601-0986

Click on the name to send email

Recognition of Patrons & Benefactors:

Steven Balke	Benefactor	Steve & Cindy Fredlund	Patron
Clifford B. Benham	Benefactor	David Furmanski	Patron
Lakeisha & Stephen Black	Benefactor	Steve Gaber & Karen Sell	Patron
David Brewer & Joan Baldwin	Benefactor	Richard & Mary Garner	Patron
Walter Brinkman	Benefactor	Les & Janet Gatechair	Patron
Dave & Deborah Catalano	Benefactor	Timothy & Mary Ann Harris	Patron
Michael Coate	Benefactor	Charlie & Linda Hoffman	Patron
Jack & Roni Fritz	Benefactor	Sharon Herman & Melissa Hughes	Patron
Jamie Kenas	Benefactor	Lee Jarvis	Patron
David Knowlton	Benefactor	Matt Hughes & Manuel Ordonez	Patron
Laura & Roy Lanier	Benefactor	Matt Labadie & Jennifer Willman	Patron
Jim MacDougald	Benefactor	Greg Legas	Patron
Tod Markin	Benefactor	Mark & Cheryl MacNeill	Patron
Kelly McGrew	Benefactor	Allen Maroney & Tracee Elliott	Patron
Kevin & Karen Mulford	Benefactor	Leeann Muszynski	Patron
Will & Jenni Nelson	Benefactor	Robert Myers	Patron
David & Tara Pearson	Benefactor	Stephen Oros	Patron
Rath, Damon & Jean Futch	Benefactor	Antonio Paris	Patron
Doug & Teri Sliman	Benefactor	Brad & Lisa Perryman	Patron
Todd Vogt & Brittany MacDonald	Benefactor	Alan Polansky	Patron
Bruce Berger	Patron	John & Abbie Redmond	Patron
Kyle Brinkman	Patron	David & Rusty Richmond	Patron
Ralph & Christine Craig	Patron	John Ross	Patron
Peter & Jaclynn Dimmit	Patron	Robert Rutledge	Patron
Guy & Kelly Earle	Patron	Anthony Staiano	Patron
Gabe & Elaine Faraone	Patron	Willis Sutherland	Patron
Joseph & Pamela Faubion	Patron	Wally & Ramona Vazquez	Patron
Darla & Peter Flynn	Patron	Charlie White	Patron

Examiner Staff

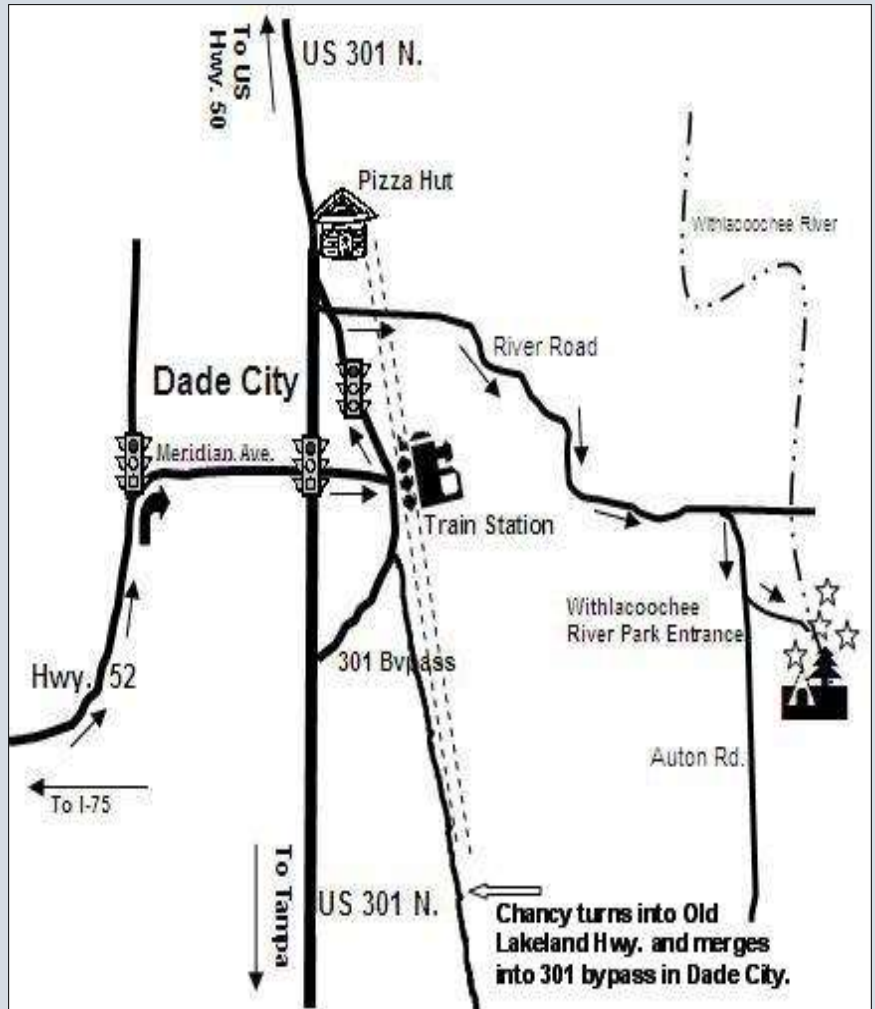
Editor	Guy Earle	813 785-1972
Reporter	Kelly Anderson	813 672-2751
In the News	Steve Robbins	386 736-9123
Mirror Lab	Ralph Craig	727 384-2086

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



St. Petersburg Astronomy Club Membership Form

Membership in St. Petersburg Astronomy Club, Inc. (SPAC) is open to anyone, regardless of age, who is interested in astronomy. Benefits of membership include a monthly subscription to the SPAC Examiner newsletter, reduced camping rates and use of the club's bunkhouse at our dark sky site at Withlacoochee River Park, the ability to serve on the SPAC board and voting privileges. Dues are considered donations and are non-refundable. Membership options are available as listed below.

You are now able to choose how you wish to join or renew your membership:

- **Preferred On-line Website Option: New instructions as our website has been updated.**

Go to https://www.stpeteastronomyclub.org/Sign_In.php on the SPAC website where you can join, view and update your membership profile, provide payment, and **print your membership card.**

- **US Mail Option: Takes more time to process manually because we are all volunteers.**

Complete the attached membership form and send it along with your payment to:

Jim Hunter
17316 Oak Ledge Drive
Lutz, FL 33549.
(Checks should be made payable to SPAC, Inc.)

Adult 1: _____ Adult 2: _____

Street: _____

City, State, Zip: _____

Home Phone: _____ Cell Phone: _____

Email Address: _____

Number of Children under 18: _____

Memberships:

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.

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.

Student: FREE. SPAC offers free membership to full time high school and college students.

Expected date of graduation: _____

Total Submitted: \$ _____

Your SPAC Membership Card is required for reduced fees at the campground.