

September 2024

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

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

Calendar:

- 29 August, 7PM: Astronomy On Tap, at the Varsity
- 31 August, 10AM: Outreach at LASM
- 9 September:
 - 6PM Light Pollution committee
 - 7PM BRAS Monthly Meeting
- 10 September, 6PM: Sidewalk Astronomy at Perkins Rowe
- 25 September, 7PM: BRAS quarterly planning meeting
- 8 October, 6PM: Sidewalk Astronomy at Perkins Rowe
- 19 October, 10AM: Maker's Faire at Goodwood Library

Index:

Vice President's word—1
Outreach Report—3
Observatory Notes—5
Secretary's Summary—9
Skymap—10
Quick Picks—11
Looking up—12
Posted—16
Contact—17

Vice President's Word

Hi Everyone,

I got word that we will have our President, Don, back in October! Unfortunately, September will find BOTH your President and Vice President out-of-state so Secretary, Scott, will be leading the next meeting.

There are two items of club business to mention:

1. The job of Treasurer for the club is extremely important and we're lucky to have Trey stepping up year after year to do it. That being said, Trey also has a full-time job AND a wife and 3 kids that require a good deal of his attention, as well. In order to provide some assistance, we are seeking a club member that would like to step up to be Membership Chairperson/ALCOR.

The job is not difficult, it just needs someone with decent organizational skills willing to lend them to the club by keeping track of our Membership Roster. The club member would coordinate with our Treasurer and help maintain an up-to-date roster. It also makes sense that the same person would act as our Astronomical League Correspondent (ALCOR). That is to say, they would be the person listed with the A.L. that receives communications from them that need to be forwarded either to club members or officers.

This would be a new position and really is just to help give our busy-with-real-life Treasurer a little help. If you are interested in helping out, let us know. We can figure this all out together!

2. If all goes according to plan, we will begin another \$5 raffle for another of the unused scopes in the BRAS closet at the September meeting. Same as before, tickets will be \$5 upon which you will put your name and phone number. You need not be present when the drawing happens. Barring any unforeseen impediments, we plan to have the drawing at our December meeting so someone can go home with a nice little present for the Holidays!

Now for some Vice Presidential, Monthly Meeting Program stuff.

Another HUGE thank you to the folks at the LASM for hosting us for our August meeting. "In The Rings Of Saturn" was a spectacular show and the evening sky tour beforehand was pretty cool, too. We were also treated to a behind-the-scenes tour where we saw the banks of computers that run the whole system.

We can't go out and about every month, but it's fun to get out for a little field trip every now and then as a club. We definitely won't wait another 14 years to do it again!

We are happy to have Amy Northrop, one of our local NASA Solar System Ambassadors, coming to speak with us for our September about the upcoming Europa Clipper mission. We're anxious to do a fun "hands-on" type meeting with some real observing and other astronomical stuff, but we have to wait a bit longer until we get some meeting that will have darkness by 7pm.

I AM happy to announce that Dr. Robert Hynes from LSU Physics and Astronomy will be our guest speaker for October. I believe he will be giving his presentation on the 25th Anniversary of the Chandra X-Ray Observatory. Not to be missed!

In closing here, I hope you can make it out for the meeting on Monday, September 9th. As I said, talks are still underway to get a program, but regardless of the program, it's always fun to hang out and catch up with fellow club members and see/hear what's been going on.

Clear Skies,
Ben Toman
Vice President

Outreach Report

Hi Everyone,

Well, what can I say? It's been the Summer of the Louisiana Art & Science Museum! It's worked out pretty well for both us and them. We're usually slower since schools aren't in session and the long, hot Summer days make for tough observing. However, the LASM can be just as busy or busier and they've been reaching out more and more often to include us in their activities.

On that note, we had an excellent Outreach on the day we had our special meeting at the Planetarium. We had help from Scott C., John N., Chris & Annette R., Susan M., Roz R. and myself. (I THINK I got everyone!) We were able to show off our Solar System scale size model, our Moon banner with 3D printed craters, our crater making demo and gravity well simulator for some hands-on activities and we even had a small reflector telescope set up looking at some of the Museum's display planets so kids could see what it's like to look through a telescope.

