

The Observer

The Official Publication of the Lehigh Valley Amateur Astronomical Society

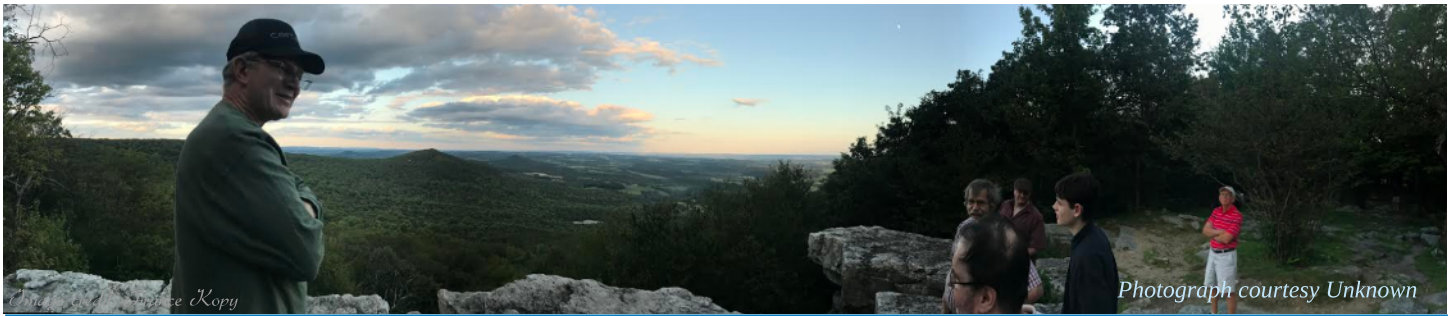
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<https://www.facebook.com/lvaas.astro>

MAY 2026

Volume 66 Issue 05





Via Sandy Mesics, Programs Chairperson

Upcoming LVAAS General Meeting Speakers

May: **Joe Zitarelli** will speak in person and on Zoom: "From Blue Supergiant Sk-69 202 to Supernova SN 1987A."

June: **Joel Leja** will speak via Zoom on "Little Red Dots"

July: **Craig Rudick**; topic TBA.

August: **Dr. Becky Frank** will speak in person; topic TBA.

Sept-Dec. spots are currently open. Why not volunteer to speak on your favorite topic? You know you want to.

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

THANK YOU, LVAAS VOLUNTEERS!

Pulpit Rock has been 'abuzz' with the removal of trees to help improve viewing conditions. PR Maintenance Director Ron Kunkel would like to thank Bob Weiss, Frank Lyter, Ben Long, Declan Long, Phil Doherty, Colton Kunkel, Dillon Kunkel, Earl Pursell, and Bruce Balthaser for teaming up to help with this formidable task. PR Observatories Director Frank Lyter thanks Ron Kunkel, Kyle Kramm, and Bruce Balthaser for their help with the troublesome Kaweck dome. Frank hopes to have the problem fixed soon. Thanks all!

If you wish to volunteer for LVAAS events or work activities, please check the [Buzz email groups](#) page to learn what projects are being planned. Your help is needed and greatly appreciated. LVAAS runs on its volunteers!

Via LVAAS

One of the latest additions to our society is **Aidan Berger's** proposed **20" Remote Observatory at Pulpit Rock**. Donations are appreciated to help get this project up and running. Please help Aidan out with this terrific plan [here](#).

Via Observer Editor, France Kopy:

Please check out our new feature **Imaging the Infinite** by *The Observer's* own Astroimaging Editor and LVAAS Astroimaging Director Tom Duff, beginning with this issue. Tom hopes to address topics of interest to astroimagers - both budding and seasoned alike - with practical advice and tips on how to improve your technique. Happy imaging!

Via LVAAS:

Now that events are back to being held at our SM headquarters, please check LVAAS' Library where you can find plenty of material for all levels of interest in astronomy. LVAAS Librarian Joe Zitarelli has just purchased new books, and a list is available in the April issue of *The Observer*, which you can find at lvaas.org. Say 'Hi' to Joe!

Via Earl Pursell, UACNJ Liason

UACNJ holds Public Nights (presentation topics [here](#)) from April-October and are currently looking for speakers. UACNJ runs a YouTube channel, and a list of videos is available on its website. Check out uacnj.org for more info.



