

August 2024

This month's Meeting is at Louisiana Arts and Science Museum (no online broadcast)

https://meet.jit.si/brasmeet

Calendar:

- 4 August
 - o 1PM-4PM: Outreach at LASM
 - o **5PM:** General Meeting at LASM
- 12 August, 6PM: Light Pollution Meeting

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Vice President's Word

Hi Everyone,

Don is still playing hooky up North so I'm still filling in for the President's Message as well as talking about our monthly meetings.

First up, we failed to get a photo of the Celestron scope with its winner that we raffled off the other month. That has been rectified! Take a look at John and Chester with their new (to them) scope!! I, for one, am so happy to see that scope finally being put to use. It had been sitting, unused, in the BRAS closet since 2010. This is a win-win for the club. We raised some money for the coffers and got a telescope into hands that will use it. We have more scopes that need homes so we'll be starting another raffle in September. Same rules. \$5/ticket and we'll draw the winner at our December meeting so someone will have a nice holiday prize!

As announced via email after the last monthly meeting, our new Forum is now live on the website. I added a little content by making a tribute post to Craig and Wally, our original founding members. Stop by and check it out and when you do, register and start making some of your own astronomy posts!

Now for some Vice Presidential stuff regarding the upcoming monthly meetings. Of course, we'll be having our August meeting at a special date and time. It will be on Sunday, August 4th at the Louisiana Art and Science Museum starting at 5pm (after the Museum closes to the public.)

This is a great opportunity for anyone that has wanted to go visit the LASM because it also coincides (by design!) with First Sunday which means admission is FREE that day. As if that wasn't good enough, the Baton Rouge Symphony will also be giving a free performance there at 2pm!

So, be sure to make plans to come down to the LASM that day. We'll also be doing some outreach there during the public hours and you're welcome to help out with that, too. My only suggestion would be to NOT go see the planetarium show that we'll be seeing as a club that evening in private, haha! (I'll get the info on which show we'll see and get that to everyone so you know which show to avoid.)

NIGHT VISIONS

Thanks again to Merrill for a fun talk last month. We certainly have a lot of passion when it comes to bad science in movies! Also, the pizza party seemed to be a hit. It's relatively inexpensive so maybe we won't wait until next Summer to do it again!

I hope to see you all out and about sometime soon if not at the LASM in a couple weeks. Keep looking up and here's to some clear skies!

Clear Skies,

Ben Toman



Winner Winner Chicken Dinner: Members John and Chester pose with their newly won Celestron 8" scope after the conclusion of our latest big Raffle.

Feeling left out? There are more raffles of great equipment coming up this Fall.

Outreach Report

Hi Everyone,

Even though we're in the middle of Summer, I actually feel like it's starting to wind down. That's mostly because the Fall outreach events are starting to be on my mind. In the next couple of weeks, I'll be checking out the Moon phases and setting our dates for Sidewalk Astronomy at Perkins Rowe, and we've already gotten the first email announcing the Baton Rouge Maker Faire in October. I'm sure Don will be setting up some Sidewalk Astronomy again at the Ascension Parish Library, too. I'm hoping we get some more of our members out to volunteer at some of these events. They're always a great time!

On the "been there, done that" front, we had an awesome visit to Lafayette this past month. Susan, Scott C., Chad J. and I joined up with Chris and Annette to help out at the Mothers Day Out Camp at St Barnabas Episcopal Church. We had plenty of hands on deck to have 5 "stations" set up for the kids to experience. Susan talked about the Moon and showed them the many 3D printed crater models. I got myself messy with the hands-on crater MAKING demo. Next they visited Chad to learn about the scale SIZE of the planets in our Solar System using our Night Sky Network model. Scott was showing off our homemade gravity well where the kids had fun trying to put "Earth" in orbit. Finally, they stepped outside where Chris and Annette had their scale DISTANCE model of the Solar System along with a telescope for some solar viewing. Afterwards, Chris and Annette had us all over to their house for an excellent lunch. For one of our first trips over to Lafayette for the club, this one set the bar pretty high!

As I said, Don and I will be getting our Sidewalk Astronomy dates set soon, so be on the lookout. In the meantime, we have our outing to the Louisiana Art and Science Museum coming up soon. (More info in the Vice-President's Message.) If you'd like to do a little outreach with us before our special visit, let me know!

Clear Skies, Ben Toman

Upcoming Outreach Events

Sunday, August 4th

Time: 1Pm-4PM

Louisiana Art and Science Museum

Demos, solar observing, club info



Chad J, Susan, Annete, Ben, Chris R., and Scott C. pose at the home of Anette and Chris Raby after the Outreach in Lafayette.

