



Observations

A Monthly Publication Of The
CHESTER COUNTY ASTRONOMICAL SOCIETY

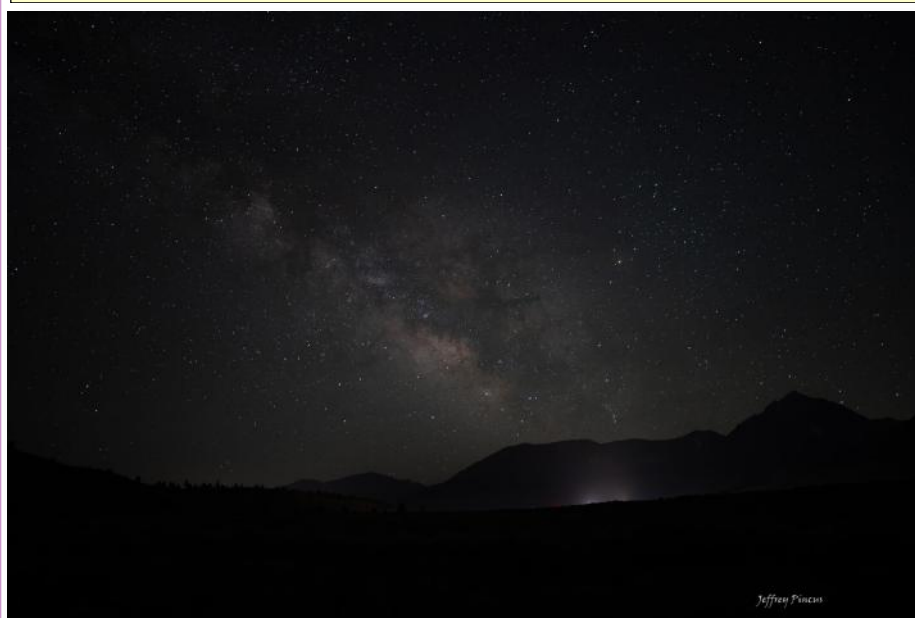
Vol. 34, No. 7 **Three-Time** Winner of the Astronomical League's Mabel Sterns Award ☼ 2006, 2009 & 2016

July 2026

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The Milky Way Over Mammoth Lakes



CCAS Member Sheryl Pincus's brother Jeffery shot this wonderful image of the Milky Way at Mammoth Lakes, California. The picture was taken on 6/17/26 @ 12:03 a.m. Pacific time via his Sony A7 camera.

Membership Renewals Due

07/2026	Hunsinger LaRocca Piehl Rauenzahn
08/2026	Borowski Johnston & Stein Knabb Family Lurcott, L. Manigly Schultz Trunk Zullitti
09/2026	Das Matas Patel Peterson Reilly Sarkar

July 2026 Dates

- 7th • Last Quarter Moon (3:28 p.m. EDT).
- 11th • The Moon passes 5° north of Uranus, 3 a.m. EDT.
- 14th • New Moon (5:43 a.m. EDT).
- 17th • The Moon occults Venus on June 17th but from our location this will happen around 4:30 p.m. EDT.
- 21st • First Quarter Moon (5:55 p.m. EDT).
- 29th • Full Moon, the [Buck Moon](#) (3:43 a.m. EDT).
- 30th-31st • Delta-Aquarid Meteor Shower Peaks - The Delta Aquarids can produce about 20 meteors per hour at their peak.



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.

- ☼ Friday, July 10, 2026: CCAS Special Observing Session at Starr Farm Park, West Chester, PA. The observing session starts at sunset. The session is from 8:00 p.m. to 9:30 p.m.
- ☼ Friday, July 17, 2026: CCAS Monthly Observing Session: Myrick Conservancy Center, BRC. Rain date: Saturday, July 18th.
- ☼ Friday, July 20, 2026: CCAS Special Observing Session, Hibernia Park, 8:30 PM to 10:00 PM EDT.

For more information about future observing opportunities, contact our [Observing Chair](#), Don Miller.

Summer Society Events

July 2026

7th • Middletown Free Library Solar Observing Event, 1:30-3:30 p.m. EDT. For more information, contact our Observing Chair, [Don Miller](#).

10th • CCAS Special Observing Event, Starr Farm Park, 1079 Skelp Level Rd, West Chester, PA 19380. The event is scheduled from 8:30 pm to 10:30 p.m. EDT.

11th • Downingtown Library Solar Observing Event, 10:00 a.m.-12:30 p.m. EDT. For more information, contact our Observing Chair, [Don Miller](#).

14th • Middletown Free Library Solar Observing Event, 1:30-3:30 p.m. EDT. For more information, contact our Observing Chair, [Don Miller](#).

14th-17th • CCAS camping trip to Cherry Springs, 4639 Cherry Springs Rd, Coudersport, PA 16915. For more information, contact our Observing Chair, [Don Miller](#).

15th • Downingtown Library Solar Observing Event, 10:00 a.m.-12:30 p.m. EDT. For more information, contact our Observing Chair, [Don Miller](#).

15th-18th • [Green Bank Star Quest XXI](#) Optical "Star Party" & Conference, optical and radio amateur astronomy event, 155 Observatory Rd, Green Bank, WV 24944. For more information, contact our Observing Chair, [Don Miller](#).

17th • CCAS Monthly Observing Session, Myrick Conservancy Center, BRC. The observing session starts at sunset. Rain date: July 18th.

18th • Elwood L. Crossan Park Solar Observing Event, Landenberg, PA. 10:30 a.m.-1:00 p.m. EDT. For more information, contact our Observing Chair, [Don Miller](#).

20th • Open call for articles and photographs for the August 2026 edition of [Observations](#).

20th • Downingtown Library Loaner Scope Talk #3, 122 Wallace Ave, Downingtown, PA 19335. The event is scheduled from 7:00 to 8:00 p.m. EDT. For more information, contact our Observing Chair, [Don Miller](#).

21st • Middletown Free Library Solar Observing Event, 1:30-3:30 p.m. EDT. For more information, contact our Observing Chair, [Don Miller](#).