Cover image: IC 2177: The Seagull Nebula Imager: Bill Dahlenburg

Bill captured this image during the [Winter Star Party](#) at the Florida Keys in February, 2026. His equipment was an 80mm F6 refractor and a ASI533 astronomy camera. The image is the result of about 4 hours worth of 3 min exposures. Bill processed the image in Siril and Photoshop. Other of Bill's images will be featured in future issues of our newsletter. You can learn about the Seagull Nebula [here](#)

LVAAS General Meeting Public Welcome!

Sunday May 3, 2026 7 p.m. at LVAAS S. Mountain HQ

The Birth of a Supernova: From Sanduleak-69 202a to SN1987A

featuring, in person and via Zoom

Joe Zitarelli



When we peer into the night sky and look at the constellation Orion, we see the red supergiant star Betelgeuse. If theory is correct, it will go supernova in the next 100,000 years and will be so bright it will be visible during the day. We image the remnants of supernovae when we image M1, the Crab Nebula, or when we image the Cygnus Loop. Many of us were lucky enough to image the supernova in M101, The Pinwheel Galaxy, a few years ago. A supernova is one of the most energetic events in the entire universe. M101 sits about 23 million light years away. The closest supernova in modern times took place in 1987 in the Large Magellanic Cloud at a mere 165,000 light years away. Ever wonder how a

massive star that has burned for millions of years is destroyed in a matter of hours? That's the story of a supernova.

Joe has had an interest in astronomy since high school. His school had a planetarium, a 20" Newtonian reflector and a physics and astronomy teacher who was fresh out of college and eager to use them to teach. He went on to get a BS in physics at Penn State where he developed a particular interest in cosmology. While he chose a different career path, his interest in physics, astrophysics and specifically cosmology never waned, and he continued to read books on the topic. He joined LVAAS in 2019 to continue to learn more about astronomy. He is in charge of the library and uses astroimaging as another way to learn about objects in the sky.

- Prospective new members who wish to attend, please email: membership@lvaas.org.



Minutes from the LVAAS General Meeting of April 12, 2026

The April 2026 LVAAS general meeting was conducted electronically using an online service and at the South Mountain headquarters. Approximately 60 people were in attendance. Director Benjamin Long opened the meeting at 7:00 p.m.

Tonight's presentation was "Cosmvision and Observational Astronomy in the mid-21st Century," presented by Deborah Skapik, an astronomy professor at St. John's University in Philadelphia. She is an ambassador for ALMA, as well as Vera Rubin. Her talk began with a journey to Chile to Alfa Aldea and Reserva Elemental Puribeter. With no light pollution and practically no humidity, even taking a picture with her cell phone she could see the Magellanic Clouds. In her journey it is shown that it is not only professional astronomers who look at the sky, but it is for everyone. Currently there is a shift to remote observing, with Vera Rubin leading the charge. Deborah was lucky enough to spend ten days touring the scopes in Chile, seeing the many international collaborations. In addition to Vera Rubin, she saw Gemini South, with the mirror covered in silver, as well as SOAR and CTIO (the latter better known as the mushroom farm). Next Deborah made it to ALMA, which has 66 satellites and works in partnership with 22 countries. They even had a dog, Almita. Thank you Deborah for a wonderful lecture and all your amazing pictures!

Membership: Rich Hogg

No members completed a second reading to become full members at this meeting.

The following members completed their first readings: Cheyenne Cahoon, Thomas Ferrante, Jack Hawk, Larry Komarek, Bob Oliverie & Deb Diller (family membership), Samuel & Erin Richards (family membership), Deborah Skapik

The following members have previously completed a first reading and are still eligible to complete a second reading to become full members: Shivaraman Asoda, Patrick & Stacie Engel (family membership), Curt Fields, Andrew Howell, Bruce Ruggeri, Leah Strasser, Jeffrey & Gabrielle Swinehart (family membership), Richard Tillman

General Comments:

We are making great progress at Pulpit Rock! Thank you to those members who have done lots of work! A new telescope is going up, and we are very excited for it.

From Tom Duff: Next Astroimaging meeting is Saturday April 18th at 7 p.m.

From Kyle Kramm: Join Stargazers to learn more about general astronomy and scope learning!

Check out our meteor cameras- we have several at South Mountain and 4 over at Pulpit Rock.

