Observations

A Monthly Publication Of The
CHESTER COUNTY ASTRONOMICAL SOCIETY

Vol. 33, No. 8 ***Three-Time*** *Winner of the Astronomical League's Mabel Sterns Award ☼ 2006, 2009 & 2016* *August 2025*

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	Kellar
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	Fisher
	Kraynik
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	Rosenblatt
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AstroCon 2025 at Bryce Canyon, Utah

CCAS Members Dave Hockenberry, Ann Miller, Don Knabb, and Barb Knabb attended AstroCon at Bryce Canyon National Park June 25th through 28th. For more details about the event, see pg. 6.

August 2025 Dates

1st • First Quarter Moon, 8:41 a.m. EDT.

6th • Saturn passes 1.1° south of Neptune, 6 a.m. EDT.

9th • Full Moon, the Sturgeon Moon, Blue Moon, 3:54 a.m. EDT.

12th-13th • 12th-13th • Perseid Meteor Shower Peaks.

16th • Last Quarter Moon, 1:12 a.m. EDT.

19th • Mercury is at greatest western elongation (19°), 6 a.m. EDT.

22nd • The Moon passes 5° north of Jupiter, midnight EDT.

23rd • New Moon, the Black Moon, 2:06 a.m. EDT.

31st • First Quarter Moon, 2:25 a.m. EDT.

CCAS Upcoming Nights Out

In addition to our monthly observing sessions at the Myrick Conservancy Center, BRC (for directions, see pg. 13), CCAS schedules special "nights out" throughout the year. Members are encouraged to help out during these events any way they can. See below for more information.

☼ Saturday, August 2, 2025 - CCAS Solar Observing Session from 10:00 a.m.to 1:00 p.m. EDT at Downingtown Library, Downingtown, PA.

☼ Thursday, August 14, 2025 - CCAS Solar Observing Session from 10:30 a.m.to 1:30 p.m. EDT at CVT at Exton Park, 132 Church Farm Ln, Exton, PA 19341.

☼ Friday, August 22, 2025 - CCAS Monthly Observing Session, Myrick Conservancy Center, BRC. The observing session starts at sunset.

☼ CCAS Special Observing Session: Starr Farm Park, Downingtown PA. 8:00 to 10:00 p.m. EDT.

For more information about future observing opportunities, contact our Observing Chair, Don Miller.

Summer Society Events

August 2025

2nd • CCAS Solar Observing Session from 10:00 a.m.to 1:00 p.m. EDT at Downingtown Library, Downingtown, PA. For more information, contact our Observing Chair, Don Miller.

12th-13th • Perseid Meteor Shower Peaks. The Perseids are one of the best meteor showers to observe, producing up to 60 meteors per hour at their peak. The shower's peak usually occurs on August 12th, but you may be able to see some meteors any time from July 17th through August 23rd. On August 12th, the moon will be 84% full. The radiant point for this shower is in the constellation Perseus.

14th • CCAS Solar Observing Session from 10:30 a.m.to 1:30 p.m. EDT at CVT at Exton Park, 132 Church Farm Ln, Exton, PA 19341. For more information, contact our Observing Chair, Don Miller.

19th-22nd • CCAS Special Camping Trip & Observing Session at Cherry Springs State Park, Coudersport, PA. For more information, contact our Observing Chair, Don Miller.

20th • Open call for articles and photographs for the September 2025 edition of Observations.

22nd - CCAS Monthly Observing Session, Myrick Conservancy Center, BRC. The observing session starts at sunset. See pg. 13 for map and directions.

26th • Deadline for newsletter submissions for the September 2025 edition of Observations.

29th • CCAS Special Observing Session: Starr Farm Park, Downingtown PA. 8:00 to 10:00 p.m. EDT. For more information, contact our Observing Chair, Don Miller.

September 2025

6th • CCAS Solar Observing Session, 10:30 a.m. to 1:30 p.m. EDT, CVT at Exton Park, 132 Church Farm Ln, Exton, PA 19341. For more information, contact our Observing Chair, Don Miller.

9th • CCAS Monthly Meeting, in person (as well as via Zoom) at WCU's Merion Science Center, Room 112. Guest speaker: Dr. Bhuvnesh Jain from the University of Pennsylvania, Department of Astronomy and Physics. His presentation is titled "The Nature of Dark Matter and Dark Energy and their Roles in Galaxy Formation."

17th-21st • York County Fall Star Party. Susquehannock State Park, 1880 Park Dr, Drumore, PA 17518. For more information, contact our Observing Chair, Don Miller.

20th • Open call for articles and photographs for the October 2025 edition of Observations.

20th • CCAS Special Observing Event with the Atglen Public Library and Chester County Parks at Wolfs Hollow County Park, 1766 Glen Run Rd, Atglen, PA 19310. For more information, contact our Observing Chair, Don Miller.

25th • CCAS Monthly Observing Session, Myrick Conservancy Center, BRC. The observing session starts at sunset. See pg. 17 for map and directions.

26th • Deadline for newsletter submissions for the October 2025 edition of Observations.

27th • CCAS Solar Observing Session from 10:30 a.m.to 1:30 p.m. EDT at Exton Public Library, Exton, PA 19341. For more information, contact our Observing Chair, Don Miller.

May 2025 Meeting Minutes

by Bea Mazziotta, CCAS Secretary

- The May 2025 meeting was held on May 13, 2025, at West Chester University and online via Zoom and YouTube.
- Club President Dave Hockenberry welcomed members and guests
- Observing Chair Don Miller reviewed the upcoming events and observing calendar. The calendar with details is available at ccas.us. He reviewed some of the highlights of the May night sky, noting two Globular Clusters which are in constellations that are relatively close to home - M4 in Scorpius and M5 in Serpens. Don also briefly spoke about recent funding cuts that will affect scientific research in general and space exploration in particular. He noted that the Nancy Grace Roman Telescope may not launch due to these cuts. That would be a huge loss. You can make your support for science known by telling your representatives that funding scientific research is important and benefits everyone.
- Don Knabb noted that a CCAS member was awarded a third place Horkheimer journalism award. Look for details in the newsletter. Don presented Kathy Buczynski with her Nightsky Network pin for community outreach. He also reminded members about a lending telescope that is available and informed them that two smaller telescopes may be available for purchase. Please contact Don for further details.
- Bruce Ruggeri, Program Chair, announced that CCAS was able to raise enough money to award 3 scholarships to WCU science students. Recipients' names along with some biographical information will be published in the newsletter.
- Bruce went on to introduce the evening's speaker, Dr. Julien deWit. Dr. deWit holds a PhD in Planetary Science from MIT where he is also on the faculty of the Earth, Atmospheric and Planetary Sciences dept. He initiated the atmospheric exploration of the TRAPPIST-1 exoplanetary system and continues to spearhead the implementation and study of atmospheric surveys and new analytical techniques to enhance our planetary defense capabilities. His presentation was titled 'Searching for Extra-Solar Life while Defending Earth-based Life'.

