



# SPACE

St. Petersburg Astronomy Club **Examiner**

November 2024

Editor – Guy Earle

The St. Petersburg Astronomy Club has been the center of family astronomy in the Tampa Bay Area since 1927. Our 358 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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### B33 Horsehead and NGC2024 Flame Nebulae from Chiefland Astronomy Village

by Bob Stelmock



# December Preview

This will be our end-of-the-year Christmas holiday party, so come on out to enjoy the festivities!



## November preview

Here is a description from Greg on his presentation: *A smart scope combines a telescope, camera, tracking mount and computer into a compact portable imaging system. These marvels of technology are revolutionizing amateur astronomy by making deep sky astrophotography easy, affordable and most of all, fun! This presentation will introduce you to an inexpensive smart scope, the ZWO Seestar S50. This smart scope can take incredible images of the Sun, Moon, Planets, and Deep Sky Objects for only \$499. The images you will see are absolutely amazing.*

# SPAC Officers for 2025

The nominations for our 2025 officers were confirmed at the October meeting. Here are your members for 2025.

- President -- Mike Partain
- Vice President -- Guy Earle
- Secretary – Peter McLean
- Treasurer – Christian Rubach
- 2023 Director--Steven Gaber
- 2024 Director – Jack Fritz
- 2025 Director -- Allen Maroney

## Smart Telescopes on the Market

Equinox2 Odyssey Odyssey Pro Altscope 2  
Unistellar \$2499 to \$4999

Star8 Vaonis \$299 to \$45,000  
Stellina Hyperia

Celestron Origin Origin \$3999

Star8 ZWO Seestar S30 ZWO Seestar S50  
Both cost only \$499

A smart scope combines a telescope, camera, tracking mount and computer into a compact portable imaging system.

## November General Meeting

This month's general meeting will take place on Thursday, November 21<sup>st</sup> at 7:30 PM. The meeting will be in person at **St. Petersburg College, Gibbs Campus**, 6605 5th Avenue North, Natural Science Building, Classroom 236 and also virtual. This month, SPAC member Greg Shanos will give a presentation, **The Smart Scope Revolution: Introducing the Seestar S50**

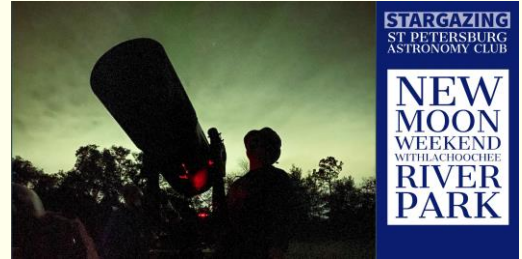


Join Zoom Meeting [HERE](#)

Meeting ID: 852 9687 2152

Passcode: 111992

The club's **New Moon observing weekend** is temporarily suspended at [Withlacoochee River Park](#) east of Dade City.



## New SPAC Members

We would like to welcome Ron Jones, and Alicia Tomaszewski & Luke Rooney to our family of members.

## Examiner Staff

Editor	<a href="#">Guy Earle</a>
Space News	<a href="#">Steve Robbins</a>
Field Reporter	<a href="#">Kelly Anderson</a>
Mirror Lab	<a href="#">Ralph Craig</a>
Image Gallery	<a href="#">Peter McLean</a>
Mirror Lab	<a href="#">Mike Davis</a>
	<a href="#">Allen Maroney</a>

## *President's Message*



I hope this message finds everyone well. As I am writing this message, the specter of yet another hurricane is beginning to emerge for next week. I am sure most of you have seen what our dark sky site looks like after the last two storms left the park flooded. Our club house is definitely damaged and will need repairs but the extent of which will remain unknown until the flood waters recede. Guy and I were able to wade out to the clubhouse to relocate some of the equipment we have in there to the bunks in case we see more flooding, especially if we receive a visit from Sara.



I wanted to take a moment to talk about our annual star party, the Orange Blossom Special. The board for SPAC will meet out at the Withlacoochee River Park on December 1<sup>st</sup> to see the park so we can make an informed decision on what will happen to OBS. The central problem is that about 25 acres of the park, including the RV campground have been transformed into a lake. The main observing field is dry, for the most part, but the field's infrastructure (electric and water) is underwater or, in the case of the service panels/breaker boxes, surrounded by water. The flooded area is in a natural basin with no way to drain back to the Withlacoochee River, which is .25 miles away. To be succinct, if the flood waters do not recede by December, will be faced with either delaying OBS to March or canceling it all together.