When you are ready to get trained on some of the South Mountain telescopes, contact Mike Clark.

Pulpit Rock Observatories – Frank Lyter We are doing lots of work up there, and cleaning up the Kawecki.

We have a few other scopes available for use up there as well.

We also host scout groups up there.

Next general meeting is May 3, 2026.

The meeting was adjourned at approximately 8:38 p.m

The April general meeting was recorded.

Submitted by Dr. Becky Frank, Secretary

Imaging the Infinite

By Thomas Duff

Welcome to the inaugural edition of **Imaging the Infinite**, a new monthly column dedicated to the art and science of astrophotography. Whether you are a seasoned imager with a cooled mono camera and a permanent pier or a visual observer curious about how to take your first "snapshot" through an eyepiece, this space is for you.

Astrophotography is often described as a bridge between hobbyist astronomy and data science. It allows us to pull back the curtain of the night sky, revealing colors and structures that the human eye—limited by its evolution—simply cannot perceive. Through the magic of long exposures and digital stacking, we transform faint photons into the vibrant curtains of the Orion Nebula or the ancient, dusty arms of the Andromeda Galaxy.

What to Expect

In the coming months, we will dive into the technical and creative aspects of imaging, including:

- **Star Parties:** Discussing the various star parties you can attend to facilitate the Astroimaging hobby.
- **Hardware:** Exploring the pros and cons of telescope types. Refractors, SCTs, and Newtonians). How to choose the right camera and other equipment for the type of imaging you want to pursue.
- **Technique:** Mastering the "Dark Arts" of calibration frames (Darks, Flats, and Bias) and the process of star-alignment and guiding.
- **The Software Stack:** Guides on using tools like N.I.N.A. or ASIAIR for capture, and the wonders of software like PixInsight and Siril for post-processing.
- **Member Showcases:** Highlighting the incredible work being done right here in our own backyards and at our local dark-sky sites.

Why We Image

Beyond the "pretty pictures," imaging provides a unique way to document our place in the universe. Each frame is a record of light that has traveled for millions of years just to land on your sensor. This column aims to demystify the process, troubleshoot the inevitable "tech gremlins," and foster a community where we can share our data and our successes.

Get Involved

This column belongs to the club. If you have a specific topic you'd like to see covered—perhaps a deep dive into narrow-band imaging or tips for capturing the upcoming planetary alignments—please reach out!

Clear skies, and keep those cameras imaging.

Thomas Duff

LVAAS Director Astrolmaging

Editor, Imaging the Infinite





Peter Detterline's
Night Sky Notebook
for
May 2026



Night Sky Notebook

<http://nightskynotebook.blogspot.com/>

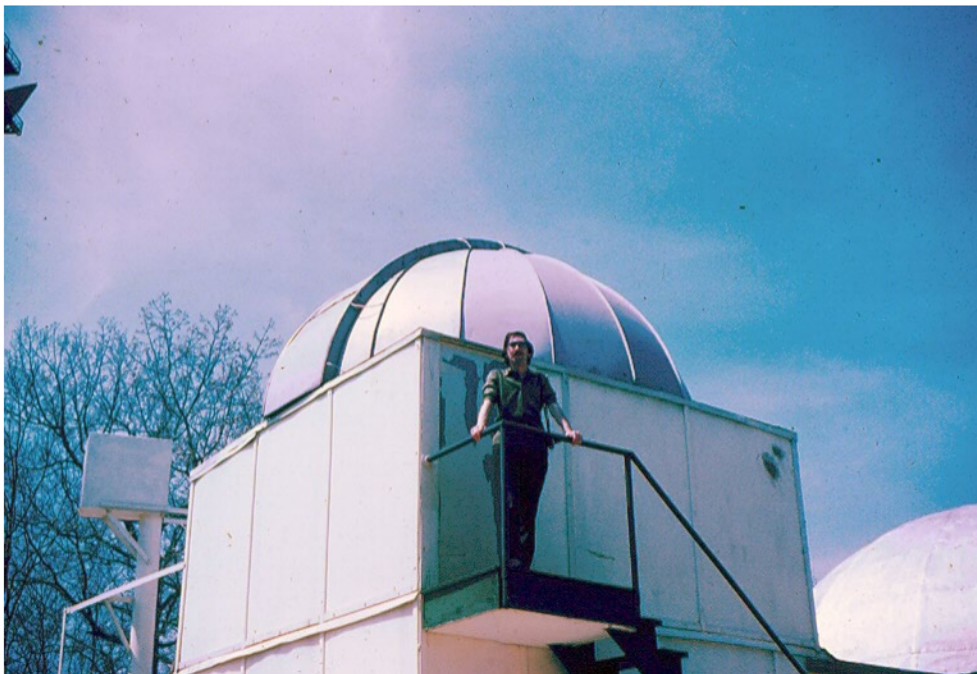


Please remember to like and subscribe!

