

The Observer

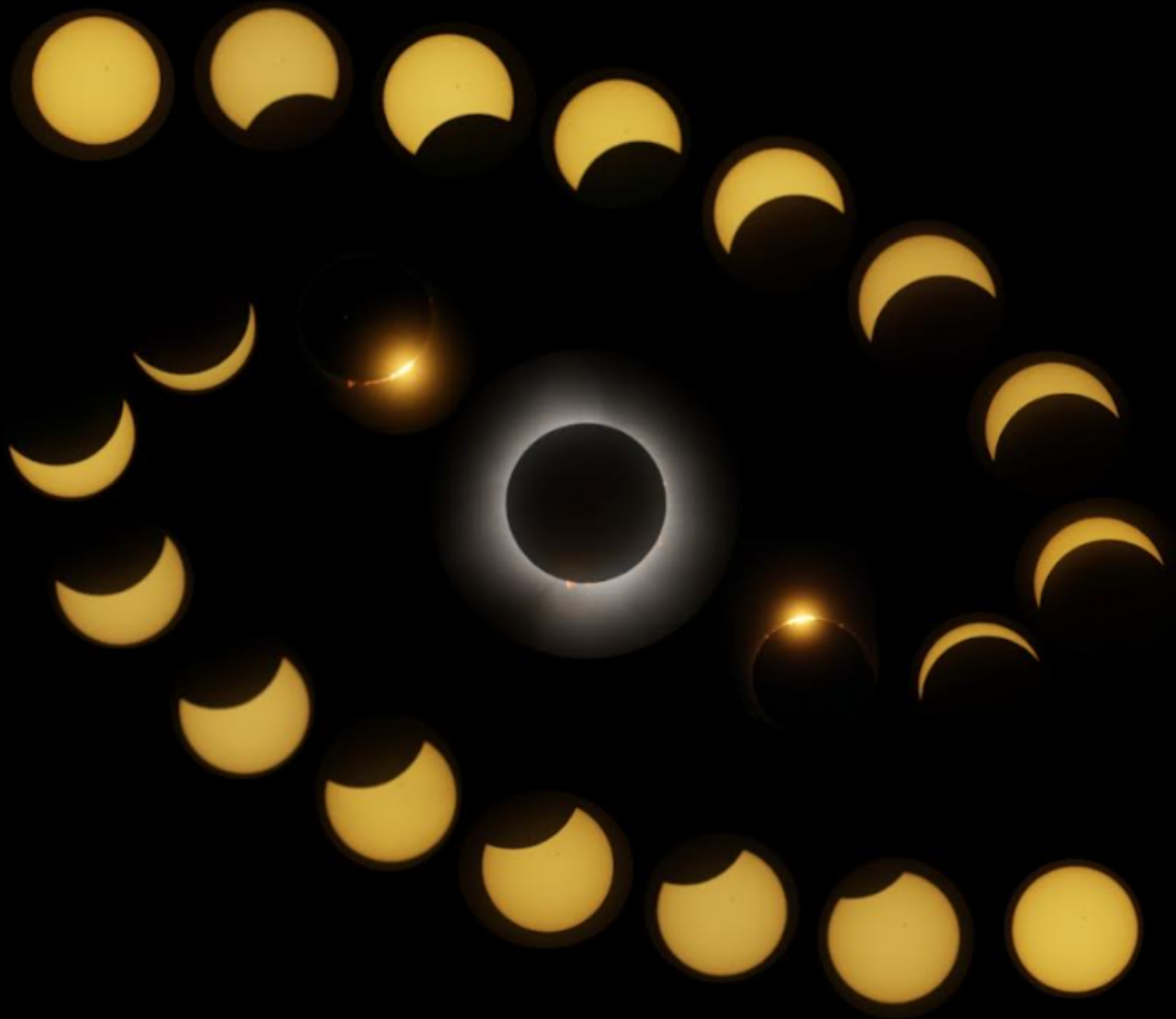
The Official Publication of the Lehigh Valley Amateur Astronomical Society

<https://lvaas.org/>

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

May 2024

Volume 64 Issue 05







Minutes from the LVAAS General Meeting – April 14, 2024

The April 2024 LVAAS general meeting was conducted electronically using an online service and at our South Mountain headquarters. Approximately 60 people were in attendance. Director Benjamin Long opened the meeting at 7 p.m. The meeting's presentation was "Playing in the Shadows."

If you want to add some stress to your astronomy hobby, try chasing eclipses for starters. Gary A. Becker and Peter K. Detterline will detail some of the eclipses they have successfully tracked, focusing on the October 14 annular eclipse they witnessed in Utah, and hopefully, the April 8 total solar eclipse that they are anticipating to observe somewhere between Vermont and Texas, in the nearest clear-weather location that is closest to home. If they are clouded out, plenty of other success stories will be detailed, including at least one lunar eclipse they have chased. If you're an umbraphile, (and who isn't?), plan to join Pete and Gary for a fun-filled program as they explore what it's like to chase and play in the shadows.

Gary 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 A. Becker's half-century of amateur and professional interests in astronomy have provided him with a unique perspective for writing and teaching. He has authored the textbook that his Moravian astronomy students use, edited the national newsletter of the Astronomical League, *The Reflector*, founded (1996) and continues to maintain as an educational outreach the very visual website astronomy.org. He has for over a quarter century written the homespun, informative weekly column "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 pdetterline@gmail.com 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 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 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.

After questions, there was a break taken at 8:10 p.m.

The Informational Meeting resumed at 8:25 p.m.

Membership: Rich Hogg

- The following members completed their second readings and are now full members:
Reed Kennell
- The following members completed their first readings:

Michael Anthony

Kyle & Pam Bender (family membership)

Marc Borgo

Thomas & Beth Julius (family membership)

- The following members have previously completed a first reading and are still eligible to complete a second reading to become full members:

Brian A. Brown

Brian C. Brown

Mike Cutrera

Daniel Jackson

Mehar Powar

David Stech and Jill Youngken (family membership)

Christine and Timothy Talley (family membership)

Stas Zharko

General Comments:

- The Northeast Astronomy Forum (NEAF) is this upcoming weekend.

Astro-Imaging Group – Tom Duff

- The LVAAS AstroImaging meeting will be held at South Mountain, Saturday May 11th at 7 p.m.
- A typical meeting will include:
 1. A presentation or demonstration on equipment, telescopes, mounts, cameras, guiding set-ups, data acquisition or guiding software.
 2. A discussion about astrophotography
 3. Show and tell about anything acquired by our members

Stargazers - Kyle Kramm

The next Stargazers meeting will be at 7 p.m. on Friday May 10, 2024 at South Mountain. June's meeting is changed to the 3rd Friday - June 21, 2024.