September 2025 CCAS Meeting Agenda

by Bruce Ruggeri, CCAS Program Chair

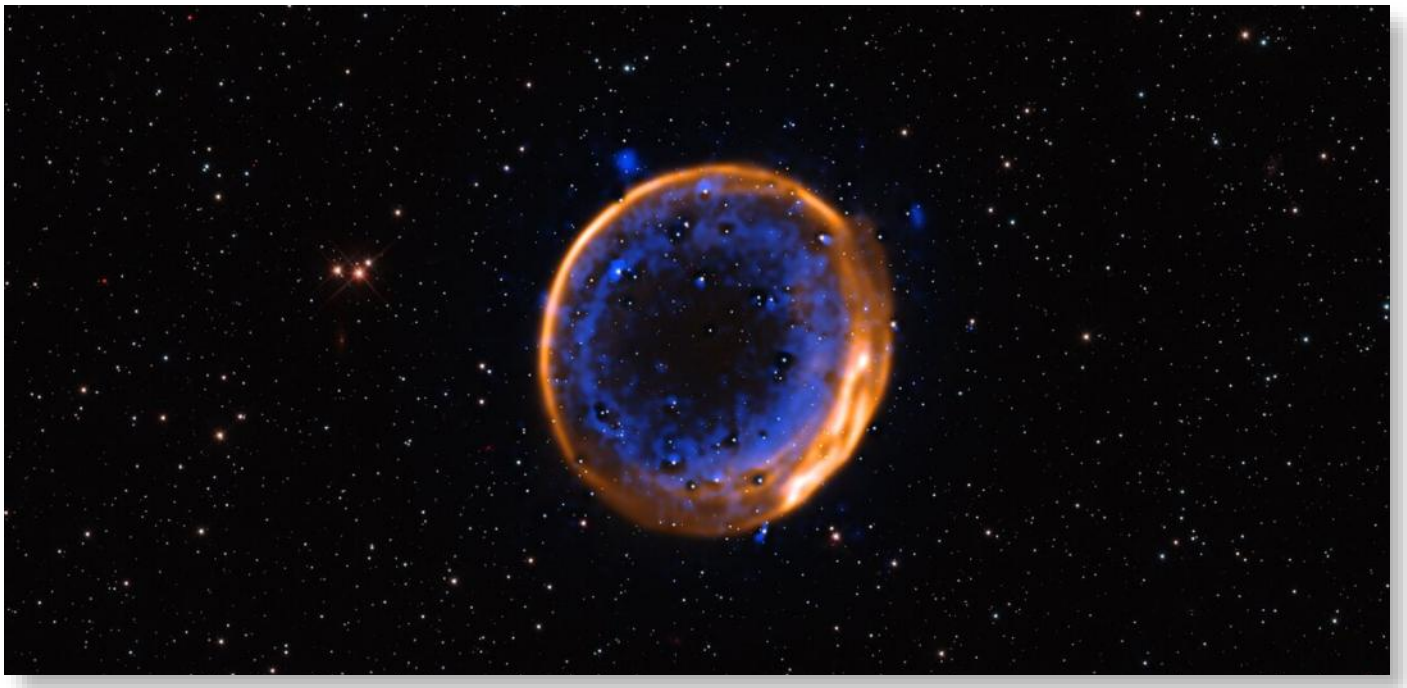
Our next meeting will be held on September 9, 2025, in person at West Chester University's Merion Science Center, Room 112. The Science Center is located at 720 S. Church St., West Chester, PA. Our guest speaker is Dr. Bhuvnesh Jain from the University of Pennsylvania, Dept of Astronomy and Physics. His presentation is titled "The Nature of Dark Matter and Dark Energy and their Roles in Galaxy Formation."

Please note that inclement weather or changes in speakers' schedules may affect the program. In the event there is a change, CCAS members will be notified via e-mail with as much advance notice as possible.

As for future meetings, we are looking for presenters for the coming 2025-2026 season. If you are interested in presenting, or know someone who would like to participate, please contact me at programs@ccas.us.

Astronomers Find a Star That Exploded Twice

by Michael E. Bakich, courtesy Astronomy.com



This image of SNR 0509-75.5 was taken with ESO's Very Large Telescope's Multi-Unit Spectroscopic Explorer. This instrument lets astronomers map the distribution of chemical elements. Here, calcium is shown as blue. The two concentric shells visible prove the original star exploded twice.
Credit: ESO/P. Das et al. Background stars (Hubble): K. Noll et al.

In a stunning first-ever image, astronomers have seen a star that died by exploding twice. They pointed the European Southern Observatory's (ESO) Very Large Telescope (VLT) at supernova SNR 0509-67.5, located within the Large Magellanic Cloud, a satellite galaxy of our Milky Way in the far-southern constellation of Dorado the Swordfish. When they examined the image, it showed patterns that confirm its star suffered a pair of explosive blasts.

Most supernovae are the explosive deaths of massive stars. Type Ia supernova, however, originate with white dwarfs, the small, inactive cores left over after stars like our Sun exhaust their nuclear fuel. The explosions of these stars are the primary source of the element iron on Earth.

"The explosions of white dwarfs play a crucial role in astronomy," says Priyam Das, a PhD student at the University of New South Wales Canberra, Australia, who led the study on SNR 0509-67.5 published today in *Nature Astronomy*. Much of our knowledge of how the universe expands rests on Type Ia supernovae. "Yet, despite their importance, the long-standing puzzle of the exact mechanism triggering their explosion remains unsolved," he adds.

Type Ia supernovae start as a white dwarf being one component in a binary star system. If it orbits close enough to its companion star, the dwarf can steal material from its partner. The white dwarf continues to gather material until it reaches a critical mass, at which point it explodes. That's what everyone thought. However, recent studies show that some Type Ia supernovae could be better explained by a double explosion.

The new image of SNR 0509-67.5 proves that at least some Type Ia supernovae explode twice. In this model, the white dwarf forms a layer around itself of helium that it took from its companion. If that layer becomes unstable and ignites, the explosion generates a shockwave that travels around the white dwarf and inward. That triggers a second detonation in the star's core: the supernova.

Until now, there was no visual evidence of a white dwarf undergoing two explosions. Recently, astronomers have predicted that this process would create a supernova remnant with two separate shells rich in calcium. SNR 0509-67.5 has these two shells. In the image, they appear as blue.

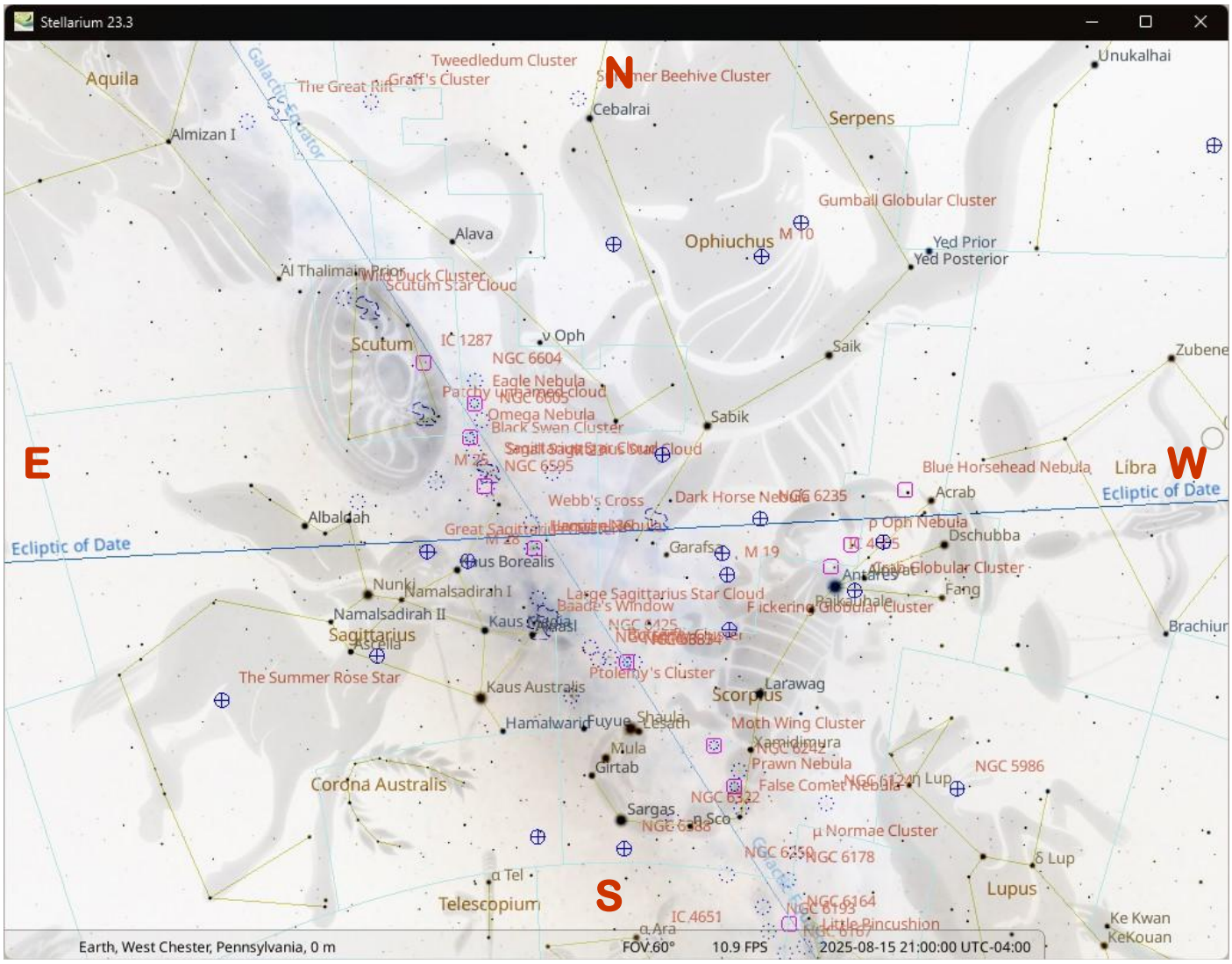
Ivo Seitenzahl, who led the observations and was at Germa-