22nd • Downingtown Library Solar Observing Event, 10:00 a.m.-12:30 p.m. EDT. For more information, contact our Observing Chair, [Don Miller](#).

23rd • Tatnall School Camp Solar Observing Event, 10:00 a.m.-12:00 p.m. EDT. For more information, contact our Observing Chair, [Don Miller](#).

25th • [Rachel Kohl Community Library](#) Solar Observing Event, Glen Mills, PA. 10:00 a.m.-12:00 p.m. EDT. For more information, contact our Observing Chair, [Don Miller](#).

26th • Deadline for newsletter submissions for the August 2026 edition of [Observations](#).

28th • Middletown Free Library Solar Observing Event, 1:30-3:30 p.m. EDT. For more information, contact our Observing Chair, [Don Miller](#).

May 2026 Meeting Minutes

by Bea Mazziotta, CCAS Secretary

- Dave Hockenberry welcomed attendees to the May 12, 2026 meeting. This final meeting of the year was held at WCU and via Zoom.
- Don Miller, Observing Chair, reviewed some May night sky observing highlights including:
 - M51 - the Whirlpool Galaxy in Canes Venatici
 - M53 - a distant globular cluster in Coma Berenices and planetary viewing opportunities
- He reminded members of the monthly Hubble Night Sky Challenge which has 8 objects to observe in May in the northern hemisphere.
 - Link for details at <https://science.nasa.gov/mission/hubble/science/explore-the-night-sky/hubbles-night-sky-challenge/>
 - He went over upcoming CCAS observing events both night sky and solar. Go to [CCAS.US](#) for details.
- Dr. Ken Koeplinger was the evening's speaker. His presentation "Stars & Stripes in the Sky; U.S. Astronomy at 250 Years" was a timely discussion of American discoveries and contributions to the science of Astronomy going back to the time of the country's founding and ending with modern day telescopes and space exploration.
 - Dr. Koeplinger, a retired research chemist, is a NASA Caltech/JPL Solar System Ambassador and adjunct Chemistry instructor.

September 2026 CCAS Meeting Agenda

by Bruce Ruggeri, CCAS Program Chair

Our next meeting will be held on September 8, 2026, in person (and via Zoom & YouTube) at West Chester University's Merion Science Center, Room 112. The meeting starts at 7:30 p.m. EDT. The Science Center is located at 720 S. Church St., West Chester, PA. Our guest speaker is Dr. Theodore Kareta, Department of Physics, Villanova University. Her presentation is titled "Quasi-Satellites, Mini-Moons, and Temporary Co-Orbitals."

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 2026-2027 season. If you are interested in presenting, or know someone who would like to participate, please contact me at programs@ccas.us.

July 2026 Light Pollution News Roundup

by Bill McGeeney, Host of Light Pollution News Podcast

This month, I was thrilled to have one great returning guest, environmental activist, Michael Calhoun, and two new guests: Science Communicator and Astronomer, Amy Oliver and from the International Dark Sky Discovery Center in Fountain Hill, AZ, Ted Blank. As always, you can listen to July's slate of shows [I Miss My Land Line!](#) and [Cosmovision!](#), over at [LightPollutionNews.com](#) or wherever you listen to podcasts.

Research found terrestrial light pollution impacted 52% of observatories, with 60% of those facilities experiencing sustained brightening year over year from 2012 to 2024. This leads us to one of those impacted observato-

ries, the Powell Observatory in Kansas City.

For those who aren't aware, the Astronomical Society of Kansas City operates the Powell Observatory, in Louisburg, KS. The observatory features a homemade 30" Newtonian telescope! With the growth in localized light pollution, the club decided it was time to relocate. But the club wanted to remain a resource for the community, so instead of venturing to a dark sky site hours away, they sought to relocate to a different part of Miami County.

During that time, they landed on a site adjacent to Jeff Axmann's property. Axmann organized local opposition to the pro-

posed Miami County site. The Board initially rejected the permit before Commissioner Paul Scruggs reconsidered. The Commission then voted 4-1 in favor. The real headline centered on reversing not-in-my-backyard sentiment.

Flying termites swarmed in Louisiana as they are attracted to outdoor lights in a similar manner as mayflies. Artificial light accelerated monarch butterfly development with caterpillars growing 16% faster. African waterhole research found gemsboks doubled time at lit waterholes while lions shifted to dark ones.

(Continued on page 7)

2026 Chester County Astronomical Society Scholarship Recipients

by Bruce Ruggeri, CCAS Program Chair

In January 2023, the CCAS Executive Committee launched the Chester County Astronomical Society Scholarship Fund, and building upon our past years' success, we completed our fourth year of supporting the Fund.

As a reminder to all, the purpose of this Fund is to provide three yearly scholarships, each for \$1,500, to deserving and academically talented West Chester University (WCU) students who are engaged in astronomy, physics, earth science, or STEM majors and who have expressed a clear interest in careers in astronomy, planetary, and space-related fields.

Under the direction of Dr. Marc Gagne, West Chester University faculty from the Earth

and Space Sciences department nominate three worthy recipients annually from a pool of applicants from throughout the University.

The scholarship funds are administered through the WCU Foundation at the outset of the Fall semester each year. None of the CCAS Scholarship Fund is supported from CCAS membership dues – this is solely from the generosity and support of our CCAS members.

This CCAS Scholarship Fund is an important and timely core program fostered by the CCAS as it recognizes and supports our close association with West Chester University since the founding of the CCAS. The Scholarship Fund continues and builds upon this beneficial rela-

tionship, hopefully well into the future.

Importantly, the Scholarship Fund is consistent with our mission of fostering public outreach, engagement, and education in astronomy, planetary, and space-related science. I am pleased to announce the CCAS Scholarship recipients for the 2026-2027 term – congratulations from all of us at the CCAS!

- Hope Cerny, BS Ed Earth and Space Science major and member of the student Astronomy Club
- Robert Scottoline, BS Geoscience major and outgoing President of the student Astronomy Club

(Continued on page 11)

STAR CHART FOR MID-LATITUDES OF THE NORTHERN HEMISPHERE

What's Out Tonight?