Education – Blaine Easterwood

- Blaine has donated an eclipse globe to the Society and it is now in the library.
- The Book Club will be meeting at 11a.m. on Sunday June 2, 2024 at South Mountain. We are reading and discussing *Physics for People in a Hurry* by Neil deGrasse Tyson. All members are welcome.
- The Lehigh Valley Space Fest will no longer be held this May. A new date is pending.

Mega-Meet – Tom Duff

- The dates for the Mega Meet, the annual LVAAS weekend camping and observing event, held at our Pulpit Rock Astronomical Park are: May 3-5, 2024.
- Mega Meet is LVAAS's bare bones star party, without vendors, speakers, or registration fees.
- Members in good standing of regional amateur astronomy clubs are also invited to attend.

Telescope Rentals – Mike Clark

- We have a ZWO Seestar 500S available for rental to members.
- We also have many other available rental scopes for \$20/month.

Pulpit Rock Observatories – Frank Lyter

- We will be having some work parties for projects at Pulpit Rock.
- Contact either Frank or Ron Kunkel if you are available to help, or if you would like instruction on the telescopes at Pulpit Rock.

Next General Meeting:

The next general meeting will be held at 7 p.m. on Sunday May 5, 2024 at South Mountain.

The April General Meeting was recorded.

The meeting was adjourned at approximately 8:53 p.m.

Submitted by Joe Zitarelli, Secretary

LVAAS General Meeting

Sunday, May 5, 7 p.m.

South Mountain Headquarters *and via Zoom*

"A Guide to Collecting Meteorites"

presented *(via zoom)* by

Gregory T. Shanos, PharmD



Gregory T. Shanos, Pharm.D., is a pharmacist by profession, and a NASA Solar System Ambassador by passion. He is a member of the Museum Astronomical Resource Society (MARS), Local Group of Deep Sky Observers (LGDSO), and the St. Petersburg Astronomy Club (SPAC) in Florida.

Dr. Shanos became an amateur astronomer in 1985 with the apparition of Halley's Comet. His passion for meteorites began a year later when *Sky & Telescope* advertised authentic meteorites for sale. After purchasing three iron meteorites for a total of \$60, he was hooked for life!

Dr. Shanos has also published over 30 review articles in *Meteorite* magazine regarding organic compounds in meteorites.

Dr. Shanos has provided the following documents to review prior to his presentation:

[A Beginner's Guide to Collecting Meteorites: The Reflector](#)

[A Guide to Collecting Meteorites: PDF of Presentation](#)

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



Via Sandy Mesics, Programs Chairperson

Upcoming LVAAS General Meeting Speakers

May: Greg Shanos will speak via Zoom on "Meteorites"

June: John Conrad will speak via Zoom on "Spaceships for the 21st Century"

July: Mike Huber et al. will speak on "The Seestar 50 and other Imaging Instruments in our Rental Fleet"

August: (*Pulpit Rock*) Brett Fadem will speak on "The New Muhlenberg Observatory"

September: Steve Conrad will speak via Zoom on "Occultations"

October: Mario Motta will speak via Zoom on "Building a 32-inch Telescope and Observatory"

November: *speaker needed*

December: Emma Page (LU) will speak on "Transits and Eclipsing Binary Stars"

Please contact astrosandy@gmail.com if you have ideas for speakers, or would like to volunteer yourself!

KUDOS! from the editor

I would like to thank a few dedicated LVAAS volunteers who have consistently supplied quality content for our Society newsletter, *The Observer*.

Sandy Mesics has been writing her "**Archives**" series since I became editor back in April of 2014. For those who want to delve deeply into the history of LVAAS and find out about the people who built it literally from the ground up, Sandy has done the research and brings it to us cleverly coordinated with current LVAAS events and astronomy happenings. Thank you Sandy!

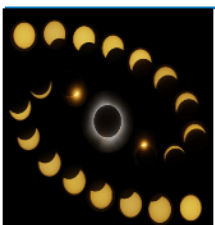
Gary A. Becker has provided his column "**StarWatch**" for our newsletter for many years, and also shares his vast knowledge of the field through his amazing website astronomy.org. As he's been a career astronomy educator he has many interesting stories to share about his travels and the people he's encountered along the way, giving us his unique perspective on topics of interest. Thank you Gary!

Peter Detterline is another passionate astronomer and world traveler who now records YouTube videos highlighting each month's starry sky forecast in "**Night Sky Notebook**" - also available on his website in blog form <http://nightskynotebook.blogspot.com/> Thank you Peter!

The Observer welcomes our newest writer, Society librarian **Joe Zitarelli** who's begun a series of book reviews called "**From the Library**" in coordination with Blaine Easterwood's Book Club. Thanks Joe!

Via Earl Pursell, UACNJ Liason

Public Program Nights have resumed at United Astronomy Clubs of New Jersey; please visit uacnj.org for info.



cover: **Solar Eclipse April 8, 2024** Imager: **Paul Tracy**

Location: Grand Lake, St. Mary's, Ohio

Redcat 61 f/4.9 refractor

ASI2600MC OSC camera

Composite Collaborators: Kathryn Christiansen, Lynn Krizan

Special Eclipse Edition
of *The Observer* due
out mid-May!

Education and Outreach News and Opportunities

Our bylaws list the following as our #1 purpose:

“To encourage and promote interest in the study of astronomy and its allied subjects from the amateur standpoint.”



Blaine Easterwood

It is in that spirit that I share the following information:

The LVAAS Book Club

Want to learn about astrophysics? Short on time? Even if you have an abundance of time, we have the book for you ... AND we will meet to discuss it. Here are the details:

Astrophysics for People in a Hurry, by Neil deGrasse Tyson (ISBN: 9780393609394)
Open Discussion at South Mountain (or Zoom) on June 2, 2024, at 11 a.m.

So, if you want to participate in the book club, just get the book and read it. It's that easy. And if the title REALLY describes you, get the audio book, and listen on the go! That's what I did ;)

We will discuss the book in the LVAAS library on June 2nd, at 11a.m. If you want to join via zoom, contact me and I'll provide the link.