We will know more December 2<sup>nd</sup>. In the meantime, we will be checking in with the park to monitor the progress. Please do not call or attempt to visit the park as it is closed until further notice at this time.



OBS registration opened on November 5<sup>th</sup> and we currently have 81 attendees signed up for the event. I want everyone to know, that in the event OBS should cancel, everyone will receive a full refund. If OBS is rescheduled to March and you are unable to attend because of the rescheduling, we will provide you with a full refund of the fees. I know several of you rent RVs for OBS and if we have to reschedule, it may cause a conflict. For now, let's hope Sara fizzles and flood waters drain in time.

Take care and clear skies,

Mike Partain

# *Chiefland Astrofest*

## *Field Report*

### *October 25<sup>th</sup>-28<sup>th</sup>, 2024*

By the Substitute Intrepid Field Reporter

Your Intrepid Field Reporter wasn't available this last New Moon weekend because Withlacoochee River Park is closed. Mike mentioned above that Hurricane Milton has caused some very severe flooding that has damaged the clubhouse and shut the park down, likely for a couple months.



*GUY EARLE*

As it happened, Mike and I, along with Tim Harris, Bob Stelmock, and Les Gatechair, did not plan on being at WRP in October because we were going to the [Chiefland Astronomy Village's](#) (CAV) 2024 Astrofest star party. I bunked with Mike in his RV, and soon saw the other SPAC members setting up around the field. Anyone who has ever gone to Chiefland knows the skies are a spectacular site for observing, but it also is about a 2-1/2-hour drive, at least for me. So, it's not something that is an-every-month kind of thing, but a couple times a year.

Light pollution has crept into every dark sky site, with my home in Riverview being about Bortle 8 now, Withlacoochee River Park about Bortle 6, and Chiefland about Bortle 4, maybe 3 on a good night. I started going to Chiefland in 1996 with Charlie Hoffman, Skip Cox, Mark Shroeder, and Jeff Richards, but around 2006 there was some stupid drama that occurred between the major property owners and everyone drifted away from Chiefland. But a few years ago, a new owner moved into Tom Clark's old place, a charming, warm, and friendly fellow amateur astronomer, Richard Hennig. He, along with many others now residing in the CAV have made a mission to restore and exceed the old thrill of observing at Chiefland, and I feel they have greatly succeeded. The 2024 Astrofest last month was fantastic, and honestly gave us some ideas for our own OBS star party, such as on-site, deluxe, air-conditioned bathrooms (picture on page 9). Everything ran smoothly and Mike and I had a great time.



*Charlie Hoffman and I back in 1996 with my homemade 12.5" f/6 Dobsonian*



*Richard Hennig proudly stands by the telescope museum in his workshop space which doubled as the museum, raffle prize display and lecture area. I instantly zoomed in on that wonderful Criterion R/V-6 back there.*



*Mike and I determined that setting up, like in the days gone-by when we were young, late in the afternoon and then having a full observing night, is impossible. Tired, sweaty, and three Advil in, Friday night was brief.*



I stayed until Monday morning, while Mike and Tim stayed until Tuesday morning. One of the highlights for me was spending some time with John MacDonald's father, who won a Dwarf III at the raffle on Sunday afternoon. I had brought my 10" 1959 Cave with me to image the planets, but the seeing sadly didn't cooperate. However, I also brought my Seestar and Dwarf II, which got extensive use, and that Sunday night I set up my Dwarf right next to John and his father, who had their RV right next to our site. John Sr. had never used a Dwarf telescope before, so I spent a few hours showing him how to use the app. Both scopes were whizzing away, slewing to the same objects, as we compared the differences between the new 35mm Dwarf III and the original 25mm Dwarf II. John Sr. is in his early 80's, and I can only hope I'm as sharp as he is when I'm his age. Within the hour he was in total control, selecting and adjusting his targets

on his own. I heard from his son that the next night, after I had left that morning, that his father was up well past his normal bedtime, sitting in their RV while the Dwarf slewed from object to object.