**OPTIMIZED FOR 1½ HOURS
AFTER SUNSET**
but can be used after that for several more hours.

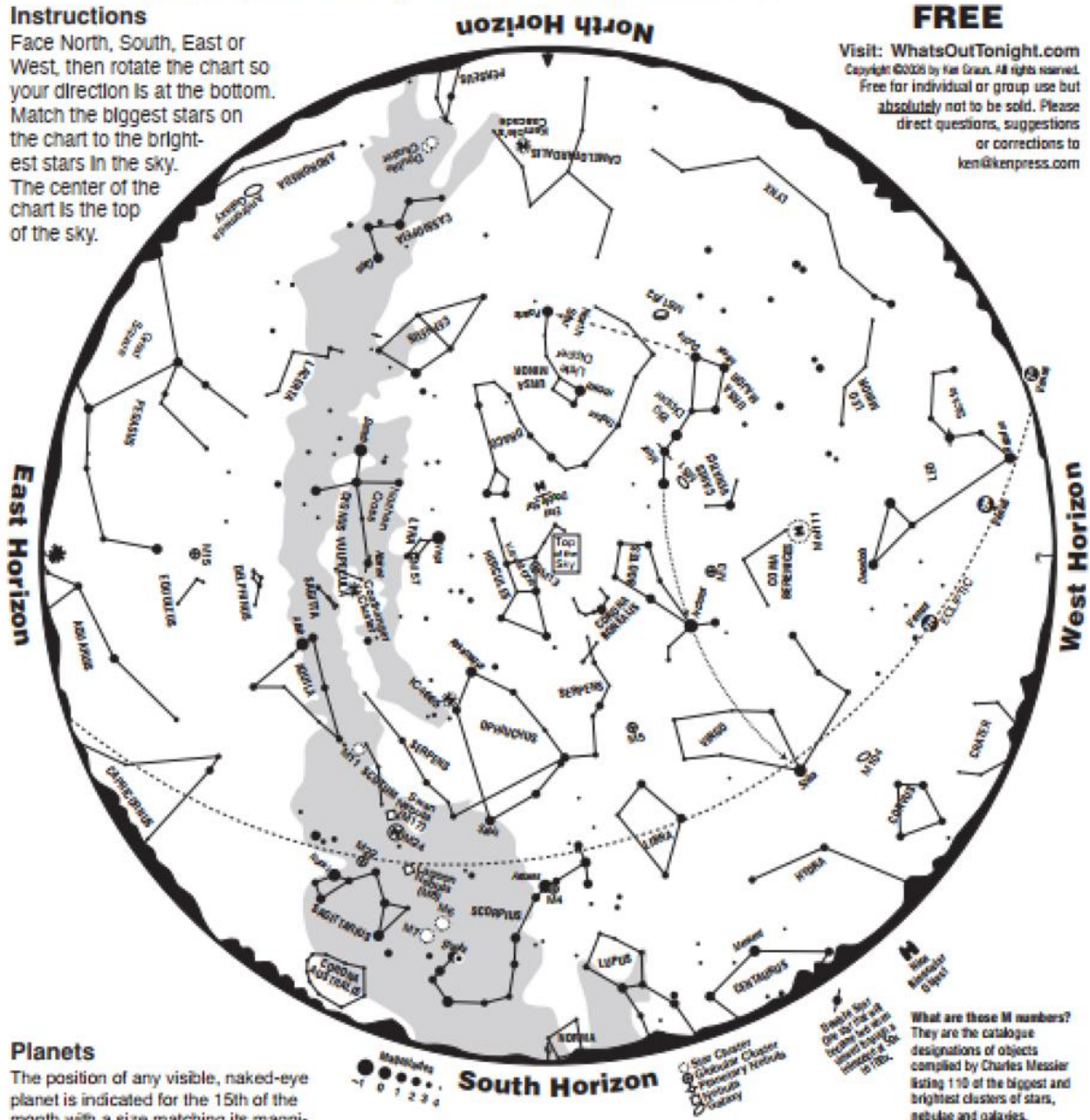
July 2026 Sky Chart

Instructions

Face North, South, East or West, then rotate the chart so your direction is at the bottom. Match the biggest stars on the chart to the brightest stars in the sky. The center of the chart is the top of the sky.

FREE

Visit: WhatsOutTonight.com
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Planets

The position of any visible, naked-eye planet is indicated for the 15th of the month with a size matching its magnitude. If the planet moves significantly during a month, other positions will be noted with dates. The **ECLIPTIC** is the path of the Sun through the sky but the planets and Moon move along it, too. It passes through the constellations of the zodiac.

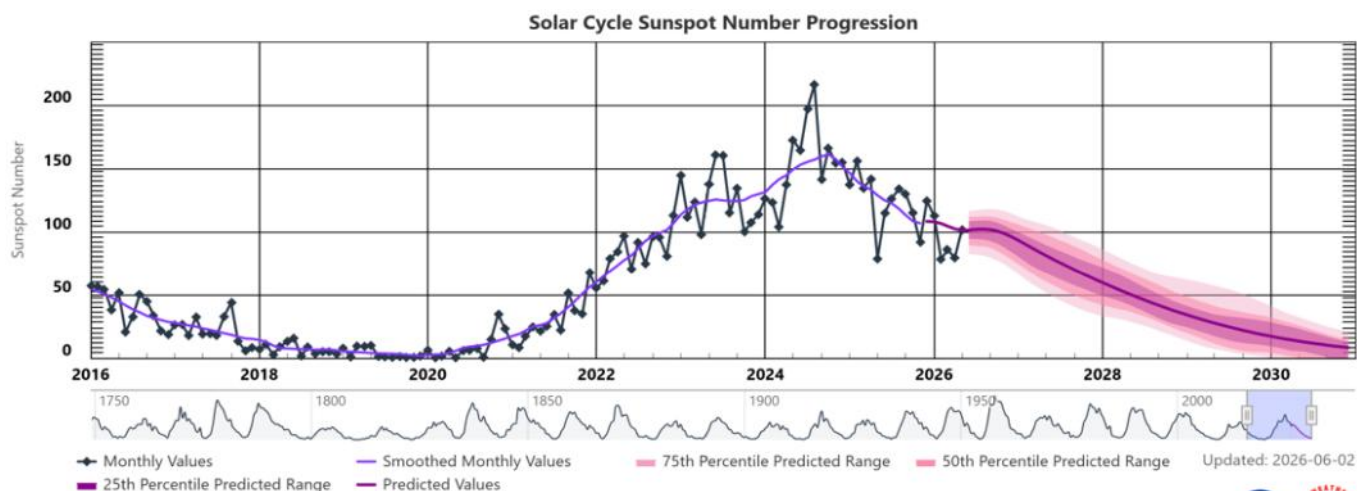
July 2026 Planet Notes (15th of each month)