Lehigh Valley Space Fest Date Change - (Date TBD)

The date is changing. We don't know when it is just yet. We hope to have a date soon. Last May LVAAS helped kick off this new event, as a presenting sponsor. We showed up in force with our solar telescopes and binoculars, filters, activities, and enthusiasm. It was a great weekend! I saw one of the largest solar prominences that I've ever seen first hand - about 1/10th of the sun's diameter. That's over 85,000 miles! The scale of our solar system is mind blowing. Anyway, let me know if you are interested in helping, and I'll put you on the list of volunteers.

When: Date TBD

Where: Paxinosa Elementary School, Easton

Web: www.lvspacefest.org



Please contact me with any questions, or to volunteer: blaine@ieee.org or education@lvaas.org



Peter Detterline's
Night Sky Notebook
MAY 2024

Night Sky Notebook

what you see when you look up



Peter
Detterline

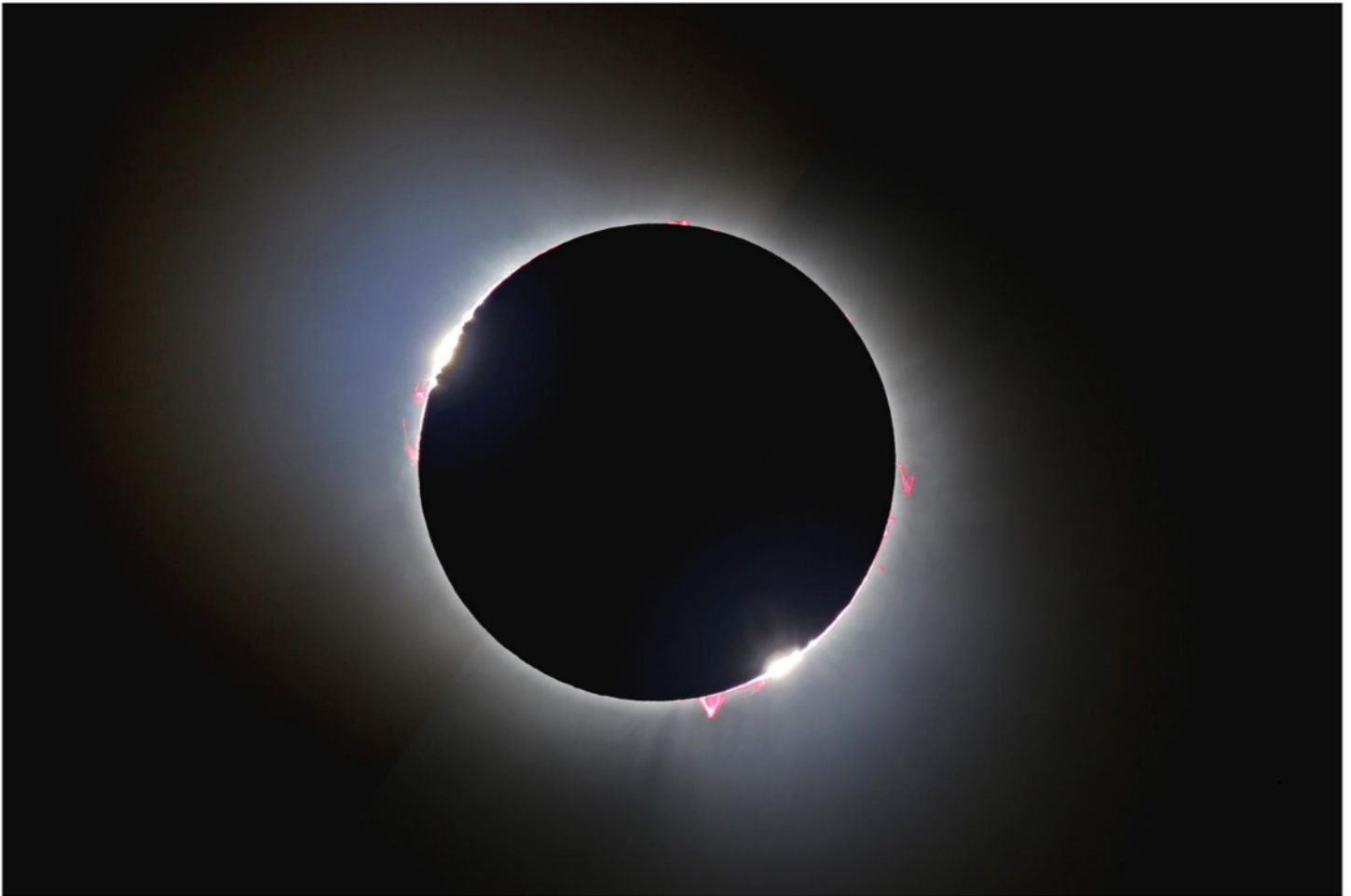
StarWatch



Double Diamond, Double Corona

Digital photography and the magic an older version of Paint Shop Pro, with the most recent edition of Adobe Photoshop, allowed me to composite into one image the ingress and egress diamond rings from the April 8 total solar eclipse seen from Derby, VT. Looking to either side of the diamonds, the sun's light coming from its photosphere becomes rough and blotchy. Those are Baily's beads, the last glimmer of light before totality (upper left) or the first vestiges of daylight streaming from the valleys between lunar mountain ranges found along the moon's limb (lower right). This signals the end of totality. * Then there are the prominences, the pinkish-hued features, leaping from the chromosphere, the middle layer of the sun's three atmospheric

layers. They are composed of fluorescing (glowing) hydrogen gas at approximately 18,000 degrees F. trapped in a magnetic bubble. The prominences project into the sun's corona, the wispy region surrounding the sun's limb, where the temperature is at least ten times higher. Astronomers are still debating how these two thermal regions can exist side by side. Finally, the blue area, best seen near the upper left diamond, was fashioned from the diffraction and scattering of light around tiny ice particles contained in a thin veil of cirrus clouds in front of the eclipsed sun. It is also called a corona. So not only are there two diamond rings in this photo, but there are also two coronas. More pictures are [here](#). Ad Astra! [Join](#)



©Gary A. Becker -- beckerg@moravian.edu or garyabecker@gmail.com
Moravian University Astronomy - astronomy.org

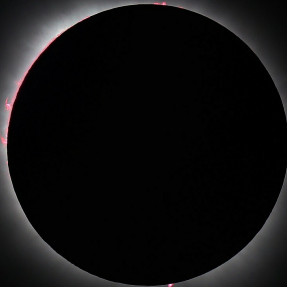
Corona



Prominences



Corona max



Chromosphere

The Gifts of Family, Friends, and ... AN ECLIPSE!

