SPACE

St. Petersburg Astronomy Club Examiner

November 2025

Editor – Guy Earle

The St. Petersburg Astronomy Club has been the center of family astronomy in the Tampa Bay Area since 1927. Our 334 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.

Inside this Issue:

IC434 Horsehead and NGC2024 Flame Nebulae, imaged at Chiefland AstroFest 2025 with a Dwarf III smart scope, by Guy Earle

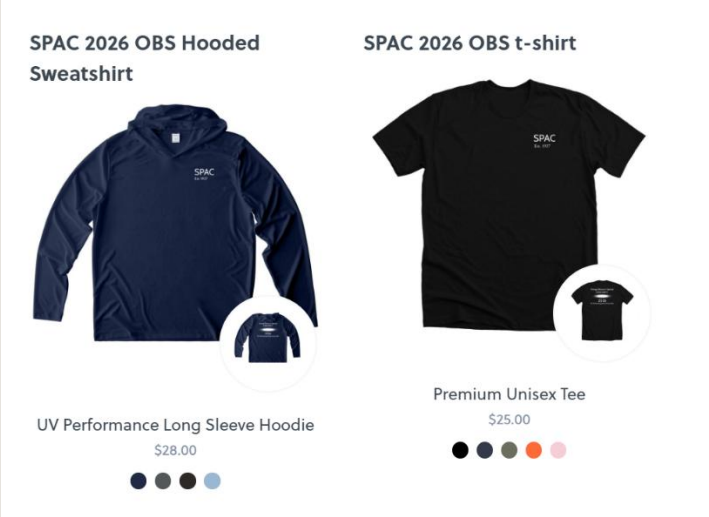
December Preview

Next month, SPAC will be celebrating the holidays with our potluck party, in the same room where we were in October at SPC. This will also be our last time that we meet at SPC, so come enjoy some great food and company, this last time on the St. Pete College campus.

Reminder for January; time is running out to order any OBS tees or sweatshirts before the star party, so make sure you do that soon and show your SPAC support!

Also, there will be no general meeting in January because of hosting the OBS star party.

Io, Saturnalia!



The **Orange Blossom Special 2026 star-party** is just two months away, so make sure to grab your special star-party t-shirt. Yes, there's an orange style available! Make sure you order it by the start of December to have it in time, as it will be printed and sent directly to you. There's also an OBS hooded sweatshirt now available if you're hoping, like I am, for cold skies.

Click ON THIS LINK to take you to the website.

November General Meeting

This month's general meeting will take place a bit earlier than normal on **Thursday, November 13th at 7:30 PM** at **St. Petersburg College, Gibbs Campus**, 6605 5th Avenue North, Natural Science Building, **Classroom 236**. This will be earlier due to Thanksgiving.

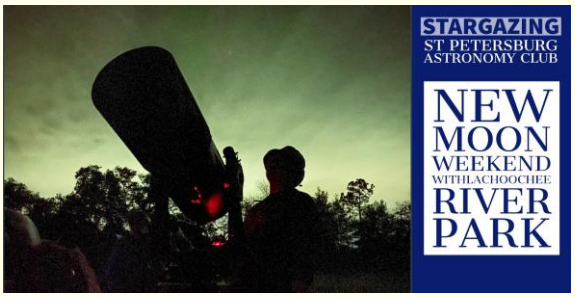
The main presentation speaker will be **Christian Rubach**, who will be presenting about his MLASTRO spectroheliograph, titled, **"Don't get bored on a sunny day - Using a spectoheliograph."** The meeting will also be available virtually but don't miss this last classroom presentation.

Join Zoom Meeting **HERE**

Meeting ID: 834 8435 3027

Passcode: 092807

The club's **New Moon observing weekend** is on November 21st and 22nd at Withlacoochee River Park east of Dade City.



New and Renewed SPAC Members

We would like to welcome Ryan & Kimberly Kensrud, David Van & Brittney Onesty, Gregory Legas, Daniel Keller, Ben Berauer & Marj Corey, Sameer & Jacqueline Merchant, Howard Goldrich, and Zio Evans Byam to our family of members.

Examiner Staff

Editor	Guy Earle
Space News	Steve Robbins
Field Reporter	Kelly Anderson
Mirror Lab	Ralph Craig
Image Gallery	Peter McLean
Mirror Lab	Mike Davis
	Allen Maroney

President's Message

Mike Partain

The holiday season is upon us! I hope this email finds everyone well. Our OBS 2026 is progressing well with 62 registrations and 102 attendees. We have a confirmed a return of D&D BBQ for our dinner on Friday.

Please keep in mind that due to scheduling for our keynote speaker, retired NASA astronaut Nicole Stott, we swapped Friday and Saturday on the schedule. We will post the event schedule as soon as it is complete. I do not know about everyone else, but I am really excited about OBS 2026, especially with some of the changes we are making. Our hobby continues to change withe growth of new technology. If you have a ZWO Seestar or Dwarf Lab smart telescope, please be sure to bring it to OBS as we will work on another session with our Very Small Array imaging group (VSA). We are hoping to possibly have some representatives of ZWO at the party as well.

Our next and last general meeting at the St Petersburg College is on the night of November 13th. Our very own Christian Rubach will host a session on solar astronomy and discuss his spectroheliograph from MLAstro, which rumor has it, is one of our door prizes for OBS. The last event for us at St Petersburg College will be in December at our annual Holiday Christmas party. Please remember to place it on your calendar and come out to meet everyone. That will be on December 18th at 7 PM.

Vice President's Message

Guy Earle

I don't normally post a message myself other than articles, but I just want to take a moment as VP and editor to thank the following SPAC members: **Mike Partain, Steve Gaber, Greg Simpson, Steve Robbins, Kelly Anderson, Peter McLean, and Allen Maroney**, who have been fabulous at making the Examiner something very special. Without all their monthly submissions, year after year, this newsletter would not be possible. This month's hit a record 44 pages, thank you!

October General Meeting Recap

Thanks to everyone who came out to our officer election and potluck event at SPC in October. The proposed officers for 2026 were voted on and approved, so congratulations to everyone, especially former president, Brad Perryman, who returns to the board as a director-at-large. Here's your 2026 officers:

President -- Mike Partain
Vice President -- Guy Earle
Secretary – Peter McLean
Treasurer – Christian Rubach
2024 Director--Steven Gaber
2026 Director – Brad Perryman
2025 Director -- Allen Maroney

Mike and I updated everyone on the current status of OBS donations, which have been going very well. I'll update that separately further below in this issue. After the updates, people enjoyed the nice spread of potluck items that were brought, with lots of socializing among everyone. It was a good time and remember, our next time at SPC will be back in the classroom with December's potluck-holiday party as our last time on campus.

SPAC Outreach Update


STEVE GABER

Outreach business for SPAC is picking up. So far, we have three outreach events scheduled, two in November and one in December. Public outreach is one of the core functions of SPAC, especially at schools. Education of young people and introducing them to the wonders of the universe is a main reason why many SPAC members own telescopes. We encourage all SPAC members to join us and to bring your telescopes to these events. It is a rewarding experience and could even justify your purchase of astronomy equipment to offset domestic objections.

The events are usually scheduled in the early evening on school nights from around 6 pm to 8 pm. If rain or heavy clouds prevail on scheduled nights, we try to reschedule alternate dates. Below are the details for outreach events that are scheduled as of publication of this newsletter. It is possible that others will be added to these. So please consider sharing your telescopes with eager young people who will love to see anything you point your telescope at. The look of amazement when a child sees the moon, Jupiter or Saturn is my justification for having telescopes.

