

October 2024

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

<https://meet.jit.si/brasmeet>

Calendar:

- 1 October, 6PM: Baton Rouge High concert
- 8 October, 6PM: Sidewalk Astronomy at Perkins Rowe
- 14 October
 - 6PM: Light Pollution Committee
 - 7PM: BRAS Monthly Meeting
- 18 October, 6PM: West Baton Rouge Parish Museum Halloween Program
- 19 October
 - 10AM-4PM: Maker's Faire
 - TBA: LSU star party at Landolt Observatory
- 25 October, 9AM: STEAM day at Port Hudson

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Vice President's Word

Hi Everyone,

I hope everyone weathered the storm well last month. (And at the time of writing this, that the next one isn't too bothersome to us!) From a club standpoint, we had no reports of damage to any equipment or belongings out at the Highland Road Park Observatory so that is great news.

Many thanks to Amy Northrup for her excellent presentation at last month's meeting. We'll be hoping for more good news about Clipper in the coming days.

Of course, we have our monthly meeting coming up on Monday, October 14th at 7pm at the HRPO and our guest presenter this month will be Dr. Rob Hynes from LSU's Physics and Astronomy Department. He'll be giving us a rundown of 25 years of the Chandra X-Ray Observatory. Time flies!

In other club news, I was contacted by our friends at Perkins Rowe and they said we've been such a good partner for them for so long, they are offering us a free marquee sign spot on the property. We'll be working to get a nice sign designed and sent over (they've also offered to have it printed free of charge) and it should go into rotation on the various pillar signs around the property.

I'm proud of the strong relationships the club has fostered over the years and Perkins Rowe is just one of them. Whether it's the Louisiana Art and Science Museum, East AND West Baton Rouge Libraries, Ascension Parish Libraries, all the various schools around the community that reach out every year and of course, our partner BREC with all of their different events throughout the year, we have built and continue to build great relationships and help to ignite the imaginations of our community members when it comes to Astronomy and the Night Sky.

Two last bits... Don't forget the end of the year is coming up so we'll need to ascertain who will be standing for election to the officer positions by the November meeting so we can vote in December. None of our current slate of officers is term limited so they are all eligible to run for another year, but don't let that stop you if you have an inkling to join in on the fun!

And the final bit...Be sure to check out the Outreach Notes to see what events are coming up this month. We've been getting a few new faces helping out and it would be great to get some more. (Not that there's anything wrong with the OLD faces!)

Clear Skies,
Ben Toman
Vice President
Outreach Chairperson
Filling In For Don Who Should Be Back Soon Guy

Outreach Report

Hi Everyone,

It was a typical September as far as Outreach in Louisiana goes. We had a very nice time at the Louisiana Art and Science Museum, but had to cancel our return of Sidewalk Astronomy at Perkins Rowe due to that pesky hurricane.

Of course, I was out of the country for both of those, but I saw some pictures of the LASM event and it looks like it was a great time, as usual. A huge thanks to Scott, Susan, Annette and Chester and wife, Judie, for helping out with that one.

As I mentioned in earlier messages, we'll be working on getting a marquee sign put up at Perkins Rowe. And speaking of Perkins Rowe, we'll be trying again for some Sidewalk Astronomy there on Tuesday, October 8th. Come join the fun!

Also on the horizon we have a request to bring some scopes out for the West Baton Rouge Museum's Halloween Program on Friday, October 18th. We've done this one a few times in the past and it's always a great time!

It'll be a busy weekend because on Saturday, October 19th is the Baton Rouge Makers Faire. That is a longer event so you can sign up for a shorter shift to help out with coverage throughout the day. It's their 11th event and I think we have done all of them so far!

Finally, we'll be heading back up to Port Hudson Historic Site for one of their School Days events. We've been having a lot of fun at those. (And we usually get to see the big cannon get fired!)

As always, please let me know if you'd like to help out with any of these events. They really are a fun time and great way to start putting some of your astro knowledge to some good use. (And a great way to GAIN more astro knowledge!)

Clear Skies,

Ben Toman

Upcoming Events:

Tuesday, October 1st

6:30-?

