

The Observer

The Official Publication of the Lehigh Valley Amateur Astronomical Society
<https://lvaas.org/>

<https://www.facebook.com/lvaas.astro>

July 2025

Volume 65 Issue 07



LVAAS General Meeting and Members' Picnic

Saturday, July 12, 2025, 5 p.m. at SM Headquarters

💧 Rain date Sunday July 13 at 5 p.m.

"Climbing the Cosmic Distance Ladder"

presented by

Linda Prince



How do we know that the Andromeda Galaxy is 2.5 million light-years away from us? Did you know that the Earth-Sun distance (the astronomical unit) was unknown until it was measured by observing the transit of Venus in 1761? Our knowledge about cosmology would not be possible without being able to measure distances in space. Because of the vast size of the Universe, distance measurements cannot be made directly, but must be made indirectly, using smaller distances as rulers to measure larger ones, like climbing up the rungs of a ladder. This talk will summarize the story of measuring cosmic distances, from the time of the ancient Greeks to the present day.

Linda Prince has had an interest in science since childhood and has been an amateur astronomer since she purchased her first telescope about 30 years ago. When she couldn't find all those little objects in the sky with her scope, she sought help from an astronomy club on Long Island and now enjoys membership here at LVAAS.

Prospective new members who wish to attend the meeting please email: membership@lvaas.org.



Minutes from the LVAAS General Meeting – June 8, 2025

The June 2025 LVAAS General Meeting was conducted electronically using an online service and at the South Mountain headquarters. Approximately 51 people were in attendance. Director Benjamin Long opened the meeting at 7:02 p.m. Tonight's general meeting's presentation was "Heart of the Aurora" featuring Gary Becker and Peter Detterline.

Gary A. Becker has had a lifelong passion for astronomy, photography, and sky watching. As director for 38 years of the award-winning Allentown, PA School District Planetarium, and currently adjunct professor of astronomy at Moravian University in Bethlehem, PA, Gary has taught astronomy from the preschool to the graduate level under the electronic as well as the natural sky.

An ardent traveler, Gary has hosted tours to observe and photograph comets and eclipses, and has taken urban students to the Southwest to view the heavens from some of the darkest locales in the United States. He and his pupils volunteered as Night Sky Interpreters at Chaco Culture National Historical Park, NM and Bryce Canyon National Park, UT between 1999 and 2006. In 2012, he joined the Astronomy Team of the Mars Society where he helps to maintain and enhance the Elon Musk (Solar) Observatory and the MDRS Robotic Observatory at the Mars Desert Research Station near Hanksville, Utah, the latter of which supports the astronomy program at Moravian University.

Gary's half-century of amateur and professional interests in astronomy have provided him with a unique perspective for writing and teaching. He authored the book that his Moravian University astronomy students use, edited the national newsletter of the Astronomical League, *The Reflector*, founded (1996), continues to maintain as an educational outreach the very visual website astronomy.org and has for over a quarter-century written a homespun, informative weekly column called *StarWatch*, which is distributed to the Moravian University community and appears in 25 newspapers nationwide.

Gary resides in Pennsylvania's beautiful Lehigh Valley with his wife, Susan, a retired English teacher who also enjoys writing, and their three spunky Dutch rabbits, "cerebral" Sagan, "T-Rex" Stella, and "princely little" Fynn.

Peter Detterline is an avid astronomer whose interests cover a wide range of the astronomical spectrum. For thirty-five years he was the director of the Boyertown Planetarium, where he gave programs to over half a million people. He is a recipient of the Thomas Brennan award from the Astronomical Society of the Pacific for exceptional achievement related to teaching high school astronomy. He teaches an astronomy course at Montgomery County Community College, and one for teachers through the Montana Learning Center. In research he has co-authored numerous papers on eclipsing binaries and contributes data to the AAVSO, ALPO, IMO, and IOTA. He is the observatory director for the Mars Society, where he heads up an astronomy team providing a solar and a robotic telescope for their members at the Mars Desert Research Station in Utah. He also provides training for a robotic telescope in New Mexico as the lead astronomer for the Montana Learning Center. Both robotic telescopes are used remotely by students around the world.

Peter was selected to be part of the "Astronomy in Chile Educator Ambassador Program", where he visited the largest American observatories in that country. As an amateur astronomer he has traveled the globe to view solar eclipses, built his own observatory, and has completed over 45 observing programs including the Astronomical League's "Master Observer." He is an honorary life member and former director of the Lehigh Valley Amateur Astronomical Society (LVAAS).

When he's not staring at the heavens, Peter is preaching about them as a lay minister for the United Church of Christ. Astronomy for him is a deeply enriching experience that connects the heavens to the Earth.

Gary started the talk with a discussion about magnetic fields in the solar system. This included how the sun's differential rotation and magnetic field leads to sunspots. Sometimes these cause coronal mass ejections that will affect the earth's magnetic field. This is the cause of aurora, or northern lights, here on earth. From 9/30/24 to 10/5/24 Gary and Peter were in Iceland which frequently has aurorae. The aurora comes in many colors which depend on what ions are affected. They most commonly are red and green. The aurora usually starts as a grey color, then the other colors become visible. It changes constantly. They used a GoPro camera to film the changing aurora. They also demonstrated the SpaceWeather App that gives alerts for when aurorae are likely. The best time to go to Iceland to catch aurorae are around the equinoxes, with it being warmer in the fall.

After taking questions, the presentation was completed and a scheduled LVAAS Business Meeting was called to order. The topic was two proposed bylaws changes that were approved by the Board of Governors at their May 2025 meeting. The two bylaws changes are:

1. LVAAS will no longer accept Sustaining Memberships, but those currently in the process will continue towards lifetime membership.
2. Officers of LVAAS will be permitted to serve up to five consecutive years (five 1-year terms) in one position, replacing the prior two year (two 1-year terms) limitation.

There were 34 full voting members present, with a quorum being 29. A vote was taken and both measures were adopted unanimously by the members present.

A 15-minute break was taken at 8:23 p.m. and the meeting resumed at 8:38 p.m.