Coming up, we've had another invitation from the folks at the LASM and we'll have the return of Sidewalk Astronomy at Perkins Rowe. Looking a little further ahead, we'll also have the annual Baton Rouge Makers Faire.

We've had a couple of newer members coming out to help and that is great! In order to continue to thrive as an outreach entity, we need as many helping hands as possible. Also, newer people helping out gives a boost to the morale of those that always seem to be the same group helping out. Let's keep this trend going!

If you'd like to help out at any of these events, please let me know. We'll make sure to help you out and get you prepared to talk with people. Or, you can use your first couple of times to just hang out and watch. I know I learned so much that way in my early days in the club. It's a great time, so I hope you'll consider coming out to volunteer. (Note: for longer events, you need not volunteer for the full event. Just let me know what time you can be there.)

Clear Skies,

Ben Toman

Upcoming Events

Saturday, August 31st ** Coming up soon! ******

10am-2pm

Louisiana Art & Science Museum

(Demos, exhibits and club info)

Tuesday, September 10

6pm-9pm

Sidewalk Astronomy at Perkins Rowe

(Telescope observing)

Tuesday, October 8th

6pm-9pm

Sidewalk Astronomy at Perkins Rowe

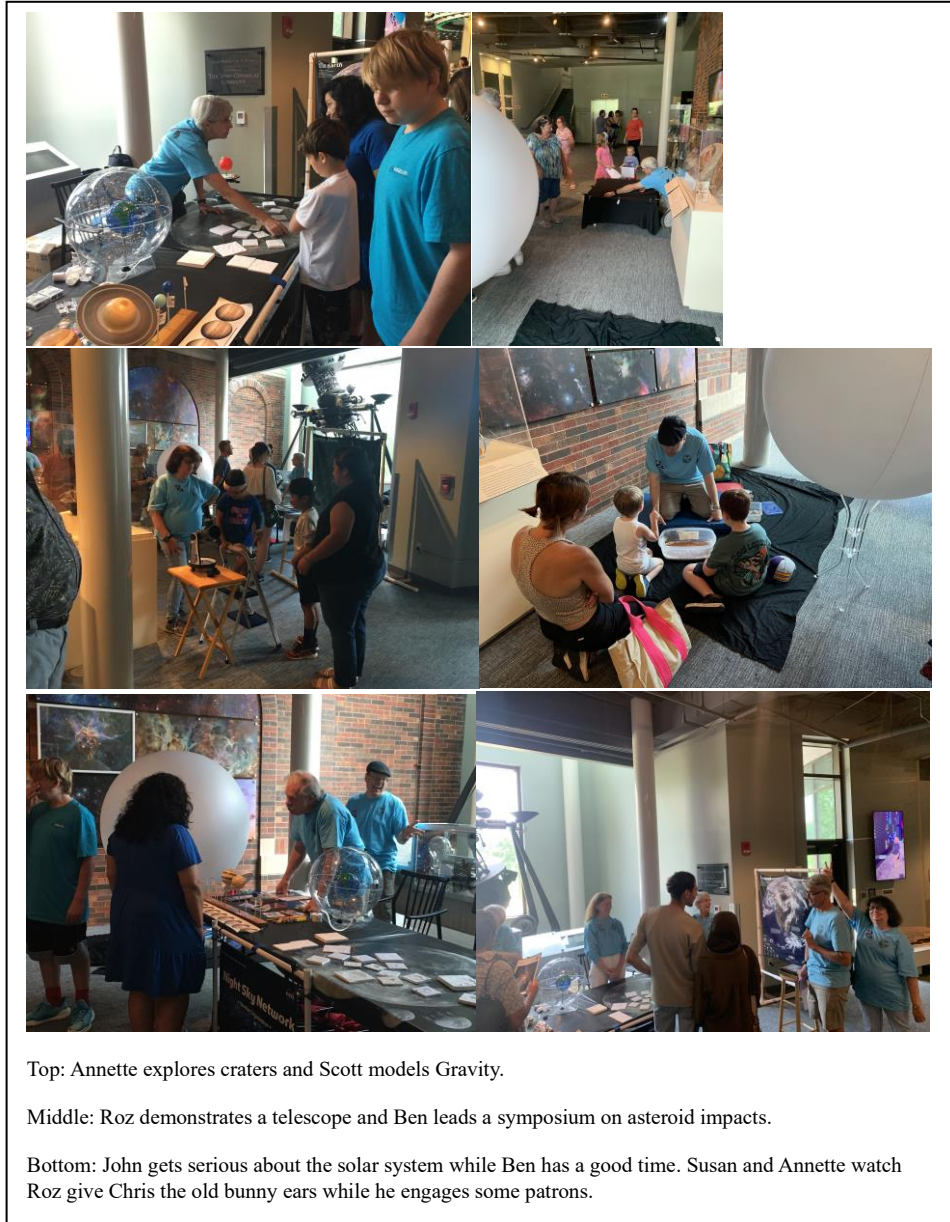
(Telescope observing)