(Continued on page 13)

The Sky Over Chester County

August 15, 2025 at 9:00 p.m. ET

Note: This screen capture is taken from Stellarium, the free planetarium software available for download at www.stellarium.org.

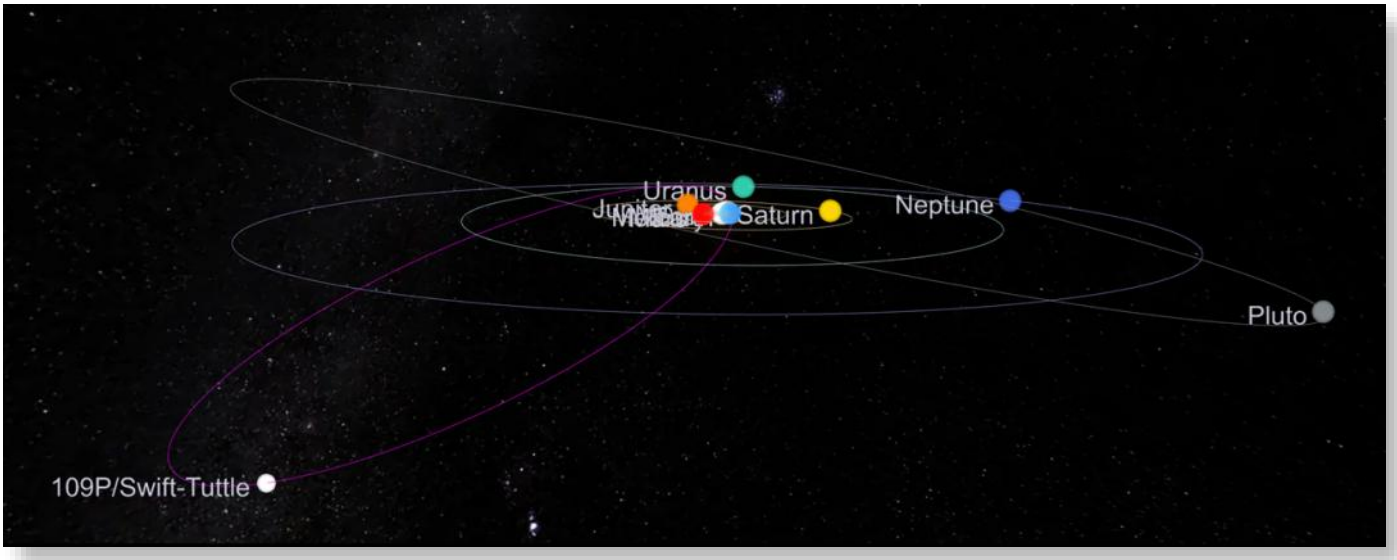


Date	Civil Twilight Begins	Sunrise	Sunset	Civil Twilight Ends	Length of Day
08/01/2025	5:30 a.m. EDT	6:01 a.m. EDT	8:15 p.m. EDT	8:45 p.m. EDT	14h 14m 23s
08/15/2025	5:14 a.m. EDT	6:14 a.m. EDT	7:58 p.m. EDT	9:01 p.m. EDT	13h 44m 04s
08/31/2025	6:01 a.m. EDT	6:29 a.m. EDT	7:34 p.m. EDT	8:02 p.m. EDT	13h 05m 15s

Moon Phases					
First Quarter	08/01/2025	8:41 a.m. EDT	Full Moon	08/09/2025	3:54 p.m. EDT
Last Quarter	08/16/2025	1:12 a.m. EDT	New Moon	08/23/2025	2:06 p.m. EDT

August 2025 Observing Highlights

by Don Miller, CCAS Observing Chair



This graphic shows where 109P/Swift-Tuttle is currently located (note that its orbit is not aligned with the plane of the solar system.

Key events this month:

The Perseid Meteor shower peaks on the 12th of the month but it has a broad distribution across the weeks before and after (approximately from July 17th to August 24th), so look often when it is clear and dark (as a reminder, the best way to view a meteor shower is just to get into a comfortable position and look broadly up towards the zenith). Meteor counts generally increase after midnight due to the Earth sweeping out the material in its path around the sun. The full moon is on the 9th which will make observing the shower near its peak very challenging, with only the brightest meteors visible. The moon will rise progressively later after the 9th so observing from the 13th onwards will give you time in the early evening to watch the meteors before the moon rises (moonrise is at 10:11 p.m. EDT on the 13th and about 30 minutes later each day afterwards). Alternatively, get up early and watch the meteor shower before dawn on perhaps the 1st through the 7th (e.g. The moon sets at 3:49 a.m. EDT on the 7th).

For background, this meteor shower is the result of material (mostly ice fragments) left in the orbit

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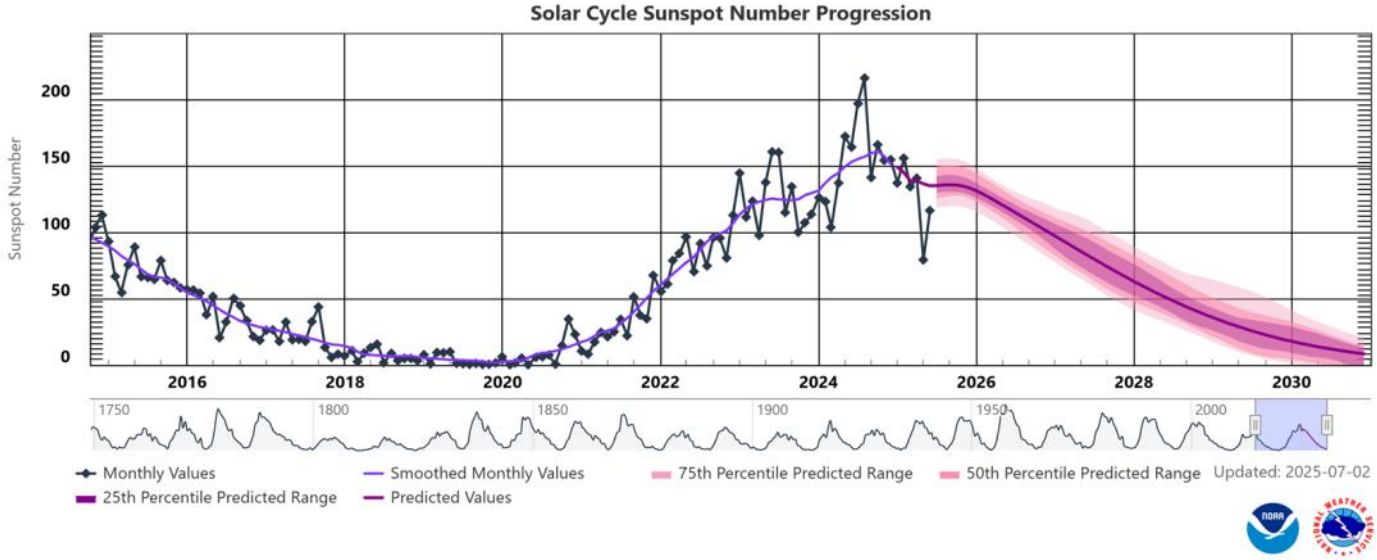