A Distinguished Visitor

By Sandy Mesics

Fifty years ago, LVAAS hosted Peter York, a member of the British Astronomical Association (B.A.A.). The invitation came from Preston Smith, an LVAAS member who lived in Bethlehem at the time. Preston was very active in pooling information from other Astronomy organizations across the globe, which eventually resulted in many honors, such as membership in the B.A.A. and a Fellowship in the Royal Astronomical Society of England. Because of his international correspondence, Preston was unofficially dubbed as the “foreign correspondent of the Lehigh Valley Amateur Astronomical Society.” For some time, Preston had been corresponding with York, who lived in the London borough of Wandsworth. York came to the states and stayed with Preston’s family: Preston, Sr., his wife, Dorothy, Preston Jr., and Janis. This visit would turn out to be a life-changing event for both York and the Smith family.



Peter York at the Knecht Observatory

Peter York had been a member of the B.A.A. since 1964 and was a former Fellow of the Royal Astronomical Society. Upset by the lack of published work by amateurs, York and several other British amateurs helped James Muirden form *The Astronomer*, a monthly news bulletin of astronomical observations by nonprofessionals. Peter was secretary of that group from 1966 until 1972 and was helping to form a federation of amateur astronomers in

England similar to the American Astronomical League. He was also the advertising manager of the Junior Astronomical Society, a junior unit of the British Astronomical Association.

As York recalls, “In April of 1967 another event took place which would shape the future course of my life. On a Wednesday afternoon I was visiting the B.A.A library again, and Jim [Muirden] was there too. An American visitor arrived – a Mr. Charles Federer Jr. who was then the editor in chief of *Sky and Telescope* magazine. We were both very pleased to meet him, and he was grateful to hear what we thought of *S&T* and also to meet Jim. We gave him a copy of ‘*The Astronomer*’ ... and there was a small note in a later issue of *S&T* about the magazine. This note produced one

enquiry from an amateur in the town of Bethlehem in Pennsylvania. ... I had also started to correspond with the American amateur from Pennsylvania, and at one BAA exhibition meeting I showed some 35 mm slides that his society had taken of a total lunar eclipse."

Gary Becker, Editor of the *Observer*, recorded the visit in the May 1976 issue. "Peter York arrived in Bethlehem on April 3, 1976. He will be staying with Preston and Dorothy Smith until May 7th. Director Ken Mohr and Richard Wasatonic have done much of the outside entertaining because of Preston's health and have shown Peter our Pulpit Rock facilities and South Mountain Headquarters. Although Peter was impressed with our sophistication at our Hamburg, Pa. station, the special thrill of observing under the starry vault was evidenced by his very positive reactions regarding the roll-off-roof Fox Observatory and 10-inch richest field telescope."

Peter York was also present at South Mountain Observatory for the planetary occultation of Mars and Epsilon Geminorum, April 7th, and spoke briefly to the membership at the April 11th general meeting. Other astronomical events which York has participated in were a trip to Center Valley to see Walter Leight's big 11-inch refractor, and a planetarium show at West Chester State College. He also visited the Dieruff High School Planetarium, where Gary Becker's program had some equipment failures. The equipment failures continued when York and some LVAAS members took a field trip to the Hayden Planetarium in New York City. On the way home, the bus broke down in a pouring rain. Becker remembered that York made definite comments about applying for American citizenship upon visiting the Hamilton Street Ale House in Allentown. But York said, "American beer is not very good." However, Becker quoted York as saying that "the American women are quite heavenly." It would turn out that indeed, at least one American woman was "quite heavenly."