Membership: Rich Hogg

- The following members completed their Second Readings and are now full members:
Jennifer Klinger (family membership with Jody Klinger)
Weston Kurtz (family membership with Ashley Medernach)
Patrick Mackewicz
- The following members completed their First Readings:
Glenn Garcia (family membership with Jacqueline Blas)
Wendy Jamison
Sean Jamison
Noah Scott
Zechariah Ziegenfus
- The following members have previously completed a First Reading and are still eligible to complete a Second Reading to become full members:
Njklas Mueller
Cooper Mulderry
Devon Smith (family membership with Jessica Zuber)

Director's Comments - Ben Long

- LVAAS Star Party Director Aidan Berger thanks the following members for their help with the May Star Party and Scout Planetarium Show: Earl Pursell, Bill Dahlenburg, Linda Prince, Girt Allerton, Bill and Ruth Lodder, Kyle Kramm, Tom Duff and Phillip Doherty.
- Mike Clark thanks Earl Pursell for helping with rentals. LVAAS also thanks Beth Julius for her work as LVAAS secretary, and Tom Julius for his help with MegaMeet.

Stargazers – Kyle Kramm

- The next meeting of Stargazers will be this Friday, June 13 at 7:00 p.m. at South Mountain. If anyone has a topic they would like to discuss, all topics are welcome.

Astroimaging - Tom Duff

- The next Astroimaging meeting will be this Saturday, June 14 at 7:00 p.m. at South Mountain. Anyone interested in learning more, whether a novice or a pro, is welcome to attend.

Pulpit Rock Observatories – Frank Lyter

- Anyone interested in being trained on the telescopes at Pulpit Rock should contact either Frank or Ron Kunkel. Contact information is on the web page.
- The meteor camera at Pulpit Rock is operational.
- Anyone interested in hosting a meteor camera at their home should contact Frank. A camera costs about \$200 and lots of help is available to get it installed and running. You would then be part of the Global Meteor Network and you would get credit if you were involved in any data that was published.

Next General Meeting:

- The next meeting will be the annual picnic and is scheduled for Saturday July 12, 2025 to start around 5:00 p.m. at South Mountain. The rain date is Sunday July 13, 2025 also at 5:00 p.m. at South Mountain. Please look for updates on our website.

The June 2025 General Meeting was recorded.

The meeting was adjourned at approximately 8:57 p.m.

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Submitted by Joe Zitarelli, Secretary



South Mountain Maintenance Director Bill Dahlenburg takes a short break from mowing to chat with a visitor.

Via Sandy Mesics, Programs Chairperson

Upcoming LVAAS General Meeting Speakers

July: **Linda Prince** will speak in person; topic "Climbing the Cosmic Distance Ladder".

August: **Brett Fadem** and **Jonathan Cuadra** will speak in person; topic TBA.

September: **Joe Zitarelli** will speak in person on "The Expanding Universe."

October: **Mike Huber** will be back in person to do "1913 Astronomy: Part 2"

November: **Ray Harris** will speak in person on "Meteorites."

December: **available**

- ▶ Please contact astrosandy@gmail.com if you have ideas for speakers, or would like to do a talk yourself.

THANK YOU, LVAAS VOLUNTEERS!

LVAAS Star Party Director **Aidan Berger** thanks the following members for their help with the June Star Party: **Earl Pursell, Jamie Elovski, Bill Dahlenburg, Linda Prince, Dr. Becky Frank, Girt Allerton, Kyle Kramm, Joe Zitarelli, Tom Duff, Phillip Doherty, and Nicole, Craig and Henry Wade.** A big thanks goes out to **Earl Pursell** for hosting a private planetarium show and astronomy activities for Girl Scout Troop 877 in May. Also, thanks to **Joe Zitarelli** for stepping in as secretary in addition to his other club responsibilities. Kudos everyone!

Via France Kopy, Newsletter Editor

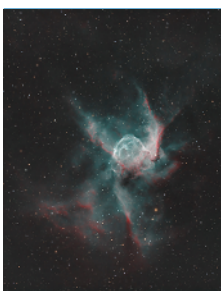
If you're a member with good English language skills, careful attention to detail, and the ability to take 45 minutes or so to focus on a task and give brief feedback via email, please contact me about becoming a volunteer proofreader for our newsletter, *The Observer* at editorlvaas@gmail.com. Only once per month, around the 30th-3rd. You would receive credit for this in the black box on the last page of the newsletter and on our news page (here). Thanks!

Via Benjamin Long, LVAAS Director

LVAAS is in the process of re-keying the locks on our properties. If you haven't picked up your **free replacement keys**, please contact the "Key Coordinators" listed on our website's Contacts page to do so.

Via Earl Pursell, UACNJ Liason

Public Program Nights and weekly star parties are up and running at United Astronomy Clubs of New Jersey. There will be a 30-60 min talk every Saturday from the beginning of April until the end of October. Anyone who would like to give a talk is welcome to contact Chris Callie (reddog176@gmail.com). UACNJ also has its own YouTube channel and the schedule of videos is on its website. Please visit uacnj.org to watch and /or subscribe.



cover image: Thor's Helmet

Imager: Lynn Krizan

Location: Backyard, Bortle 7, Upper Macungie

Total Acquisition time = 9 hrs. 55 min.

Camera: Starlight Xpress SX-694 Pro CCD mono

Filters: Astrodon RGB, 5nm Ha & OIII

Scope: Astro-Physics AP130GTX with AP 3.5" Field Flatteners at F6.3

Mount: Astro-Physics Mach1

LVAAS MegaMeet 2025 Announcement

<< **New date pending** >>



MegaMeet is LVAAS's 'bare bones' star party, without vendors, speakers or registration fees.

Members of LVAAS as well as members in good standing of regional amateur astronomy clubs are invited to attend.

MegaMeet attendees can either come for evening observing sessions or camp for the weekend. Camping is encouraged; space is limited. Hot dogs, chips and soda will be available for purchase.

Telescope Training: Frank Lyter and Ron Kunkel will be on hand to train members on our club's telescopes

Rain Date Please check lvaas.org

Location: Pulpit Rock Astronomical Park

Contact: 610-797-3476

Hope to see you there!