Solar Cycle Sunspot Number Progression tracking from the Space Weather Prediction Center National Oceanic and Atmospheric Administration website

AstroCon 2025 Bryce Canyon National Park, Utah

by Don Knabb, CCAS Treasurer & ALCOR

The Astronomical League holds an annual convention each summer. It is normally called AlCon, but this year it was called AstroCon and was held at Ruby's Inn just outside the entrance to Bryce Canyon National Park in central Utah. It was held at the same time as the Bryce Canyon National Park Astronomy Festival.

Bryce Canyon National Park is an amazing place. We went into the park most days and walked to numerous vistas. If I had to describe the park with one word, it would be "otherworldly". At times it seemed as if we were on Mars, the landscape is so foreign and strange.

About 450 attendees came to Bryce Canyon, including CCAS President Dave Hockenberry, Ann Miller, Barb Knabb and myself. The event was held Wednesday through Saturday, culminating in the awards banquet Saturday evening.

The convention was held at Ruby's Inn, a historic hotel only 2 miles from the entrance to the park. Ruby's Inn is a large facility with nice rooms and a good restaurant where breakfast was included as part of our room cost. There is a large grocery store that sells anything a camper or tourist could want.

Each day offers various presentations and each night there is night sky observing on

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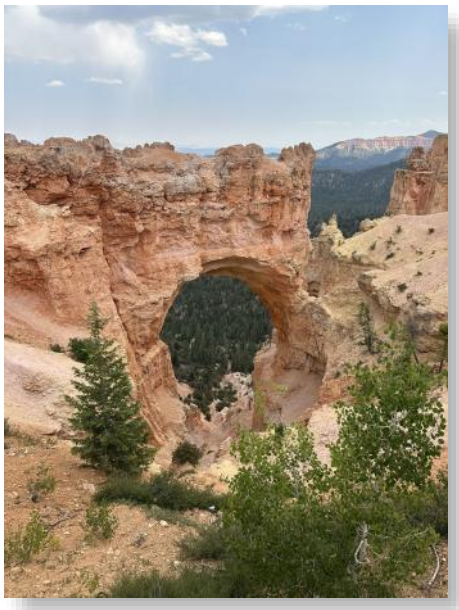
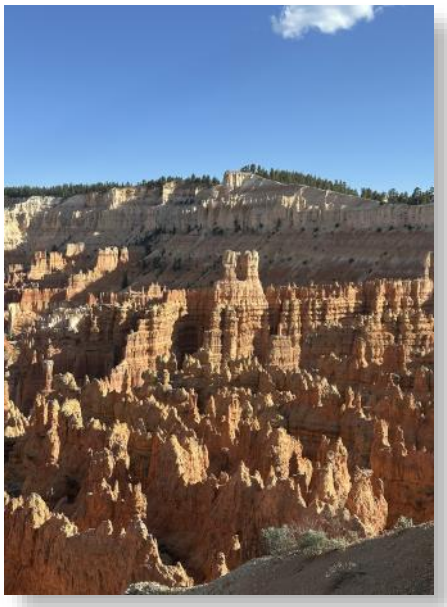
AstroCon Evening Presentation





CCAS members Ann Miller, Dave Hockenberry, & Barb Knabb at Bryce Canyon National Park

AstroCon (Cont'd)

Image of CCAS President Dave Hockenberry solar observing flanked by two images from evening star parties.

(Continued from page 6)

your own in the park or later in the week at a parking lot near the visitor center as part of the Bryce Canyon Astronomy Festival. For that event, members of the Salt Lake City astronomy club bring telescopes to share with the public, including many campers at Bryce Canyon. We attended that event one evening and Dave Hockenberry spent several hours at his Questar showing attendees the "double double" star in Lyre.

The night skies were negatively impacted by several forest fires in this area of Utah, one of which was only 10 miles from the hotel and Bryce Canyon. The sky was visibly smokey much of the time and it smelled of smoke at times. But the night we attended the public star party the smoke held off until around 11:30, so we had good viewing for the 850 attendees.

Wildfires in the distance threatened observing

After the banquet on the last night of the convention we traveled to the easternmost point of the park and were treated to the darkest sky I have ever seen. The clarity at 9,000 feet made the stars pinpoints of light, and the Milky Way was a river of light across the entire sky.

This was an amazing trip that was worth the effort of traveling. The organizers did a wonderful job, and the presentations were all excellent. Next year AlCon is in Cincinnati and in 2027 it will be in Colorado Springs. If you can fit it into your schedule, consider attending one of these events.

Observing (Cont'd)

(Continued from page 5)

of comet 109P/Swift-Tuttle. It orbits the sun every 133 years, and it was most recently in the inner solar system in 1992. This comet is about 26 km in diameter.

Discussion:

August is one of those challenging months for observing with the heat and humidity. Have your dew zappers ready to go. The Perseid Meteor shower is one of my favorites. One year I was camping high in the Rockies of Montana, and I was out enjoying a wonderful night full of meteors and stars, but then an unknown critter leaped on my chest and almost gave me a heart attack. After my heart rate normalized again, I went back to observing only to have the critter leap back on my chest a few minutes later! That was enough "enjoyment" of the night sky for me that evening. So, stay safe out there while you enjoy the sky.

Sun: The sun had an increased number of sunspots this past month. It remains very active.

Moon: 1st quarter on the 1st; full on the 9th; last quarter on the 16th and new on the 23rd. The full moon this month is called the "Sturgeon Moon." Lake sturgeon, found in the Great Lakes and Lake Champlain, as well as in several rivers, were once much more abundant. These large (some more than 6 feet long!) migratory fish were an important staple for Native American peoples living in the area. Captain Jonathan Carver came across this term for the lunar month during his travels in the 1760s.

Planets:

Mercury: It will be in inferior conjunction (directly between the Earth and the Sun) at the beginning of the month but will slowly move into the morning sky with greatest elongation on the 19th.

Venus: A close conjunction with Jupiter will occur during the second week of the month around the 12th. Venus rises around 3 a.m. EDT.

Mars: Rises during the daytime and sets around 9:30 p.m. EDT.

Jupiter: Rises around 3 a.m. EDT (see conjunction with Venus above).

Saturn: This planet is slowing becoming more of an evening viewing object. It rises around 10 p.m. EDT mid-month.

Uranus: Rises around midnight.

Neptune: Rises around 10 p.m. EDT and will pass about 1° from Saturn (conjunction) on the 6th.

