



December 2024

Meetings at Highland Road Park Observatory

Calendar:

- 29 November, 5PM: BRAS Star Party at HRPO
- 4 December, 7PM: Astronomy on Tap at the Varsity
- 7 December: 8PM: LSU PA Star Party at Landolt Observatory
- 9 December, 7PM: BRAS Meeting and Potluck
- 10 December, 6PM: Sidewalk Astronomy at Perkins Rowe
- 11 December, 6PM: Sidewalk Astronomy at Gonzales Library
- 14 December, 6PM: Light Pollution Committee
- 7 January, 6PM: Sidewalk Astronomy at Perkins Rowe

Index:

- 1—President's Message
- 2—Vice President's Word
- 3—Outreach Report
- 6—Secretary's Summary
- 8—Observatory Notes
- 13—Skymap
- 14—Quick Picks
- 15—Looking Up
- 19—Contact Information

President's Message

It's hard to believe, but we've made it through another year. Thank goodness the elections are (mostly) over. Whether you're happy or sad about the outcomes, now is the time to come together and focus on our commonalities. At my age I've grown to accept that nothing is ever as good as you hoped nor as bad as you feared. We can only look to the future. No regrets. As I reflected on this year, I realized I've been a member of BRAS for 25 years now. I rediscovered my interest in astronomy when my kids got excited seeing Comet Hale-Bopp in 1997. Two years later, in 1999, I joined this club. Amateur astronomy has seen many changes in the last quarter century. Likewise, our club too has changed. When BRAS was first founded, I'm told that meetings were held in the Bluebonnet Library. Not long before I joined, the Highland Road Observatory became our new home. Katrina Wefel (hopefully I'm spelling her name correctly) was the director when I joined. She was followed by Trey (I can't remember his last name), Dottie Hartman, and now Chris. Many of the original members are no longer with us. Some have passed away; others have moved away or simply stopped participating in club activities. Their contributions to the club can't be forgotten. I think Merrill Hess and I are now the longest serving members still hanging around. As a club, we've seen our membership ebb and flow through the years. I am happy that we seem to be having a growth spurt lately. Each meeting finds new faces among us. We look forward to their, and your, involvement in BRAS's activities. A club that doesn't embrace new members eventually becomes stagnant and withers on the vine. So, for all the new folks among us, Welcome! And for the long-time members, Thank You for all you've contributed to our club and to the promotion of amateur astronomy in our community. Our next meeting will be our annual Christmas Party. We'll supply the main dish, but please consider bringing your own special dishes to share. This meeting will also be when the club's new officers are elected or re-elected. Nominations will be accepted at the meeting, and no, it's not egotistical to nominate yourself. Go for it. In addition to our meeting on December 9th, Sidewalk Astronomy at Perkins Rowe will be on December 10th and Sidewalk Astronomy at the Gonzales Library will be on December 11th. It will be a busy week. Lastly, a reminder about our annual trip to Rockefeller Wildlife Refuge in Cameron Parish. We have the lodge reserved for January 24th, 25th, and 26th. The cost is \$10 per person per night. I'll have a sign-up sheet at the next two meetings. There is space for 16 people. I can answer any of your questions about the trip at the December and January meetings. If you can't join us on December 9th, may all of your holiday festivities be joyous. Here's wishing you all the best in the coming year!

Vice President's Word

Hi Everyone,

December is here and you know what that means...it's FEASTING time! Yes, please come join us on Monday, December 9th at 7pm at the Highland Road Park Observatory for our annual holiday feast pot-luck. The club will bring a main dish of some sort and provide plates, utensils and such along with some beverages. You are invited to bring a dish to share to help add to the feast.

That's the main show of our program for the month, but of course we'll also take care of electing officers for 2025, I'll hand out Night Sky Network pins for those that volunteered this past year, we'll draw a winner for the telescope we're raffling and there will be lots of camaraderie and fun times. I hope you'll be able to make it!

Just to keep everyone fully informed, we did receive our new Seestar S50 in time for the last meeting and got to show it off to club members in attendance. It's a great little tool that will be a fantastic addition to our telescope outreach endeavors and hopefully be something members can learn to use at some of our members only stargazing events.

I hope you all have a great holiday season and rest of 2024. If we don't see you at the next meeting, have a great New Year, too and we hope to see you soon!