Peter York recalled how momentous these visits were: "In 1976 I spent a few weeks in Pennsylvania, staying with the family of the astronomer who had joined TA after the mention in *Sky and Telescope*. [Preston Smith] His health was not too good by then, but the members of the local society - the Lehigh Valley Amateur Astronomical Society - kindly took me to their meetings and to their two large observatories. ... I revisited them for Christmas 1977. Of

Amateur astronomer is visiting

A member of the editorial staff of *The Astronomer*, a British monthly news bulletin of amateur astronomical observation, is visiting the United



Peter York

States this month for the first time, and is the guest of a Bethlehem couple.

Peter York of London, a former fellow of the Royal Astronomical Society, arrived in the United States April 3 and is visiting with Mr. and Mrs. Preston Smith of 1172 Railroad St.

York and Smith, who is a fellow of the Royal Astronomical Society, have been friends for some time. They work together in pooling astronomical information between amateur astronomers in the two countries.

Most recently, York provided Smith with information about a comet which was discovered last fall and is still visible in the morning sky. The comet is known as Comet West, so named for its discoverer.

Last Sunday, York was Smith's guest at a meeting of the Lehigh Valley Amateur Astronomical Society, Inc., (LVAAS) on East Rock Road, Allentown. The day before, York toured the LVAAS astronomical park at Pulpit Rock, near Hamburg.

The park, one of the highest east of the Mississippi, houses a 20-inch reflecting telescope belonging to the society.

The 29-year-old amateur astronomer is the senior computer programmer for the London Borough of Wandsworth.

From 1966 until 1972 he was the secretary of *The Astronomer*, which has a circulation of about 500.

Currently, he is forming a federation of amateur astronomers in the United Kingdom, modeled after the Astronomical League in the United States.

On Friday, York will attend a show in the planetarium at Dieruff High School. On May 1, he will visit New York City as part of a LVAAS field trip. He will return home May 7.

Allentown Morning Call April 18, 1976, p. 27.

course, it was not the drink that drove me back there but rather the daughter of the family – we had fallen in love and became engaged in the New Year.” Janis and Peter were married for over 35 years.

Peter and Janis instilled a love for astronomy that spans two generations: “For many years our family used to worry the neighbours, for we could be found lying on sunbeds in the garden in the middle of the night looking for meteors and brighter comets plus satellites. My daughter has passed that interest onto her daughter too. Our grand-daughter plays in her school’s steel band and her mother also plays with them – a link back to the day many years ago in Luton when I first heard such music.”

The author wishes to thank Preston Smith Jr., Janis York, and Peter York for their help with this article.

References

The *Allentown Morning Call*, April 11, 1976, and April 18, 1976
LVAAS Observer, May 1976, and June 1976.



NEAF 2026: The "Super Bowl" of Astronomy Returns

For those of us in the Northeast, April doesn't just mean tax season; it means it's time for the **Northeast Astronomy Forum (NEAF)**. This year the Rockland Astronomy Club celebrated a massive milestone: **35 years** of bringing the universe to the Rockland Community College Field House in Suffern, NY.

If you haven't made the trek before, NEAF is often called the "Super Bowl of Astronomy," and for good reason. On April 11th and 12th, the 90,000-square-foot arena transformed into a gear-head's paradise and a space-enthusiast's dream.

The Experience

This year Bill Dahlenburg, Mike Clark, and myself attended NEAF on Saturday April 11th. We also saw many other LVAAS members at the event. The drive is about an hour and a half from the Lehigh Valley Area. Traffic was light so getting there was easy.

We have been to NEAF many times so we followed our usual plan of action. This included a quick swing through the event to see who was there followed by a second swing at a slower pace to speak to the vendors and consider what we needed (aka wanted) to purchase. This is probably one of the most exciting parts of attending NEAF. One where we dream of what we can do, followed by analyzing prices to get the best deal, followed by the realization that we can't get everything we want to purchase. This is usually followed by thinking what the spouse will say about all the money you spent. Sometimes there are even threats from the spouse to sell your car if you spend that much money, but I digress. Overall the event is very exciting and if you have never been there I recommend you attend.