One other thing to mention is the photo to the right, which was taken with my Samsung Galaxy s23 Ultra. The phone is a few years old now but it has an Expert Raw mode for taking astrophotos. You just need to have it on a tripod and a cell-phone holder (a few bucks on Amazon) and it takes and stacks—yes, stacks—the photos to produce a really great, final, pin-point image. The image on the right was six-minutes, taken in 10-second increments, just like the Seestar. This photo is not edited in photoshop or anything. I think you'll agree, it's quite impressive for a bloody cellphone! By the way, you can see the comet in the bottom right of the photo. I did get a chance to really use the Dwarf II under some dark skies, finally, and was very pleased with the results (on the following page). All in all, Chiefland's Astrofest was a lot of fun, and they've already announced the dates for October next year. I know I'll certainly be there!







## October General Meeting

The October general meeting is our annual SPAC officer elections for the next year, which is a good excuse to have a pot luck party and for all of us to get together in a more casual way. This was also a good cover to very sneakily give an appreciation award to Greg and Liz Simpson, for all their years of dedicated outreach for the club, bringing their telescopes and love of the night sky to the general public and other events.

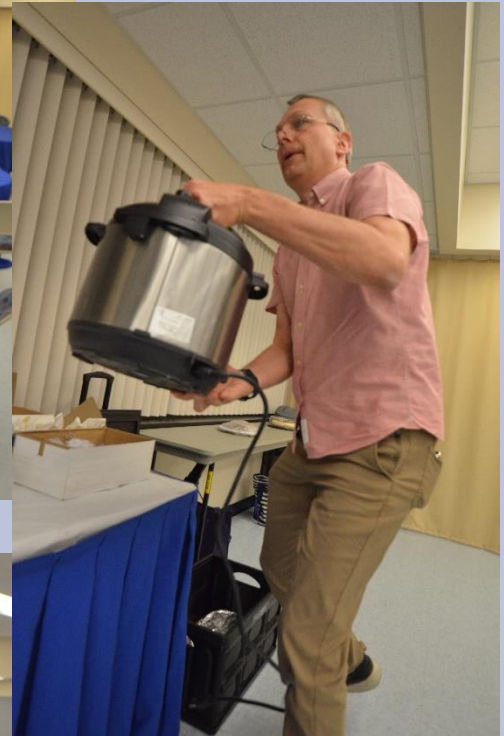


GUY EARLE



As I mentioned above, we also do the ratification of the next year's officers at the pot luck, which I listed earlier in the newsletter. We thanked Shirley Vuille and Jim Hunter for their many years of dedicated service and welcomed Peter McLean as our secretary and membership officer, who should already be familiar to you as he's been putting together the SPAC Image Gallery portion of the Examiner for some months now, and also Christian Rubach as our new treasurer.

Once those formalities were done, and Kelly and Natalie Anderson made a grand entrance a few minutes late, we got down to stuffing our faces and socializing. It's a pot luck, but the club purchases a bunch of pulled pork from Sonny's, with everyone bringing up the sides and desserts. It was a good time and a bit of a preview for our holiday/end-of-the-year Christmas party that we will be holding on December 12<sup>th</sup>.



