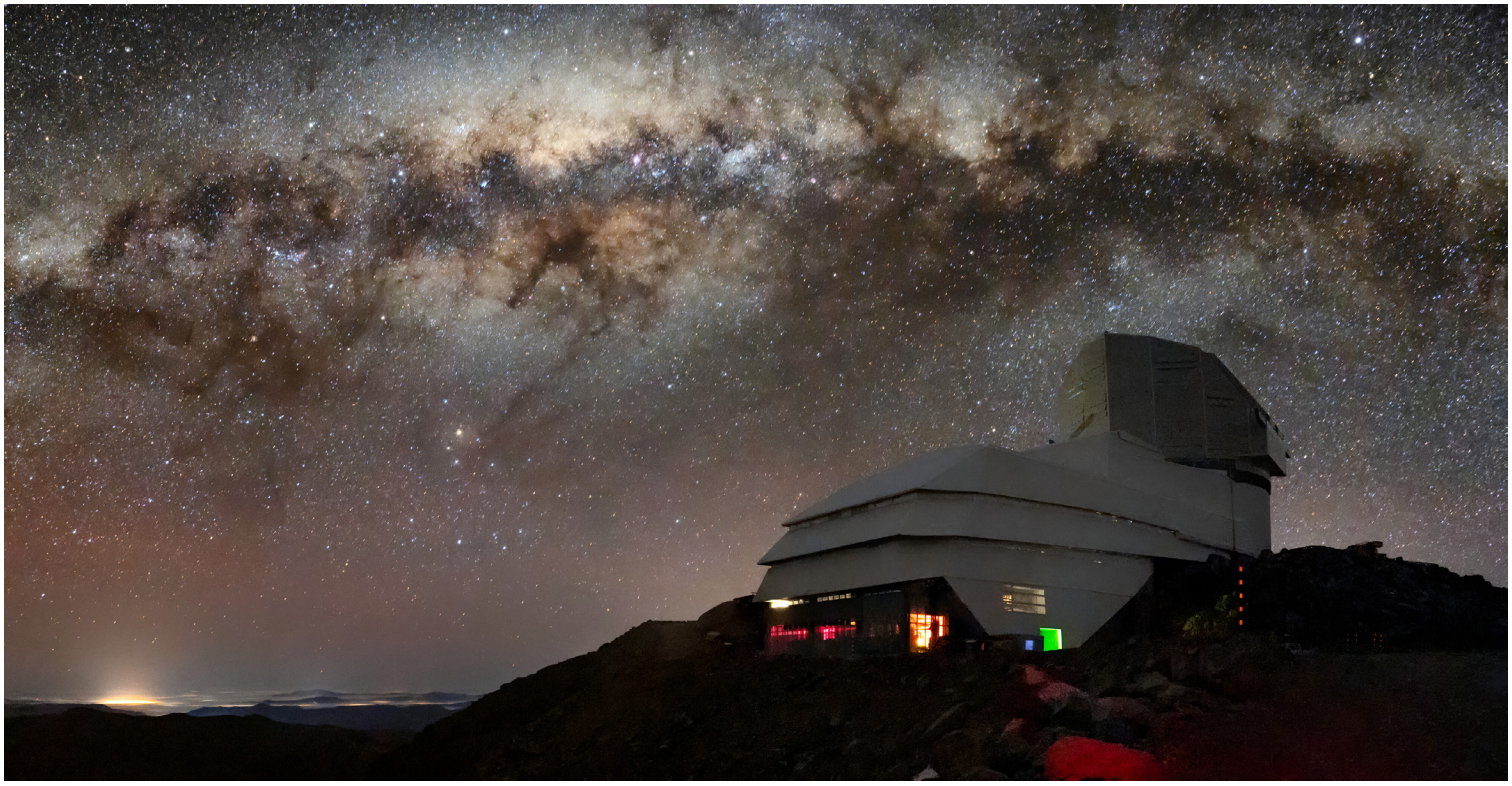
The ECLIPSE

August 2025

The Newsletter of the Barnard-Seyfert Astronomical Society



August's Night Sky Notes: The Great Rift

By Dave Prosper
Updated by Kat Troche

Summer skies bring glorious views of our own Milky Way galaxy to observers blessed with dark skies. For many city dwellers, their first sight of the Milky Way comes during trips to rural areas - so if you are traveling away from city lights, do yourself a favor and look up!