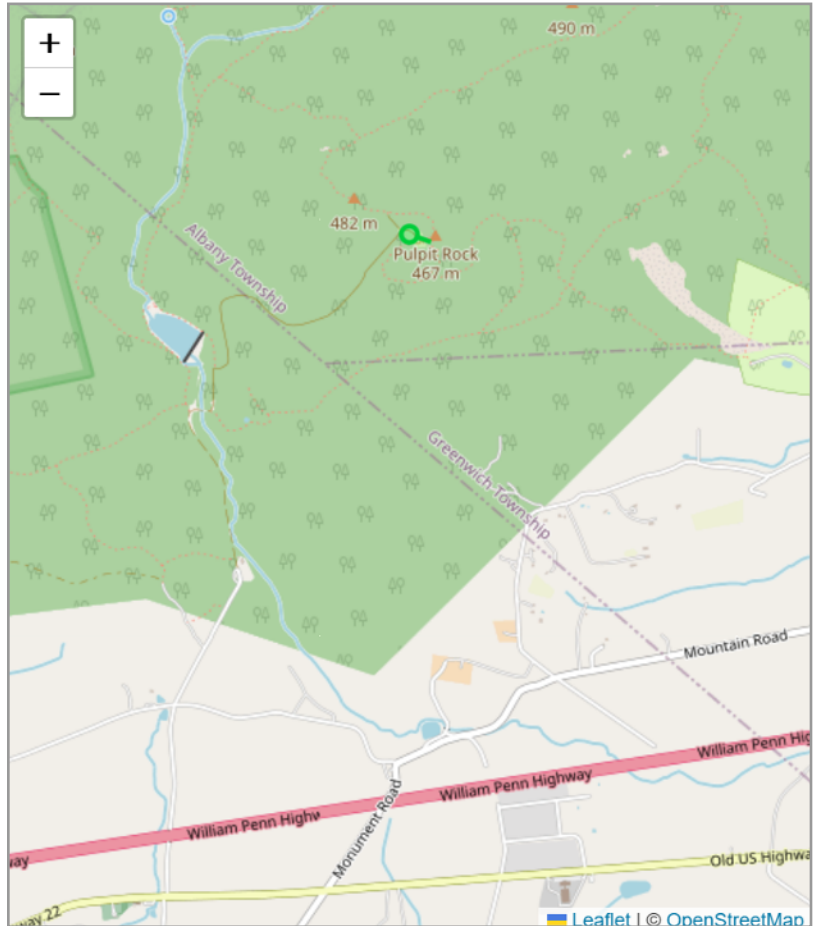
Pulpit Rock Meteor Camera Update

by John Kmetz and Frank Lyter

During the last few weeks of May, **Frank Lyter** and a small group of LVAAS volunteers were able to install meteor camera **US003Y** to become part of the Global Meteor Network (GMN).

The station is now mounted on the outside of the 40-inch telescope building, facing east across the observation field. This camera was donated to LVAAS by member **Steve Walters**.

We were initially hesitant to use the Pulpit Rock location, as the local WIFI was suspected of not having enough bandwidth to control the Raspberry Pi computer desktop remotely, or handle the morning uploads of data to the server at Western University in London, Ontario.