Select Night Sky Objects and Events:

For this month's highlights, I'm focusing on two open clusters in the constellation of Scorpius, near the stinger in its tail. These objects are beautiful in a wide-

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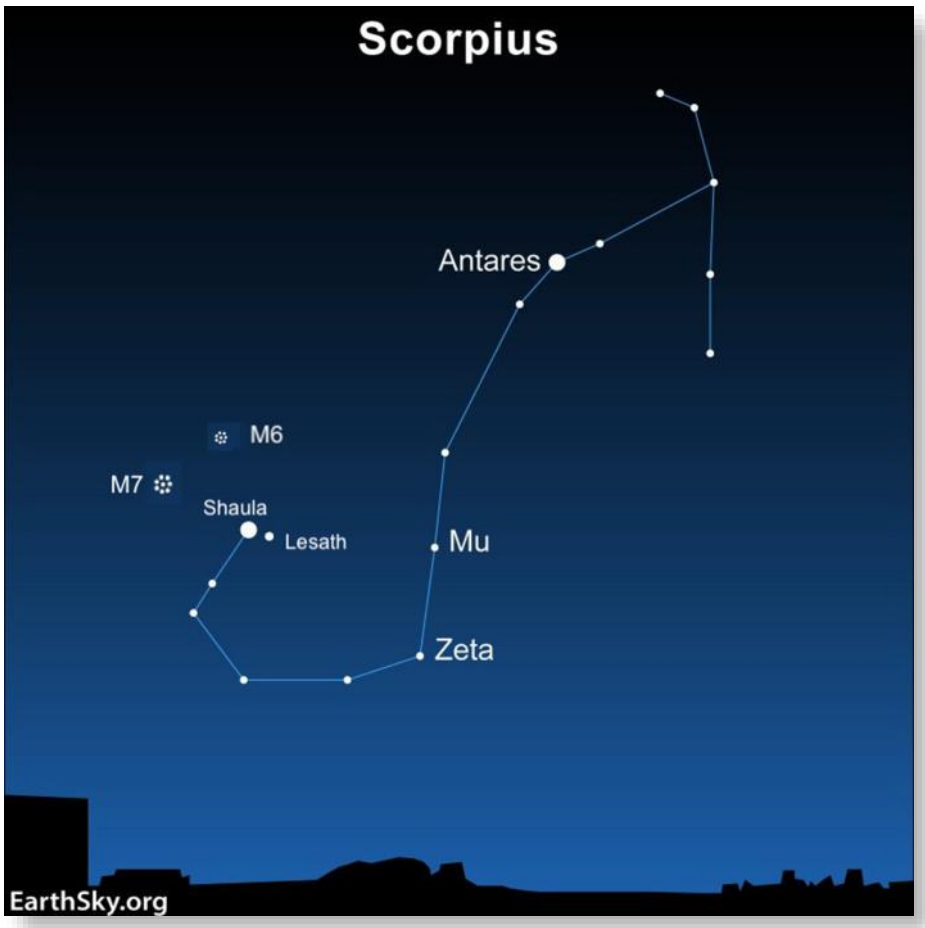
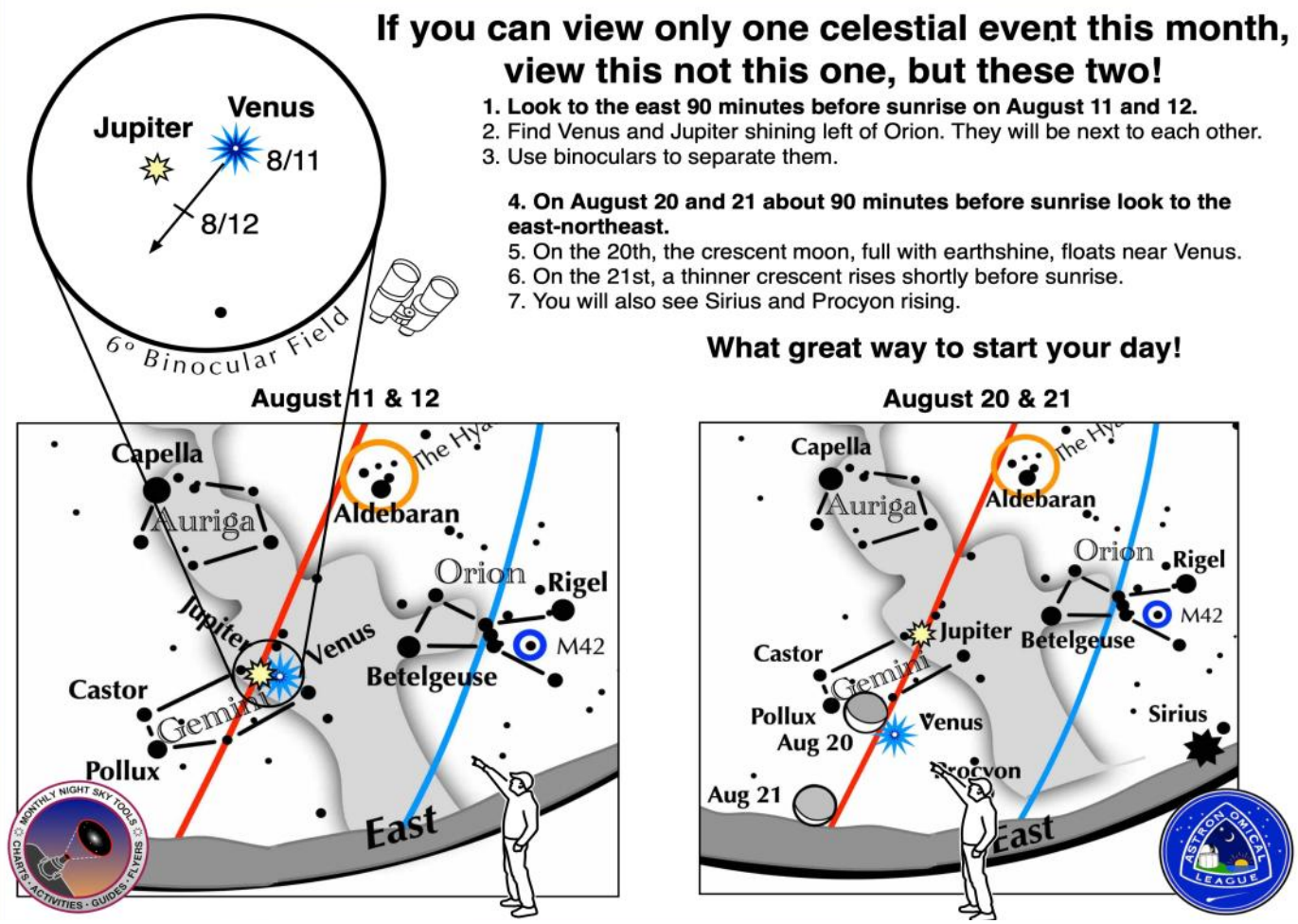


Scorpius. Image courtesy of EarthSky.org.

Binocular Challenge for August 2025

courtesy of Astronomical League



Observing (Cont'd)

M6, The Butterfly Cluster

M7, Ptolemy's Cluster

(Continued from page 8)

field instrument (telescope or binoculars). On the opposite page is an image of where to look (look for the fiery red supergiant star named Antares, which is an easy way to find this constellation).

M6 (The Butterfly Cluster): about 1,600 light years distance. All of these stars formed from the same interstellar gas cloud and are gravitationally bound to each other. It is estimated that the stars are approximately 95 million years old.

M7 (Ptolemy's Cluster): about 980 light years distance. It is estimated to be 200 million years old.

August's Night Sky Notes: The Great Rift

by Dave Prosper & updated by Kat Troche

This article is distributed by the NASA Night Sky Network, a coalition of hundreds of astronomy clubs across the US dedicated to astronomy outreach.

Visit nightsky.jpl.NASA.gov to find local clubs, events, stargazing info and more.

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.

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

(Continued on page 11)

The 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

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

(Continued from page 10)

Great Rift? You are looking at massive clouds of galactic dust lying between Earth and the interior of the Milky Way.