To observe the Milky Way, you need clear, dark skies and enough time to adapt your eyes to the dark. Photos of the Milky Way are breathtaking, but they usually show far more detail and color than the human eye can see – that's the beauty and quietly deceptive nature of long exposure photography. For Northern Hemisphere observers, the most prominent portion of the Milky Way rises in the southeast as marked by the constellations Scorpius and Sagittarius. Take note that, even in dark skies, the Milky Way isn't easily visible until it rises a bit above the horizon, and the thick, turbulent air obscures the view. The Milky Way is huge, but it is also rather faint, and our eyes need time to truly adjust to the dark and see it in any detail. Avoid bright lights as they will ruin your night vision. It's best to attempt to view the Milky Way when the Moon is at a new or crescent phase; a full Moon will wash out any potential views.

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BSAS
Barnard-Seyfert Astronomical Society

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Contact BSAS officers at bsanashville.com/contact, or email info@bsanashville.com

About BSAS

Organized in 1928, the Barnard-Seyfert Astronomical Society is an association of amateur and professional astronomers who have joined to share our knowledge and our love of the sky.

The BSAS meets on the third Wednesday of each month at the at the Dyer Observatory in Nashville. Experienced members or guest speakers talk about some aspect of astronomy or observing. Subjects range from how the universe first formed to how to build your own telescope. The meetings are informal and time is allotted for fellowship. You do not have to be a member to attend the meetings.

Membership entitles you to subscriptions to Astronomy and Sky & Telescope at reduced rates; the club's newsletter, the Eclipse, is sent to members monthly. BSAS members also receive membership in the Astronomical League, receiving their quarterly newsletter, the Reflector, discounts on all astronomical books, and many other benefits.

In addition to the meetings, BSAS also sponsors many public events, such as star parties and Astronomy Day; we go into the schools on occasion to hold star parties for the children and their parents. Often the public star parties are centered on a special astronomical event, such as a lunar eclipse or a planetary opposition.

Most information about BSAS and our activities may be found at bsasnashville.com. If you need more information, write to us at info@bsasnashville.com.

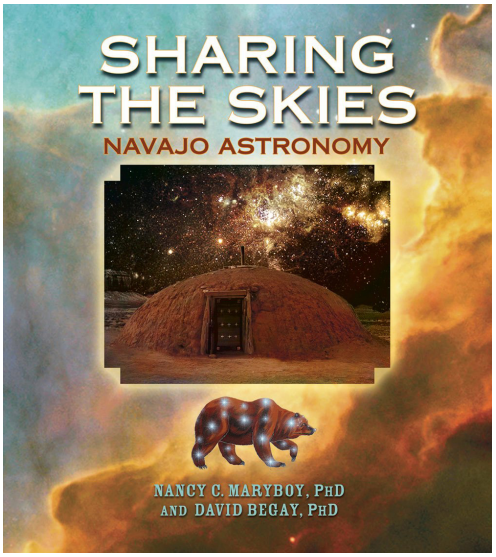
Free Telescope Offer!

Did someone say free telescope? Yes, you did read that correctly. The BSAS Equipment & Facilities Committee has free telescopes ranging in size from 2.6" to 8" that current members can actually have to use for up to 60 days at a time. We also have some other items in the loaner program such as a photometer, H-alpha solar telescope, educational CDs, tapes, DVDs, and books. Some restrictions apply. A waiting list is applicable in some cases. The BSAS Equipment Committee will not be held responsible for lost sleep or other problems arising from use of this excellent astronomy gear. For information on what equipment is currently available, contact info@bsasnashville.com.

Book Review: Sharing the Skies

by Robin Byrne

I have Mackenzie Henley to thank for this month's book review. She had brought to our astronomy club meeting for show-and-tell her copy of Sharing the Skies: Navajo Astronomy by Nancy C. Maryboy and David Begay. I knew this was a book I needed to read, so it was quickly added to my Amazon wish list.



