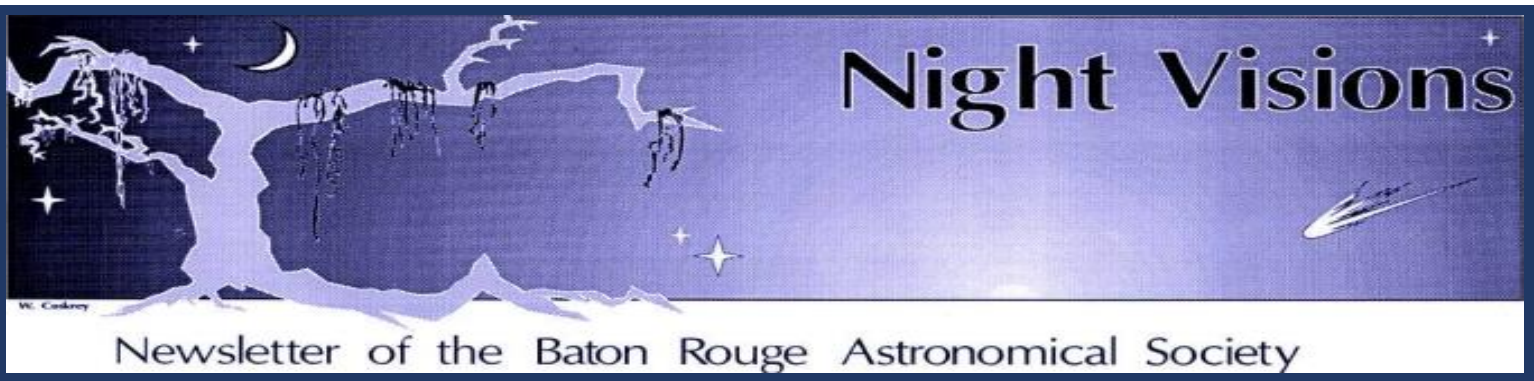


Meetings at Highland Road Park Observatory and online through YouTube

July 2026

Calendar:

- 8 July, 2PM: LASM Space Camp solar views
- 10 July, 1PM: Youth Challenge Program in Carville
- 13 July, 7PM: BRAS monthly meeting at HRPO

Index:

President's Message

Hi Everyone,

Just a short message this month. It's Summer break, after all!

I've been happy to see so many members coming out to our club meetings. Sometimes we're on the verge of needing to find extra chairs. The programs have been fun and informative (thanks to our VP, Scott) and I'm seeing a good mix of long-time members and newer members.

engagement has always been a tough nut to crack and I'm sure other clubs (not just astronomy clubs, either) have the same issues. People join our club because they are interested in astronomy, but where does it go from there? Little by little, strides are being made. I've seen several new faces volunteering for some of our outreach events. The GroupMe app is a whole new world for us, but it's seeing some use, too. I'm hopeful it continues to grow as we figure out how it can best serve the membership.

I'll remind you all that we DO also have an online forum with lots of topics ready for discussion. Go take a look and register for a username so you can join in. It's a great place to have a discussion/conversation at your own pace and in your own time.

One last note on member engagement...one of our club members, Jim A., has offered to spearhead a plan to help identify knowledge and resources that exist within our club. We have lots of new members that may have questions and they just don't know where to turn. We're going to try to figure out who knows what AND find out who is willing to share/help others in the club with related questions. Not only could this be a valuable service to our newer members, but it could end up engaging some of our veteran members more, as well. We could be looking at hands on demonstrations or even short workshops regarding telescope observing and/or astrophotography.

The point is, we want everyone that joins the club to find value in being a member. I've said it before, but it's worth repeating. If you just like being part of an astronomy club and maybe coming to listen to a club meeting once a month...we're here for you. But we also want to be here for the person that has always wanted to get a telescope, but doesn't have the first clue where to start. Or the person that HAS a telescope that was hoping to find either some extra guidance or just an observing buddy so they don't have to go out to a rural, dark area alone!

OK, so that's how a "short" message can turn long in a hurry. I'll be working more with Jim this Summer as we figure out how to implement this knowledge base for the club. I do think that it will be great for member engagement so when the time comes, please feel free to participate.

As Tigger said, "TTFN...Ta ta for now!"

Clear Skies,

Ben Toman

President

Ben and Scott set up a small display for seniors at St. James Place.