Baton Rouge High Jazz Band Concert—Telescope viewing after concert

Tuesday, October 8th

6pm-9pm

Sidewalk Astronomy at Perkins Rowe

Friday, October 18th

6pm-8pm

West Baton Rouge Museum Halloween Program

Saturday, October 19th

10am-4pm

Baton Rouge Maker Faire

Main Library on Goodwood

(solar scope, demos, club info)

Several people needed for shifts throughout the day

Friday, October 25th

9am-11:30am

Port Hudson Historic Site School Days

A few people needed for various learning stations

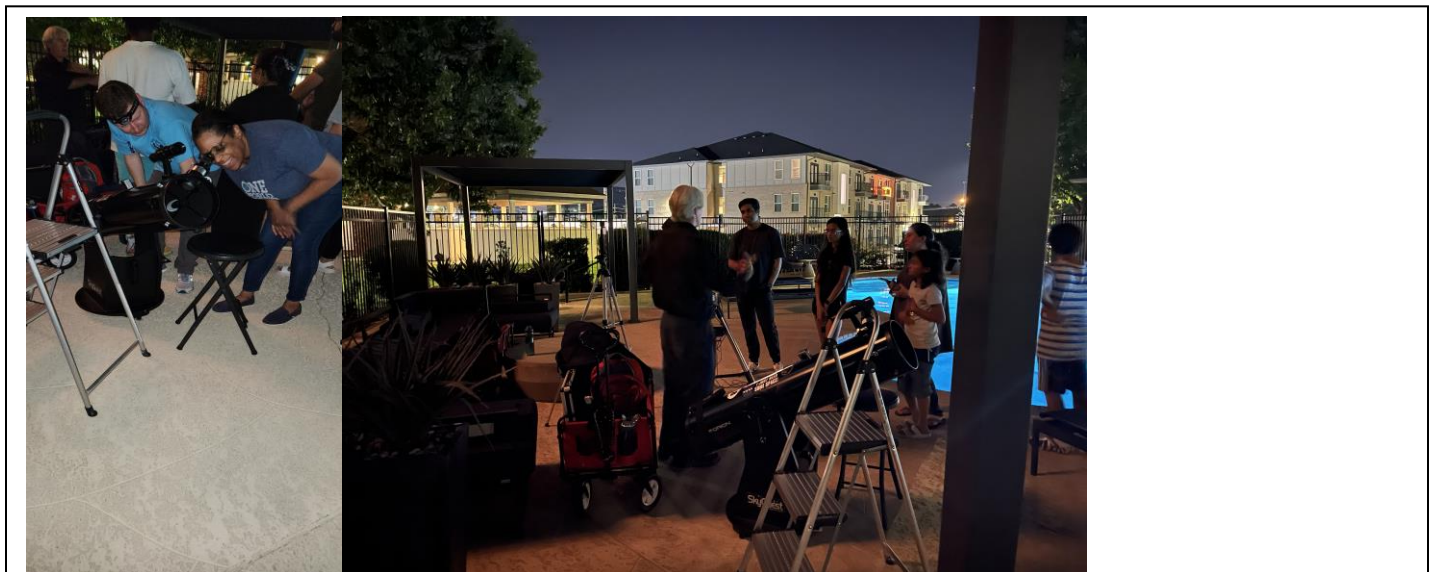
(solar observing, demos, etc.)

NIGHT VISIONS



Top: Left: Who let this guy in here? Scott pretends he's working at the LASM's first day of the new T-Rex movie. Right: Chester and wife, Judie, help children learn how craters are made.

Bottom: Left: Susan showcases the scale model of the solar system. Middle: Annette helps patrons learn to differentiate between meteorites and just rocks. Right: Susan and Annette hold down the exhibits and think about Chris Raby, who is no longer with us—pictured to the far back: he switched teams to join the BR Gem and Mineral Society for this event: come on back to us Chris, those rock heads don't need you like we do!



Bonus outreach: Coy Wagoner created an impromptu outreach for his apartment complex community. Left: Coy showing off Saturn. Right: Scott explaining to a crowd what is being live-streamed to the screen next to him.