The Floor

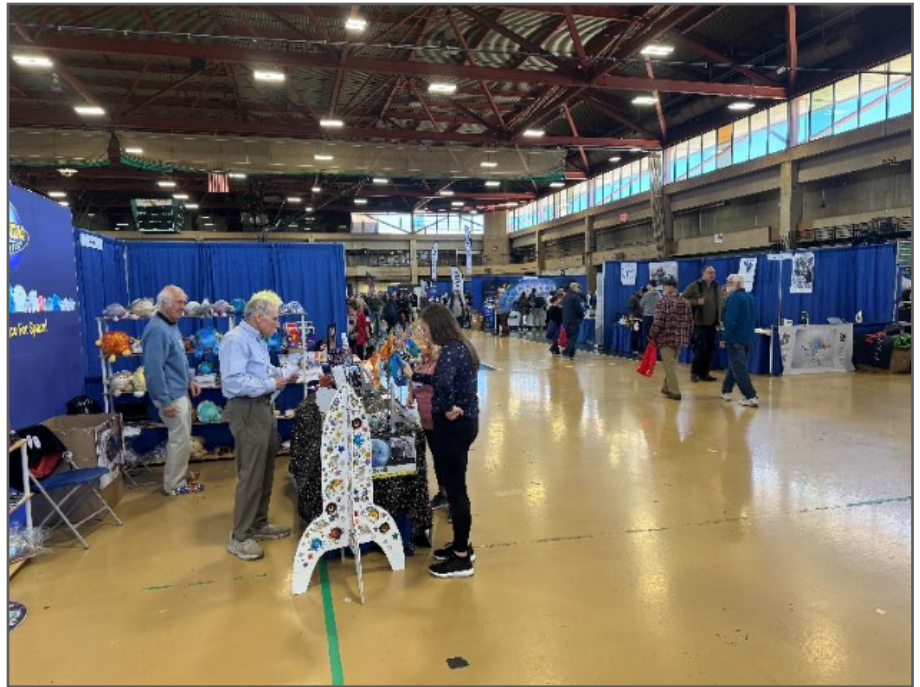
The sheer scale of the vendor hall is staggering. Over 120 of the world's top manufacturers, including the likes of **Celestron**, **Sky-Watcher**, **iOptron**, and **ZWO** were there.

Hands-on Gear: This was our chance to physically touch the mounts and glass we've been eyeing online. Whether it's the latest harmonic drive mounts or high-end refractors, we could test the movement, check the build quality, and were able to talk directly to the engineers who designed them.

NEAF Deals: Many vendors offer "show specials." If you've been saving up for a new telescope, cooled CMOS camera or a dedicated solar scope, this was the best time of year to pull the trigger.



LVAAS member Preston Smith and Vic Maris, owner of Stellarvue.



Vendor floor; Bill and Mike (R)

Solar Star Party: The weather was nice so we were able to go to the courtyard and view the sun at one of the world’s largest solar star parties. We viewed our nearest star through a variety of H-alpha telescopes, including scopes brought by the experts from the Charlie Bates Solar Astronomy Project.

World-Class Speakers

While the gear is the draw for many, the lecture series is world-class. The 2026 lineup features heavy hitters like **NASA Astronaut, Don Pettit** (famous for his incredible orbital photography), **renowned imager, Thierry Legault** and **CBS space correspondent, Peter King**. These talks ranged from the future of lunar exploration to the deep technicalities of capturing the "perfect" sub-exposure.

Something for Everyone

NEAF isn’t just for the experts. There were:

- **Astronomy 101 Workshops:** Perfect for new members looking to get their first telescope set up correctly.
- **The Raffles:** A legendary event where thousands of dollars in gear—from eyepieces to full telescope setups—are given away.
- **Kids' STEM Activities:** Planetarium shows and robotics demonstrations make it a legitimate family event.

Whether you're looking for a new OAG, a specific 3D-printed adapter, or just want to rub elbows with the legends of the field, NEAF 2026 was the place to be.

Thomas Duff

LVAAS Director, Astroimaging

Editor, *Imaging the Infinite*





Equatorial Coordinate System

We locate positions on the Earth's surface using a system called latitude and longitude. With minor variations, our Earth grid is a reflection of the Equatorial Coordinate System that astronomers use to find objects in the sky. * To refresh your geography lessons, latitude is an angular measurement made from the center of the Earth, beginning at the equator moving to the poles from 0-90 degrees *northward* or *southward* along the vertical circle that contains the object, to the object in question. When specifying latitude, it is always necessary to indicate a *north* or *south* component, except at the equator. A vertical circle in this situation is a great circle with its center positioned at the Earth's center. It is perpendicular to both horizons and traverses through the zenith.