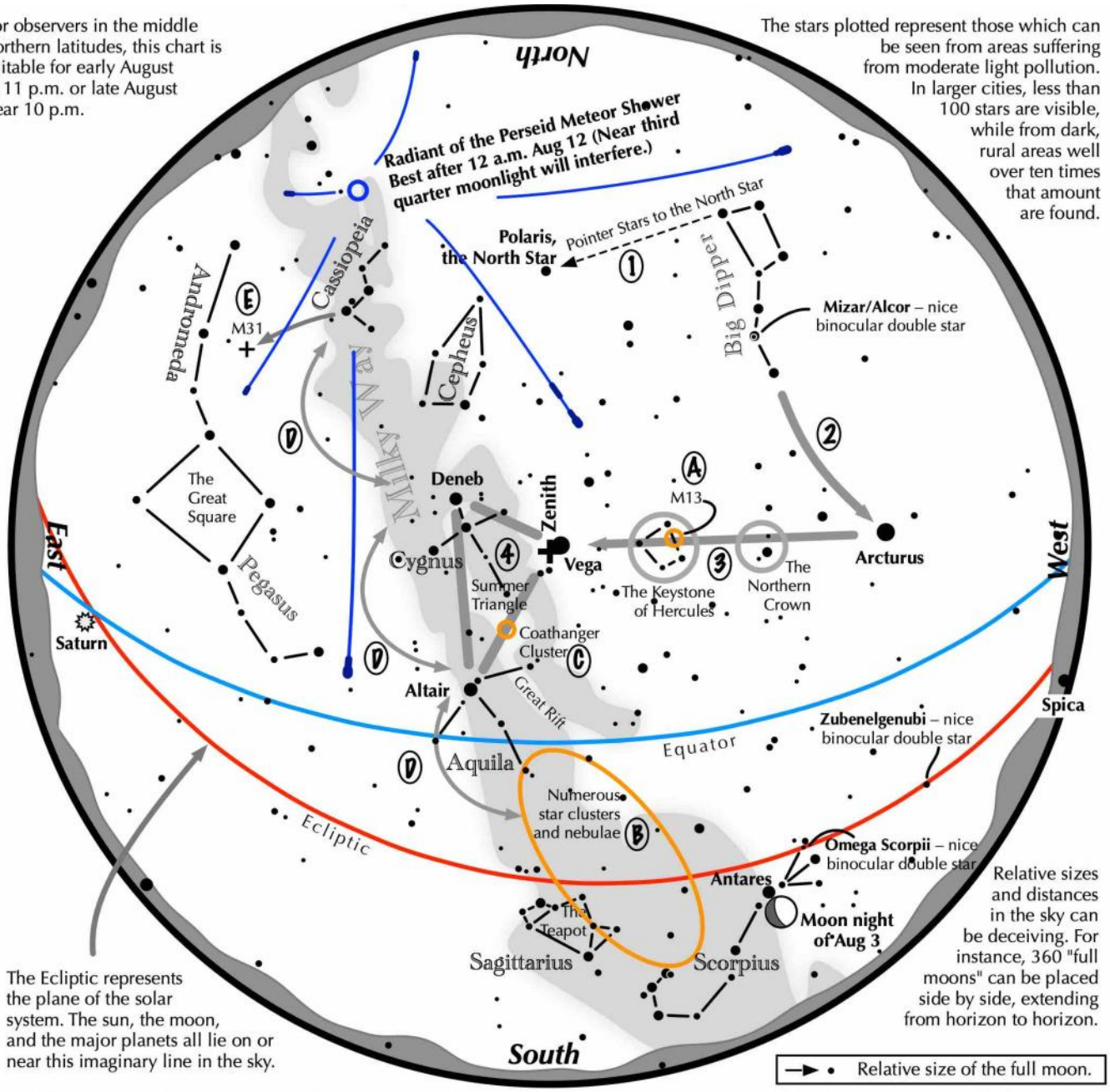
Other "dark nebulae" of cosmic clouds pepper the Milky Way, including the famed Coalsack, found in the Southern Hemisphere constellation of Crux. Many cultures celebrate these dark clouds in their traditional stories along with the constellations and the Milky Way. One such story tells of a Yacana the 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.

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

Navigating the Mid-August 2025 Night Sky

courtesy of the Astronomical League



Navigating the mid August night sky: Simply start with what you know or with what you can easily find.

1. Extend a line north from the two stars at the tip of the Big Dipper's bowl. It passes by Polaris, the North Star.
2. Follow the arc of the Dipper's handle. It intersects Arcturus, the brightest star in the June evening sky.
3. To the northeast of Arcturus shines another star of the same brightness, Vega. Draw a line from Arcturus to Vega. It first meets "The Northern Crown," then the "Keystone of Hercules." A dark sky is needed to see these two dim stellar configurations.
4. High in the East lies the summer triangle stars of Vega, Altair, and Deneb.

Binocular Highlights

A: On the western side of the Keystone glows the Great Hercules Cluster.
B: Between the bright stars Antares and Altair, hides an area containing many star clusters and nebulae.
C: 40% of the way between Altair and Vega, twinkles the "Coathanger," a group of stars outlining a coathanger.
D: Sweep along the Milky Way for an astounding number of faint glows and dark bays, including the Great Rift.
E: The three westernmost stars of Cassiopeia's "W" point south to M31, the Andromeda Galaxy, a "fuzzy" oval.

Astronomical League *www.astroleague.org/outreach; duplication is allowed and encouraged for all free distribution.*

Star Exploded Twice (Cont'd)

(Continued from page 3)

ny's Heidelberg Institute for Theoretical Studies when the study was conducted, says these results show "a clear indication that white dwarfs can explode well before they reach the famous Chandrasekhar mass limit, and that the 'double-detonation' mechanism does indeed occur in nature." The team detected the calcium layers by observing the supernova remnant with the Multi Unit Spectroscopic Explorer on ESO's VLT.

Type Ia supernovae behave in consistent ways, and their predictable brightness helps astronomers to measure distances in space. Using them as a cosmic measuring tape, astronomers found that universe was expand-

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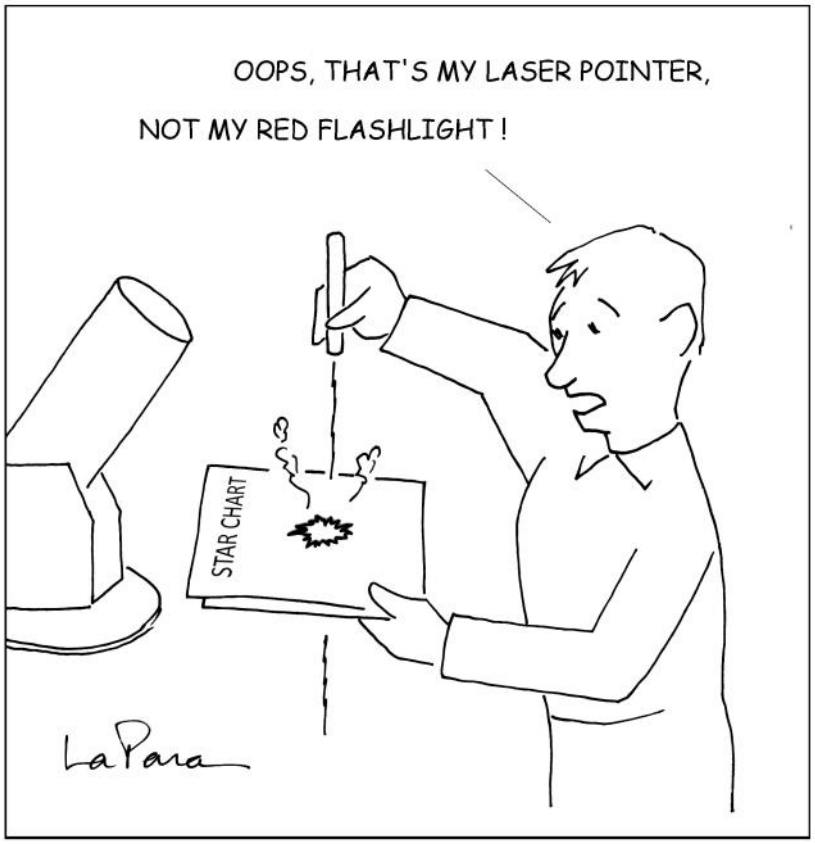
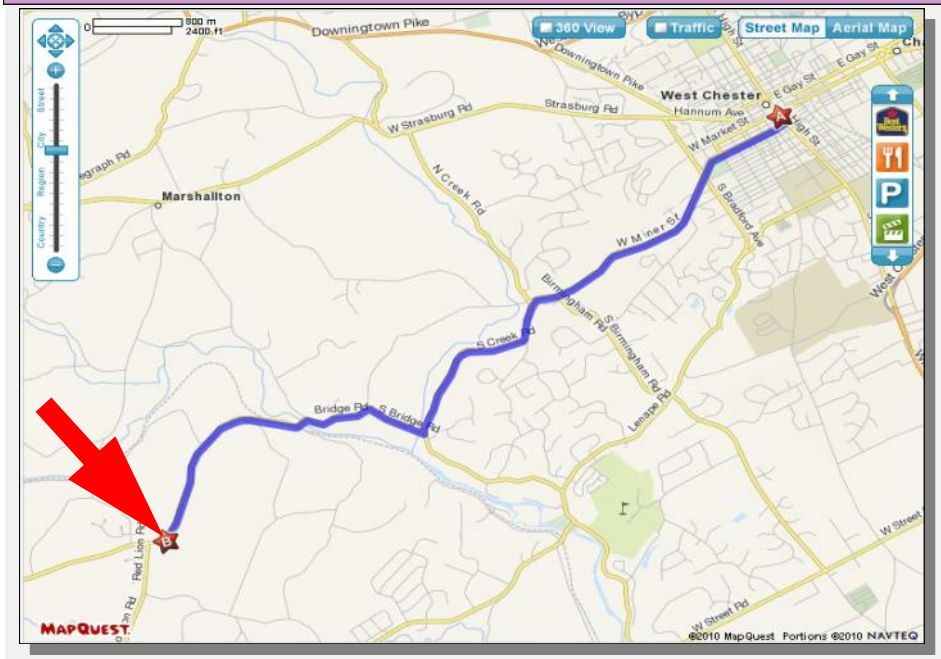
Classic La Para

