

The Observer

The Official Publication of the Lehigh Valley Amateur Astronomical Society

<https://lvaas.org/>

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

February 2024

Volume 64 Issue 02





Ad Astra

*In Martian skies, a rotor's dance begun,
Ingenuity soared 'neath the distant sun.
Red dust whispers tales of courage and flight,
On alien winds, it painted its light.*

*Silent now, the helicopter's mission complete,
A pioneer's journey, both bold and sweet.
Amongst the stars, its legacy will gleam,
Ingenuity, a story woven into the Martian dream.*

- ChatGPT

As I contemplated the opinion of one form of artificial intelligence reflecting on the conclusion of another's mission, I found it fitting to delve into the intricacies of the extraordinary journey that has now reached its conclusion. Originally conceptualized with the modest ambition of completing up to five flights on the Martian surface, Ingenuity, the resilient rotorcraft, surpassed all expectations by executing a remarkable 72 flights. To classify this mission as a success is to downplay its significance; it stands as an awe-inspiring testament to human ingenuity and the ever-evolving landscape of technological achievement.

The mission's success not only defies the initial projections but also ushers in a new era of possibilities in space exploration. Ingenuity's ability to navigate and traverse the challenging Martian atmosphere has not only advanced our understanding of extraterrestrial aerodynamics but has opened the door to envisioning more ambitious missions in the future.

Yet, even in the face of these monumental accomplishments, the conclusion of Ingenuity's Martian sojourn is accompanied by a sense of bittersweet reflection. The small rotorcraft's resilience and overachievement evoke pride and awe, but bidding it farewell marks the end of an epoch. As we witness the sun setting on Ingenuity's Martian endeavors, it prompts a contemplation of the broader implications for the future of space exploration. The indomitable spirit displayed by this diminutive marvel beckons us to dream beyond the confines of our current understanding, urging humanity to reach for new heights in the unexplored realms of our solar system and beyond.

Ingenuity's farewell is not just an endpoint; it's a launchpad for the limitless possibilities that lie ahead in our quest to unravel the mysteries of the cosmos.

Ad Astra!



Minutes from the LVAAS General Meeting – January 12, 2024

The January 2024 LVAAS general meeting was conducted electronically using an online service and at Muhlenberg College, 130 Trumbower Hall. Approximately 45 people were in attendance. Director Benjamin Long opened the meeting at 3:02 p.m.

The general meeting's presentation was "Light Pollution Adverse Effects on Human Health, Glare, and the Environment" given by Mario E. Motta, M.D., FACC. Dr. Motta recently retired from practice at North Shore Medical Center in Salem, Massachusetts. He is a graduate of Boston College, with a BS in physics and biology, and of Tufts Medical School. He is a Fellow of the American College of Cardiology and of the American Society of Nuclear Cardiology, and is an associate professor of medicine at Tufts University School of Medicine. Dr. Motta has long been active in organized medicine, both in the American Medical Association (AMA) and in the Massachusetts Medical Society (MMS), holding a number of posts through the years. He is a past president of the MMS, and was elected to the AMA Council of Science and Public Health where he has served 8 years, and elected to the Board of Trustees of the AMA in 2018, recently completing his term.

Dr. Motta has had a lifelong interest in astronomy, and has hand-built a number of telescopes and observatories through the years including his entirely homemade 32-inch F6 relay telescope located in Gloucester, MA. He has been awarded several national awards in astronomy, including the Las Cumbres award from the Astronomical Society of the Pacific in 2003, and also the Walter Scott Houston award from the northeast section of the Astronomical League, and in 2017 the Henry Olcott Award from the American Association of Variable Star Observers (AAVSO). He is a past president of the ATM's of Boston and served as a council member and president of the AAVSO. He has been on the Board of the IDA. He has worked on light pollution (LP) issues for many years, and published several whitepapers on LP as a member of the AMA Council of Science and Public Health. Finally, he represented the AMA on a UN committee (COPUOS) on LP for a worldwide effort to control LP and

satellite proliferation. Several years ago the International Astronomical Union awarded Dr Motta an asteroid in part for his work on light pollution and amateur research - asteroid 133537MarioMotta.