Vice President's Word

The old joke goes that if you don't like the weather in Louisiana, give it a few minutes. At this time of year, the weather seems to always fluctuate somewhere between hot and wet although very often it just is the humidity most of us dread the most (or the dewpoint, if you're fancy). As with everything else around here, most of us tend to slow down in June and July before regrouping and speeding back up in August and September, and the club is, largely, doing just that.

But you wouldn't know that by looking back at how busy we were for the month of June. Flipping through the outreach report makes it seem like we never got a break and we largely didn't. Not to mention the photo spread doesn't even include all of the events members took part in during the month of June. We also did a couple of pre-k events in addition to our annual trip over to Lafayette and the annual Dino Days at LASM. And beyond outreach, we saw members getting together to do some good old fashioned astronomy themed learning thanks in part to the various public offerings from LSU. Some of the people who attended this month's Astronomy on Tap and learned about Dr. Elliot's new career working with the new Roman Telescope might further enjoy reading this month's article from NASA on the Euclid and the overlap with Roman's mission (and might even recognize some of the names from the article, too). The next day a good number of us gathered to hear Dr. Hynes talk about the history and current theories of black holes at LSU's REU student showcase, followed by their annual summer star party at the Landolt Observatory upstairs. All of this slowing down for June seems to have been a little more fast-paced than I let on. (Did I mention that astrophysicist who came to speak with the club about quantum gravity? Because that happened in June too.)

Looking further into August and September, we'll ramp back up the old outreach engine, get ready for the planets to come back into the evening sky, and take in one of the largest meteor showers of the year. Hopefully, we'll have some clear enough skies for a gathering out to a dark site. Currently, we're looking for a free night in August or September to have a members only stargaze at HRPO for people that want to get to know club members and test out their equipment from the comfort of our own observatory before heading further afield. But that's still on the horizon. For now, let's just keep cool.

July should be a bit quieter. The long days and short nights make it hard to do any observing outside of solar and I think we deserve a bit of a break anyway. For the past few years, we've been celebrating July with a more laid-back gathering for our monthly meeting and having a bit of a pizza party while we take in some simple topic.

Outreach Report

Hi Everyone,

We're officially in Summer now and things have slowed down. We had a great June, though. Thanks to everyone that helped out over the course of the month!

We made a fantastic showing at LIGO for their June Science Saturday. Scott, Chris R., Annette, Roz, Susan, Charlie, Jim, John S., Coy, Merrill, Chad and Ben were all on hand to help out and represent the club. I could not have been more proud of us! It was a great group of visitors that day, too, with 304 total visitors throughout the day. We had 2 brand new volunteers that day, too, in Charlie and John S. Not a bad way to get their feet wet!

We also had a great time visiting Lafayette for the Little Lambs day camp, but truth be told, I think most of us really look forward to lunch at Chris and Annette's house afterwards the most, haha!

A big thanks also to Chad, Jilyana and Anyalina for coming out with me to Most Blessed Sacrament for a day camp this past Wednesday. We had a great time with some very young kids! This was a first foray into being a BRAS volunteer for Jilyana and Anyalina, too. It's so great to get some new faces involved!!

Finally, as I write this message, we are prepared for our outreach Friday morning at the Gateway Preschool and also Dino Day at the LASM on Saturday. Both of these events will see us imparting some awesome astro knowledge to lots of people. wo

We just have two official requests on the books for July so this will be a good time to cool our jets (if you stay indoors!) and start to get recharged for the Fall. Remember, no Sidewalk Astronomy events until September, but hopefully come that time y'all will be chomping at the bit to get out there again!

Clear Skies,

Ben Toman

Outreach Chairperson

Ben talks with students at Kenilworth Science and Technology Academy about the scale of the solar system.