by Claudio M. Stabile

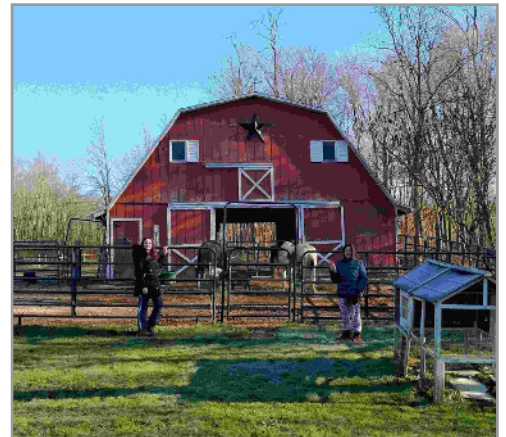


Celebrating his 50th birthday, Claudio M. Stabile took his family- Bernadette, Ava, Claudio T., Darius and mom-in-law Carmen - to Novelty, Ohio on April 8 to be in the path of totality and witness the 2024 Great American Total Eclipse. The LVAAS family members rented a horse ranch for the weekend to share this extraordinary, once-in-a-lifetime experience together.

They brought a variety of equipment including a 90mm Coronado SolarMax III, a filtered 8 inch Celestron Dobsonian, a filtered 62mm Sky-Watcher refractor, and a DwarfLab Dwarf II Smart Telescope, which ended up recording the entire eclipse.

Forecasted cloud coverage in the days leading to the event threatened most of the United States and specifically areas within the path of totality, from Ontario, Canada down to Austin, Texas. As a result, Claudio reached out to LVAAS members and created an Eclipse Backup Network so members could see each other's backup destinations in the event of unfavorable weather at their chosen locales.

Throughout the weekend, members emailed and texted each other their concerns and aspirations, travel plans, and images and updates of their experiences. This added an extra layer of enjoyment and a sense of camaraderie among the group as they shared the excitement and anticipation of the experience with each other.

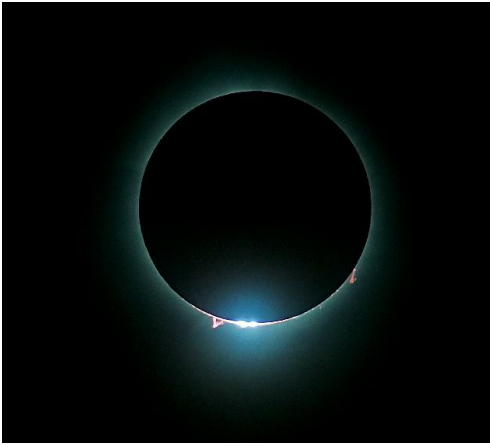


The morning of April 8 was a mix of sun and clouds. While they considered several other locations as backup destinations, the Stabile's decided to remain at the horse ranch and hope for the best. As part of the backup network, LVAAS members Joe and Mary Beth Zitarelli joined



the Stabile's at the horse ranch around noon. They engaged in lively conversation about photography, nutrition, physics, travel and philosophy throughout the event.

Back in Pennsylvania, Polk Township's Astronomy in the Community volunteers Jennifer Bentley and Jennifer Hall hosted an Eclipse Star Party while the Stabile's were chasing totality. They had upwards of 50 guests that were treated with plenty of solar glasses, a filtered 114mm tabletop reflector telescope, eclipse-themed treats, games, facts, and requirements to achieve their BSA Eclipse Emblem. Jennifer Hall even celebrated dad's 78th birthday! All had a terrific time despite the clouds.



At the ranch, the eclipse began at 2:00 p.m., and starting at 3:13 p.m., the moon fully covered the sun for just under 4 minutes during totality. During totality, the skies darkened, crickets chirped, and the horses grunted in confusion. The entire crowd at the ranch was enthralled in wondrous amazement. And after what appeared to last only moments, sunlight reemerged!

The unproven Dwarf II ended up being the “star” of the event as it recorded the full two hour eclipse nearly flawlessly! The magnetic solar filter was quickly removed during totality, and replaced during partial, with no adjustments to exposure settings. Claudio trimmed down the two hours to this one and a half minute time lapse.



But even more interesting was the reaction footage filmed by Bernadette Stabile, recording the wonder and excitement of everyone’s reaction to totality. The most interesting conversations and statements started around minute marker 1:12:

Ava: “Dude, that looks insane.”

Joe: “This is incredible.”

Mary Beth: “I’m experiencing this.”

Carmen: “That’s beautiful.”

Mary Beth: “I’ll remember this.”

Darius” “I’ve never seen one in my life.”

Claudio M.: “I haven’t either Darius!”

Joe: “Me either, and I’m old!”

Ava: “I don’t think any of us have.”



After totality, the group continued to be immersed in awe and astonishment; feelings that continue to persist. The Zitarelli’s bid a gracious farewell as they began their journey home before embarking on an anniversary trip to the Bahamas. At the ranch, the Stabile’s had cake and candles for Claudio’s 50th before everyone retired in exhausted content.

This was an extraordinary, once-in-a-lifetime human experience. The next American eclipse will take place on August 23, 2044. By that time, Claudio will be 70 and his children will range in age from 29 to 37, making this a unique time to share the experience while his children were still young and with him. Unless... they travel to Egypt in 2027!

Remembering a Renaissance Hobbyist: LH Cutten

By Sandy Mesics

On Thursday, February 27, 1936, seven men interested in astronomy gathered at the home of Leverett Howell (LH) Cutten in Allentown and formed the Lehigh Valley Astronomical Society (LVAS). The secretary recorded that at that meeting: "... Mr. Cutten explained to us that the best way to begin our astronomical work was to know astronomy's beginnings. During a most interesting talk which followed this statement he explained to us such points as astronomy used for early navigation, used for telling time. He went on and explained to us the theories of such men as Ptolemy and Copernicus, and how they were right and wrong in their ideas."



So who was LH Cutten? Born in Nova Scotia in 1881, Cutten attended Bates College in Maine, graduating in 1904. He then attended the Massachusetts Institute of Technology, graduating from there in 1907 with a degree in mechanical engineering. Cutten emigrated to the US in 1919 to join Mack Trucks in Allentown as a plant engineer. He was plant manager for Mack Trucks from 1919 to 1949 and was responsible for building many of the plants. He also held a 1923 patent for heating and ventilating cars. He was also referred to as the "Plant Safety Engineer." In 1931, Cutten became a naturalized U.S. citizen.