Secretary's Summary

From the Monthly Meeting

- Meeting called to order: 17 people in attendance
- Solar System Ambassador, Amy Northrop was introduced and gave a presentation on NASA's Europa Clipper Mission
- A raffle was had
- The new \$5 raffle for a classic Celestron 8" scope and mount was begun

From the Planning Meeting:

- 6 Members in attendance
- The state of the website and forums were discussed: both are up and functional
- We have been offered free advertising at Perkins Rowe as a thank you for doing sidewalk astronomy for them
- We had a long discussion about Electronic scopes. We've decided we should get one to use with outreach and will ask the club for their approval.
- The time for the fall star party at HRPO was decided on: we have reserved the observatory for the Friday after Thanksgiving.
- We talked about trying to set up an annual fundraiser of some sort. A couple of ideas were bounced around.

Observatory Notes

FRIDAY NIGHT LECTURE SERIES

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

4 October = “The Spooky Sampler” We’re getting close to Halloween...this lecture slot will be used to highlight a smorgasbord of unsettling stories, images and theories—for our adult audience.

25 October = “Buying Skygazing Equipment” BRAS member (and asteroid discoverer) Merrill Hess heads this personnel-driven overview of this year’s economic landscape for binoculars, telescopes, flashlights, eyepieces and filters.

SCIENCE ACADEMY

Saturdays from 10am to 12pm.

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

advanced registration via [WebTrac](#) strongly recommended

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

Four Cadet minimum and sixteen Cadets maximum per session.

5 October = “The Spooky Session”

19 October = “ISS Expedition 8”

EVENING SKY VIEWING

for ages six and older / no admission fee

Fridays (4 and 25 October) from 8:30pm to 10pm

Saturdays (5, 19 and 26 October) from 7:30pm 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.

17TH ANNUAL SPOOKY SPECTRUM

Saturday 12 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!

SUPERMOON RISING!

Wednesday 16 October from 7:15pm to 8:45pm

HRPO opens for the closest Supermoon in every calendar year that has one. The thrill comes from a combination of that actual closeness combining with the illusion that makes a Full Moon look closer still when it is near the horizon. Be part of the crowd to experience a Supermoon Rising at HRPO!

SOLAR VIEWING SPECIAL SESSION

Thursday 17 October from 11:45am to 1:45pm

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.

OUTER SPACE RETRO NIGHT

Friday 18 October from 6:30pm to 9:30pm

for ages fourteen and older / no admission fee / drinks

For sixty-six years mankind has ventured into the upper reaches of our atmosphere and beyond. This program will combine the best of NASA with the triumphs here at HRPO. Displays, new items, nostalgia, videos, visible passes and lunar excursions (via telescope)!

SOLAR VIEWING

Saturday 26 October from 12pm to 2pm

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.