Upcoming Events

Wednesday, July 8th

2pm-3pm

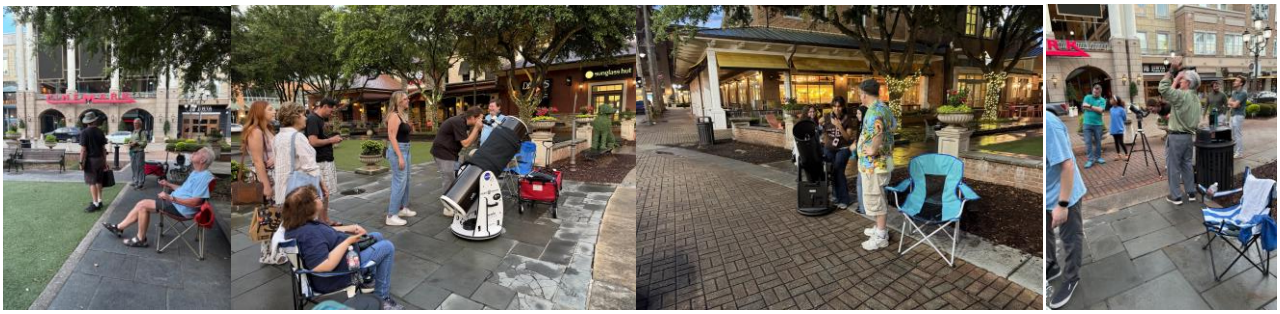
Louisiana Art & Science Museum

Solar Telescopes for day campers

Friday, July 10th

1pm-2:30pm

Youth Job Challenge Program Gillis Center in Carville



Perkins Rowe: Jim, Scott, and Chad try to figure out if the weather will change, Coy and Roz help a crowd look at the moon, Ben shares a lunar view, and Scott tries to spot anything else in the twilight.

Little Lambs in Lafayette: Top: Chad presents our collection of lunar craters, Roz explains the size of the solar system, Susan helps the kids move around the solar system, and Scott loses his marbles playing with the gravity well. Bottom: Ben makes an impact with our crater making kit and Chris walks the children through the scale solar system.

At LIGO: Top: Roz and Susan explain the scale model of the solar system, Annette talks about deep sky, and Merrill and Chris have a chat during a lull. Row 2: Charlie and Chad let us know they're still good to go, before diving back into the crater making demo. Row 3: Ben gets his hands (and everyone else) dirty with crater making, John explains gravity, and Chris walks us through the solar system. Bottom: Jim and Chad jazz up the moon, Scott talks about lenses, filters, and spectroscopy, and Coy shows off his solar viewing setup.

Secretary's Summary

There were 29 people in attendance at the June meeting.

The guest speaker was Dr. Chris Akers of the Department of Physics at University of Colorado – Boulder. Dr. Akers is the son of BRAS member Jim Akers. Dr. Akers spoke on the topic of Black Holes and Quantum Gravity.

Dr. Akers discussed the puzzle between the theories of general relativity and quantum mechanics, which are mathematically and conceptually incompatible. General relativity describes the massive stuff, and quantum mechanics describes the small stuff. Questions arise when looking at a lot of mass in a tiny space. We won't have the ultimate theory of nature until we are able to figure out how to unify quantum mechanics and general relativity into one theory. Dr. Akers discussed in detail the black hole information paradox. There are still many questions regarding quantum gravity and dark matter.

Following Dr. Aker's presentation, BRAS President Ben Toman passed around a signup sheet for upcoming outreach events.

The Nancy Grace Roman Space Telescope is scheduled to launch on August 30th, 2026, eight months ahead of schedule. It features a 2.4-meter primary mirror and a 300-megapixel camera, allowing it to capture view of the universe up to 200 times larger than Hubble.

We had a good showing at the June 6th BRAS outreach event at LIGO, which was attended by over 300 people.

Saturday September 19th is International Observe the Moon Night. Please mark your calendar and stay tuned for more info as we develop a plan to celebrate the event.

John Nagle talked about the Texas Star Party he attended in May in Fort Davis, Texas. While there, John won an official NASA photo of the lunar surface. John passed around a meteor fragment from a newly discovered meteorite impact site in Grand Saline, Texas.

We still have extra club T-shirts for sale, sizes small to extra-large.

Ben passed out BRAS buttons to some of our newer members.

Five items were raffled off at the end of the meeting. Charlie Carson won the book, *The Elegant Universe* by Brian Greene. Roz Readinger won a Spectrum tote bag that John Nagle donated from the Texas Star Party. Greg Lawrence of the Northern Virginia Astronomy Club won an ALCON grab bag. Tanya Ayala won a small Vivitar telescope and tripod that was donated by Roz. Sam Landry won the book, *3-Minute Einstein* by Paul Parsons.

Observatory Notes

THE EDGE OF NIGHT (Summer)

Thursday 2 July from 8pm to 10pm

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

It's not light, it's not dark. It's that special time called twilight, and HRPO wants to introduce you to it! Are all sections of the sky the same shade of blue? Which stars are seen first? Are Mercury and Venus or the Moon out? Is that moving object a plane, a satellite or space debris? How much actual darkness should I expect in a light-polluted city when twilight has passed? There is no other time like twilight. Bring it into your life!