Venus, at magnitude -4.1 , sets in the west about 2 hours after the Sun.
Mars, at magnitude $+1.3$, in Taurus, rises in the east around 3 AM.
Jupiter, at magnitude -1.8 , in Cancer, sets in the west 30 minutes after the Sun.
Saturn, at magnitude $+0.7$, in Pisces, rises in the east around 12:30 AM.

Distances planets are from Earth the 15th of this month:
Venus: 86,000,000 miles, Mars: 191,000,000 miles,
Jupiter: 584,000,000 miles, Saturn: 861,000,000 miles.

July 2026 Observing Highlights

by Don Miller, CCAS Observation Chair



Key Events this month:

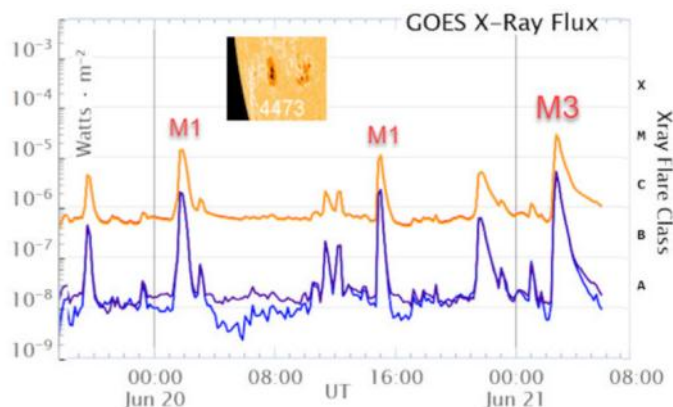
- July 3rd is a rare conjunction of Mars and Uranus before sunrise.
- July 6th is aphelion, the time when the Earth is furthest from the Sun (about 94.5 million miles).
- July 26th Hayabusa 2 flies by asteroid Torifune (JAXA), a near Earth asteroid
- July 31st the Southern delta Aquariid meteor shower peaks but the almost full moon will limit the observable number of meteors.

Discussion:

We're right in the middle of summer with sunset at 8:31 p.m. EDT and astronomical night starting around 10:28 p.m. EDT, with its end around 3:51 a.m. EDT. We have the late night observing season.

Sun:

The sun's activity is continuing on downward side



of the solar maximum for this cycle, but it is still showing a lot of activity. As the writing of this highlight, the sunspot number is 73. In June, there were several M-class flares, see graph above, and one X-class flare on June 3rd. Go to this URL for the latest solar activity report: <https://earthsky.org/sun/sun-news-activity-solar-flare-cme-aurora-updates/>

Moon:

The full moon this month is known as the buck moon, which comes from native American tradition for the time when male deer begin to grow their antlers.

- Last Quarter: 7th
- New Moon: 14th
- First Quarter: 21st
- Full Moon: 29th

Planets: (description below is for the 15th of the month at 8 p.m. EDT)

- Mercury: Not visible
- Venus: Visible low in the west after sunset, setting at 10:40 p.m. EDT
- Mars: visible low in the east before sunrise, rising at 2:51 a.m. EDT
- Jupiter: Not visible
- Saturn: Rises before sunrise, around 2:23 a.m. EDT
- Uranus: Rises 4:14 a.m. EDT
- Neptune: Rises 11:44 p.m. EDT

(Continued on page 7)

Through the Eyepiece: Cherry Springs State Park

by Don Knabb, CCAS Treasurer & ALCOR

This month instead of writing about an object in the sky I will write about the best place to stargaze this side of the Mississippi River. Cherry Springs State Park is about a 5-hour drive from West Chester, and it has an amazing night sky that every amateur astronomer should experience.

We have two camping trips planned for this summer: Tuesday July 14 to Friday July 17 and Tuesday August 11 to Friday August 14. If you don't like to camp, there are several places to stay near the park. An online search will reveal many options.

Cherry Springs State Park is not at the end of the Earth, but you can see it from there! There are several modest sized towns about a half hour drive from the park so you can get supplies for camping if you need them. But the area around the park itself is nearly as remote and wild today as it was two centuries ago.

Named for the large stands of black cherry trees originally found in the area, the 82-acre state park is surrounded by the 262,000-acre Susquehannock State Forest. Night sky enthusiasts flock to the park for its dark skies which are famous for great views of the Milky Way, planets, and hard-to-see astronomical objects and phenomena.

As in most of Pennsylvania, the pine and hemlock in the Cherry Springs area was lumbered off and, in their place, grew hardwood trees like sugar maple and the park's namesake, black cherry.

During 2008, Cherry Springs



Night Sky Public Viewing Area (Image Credit: Don Knabb)

State Park attained a Gold Level International Dark Sky Park certification from the International Dark Sky Association. Cherry Springs was, in fact, the second International Dark Sky Park in the world.

A combination of attributes makes Cherry Springs ideal for stargazing and astronomy. It is at 2,300 feet elevation at the top of a mountain. The surrounding area is relatively undeveloped and communities near the park are in valleys that shield the light from the park.

The astronomy field offers an excellent 360-degree view of the night sky, and the Milky Way stretches from one horizon to the other. All the lights in the park have been converted to red, even in the bathrooms.

Three areas of the park are available for stargazing: the Night Sky Public Viewing Area,

the Rustic Campground, and the Overnight Astronomy Observation Field.