# *SPAC New Moon Weekend*

## *Field Report*

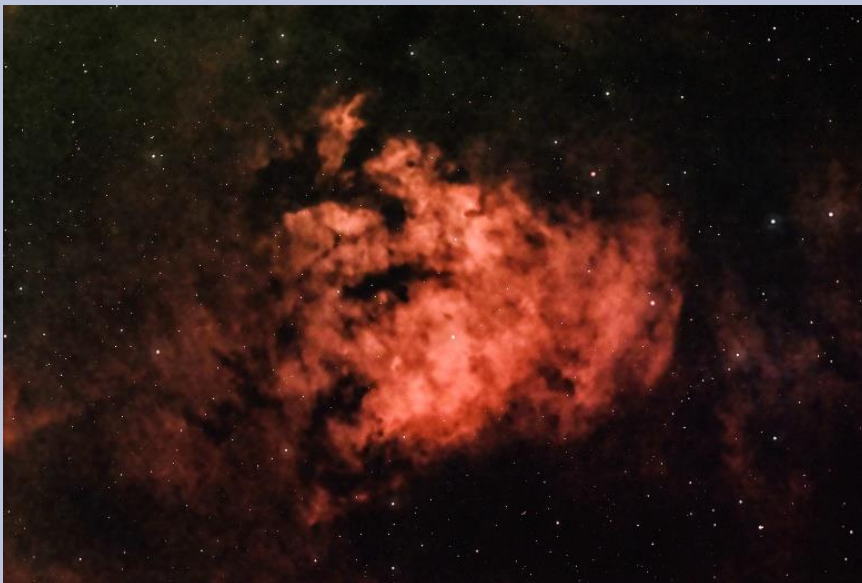
*October, November (?), December (?)*

*And Beyond 2024*

By Intrepid Field Reporter

Your Intrepid Field Reporter has at his command a plethora of adjectives to describe the Summer 2024 observing season (sadly, none of them would be suitable for a family newsletter). We have suffered through another record hot Summer, no lack of cloudy nights during New Moon Weekends, and two hurricanes within a two-week period. Really? Two back-to-back hurricanes? Someone must have purchased a lot of expensive astronomy gear to attract that much weather!

Even so, some of us did manage to get an image or two from our backyard observatories, such as Joe Canzoneri's Sharpless 2-171, AKA the Teddy Bear Nebula. Joe captured this from his backyard.



*KELLY ANDERSON*

But the Helene-Milton double-whammy really did us in for what appears to be the rest of the year, and possibly into January/February of 2025. Here's a couple of shots of our beloved Huff House taken in early November:






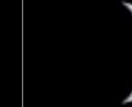
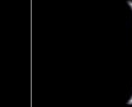


























Initial reports indicate that the Huff House did not get very much flooding, with only minor damage to the contents. Hopefully the understructure is Ok as well, but we won't know for a while. We don't know yet if the Park's cabins, chapel and bathhouse were damaged, but Duane Mericle's quarters (The Chief Ranger's domicile) are apparently okay. Unfortunately, there was widespread mayhem throughout the Park, and it will take some time before it dries out and the messes can be cleared away.

So let's hope Mother Nature will become benign enough to restore our beloved Dark Site quickly.

PS ... At publication time of this edition of our newsletter we are nervously watching the meteorological developments in the South Caribbean, where another storm is forecast to grow into something nasty. So take three cleansing deep breaths, go to your Happy Place, and think good thoughts.

# December Lunar Calendar

<<< December 2024 >>>						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
						
8	9	10	11	12	13	14
						
15	16	17	18	19	20	21
						
22	23	24	25	26	27	28
						
29	30	31				
						

### New Moon December 1

December 4, Venus will be 2.3° north of the Moon

December 7, Jupiter will be at opposition

December 8, Saturn will be occulted. Titan occulted at 04:14:25, ring occultation begins 04:16:47 and Saturn planet occultation begins 04:17:02. Times will vary a few seconds with exact location (images are on the following page).



**First Quarter December 8**

December 9, the Moon will cross the celestial equator going northward at the  
Ascending Node

December 12, the Moon will be at Perigee, 365,360 km from Earth

December 13, the Moon will pass right through The Pleiades starting at 11:17 in the daytime...

December 13 will be the Geminid Meteor Shower ZHR ~120 under a dark sky. The moon will  
be nearly full. Geminids tend to be bright. Shield the Moon and many will be seen

**Full Moon, December 15, the Full Cold Moon**

December 17, Pollux will be  $2.0^\circ$  north of the Moon

December 18, Mars will be  $0.3^\circ$  south of the Moon

December 20, Regulus will be  $2.5^\circ$  south of the Moon

December 21 is the Winter Solstice

December 22 is the Ursid Meteor Shower ZHR 5-10 under dark sky. It won't be dark.

**Third Quarter December 22**

December 22, the Moon will cross the celestial equator going southward at the Descending  
Node

December 24, the Moon will be at Apogee, 404,486 km from Earth

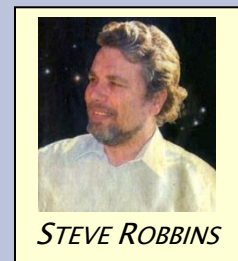
December 24, Spica will be  $0.2^\circ$  south of the Moon

December 24 Mercury will be at greatest elongation  $22.0^\circ$  west of the Sun