FRIDAY NIGHT LECTURE SERIES

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

10 July = "Dawn: 15 Years Later" The 'first protoplanet orbiter'—this amazing spacecraft gave us a view and understanding of Ceres and Vesta as we'd never seen before.

17 July = "Comet After Comet Their origins, and the possible bright apparitions of the next two years will be outlined. The audience will also receive the latest on two potentially bright comets appearing within the next few years.

24 July = "High Proper Motion" This lecture focuses on those stars that are so close to the Solar System, human beings can actually chart their moving through outer space during the course of a lifetime. [*Postponed from 8 May.*]

EVENING SKY VIEWING

for ages six and older / no admission fee

Fridays 10, 17, 24 and 31 June from 8:30pm to 10pm

Saturday 11 and 25 July 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 #231320] / parents may stay with or leave Cadet

Four Cadet minimum and sixteen Cadets maximum per session.

11 July = “Baton Rouge, 1697-1752”

18 July = “Power in the House III”

BATON ROUGE ASTRONOMICAL SOCIETY MEETING

Monday 13 July from 7pm to 9pm

for ages fourteen and older / no admission fee

PLUS NIGHT: “Demonstration Overload”

Saturday 18 July 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-depending).

*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

Saturday 25 July from 12pm to 2pm

for ages six and older / no admission fee

Weather permitting, viewing of the Sun’s image in four different manners—transferred onto a white surface, directly with optical light, directly in hydrogen-alpha wavelength and directly via Calcium K wavelength—will take place. Protective clothing and sunscreen are recommended.

STEM EXPANSION: "Planetary Meteorology"

Saturday 25 July 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 #231321]. 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.

LUNAR EXPLORERS CAMP

27 July to 31 July / 8am to 5pm daily. For ages eleven to thirteen.

$125 per EBR-parish camper / $150 per other-parish camper

[Cost covers entire session; limit thirty per session.]

This one-week-only session focuses on past accomplishments and future goals related to our sole natural satellite! There will be simulated moondust, overviews of transcripts and audio from actual Moon landings, and previews of actual human beings headed back to the Moon, then on the Mars. Parents may register in person at HRPO or online at Webtrac. The activity number is 231180.

NATURAL SKY TASK FORCE PUBLIC INPUT MEETING

Wednesday 29 July from 5:15pm to 6:45pm

for ages twelve and older / no admission fee

The purpose of these gatherings is to network and share results of separate efforts to reduce light pollution in the HRPO service area, and to share advice on improving efforts to reduce light pollution in the HRPO service area.