Clear Skies,

Ben Toman

Vice President

Outreach Report

Hi Everyone,

We had a much needed breather this past month after a super busy October. Our two Sidewalk Astronomy events were held as usual. The Tuesday night at Perkins Rowe was a gamble based on the predicted cloud cover and let's just say we didn't win big that night. Regardless, we had a fun evening just hanging around hoping for a break in the clouds. (We DID see Saturn for about 5 minutes!) Thanks to Roz, Troy, Coy, Scott and Ben for hanging out.

Wednesday's Sidewalk Astronomy at Gonzales was much better. Clear skies and a decent amount of attendees from the public. Don, Roz, Chad, David and Ben were all set up for it and got to show off Saturn, the Moon and even Alberio and the Ring Nebula.

We're very excited to be able to try out the club's new Seestar S50 at our upcoming Sidewalk Astronomy events for December. Along with scopes on Saturn, Moon, Jupiter and the Orion Nebula, we should be able to use the Seestar to highlight some objects that are just too faint or washed out for us to give good views through our telescopes.

With that in mind, see the upcoming events below. We've been getting a few newer club members out to join us and I think they'd agree that it's a fun time. If you're looking for a good New Year's resolution, how about trying to get out to some of our outreach events to help out? You don't have to own a telescope or even have any experience. We'll get you going with something and if it's a Sidewalk Astronomy event, those are a great time to work with other club members and their scopes and start to get some experience yourself!

Clear Skies,

Ben Toman

Outreach Chairperson

Upcoming Events

Tuesday, December 10th

6pm-9pm

Sidewalk Astronomy at Perkins Rowe

Wednesday, December 11th

6pm-7:30pm

Sidewalk Astronomy at Ascension Parish Library Gonzales

Tuesday, January 7th

6pm-9pm

Sidewalk Astronomy at Perkins Rowe



Left: Coy checks the forecast while Ben congratulates himself on making a great call for not cancelling the Perkins Rowe outreach. Right: Don, David, Chad, & Roz working the Gonzales Library Sidewalk Astronomy event.



From the Archive: Roz, Chris, Ben, and Scott pose with the Perkins Rowe Holiday Tree after the 2023 December Perkins Rowe outreach.

Secretary's Summary

11 November 2024: Meeting called to order, 28 people in attendance.

- Guest speaker was Caleb Robinson, talking with the club about Neutron Stars.
- Past outreaches were mentioned: Port Hudson, Perkins Rowe, Gonzales Library, Baton Rouge Library, Oaks School
- Deep South Stargaze was a success—a few members attended
- December is the Club's annual pot-luck dinner: please bring a dish.
- December will see the election of officers for 2025: all current officers will run again.
- Rockefeller Star gaze will be January 24-26, space is limited so contact Don early if you want to attend.
- The club will Host a star party for members at HRPO on the day after Thanksgiving, the 29th of November, weather permitting. Gate will be unlocked starting from 5pm and will remain open until at least 9 provided people show up. Members can come set up their equipment or learn how to use the BRAS equipment.
- Trey has calendars for sale and they can be purchased from him at the meeting—this is also a great time to renew dues if you haven't already.
- Ben talked about upcoming outreaches.
- The club has decided to dip it's toe into the pool of electronic assisted astronomy to augment outreach in the form of a SeeStar S50. Hopefully, this will greatly assist with our mission to bring astronomy to the masses.



The Club's new SeeStar S50 set up in it's natural habitat: inside the light dome of the city.

NIGHT VISIONS



Brief shots of the Club's new SeeStar S50—from dangerously light polluted skies. (See images for details.) When was the last time you saw the Horsehead Nebula from Campus? Have you ever seen it at the eyepiece?

Observatory Notes

{HRPO is closed to the public on 24, 25 and 26 December.}

FRIDAY NIGHT LECTURE SERIES

7:30pm / for ages fourteen and older / no admission fee

6 December = “The Future is Ours” As we approach the beginning of 2024’s Winter, this once-only discussion will outline the many different ways the upcoming four to five years will see incredible growth locally and beyond in skygazing and other STEM-based hobbies. The possibilities are as endless as the opportunities.

13 December = “Journeys to the Moon”

20 December = “Wonders of the Winter Sky” BREC Education Program Specialist Amy Northrop will take the audience on a fascinating tour of Baton Rouge’s winter season. She’ll highlight the celestial gems that will sparkle throughout the next three months—gems visitors will be able to see live if they continue to visit HRPO!