December 28, Antares will be  $0.1^\circ$  north of the Moon

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## *Space Exploration News*



**The Breakthrough Listen Project** is the largest scientific search for alien intelligence outside our galaxy ever performed. You may have encountered various accounts saying that its radio discovery of BLC1, Breakthrough Listen Candidate 1, was confirmed as a definite alien technosignature. This claim was not only false, it bordered on fraud. Dr Becky Smethurst says "This month saw yet another bullshit claim that an announcement of the discovery of intelligent alien life was imminent. And I got mad. Maybe it's just because this is the tip of the iceberg of so many fake discovery claims that circle the internet, especially when it comes to



JWST.” I wish she would just let us know what she thinks. It turns out the BLC1 was detected in 2020! In 2021 Breakthrough Listen published analysis proving that it was RFI, radio frequency interference of human origin. In 2024 a documentary film maker claimed to have spoken to the folks at the Breakthrough Listen project and proclaims BLC1 an alien broadcast with the Breakthrough Listen project ready to make an announcement in conjunction with Oxford University…where Dr Becky Smethurst is employed as an astrophysicist. She relates how she and her fellow researchers had a good laugh. Then they got angry. Here is how you dismantle pseudoscience misrepresentation.



**False space reporting**, including introducing fiction regarding astronauts' health has also hit the press lately, with The New York Post and The Daily Mail publishing articles using “experts” not connected in any way to NASA to raise concerns that astronauts, Sunita Williams and Barry Wilmore, are suffering from health concerns relating to their 152 day unplanned stay aboard the International Space Station. The Daily Mail quoted Dr Vinay Gupta, a pulmonologist from Seattle unconnected with NASA in any way, “I think what I can discern by her face and her cheeks being sunken in is that [she] has probably been at a significant [calorie] deficit for a while.” He then cast aspersions on Barry Wilmore’s health as well.

In response, both Williams and Wilmore made statements confirming that they were in great health. Then NASA itself released a statement by Dr. J.D. Polk, chief health and medical officer at NASA Headquarters in Washington, through Space.com. \_"So, let me just address that rumor right out the front. I hope that the Chief Medical Officer of NASA is an informed and credible source — I'll put it that way. You've got fluid shift, and you've got astronauts that are doing aerobic activity an hour a day and resistive exercise an hour a day, So, without a doubt, between that and the fluid shift, there are morphologic changes that occur that can perhaps change their appearance — but their weight has not changed, and their fitness is actually getting better."

When did our news medias job stop being to report the news and start being to raise unfounded controversy? Unfounded rumors should emerge from solitary crackpots, not professional news organizations.

**Blue Origin has** just announced that it has stacked the first and second stages of its New Glenn rocket for the first time in its Kennedy Space Center complex. New Glenn is scheduled for its first flight in November, 2024. Featuring a reusable first stage, which will be landing vertically like their New Shepherd and SpaceX reusable boosters, this first launch will feature Blue Origin's Blue Ring service module and independently deployable space tug. At between 82 and 95 meters tall, depending on whether New Glenn is in two-stage or three-stage configuration, Blue Orgin's rocket is aimed squarely at the gap in capabilities between SpaceX's Falcon 9 and Starship rockets. If they successfully land New Glenn's first stage they will become the second rocket company on Earth to do so.



# *SPAC Image Gallery*



Here are some excellent astrophotography photos from our fellow SPAC membership, shot from various locations and divided into categories similar to our annual star party imaging competition. If you would like to share your work, I encourage you to [email Peter](#) your image or share them on our SPAC Facebook page.



*PETER McLEAN*

## **Deep Space (Galaxies, Star Clusters, Comets)**



*M45 Pleiades Open Cluster  
From Chiefland Astronomy Village, FL  
by Bob Stelmock*



*M77 Squid Galaxy  
From Willow Oak, FL  
by Peter McLean*



*NGC7331 Group & Stephans Quintet  
From Chiefland AstroRanch, FL  
by Jamie Kenas*

## Nebula

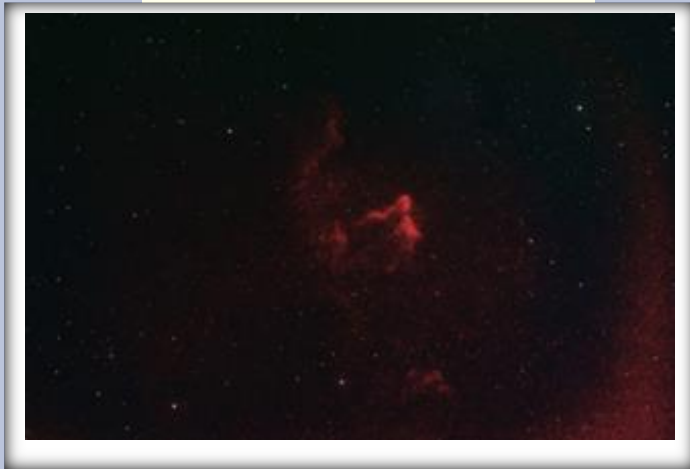
*NGC6960 Witches Broom Nebula  
from Apollo Beach, FL  
by Joe Reichle*