by Nicholas La Para



CCAS Directions



Brandywine Red Clay Alliance
1760 Unionville Wawaset Rd
West Chester, PA 19382
(610) 793-1090
http://brandywinewatershed.org/

BRC was founded in 1945 and is committed to promoting and protecting the natural resources of the Brandywine Valley through educational programs and demonstrations for all ages.

Brandywine Red Clay Alliance

The monthly observing sessions (held February through November) are held at the Myrick Conservation Center of the Brandywine Red Clay Alliance.

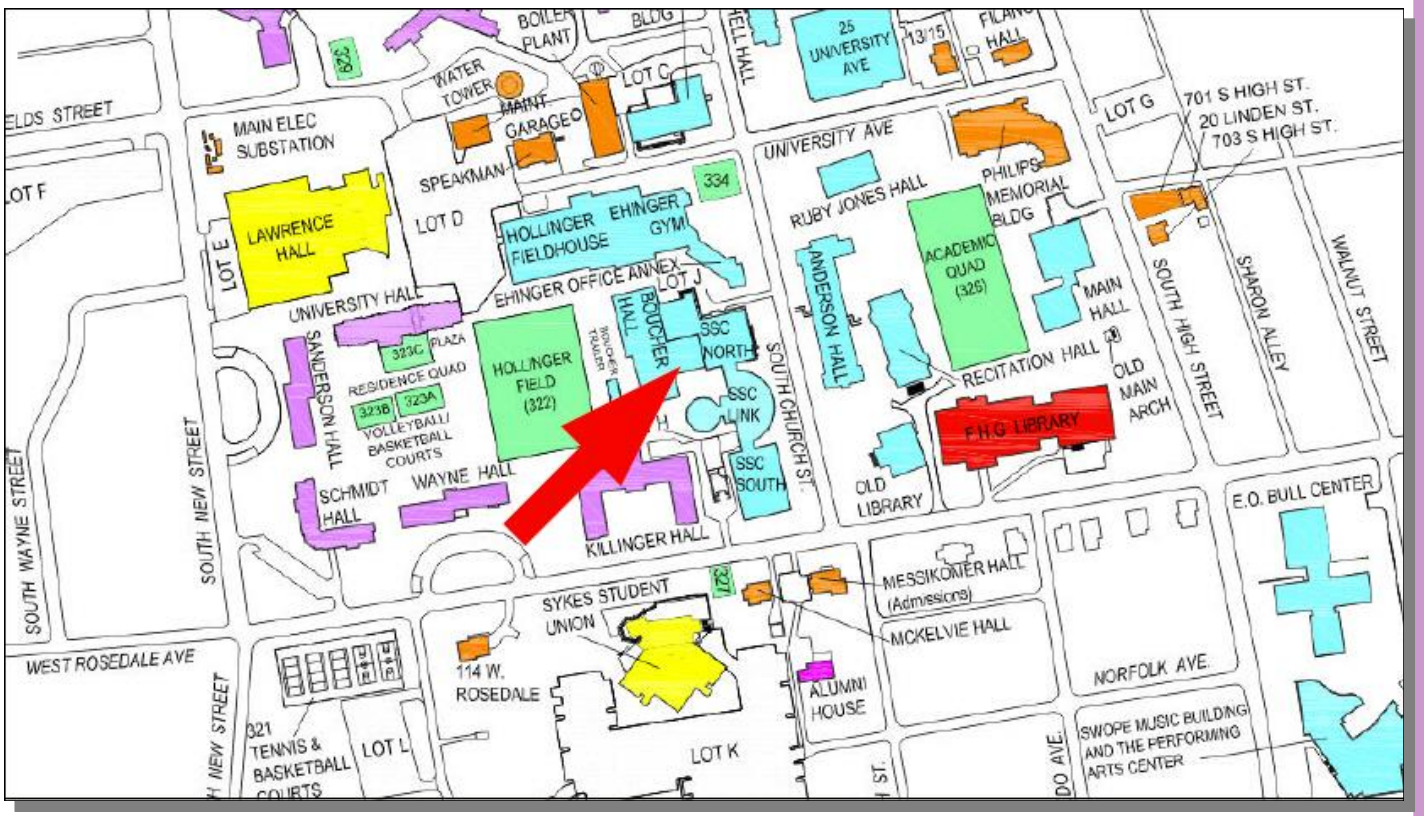
To get to the Myrick Conservation Center from West Chester, go south on High Street in West Chester past the Courthouse. At the next traffic light, turn right on Miner Street, which is also PA Rt. 842. Follow Rt. 842 for about 6 miles. To get to the observing site at the BRC property, turn left off Route 842 into the parking lot by the office: look for the signs to the office along Route 842. From that parking lot, go left through the gate and drive up the farm lane about 800 feet to the top of the hill. The observing area is on the right.

If you arrive after dark, *please turn off your headlights and just use parking lights* as you come up the hill (so you don't ruin other observers' night vision).

CCAS Directions

West Chester University Campus

The monthly meetings (September through May) are held in Room 112 in Merion Science Center (formerly the Boucher Building), attached to the Schmucker Science Center. The Schmucker Science Center is located at the corner of S. Church St & W. Rosedale Ave. Parking is generally available across Rosedale in the Sykes Student Union parking lot (Lot K).



Star Exploded Twice (Cont'd)

(Continued from page 13)

ing, a discovery that won the Physics Nobel Prize in 2011. Studying how they explode helps us to understand why they have such a predictable brightness.

Das added, "This tangible evidence of a double-detonation not only contributes towards solving a long-standing mystery, but also offers a visual spectacle," he says, describing the "beautifully layered structure" that a supernova creates. For him, "revealing the inner workings of such a spectacular cosmic explosion is incredibly rewarding."