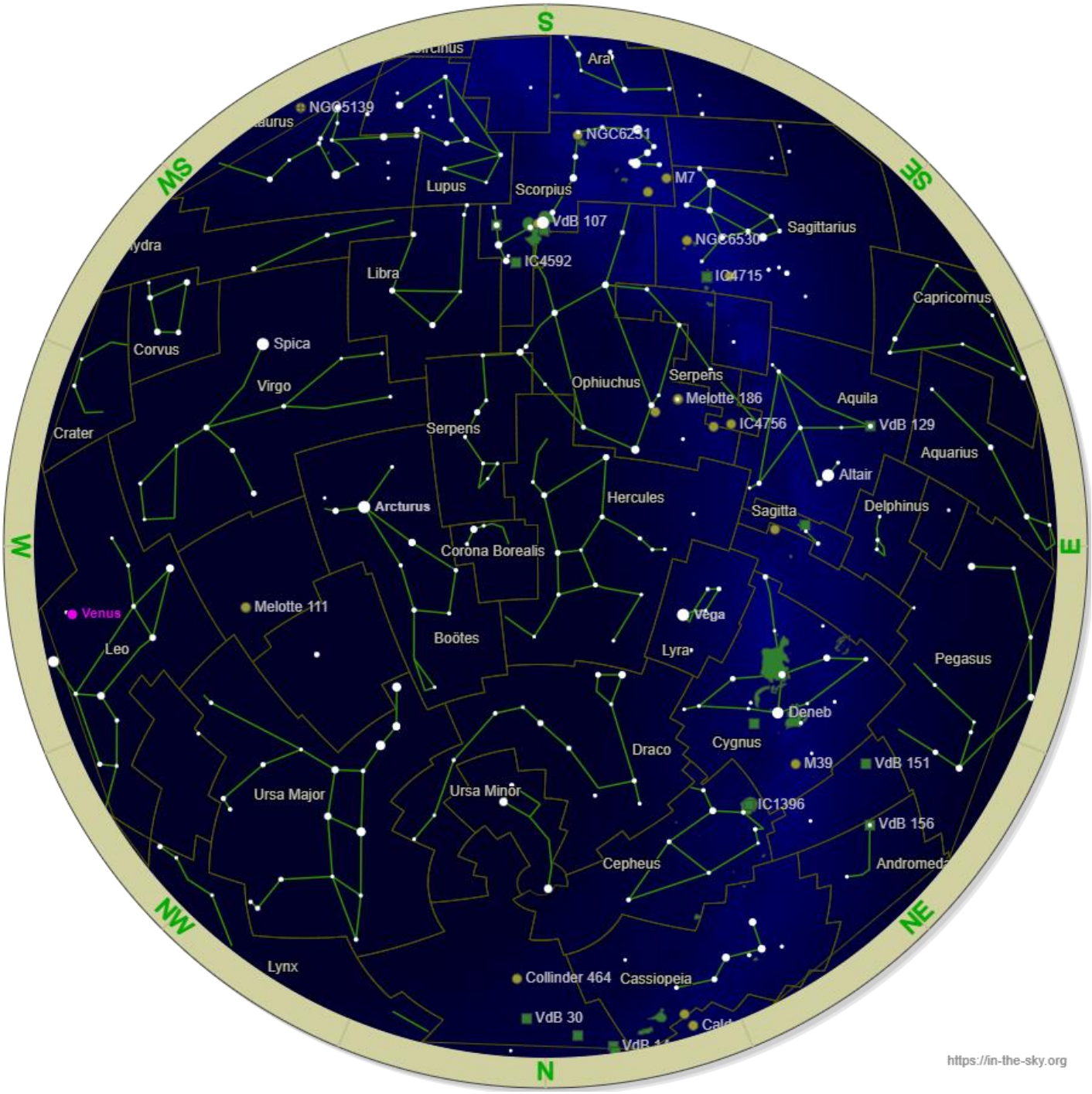
THE FUTURE OF THE OBSERVATORY

Friday 31 July from 5:30pm to 8:30pm

for ages twelve and older / no admission fee / refreshments

In a third of a year, HRPO will start the countdown to its thirtieth anniversary celebration. This meet-and-greet will allow a networking of involved patrons—and those who want to get involved. Displays will premiere and return.