The Night Sky Public Viewing Area is best for short term viewing. Although white light is permitted, a red filter or cover for your flashlight is recommended to preserve your night vision. The Rustic Campground is best for overnight stargazing for casual stargazers but is not for serious stargazers. The Overnight Astronomy Observation Field is for serious stargazers with equipment. All lights must have a red filter or need to be fully shielded. White light is prohibited.

If you would like to come out and enjoy the magnificent night sky at Cherry Springs and only wish to gaze for a few hours, you may do so at the Night Sky Public Viewing Area located

(Continued on page 10)

Observing (Cont'd)



Messier 92, NGC 6341
Image credit: NASA, ESA, Gilles Chapdelaine

(Continued from page 5)

Select Night Sky Objects and Event

July is a fantastic month for astronomy. The summer triangle is dominating the sky. The core of our galaxy hangs high to the south with star fields galore to enjoy.

The constellation Hercules has a number of targets to enjoy. M13, the great globular cluster of course, along with M92 as a smaller but still beautiful globular. NGC 6207 is a faint, edge-on galaxy located 46 million light years from Earth (you'll need a nice dark sky with a 6+ inch aperture to see this one, or a smart scope).



NGC 6946 (the fireworks galaxy) in Cygnus is a gorgeous, face-on spiral galaxy. It has a low surface brightness so big optics or a smart scope are a must (try this one with your SeeStar if you have one).



M12, the gumball cluster, in Ophiuchus is a large cluster that is almost half the size of the full moon. This is a globular cluster that is about 16,000 light years away

Light Pollution (Cont'd)

(Continued from page 3)

A study from Ohio found that artificial light overrode temperature effects on dormancy for northern house mosquitoes. Mosquitoes part of the lite group bit at a rate of 70% in September versus 37% for ones

not living in artificial light. By October, 59% of the lit mosquitoes remained reproductively active, while the non-lit ones were all in dormancy. Light levels were low as 0.87 lux maintained activity.

Not surprisingly, Hong Kong's skies averaged 43x brighter than the international dark sky standards. Urban areas reached 120x that benchmark. However, post-midnight darkening showed improvement from 2010 to 2023,

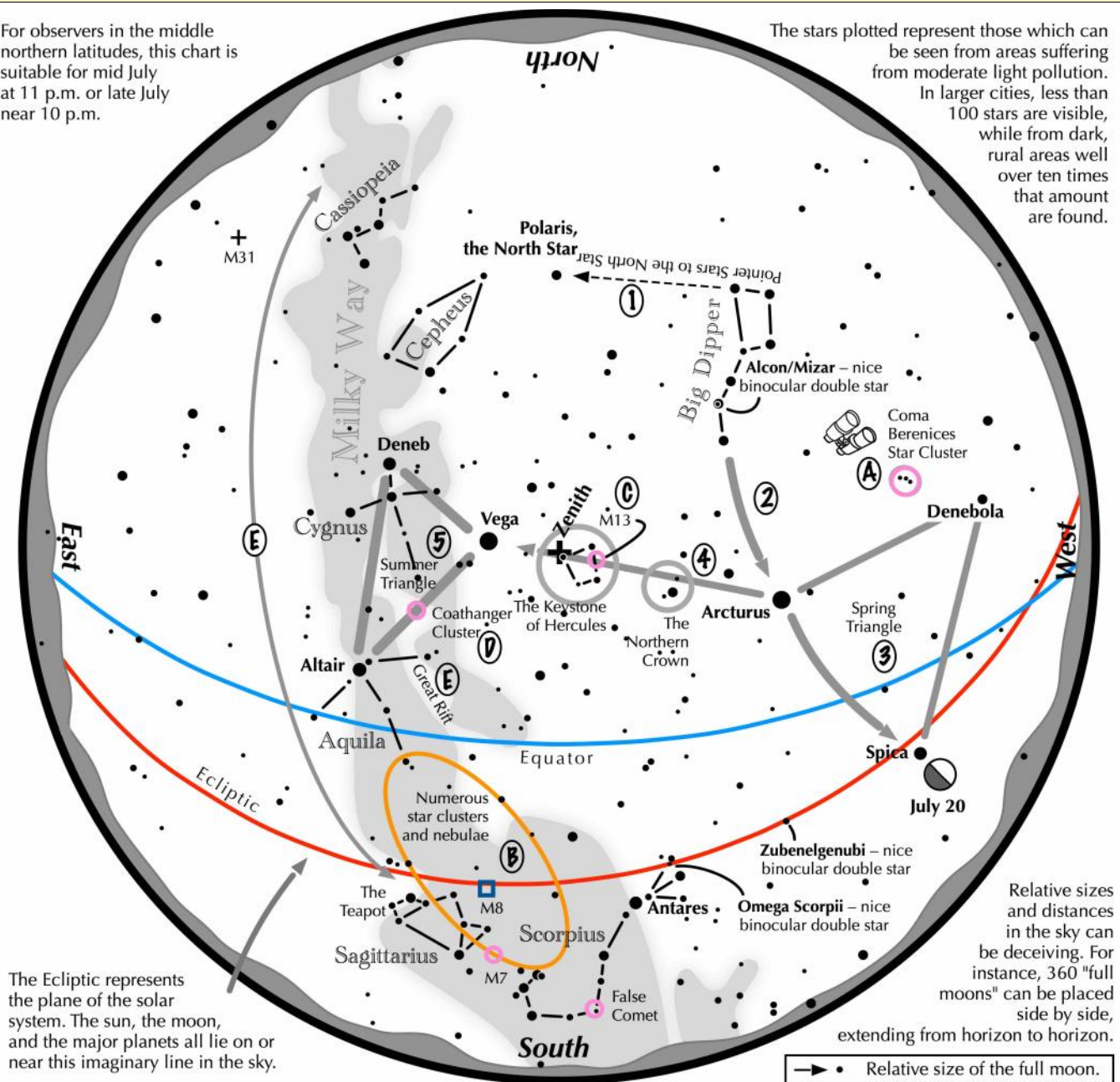
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Navigating the mid-June Night Sky

courtesy of the Astronomical League

For observers in the middle northern latitudes, this chart is suitable for mid July at 11 p.m. or late July near 10 p.m.