(Not shown, Roz, who totally bailed on us, ending her awesome outreach killstreak.)





The Team in action: Susan and the Moon, Ben making craters, Chad on the Orrery, Scott with the gravity well, Chris showing sunspots and Annette walking through the solar system.

(If you have an outreach, and if no one else can help, and if you can contact Ben, maybe you can schedule the Outreach Team.)

Secretary's Summary

- Meeting called to order, 22 People in attendance, 2 online
- Don still living the prairie life.
- Ben has taken on the role of fixing the website, which is now mostly functional and accurate.
- A new BRAS forum has been introduced (see website for listing)
- The August Meeting will take place at 5PM on 4 August at The Louisiana Arts and Science Center in downtown Baton Rouge—before the meeting, we will be doing STEM outreach in support of their First Free Sunday event—contact Ben if you're interested in helping out.
- Members pointed out that there was a Lunar Occultation happening soon. It's a good season for Lunar Occultations with many opportunities in the coming months, so keep a look out if interested.
- Merrill gave an engaging talk on noticeable problems in sci-fi movies and television programs while members digested pizza.
- A small raffle was held

Observatory Notes

BRAS PHOTOGRAPHY DISPLAY PREMIERE

Friday 2 August from 6:45pm to 8:45pm

for ages eleven and older / no admission fee / drinks

Print and electronic copies of photography from members of the Baton Rouge Astronomical Society will be displayed. The main focus of the premiere will be the sky photography of BRAS member Cathy Gabel. Her pictures will be installed on the main floor until 1 November.

EVENING SKY VIEWING

for ages six and older / no admission fee

Friday 2 August from 8:45pm to 10:15pm

Saturdays (3, 10, 17, 24 and 31 August) from 7:30pm to 10pm

Fridays (9, 16, 23 and 30 August) 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 preplanned list of objects to highlight. However, requests will be taken if there is time and if all present have viewed the previous target.

NIGHT VISIONS

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.

3 August = "Historic Experiments III"

10 August = "ISS Expedition 7"

17 August = "Saturn"

24 August = "Hurricanes"

FRIDAY NIGHT LECTURE SERIES

- 7:30pm / for ages fourteen and older / no admission fee
- <u>9 August = "Available Energies"</u> Arrive at HRPO for a overview of the different technologies in use for compiling, storing and using energy for the human race.
- <u>16 August = "Current State of Space Launches"</u> Many have been concerned about recent cancellations and off-the-Earth performances of certain spacecraft. BREC Center Supervisor James DeOliveira will analysis the various situations NASA and commercial companies are navigating.
- <u>23 August = "SOLWIND"</u> 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.
- <u>30 August = "The Concept of Zero"</u> Not only the numeral but the idea of representing "nothing" mathematically revolutionized technology and philosophy. Want to hear the story?

NIGHT VISIONS

PERSEID METEOR SHOWER

Sunday 11 August from 10pm to 2am

for ages six and older / no admission fee

Visitors must adhere to all rules.

The Perseids are one of the major meteor showers of the year, caused by debris left from the passings of Comet Swift-Tuttle. Come learn about meteors and let's see if we can spot some "earthgrazers". Although telescopes aren't needed for the Perseids, we'll have a telescope available from until midnight for leisurely gazing at other celestial objects. But look fast for the meteors; Perseid meteoroids hit our atmosphere traveling about sixty kilometers a second! If you're lucky, you may see a fireball...

LIGHT POLLUTION COMMITTEE

Monday 12 August from 6pm to 7pm

for ages fourteen and older / no admission fee

MARS-JUPITER CONJUNCTION

Wednesday, 14 August from 3:30am to 5am

for ages six and older / no admission fee

/ binocular strongly recommended

The Red Planet and the King of the Gas Giants will be placed in the sky *less than a half-degree apart*! Tight planet-planet conjunctions are not very common. We encourage you to bring your family and friends.

SOLAR VIEWING SPECIAL SESSION

Tuesday 13 August from 12:15pm 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.