* Longitude is an angular measurement made from Earth's center starting at the location of the equator on the Prime Meridian, proceeding *east* or *west* from 0-180 degrees to the vertical circle that contains the object. When specifying longitude, except for 0 and 180 degrees, it is always necessary to indicate whether the location is in the eastern or western hemisphere. Visually on a terrestrial globe, latitude acts like a *ladder* (up and down) while longitude represents the *long* circles that intersect both poles.

* The Greenwich meridian was chosen as the world's official Prime Meridian at the 1884 International Meridian Conference held in Washington, D.C. where 25 nations voted to adopt it. Britain ruled the seas, and 70 percent of all navigational charts at that time used the Prime Meridian at Greenwich as the zero position for longitude. * Employing this system, the position of Moravian's Sky Deck located on the rooftop of the Collier Hall of Science is 40.6297 degrees North latitude (40 deg., 37 min., 47 sec. N.), 75.383 degrees West longitude (75 deg., 22 min., 59 sec. W.). * We create the equatorial coordinate system by projecting latitude and longitude into space. Here

latitude, now called declination, is measured *northward* or *southward* from the celestial equator along a vertical circle to the position of the object. Instead of saying north or south declination, astronomers use positive (+) for north and negative (-) for south. It is the longitude component called right ascension, which is slightly trickier. RA, as the term is denoted, begins at the position of the vernal equinox, the location of the sun as it crosses the celestial equator at the first moment of spring. It proceeds only eastward in the direction of the Earth's rotation, normally not as an angle measured in degrees, minutes, and seconds but as a time component measured in hours, minutes, and seconds. The entire system completes a full cycle in 23 hr., 56 min., 4 sec. of clock time equivalent to one rotation of the Earth. However, since the spinning Earth also acts like an accurate clock, astronomers divide the Earth's rotational period, reflected onto the heavens, into a 24-hour sky clock with hours, minutes, and seconds, each with shorter intervals than the 24-hour system our house clocks maintain. This interval is termed the sidereal (star) day. * While very small changes in latitude occur over time, there is a slow secular change in right ascension and declination positions. Over a nearly 26,000-year cycle called precession, the vernal equinox slides westward around the entire sky, taking with it the equatorial coordinate system, changing the positions of **all** celestial objects in the sky. However, since both systems are a reflection of one another, it is possible to use the positions of the stars in the sky and the time difference between the observer's position and the Prime Meridian to obtain a precise position of an unknown location on Earth's surface. This superiority in navigational skills, particularly in determining longitude, gave Britain mastery of the oceans and led to the phrase *the empire on which the sun never sets*. Ad Astra!

[Join](#)