The stars plotted represent those which can be seen from areas suffering from moderate light pollution. In larger cities, less than 100 stars are visible, while from dark, rural areas well over ten times that amount are found.



The Ecliptic represents the plane of the solar system. The sun, the moon, and the major planets all lie on or near this imaginary line in the sky.

Navigating the mid July 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 first intersects Arcturus, the brightest star in the July evening sky, then continues to Spica.
- 3 Arcturus, Spica, and Denebola form the Spring Triangle, a large equilateral triangle.
- 4 To the northeast of Arcturus shines another star of similar 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.
- 5 High in the East lies the Summer Triangle stars of Vega, Altair, and Deneb.

Binocular Highlights

- A: Between Denebola and the tip of the Big Dipper's handle, lie the stars of the Coma Berenices Star Cluster.
- B: Between the bright stars Antares and Altair, hides an area containing many star clusters and nebulae.
- C: On the western side of the Keystone glows the Great Hercules Cluster, containing nearly 1 million stars.
- D: 40% of the way between Altair and Vega, twinkles the "Coathanger," a group of stars outlining a coathanger.
- E: Sweep along the Milky Way for an astounding number of faint glows and dark bays, including the Great Rift.

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





M6 & M7

*When these two big, bright, and beautiful
open star clusters appear in the early evening in early July,
summer is upon us.*



If you have recently begun your journey under the stars, why not whet your appetite by exploring southeastern Scorpius and its two wonderful open star clusters, M6 & M7. You will return to them year after year!

While they are visible to the unaided eye from a dark location, binoculars help greatly.

1. Identify Scorpius standing low in the south-southeast on an early summer evening. As summer progresses, it ascends low in the south, then swings low in the southwest in the early fall.
2. From red Antares, direct your gaze southward down the scorpion's back, then turn eastward.
3. When its tail hooks northward, continue the length of that hook.
4. M6 and M7 should be plainly visible in the binocular field.

M6:

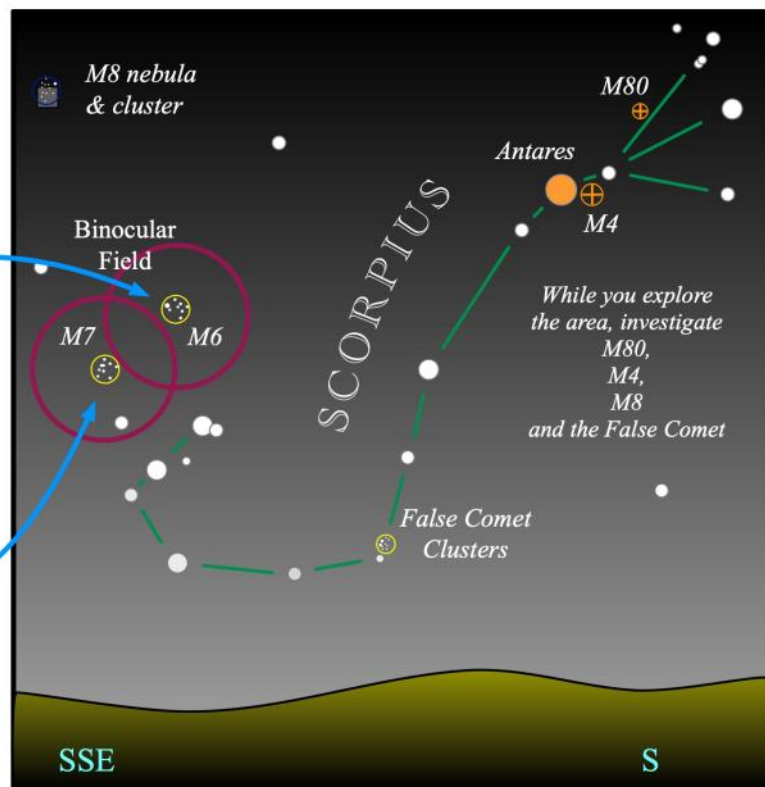
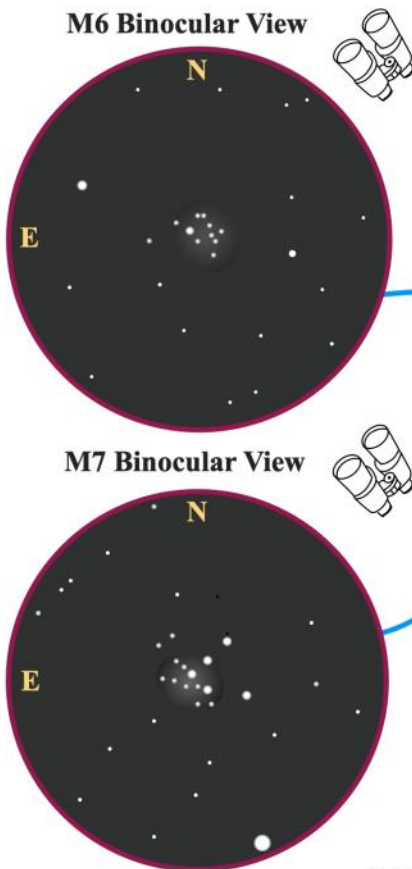
A faint hazy glow is seen by the unaided eye from a dark, clear site. Two dozen stellar lights can be discerned with 10x50 binoculars.

- Integrated Magnitude: 4.2
- Size: 33 minutes

M7:

A glittery glow is easily spotted off the scorpion's tail by the unaided eye. Binoculars reveal many faint stars.

- Integrated Magnitude: 3.3
- Size: 80 minutes



Eyepiece (Cont'd)



Lyman run State Park (Image Credit: Don Knabb)

(Continued from page 6)

north of Rt. 44. Public parking and restrooms are located there. However, no pets are allowed, and no alcohol is allowed in any Pennsylvania State Park.

To camp on the Overnight Astronomy Observation Field, astronomers must register by filling out a permit form and put cash or check payment in the envelope and into the collection

tube. The permit should be displayed on the dash of your vehicle during your stay. No reservations are required for the Astronomy Field, and in fact they are not possible.