November 11, 2025 from 6-8pm.
Curtis Fundamental School
531 Beltrees St, Dunedin, FL 34698
Contact person is Kelly Cooper (727) 738-6483

November 12, 2025, from 5:30 to 7:00 PM
North Shore Elementary School
200 34th Ave. N., St. Pete 33704
Contact person is Lauren Snow (727) 893-2181

December 4, 2025, Thursday, from 6 to 8 pm
Ozona Elementary School
501 Tampa Rd, Palm Harbor, FL 34683
Contact person is Jennifer Moncrieff (727) 724-1589

Normally, I also participate in the annual Great American Teach-In, which is a day set aside in the school year for volunteers to make presentations describing their jobs, interests or hobbies at schools throughout the country, including Pinellas County. I've done it, I think, 13 times. I bring one or two telescopes and a mount, demonstrate how they work and talk about astronomy to classes, sometimes three classes on the designated day. Frequently, two classes are combined, so I could demonstrate to as many as 150 students in one day. I also present a DVD showing exciting photos of galaxies, nebulae, the sun and other stars. However, this year's Great American Teach-In takes place on November 12, the same day we are scheduled to appear at North Shore Elementary School. Setting up my gear twice within a few hours is too much for my old bones. So if you do not intend to do the North Shore outreach event but would like to make a major contribution to STEM education, visit https://www.pcsb.org/Page/22016 to learn more about the Great American Teach-In and how to participate in it.

In either case, please join our outreach team and make your telescope more useful than it normally is.

SPAC and Gulfport outreach

GREG SIMPSON

For over 25 years now, we have been setting up telescopes in Gulfport during that funky little beach community's bi-monthly "Art Walks" (now called "The Gulfport Night Market"), held on the first Friday and third Saturday of the month, along Beach Blvd. (the main drag) and 31st Ave. S—two blocks north of the famous Gulfport Casino. The telescopes sit on the northeast corner of that intersection, our "observing corner" for these many years.

First started by Dan Bricker, longtime SPAC member, in the early 1990s, I got involved in the late 90s, setting up one of my various scopes to help Dan with the crowds of people who were in Gulfport for the Art Walks/Night Markets. These are "street fairs," where vendors line Beach Blvd., selling everything from jewelry to candles to homemade honey and just about anything else you can imagine. Plus, the many restaurants stay open late, so there is always a large number of patrons coming and going along the boulevard—many, if not most, stopping to look through our scopes.

Over the years, a number of other SPAC members have come and gone, with some of the earlier Art Walks featuring 7 or eight telescopes, crowded onto our corner and spilling down the side street (as you can see in the black and white photo below).

Gulfport sidewalk astronomy during a "boom" year, back in 2001. Pedro Carillo with his 8-in. Orion Dob on the left, and the late Don Saylor (in white shirt) seated at right.

But times change, and for a number of years now my wife, Liz, and I are usually joined by Andy and Bonnie Watts. Liz and I bring our Celestron SCT, and Andy and Bonnie, one of their large Orion Dobsonians.

We show folks the Moon and/or any bright planets that are currently visible. Of course, when Saturn is visible, it is a HUGE hit with everyone who stops by and joins the lines at our scopes! With the exception of the Orion Nebula, the bright lights of Gulfport make showing even moderately bright deep-sky objects nearly impossible, so we stick with the Moon and planets, to the awe and delight of everyone!

Waiting for dark…

We hope to continue bringing our scopes to the Gulfport Night Markets during the cooler, drier months of the year as long as we can. Judging by the comments we get from folks who look through the eyepieces, that should be for years and years and years!

(We're in Gulfport on the first of the two monthly "Night Markets," the first Friday of the month. The second one is on the third Saturday of the month, but we are usually scheduled to be at Boyd Hill Nature Preserve for "Astronomy Night" on those Saturdays, so we can't make the second one of the month. Bring a scope on the first Friday and join us if you'd like. If the skies are clear, we'll be there!)

A young astronomer checking out Saturn through Greg and Liz Simpson's Celestron CPC 800 SCT.

Andy Watts in the background next to his Orion DOB. Liz Simpson has her Orion 80mm refractor set up in the foreground.

Liz Simpson and Bonnie Watts watching while comfortably seated.

Liz Simpson running the Celestron CPC 800.

Andy Watts, happy-go-lucky astronomer, with his Orion Dob.

SPAC and Boyd Hill

GREG SIMPSON

One of the joys of this hobby, for me, is conducting public outreach at one of my favorite places, Boyd Hill Nature Preserve, along the southern edge of St. Petersburg's lovely Lake Maggiore. It's a beautiful location, and ideal as a setting to show the public some of the wonders of the night skies from the edge of a large city.

Our observing field at Boyd Hill Nature Preserve!

Although we've been doing public outreach, what we call "Astronomy Night," at Boyd Hill for well over a decade now, within the last few years our program has gotten extremely popular. The preserve limits the number of guests to 100 at each event, and each time we're there, we always

host a full compliment of 100 people, parents and kids and retired folks, all very eager to get a look through the telescopes.

It's all very informal. We set up telescopes in a large open field about 100 yards west of the preserve's nature center, and the preserve staff walk the guests over from the nature center at the start time, usually 7:00 pm. The staff set up a number of small red lights along the path that leads out to the observing field. No white-light flashlights, please!

Some of our volunteers from years ago, including former SPAC President Kyle Brinkman (far right).

After the group arrives, I'll welcome everybody and explain that we have a handful of telescopes set up (usually four or 5) and everyone is welcome to go from one scope to another and enjoy whatever object is being viewed. And that's what we do for the next two hours—which seem to fly by! Lines form at each telescope, each scope looking at a different object. So our guests get to see a variety of objects—planets, the Moon, star clusters, double stars, etc.—for a complete astronomical tour of the best objects currently visible in the skies over St. Petersburg.

People love getting to look through the telescopes. Many are there because they're interested in getting a telescope; many are there because they're intrigued by what can be seen in the night

sky. We get a lot of great questions, too—everything from how are black holes formed to what telescope should I buy.

Longtime Boyd Hill volunteer Shirley Vuille, with SPAC member Leonard Ginn (deceased).

I schedule our twice monthly Astronomy Nights (all on Saturday nights) to give the public the widest range of objects to see. One Saturday will feature a first-quarter Moon, say, and the next a Moon-free "deep-sky" evening. And that has worked out very well. (See the SPAC Calendar on the website for a listing of the Saturday nights we'll be at Boyd Hill.)

Finally, our Boyd Hill Astronomy Nights wouldn't be the success they are without the help of SPAC members who have participated with their telescopes over the years: Shirley Vuille, Andy Watts, Steve Gaber, Rich Tobin, Bruce Sinclair, and others. I want to thank them all. And any other SPAC members who would like to join us, we gladly welcome you! Come join us and see if Boyd Hill becomes one of your favorite place to enjoy the night sky!

Greg Simpson with his trusty Celestron CPC 800 SCT.

Liz Simpson running Shirley Vuille's tripod-mounted binoculars.

A happy young astronomer and her dad looking through Greg's 8-inch SCT.