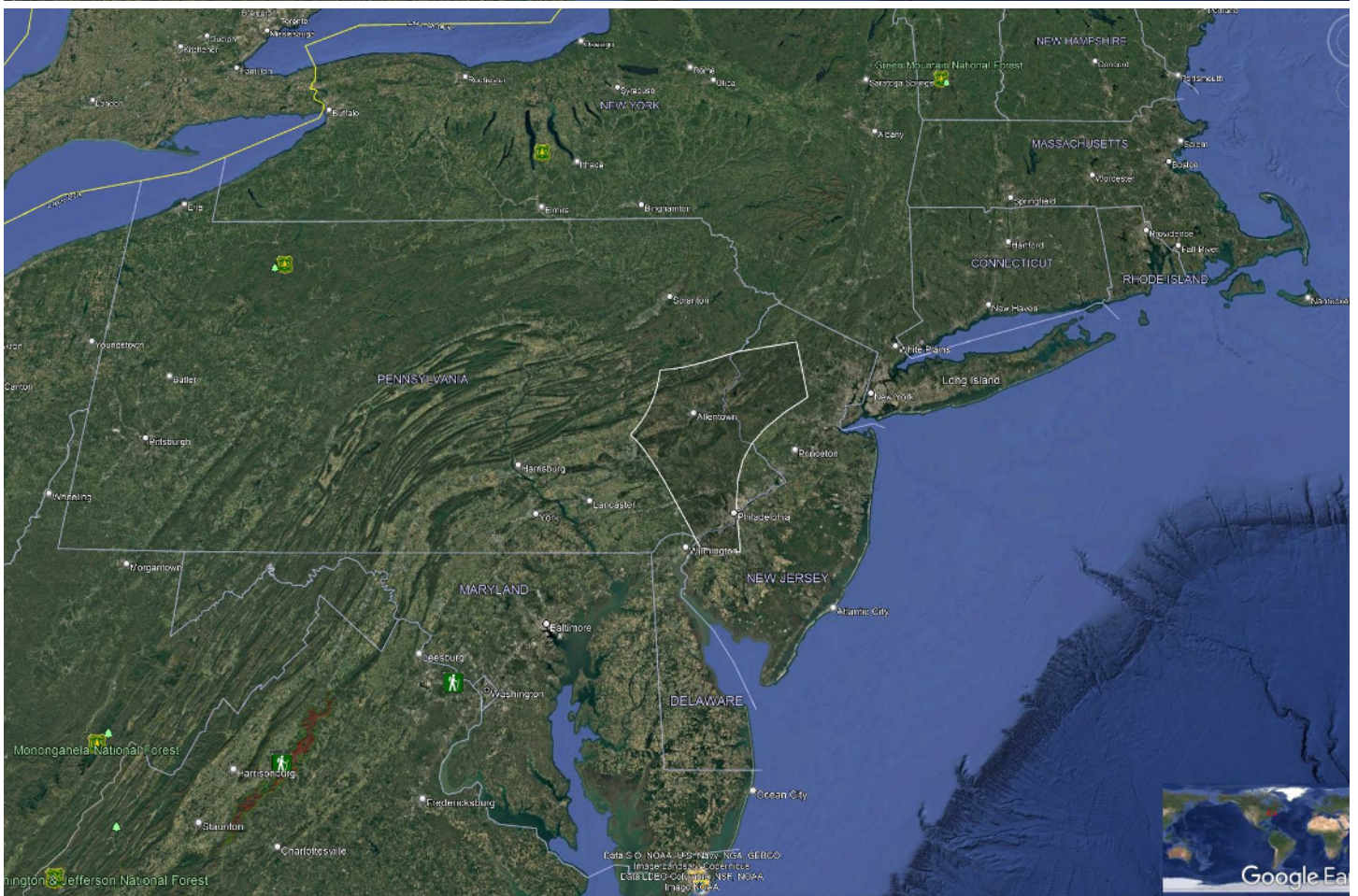
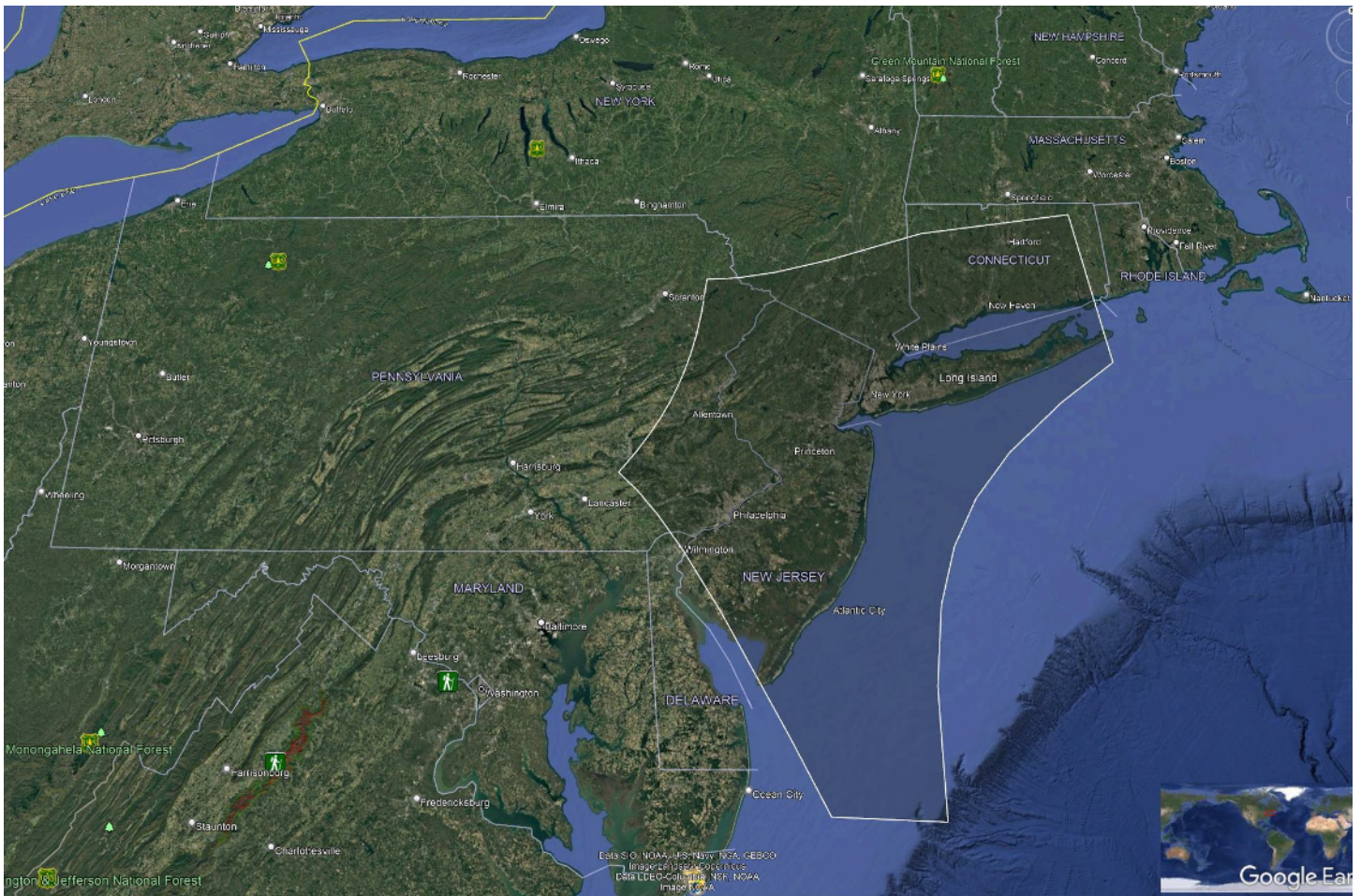


After an exchange of calibration files, Dr. Denis Vida was satisfied with the quality of the data stream sent and has added this station as officially part of the global data pipeline. Some recent changes to the way the GMN software compresses and uploads data have reduced the size of the files, which should allow us to add more cameras at Pulpit Rock. The additional locations are now being explored.

Thanks to **Kyle Kramm**, **Lou Velez**, **Ron Kunkel** and others who participated in the installation.

Please check out these maps on the next page which show the location of the camera and the areas of sky it covers at 25 km and 70 km altitudes. The 25 km section rides over most of the greater Allentown area, but at 70 km, the area covers most of the state of New Jersey and even Long Island, NY.

Anyone wishing to see the night's results from Pulpit Rock, please go to the following website:
<https://globalmeteornetwork.org/weblog/US/US003Y/latest/>





L. Vaas
wants YOUR
astro photos
for the 2026 calendar!

- **Share Your Universe in Our 2026 Calendar!** Have you captured a stunning celestial scene? We invite you to submit your best astrophotography for a chance to be featured in the official **LVAAS 2026 calendar!**
- **All Cosmic Subjects Welcome!** We're looking for a wide range of astronomical wonders, including deep-sky treasures like galaxies and nebulae, breathtaking planetary and lunar images, and captivating nightscapes that blend Earth and sky. All forms of media are welcome as well. Feel free to submit your sketches, paintings, composites, etc.
- **Let Your Talent Shine!** All selected photographers will receive full credit for their work in the calendar, including your name and a link to your personal website or social media, if you wish.
- **Ready to Submit? Here's How:**
 - » Email your high-resolution images to m.huber614@gmail.com
 - » Please use the subject line: "2026 Calendar Submission".
 - » Include a title and a brief description for each submission.
- **Don't Delay!** The deadline for all submissions is September 30th.
- **We can't wait to see the cosmos through your lens!**



