

October 2025

Meetings at Highland Road Park Observatory and online through YouTube and Jitsi

https://meet.jit.si/brasmeet

Calendar:

- 30 September, 6PM: Sidewalk Astronomy at Perkins' Rowe
- 3 October, 9AM: Port Hudson STEAM event
- 4 October:
 - a. 10AM: LIGO meet-up
 - b. 6PM: Spooky Spectrum at HRPO
 - c. 8PM: Star Party at Landolt Observatory
- 7 October, 6:30PM: Louisiana Master Naturalist Levee Walk
- 13 October:
 - a. 10AM: Barefoot University
 - b. 7PM: BRAS meeting at HRPO
- 15 October, 5PM: MSA West STEM night
- 17 October, 5:30PM: West Baton Rouge Paish Museum Halloween
- 18 October: 10AM: Baton Rouge Maker Faire at the Goodwood Library
- 22 October, 5:30PM: Oak Grove Primary STEM night
- 23 October, 5PM: Glasgow Middle STEM night
- 27 October, 6PM: Sidewalk Astronomy at Gonsalez Library
- 28 October, 6PM: Sidewalk Astronomy at Perkins' Rowe
- 29 October, 7PM: LSU's Astronomy on Tap at the Varsity
- Long Range Planning Meeting
- 1 November:
 - a. 10AM: LIGO Science Saturday
 - b. 8PM: Star Party at Landolt Observatory
- 18-23 November: Deep South Star Gaze at Feliciana Retreat Center

Index:

President's Message—1

Vice President's Word—2

Outreach Report—3

Secretary's Summary—7

Observatory Notes—8

Skymap—10

Quick Picks—11

Looking Up—12

Contact Information—16

President's Message

As the singer John Denver used to say, "Ain't it good to be back home again?" It certainly is. The stargazing this summer up in North Dakota wasn't too great. It was an unusually wet and stormy summer; lots of thunderstorms and tornados. There were very few perfectly clear nights during the four months I was there. Our first star party at the park was mostly clouded out. The second one was cancelled completely due to severe weather. Our last one, in August, turned out fine. I was able to show everyone Albireo, the Hercules Cluster, the Ring Nebula, and Saturn. Next summer we plan to have our monthly star parties nearer to the first quarter moon. So long as the general public can see the craters on the moon through a telescope, they're usually quite thrilled.

I just read an email a few days ago from Barry Simon of the Ponchartrain Astronomy Society. They plan to have this year's Deep South Star Gaze back at the Feliciana Retreat again. This will make it all the more convenient for us in BRAS. The White Horse facility up near Sandy Hook, Mississippi, was dark enough, but the place always felt cramped to me. The Feliciana Retreat, in my humble opinion, is a much better location. It has more space on the observing field and better amenities for those of you who don't like to camp. The skies aren't significantly different than those seen at White Horse. I'm looking forward to this November's DSSG.

I've scheduled another round of Sidewalk Astronomy events at the Ascension Parish Library in Gonzales. The first one this fall will be on Monday, October 27th. I don't have the dates in front of me for our monthly Perkins Rowe events, but we'll have them at our next meeting.

Looking ahead to our (mostly) annual Rockefeller Road Trip to Cameron Parish, I've coordinated two possible dates for this spring. We typically try to go in January, so the first possible dates are January 16th and 17th. Last year, however, there was some discussion about moving the trip back until March. So, the weekend of March 13th and 14th looks good. I've talked to the folks at the refuge, and both weekends are open on their schedule. We'll discuss it at our next BRAS meeting and make a decision.

Finally, I want to thank Ben for taking on the role of Acting President in my absence. If truth be told, he does most of the work throughout the year anyway. But, I do appreciate the contributions made by all of our club officers and members. I'm looking forward to the new year of BRAS activities.

Don,

Your humble on-again, off-again, President.

Vice President's Word

Hi Everyone,

It may seem like I'm patting myself on the back a bit, but I've gotta say we've had some really nice monthly meetings over the last several months. Of course, another big thank you goes out to our special guest last month, Dr. Carlos Gary-Bicas. We had about 30 members in attendance which is almost a record for a non-food meeting. Another thing that makes these meetings great is YOU! Having a nice full house elevates the mood of the place and makes for a fun meeting, for sure.