Saturday, October 19th

10am-4pm

Baton Rouge Maker Faire (Main Library on Goodwood)

(Demos, exhibits, solar observing, club info)



Top: Annette explores craters and Scott models Gravity.

Middle: Roz demonstrates a telescope and Ben leads a symposium on asteroid impacts.

Bottom: John gets serious about the solar system while Ben has a good time. Susan and Annette watch Roz give Chris the old bunny ears while he engages some patrons.

Observatory Notes

FRIDAY NIGHT LECTURE SERIES

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

6 September = “SOLWIND” The oft-forgotten instrument aboard the now-defunct P78-1 satellite discovered a comet in 1979—a discovery which presaged the numerous machine-based discoveries of comets and asteroids during the 21st century. [Postponed from 23 August.]

13 September = “Wonders of the Fall Sky” BREC Education Curator Amy Northrop will take the audience on a fascinating tour of Baton Rouge’s autumn 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!

27 September = “Europa Clipper” NASA is launching its newest robotic mission in October. Its goal will be to study Jupiter’s moon Europa, currently considered one of the best candidates for life in our Solar System. (Amy Northrop gives this lecture.)

EVENING SKY VIEWING

for ages six and older / no admission fee

Fridays (6, 13 and 27 September) from 8:30pm to 10pm

Saturdays (21 and 28 September) 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.

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.

7 September = “Computers Through History”

14 September = “Computer Anatomy”

21 September = “Computer Languages”

SATURNIAN OPPOSITION

Saturday 7 September from 10pm to 12am

for ages six and older / no admission fee

Saturn is exactly 180 degrees from the Sun, rising as the Sun is setting. We are now the closest we’ll be to Saturn this year! Weather permitting viewing of Saturn will take place.

LIGHT POLLUTION COMMITTEE

Monday 9 September from 6pm to 7pm

for ages fourteen and older / no admission fee

PLUS NIGHT: “The Icy Outposts”

Saturday 14 September from 7pm to 10pm

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

During Plus Nights and extra features are available to the public...

*The well-known marshmallow roast takes place at the campfire ring (weather-dependent).

*Seven to ten of HRPO’s collection of over fifty physical science demonstrations will be on hand to perplex and amaze. Which demos will it be?

*An unaided eye sky tour takes place, showing the public major features of the sky for that month.

*Filters are inserted into the viewing mechanisms, to show patrons “hidden” details of the Moon, Mars and Jupiter (when they are available).

*Reveal your age, and be shown any “birth stars” in the sky at that time.

SOLAR VIEWING SPECIAL SESSION

Monday 16 September 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.

NEPTUNIAN OPPOSITION

Friday 20 September from 9:30pm to 11:30pm

for ages six and older / no admission fee

Neptune is exactly 180 degrees from the Sun, rising as the Sun is setting. We are now the closest we’ll be to Saturn this year! Weather permitting viewing of Neptune will take place.

SOLAR VIEWING

Saturday 28 September 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: “Computer Coding”*Saturday 28 September 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]. Registrant is Part I is not a prerequisite.*

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.

17TH ANNUAL SPOOKY SPECTRUM*Saturday 12 October from 6pm to 10pm**for ages six and older / no admission fee*

Come visit on this moonless night—if you dare—as HRPO delves into the eerie side of astronomy, physics and aeronautics *for the sixteenth consecutive year*. 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!