Space Exploration News

STEVE ROBBINS

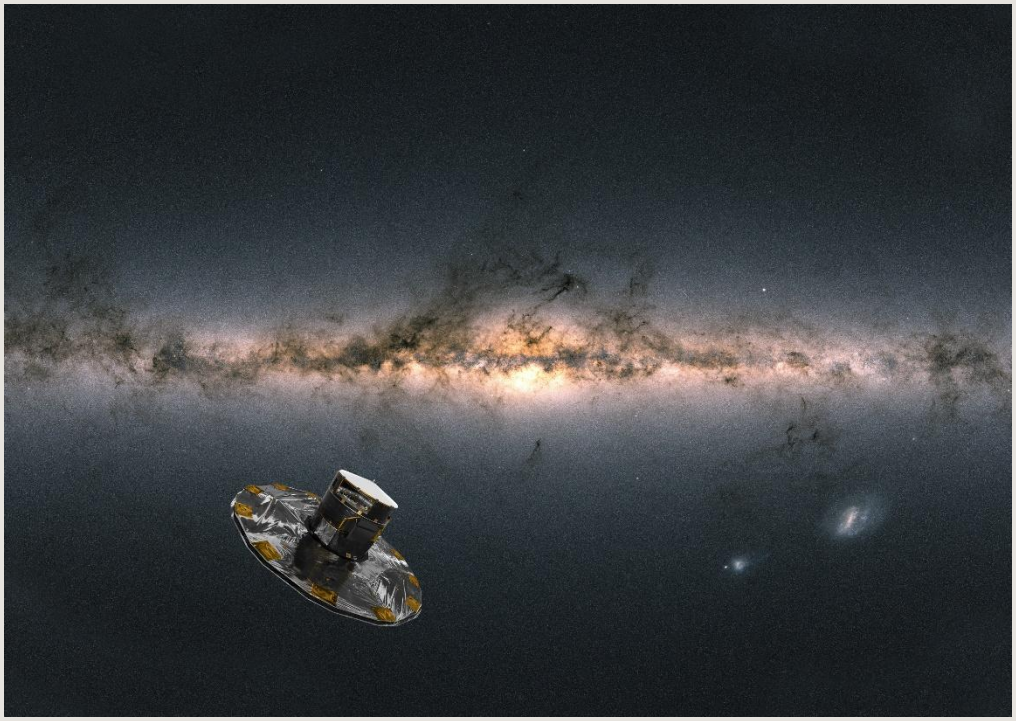
Thanks to the **infrared capabilities of JWST and assistance** by the Hubble Space Telescope, Astronomers now have the tools to detect supernovae before they go off. This is thanks to the observation of SN 2025pht in the spiral galaxy NGC1637 on July 27, 2025. Both HST and JWST had recently monitored the galaxy. When the supernova was detected by the All-Sky Automated Survey for Supernovae (AAAS- SN). Immediately astronomers compared photos of the galaxy from the two space telescopes, finding that at the position of the supernova, Hubble showed nothing. But JWST, able to see through shielding dust around the star clearly showed the progenitor star at the location of the boom. So now astronomers know that a star ready to supernova first eject thick halos of dust, which obscure view to optical telescopes, but not for infrared telescopes. All that remains is for the two scopes to collaborate to find obscured stars of the right spectral type and age, then wait for a few of them to supernova. This promises to give a much more precise timing for future events and is expected to result in the ability to begin observation of a star during the supernova event.

Since its discovery in 1779, the galaxy, M61 has been observed and photographed thousands of times by the latest astronomical instruments. For 246 years of continuous human observation, it hid a secret so huge, it dwarfs the size of the Milky Way galaxy. That is, until June of 2025, when the newly operational Vera Rubin Observatory fixed it's whole sky gaze upon the Virgo Galactic Cluster.

Extending northward from the spiral galaxy is a presently inexplicable stream of stars, extending 160,000 light-years in an unbroken stream away from its progenitor galaxy. This is a stream of stars more than 1.5 times longer than the diameter of the Milky Way. At the end of the stream is a plume 13,000 by 30,000 light-years, larger than the Magellanic Clouds of the Milky Way. The discovery is in a new research

letter titled "*A stellar stream around the spiral galaxy Messier 61 in Rubin First Look imaging.*" to be published in the Research Notes of the American Astronomical Society, by lead author, Aaron Romanowsky from the Department of Physics & Astronomy at San Jose State University.

ESA's Gaia probe is probably the most revolutionary, most important space observatory of all time, having measured the position, 3 dimensional motion, spectral type, variability and magnitude of over 1.8 billion stars. It has fundamentally reinvented Milky Way astronomy. The next Great Observatory of our world is slated to by the Habitable Worlds Observatory (HWO), which will do for exoplanets what Gaia did for stars, looking for biosignatures on at least 25 Earthlike exoplanets.

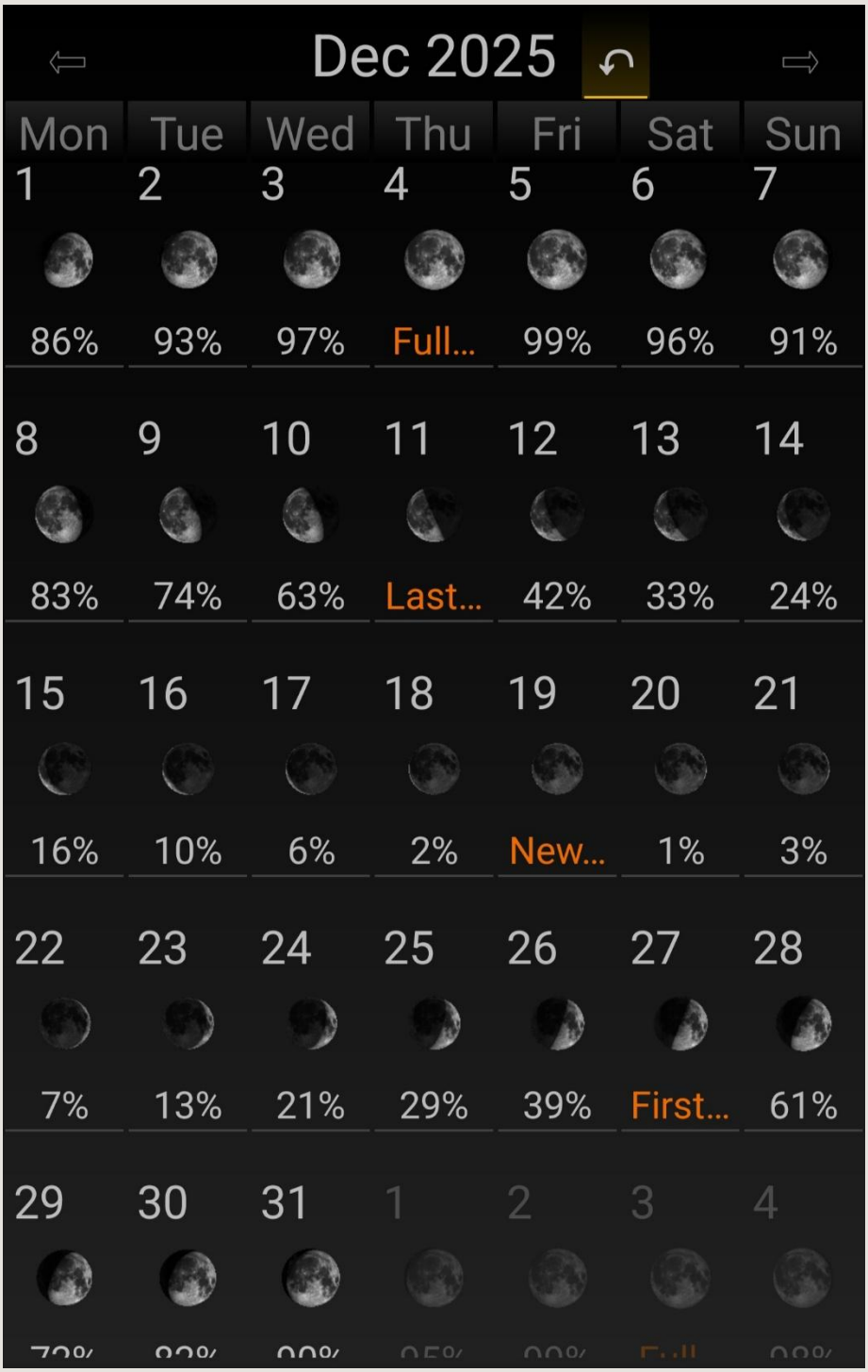


Now, Fabien Malbet of theUniversity of Grenoble Alpes, and collaborators propose to add a second instrument to HWO's payload to track exoplanets to a resolution 400 to 600 times more precise than Gaia. Presently of stars within 65 light-years, only 12% are known to have planets. HWO could find hundreds of Earthlike planets around nearby stars. That would change EVERYTHING about what we know about our home galaxy.