I've also been happy to see people sticking around after the meeting for some recreational telescope/Seestar viewing outside. Last month we had about 12 people hanging out using various scopes, binos and Seestars. Again, I encourage you to join us, too. Bring your own scope or get some help bringing out one of the club's. You could also have the Seestar app downloaded to your mobile device and learn to use it yourself. Brandon and Abby have been going home with great images they've taken of various nebulae and galaxies and they can attest to how much fun it is using this little device.

Our October meeting (Monday, October 13th at 7pm at the Highland Road Park Observatory) will be a Double Dose of astronomy. We'll be hearing from our own member, Abby Gravois, about her Summer internship working with folks regarding future Lunar habitats. Sounds like a pretty cool way to spend a Summer!

We'll also hear some more updates on our NASA solar system missions from our Solar System ambassador, Amy Northrup. Where are we going and...are we there yet?!

As always and as I mentioned above, plan to stick around with us until around 10pm or so for some fun recreational observing. Maybe get started on one of those Astronomical League observing clubs.

Finally, don't forget to join us on Saturday, October 4th out at LIGO for their Science Saturday. They open at 10am so I'd say we could kick off our hang around 11am. We'll start with a simple picnic out under the pavilion. I don't want to call for a full out potluck because we'll be doing that again in December. This will be more of a "snack size" picnic, but I'm thinking the club will provide some jambalaya and sodas/water with the necessary utensils and such. Feel free to bring along a supplemental snack if you like, but it's not required. Again, this isn't a "dinner" meeting. Just a snack as we hang out together having fun at a world class science center in our own backyard!

If you have a solar scope and would like to share views with some of the general attendees of Science Saturday, we've been given permission to set up to do so. Hopefully we'll get some clear sky and be able to give a couple hours of views as a preview for when we head back out there for a FULL outreach endeavor on November 1st.

Clea	r S	kies	,
Ben	To	man	

Vice President

Outreach Report

Hi Everyone,

I told you that things would pick up after the Summer, but I wasn't ready for just how much! We have a record busy month ahead and we could definitely use some help filling all of these requests. Be sure to take a look at this extensive list and let me know if you could help out with any of them. No experience necessary! You've got it in you, you just may not know it yet, haha!!

Of course, September already picked up the pace and we had at least 4 events throughout the month. Our return to Sidewalk Astronomy at Perkins Rowe, two separate events for BREC at their headquarters and a wonderful visit to Francois Bend assisted living in Gonzales.

Our Sidewalk Astronomy events are always a lot of fun and it's great to have them back after the Summer hiatus. If you have your own scope, come on out and give people a chance to look through it. It may only be the Moon we can see very well, but it's always worth it to see the awe in the faces of those folks that have never looked through a telescope before.

From a non-outreach perspective, if you are a member that DOESN'T have a scope, but wish you knew more about them, our Sidewalk Astronomy events are also a great opportunity for you to come interact with your fellow club members and ask questions about various scopes. More than likely you could get a shot at learning to use one of the scopes out there.

Our visit to Francois Bend was a lot of fun and very well received. Fortunately, we got some nice patches of open sky so the residents were able to get some great views of the Sun via white light filtered and hydrogen alpha scopes. Our Seestar was also utilized to bring live views of the Sun indoors to the folks that were unable to go outside. Electronically Assisted Astronomy in action!

A big thank you to our volunteers for making these events happen. We wouldn't have the presence in the community that we do without their help. This month we had help from Chad, Roz, Scott, Coy, Chris K., David and Ben. Hint, hint...when you look at the following list, you'll realize we're going to need more hands this coming month!

Now, on to the upcoming events. There are too many to talk about individually, but you can see we need some help getting them all covered. If you can help out, even just for a shorter shift, now's the time to jump in to help!