It is necessary that you arrive during daylight hours to park on the Overnight Astronomy Observation Field. The speed limit on the astronomy field is 5 mph. After dusk, parking is only available in the adjacent parking lot and users must walk onto the field. Driving on the field after dark should only be done in an emergency.

On the Overnight Astronomy Observation Field, all lights must have red filters or need to be fully shielded. White light is prohibited. Interior vehicle lights should be turned off or shielded with red filters.

Electricity is available on the astronomy field from 120-volt ground fault protected power outlets in RV style pedestals. The restrooms are modern, but there are no showers. However, showers are available at nearby Lyman Run State Park where there is a beautiful lake, swimming beach and concession stand.

So, whether you camp or stay nearby, do your best to experience the incredible night skies at Cherry Springs State Park.

Information credits:

- <https://www.pa.gov/agencies/dcnr/recreation/where-to-go/state-parks/find-a-park/cherry-springs-state-park>
- <https://www.pa.gov/agencies/dcnr/recreation/where-to-go/state-parks/find-a-park/cherry-springs-state-park/history>
- <https://www.pa.gov/agencies/dcnr/recreation/where-to-go/state-parks/find-a-park/cherry-springs-state-park/stargazing>



Dusk at Cherry Springs State Park (Image credit: Don Knabb)

Scholarship (Cont'd)



2026 CCAS Scholarship Recipients (l.-to-r., Hope Cerny, Rob Scottoline, & Emma Durnin)

(Continued from page 3)

- Emma Durnin, BS Geoscience major and incoming President of the student Astronomy Club

Hope Cerny is going into her second year at West Chester University after transferring from Westmoreland County Community College. During her time at WCU, she has been a part of Astronomy Club and Earth and

Space Science Club while also maintaining a 3.9 GPA.

Next semester, she will be working as an OCA (Off Campus Assistant), helping WCU students who will be living on their own off campus for the first time, as well as becoming the social media chair for the Earth and Space Science Club.

Post graduation, she hopes to become an Earth and Space Sci-

ence teacher for 9-12th graders. She thanks the CCAS for their generosity and helping WCU students achieve their academic goals.

Rob Scottoline is a geoscience student at West Chester University. Rob is from Delaware County, Pennsylvania, and he loves to bake and play soccer with friends in his free time.

(Continued on page 12)

Sunrise/Sunset & Moon Phases for July 2026

Date	Civil Twilight Begins	Sunrise	Sunset	Civil Twilight Ends	Length of Day
07/01/2026	5:04 a.m. EDT	5:37 a.m. EDT	8:34 p.m. EDT	9:07 p.m. EDT	14h 57m 27s
07/15/2026	5:08 a.m. EDT	5:40 a.m. EDT	8:33 p.m. EDT	9:05 p.m. EDT	14h 52m 46s
07/31/2026	5:29 a.m. EDT	6:00 a.m. EDT	8:16 p.m. EDT	8:47 p.m. EDT	14h 16m 50s

Moon Phases

Last Quarter	07/07/2026	3:29 p.m. EDT	New Moon	07/14/2026	5:43 a.m. EDT
First Quarter	07/21/2026	7:05 a.m. EDT	Full Moon	07/29/2026	10:35 a.m. EDT

Scholarship (Cont'd)

(Continued from page 11)

Rob is the outgoing President of the WCU student Astronomy Club. He enjoys working with students and the Chester County Astronomical Society at community observing events.

Astronomy has been a major interest for Rob, and this scholarship opportunity further fuels his passion to continue studies in Earth and Space sciences. After college, Rob plans to pursue a career in geology. Rob is incredibly grateful and honored to have received this scholarship.

Emma Durnin is from Emmaus, PA. Emma is a 2025 graduate of WC East High school, where she became very passionate about space science. Emma is continuing to pursue Earth and Space Sciences at WCU as an Honors College student and a geoscience major with an astronomy minor.

Emma's favorite quote: *"Somewhere, something incredible is waiting to be known"* by Carl Sagan.

Currently, Emma is the president of the Astronomy Club and the Vice President of the Philosophy Club at WCU. She considers herself to be a hard worker, and has two jobs at home, but in her free time, she loves reading, music, playing guitar, travel, cuisine, philosophy, history, and of course, astronomy!

CCAS Member Original Astrophotography

by Don Knabb, CCAS Treasurer & ALCOR



Don Knabb took this photo of the Omega or Swan Nebula (M 17) last year at Cherry Springs State Park with his SeeStar S50 scope. M 17 is a massive star-forming region located about 5,500 light-years away in the constellation Sagittarius.

Light Pollution (Cont'd)

(Continued from page 7)

much of this is attributed to voluntary lighting compliance.

Research on 528 solar eclipse observers found totality path participants showed significantly higher awe. Awe paired with scientific observation enhanced science identity. Studies correlated low light pollution with wonder. And on that line, a 75-study review found research focused on immediate perceptions while deeper values-based factors remained unstudied. People felt safer around 5-10 lux versus standard streetlights at 15-30 lux.

In health news, blue light exposure showed strong diabetes correlation. Ten-fold brightness increases corresponded to 18% higher diabetes odds. Highest