FALL SPACE EXPLORATION CAMP*Monday 25 November and Tuesday 26 November (8am to 5pm daily)**for ages nine to thirteen / \$55 per Camper for both days (\$66 if from outside EBR Parish) / registration via [WebTrac](#) [activity #531180]**Registration begins 28 September.*

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.

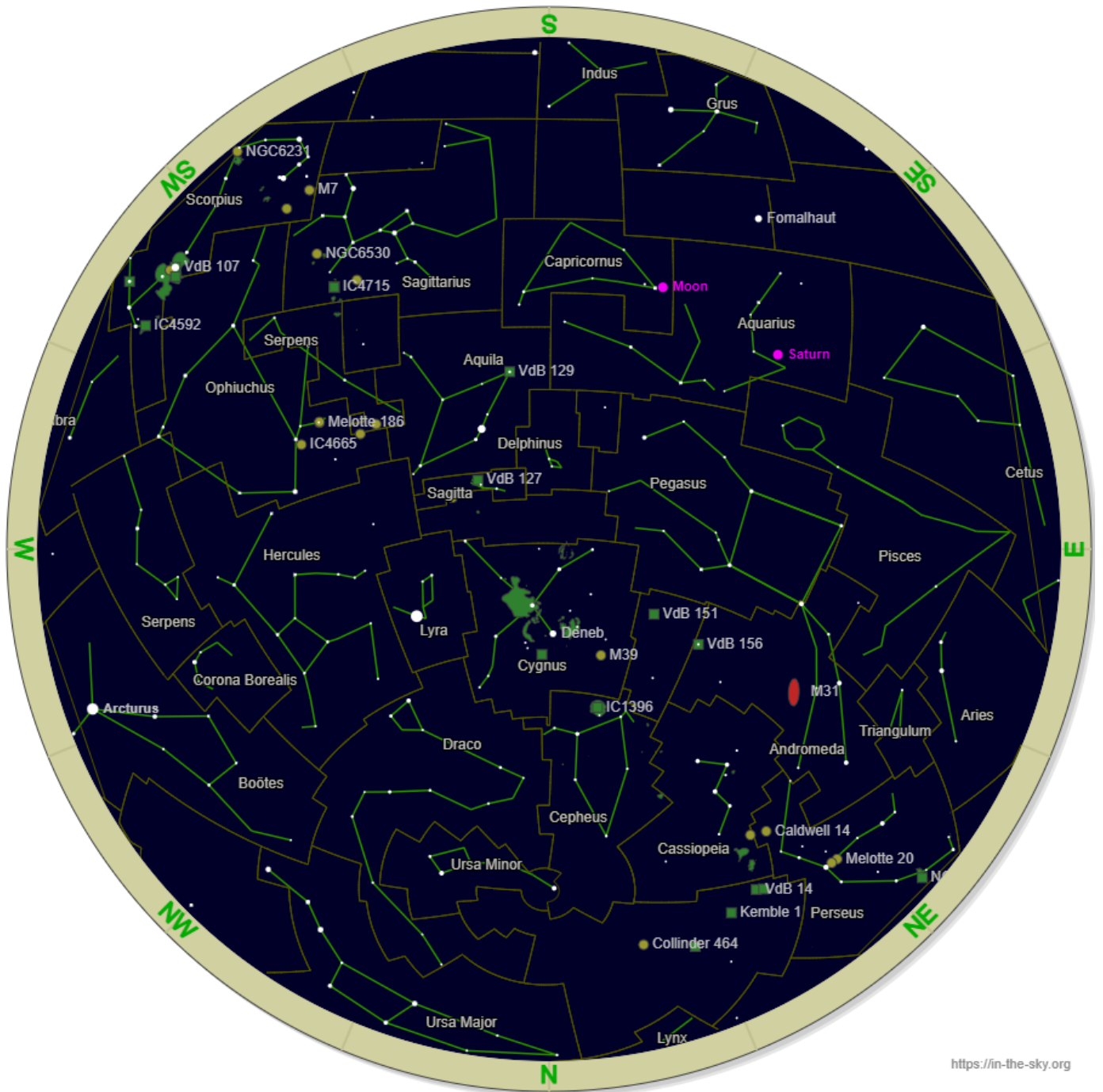
Secretary's Summary

- Meeting took place at the Louisiana Arts And Science Museum of Baton Rouge on 4 August, 25 members in attendance
- Outreach was done with LASM before the program
- Ben gave a brief overview of upcoming events:
 - Sidewalk astronomy will resume in September
 - A new \$5 Raffle will start in September
- A brief skytour was given in the Planetarium, followed by a showing of In Saturn's Rings, and a tour of the behind-the-scenes apparatus of the Planetarium.



Left: members of BRAS at the Pennington Planetarium during the August Meeting. Right: inside the riggings of the facility.

Sky Map



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

Skymap centered on 10PM for 15 September in Baton Rouge.

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