[Editor's Note: Read the original article online at Astronomy.com]

CCAS Membership Information and Society Financials

Treasurer's Report

by Don Knabb

July 2025 Financial Summary

Beginning Balance	$1264
Deposits	$295
Disbursements	-$0
Ending Balance	$1559

New Member Welcome!

Welcome to new CCAS member Robbie LaRocca from Eagleville, PA.

We're glad you decided to join us under the stars! Clear skies to you!

Membership Renewals

You can renew your CCAS membership by writing a check payable to "Chester County Astronomical Society" and sending it to our Treasurer:

Don Knabb
988 Meadowview Lane
West Chester PA 19382

The current dues amounts are listed in the *CCAS Information Directory*. Consult the table of contents for the directory's page number in this month's edition of the newsletter.

CCAS Information Directory

Join the Fight for Dark Skies!

You can help fight light pollution, conserve energy, and save the night sky for everyone to use and enjoy. Join the nonprofit International Dark-Sky Association (IDA) today. Individual memberships start at $35.00 for one year. Send to:

International Dark-Sky Association
5049 E Broadway Blvd, #105
Tucson, AZ 85711

Phone: **520-293-3198**
Fax: **520-293-3192**
E-mail: **ida@darksky.org**

For more information, including links to helpful information sheets, visit the IDA web site at:

http://www.darksky.org

Dark-Sky Website for PA

The Pennsylvania Outdoor Lighting Council has lots of good information on safe, efficient outdoor security lights at their web site:

http://www.POLCouncil.org

Find out about Lyme Disease!

Anyone who spends much time outdoors, whether you're stargazing, or gardening, or whatever, needs to know about Lyme Disease and how to prevent it. You can learn about it at:

http://www.lymebasics.org

Take the time to learn about this health threat and how to protect yourself and your family. It is truly "time well spent"!

Good Outdoor Lighting Websites

One of the biggest problems we face in trying to reduce light pollution from poorly designed light fixtures is easy access to good ones. When you convince someone, a neighbor or even yourself, to replace bad fixtures, where do you go for good lighting fixtures? Check out these sites and pass this information on to others. Help reclaim the stars! And save energy at the same time!

Light pollution from poor quality outdoor lighting wastes billions of dollars and vast quantities of valuable natural resources annually. It also robs us of our heritage of star-filled skies. Starry Night Lights is committed to fighting light pollution. The company offers the widest selection of ordinance compliant, night sky friendly and neighbor friendly outdoor lighting for your home or business. Starry Night Lights is located in Phoenix, Arizona.

Phone: **520-280-3846**

http://www.starrynightlights.com

★ ★ ★ ★ ★

Lighthouse Outdoor Lighting is a dedicated lifetime corporate member of the International Dark-Sky Association. Lighthouse's products are designed to reduce or eliminate the negative effects outdoor lighting can have while still providing the light you need at night.

211 North Walnut St.
1st Floor
West Chester, PA 19380

Phone: **484-291-1084** or **800-737-4068**

https://www.lighthouse-lights.com/landscape-lighting-design/pa-west-chester/

Local Astronomy-Related Stores

Listing retail sites in this newsletter does not imply endorsement of any kind by our organization. This information is provided only as a service to our members and the general public.

High Point Scientific is a retailer of telescopes, binoculars, eyepieces and telescope accessories from Meade, Celestron, Televue, Orion, StellarMate, Takahashi, and many more. They also have an extensive blog of advice and education for amateur astronomers.

High Point Scientific
442 Route 206
Montague NJ, 07827

Phone: **800-266-9590**

https://www.highpointscientific.com/

★ ★ ★ ★ ★

Located in Manayunk, Spectrum Scientifics educates and entertains customers with an array of telescopes, microscopes, binoculars, science toys, magnets, labware, scales, science instruments, chemistry sets, and much more.

4403 Main Street
Philadelphia, PA 19127

Phone: **267-297-0423**
Fax: **215-965-1524**

Hours:
Monday thru Friday: 9AM to 5PM

http://www.spectrum-scientifics.com

CCAS Information Directory

CCAS Lending Telescopes

Contact Don Knabb to make arrangements to borrow one of the Society's lending telescopes. CCAS members can borrow a lending telescope for a month at a time; longer if no one else wants to borrow it after you. Don's phone number is 610-436-5702.

Contributing to *Observations*

Contributions of articles and images relating to astronomy and space exploration are always welcome. If you have a computer, and an Internet connection, you can attach the file to an e-mail message and send it to: **newsletter@ccas.us** to:

Dr. John C. Hepler
21 Medinah Drive
Reading, PA 19607

The deadline for submissions to the monthly newsletter is the 26th of each month. Articles and images should be original or the author/artist must be given credit. Articles should be in MS Word format with 12 point Times New Roman Font with single row spacing and one-inch margins on all four sides. Images should be in JPG or PNG file format. The submission window opens on the 20th of each month.

CCAS Newsletters via E-mail

You can receive the monthly newsletter (in full color!) via e-mail. All you need is a PC or Mac with an Internet e-mail connection. To get more information about how this works, send an e-mail request to Dr. John Hepler, the newsletter editor, at: **newsletter@ccas.us**.

CCAS Website

Dr. John Hepler is the Society's Webmaster. You can check out our Website at:

http://www.ccas.us

Dr. Hepler welcomes any additions to the site by Society members. The contributions can be of any astronomy subject or object, or can be related to space exploration. The only requirement is that it is your own work—no copyrighted material! Give your contributions to Dr. Hepler at (484) 883-5033 or e-mail to webmaster@ccas.us

CCAS Purpose

The Chester County Astronomical Society was formed in September 1993, with the cooperation of West Chester University, as a non-profit organization dedicated to the education and enjoyment of astronomy for the general public. The Society holds meetings (with speakers) and observing sessions once a month. Anyone who is interested in astronomy or would like to learn about astronomy is welcome to attend meetings and become a member of the Society. The Society also provides telescopes and expertise for "nights out" for school, scout, and other civic groups.

CCAS Executive Committee

For further information on membership or society activities you may call:

President:	Dave Hockenberry 610-558-4248
Vice President:	Pete Kellerman 610-873-0162
ALCor & Treasurer:	Don Knabb 610-436-5702
Observing:	Don Miller 610-247-8712
Secretary:	Beatrice Mazziotta 610-933-2128
Program:	Bruce Ruggeri 610-256-4929
Education:	Don Knabb 610-436-5702
	Dennis O'Leary 610-701-8042
Webmaster & Newsletter:	John Hepler 484-883-0533
Public Relations:	Ann Miller 610-558-4248

CCAS Membership Information

The 2023 membership rates are as follows:

REGULAR MEMBER……$30/year
SENIOR MEMBER…….$15/year
STUDENT MEMBER……..$ 5/year
JUNIOR MEMBER……..$ 5/year
FAMILY MEMBER…….$40/year

Membership Renewals

Check the Membership Renewals on the front of each issue of *Observations* to see if it is time to renew. If you need to renew, you can mail your check, made out to "Chester County Astronomical Society," to:

Don Knabb
988 Meadowview Lane
West Chester PA 19382-2178

Phone: **610-436-5702**
e-mail: **treasurer@ccas.us**

*Sky & Tel*escope Magazine

The club membership subscription cost for *Sky and Telescope* magazine has increased to **$45.75**. This is still a good saving from the regular rate of **$57.75**.

There is no need to go through the CCAS treasurer for subscriptions or renewals. Just go to the Sky and Telescope website and select "Magazine", then under the FAQs you can subscribe at the club rate.

https://skyandtelescope.org/subscribe/

If you have **any** questions call Don Knabb at 610-436-5702.

Astronomy Magazine Group Rates

Subscriptions to this excellent periodical are available through the CCAS at a reduced price of **$34.00** which is much less than the individual subscription price of **$42.95** (or $60.00 for two years).

There is no need to go through the CCAS treasurer for subscriptions or renewals. Just call customer service at 877-246-4835 and request the club rate for your new subscription or renewal.