Peter Detterline's
Night Sky Notebook
for
JULY 2025



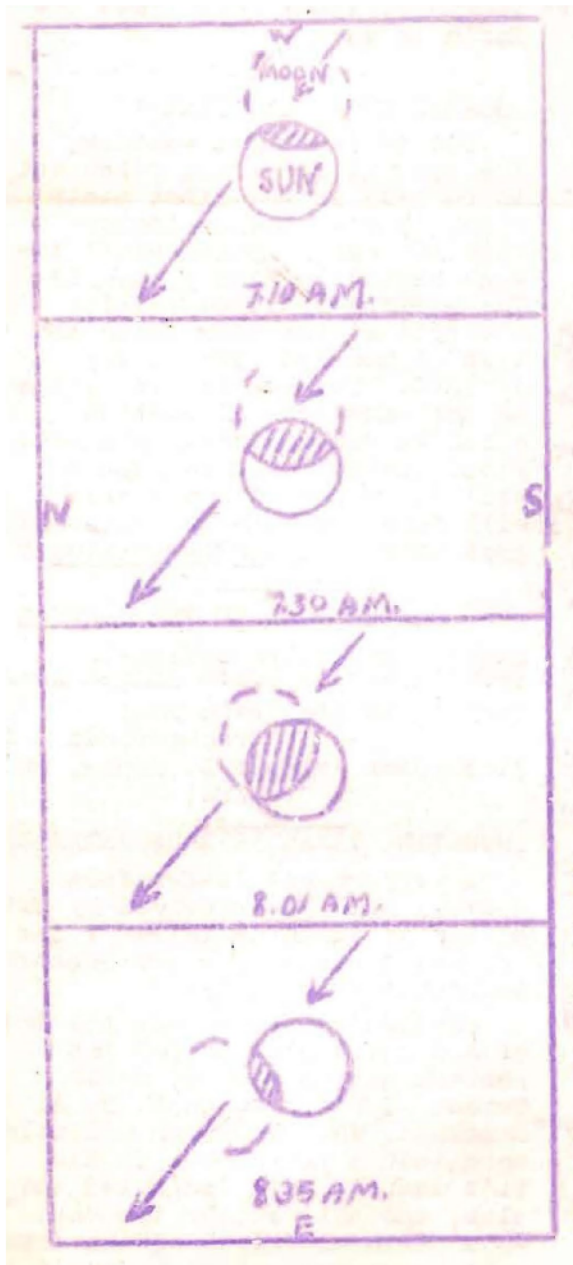
Don't forget to like and subscribe!

Postwar Planning

By Sandy Mesics

On Monday, July 9, 1945, the first total solar eclipse to be seen in the U.S. since 1932 would be a partial solar eclipse in the Lehigh Valley. Totality would move from Idaho up through Canada, but here, the eclipse would be about 57 percent of totality. The weather looked promising in the Lehigh Valley; the forecast was for little cloudiness and a high temperature of 87°

But it was clear that the eclipse would garner little interest in the area. One factor was that The Lehigh Valley Astronomical Society (LVAS) was not yet meeting regularly since the end of World War II, even though the monthly *LVAS Bulletin* was being published and sent to the members. There would be no organized effort by the club to observe the eclipse.



LVAS Bulletin editor Eugene Carl observed the eclipse and remarked that "Of course they haven't been raving about the partial eclipse phase of the show that we saw hereabouts, however, for the observer who could take time out to look at it, it really wasn't such a bad show at that!" Carl used welders' goggles to observe the eclipse, and he made drawings of the event. Carl noted that the dimming of the sun was more than he expected.

The Allentown *Morning Call* reported that there was "only passing interest" in the eclipse in the Lehigh Valley. In the wake of the eclipse the Lehigh Valley and Slate Belt experienced torrential rain, hail, and 60 mile-per-hour winds. According to the *Morning Call*, the storm caused extensive damage from flooding, uprooted trees, downed power lines, and smashed the water pumping facilities for nine communities. It also curtailed work at Bethlehem Steel and the Universal Atlas cement mill in Northampton.

Sky and Telescope reported that the event was well-observed across the United States. An amateur in Winchester, Kentucky was even monitoring radio reception during the event and reported no changes in reception. In Philadelphia, Dr. George Rosengarten, a member of the Rittenhouse Astronomical Society, took a series of photographs of the eclipse.

Left: Eugene Carl's drawing of the eclipse.

Incidentally, the same issue of *Sky and Telescope* reported on a partial lunar eclipse that had military implications. The event occurred on June 25-26, 1945, and was visible from the Pacific and Indian Oceans, Asia, Australia, and "regions where most of the fighting now continues. ... three American destroyers were being attacked that night by a dozen enemy planes. Bright moonlight made the surface vessels easy targets, but when the partial eclipse darkened the moon's light the attack was successfully repulsed."

While the eclipse was a non-event for most people, it helped spur interest in the return of the LVAS. Although some LVAS members had not returned from the service, the group planned an informal "open house" gathering on July 16, 1945, at 8:30 p.m. at the home of L.H. Cutten, one of the group's advisors.

The event, however, like the eclipse, turned out to be more of a non-event. As recorded in the July issue of the *LVAS Bulletin*, "Due to inclement weather, the special gathering which was to be held on the first clear night of the week beginning July 16 was postponed until the week beginning Monday Aug. 13." How did that event go? I'll write about it in my next column.

LV Astronomers To Meet Monday Night

The first meeting of the Lehigh Valley Astronomical society since August of 1942 has been scheduled for this Monday evening in the lot adjoining the residence of L. H. Cutten at 2815 W. Washington St., this city.

Arrangements have been made to have four or five reflecting telescopes set up for the members and their guests to use. The meeting, according to Eugene Carl Jr., president of the society, will begin at twilight and continue until about 11 p. m.