Quick Picks—Events for September 2024

- Sun 1 [Mercury](#) 5.0°S of [Moon](#)
- Mon 2 [New Moon](#)
- Wed 4 [Mercury](#) at Greatest Western Elongation - 18.10°
- Thu 5 [Venus](#) 1.2°N of [Moon](#)
- Thu 5 [Moon](#) Apogee at 406,215 km.
- Fri 6 Spica 0.6°S of [Moon](#)
- Sat 7 [Saturn](#) at Opposition
- Sun 8 [Mercury](#) 0.4°N of Regulus
- Mon 9 [Mercury](#) at Perihelion
- Tue 10 Antares 0.1°N of [Moon](#)
- Wed 11 [First Quarter Moon](#)
- Tue 17 Occultation of [Saturn](#) by the Moon
- Tue 17 [Full Moon](#)
- Tue 17 Partial Lunar Eclipse - Mag: 0.085
- Tue 17 [Venus](#) 2.2°N of Spica
- Wed 18 [Moon](#) Perigee at 357,284 km.
- Fri 20 [Neptune](#) at Opposition
- Sun 22 Pleiades 0.2°S of [Moon](#)
- Sun 22 Autumnal Equinox
- Mon 23 [Jupiter](#) 5.8°S of [Moon](#)
- Tue 24 [Last Quarter Moon](#)
- Wed 25 [Mars](#) 4.9°S of [Moon](#)
- Thu 26 Pollux 1.6°N of [Moon](#)
- Fri 27 Beehive 3.1°S of [Moon](#)
- Sun 29 Regulus 3.0°S of [Moon](#)
- Mon 30 [Mercury](#) in Superior Conjunction

Location is non-local, consult Stellarium for times.

Looking up



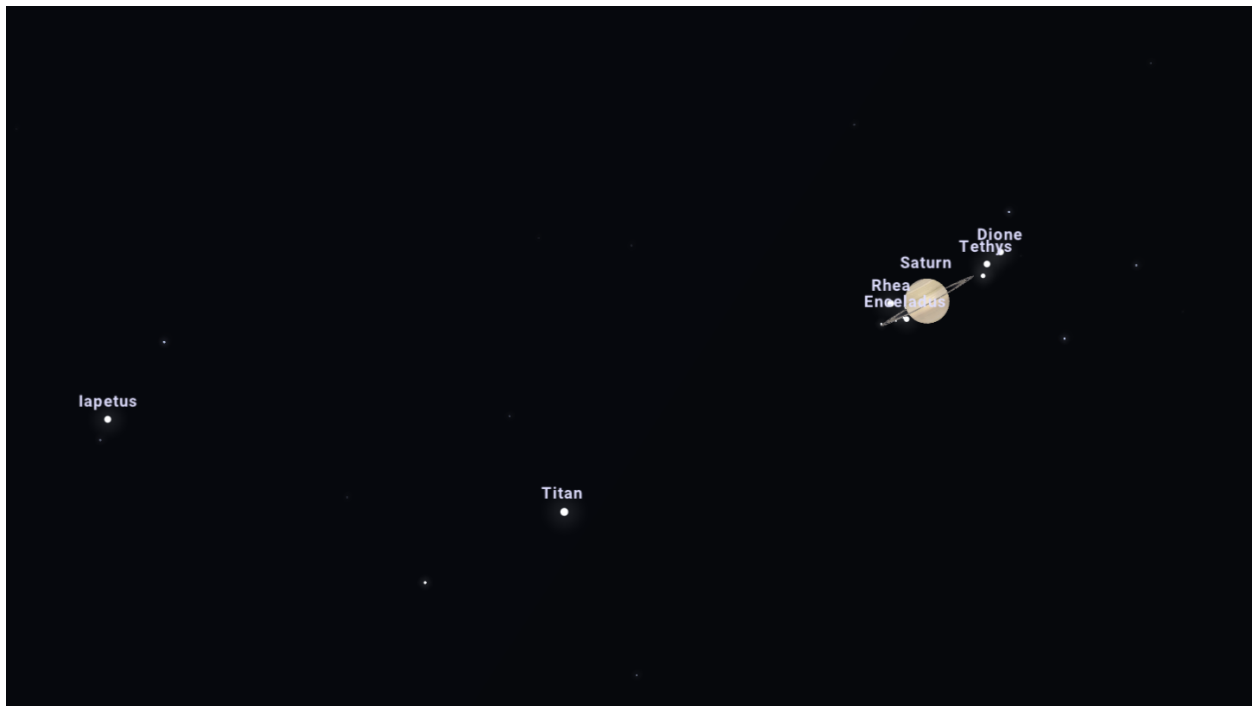
September's Night Sky Notes: Marvelous Moons