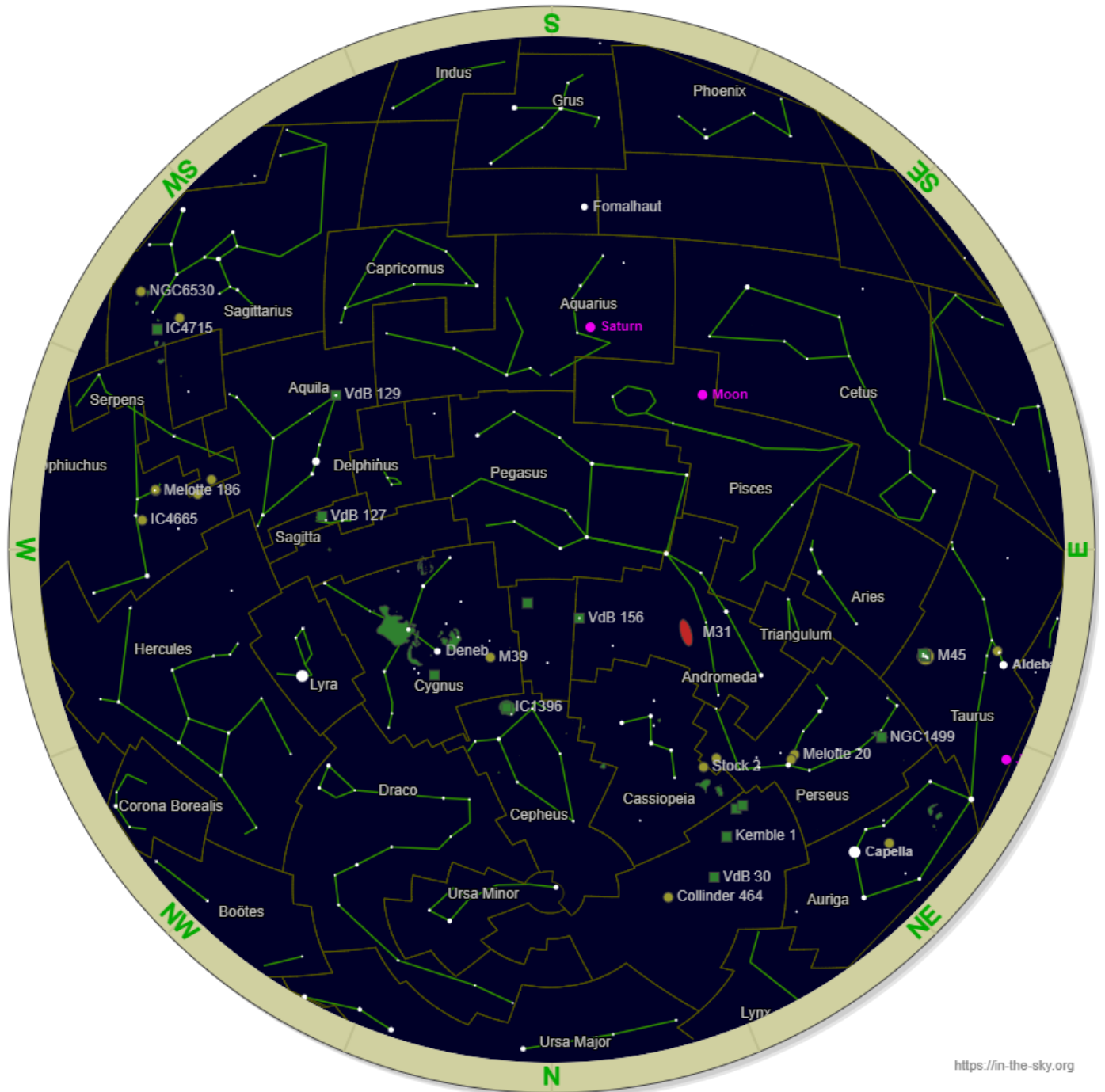
STEM EXPANSION: “Spooky STEM”

Saturday 26 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 #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 (and some *never* performed on site) take place. There are also giveaways and door prizes.

Sky Map



Skymap Centered on 10PM CDT on 15 October 2024.

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

Quick Picks—Events for October 2024

- Wed 2 Annular Solar Eclipse - Mag: 0.933
- Wed 2 [New Moon](#)
- Wed 2 [Moon](#) Apogee at 406,517 km.
- Sat 5 [Venus](#) 3.0°N of [Moon](#)
- Mon 7 Antares 0.2°N of [Moon](#)
- Thu 10 [First Quarter Moon](#)
- Mon 14 Occultation of [Saturn](#) by the Moon
- Wed 16 [Moon](#) Perigee at 357,173 km.
- Thu 17 [Full Moon](#)
- Fri 18 [Mars](#) 5.7°S of Pollux
- Sat 19 Pleiades 0.1°S of [Moon](#)
- Mon 21 Orionid Meteor Shower
- Mon 21 [Jupiter](#) 5.8°S of [Moon](#)
- Wed 23 Pollux 1.7°N of [Moon](#)
- Wed 23 [Mars](#) 3.9°S of [Moon](#)
- Thu 24 [Last Quarter Moon](#)
- Thu 24 Beehive 3.1°S of [Moon](#)
- Fri 25 [Venus](#) 3.0°N of Antares
- Sat 26 Regulus 2.9°S of [Moon](#)
- Tue 29 [Moon](#) Apogee at 406,164 km

Check stellarium.org for exact information on each event.

Looking up



October's Night Sky Notes: Catch Andromeda Rising!

By Dave Prosper, Updated by Kat Troche

If you're thinking of a galaxy, the image in your head is probably the Andromeda Galaxy! Studies of this massive neighboring galaxy, also called M31, have played an incredibly important role in shaping modern astronomy. As a bonus for stargazers, the Andromeda Galaxy is also a beautiful sight.