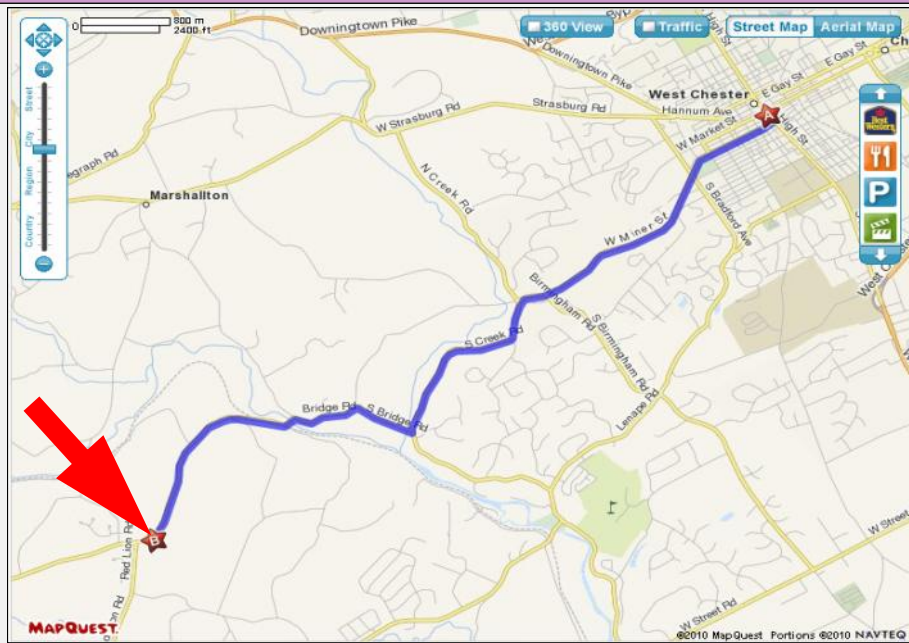
(Continued on page 14)

Classic La Para by Nicholas La Para

astro t-shirt series



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.

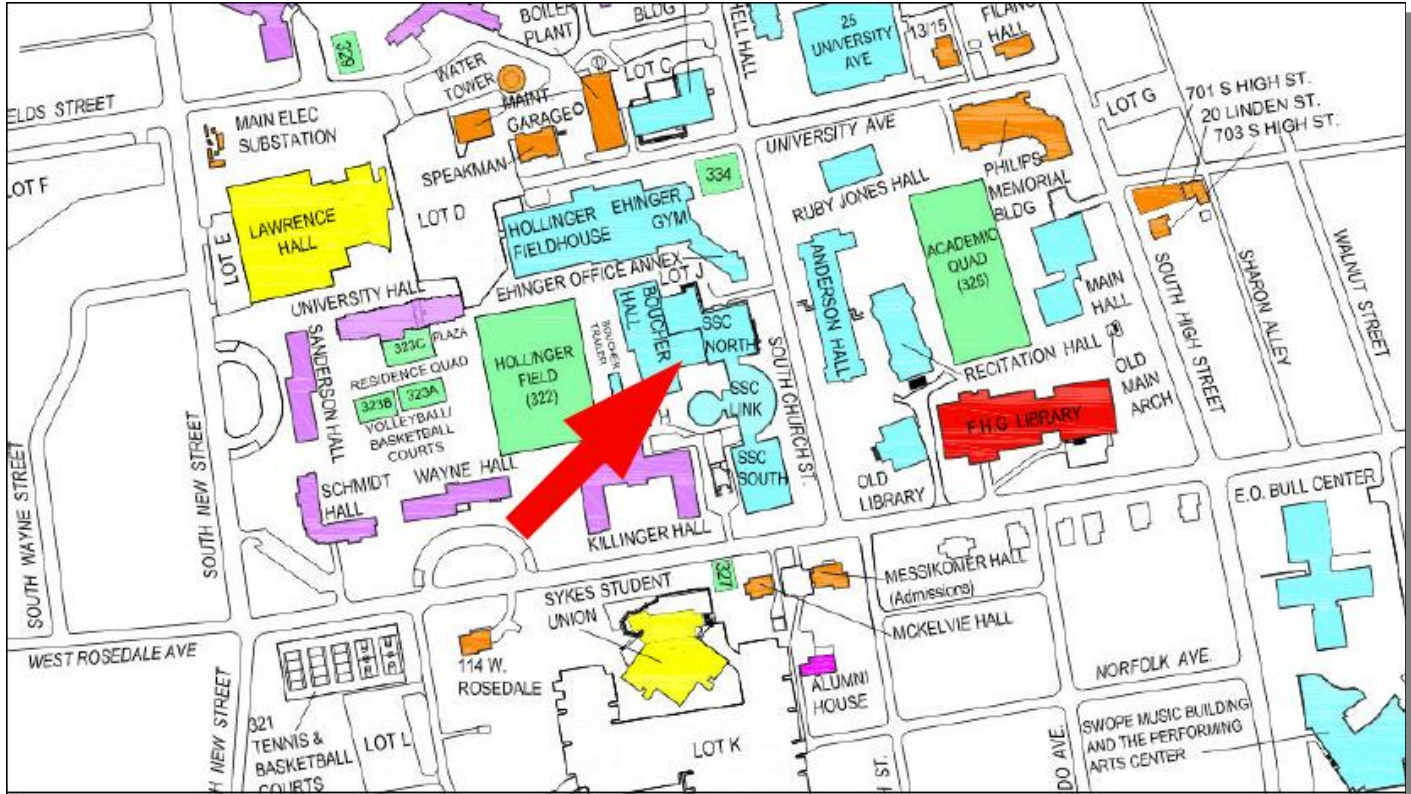
To get to the Myrick Conservation Center from West Chester, go south on High Street in West Chester past the Courthouse. At the next traffic light, turn right on Miner Street, which is also PA Rt. 842. Follow Rt. 842 for about 6 miles. To get to the observing site at the BRC property, turn left off Route 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).



Light Pollution (Cont'd)

(Continued from page 13)

blue exposure showed 61% higher odds. Evening light above 1,000 lux between 8 PM and 11:30 PM correlated with 31% higher macular degeneration odds, 18% for cataracts, and 47% for glaucoma.

For listeners of the show, be mindful, often times the show will take a life of its own, and topics/articles slated to be covered on the show will not be, though the website will contain all articles queued up for discussion.

CCAS Membership Information and Society Financials

Treasurer's Report by Don Knabb

June 2026 Financial Summary

Beginning Balance	\$1059
Deposits	\$235
Disbursements	-\$0
Ending Balance	\$1294

New Member Welcome!

Welcome to new CCAS members Advay Kavathekar from Chester Springs, PA, and Josie Kinsey from Downingtown, 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.

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

Lighthouse Outdoor Lighting is a dedicated lifetime corporate member of the [International Dark-Sky Association](http://www.darksky.org). 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

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 & Telescope 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.