Quietly, Blue Origin is preparing for the second ever flight of its amazingly capable New Glenn launch vehicle. Its destination this time is going to be Mars, with NASA's two ESCAPADE (Escape and Plasma Acceleration and Dynamics Explorers) probes. Built by Rocket Lab, they will be investigating the relationships between Mars' atmosphere and the solar wind. On October 30, New Glenn performed a hot firing of booster engines at full power for 38 seconds, much as SpaceX pioneered to dramatically increase reliability of launch vehicles. The ESCAPADE mission is ready to go and could launch from Kennedy Space Center Launch Complex 36-A as early as November 9.

December Lunar Calendar

****calendar credit to Moon Phase Calendar app****



December 3, the Pleiades will be 0.8º south of the Moon
December 4, the Moon will be at Perigee: 356,962 km from Earth

Full Moon, December 4

December 7, Jupiter will be 3.7º south of the Moon
December 7, Pollux will be 2.9º north of the Moon
December 7, Mercury will be at Greatest Elongation: 20.7° west of the Sun
December 10, Regulus will be 0.8º south of the Moon
December 11, the Moon will cross the celestial equator going southward at the Descending Node

Third Quarter December 11

December 14 is the Geminid Meteor Shower, ZHR ~120! Well worth a look.
December 14, Spica will be 1.4º north of the Moon
December 17, the Moon will be at Apogee: 406,324 km from Earth
December 18, Antares will be 0.4° north of the Moon

New Moon December 19

December 21 is the Winter Solstice
December 22 is the Ursid Meteor Shower, ZHR ~5 to 10. Bursts of 100 per hour have happen
December 25, the Moon will cross the celestial equator going northward at the Ascending Node
December 26, Saturn will be 4.0º south of the Moon

First Quarter December 27

December 31, the Pleiades will be 0.9º south of the Moon

SPAC Outreach: Cats in Space

GUY EARLE

I would like to personally thank the SPAC volunteers, Tim and Mary Ann Harris, Joe Reichle, Kelly Anderson, Gary and Debbie Daniels, Peter McLean, and my wife, Kelly, for coming out on Saturday, October 25th for what was the 5th and last annual *Cats in Space* event at First Ladies Farm and Sanctuary.

Our normal spot for setting up telescopes was gone, now occupied by an additional tent and dining space. We made the most of where we were relocated, but the trees all around us did not allow us to show people Saturn or the comet, two extraordinary highlights right now. The volunteers were both cheerful and helpful to anyone who came up for a peak; I was streaming M31 with the Dwarf 3 on the tv (to the left of Tim and his massive 20" Dobsonian reflector), Peter was showing the PacMan Nebula on his Seestar, while Joe, Kelly, and Gary were trying to find objects in view with their scopes. I'm extremely proud of how these SPAC volunteers carried themselves, even though there was a streetlight now directly over our setup that made viewing very difficult, noted by both attendees and the volunteers.

The 10" Dobsonian reflector that SPAC donated to the farm was raffled off the night before the event to Rick Mohler. I gave a breakdown of the telescope and how to use it and invited them to Withlacoochee River Park for the November New Moon. Maybe you'll see them there!

As stated above, this is unfortunately the last time that SPAC will be doing *Cats in Space*, and I want to thank all the volunteers who have taken their time over the years to show attendees the wonders of the night sky.

SPAC New Moon Weekend

Field Report

October 18th-20th, 2025

By Intrepid Field Reporter

KELLY ANDERSON

During October's New Moon Weekend of this notable year of the human experience, humanity collectively decided to take a break from chaos and sprinkle some joy around. In Oklahoma, a high school basketball team returned a championship trophy after realizing a scoring error — proving that sportsmanship isn't extinct, just rare and very polite. Meanwhile, Helsinki celebrated *zero* car crash deaths thanks to safety measures, which might make their traffic lights eligible for sainthood. Over in England, scientists launched the world's first gonorrhea vaccine, which is great news for both public health and awkward conversations.

In Sydney, volunteers transformed an old aged care home into a safe haven for women in need — a renovation project that swapped wallpaper for hope. A bus driver in Rhode Island became a grief counselor on wheels, helping a second-grader cope with the loss of his grandfather by turning the school bus into a rolling tribute. And in Kenya and Madagascar, seagrass meadows are making a comeback, which is great news for marine life and terrible news for seaweed haters. A 102-year-old woman in Houston is still rocking high heels and monthly manicures, proving that age is just a number — and fabulousness is forever!

Figure 1Soul Nebula – Joe Canzoneri

To top it all off, our august company of astronomers were treated to the first really good observing weekend of the year.

Our early arrivers were the usual suspects. Featured on Thursday (a few who shall remain nameless couldn't wait for an early start and arrived even earlier!) were Joe Canzoneri, Bob Stelmock, Johnny White, Mike Reese, Ron Collins, and Bob & Rita Mizell. Of special mention is the return after an extended absense of Richard & Mary Garner.

While temperatures tended to warmish a gentle breeze kept things comfy for performing all the strenuous activities we commonly accomplish whilst preparing for nightfall. As it turned out we were treated to the clearest night of the year in your Intrepid Field Reporter's memory. It even got close to the edge of chilly.

On Friday our little Star Village welcomed Rich Tobin, Jack Brockhurst, Tom Spano, Neil Ekengren, Craig MacDougal (first timer!), Peter McLean, and your Intrepid Field Reporter.

That evening was a repeat of the excellent viewing we had on Thursday night.

Figure 2 Center of Heart Nebula w/CStar 30 – Joe Canzoneri

Figure 3Lobster Claw Nebula – Kelly Anderson

Your Intrepid Field Reporter was busier than normal in that Saturday night was another SPAC event at Cracker Country, a Florida history experiential museum located on the State Fair Grounds. Led by Jim Hunter (a long-time docent for the museum) every year a Saturday close to Hollowe'en is selected to be "Tall Tales Night." The final feature of this event is an astronomy outreach. To participate in this event I had to leave Withlacoochee a day early, so I can't claim to be an eye witness to seeing that night, other than to say stadium lighting kinda takes the edge off it. I have it on good authority that Saturday night at Withlacoochee was a repeat of the previous two, so a great weekend for SPAC.

Mark your calendars for November 21 – 23, our next New Moon Weekend. This'll be the weekend before Thanksgiving, and clear skies are guaranteed, so no excuses. Come out and enjoy the cosmological wonders available to our intrepid sky watchers.

The Lymax SCT cooler

GUY EARLE

How do all you SCT owners not go insane with tube currents? The worst I ever had was getting my think, 16" primary mirror to cool down, but I have a new foe, the C11. I picked this up about 8 months ago to be my new planetary imaging rig. For the past six years, I've used all variants of reflectors, from vintage 6" Criterions to my 16" on an equatorial platform, but having the ability to align with my CGEM mount made getting the C11 very appealing. I do not take this scope to WRP, it's just too cumbersome. I don't even image deep sky with it, just the planets, the Sun and Moon.