Shortly after settling into Allentown, tragedy struck the Cutten family. In 1920 his wife Ilene passed away at Allentown Hospital, likely from complications of childbirth. This left Cutten with a three-year-old son, William K., and a two-week-old baby. Apparently Cutten never remarried. After Cutten's children became adults, his mother came and resided with him from 1938 to her death in 1948.

Cutten's first hobby was photography, which began in the early 1920s when he began taking family photographs. On February 2, 1921, at a meeting of the Allentown Camera Club, Cutten received a prize in the portrait category. According to the Allentown Morning Call, Cutten's interest in photography "finished when Mr. Cutten thought he had advanced far enough in that line." (Allentown Morning Call, Sept. 9, 1942)

Cutten's interest then turned to archery in 1927, when he wasn't satisfied with the bow and arrow that he bought for his son. Consequently, Cutten began making his own archery equipment. In 1929 he befriended Carson Kemp, and Cutten taught Kemp how to make archery equipment. Kemp went on to turn this into a successful business in 1951.

Beginning around 1930, Cutten gave talks on archery to Lehigh Valley area Boy Scout Troops. He served as president of the Pennsylvania Archery Association, and for many years his home was the base of operations for the Lehigh Valley Archers club. They had their range at Cutten's home. In 1937 Cutten was on the board of directors of the Lehigh Valley Archers, as well as serving as President of the Pennsylvania State Archers' Association. Cutten was honored in 1938 at a banquet of the Walden Archers with a silversmith's hammer as a token of esteem for his work in helping local archery groups. He often assisted in maintaining the archery equipment at Cedar

Crest College. Cutten reportedly built quality equipment: "...a champion archer examined his handicraft and classed it as nearly perfect." (Allentown Morning Call, Sept. 9, 1942)

Bible Class Members Learn Archery



L. H. Cutten, kneeling third from left, is shown explaining some of the fine points of archery to members of a Bible class of St. Paul's Lutheran church and the Allentown Archery club last night at the club's archery grounds, near the Rose Garden. Kneeling, left to right: Charles Moyer, treasurer of the class; S. S. Kapp, class leader; Mr. Cutten, Paul H. Fur er, Harry C. Meyer, secretary, and Fred Burcaw. Standing: C. O. Bailey, F. D. Weidner, A. S. Kehler, ... of the class; Rev. George A. Greiss, D.D., pastor of St. Paul's church; H. E. Weidner, N. D. Sewell, Paul Mack, Mrs. Paul Mack, H. H. Bleiler, recording secretary, and P. O. Heller.

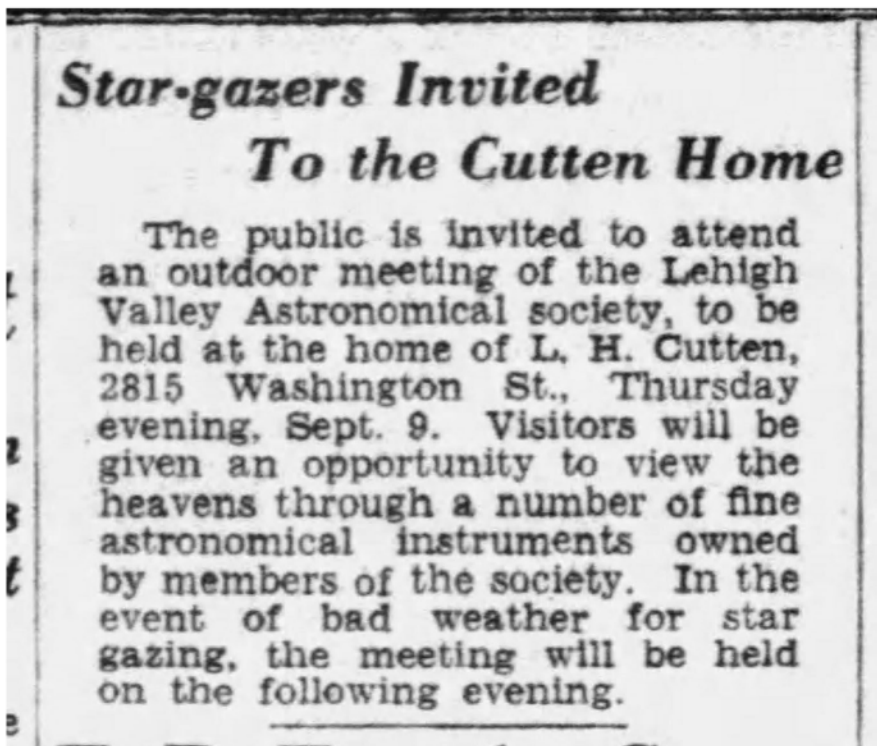
Allentown Morning Call, July 29, 1938

As an offshoot of this hobby, Cutten was also interested in Native American relics, and he fashioned arrowheads from jasper. He also scoured the Lehigh Valley for relics, and the Allentown Morning Call reported in October 1938 that he had found a "fine Indian knife."

Of all his hobbyist pursuits, Cutten was most recognized as an accomplished silversmith. He began making silver objects in his basement in 1934. At that time Cutten's brother, Dr. George Barton Cutten, who served many years as president of Colgate University, was also interested in American silversmiths and was considered an authority on the topic. Also, Cutten's son was earning a merit badge in metal working for the Boy Scouts. Cutten reportedly toured Europe to learn the art of hand-raised silver making. Cutten also made his own silversmithing tools: "The hammers and forms that he uses as a silversmith have been made by himself on a lathe in the

basement of his home. His workroom is a maze of machinery and tools.” (Allentown Morning Call, Sept. 9, 1942)

In March 1935 he displayed silverware and archery equipment at the Hamilton Street window shopping night featuring hobbies. Hamilton street was closed down for the event, and thousands attended. Over the next two decades, Cutten gave many talks and programs on silversmithing to local clubs and groups. Over the ensuing years, Cutten fashioned maces for colleges, spoons, bowls, trays, chalices and pattens, and coffee and tea sets. He made a mace for Bates College in 1949, Moravian College in 1950 and one for MIT in 1957. Cutten made a utility knife with the insignia of the Combat Engineers in a black leather, silver-trimmed sheath for his son, who served in that branch of the service during World War II. Cutten also worked a bit in copper, fashioning teakettles, candlesticks, and bowls.