Clear Skies,

Ben Toman

Outreach Chairperson

Upcoming Events

Tuesday, Sept 30th

6pm-9pm

Sidewalk Astronomy at Perkins Rowe

Friday, October 3rd

9am-11:30am

Port Hudson Historic Site School Day

3-4+ people needed

Saturday, October 4th

10am-4pm

LIGO Science Saturday



Scott and Ben speak with residents of Francois Bend Senior Living in Gonzales about the sun and solar system.

We'll get together to take in the place. Also, we may do some solar observing for a couple hours so bring a scope if you like. This can count as outreach, but most of the day is just recreational for us.

Tuesday, October 7th

6:30pm-?

Louisiana Master Naturalists Full Moon Levee Walk

On the levee near the LSU Vet School

We'll provide some scope viewing (hopefully of the rising Moon)

Monday, October 13th

10am-?

Acadiana Park in Lafayette for Barefoot University Home School group

Chris and Annette will be doing this, but more hands are welcome if you want to head over there!

Wednesday, October 15th

5pm-6:30pm

MSA West Academy in Plaquemine STEM Night

Friday, October 17th

5:30-7:30pm

Merry (Not Scary) Halloween at West Baton Rouge Museum

Scopes and maybe a demo/exhibit

Saturday, October 18th

10am-4pm

Baton Rouge Maker Faire at the Main Library

Several people needed for shifts through the day. Solar observing and demos.

Wednesday, October 22nd

5:30pm-8pm

Oak Grove Primary STEM Night

Thursday, October 23rd

5pm-6:30pm

Glasgow Middle School Family Fall Fest

Tuesday, October 28th

6pm-9pm

Sidewalk Astronomy at Perkins Rowe







The triumphant return of Sidewalk Astronomy at Perkins' Rowe: Top: Chad and Roz help visitors find Saturn. Middle: Coy shows patrons just how much you can see using just a pair of binoculars while Scott talks about what's coming up. Bottom, David breaks out the big refractor for a super view of the moon.

Saturday, November 1st (NEW REQUEST)

10am-4pm

LIGO-Livingston Science Saturday

We'll be assisting LIGO with their Science Saturday providing our demos/exhibits and some solar observing.

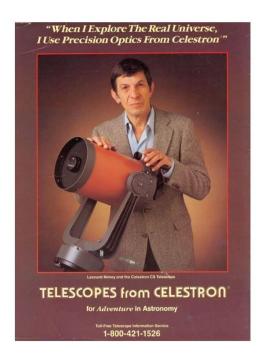
Several people needed to help out. Shifts would be OK.



From the BREC Volunteer Event: Chris, Scott, Ben and Roz speak with attendees about what BRAS does for the community and how they can join us.

Secretary's Summary

- 8 September Meeting called to order, 30 people in attendance
- Chris Kersey took a few moments to remember Grek Guzik and what he meant to the Observatory
- Ben introduced Dr. Carlos Gary-Bicas, from LSU, to speak to the club about Our Cosmic Oasis and the search for life beyond our planet.
- Ben talked about recent and upcoming outreach opportunities
- Ben reminded everyone that we are hoping to gather as a group at LIGO in Livingston for their free monthly event on 4 October
- Members were reminded that club elections are coming up in December and that if they wanted to be put on the ballot, they should let us know before the November meeting
- Ben announced that he will miss the October meeting but that Don should be back to lead the group and save the club from the scourge of Scott
- Ben systematically introduced every person in the building
- A raffle was held, including the sale of tickets for the classic C8 with a case.
- The weather being lovely, some members set up equipment to do some stargazing



We've found a good picture of the classic C8 telescope we're in the middle of raffling off. For \$5 per chance, buying a ticket seems the rational choice.

Observatory Notes

18TH ANNUAL SPOOKY SPECTRUM

Saturday 4 October from 6pm to 10pm

for ages six and older / no admission fee / food and drinks, prices vary

Come visit on this moonlit night—if you dare—as HRPO delves into the eerie side of astronomy, physics and aeronautics. We'll have creepy science demonstrations, some of which we've never used. And don't forget the stories. Strange sky phenomena...extra dimensions... extraterrestrials. Be warned—we want to make you think!