As I use it for planetary work, I'm dependent on having good seeing conditions at a minimum, meaning the air has to be relatively stable. Having a cold front rip through might give you transparent skies, but that usually means turbulent as well, and planetary imaging is critical in having a steady sky for crisp images. Collimation is another critical factor, and that that applies equally to all telescopes. You can have a fabulous mirror, but if it's not collimated then you're pretty much wasting your time. Being a planetary imager means your even more nuts for perfect collimation than the average amateur astronomer, and there's a whole saga on that process, which I'll save for another time. Let's just say that after I put some handy Bob's Knobs on it, my collimation was naturally way off. Eyeballing got me close, but I knew I was off still. I also knew that the tube currents, trapped within the sealed carbon fiber tube, itself not great for heat dissipation, are a killer. I could see them, boiling away, even after letting it sit outside for three hours to acclimate. Ugh.

I found a post about a cooler designed to help the SCT reach ambient air temperature quickly. I was thinking in the reverse, covering my C11 with insulation, designed to slow the process. When an SCT tries to cool down quickly, the outer and inner air temperature difference creates the turbulent, boiling conditions inside the tube. If I could slow that process, then it would slow the creation of the tube currents, or so I thought. It didn't.

Emailing back and forth with Robert Haler, the creator of the Lymax SCT cooler, I became convinced that my logic was backwards. I needed to accelerate the process of the air becoming ambient inside the C11. Inserting the Lymax cooler into the 2" focuser, it sucks air in through a micron filter and up the baffle tube via a tube. At the end are four, angled vents that blow outside, filtered air down the inside of the OTA and out four vents near the filter, quickly bringing the air temperature inside the tube to that of the outside.

Instead of hours to cool down, I ran the Lymax cooler for 20 minutes before trying to image Saturn in average seeing (confirmed by Clear Dark Sky). While my image is not fabulous, as Saturn's disk alone is somewhat bland, I did see a marked improvement in Saturn's crispness. Taking care to collimate precisely with a tri-bahtinov was part of it, but I had tried imaging the previous night under similar conditions before getting the Lymax and I didn't get this result. I hope to get an image of Jupiter soon to get a real test on pushing the collimation and the seeing stability of the C11 to its maximum.

As a side note, I had a discussion with some people at Chiefland about Saturn's....underwhelmingness lately, especially since opposition. I think, and this is my opinion, the rings are so very dynamic that most of the time we tend to ignore how little detail is on the planet itself. With the rings nearly edge on, we can't help but notice the blandness. I'll provide a further update as soon as I can do another test.

The Dwarf Mini is here!

Guy Earle

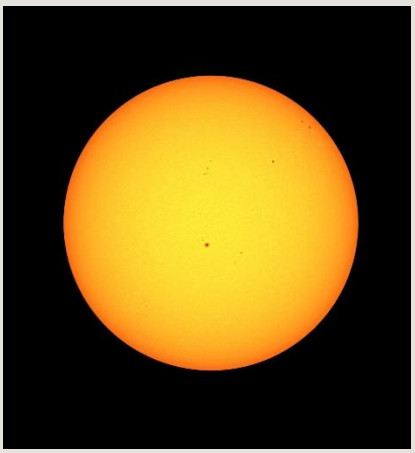
I was honored by Sue Hsu and Claire Hu of Dwarf Lab, who asked if I would like to be part of a beta team to test this new DL product around mid-September. This way, the team could put the new 30mm telescope through every test we could think of to help improve the software and performance. I couldn't say anything at the time, as I was under an NDA at the time, but it is amazing to be part of the team putting a new product through its paces. The Mini was recently posted on their website, which I linked above, and the beta team was given the green light to discuss the "tiny but mighty." It comes with the statement that "DWARFLAB App is an early beta version and not a representation of the finished or final version." Pre-orders are being taken now with shipments estimated to be started in December. I have said many times that Dwarf Lab is highly responsive and is the leader in listening to the astronomical community, and my experience with the beta team only reinforces that thought.

So, I know you're probably wondering two things: what are the specs and does it replace the D3? I'll answer the latter question first: no. It's similar to what people have been asking me all along, should I get the D3 or the s50? They are not the same telescope, they don't have the same imaging field. If you've owned a visual telescope, you know that different scopes of various sizes will show objects differently. The same rule applies to smart scopes.

The Mini uses an IMX662 chip, which is the successor to the 462 that the Seestar s50 currently uses and what the s30 currently employs. The IMX 662 offers significant improvements in full well capacity (3 to 4.5 times larger), near-infrared (NIR) sensitivity, and reduced noise, resulting in better performance in low-light conditions and superior dynamic range. The IMX662 also features "zero amp glow" and uses the newer STARVIS 2 technology.

It is truly "mini" and can fit in your jacket pocket, making it the perfect travel scope. It has both Astro and Duo-band filters, as well as visual for daytime, already built into the unit. In addition, the Mini has the ability to do internal darks, and take them automatically when it detects a temperature difference. You can image use the telephoto lens but still keep the wide-field view going, allowing you to image targets like the Moon between sucker-holes in the clouds. It has a current maximum exposure time of 90s, a magnetic solar filter included, and Dwarf Lab's amazing Stellar Studio, Megastack, and mosaic features.

How is it against the s30? I don't know because I don't own one, but to me it's not just about the chip or lens, both of which are the same. And don't get me wrong, I love my s50, it's awesome, BUT if I only can grab one smart scope to put on the back patio, I'm grabbing my Dwarf 3. Are some targets more appropriate for the s50? Sure. As I've said a bunch of times, the D3 is more geared to wide-field targets whereas the s50 is for tiny objects like M51. And no, none of these are meant for the planets. I guess it's the sheer ease of grabbing the smaller, lighter, D3 on a regular tripod versus the s50 that makes it so appealing. The software is another reason. Anyone owning an s50 or s30 right now knows that there's an issue with red or green tinting of the visual stacked image, and there are more than a few times that my loss rate for stacked images is intolerably high on my s50. Mosaics, don't get me started. Conversely, I get capture rates that are typically 97-98% for the D3. I just ran the Mini last night on the Fireworks Galaxy and the open cluster nearby (image on the next page), beta testing an extended 120s exposure and was shocked to get 38/38 frames before I called it from the clouds, which I saw rolling in on the wide-field view in real time!



I've been in this hobby for 33 years now, imaging the planets for the past 6, and took my first deep sky photo with the Dwarf 2 back in June 2023 when Mike Partain and I tried our D2's on the North American Nebula at Chiefland. If you've been on SPAC's Facebook page or are a SPAC member and read the newsletter, you know that I feel that smart telescopes are the future of this hobby and a gateway to both new members and for seasoned veterans like myself, who now have the ability to get into deep sky imaging without initially having to get a pro-rig setup. The Mini just made it even easier as it's listed for $399.

If you're out at our November New Moon weekend, come take a look as I'll have the Mini, the D3 and the Seestar s50 with me. Just make sure to bring clear skies!