EVENING SKY VIEWING

for ages six and older / no admission fee

Fridays (6, 13 and 20 December) from 8:30pm to 10pm

Saturday 14 December from 8pm to 10:30pm

Saturdays (21 and 28 December) from 7:30pm to 10pm

SCIENCE ACADEMY

Saturdays from 10am to 12pm

for Cadets aged eight to twelve / \$5 per Cadet per week (\$6 if non-EBR Parish)

advanced registration via WebTrac strongly recommended

[activity #531990] / parents may stay with or leave Cadet

Four Cadets minimum and sixteen Cadets maximum per session.

7 December = “Kites and Parachutes”

14 December = “Helicopters and Airplanes”

21 December = “Language of Astronomy”

JOVIAN OPPOSITION

Friday 7 December from 7:30pm to 9:30pm

for ages six and older / no admission fee / binocular recommended

Jupiter is exactly 180 degrees from the Sun, rising as the Sun is setting.

On this night we are then the closest we'll be to Jupiter this year!

Weather permitting, viewing of Saturn will take place.

BATON ROUGE ASTRONOMICAL SOCIETY MEETING

Monday 9 December from 7pm to 9pm

for ages fourteen and older / no admission fee

GEMINID METEOR SHOWER

Thursday 12 December from 9pm to 1am

for ages six and older / no admission fee

The Geminid meteors, in addition to being part of one of the most reliable showers of the year, are quite intriguing and were first noticed in the 1860s. For this one viewing period the public is welcome to arrive for sky viewing during this shower's peak time.

LIGHT POLLUTION COMMITTEE

Saturday 14 December from 6pm to 8pm

for ages fourteen and older / no admission fee

SOLAR VIEWING SPECIAL SESSION

Friday 20 December from 10:30am to 1:30pm

for ages six and older / no admission fee

Weather permitting, viewing of the Sun's image in three different manners—transferred onto a white surface, directly with safely-filtered optical light and directly in safely-filtered hydrogen-alpha wavelength—will take place for three hours. Protective clothing and sunscreen are recommended.

AMATEUR ASTRONOMY COURSES

Saturdays from 3:30pm to 7:30pm / registration in progress [activity #531992]

Registrants must be eighteen or older. / \$15 per registrant (\$18 if non-EBR Parish)

These exciting one-day classes are tailor-made to instruct the patron in the use of a personal telescope or binocular for skygazing, or the basics of the unaided-eye Baton Rouge sky. Sign up for one or more!

“Learn Your Sky” = 21 December

“Learn Your Binocular” = 4 January

“Learn Your Telescope” = 11 January

2025 PREVIEW PARTY

Friday 27 December from 6pm to 10pm

for ages six and older / no admission fee

The last open Friday of December is devoted to premiering much of the 2024 schedule (lectures, camps, celestial events, special programs, classes and guests).

SOLAR VIEWING

Saturday 28 December from 11:30am to 2:30pm

for ages six and older / no admission fee

Weather permitting, viewing of the Sun’s image in three different manners—transferred onto a white surface, directly with safely-filtered optical light and directly in safely-filtered hydrogen-alpha wavelength—

will take place for three hours. Protective clothing and sunscreen are recommended.

STEM EXPANSION: “Mars Mania”

Saturday 28 December from 2:30pm to 6:30pm

for ages twelve to sixteen / \$15 per registrant (\$18 if non EBR-Parish)

advanced registration via WebTrac required [activity #531993]

This program offers advanced topics, topic extensions and all-new games and activities to an older crowd. Certificates will be earned and a section of archived experiments (some not seen in over fifteen years, some *never* performed on site) take place. There are also giveaways and door prizes.

WINTER SPACE EXPLORATION CAMP

Monday 30 December and Tuesday 31 December (8am to 5pm daily)

for ages nine to thirteen / \$55 per Explorer (\$66 if non-EBR Parish)

advanced registration via WebTrac required [activity #531180]

Campers will build and fly a single-stage chemical rocket, while learning about the latest upcoming missions and space news! All materials are supplied; campers will need a sack lunch and drink that does not require refrigeration. Explorers will also need to bring a hat and sunscreen.