Spot the Andromeda Galaxy! M31's more common name comes from its parent constellation, which becomes prominent as autumn arrives in the Northern Hemisphere. Surprising amounts of detail can be observed with unaided eyes when seen from dark sky sites. Hints of it can even be made out from light polluted areas. Use the Great Square of Pegasus or the Cassiopeia constellation as guides to find it. Credit: Stellarium Web

Have you heard that all the stars you see at night are part of our Milky Way galaxy? While that is mostly true, one star-like object located near the border between the constellations of Andromeda and Cassiopeia appears fuzzy to unaided eyes. That's because it's not a star, but the Andromeda Galaxy, its trillion stars appearing to our eyes as a 3.4 magnitude patch of haze. Why so dim? Distance! It's outside our galaxy, around 2.5 million light years distant - so far away that the light you see left M31's stars when our earliest ancestors figured out stone tools. Binoculars show more detail: M31's bright core stands out, along with a bit of its wispy, saucer-shaped disc. Telescopes bring out greater detail but often can't view the entire galaxy at once. Depending on the quality of your skies and your magnification, you may be able to make out individual globular clusters, structure, and at least two of its orbiting dwarf galaxies: M110 and M32. Light pollution and thin clouds, smoke, or haze will severely hamper observing fainter detail, as they will for any "faint fuzzy." Surprisingly, persistent stargazers can still spot M31's core from areas of moderate light pollution as long as skies are otherwise clear.



Generated version of the Andromeda Galaxy and its companion galaxies M32 and M110. Credit: Stellarium Web

Modern astronomy was greatly [shaped by studies of the Andromeda Galaxy](#). A hundred years ago, the idea that there were other galaxies beside our own was not widely accepted, and so M31 was called the “Andromeda Nebula.” Increasingly detailed observations of M31 caused astronomers to question its place in our universe – was M31 its own “island universe,” and not part of our Milky Way? Harlow Shapley and Heber Curtis engaged in the “Great Debate” of 1920 over its nature. Curtis argued forcefully from his observations of dimmer than expected nova, dust lanes, and other oddities that the “nebula” was in fact an

entirely different galaxy from our own. A few years later, Edwin Hubble, building on Henrietta Leavitt's work on Cepheid variable stars as a "standard candle" for distance measurement, concluded that M31 was indeed another galaxy after he observed Cepheids in photos of Andromeda, and estimated M31's distance as far outside our galaxy's boundaries. And so, the Andromeda Nebula became known as the Andromeda Galaxy.



While M31's disc appears larger than you might expect (about 3 Moon widths wide), its "galactic halo" of scattered stars and gas is much, much larger – as you can see here. In fact, it is suspected that its halo is so

huge that it may already mingle with our Milky Way's own halo, which makes sense since our galaxies are expected to merge sometime in the next few billion years! The dots are quasars, objects located behind the halo, which are the very energetic cores of distant galaxies powered by black holes at their center. The Hubble team studied the composition of M31's halo by measuring how the quasars' light was absorbed by the halo's material. Credits: NASA, ESA, and E. Wheatley (STScI)

These discoveries inspire astronomers to this day, who continue to observe M31 and many other galaxies for hints about the nature of our universe. One of the Hubble Space Telescope's longest-running observing campaigns was a study of M31: the Panchromatic Hubble Andromeda Treasury (PHAT). Dig into NASA's latest discoveries about the Andromeda Galaxy, on their [Messier 31](#) page.

Originally posted by Dave Prosper: September 2021

Last Updated by Kat Troche: September 2024

A Wild Astronomer

Learning About Space on the Ocean!

by Ben Toman

My wife and I were fortunate enough to go on a wonderful cruise last month on the Carnival Panorama out of Long Beach, CA. This isn't a summary of what a great time we had (we did!), but I did notice something in the daily cruise planner that caught my eye and I thought I'd share it with the club.

Carnival has partnered with NASA's Kennedy Space Center to include several space themed activities for children and families while on board some of their ships. Most of the activities are designed for younger children (ages 6-13 or so), but some include the families.

Even though we don't have any kids, I had to see what it was all about being the space geek that I am. Ashley (my wife) went along with me so I didn't inadvertently alarm the ship's security to some strange middle-aged guy hanging around the kids play center!