*NGC7635 Bubble Nebula  
from Chiefland Astro Ranch, FL  
by Jamie Kenas*



*IC63 Ghost of Cassiopeia  
from Zephyrhills, FL  
by Joe Canzoneri*



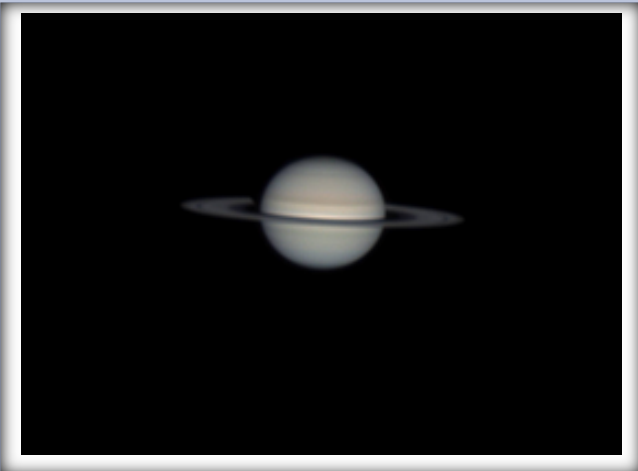
*NGC7380 Wizard Nebula  
From Safety Harbor, FL  
by Richard Tobin*



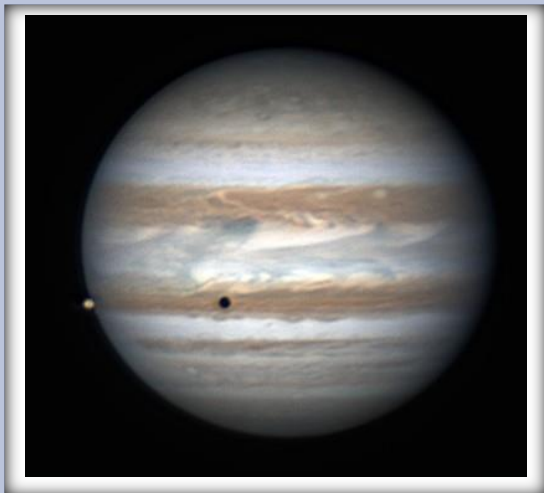
# Planetary-Lunar-Solar



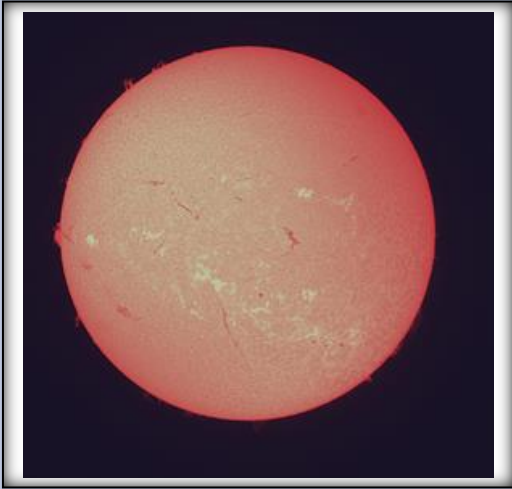
*Comet C2023/A3 Tsuchinshan-ATLAS  
From Chiefland Astro Ranch, FL  
Captured by Jamie Kenas*



*Planet Saturn before occultation with  
Moon from Riverview, FL  
Captured by Guy Earle*



*Io transit of Jupiter  
from Sarasota, FL  
by Greg Shanos*



*Impressive Solar Portrait from  
Chiefland Astronomy Village, FL  
by Les Gatechair*