FRIDAY NIGHT LECTURE SERIES

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

<u>10 October = "Triumph at LIGO"</u> It has been ten years since that breathtaking accomplishment by the LIGO facility in Louisiana and Washington State. The confirmation of the existence of gravitational waves proved yet one more "guess" of Einstein's and opened another branch of investigation into the Universe!

<u>24 October = "The Spooky Sampler"</u> One week from Halloween...this lecture slot will be used to highlight a smorgasbord of unsettling stories, images and theories—for our adult audience.

EVENING SKY VIEWING

for ages six and older / no admission fee

Fridays (10 and 24 October) from 7:30pm to 10pm

Saturdays (11, 18 and 25 October) from 8:30pm to 10pm

HRPO houses a 50-cm reflector, a 40-cm reflector and several smaller telescopes to bring the majesty of the night sky to the public. Trained operators, sharing duties via a rotating roster, work throughout the year in shifts. Each operator has a pre-planned list of objects to highlight. However, requests will be taken if there is time and if all present have viewed the previous target.

SCIENCE ACADEMY

Saturdays from 10am to 12pm.

for Cadets aged eight to twelve / \$5 per Cadet per week (\$6 if out-of-parish)

<u>advanced registration via WebTrac strongly recommended</u>

[activity #231320] / parents may stay with or leave Cadet

Four Cadet minimum and sixteen Cadets maximum per session.

11 October = "Rockets of the Future"

18 October = "Spinoff Technology"

SOLAR VIEWING SPECIAL SESSION

Monday 13 October from 11:15am to 2:15pm

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 two hours. Protective clothing and sunscreen are recommended.

BATON ROUGE ASTRONOMICAL SOCIETY MEETING

Monday 13 October from 7pm to 9pm

for ages fourteen and older / no admission fee

THE SELF-GUIDED TOUR

Friday 17 October from 7:15pm to 9:15pm

for ages twelve and older / no admission fee

This tour starts at HRPO and ends at your home! Three annual Self-Guided Tours will occur (with the others to follow in early November next year, and at HRPO's 30th Anniversary Party in 2027). You will be tasked to acquire a number of "points" in a limited amount of time. Do you have what it takes to reach the upper echelon of "leisure viewer"?

SOLAR VIEWING

Saturday 25 October from 11:15am to 2:15pm

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 hydrogenalpha wavelength—will take place. Protective clothing and sunscreen are recommended.

STEM EXPANSION: "Spooky STEM"

Saturday 25 October from 2:30pm to 6:30pm

for ages twelve to sixteen. / \$15 each per in-parish registrant; \$18 each per out-of-parish registrant. Advanced registration via WebTrac required [activity #331321].

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 (and some *never* performed on site) take place. There are also giveaways and door prizes.

MERCURIAN ELONGATION

Wednesday 29 October from 5:45pm to 7:15pm

Periodically, Mercury reaches its greatest angular separation in the sky (elongation) from the Sun. This is the safest way for amateurs to view Mercury. Come join us at the Burbank Soccer Complex! The planet will appear as a "half-Mercury". The First Quarter Moon and Saturn will also be seen—and there are two predicted visible passes!