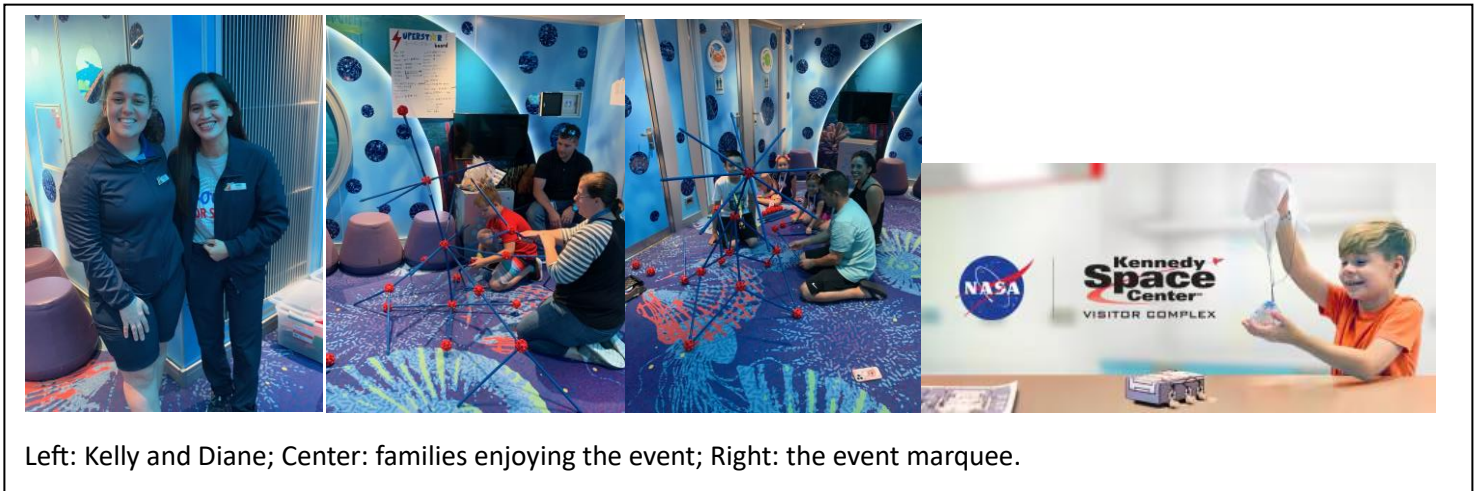
I explained who I was and about our club and the managers were more than happy to let us observe a session. We spoke with a couple of the families doing the day's activity and even got permission from them to take a couple of photos for this story.

Kelly and Diane were the Carnival Team Leaders for the activity which, this day, was talking about the prospect of a human habitat on Mars. They are short activities and designed to be inclusive of a large age range so there isn't a lot of in-depth science involved. However, they did discuss things that would be important to humans trying to live on Mars such as water, oxygen, communications, shelter, etc. After discussing

the needs, each family was given some building materials (think large tinker toys!) in order to work as a team to design their own Martian habitat. In the end, the families had a great time building together and then explaining/showing off their habitats to each other.

This was just one activity of several that they have for the young cruisers. Other days saw kids building rockets, learning about rovers on Mars, and even some cool games like Constellation Bingo (Yup! Bingo but using illustrations of the various constellations. Pretty good idea we will probably steal!!)

I let them know I was happy to see them partnering with NASA to continue to make science and space exploration FUN for kids and families alike. And yeah, we've done some pretty fun outreach events, but I'm guessing if we get asked to do one on a cruise ship sometime, we'll have no lack of volunteers, haha!



Posted

BRAS is looking to upgrade its volunteer corps: contact Ben if interested.

BRAS is raffling off another of its donated scopes, another C8 scope of yester year with wedge and tripod: tickets are \$5 a piece, no need to be present to win.



A big welcome back to the Ben Toman. We're sorry your dream of becoming a Sumo champion didn't work out, but you sure did come close!

Contact Information

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Secretary-----Scott Cadwallader secretary.braastro@gmail.com

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YouTube: <https://www.youtube.com/channel/UCS3Xkk1t7C9IRnB8GKrt9MQ>

Facebook: <https://www.facebook.com/Baton-Rouge-Astronomical-Society-122591151112271/>

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

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