May 2026



Full Moon
May 1/13:23



Last Quarter
May 9/17:10



New Moon
May 16/16:01



First Quarter
May 23/07:10

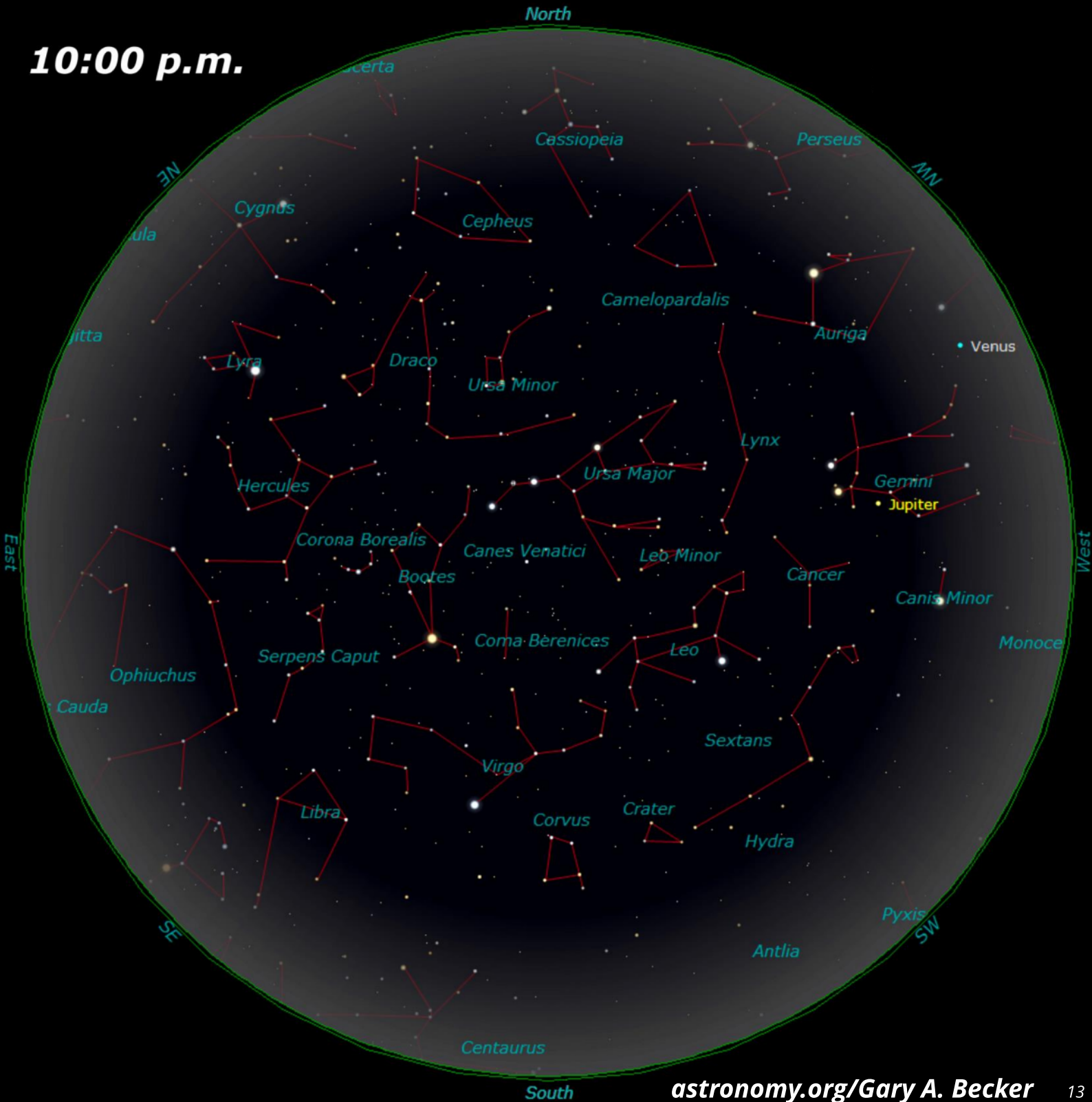


Full Moon
May 31/04:45



Last Quarter
June 8/06:00

10:00 p.m.



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
MAY 2026					Full Moon <u>01</u>	<u>02</u>
General Meeting 7:00 PM South Mountain <u>03</u>	<u>04</u>	Cinco de Mayo <u>05</u>	<u>06</u>	National Day of Prayer <u>07</u>	Stargazers Group Meeting <u>08</u>	Last Quarter Moon <u>09</u> Astroimaging Meeting - 7:00 PM
Mother's Day <u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>
<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	First Quarter Moon <u>23</u> Star Party
Deadline for submissions to the Observer <u>24</u>	Memorial Day <u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>
Full Moon <u>31</u> LVAAS Board of Governors Meeting						

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
JUNE 2026	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	Astroimaging Meeting - 7:00 PM <u>06</u>
<u>07</u>	Last Quarter Moon <u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	IMPORTANT: Stargazers Group Meeting — CANCELED <u>12</u>	<u>13</u>
General Meeting 7:00 PM South Mountain <u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	Juneteenth <u>19</u>	Star Party <u>20</u>
First Day of Summer <u>21</u> Deadline for submissions to the Observer Fathers Day	First Quarter Moon <u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>
LVAAS Board of Governors Meeting <u>28</u>	Full Moon <u>29</u>	<u>30</u>				

LVAAS EVENT CALENDAR 2026

Contributed by Bill Dahlenburg

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

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 4/11-4/12
Mega Meet
Stellafane 8/13-8/15
CSSP 6/12-6/14

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. Proofreader is David Moll.

Astroimaging Director, Tom Duff is the *Observer's* Astroimaging editor, and welcomes all image submissions. Tom is also the editor of the Imaging the Infinite astroimaging help series as of May, 2026.

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.

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