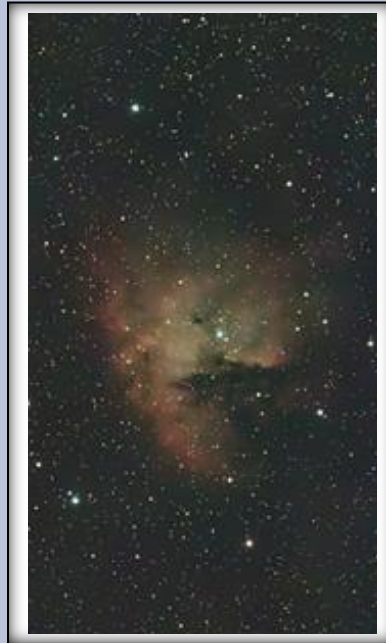


*Saturn and Lunar Occultation  
from Riverview, FL  
by Guy Earle*

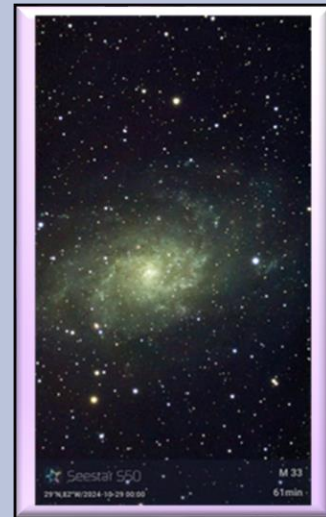
### Smart Telescope



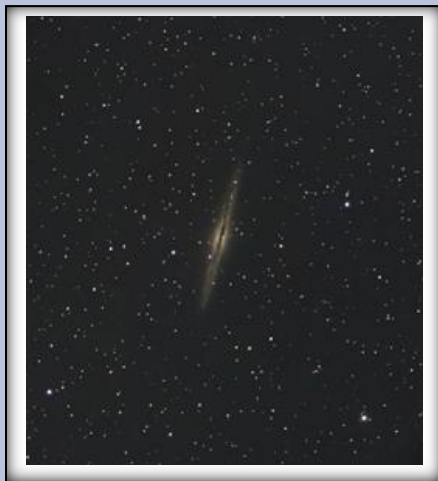
*NGC253 Sculptor Galaxy  
From Riverview, FL  
by Guy Earle*



*NGC281 Pacman Nebula  
From Nashville, TN  
by Peter McLean*



*From Chiefland Astro  
Village  
by Bob Stelmock*



*NGC891 The Silver Sliver Galaxy  
From Safety Harbor, FL  
by Richard Tobin*



*M42 Orion Nebula mosaic with  
Seestar S50  
From Chiefland Astro Ranch, FL  
by Jamie Kenas*



*From Chiefland Astro  
Village  
by Bob Stelmock*

For Sale

**Listing #1: Vaonis 80mm 6.4 meg Stellina** SmartScope with flight case and all original accessories. Chosen by Astronomy Magazine in their 2024 best new products. Asking \$1800.00, if interested, please contact Garrison Smith at [smith.garrison@gmail.com](mailto:smith.garrison@gmail.com)