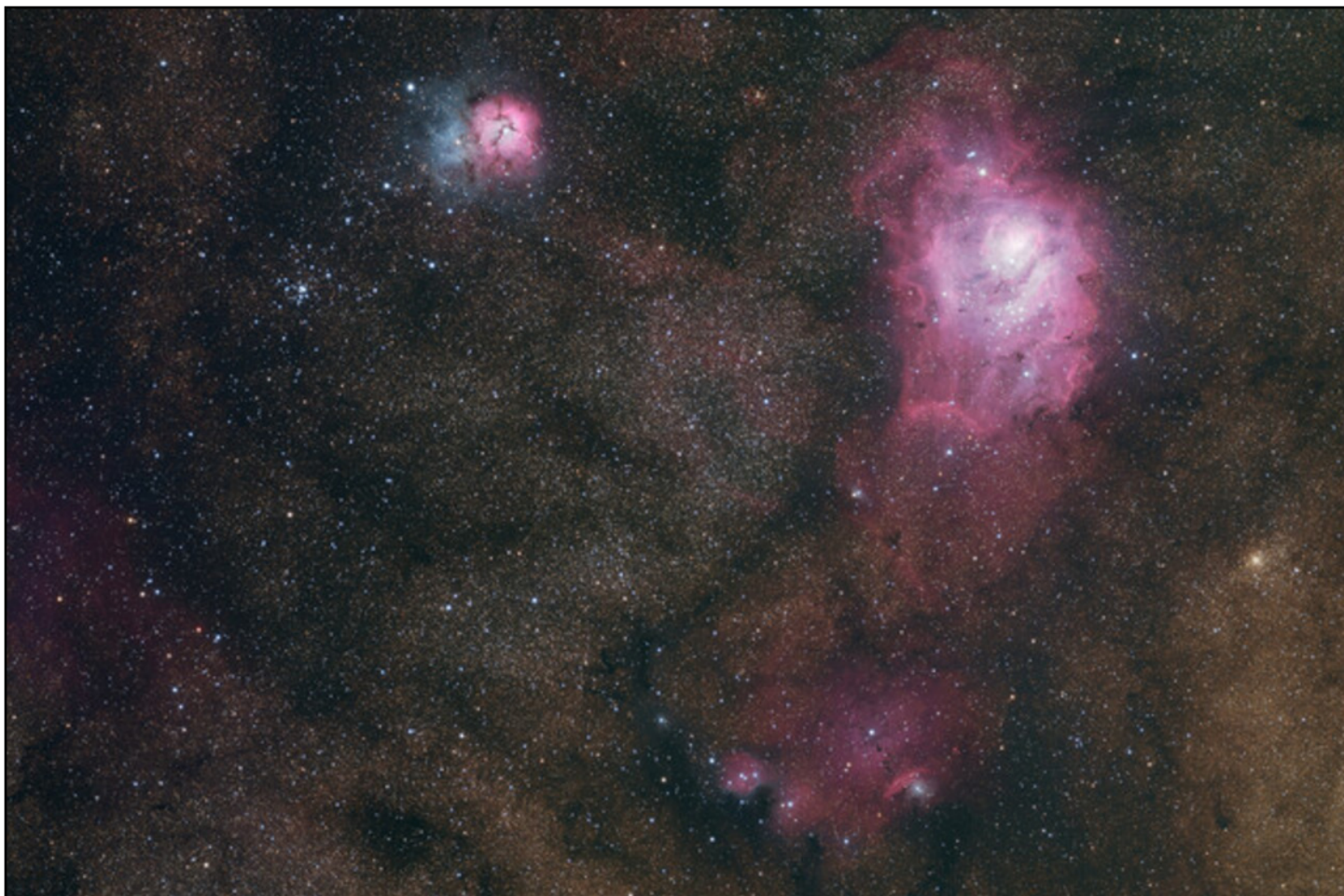
In addition to the regular membership which numbers about 50, Mr. Carl announced that a special invitation is being given to any or all local science groups. Senior Boy Scouts and Girl Scouts are also asked to attend if they care to further their knowledge in astronomy.

Mr. Cutten is head advisor to the local society. In case of cloudiness on Monday evening, Mr. Carl said that the meeting would be postponed until the first clear night of the week.

The society intends to hold monthly meetings in the future.

References

- Allentown Morning Call*, July 9, 1945; July 10, 1945, July 14, 1945
L.V.A.S. Bulletin, June 1945, July 1945.
Sky and Telescope, Vol. IV, No. 10, August 1945.



M8, M20 and M21 from Cherry Springs, PA. Imager: Vince Giranda

The image is in the constellation Sagittarius, looking towards the center of our Milky Way galaxy. It is a crowded area, containing three Messier objects: M8 (Lagoon Nebula), M20 (Trifid Nebula), and M21 (an open star cluster). In addition, the Cat's Paw Nebula is seen on the lower right side of the image. The image is a reprise of the same region I photographed 9 years ago in Green River, Illinois, and a comparison of these two images highlights improvements in equipment and processing over the last decade. The 2016 image can be viewed in [Astrobin.com](https://www.astrobin.com) searching on the username [vgiranda](https://www.astrobin.com). This image was taken at the Cherry Springs Star Party this year, where we had three great observing nights (a personal record for me). It also was the first light for a new CGEM mount, new camera, new filter wheel, new guider, and a new micro-computer. There are approximately 35 180-second frames in each of the Lum, R, G, and B filters. The camera is an SBIG Aluma 455 (IMX455 full frame chip) on a StellarVue SVQ 100 mm F 5.4 scope.



IC 4592 The Blue Horsehead Nebula

Imager: Kyle Kramm

IC 4592 is a rarely photographed reflection nebula in the constellation Scorpius. It has a distinctive horsehead shape but is overwhelmingly overshadowed by another horsehead-shaped nebula - Barnard 33, "The Horsehead Nebula". The blue light comes from fine dust reflecting the light of nearby stars. In this case, much of the reflected light comes from the star at the eye of the horse called "Nu Scorpii"

ASKAR FRA400 Quintuplet refractor with 72mm aperture and f/5.6 focal ratio, AM5 mount , ZWO 2600 due, 3 hrs. Captured during the Cherry Springs Star Party, June 2025.



Lag of the Seasons

The summer solstice has passed. Currently, the days are shortening by a minuscule amount. Nevertheless, the descent towards winter has already begun. The sun's downward slide will continue to accelerate through July and August until the autumnal equinox on September 22, when the duration of night and day becomes essentially equal, then interchanges as the sun's southward movement begins to decelerate until the winter solstice on December 21. It seems as if summer or more temperate conditions linger for a more extended period than they should, and in reality, they do. * In the morning when I make scrambled eggs for breakfast and turn on the electric burner to melt the butter in which the eggs will be fried, the pan does not become instantly hot. It takes a minute or so for the butter to liquefy, before I can begin the cooking process. Likewise, I would be a fool to put my hand on the glass cover over which I had just cooked the eggs, even five or ten minutes after I turned off the stove because it takes time for the infrared energy (heat) to dissipate on the stovetop. * Instead of thinking that our planet is the heat source, consider the Earth as the frying pan and the sun as the heat source. Yes, the Earth has a molten outer core and an inner core that is hotter than the Sun's photosphere from which light escapes; however, the thick mantle and crust conduct very little of that energy to the surface. On top where we live, the heat source that governs temperature, weather, ocean currents, and ultimately climate is a function of the external energy supplied by the sun. * The Northern Hemisphere just passed the summer solstice, the moment in time when we experienced the maximum *insolation* (energy input) from the sun, yet our daytime high temperatures are nowhere near what they will become near the end of July