NGC 6946 the Fireworks Galaxy and nearby OC NGC 6939, a 76-minute capture in the Mini's native field

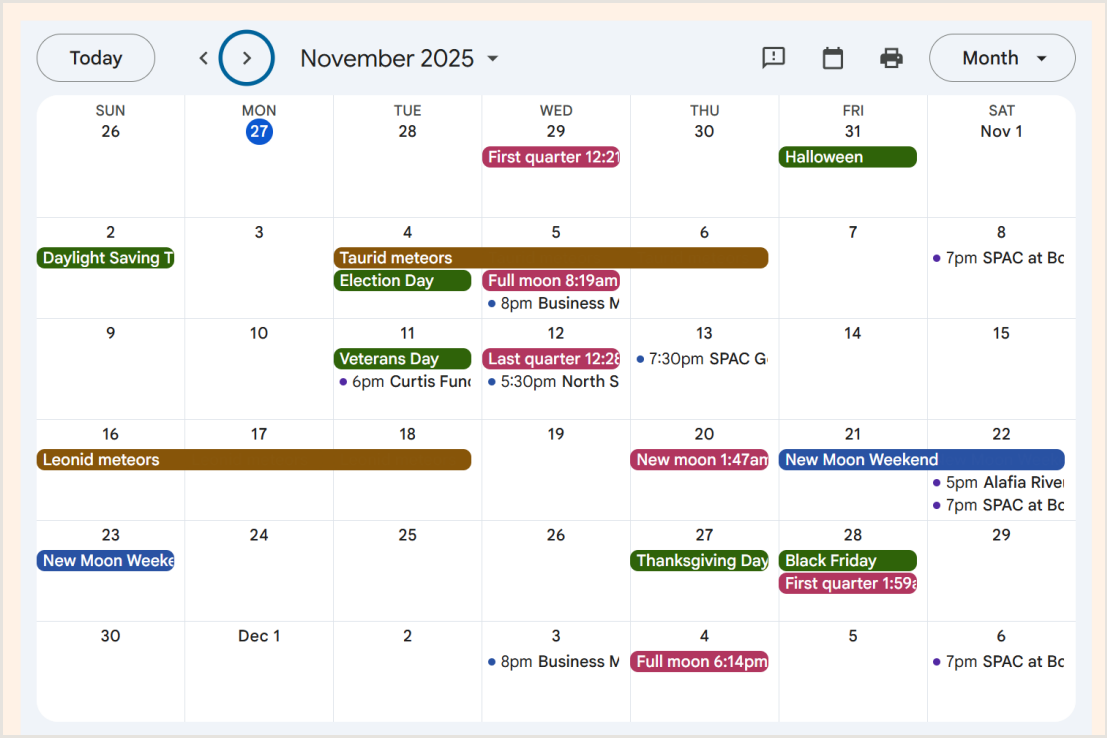
M33, the Triangulum Galaxy from Chiefland

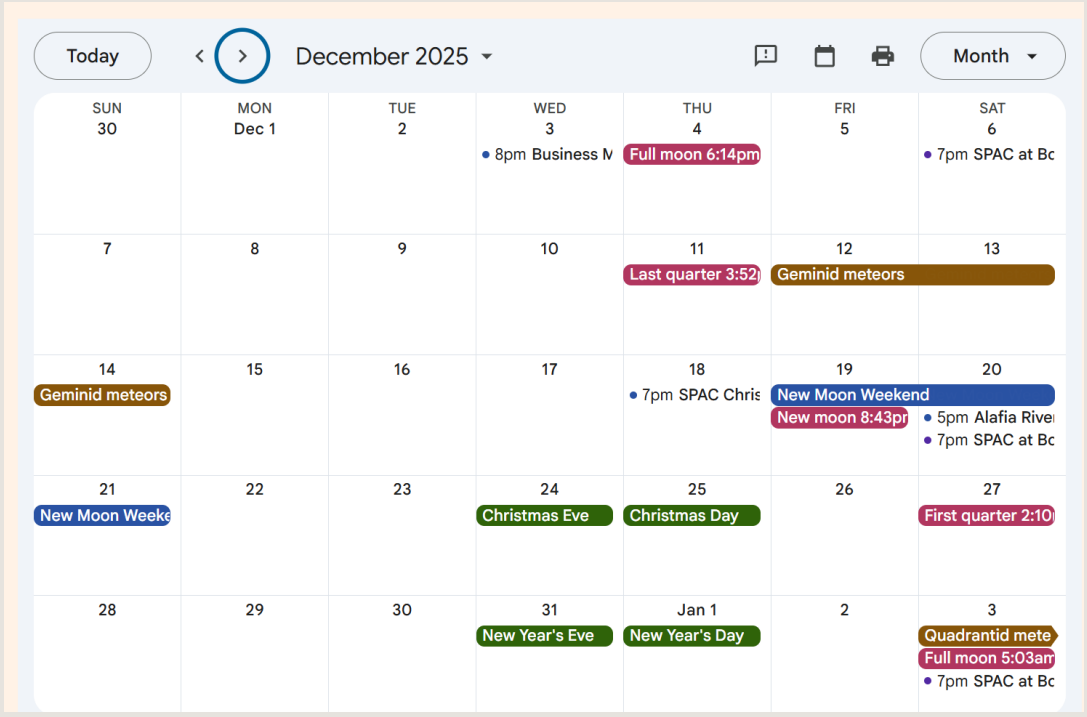
You can stack the moon and the Sun (previous page) to get some great images in just a few minutes.

IC434, the Horsehead and Flame Nebulae from Chiefland, processed in Stellar Studio, Dwarf Lab's onboard automatic post software.

Outreach calendar

Here's a quick glimpse of SPAC calendar events for October and November

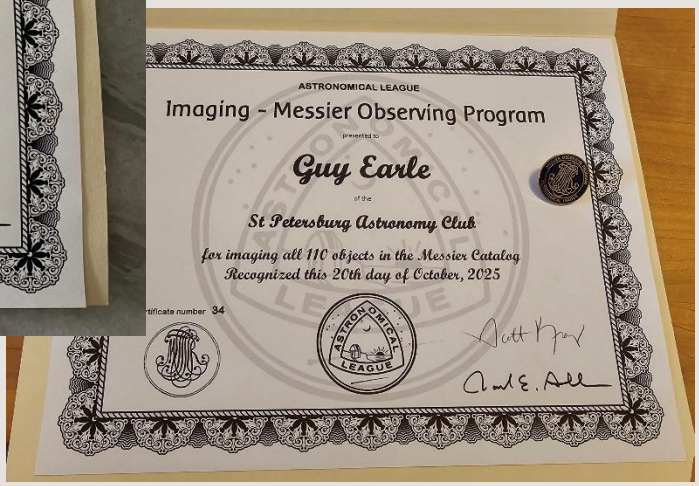




Astronomical League Educational Opportunities

PETER MCLEAN

Hello SPAC members. I am honored to take on the role of Astronomical League Correspondent (ALCOR) and will now act as SPAC's representative to the Astronomical League. As part of my responsibilities, I will be reviewing members' completion of educational requirements in various observing programs. I believe that the League's educational opportunities are among the most valuable aspects of membership. Once I verify individual achievements, I will submit the necessary information to the League so members can receive their certificates and pins. Already, SPAC members have been added to the League's directory of awards thanks to three members—including Wayne Frey and Guy Earle—earning their certificates and pins.



This is the first article in my series that spotlights individual Astronomical Observing Programs from the Astronomical League. With so many programs on offer, it can feel overwhelming at first. To help simplify things, I've reviewed the options and chosen a solid entry point for most members to explore the great opportunities available through the league. I recently introduced all club members to the ***Constellation Hunter - Northern Skies*** observing program via email. I believe this is an ideal introductory program for anyone in SPAC. It's suitable for every experience level and can be finished quickly. This is a visual observing program and No special equipment is needed—just a good planisphere for orientation, a

comfortable chair for stargazing, and an observation journal to record your notes for each constellation, journal and observation list attached.