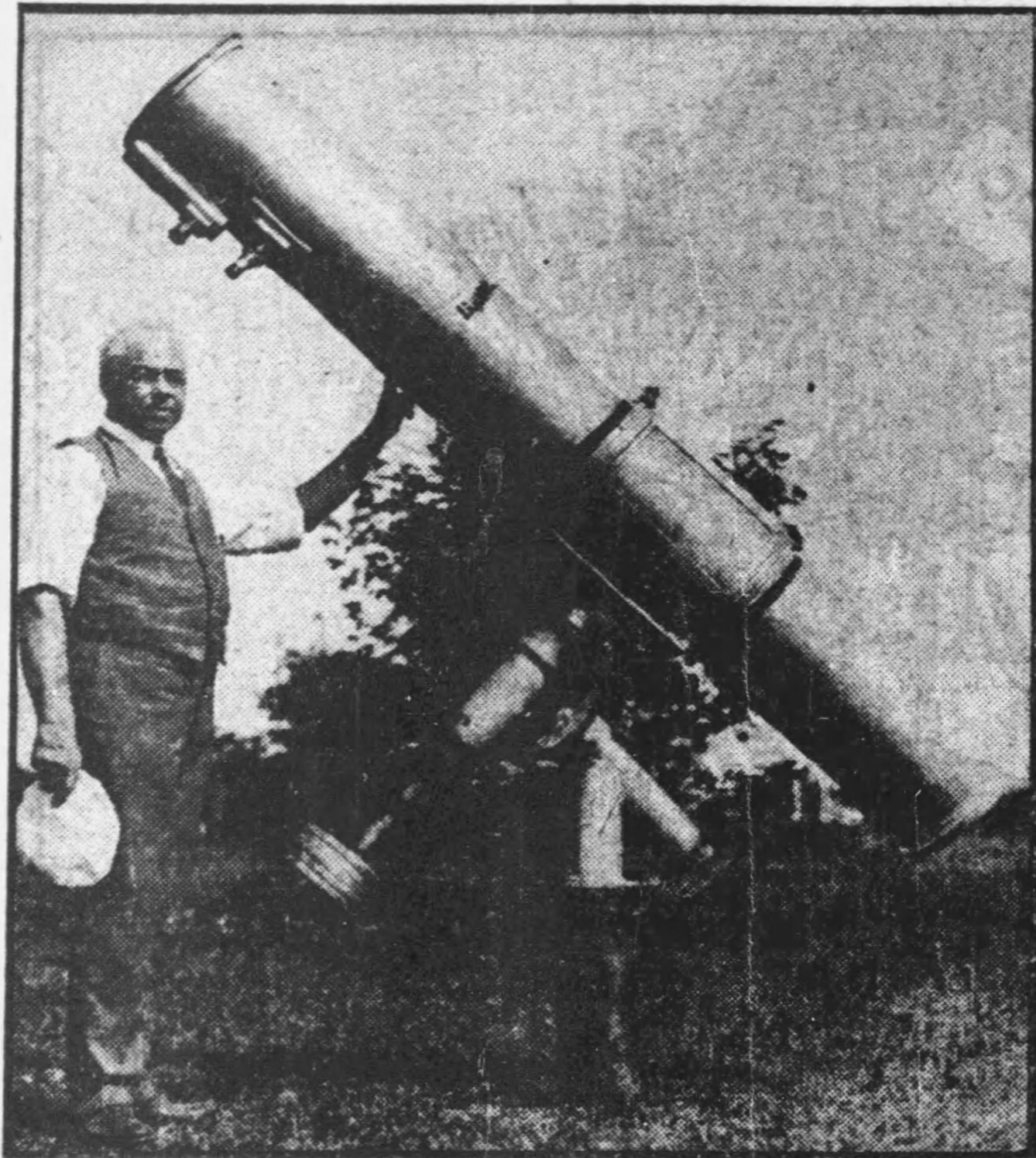
Allentown Morning Call, September 8, 1937

We are not exactly sure when Cutten took up amateur astronomy, but as early as 1932, a Morning Call article about George Knecht, mentions L.H. Cutten as one of four men who made their own telescopes, along with Ralph Schlegel and L. J. Holmes of Lanark. As early as 1933, Cutten was hosting scouts at his home, giving them lessons in astronomy and letting them view the heavens through his 10-inch reflector. The Morning Call described Cutten as “...one of the most enthusiastic amateur astronomers of the city” and his telescope as “one of the largest in the city.” (Allentown Morning Call May 4, 1933)

On July 15, 1935, Cutten was featured in a Morning Call article about a lunar eclipse happening that evening. There he was described as “merit badge counselor in astronomy for the Lehigh County Scout council.” Throughout the 1930s and up until World War II, Cutten not only hosted monthly meetings of the LVAS at his home, but at least annually had an “open house” star party that as many as 150 people attended.

In an Allentown Morning Call article about the partial solar eclipse of July 9, 1945, Cutten was referred to as “Allentown’s ranking amateur astronomer.” He was again referred to by that title the following year, when another partial solar eclipse happened in the Lehigh Valley. In 1949, he hosted the Girl Scouts, Troop 11 at his home for a talk on astronomy and viewing through his telescopes.

Will Get 'Front Seat' View of Eclipse



—Associated Press Photo

Allentown Morning Call, July 1, 1935

There is no evidence that Cutten actually joined the fledgling LVAAS when it formed in 1957, but in July 1959, Cutten was listed as an Honorary Member of LVAAS.

As if photography, silversmithing, archery and astronomy weren't enough to keep him busy, Cutten also made drypoint printing plates on which he produced the Cutten family Christmas cards each year. In this process, copper sheets are cut with a metal point to create images. Cutten did this work with a phonograph needle stuck into a broken arrow, which he used as a stylus.

Cutten retired from Mack Trucks in 1950. Cutten said that "one of the rewards of [hobbies] is meeting so many interesting people while pursuing your hobbies." (Allentown Morning Call Feb. 5, 1946) He also said, "Doctors say that when a man is not kept busy with a hobby it won't be long until he can't have a hobby." (Allentown Morning Call, Feb. 26, 1950)



Allentown Morning Call, August 30, 1938

Cutten died in 1960 at the age of 79. He had lived the entire time at 2815 Washington Street in Allentown.