This small book markets itself to educators, but anyone with an interest in the night sky or in Native American sky lore will enjoy it. It begins with an overview of the three areas of astronomy that will be incorporated with each part of the sky discussed: Navajo astronomy, the ancient Greek myths, and modern astronomy. Then with each part of the sky or constellation highlighted in the book, we first learn the Navajo interpretation of what's seen in the sky and its importance within the Navajo culture. Next we learn the more commonly known Greek mythology for the classical constellation found in the same part of the sky. Because the Navajo sky and modern constellations don't always include the same stars, there's some poetic license related to which Greek constellations are referenced for each Navajo story. Finally, we learn about modern astronomical discoveries related to objects found in that same region.

While I was familiar with the Greek stories and the astronomical discoveries, a newcomer to the field will likely appreciate learning more about both of these facets of the sky. Meanwhile, my main motivation for getting the book was to learn more about Native American sky lore. This book gives a nice introduction to how the sky is interpreted, and the significance of the stories within the culture of the Navajo.

Overall, I enjoyed the book, but I did have two areas that didn't live up to my expectations. The first was how little of the Navajo stories were included. For each part of the sky, the section covering the Navajo story was consistently the shortest component, with much more information and detail devoted to the Greek mythology and the modern discoveries. Given that the whole premise of the book was to learn about Navajo astronomy, the scant coverage of actual Navajo sky lore was disappointing. After the final Navajo sky story, the authors direct the readers to a web page where they can purchase a CD of the complete stories. That bit of self-promotion left a bad taste in my mouth.

The other part that I found lacking were the illustrations of the Navajo sky imagery. For each Navajo story, a drawing accompanied it to illustrate the picture they see in the sky, which was good. However, because they are very stylized images, and all the stars are drawn as though their brightnesses are equal, there's no easy way to discern how these pictures align with the actual stars in the sky. I would have wanted a true star chart with the Navajo image superimposed, in order to see the context of where I could find it in the sky.

My disappointments notwithstanding, I would still recommend Sharing the Skies: Navajo Astronomy by Nancy C. Maryboy and David Begay as a nice introduction to learning Native American sky lore and its connection to the more traditional Western constellations in the night sky.

References: *Sharing the Skies: Navajo Astronomy* by Nancy C. Maryboy and David Begay; Rio Nuevo Publishers, 2010

Great Rift, continued from Page One

Keeping your eyes dark-adapted is especially important if you want to not only see the haze of the Milky Way, but also the dark lane cutting into that haze, stretching from the Summer Triangle to Sagittarius. This dark detail is known as the Great Rift, and is seen more readily in very dark skies, especially dark, dry skies found in high desert regions. What exactly is the Great Rift? You are looking at massive clouds of galactic dust lying between Earth and the interior of the Milky Way.

Other "dark nebulae" of cosmic clouds pepper the Milky Way, including the famed Coalsack, found in the Southern Hemisphere constellation of Crux. Many cultures celebrate these dark clouds in their traditional stories along with the constellations and the Milky Way. One such story tells of a Yacana the Llama, and her baby, wandering along a river that crossed the sky – the Milky Way. The bright stars Alpha and Beta Centauri serve as the llama's eyes, with the dark sections representing the bodies of mother and baby, with the baby below the mother, nursing.

In the activity, "Our Place In Our Galaxy", if the Milky Way were shrunk down to the size of North America, our solar system would be about the size of a quarter. At that scale, Polaris - which is about 433 light years distant from us - would be 11 miles away. Image Credit: Astronomical Society of the Pacific

Where exactly is our solar system within the Milky Way? Is there a way to get a sense of scale? The "Our Place in Our Galaxy" activity can help you do just that, with only birdseed, a coin, and your imagination. You can also discover the amazing science NASA is doing to understand our galaxy – and our place in it - in the Galaxies section of NASA's Universe page.

Originally posted by Dave Prosper: June 2021
Last Updated by Kat Troche: July 2025

Cover Image: T*he Vera C. Rubin Observatory, located at Cerro Pachón, Chile, under the Milky Way. The bright halo of gas and stars on the left side of the image highlights the very center of the Milky Way galaxy. The dark path that cuts through this center is known as the Great Rift, because it gives the appearance that the Milky Way has been split in half*. Image Credit: RubinObs/NOIRLab/SLAC/NSF/DOE/AURA/B. Quint

The cover article is distributed by NASA Night Sky Network.

The Night Sky Network program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit nightsky.jpl.nasa.org to find local clubs, events, and more! You can catch up on all of NASA's current and future missions at nasa.gov.