when statically they are at a maximum. Up until that time, we receive more energy from the sun than we release during our shorter nights that occur within our daily rotational period under the sun's influence. As the Northern Hemisphere moves into August and the sun's insolation decreases, because of Sol's decreasing altitude and sunshine hours, our radiative output of energy at night begins to exceed our input of energy from the sun during the day. We start to feel at times the refreshing and invigorating blasts of cooler air resulting from the meteorological battleground that is beginning to take shape over us. The northern latitudes of the Northern Hemisphere are cooling more rapidly than the southern latitudes of the Northern Hemisphere, and the Earth is attempting to equalize these differences in its energy (heat) budget through the movement and clashing of air masses of different temperatures. * It still feels more temperate than one would expect, and that is because the Northern Hemisphere is still retaining a great deal of the energy that it had received during the summer months, just like the burner on my stove remains hot well after I have turned it off. This **lag of the seasons** keeps temperatures mild enough so that the transition between warm and cold does not occur until sometime in November. Likewise, we achieve our lowest temperatures in late January, but for us, the transition period into much warmer conditions does not occur until May. Consider that you can still have an enjoyable day at the beach in late September but would never attempt a trip to the shore in late March. The sun is at the same warming altitude, but the Earth's surface energy reserves are vastly different. Enjoy summer while it lasts because you know what's on the horizon. Ad Astra!



2026 LVAAS Youth Sponsorship Program

Proudly Administered by
Astronomy in the Community



The Lehigh Valley Amateur Astronomical Society is pleased to introduce the first annual LVAAS Youth Sponsorship Program for 2026, proudly administered by Astronomy in the Community.

To give back to our LVAAS community for your support during 2023 and 2024, Claudio T. Stabile and Ava Stabile, founders of Astronomy in the Community, proposed this initiative to provide similar opportunities to future youth members.

This astronomy project focused program aims to foster astronomy interest among young LVAAS members by providing financial and in-kind support for ambitious astronomy related projects. By recognizing and rewarding their dedication, we inspire future generations of astronomers within our community.

One applicant will be selected in January 2026 and awarded a \$1,000 monetary grant along with support from LVAAS members to accomplish their project. The program is open to LVAAS members in good standing, up to 25 years old, having volunteered at a minimum of 4 LVAAS events in 2025, and with a strong astronomy project proposal. The application deadline is January 16, 2026.

Applications open September 1, 2025. In the meantime, volunteer, gather ideas and put together your best presentations!

For more information, please visit <https://lvaas.org/page.php?page=YouthSponsorshipProgram>



Pier and Tripod for Sale

Pier: A massive fixed pier, solid steel, black powder coat, very heavy. 31" tall, 10" dia, with AstroPhysics 10" plate drilled for Milburn and Meade heavy duty wedges. Uses 1/4" wall thickness 10" diameter steel pipe with 1/4" thick 11" square steel plate with four 3/4" x 1" oblong holes for mounting welded to bottom. I used this on a concrete base inside a little dome where it carried a 14" Meade SCT. Asking \$100.

Tripod: Peter Lisand studio video tripod with leveling plate, flippable rubber or steel spike feet, 31" tall but adjustable up to maybe 50". Stainless steel and aluminum construction. Meant to carry heavy studio video cameras but is excellent for portable imaging rigs. I used this for various astronomy setups including a C8 and other larger telescopes. In excellent condition. eBay price \$350, asking \$100.