HRPO COSTUME CONTEST

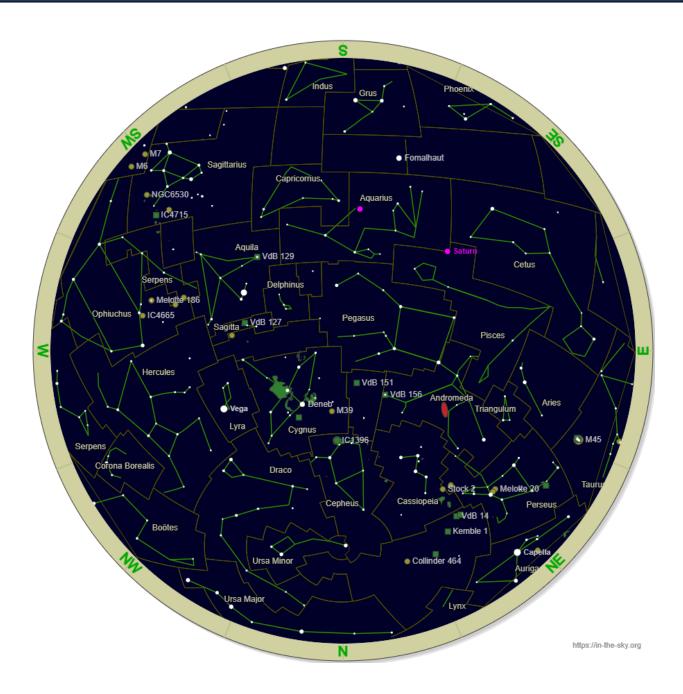
Friday 31 October from 5pm to 9pm

for ages six and older / no admission fee

winners announced at later date

A space study institution open to the public on the creepiest evening of the year? What better time to invite old-timers and newcomers to this inaugural attempt at a contest that mixes the realistic and fantastical. All family-friendly themes welcome!

Sky Map



Map centered on 15 October 2025 at 10PM.

Quick Picks—Events for October

- Thu 2 **Venus** at Perihelion
- Sun 5 Saturn 3.8°S of Moon
- Mon 6 Full Moon
- Wed 8 Moon Perigee at 359,819 km.
- Wed 8 **Jupiter** 6.6°S of Pollux
- Fri 10 Pleiades 0.9°S of Moon
- Mon 13 Last Quarter Moon
- Mon 13 Jupiter 4.3°S of Moon
- Mon 13 Pollux 2.5°N of Moon
- Tue 14 Beehive 1.9°S of **Moon**
- Thu 16 Regulus 1.3°S of Moon
- Sun 19 Mercury 2.0° of Mars
- Sun 19 Venus 3.7°N of Moon
- Tue 21 Orionid Meteor Shower
- Tue 21 New Moon
- Thu 23 Mercury 2.3°N of Moon
- Thu 23 **Moon** Apogee at 406,445 km.
- Fri 24 Antares 0.5°N of Moon
- Wed 29 First Quarter Moon
- Wed 29 Mercury at Greatest Eastern Elongation 23.90°

All times centered on Greenwich, England. See Stellarium for local times.

Looking up

An Important Message from Night Sky Network

Since 2018, the NASA Night Sky Network has provided articles featuring the latest stargazing and NASA news to share with your organization's readership. As of October 1, 2025, Night Sky Notes will be suspended until further notice, as cuts and restructuring are part of NASA's Fiscal Year 2026 budget.



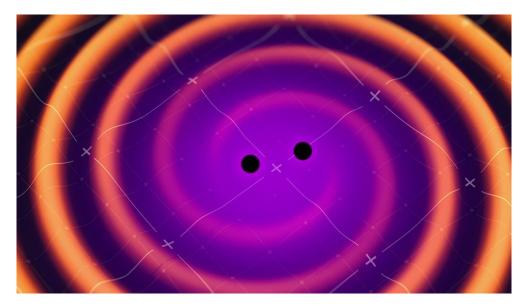
October's Night Sky Notes: Let's Go, LIGO!

By Kat Troche

September 2025 marks ten years since the first direct detection of gravitational waves as predicted by Albert Einstein's 1916 theory of General Relativity. These invisible ripples in space were first directly detected by the Laser Interferometer Gravitational-Wave Observatory (LIGO). Traveling at the speed of light (~186,000 miles per second), these waves stretch and squeeze the fabric of space itself, changing the distance between objects as they pass.

Waves In Space

Gravitational waves are created when massive objects accelerate in space, especially in violent events. LIGO detected the first gravitational waves when two black holes, orbiting one another, finally merged, creating ripples in space-time. But these waves are not exclusive to black holes. If a star were to go supernova, it could produce the same effect. Neutron stars can also create these waves for various reasons. While these waves are invisible to the human eye, this animation from NASA's Science Visualization Studio shows the merger of two black holes and the waves they create in the process.