With articles, activities and games NASA Space Place encourages everyone to get excited about science and technology. Visit spaceplace.nasa.gov to explore space and Earth science!

Barnard-Seyfert Astronomical Society
Minutes — Regular Membership Meeting
Aug. 20, 2025

The Barnard-Seyfert Astronomical Society met at Vanderbilt's Dyer Observatory and on-line for the regular general meeting on Wednesday, Aug. 20, 2025, Dr Tom Beckermann presiding. The meeting was called to order at 7:00 p.m. 25 attendees were at Dyer. 7 more zoomed in.

Amelia Goldberg presented the Astronomical League's Universe Sampler Observing Program. The Universe Sampler is designed to orient beginning observers to the sky. BSAS members are automatically members of the Astronomical League.

The Observing Program can be found here. Astronomical League Certificate lookup URL is https://www.astroleague.org/award-search/. BSAS members have 8 awards from the Astronomical League.

Minutes: The minutes for the July 16, 2025, meeting were adopted without discussion.

Membership Report: 236 members.

Treasurer's Report: Theo Wellington reported the Truist balance to be $7,851.37 and the PayPal balance to be $99.38.

Social Media Report: Facebook had 2.4K likes and 2.7K followers. "X" had 325 followers.

Upcoming events:

The next regular meeting will be at Vanderbilt's Dyer Observatory on Wednesday, Sept. 17, 2025, from 7:00 p.m. to 8:30 p.m.. Scott Harrington will present binocular observing. Let us have your thoughts on meeting topics and speakers. Regular meetings are open to all. The idea of having special interest groups oriented toward astrophotography and visual observing has come up.

Please provide input on the idea. Astrophotos do get posted on
Google Groups: https://groups.google.com/g/bsasnashville
Astrobin https://welcome.astrobin.com/

Scheduled public star parties:

- Henry Horton State Park Trap and Skeet Range, Friday, Aug. 22, beginning at 7:00 p.m.
- Montgomery Bell State Park, Saturday, Aug. 23, beginning at 6:00 p.m.
- Bells Bend Outdoor Center, Saturday, Aug. 30, from 8:30 p.m. to 10:30 p.m.

Look for updates on the BSAS Nashville Google Group.

continued on next page

Scheduled private star parties:

Natchez Trace Mile Marker 412 (Water Valley Overlook), Saturday, August 23, 2025. Private star parties are open only to members. Members need to have a copy of the Park Service Permit (a copy of the PDF on your smart phone is OK). The permit is posted on the BSAS Nashville Google Group. Look for "pop-up" star parties on the BSAS Nashville Google Group.

Other events:

Upcoming shadow transits of Titan on Saturn: Sept. 4 (night of September 3-4), 12:25 am. - 3:50 a.m. Sept. 20 (night of Sept. 19-20), 12:09 a.m.- 2:34 a.m. Oct. 6 (night of Oct. 5-6), 12:32 a.m. (full shadow of Titan is on Saturn only at mid-transit.

Previous events:

Public star parties: Saturday, August 2, at Edwin Warner Park Model Airplane Field was canceled because of weather.

The meeting adjourned at 8:30 PM

The URL for the live You Tube recording of the meeting is here.

Respectfully submitted,

Bud Hamblen
Secretary

In honor of the club's 90th anniversary we partnered with Hatch Show Print to create a unique poster that would honor the achievement of the club. For those who don't know Hatch Show has been making posters for a variety of events and concerts for 140 years. In all that time we are their first astronomy club.

On the poster at the center is the moon. This was made from a wood grained stencil that the shop has used for over 50 years. To contrast that the telescope that the people are using is a brand new stencil made for our poster.

The poster has three colors. First the pale yellow color of the moon was applied. Next the small stars, circles, and figures at the bottom were colored in metallic gold. The third color is a blue for the night sky.

Where it overlaps with the metallic gold it creates a darker blue leaving the figures at the bottom looking like silhouettes.

This was a one time printing so the 100 that we have are all that will be printed.

The prints are approximately 13 3/4" x 22 1/4" and are available for $20 at our membership meetings, or $25 with shipping by ordering through bsasnashville.com. Frame not included.

BSAS
Barnard-Seyfert Astronomical Society

Next BSAS meeting
Wednesday, Sept/ 17, 7:00 p.m.

Dyer Observatory
1000 Oman Dr.
Brentwood, TN 37027