Steve Walters

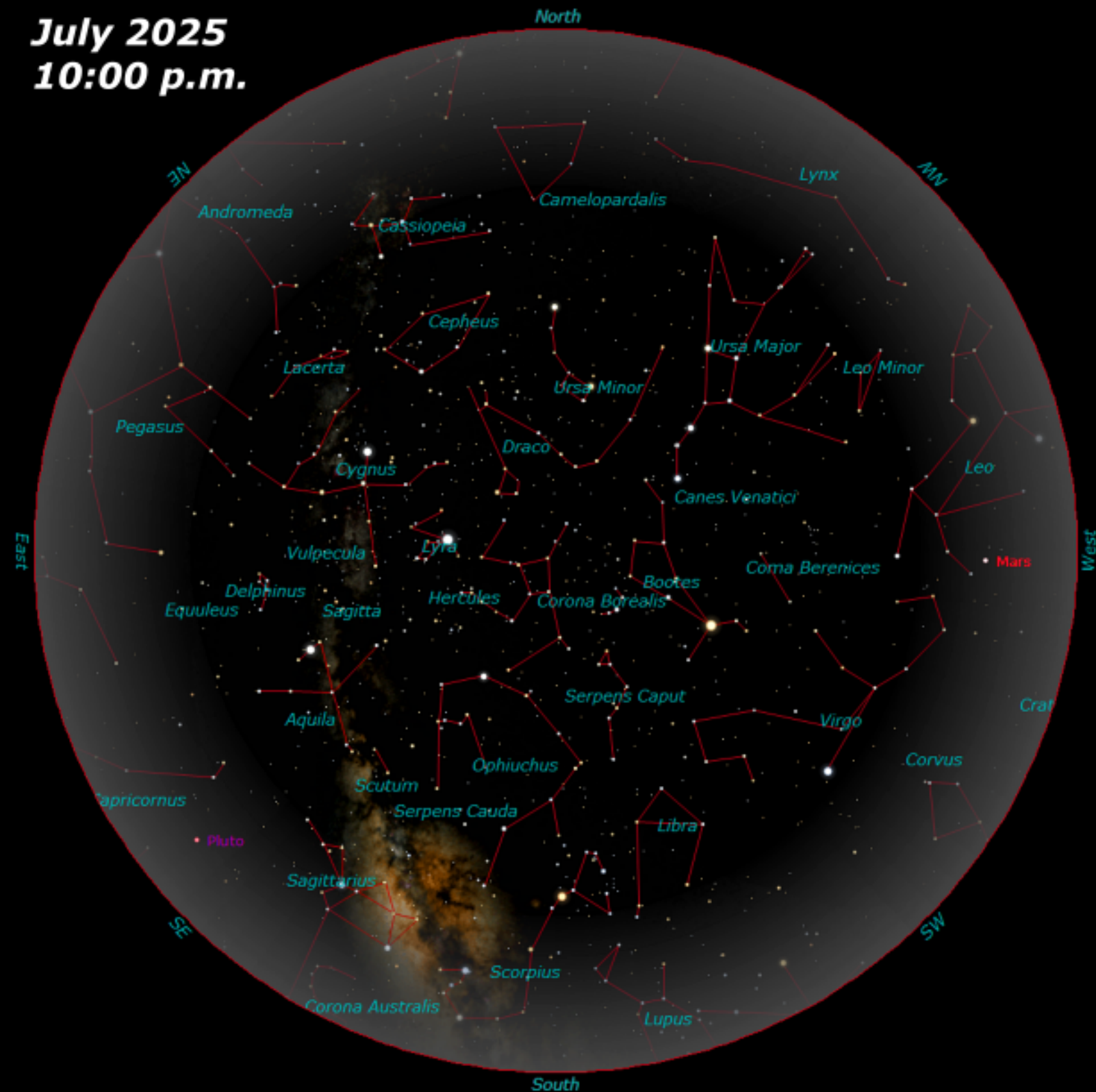
Steve.K3SW@gmail.com

570.730.6436

Additional photos available on request. Prices are negotiable.



July 2025
10:00 p.m.



For access to more features, please click [here](#)

Contributed by Gary A. Becker

JULY 2025

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		01	First Quarter Moon 02	03	Independence Day 04	Star Party 05
06	07	08	09	Full Moon 10	Stargazers Group Meeting 11	General Meeting/Picnic 5:00 PM South Mountain 12
General Meeting/Picnic 5:00 PM South Mountain (Rain date) 13	14	15	16	Last Quarter Moon 17	18	Astroimaging Meeting - 7:00 PM 19
Deadline for submissions to the Observer 20	21	22	23	Stellafane Convention 24	Stellafane Convention 25	Stellafane Convention 26
Stellafane Convention 27 LVAAS Board of Governors Meeting	28	29	30	31		

AUGUST 2025

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					First Quarter Moon 01	Star Party 02
03	04	05	06	07	Scout Camping at Pulpit Rock 08 Stargazers Group Meeting	Scout Camping at Pulpit Rock 09 Full Moon General Meeting 7:00 PM Pulpit Rock
Scout Camping at Pulpit Rock 10 General Meeting 7:00 PM Pulpit Rock (Rain Date)	11	12	13	14	15	Last Quarter Moon 16 Astroimaging Meeting - 7:00 PM
17	18	19	20	21	22	23
Deadline for submissions to the Observer 24	25	26	27	28	29	30
First Quarter Moon 31 LVAAS Board of Governors Meeting						

2025 LVAAS EVENT CALENDAR

Contributed by Bill Dahlenburg

2025 LVAAS Event Calendar											
	<u>Sundays</u>			<u>Saturday</u>			<u>Observer</u>	<u>Moon Phase</u>			
	General Meeting time/date	location	Board meeting	Astro- Imaging	Star Parties	Stargazers Group	Submission Deadline	New	1 st	Full	3 rd
January	3:00 PM 12	Muhlenberg	26	no meeting	no meeting	no meeting	19	29	6	13	21
February	3:00 PM 2	Muhlenberg	23	no meeting	no meeting	no meeting	16	28	5	12	20
March	3:00 PM 9	Muhlenberg	30	no meeting	8	14	23	29	6	14	22
April	7:00 PM 13	S.M.	27	26	12	11	20	27	5	13	20
May	7:00 PM 4	S.M.	25	17	3	9	18	27	4	12	20
June	7:00 PM 8	S.M.	29	14	7	13	22	25	3	11	18
July	5:00 PM 12 (13)	S.M.	27	19	5	11	20	24	2	10	17
August	7:00 PM 9 (10)	Pulpit	31	16	2	8	24	23	1 31	9	16
September	7:00 PM 14	S.M.	28	13	27	12	21	21	29	7	14
October	7:00 PM 12	S.M.	26	11	25	10	19	21	29	7	13
November	7:00 PM 9	S.M.	30	15	29	14	23	20	28	5	12
December	2:00 PM 14	?	28	13	no meeting	no meeting	21	20	27	4	12

July, Aug & Dec are Saturday meetings with rain date on Sunday
 Jan, Feb & March meetings are at Muhlenberg College
 August meeting is at Pulpit Rock
 December meeting / Holiday Party (TBD)

NEAF 4/5 – 4/6
Mega Meet TBA
CSSP 6/19 – 6/22
Stellafane 7/24 – 7/27
BFSP

Publishing images is a balancing act!

When preparing your images for publication in *The Observer*, please consider the following guidelines:

Put the quality in:

- ▶ Considering the "print" size of the image, make sure you have at least 150 pixels/inch.
- ▶ Use a reasonably good quality for the JPEG compression ratio.

But watch the "waistline"!

- ▶ Don't go too much above 400 pixels/inch max.
- ▶ Use the lowest JPEG quality that still looks good!
- ▶ Shoot for 400kb for a 1/2 page image or 1MB for a full page.

Tip: If you're not Photoshop-savvy, you can re-size and compress undemanding images ("human interest" not astroimages), with an online tool such as:

<https://imageresizer.com/resize/download/6779bd945d63ac1a3032f37d>

It will also tell you the pixel size and file size of your original, even if you don't download the processed copy.

The Observer is the official monthly publication of the Lehigh Valley Amateur Astronomical Society, Inc. (LVAAS), 620-B East Rock Road, Allentown, PA, 18103, and as of June 2016 is available for public viewing. Society members who would like to submit articles or images for publication should kindly do so by emailing *The Observer* editor, France Kopy, at observer@lvaas.org.

Astroimaging Director, Tom Duff is our new Astroimaging editor, and welcomes all image submissions.

Articles submitted prior to the Sunday before the monthly meeting of the board of governors (please see calendar on website) will appear in the upcoming month's issue. Early submissions are greatly appreciated. PDF format is preferred. Articles may be edited for publication. Comments and suggestions are always welcome.

LVAAS members please feel free to submit ads for astronomy equipment you have for sale, and additionally you may sponsor a maximum of three ads from non-members per year. Please submit your finished ad as a PDF, with pictures and text. Every attempt will be made to include submissions in a timely manner.

Every effort will be made to properly credit the sources of the material used in this publication. If additional credit is required, please notify the editor.

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