SOLAR VIEWING

Saturday 31 August 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 Engineering"

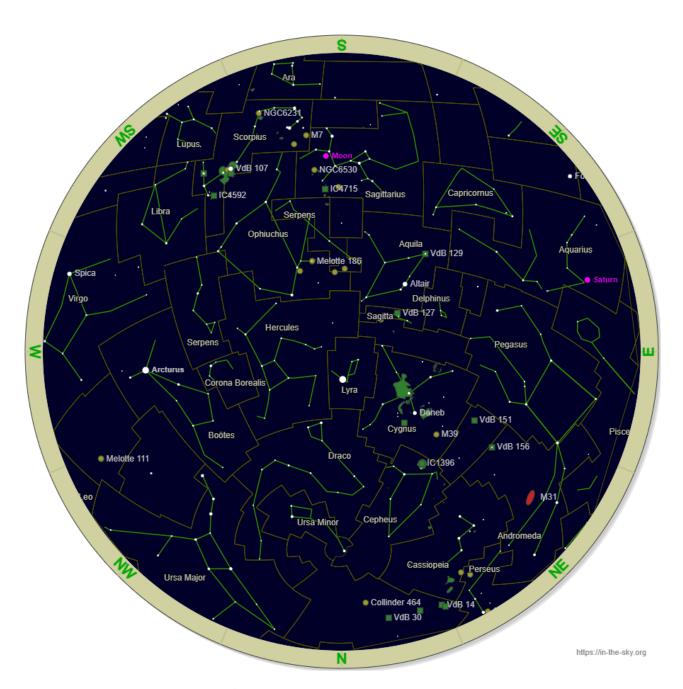
Saturday 31 August from 2:30pm to 6:30pm

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.

The Highland Road Park Observatory will not have office hours on Monday 12 August or Tuesday 13 August.

Sky Map



Map centered on 10PM for 15 August 2024

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

Quick Picks—Events for August 2024

- Sat 3 Mars 4.9°N of Aldebaran
- Sun 4 New Moon
- Sun 4 <u>Venus</u> 1.0°N of Regulus
- Mon 5 <u>Venus</u> 1.7°S of <u>Moon</u>
- Wed 7 Mercury 5.7° of Venus
- Thu 8 Moon Apogee at 405,298 km.
- Sat 10 Spica 0.7°S of Moon
- Mon 12 Perseid Meteor Shower
- Mon 12 First Quarter Moon
- Tue 13 Antares 0.0°S of Moon
- Sun 18 Mercury in Inferior Conjunction
- Mon 19 Full Moon
- Tue 20 Occultation of Saturn by the Moon
- Wed 21 Moon Perigee at 360,199 km.
- Sun 25 Pleiades 0.1°S of Moon
- Mon 26 <u>Last Quarter Moon</u>
- Tue 27 <u>Jupiter</u> 5.7°S of <u>Moon</u>
- Tue 27 <u>Mars</u> 5.3°S of <u>Moon</u>
- Thu 29 Pollux 1.7°N of Moon
- Sat 31 Beehive 3.1°S of Moon

Events courtesy of Telescopius.com. For more events and exact times use the reference sites listed.

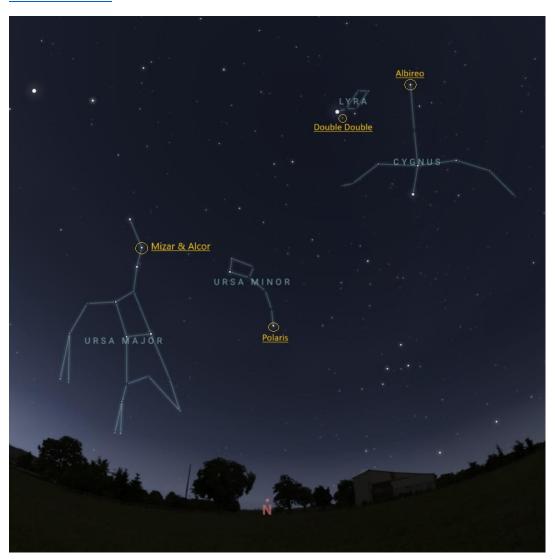
Looking up



August Night Sky Notes: Seeing Double

By Kat Troche

During the summer months, we tend to miss the views of Saturn, Jupiter and other heavenly bodies. But it can be a great time to look for other items, like globular star clusters such as Messier 13, open star clusters such as the Coma Star Cluster (Melotte 111), but also double stars!