Please email copies of your finished journals to mcleanpetern@gmail.com. Once you've completed observation journals for all 37 Northern constellations required by the program, I will then submit your name to the Astronomical League Program Coordinator so you can receive a completion certificate and pin. This program offers a quick path to completion and is a great way to learn about and get started with the League's activities. In addition to the certificate and lapel pin you will be recognized in the SPAC ***Examiner*** and Astronomical League ***Reflector*** newsletters for your accomplishment.

Please don't hesitate to contact me if you have additional questions about this program or any others offered by the Astronomical League.

Peter McLean
SPAC Secretary, MembershipChair, and ALCOR

OBS raffle update

GUY EARLE

SPAC has been delighted by the response so far from so many vendors, who are wanting to support our 33rd annual Orange Blossom Special star party. SPAC has been very forward in seeking donations this year and we've found some amazing goodwill from vendors, who have already donated about 5k worth of items! Here's a list of our current vendors:

This is certainly not the final list of supporters but a current update of those who have already responded and pledged items. My wife keeps thinking that I've ordered gear, as it's arriving here at our house!

Also, I need to point out that Dwarf Lab has again stepped up and donated one of their own custom tripods for the Dwarf 3, so whoever wins this main raffle prize will also have the tripod to go with it and start imaging that Friday night. Way to go, DL team!

SPAC Image Gallery

PETER MCLEAN

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.

Deep Space (Galaxies, Star Clusters, Comets)

M31 Andromeda Galaxy
by Yervant Parnagian
from New Port Richey, FL

NGC1365
by Jamie Kenas
from Chiefland Astro Ranch, FL

C2025 A6 Comet Lemmon
by Yervant Parniagan
from New Port Richey, FL

M31 Andromeda Galaxy
by Joe Reichele
from Apollo Beach, FL

Nebula

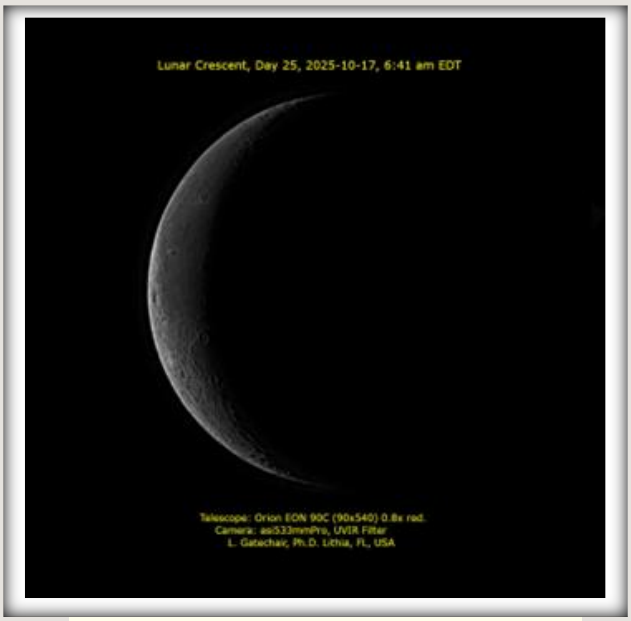
NGC7635 Bubble Nebula
by Joey Iglesias
from Clearwater, FL

IC360 Baby Eagle Nebula
by Johnny White
from Zephyrhills, FL

Cosmic Question Mark, NGC7822/Sh2-170
by Marty Anderson
from Fox Observatory, Toronto

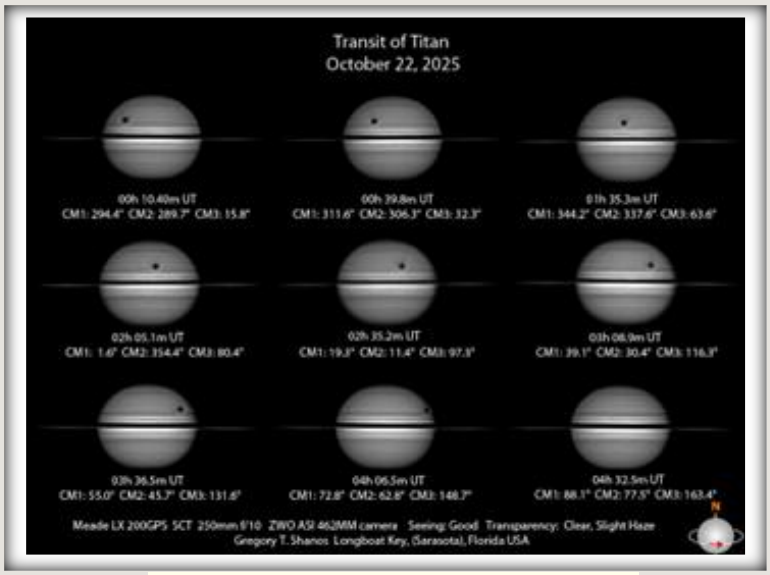
NGC7293 HelixNebula
by Jamie Kenas
from Chiefland Astro Ranch, FL

Planetary-Lunar-Solar



Lunar Crescent
by Les Gatechair
from Lithia, FL

Saturn
by Guy Earle
from Riverview, FL



Mosaic of Saturn Moon Titan Transit
By Greg Shanos
From Sarasota, FL

Milky Way Over Chiefland Astro Ranch
By Jamie Kenas

Smart Telescope

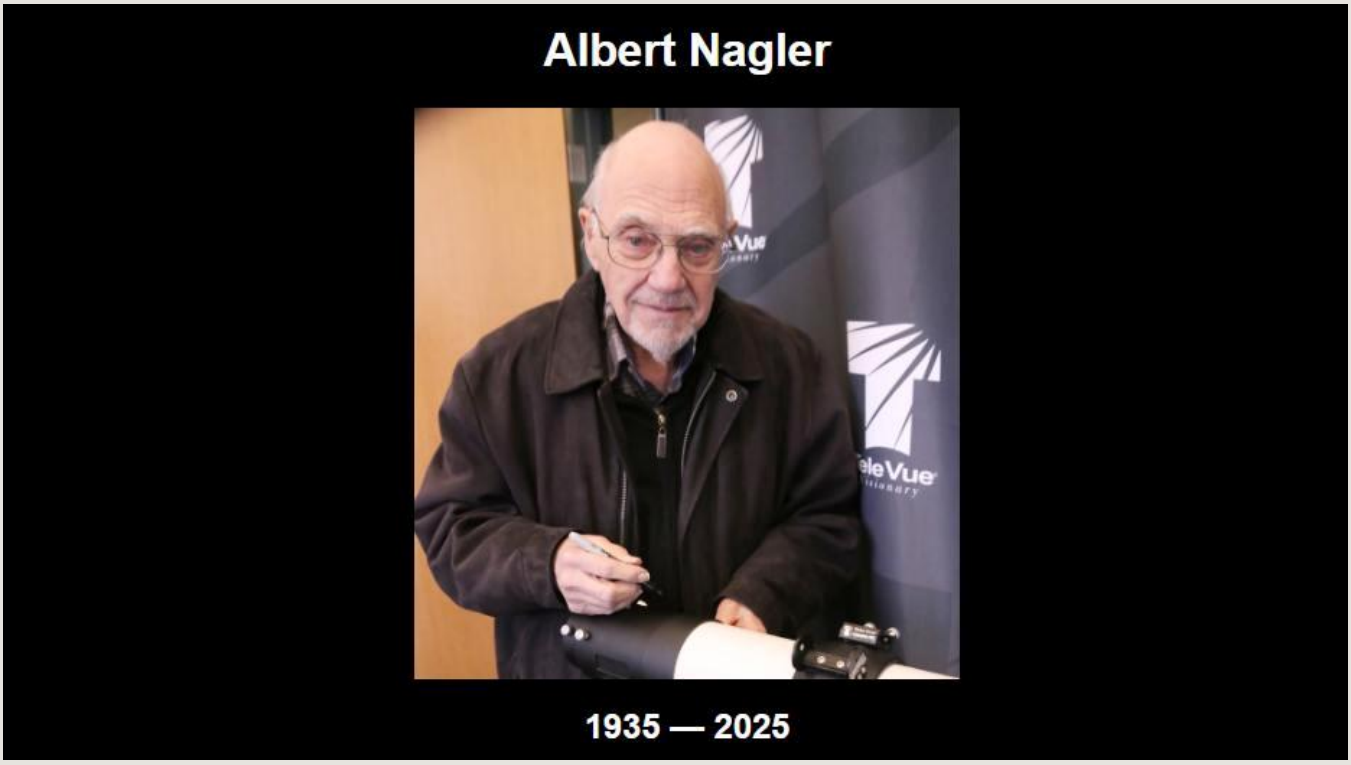
S30 Image of Comet Lemmon
by Bob Stelmock
from Port Richey, FL