He was eulogized in the November 1960 edition of the *Lehigh Valley Satellite*, the precursor to *The Observer*: "After an illness of some two months, L.H. Cutten passed away in the Allentown Hospital, October 15, 1960. Our very young Society owes much to the inspiration, advice and financial help given us by Mr. Cutten. ... As we continue our efforts as an Amateur Society on

South Mountain, we shall revere the memory of Mr. Cutten's leadership and his great contribution in the building of telescopes – and in the training and teaching in the field of Amateur Astronomy to interested young men, many of whom are members of our Society.”

Cutten left \$210,000 in stocks to his son, William. In January 1965, *The Observer* noted a gift of \$100 from William Cutten, in honor of his father. The gift was applied to a fund to be used for a fitting memorial. William also pledged \$1000 when work on a new observatory at South Mountain was formalized. There is no evidence in the LVAAS archives that this gift was ever made, and it's notable that from 1965 until 1980 no observatories were built at South Mountain.



Cutten with the MIT mace, 1957.

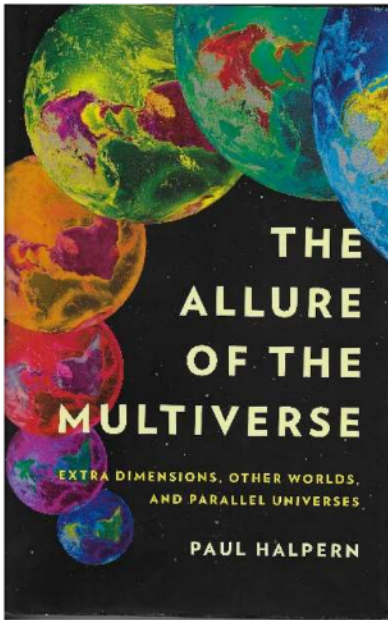
References

LVAS Minutes, 1937

Lehigh Valley Satellite November 1960

LVAAS Observer, January 1965

Various clippings from the Allentown Morning Call, various dates.



From the Library – by Joe Zitarelli

In February of this year Professor Paul Halpern gave a talk on the *The Allure of the Multiverse: Beyond the Limits of Observation* at the LVAAS General Meeting. On that day he was offering signed copies of his newly released book *The Allure of the Multiverse: Extra Dimensions, Other Worlds and Parallel Universes*. After his talk, I obtained 3 copies of his book. The first copy is in the LVAAS library under new arrivals. Because the book was dedicated to the memory of David Zitarelli, my older brother, I sent a copy to my sister-in-law. I'm 66 years old and I'm still Dave's little brother. The final copy I kept for myself to read at my leisure. After the April 8 eclipse I took a short vacation which I felt would be the perfect time to read this book. It was.

“The Allure of the Multiverse” blends history and physics while it both provokes and entertains.” - Dan Falk, author of *In Search of Time*.

“An informative and entertaining read, whichever corner of the multiverse you inhabit.” – Will Kinney, author of *An Infinity of Worlds*

The book is not a textbook, but more of a history book. It tells the story of how scientists came to the idea of the multiverse along with the multiple controversies that developed. In the introduction he gives a brief history of why the theory of one universe was insufficient. He then goes through multiple chapters explaining how modern astronomy has given us information about our distant past and how theories were developed to explain what was observed. He goes on to discuss how higher numbers of dimensions become necessary and different approaches to dealing with these ideas that can be difficult to visualize. He discusses where attempts are being made to assess these theories in a situation where points in the past are not directly observable. He even discusses where the universe is going, how it may be cyclic, time travel, worm holes and how it even fits in with modern movie culture.

First, let me say that this book is not light reading. If you want light reading, or what I call beach reading, read a James Patterson novel. But if you want to learn more about the current theories in Cosmology, this is an excellent book. Relativity, quantum mechanics, inflation, string theory and hyperspace are all discussed in this book. While it helps to have some understanding of basic astrophysics, it is not essential. Just have Wikipedia nearby to fill in information on topics that you are not familiar with. At the end of this book, you will come away with more knowledge on the topics than you started with. If you are like me, you will also come away with a lot to think about and many of your own questions. While one criticism of the idea of bubble universes is that they are beyond what is directly observable, scientists are currently studying the cosmic microwave background for signs of another bubble universe having bumped our universe in the very distant past. This is already being studied and the results controversial.

If you finish this book and want more, I suggest you read *On the Origin of Time* by Thomas Hertog where he writes about where Stephen Hawking was going after the multiverse. If you think you would like to know more about astrophysics before reading this book, consider reading *Astrophysics for People in a Hurry* by Neil deGrasse Tyson and come to the LVAAS book club meet up at 11 a.m. on June 2, 2024, at South Mountain. Both books are also available in the LVAAS library. Enjoy.



2024

Have you renewed your LVAAS membership?

LVAAS PayPal link: https://www.paypal.com/donate/?hosted_button_id=FBP8Y5VX5QXNW

(remember to add a note with your name, and membership type)

If your information has changed:

Online information update form: <https://form.jotform.com/233314308714147>

Printable form:

https://lvaas.org/filemgmt_data/files/LVAAS_Membership_Renewal_Form.pdf

Complete instructions: <https://lvaas.org/page.php?page=Renewing>

Questions? email membership@lvaas.org

Renewals were due by March 1.

New members who joined after October 1st are paid up for 2024.