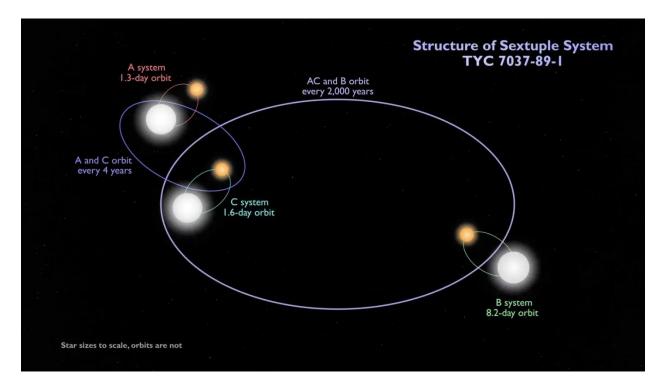


Mid-August night sky constellations with the following multiple star systems highlighted: the Double Double in Lyra, Albireo in Cygnus, Polaris in Ursa Minor, Mizar and Alcor in Ursa Major. Credit: Stellarium Web

What Are Double Stars?

If you have seen any movies or read any books that refer to having two suns in the sky, that would be a *double star system*. These star systems typically come in two types – binary and optical doubles. Binary stars are two stars that are gravitationally bound and orbit each other, and optical double stars only *appear* to be close together when viewed from Earth, but in reality, are extremely far apart from another, and are not affected by each other's gravity. With a small telescope, in moderately light polluted skies, summer offers great views of these stellar groupings from the Northern Hemisphere:

- **Double Double:** also known by its technical name, Epsilon Lyrae, this multiple star system appears as one star with naked eye observing. But with a small telescope, it can be split into 'two' stars. A large telescope reveals Epsilon Lyrae's secret what looks like a single star is actually a *quadruple* star system!
- **Albireo:** a gorgeous double star set one blue, one yellow in the constellation Cygnus.
- **Polaris:** while technically a multiple star system, our North Star can easily be separated from one star to two with a modest telescope.
- Mizar and Alcor: located in the handle of the Big Dipper, this pair can be seen with the naked eye.



This schematic shows the configuration of the sextuple star system TYC 7037-89-1. The inner quadruple is composed of two binaries, A and C, which orbit each other every four years or so. An outer binary, B, orbits the quadruple roughly every 2,000 years. All three pairs are eclipsing binaries. The orbits shown are not to scale. Credit: NASA's Goddard Space Flight Center

Aside from looking incredible in a telescope or binoculars, double stars help astronomers learn about measuring the mass of stars, and about stellar evolution. Some stars orbit each other a little too closely, and things can become disastrous, but overall, these celestial bodies make for excellent targets and are simple crowd pleasers.

From the Gallery:

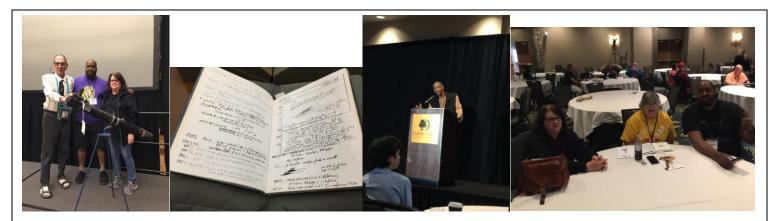


BRAS member Judah Santiago imaged Spica just before occultation on 13 July. (See Sky and Telescope's Instagram for capture details.)

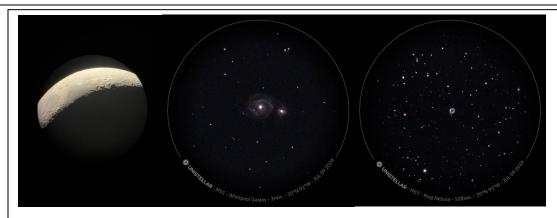


Left: Roz, Susan, Scott C., Ben, Ashley and Joel chill on the river after the Astronomy on Tap downtown in June.

Right: Scott C. plays with electricity while Roz samples the Nitrogen Ice Cream at LSU's annual summer star party.



Images from ALCon 2024: 1st: David Levy, Adrian Bradley and Roz pose with David Levy's first telescope, instead of helping with our outreach in Lafayette. 2nd: David Levy's notes from his discovery of Shoemaker-Levy 9; 3rd: ALCon Keynote speaker and Star Trek: Voyager actor Tim Rus; 4th: Senior BRAS representative Roz, Grande Dame Melanie Templet and Astrophotographer Adrian Bradley.



Images from the LSU star party: the moon through the 11" Clark refractor and the Whirlpool and Ring live through the Unistellar.

Posted:

- BRAS is currently looking to increase the ranks of it's army of outreach volunteers. For more information, contact Ben.
- If anybody would like to be added as a moderator on the BRAS forum, contact Ben.

Contact Information

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