Sky Map



Time centered on 15 July at 10PM

Quick Picks—Events for July

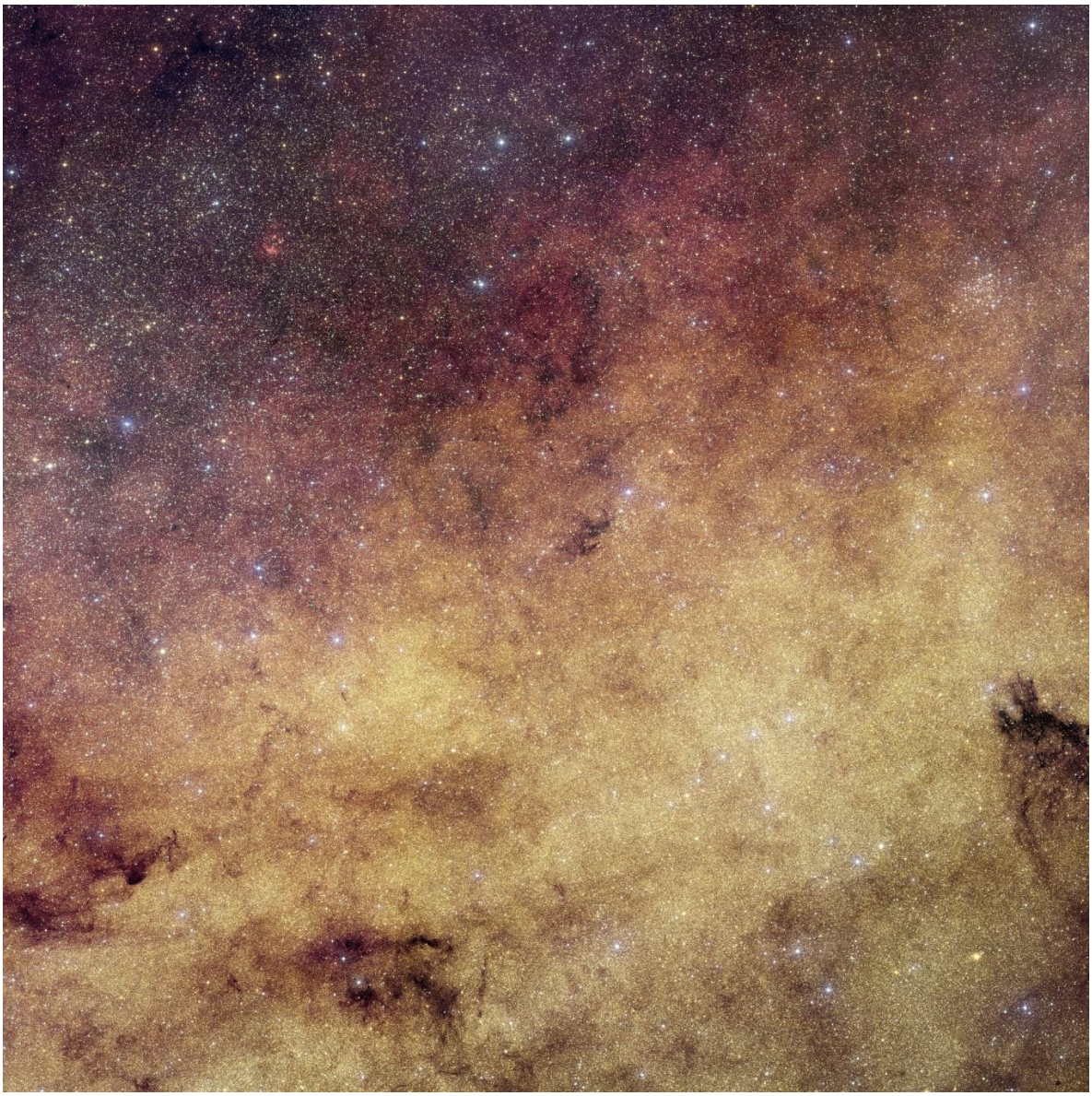
- Wed 1 **Mercury** at Aphelion
- Mon 6 Earth at Aphelion - Dist: 1.0166 AU
- Tue 7 **Last Quarter Moon**
- Thu 9 **Venus** 0.9°N of Regulus
- Fri 10 Pleiades 1.1°S of **Moon**
- Sat 11 **Mars** 5.3°S of **Moon**
- Sun 12 **Mars** 5.2°N of Aldebaran
- Sun 12 **Mercury** in Inferior Conjunction
- Mon 13 **Moon** Perigee at 359,111 km.
- Tue 14 **New Moon**
- Thu 16 Regulus 0.5°N of **Moon**
- Fri 17 **Venus** 2.0°N of **Moon**
- Mon 20 Spica 2.4°N of **Moon**
- Tue 21 **First Quarter Moon**
- Fri 24 Antares 0.6°N of **Moon**
- Sat 25 **Moon** Apogee at 405,549 km.
- Tue 28 Delta-Aquarid Meteor Shower
- Wed 29 **Jupiter** in Conjunction with the Sun
- Wed 29 **Full Moon**

From Telescopius.com. Check Stellarium for local times.