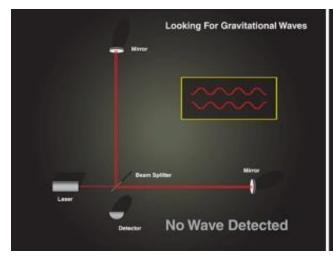


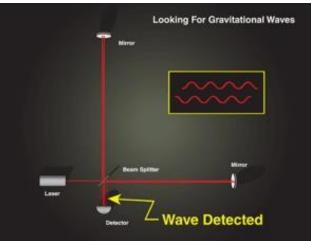
Two black holes orbit around each other and generate space-time ripples called gravitational waves in this image. Credit:

NASA's Goddard Space Flight Center Conceptual Image Lab

How It Works

A gravitational wave observatory, like LIGO, is built with two tunnels, each approximately 2.5 miles long, arranged in an "L" shape. At the end of each tunnel, a highly polished 40 kg mirror (about 16 inches across) is mounted; this will reflect the laser beam that is sent from the observatory. A laser beam is sent from the observatory room and split into two, with equal parts traveling down each tunnel, bouncing off the mirrors at the end. When the beams return, they are recombined. If the arm lengths are perfectly equal, the light waves cancel out in just the right way, producing darkness at the detector. But if a gravitational wave passes, it slightly stretches one arm while squeezing the other, so the returning beams no longer cancel perfectly, creating a flicker of light that reveals the wave's presence.





Still images of how LIGO (Laser Interferometer Gravitational-Wave Observatory) detects gravitational waves using a laser, mirrors, and a detector. You can find the animated version here. Image Credit: NASA

The actual detection happens at the point of recombination, when even a minuscule stretching of one arm and squeezing of the other changes how long it takes the laser beams to return. This difference produces a measurable shift in the interference pattern. To be certain that the signal is real and not local noise, both LIGO observatories — one in Washington State (LIGO Hanford) and the other in Louisiana (LIGO Livingston) — must record the same pattern within milliseconds. When they do, it's confirmation of a gravitational wave rippling through Earth. We don't feel these waves as they pass through our planet, but we now have a method of detecting them!

Get Involved

With the help of two additional gravitational-wave observatories, <u>VIRGO</u> and <u>KAGRA</u>, there have been <u>300</u> <u>black hole mergers detected in the past decade</u>; some of which are confirmed, while others await further study.

While the average person may not have a laser interferometer lying around in the backyard, you can help with two projects geared toward detecting gravitational waves and the black holes that contribute to them:

- <u>Black Hole Hunters:</u> Using data from the <u>TESS satellite</u>, you would study graphs of how the brightness of stars changes over time, looking for an effect called gravitational microlensing. This lensing effect can indicate that a massive object has passed in front of a star, such as a black hole.
- Gravity Spy: You can help LIGO scientists with their gravitational wave research by looking for glitches that may mimic gravitational waves. By sorting out the mimics, we can train algorithms on how to detect the real thing.

You can also use gelatin, magnetic marbles, and a small mirror for a more hands-on demonstration on how gravitational waves move through space-time with JPL's <u>Dropping In With Gravitational Waves</u> activity!





Members of BRAS were invited to attend the 10th anniversary detection event at LIGO Livingston. For more on the story, there's a grand documentary available on YouTube: https://youtu.be/dX4vCNi544w?si=1 TupFuYKSmzTRGj

Contact Information

President-----Don Weinell <u>president@brastro.org</u>

Vice-President-----Ben Toman outreach@brastro.org

Secretary-----Scott Cadwallader secretary@brastro.org

Treasurer———Trey Anding <u>treasurer@btrastro.org</u>

Web: http://www.brastro.org

YouTube: https://www.youtube.com/channel/UCS3Xkk1t7C9lRnB8GKrt9MQ

Facebook: https://www.facebook.com/Baton-Rouge-Astronomical-Society-

122591151112271/

Reddit: https://www.reddit.com/r/BRAstro/

Highland Road Park Observatory

13800 Highland Road

Baton Rouge, LA 70810

(225)-768-9948 // <u>observatory@brec.org</u>