S50 Image of Comet Lemmon
by Steve Maiaroto
from Lady Lake, FL

Dwarf III Image of Comet Lemmon
by Guy Earle
from Riverview, FL

Dwarf Mini Image of Swan Nebula
by Matthew Peters
from OKI/TEX Star Party

In Memoriam: Eternal clear skies, Al



You start to feel old when you begin to see people that you associate with the younger-you begin to pass away, whether that's movie stars, rock legends, or any cultural icon that you think of as "eternal" because you don't ever consider them being gone. Al Nagler is one of those for me.

The venerable, old Meade 227 60mm refractor may have been my first telescope back in 1993, but it was my 10" Meade Dob a year later that was my first, true work-horse of a telescope. I used to dream of owning a Nagler, but what 20 year-old could purchase one? The first view through anyone's Nagler was invariably—and wonderfully—a shock, followed by instant depression when you went back to use your own modified achromatic or narrow-field Plossl eyepieces.

A few years later, the moment I first looked at Saturn with my 12mm Type II Nagler, is an image that is burned into my memory. The sharpness, the clarity, all the way to the edge—phenomenal. The same can be said for the time, back in the late 90's, when I was with Skip Cox and his 16" f/4.5 Dob, looking at the Western Veil at Chiefland. He put his holy hand grenade in the focuser, a 20mm Type II, a gargantuanly heavy and massive eyepiece with a 2" Oxy filter on the bottom. The nebulosity was a blazing in grey light, going right through 52 Cygni. It gave me aperture fever to

eventually get my own 16" Dob, in a quest to replicate that view. A few years ago, I had achieved that goal, tracking down a 20mm and attempted to replicate the same view. Sadly, my eyes aren't the same as my early 20's, and astigmatism made non-eyeglass viewing a non-go. Even using my Dioptrx adapter didn't get my eyeball close enough to the glass for Al's famous "space walk" effect, so I eventually ended up selling it. Getting older sucks.

But I say all this as a reverence for Al Nagler and how he radically changed the hobby for so many amateur astronomers. While visual astronomy may not be as dominant as it once was, thanks to imaging taking center stage, I don't think there is any amateur astronomer who doesn't have at least one Nagler in their collection or at a minimum having looked through one.

Here is the social media post from Al's son, David, announcing the passing of his father:

It is with the most profound sense of loss, a broken heart, and tears in my eyes, that I tell this beloved community of amateur astronomers that I lost my father today. As I write, it's painfully hard to look over at the empty chair in our office we shared for the last 23-years. He passed suddenly and unexpectedly. Thankfully, it happened here at Tele Vue, a place he loved, with people he loved, and even with a telescope in hand.

My father was a naturally joyous person. It was just his nature. No matter what was happening around him or to him personally or professionally, he always saw the bright side of in any situation. Not having that gift myself, I was both in awe and jealous of how he could let things go and just be a grateful, happy person. Maybe that's because my father always had the stars to look up to and, with that, felt comfortable with his little place in the Universe. Now he's among his beloved stars and I'm sure he loves the view.

I could not have wished for or been blessed with a more loving, caring, and nurturing father. I hope that every time that first day of the weekend comes, you'll please just spare a moment to think of him on "SaturNday."

— David Nagler

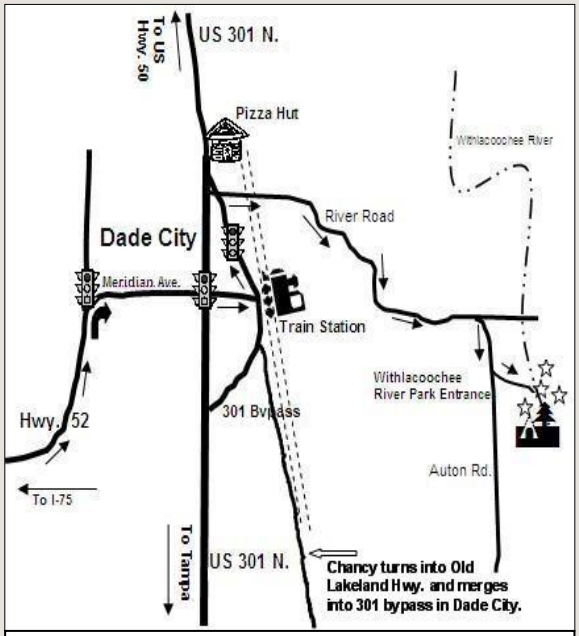
SPAC Business Meeting

Our next business meeting is **Wed., Dec 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	Mike Partain
Vice Pres.	Guy Earle
Secretary	Peter McLean
Treasurer	Christian Rubach
Dir.-at-Large	Allen Maroney
Dir.-at-Large	Steven Gaber
Dir.-at-Large	Brad Perryman
SPACE Editor	Guy Earle
Public Relations	John O'Neill
Membership Chair	Peter McLean
Mirror Lab Chair	Paul McNabb
Outreach Chair	Steven Gaber
Star Party Chair	Mike Partain
Librarian	Ralph Craig
Club Webmaster	Allen Maroney
Dark Sky Chair	OPEN

Click on the name to send email



Withlacoochee River Park – Dade City, FL

Detailed directions can be found at:

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**.

SPAC Recognition of Patrons & Benefactors

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Walter Brinkman	Benefactor
Jack & Roni Fritz	Benefactor
Matt Hughes & Manuel Ordonez	Benefactor
Valerie Hyman	Benefactor
Craig & Roberta Jameson	Benefactor
Jamie Kenas	Benefactor
David Knowlton	Benefactor
Laura & Roy Lanier	Benefactor
Gregory Legas	Benefactor
Tod Markin	Benefactor
Kelly McGrew	Benefactor
Kevin & Karen Mulford	Benefactor
David & Kathryn Musser	Benefactor
Rath, Damon & Jean Futch	Benefactor
Mike Rozycki	Benefactor
Christian & Wendy Rubach	Benefactor
Doug and Teri Sliman	Benefactor
Garrison & Ruth Smith	Benefactor
Michael Strand	Benefactor
Jim & Robin Sumner	Benefactor
Aleksandar Trajkovic	Benefactor
Andrew & Bonnie Watts	Benefactor
Johnny White	Benefactor
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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 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 view and update your membership profile, provide payment, and print your membership card.

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.