By Kat Troche

September brings the gas giants Jupiter and Saturn back into view, along with their satellites. And while we organize celebrations to observe our own Moon this month, be sure to grab a telescope or binoculars to see other moons within our Solar System! We recommend observing these moons (and planets!) when they are at their highest in the night sky, to get the best possible unobstructed views.

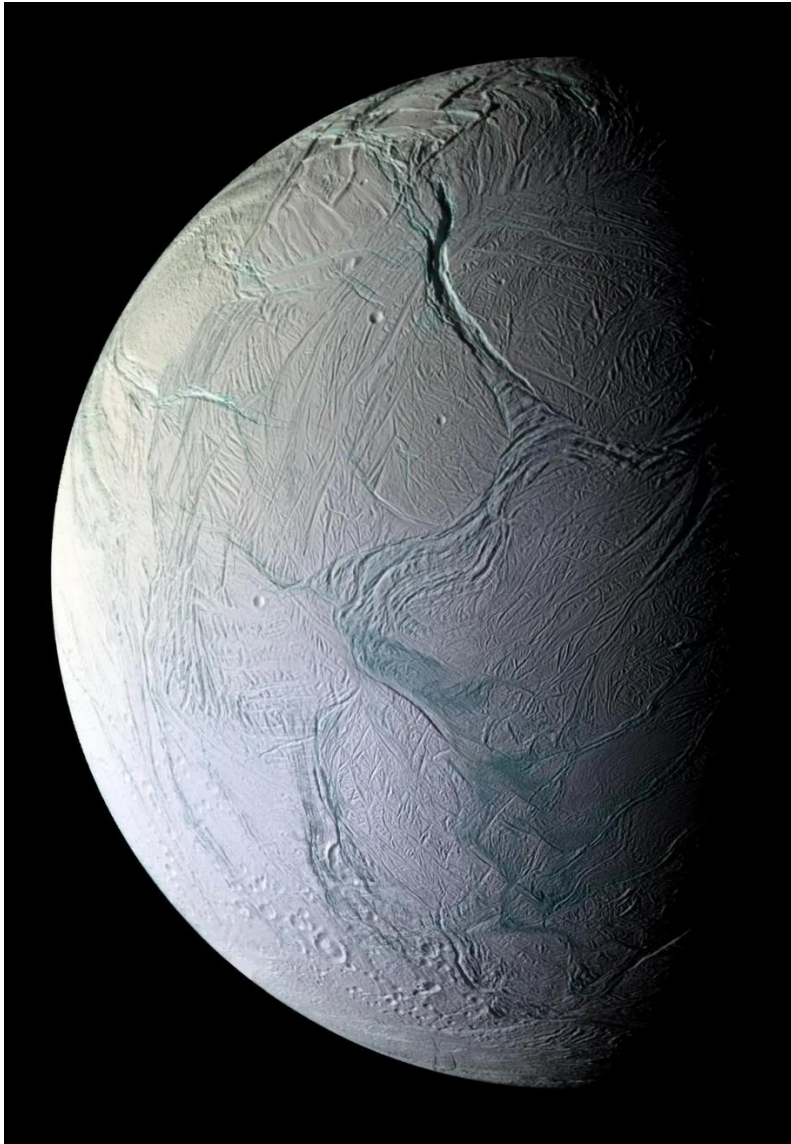
The More the Merrier

As of September 2024, the ringed planet Saturn has 146 identified moons in its orbit. These celestial bodies range in size; the smallest being a few hundred feet across, to Titan, the second largest moon in our solar system.



The Saturnian system along with various moons around the planet Saturn: Iapetus, Titan, Enceladus, Rhea, Tethys, and Dione. Credit: Stellarium Web.

Even at nearly 900 million miles away, [Titan](#) can be easily spotted next to Saturn with a 4-inch telescope, under urban and suburban skies, due to its sheer size. With an atmosphere of mostly nitrogen with traces of hydrogen and methane, Titan was briefly explored in 2005 with the [Huygens probe](#) as part of the [Cassini-Huygens mission](#), providing more information about the surface of Titan. NASA's mission [Dragonfly](#) is set to explore the surface of Titan in the 2030s.



This mosaic of Saturn's moon Enceladus was created with images captured by NASA's Cassini spacecraft on Oct. 9, 2008, after the spacecraft came within about 16 miles (25 kilometers) of the surface of Enceladus. Credit: NASA/JPL/Space Science Institute

Saturn's moon [Enceladus](#) was also explored by the Cassini mission, revealing plumes of ice that erupt from below the surface, adding to the brilliance of Saturn's rings. Much like our own Moon, Enceladus remains tidally locked with Saturn, presenting the same side towards its host planet at all times.

The Galilean Gang

The King of the Planets might not have the most moons, but four of Jupiter's 95 moons are definitely the easiest to see with a small pair of binoculars or a small telescope because they form a clear line. The Galilean Moons – Ganymede, Callisto, Io, and Europa – were first discovered in 1610 and they continue to amaze stargazers across the globe.