Regular: \$45

Family: \$65

Junior/Student: \$15

Sustaining: \$90

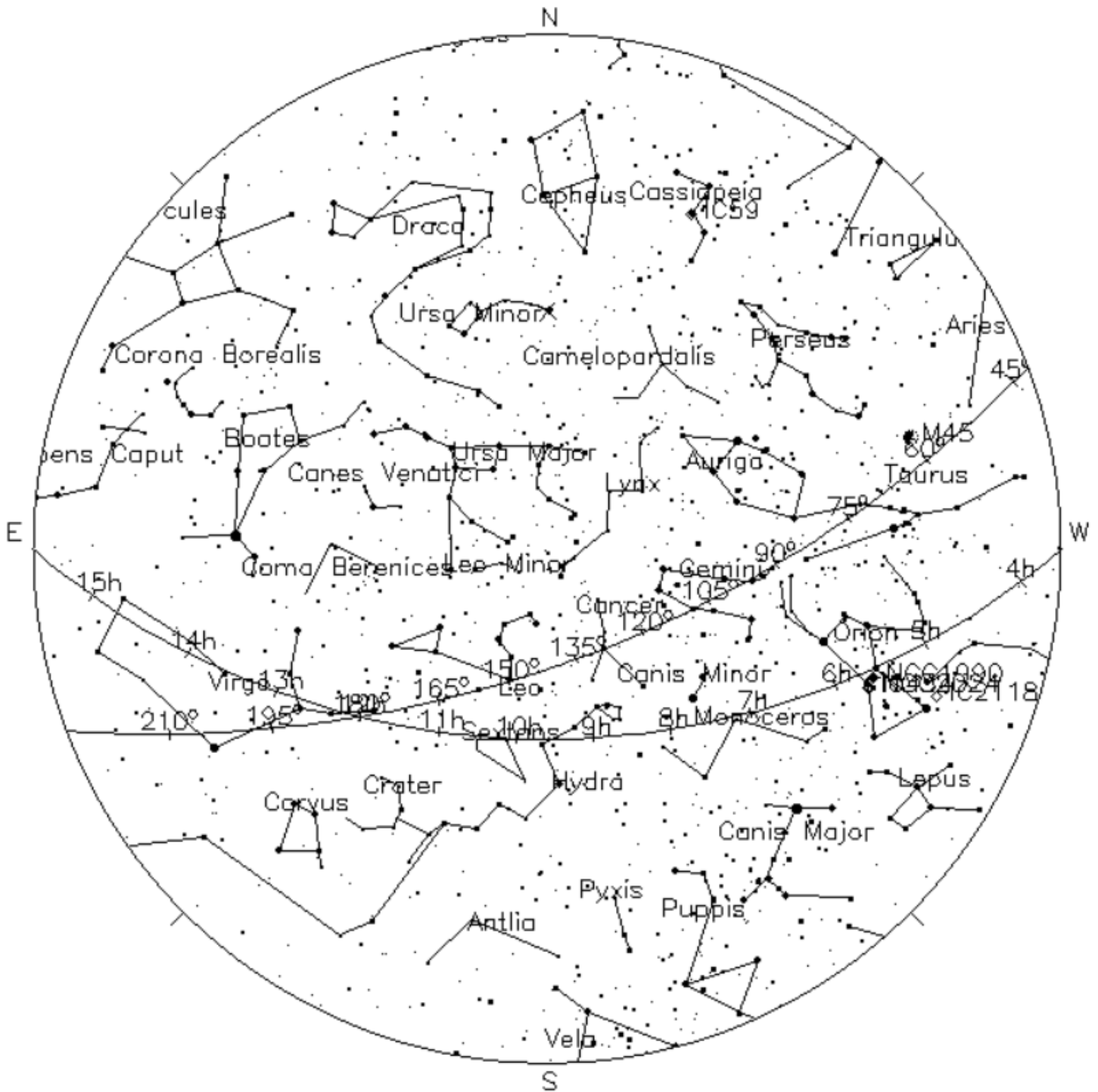
MAY

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

JUNE

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						Astroimaging Meeting - 7:00 PM 01
Book Club Meeting 02	03	04	05	Cherry Springs Star Party 06	Cherry Springs Star Party 07	Cherry Springs Star Party 08
Cherry Springs Star Party 09 General Meeting 7:00 PM South Mountain	10	11	12	13	First Quarter Moon 14 Stargazers Group Meeting	Star Party 15
Father's Day 16	17	18	19	Summer Solstice 20	Full Moon 21 Scout Camping	Scout Camping 22
Scout Camping 23 Deadline for submissions to the Observer	24	25	26	27	Last Quarter Moon 28	Astroimaging Meeting - 7:00 PM 29
LVAAS Board of Governors Meeting 30						

Sky Above 40°33'58"N 75°26'5"W Wednesday May 01 2024 00:00 UTC



Your Sky was implemented by John Walker in January and February of 1998. The calculation and display software was adapted from Home Planet for Windows. The GIF output file generation is based upon the ppmtogif module of Jef Poskanzer's pbmplus toolkit, of which many other components were used in creating the images you see here.

ppmtogif.c - read a portable pixmap and produce a GIF file

Based on GIFENCOD by David Rowley

Lempel-Zim compression based on "compress"

Modified by Marcel Wijkstra

Copyright © 1989 by Jef Poskanzer.

Customize Your Sky at <http://www.fourmilab.ch/yoursky/>

2024 LVAAS EVENT CALENDAR

Contributed by Bill Dahlenburg

2024 LVAAS Event Calendar											
	Sundays		Board meeting	Saturday			Observer Submission Deadline	Moon Phase			
	General Meeting time	location		Astro-Imaging	Star Parties	Stargazers Group		New	1 st	Full	3 rd
January	14	3:00 PM Muhlenberg	28	no meeting	no meeting	no meeting	1/21/24	11	17	25	3
February	4	3:00 PM Muhlenberg	25	no meeting	no meeting	no meeting	2/18/24	9	16	24	2
March	10	3:00 PM Muhlenberg	24	no meeting	16	8	3/17/24	10	17	25	3
April	14	7:00 PM S.M.	28	6	13	12	4/21/24	8	15	23	1
May	5	7:00 PM S.M.	19	11	18	10	5/12/24	7	15	23	1 30
June	9	7:00 PM S.M.	30	1 29	15	14	6/23/24	6	14	21	28
July	13/14	5:00 PM S.M.	28	x	20	12	7/21/24	5	13	21	27
August	10/11	7:00 PM Pulpit	25	3 31	17	9	8/18/24	4	12	19	26
September	8	7:00 PM S.M.	29	x	14	13	9/22/24	2	11	17	24
October	13	7:00 PM S.M.	27	5	12	11	10/20/24	2	10	17	24
November	10	2:00 PM S.M.	24	2	9	8	11/17/24	1	9	15	22
December	8	2:00 PM ?	29	7	no meeting	no meeting	12/22/24	1 30	8	15	22

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 4/20 - 4/21
 Mega Meet 8/9 - 8/11
 CSSP 6/6 - 6/9
 Stellafane 8/1 - 8/4
 BFSP

October 4-5-6?

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 200 pixels/inch max.
- ▶ Use the lowest JPEG quality that still looks good!
- ▶ Shoot for <300KB for a 1/2 page image or <600KB 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://www.ivertech.com/freeOnlineImageResizer/freeOnlineImageResizer.aspx>. 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.

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.

No permission is required for non-profit educational use of the material in this publication. Please send a link to, or copy of the publication containing the reprinted material to the editor at the above address. Some material in this publication may be copyrighted.

If you are interested in becoming a member of LVAAS, please visit our [membership page](#) for information on applying.

Existing members please update your LVAAS profile information by emailing the membership director at membership@lvaas.org.