Looking up

Euclid View of Milky Way Heart Previews Core Survey by NASA's Roman

Ashley Balzer



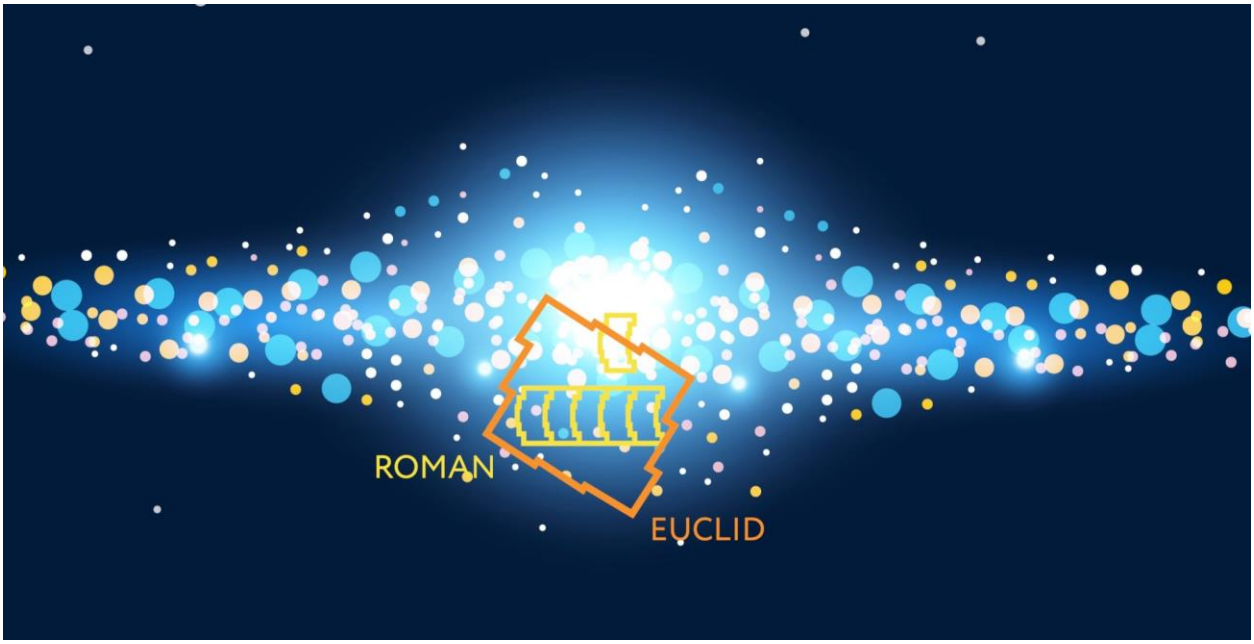
This image by ESA's (European Space Agency) Euclid (with color added using ground-based images) provides an earlier snapshot of a region of our galaxy that NASA's Nancy Grace Roman Space Telescope will repeatedly observe during the upcoming years. Euclid spent one day taking a series of nine individual images near the heart of the Milky Way. Its wider image has resolution similar to Roman's, though it's also shallower and lacks some of the colors Roman will see. At the right of the frame, Euclid looks through the dense foreground of the Milky Way's galactic plane, where thick molecular clouds appear as dark patches that obscure parts of the galactic bulge beyond. Toward the left, the view rises to higher galactic latitudes: the yellow glow of the bulge becomes clearer, with fewer and more isolated foreground clouds interrupting the starlight.

ESA/Euclid/Euclid Consortium/NASA, CFHT, image processing by J.-C. Cuillandre and E. Bertin (CEA Paris-Saclay)

A new look at the heart of our Milky Way galaxy by Euclid, an ESA (European Space Agency) mission with NASA contributions, overlaps with a region scientists will observe with NASA's Nancy Grace Roman Space Telescope, launching later this summer. This sneak peek gives astronomers a major jumpstart on a core Roman survey, helping scientists learn more than they could from either telescope alone.

"This is the only time Euclid has paused its normal sky survey, which is mainly geared toward cosmology," said Jason Rhodes, a senior research scientist at NASA's Jet Propulsion Laboratory in Southern California. Rhodes serves as both the U.S. Euclid science lead and the NASA JPL Roman project scientist. "This takes a lot of work and planning, so it really has to be something with a high impact for science. Adding Euclid's snapshot to Roman's future survey will help us map our galaxy better and identify hard-to-find cosmic treasures like isolated black holes and rogue planets more easily."

Euclid took one day out from its six-year prime mission to preview the area of sky that will be targeted by Roman's Galactic Bulge Time-Domain Survey, which will provide one of the deepest views ever into the center of our galaxy. Though Euclid's one-time observation is shallower and lacks some of the color detail Roman will see, it has similar resolution and covers a larger region — about 5 square degrees, or the sky area covered by about 25 full moons — since Roman's survey area hadn't yet been determined when the observation took place in March 2025.



This artist's concept outlines the areas of the galactic core covered by Euclid (orange) and the future survey area of the Roman telescope (green). The Euclid observations more than cover Roman's planned survey area because the Roman coverage wasn't yet set in stone when Euclid imaged the area. The only exception is the portion right in the galactic center since Euclid's visible light observations can't pierce the thick dust in this region like Roman's infrared vision will.

NASA's Goddard Space Flight Center

Over the course of its five-year primary mission, Roman will repeatedly image a smaller region (1.7 square degrees, or roughly the sky area covered by 8.5 full moons) to watch how hundreds of millions of stars and other objects change over short time periods. Monitoring these changes will reveal hordes of new planets, along with many other cosmic objects and phenomena. Stitching Euclid's observation onto the front end of Roman's collection will essentially extend the survey by two years (since Roman's galactic bulge observations are set to begin in spring 2027), making even more science possible.