The Jovian system: Europa, Io, Ganymede, and Callisto. Credit: Stellarium Web

- [Ganymede](#): largest moon in our solar system, and larger than the planet Mercury, Ganymede has its own magnetic field and a possible saltwater ocean beneath the surface.

- [Callisto](#): this heavily cratered moon is the third largest in our solar system. Although Callisto is the furthest away of the Galilean moons, it only takes 17 days to complete an orbit around Jupiter.
- [Io](#): the closest moon and third largest in this system, Io is an extremely active world, due to the push and pull of Jupiter's gravity. The volcanic activity of this rocky world is so intense that it can be seen from some of the largest telescopes here on Earth.
- [Europa](#): Jupiter's smallest moon also happens to be the strongest candidate for a liquid ocean beneath the surface. NASA's [Europa Clipper](#) is set to launch October 2024 and will determine if this moon has conditions suitable to support life. Want to learn more? Rewatch the July 2023 Night Sky Network webinar about Europa Clipper [here](#).

Be sure to celebrate [International Observe the Moon Night](#) here on Earth September 14, 2024, leading up to the super full moon on September 17th! You can learn more about supermoons in our mid-month article on the [Night Sky Network](#) page!

Posted

- BRAS is constantly looking for new volunteers to help with educational outreach. To get involved, contact Ben Toman.
- Wanted: Membership Chairperson to work with Trey to help keep the club roster's current.
- The quarterly planning meeting is scheduled to take place on the 25th of September: anyone wishing to add an item to the agenda should have it submitted at least one week prior to the meeting.

Contact Information

President-----Don Weinell president.brastro@gmail.com

Vice-President-----Ben Toman outreach.brastro@gmail.com

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

Treasurer-----Trey Anding treasurer.brastro@gmail.com

Web: <http://www.brastro.org>

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

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 // observatory@brec.org