Sky Map



<https://in-the-sky.org>

Time centered on 15 December 2024 at 10PM

For an interactive sky map, go to <https://in-the-sky.org>

Quick Picks—Events for December 2024

- Sun 1 [New Moon](#)
- Tue 3 [Mars](#) 1.3°N of [Beehive](#)
- Wed 4 [Venus](#) 2.3°N of [Moon](#)
- Thu 5 [Mercury](#) in Inferior Conjunction
- Fri 6 [Mercury](#) at Perihelion
- Sat 7 [Jupiter](#) at Opposition
- Sun 8 Occultation of [Saturn](#) by the Moon
- Sun 8 [First Quarter Moon](#)
- Thu 12 [Moon](#) Perigee at 365,360 km.
- Fri 13 Pleiades 0.1°S of [Moon](#)
- Fri 13 Geminid Meteor Shower
- Sat 14 [Jupiter](#) 5.5°S of [Moon](#)
- Sun 15 [Full Moon](#)
- Tue 17 Pollux 2.0°N of [Moon](#)
- Wed 18 Occultation of [Mars](#) by the Moon
- Wed 18 Beehive 2.7°S of [Moon](#)
- Thu 19 Regulus 2.5°S of [Moon](#)
- Sat 21 Winter Solstice
- Sun 22 Ursid Meteor Shower
- Sun 22 [Last Quarter Moon](#)
- Mon 23 [Mercury](#) 6.6°N of Antares
- Tue 24 [Moon](#) Apogee at 404,486 km.
- Tue 24 Spica 0.2°S of [Moon](#)
- Tue 24 [Mercury](#) at Greatest Western Elongation - 22.00°
- Sat 28 Antares 0.1°N of [Moon](#)
- Mon 30 [New Moon](#)

Events listed for GMT—check Stellarium.com for local times.

Looking up



December's Night Sky Notes: Spot the King of Planets

By Dave Prosper

Updated by Kat Troche

Jupiter is our solar system's undisputed king of the planets! Jupiter is bright and easy to spot from our vantage point on Earth, helped by its massive size and banded, reflective cloud tops. Jupiter even possesses moons the size of planets: Ganymede, its largest, is bigger than the planet Mercury. What's more, you can easily observe Jupiter and its moons with a modest instrument, just like Galileo did over 400 years ago.



NASA's Juno mission captured this look at the southern hemisphere of Jupiter on Feb. 17, 2020, during one of the spacecraft's close approaches to the giant planet. This high-resolution view is a composite of four images captured by the JunoCam imager and assembled by citizen scientist Kevin M. Gill. Credit: NASA, JPL-Caltech, SwRI, MSSS | Image processing by Kevin M. Gill, © CC BY

Look for Jupiter near the Eye of the Bull, Aldebaran, in the Taurus constellation on the evening of December 15, 2024. Binoculars may help you spot Jupiter's moons as small bright star-like objects on either side of the planet. A small telescope will show them easily, along with Jupiter's famed cloud bands. How many can you count? Credit: Stellarium Web

Jupiter is easy to observe at night with our unaided eyes, as well-documented by the ancient astronomers who carefully recorded its slow movements from night to night. It can be one of the brightest objects in our nighttime skies, bested only by the Moon, Venus, and occasionally Mars, when the red planet is at opposition. That's impressive for a planet that, at its closest to Earth, is still over 365 million miles (587 million km) away. It's even more impressive that the giant world remains very bright to Earthbound observers at its furthest distance: 600 million miles (968 million km)! While the King of Planets has a coterie of 95 known moons, only the four large moons that Galileo originally observed in 1610 – Io, Europa, Ganymede, and Calisto – can be easily observed by Earth-based observers with very modest equipment. These are called, appropriately enough, the Galilean moons. Most telescopes will show the moons as faint star-like objects neatly lined up close to bright Jupiter. Most binoculars will show at least one or two moons orbiting the planet. Small telescopes will show all four of the Galilean moons if they are all visible, but sometimes they can pass behind or in front of Jupiter or even each other. Telescopes will also show details like Jupiter's cloud bands and, if powerful enough, large storms like its famous Great Red Spot, and the shadows of the Galilean moons passing between the Sun and Jupiter. Sketching the positions of Jupiter's moons during the course of an evening – and night to night – can be a rewarding project! You can download an activity guide from the Astronomical Society of the Pacific at bit.ly/drawjupitermoons

Now in its eighth year, NASA's Juno mission is one of just nine spacecraft to have visited this impressive world. Juno entered Jupiter's orbit in 2016 to begin its initial mission to study this giant world's mysterious interior. The years have proven Juno's mission a success, with data from the probe revolutionizing our understanding of this gassy world's guts. Juno's mission has since been extended to include the study of its large moons, and since 2021 the plucky probe, increasingly battered by Jupiter's powerful radiation belts, has made close flybys of the icy moons Ganymede and Europa, along with volcanic Io. What else will we potentially learn in 2030 with the Europa Clipper mission?

Find the latest discoveries from Juno and NASA's missions to Jupiter at science.nasa.gov/jupiter/

Originally posted by Dave Prosper: February 2023

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