Mining hidden gems

Roman will watch for tiny surges in starlight that herald a microlensing event. This light-bending phenomenon occurs when a massive object like a star, planet, or black hole — any object with sufficient gravity — closely aligns with a background star from our vantage point. Light from the distant star curves as it travels through the warped space-time caused by the nearer object's mass.

This image from Euclid (with color added using ground-based images) zooms in on the center of our Milky Way galaxy. The region gets its golden tone from myriad old, cool stars that have yellowish hues. Stars in this region are heavily crowded, so observing in this direction increases the likelihood of catching microlensing events.

ESA/Euclid/Euclid Consortium/NASA, CFHT, image processing by J.-C. Cuillandre and E. Bertin (CEA Paris-Saclay)

If the alignment is especially close, the nearer object acts like a cosmic lens, focusing and magnifying light from the background star.

“Most often, the lensing object is another star,” said Matthew Penny, an assistant professor at Louisiana State University, and co-lead of Euclid’s exoplanet science working group who has spent more than a decade simulating both Euclid and Roman data. “But Roman will also be able to detect planets orbiting them, and all kinds of weird objects that are nearly impossible to find any other way.”

Among those strange objects are black holes left behind after the most massive stars die. Astronomers think there should be about 100 million of these stellar-mass black holes in the Milky Way, but so far they’ve almost exclusively detected the invisible objects when they interact with a companion star. Yet most are thought to wander the galaxy alone. Roman will find them even when there’s nothing nearby to reveal their presence.

While microlensing events created by planets are typically hours or days long, black holes pack in so much mass that they can bend light over a larger region of space, creating much longer signals. That means astronomers may need to observe them for years to see the objects move out of alignment.

“The extra two years provided by Euclid give astronomers more time to watch the lens and source star drift apart, making it easier to identify the lens and measure its mass,” said Himanshu Verma, a postdoctoral researcher at Louisiana State University who has been analyzing Euclid images to help scientists predict and better understand the microlensing events Roman is expected to observe.

This image from the Advanced Camera for Surveys instrument on NASA’s Hubble Space Telescope is part of a 1.1-square-degree survey of the center of the Milky Way. Hubble’s full survey, which is made up of more than 350 individual images taken across about 14 months, is smaller but higher resolution than ESA’s Euclid observations and both overlap with the area Roman will cover. By capturing preview images years before Roman begins its microlensing search, Hubble and Euclid provide early reference points that will help astronomers measure the motions of stars and better characterize the planets and other objects Roman discovers.

Adapted from Terry et al. 2026

While most planet-hunting methods are best at finding scorching worlds tightly hugging their host star, microlensing is better at detecting worlds in orbits larger than Earth's. That includes planets that whirl around their stars farther away than Neptune orbits the Sun and ones that have been kicked out of their original star systems altogether, now destined to roam the galaxy all alone.

"When Roman finds them, astronomers will be able to cross-reference Euclid's earlier observations to look for stars near the lensing object, so we can confirm whether a planet is truly rogue or just orbiting very far from its host star," said David Bennett, a senior research scientist and microlensing expert at the University of Maryland, College Park and NASA's Goddard Space Flight Center.

Milky Way mapping

Scientists will also pair Euclid data with Roman's Galactic Plane Survey. This observation program will reveal our home galaxy in unprecedented detail over an area about 400 times larger than the galactic bulge survey. In one month of observations spread across two years, the Roman survey will unveil tens of billions of stars and explore previously uncharted structures.

It's tricky to study our own galaxy because it's like trying to map the human body from inside a cell; there's a lot of stuff in the way. Combining Euclid's observations with Roman's will let astronomers watch stars slowly move across the sky. Since stars in different parts of the Milky Way tend to follow different paths, this will help astronomers figure out which part of the galaxy those stars are in.

"One of the most exciting aspects of the Euclid observations is that they give us the chance to test and improve Milky Way models," Penny said.

Euclid's one-day detour offers a scientific payout that will last for years and shows how much more can emerge when telescopes team up.

“We’ve shown that these two telescopes can work together to do science that surpasses what either was originally designed for,” Rhodes said. “In doing so, we’ve established a model for future coordinated observations that can unlock far more discoveries than either mission could make alone.”

To learn more about the Roman mission, visit:

https://www.nasa.gov/roman

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