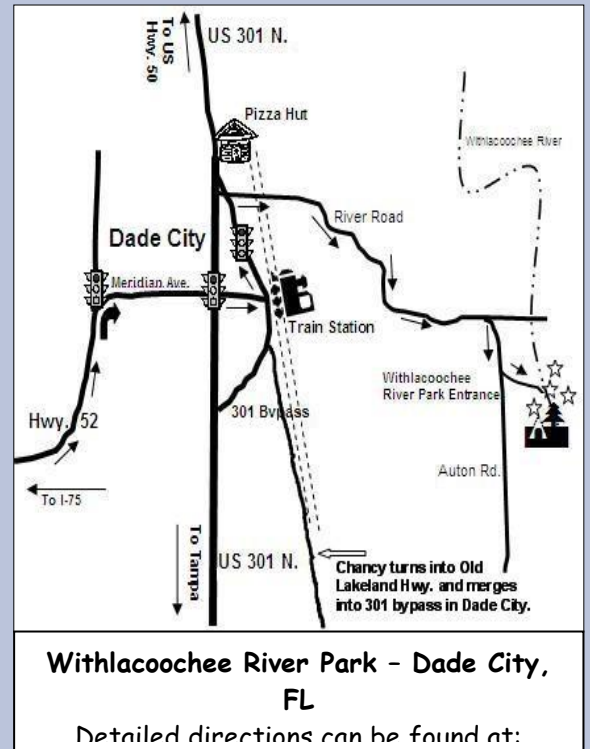
SPAC Business Meeting 🏠

Our next business meeting is **Wed., Dec. 4<sup>th</sup>, 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	<a href="#">Mike Partain</a>
Vice Pres.	<a href="#">Guy Earle</a>
Secretary	<a href="#">Peter McLean</a>
Treasurer	<a href="#">Christian Rubach</a>
Dir.-at-Large	<a href="#">Allen Maroney</a>
Dir.-at-Large	<a href="#">Steven Gaber</a>
Dir.-at-Large	<a href="#">Jack Fritz</a>
SPACE Editor	<a href="#">Guy Earle</a>
Public Relations	<a href="#">John O'Neill</a>
Membership Chair	<a href="#">Shirley Vuille</a>
Mirror Lab Chair	<a href="#">Paul McNabb</a>
Outreach Chair	<a href="#">Jim Hunter</a>
Star Party Chair	<a href="#">Mike Partain</a>
Librarian	<a href="#">Ralph Craig</a>
Club Webmaster	<a href="#">Jack Fritz</a>
Dark Sky Chair	OPEN

*Click on the name to send email*



## *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.



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. There is a small fee to the park for using electricity, reduced even further for club members, which you can pay on our club website [HERE](#).





# St. Petersburg Astronomy Club

## Recognition of Patrons & Benefactors

Walter Brinkman	Benefactor	Kyle Brinkman	Patron
Dave & Deborah Catalano	Benefactor	Michael Callahan	Patron
Stephanie Colon &		Ralph & Christine Craig	Patron
Jack & Roni Fritz	Benefactor	Glynis Dilaire	Patron
Michael Haworth & Melanie Otte	Benefactor	Peter & Jaclynn Dimmit	Patron
Matt Hughes & Manuel Ordonez	Benefactor	Guy & Kelly Earle	Patron
Valerie Hyman	Benefactor	Joseph & Pamela Faubion	Patron
Craig & Roberta Jameson	Benefactor	Darla & Peter Flynn	Patron
Naseeb Nas Kaleel	Benefactor	Steve & Cindy Fredlund	Patron
Jamie Kenas	Benefactor	Steve Gaber & Karen Sell	Patron
David Knowlton	Benefactor	Richard & Mary Garner	Patron
Laura & Roy Lanier	Benefactor	Timothy & Mary Ann Harris	Patron
Tod Markin	Benefactor	Charlie & Linda Hoffman	Patron
Kelly McGrew	Benefactor	Eric Houghton	Patron
Kevin & Karen Mulford	Benefactor	Matt Labadie & Jennifer Willman	Patron
David & Kathryn Musser	Benefactor	Willy & Beth Lebihan	Patron
David & Tara Pearson	Benefactor	Dave & Mary MacKenzie	Patron
Rath, Damon & Jean Futch	Benefactor	Steve & Jeri Maiaroto	Patron
Vincent Risalvato &		Joseph Mandara	Patron
Tabitha Castillo	Benefactor	Allen Maroney & Tracee Elliott	Patron
Christian & Wendy Rubach	Benefactor	Ralph & Molly Merritt	Patron
Doug and Teri Sliman	Benefactor	Steven Miller & Lisa Alessi	Patron
Garrison & Ruth Smith	Benefactor	Herb Monroe & Martha Stewart	Patron
Jill & Robin Sumner	Benefactor	Leeann Muszynski	Patron
Andrew & Bonnie Watts	Benefactor	Bill & Kim Northup	Patron
*****			
Bill & Norma Amthor	Patron	Stephen Oros	Patron
Jan Anschuetz	Patron	Michael & Carli Partain	Patron
Steven Balke	Patron	Brad & Lisa Perryman	Patron
Christopher Bankston	Patron	Alan Polansky	Patron
Jason & Margie Bedell	Patron	John & Abbie Redmond	Patron
		Gregory Satchwell	Patron

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Manny Sosa & Leslie Long	Patron	Alexie Velez & Yanira	
Tom Spano	Patron	Hernandez-Velez	Patron
Anthony Staiano	Patron	Skip & Kim Walker	Patron
Jonathan Stewart	Patron	Shawn Wilson	Patron
Tom & Michelle Sweet	Patron	Elizabeth Wood	Patron
Jose & Mary Torres	Patron		



## 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](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.**