There are strong economic and climate-related arguments for the use of LEDs in street lighting around the world. However, not all LED light is optimal. Some LED lighting fixtures produce excess blue emission, harmful to both human health and the environment. The problem is with the disruption of circadian rhythmicity through suppression of melatonin production by the pineal gland. Melatonin has been shown to be an important adjuvant to the human immune system, and thus when suppressed has detrimental human health effects, including a slight increase in cancer. There is no such thing as a white LED. Many 'white' LED streetlights have a spectrum that contains a strong spike in the blue wavelength, which is most effective at suppressing melatonin during the night and therefore affects our circadian rhythm. There is now voluminous data showing a higher risk of hormonally-linked cancers with melatonin suppression.

Improperly designed lighting fixtures can result in glare, and create a road hazard condition. This can be greatly mitigated by proper design, shielding and installation so that no light shines above 80 degrees from the horizontal. The visual hazard by these very intense point sources is magnified by higher color temperature LEDs, because blue light scatters more in the human eye, leading to increased disabling glare and has serious implications for night-time driving visibility. A study of roadway lighting in England showed no convincing evidence for associations between lighting adaptations and road traffic collisions nor for levels of crime. For safety, lights should not shine directly into the eye. Direct light causes glare and worsens our ability to see. Shielded lights, due to less glare, increase the ability to see objects better.

There are differences in color in LED lights and they are listed as how they mimic star color by temperature K. 5000K LED lights are very bright as opposed to High Pressure Sodium light that is at 1870K. High Pressure Sodium light (1870K) shows details and scenery better than LED lights at higher K. A study in Chicago suggested that increased lighting enabled crime. Cities are getting away from 4000K lights and going to 3000K or lower. A 2009 AMA resolution stated that road lighting should not have glare. Subsequently a 2012 AMA policy suggested that using lighting of 3000K and lower communities could limit light leakage into bedrooms that would decrease the blue light and diminish its detrimental effects on humans and the environment. ANSI/IES (Illuminating Engineer Society) in 2022 finally came around to the same recommendations as the AMA.

Many studies have suggested harmful effects of blue light in LEDs. One study showed that if one twin in a pair was blind and their twin sister was not, the blind twins had a lower breast cancer rate than sisters with vision. Many clinical studies show a correlation between light pollution and cancer.

Melatonin is an immune buffer and multiple studies showed how melatonin suppresses cancers. Blue light has been shown to suppress melatonin production. One study showed a direct relationship between zip codes with high outdoor light pollution and a higher risk of breast cancer. All endocrine cancers appear to be affected by melatonin. Further, LP correlates with obesity which in turn correlates with diabetes and heart disease. Blue light can also accelerate macular degeneration. Light at night can have a detrimental effect on more than just humans, and includes plants, insects, birds and fish. No species studied have been found to be unaffected by light at night. Light pollution has been shown to be a driver of insect declines. In short, blue light at night is bad for wildlife.

After multiple questions there was a break from 4:32 p.m. until 4:55 p.m.

Membership: Rich Hogg

- The following members completed their second readings and are now full members:
Raymund and Catherine Ang (family membership)
 Note: Raymund's given first name was spelled incorrectly in last month's minutes
Dennis Hendershot
Chris Matos
- The following members completed their first readings:
Jeff Freeman
Linda Lapos
David Lorchak and Nichole Hydro (family membership)
Jessica Scott
George and Karen Wilt (family membership)
Nicole and Craig Wade (family membership)
Stas Zharko
- There are currently no members who have previously completed a first reading and are still eligible to complete a second reading to become full members.
- Josiah Genzlinger will reach the age of 18 in March and was allowed to complete a first and second Reading in advance. and will become a full member upon turning 18.

General Comments: Benjamin Long

- Dave Raker has retired from his position as LVAAS Librarian after 24 years, and in thanks for his service has been given a lifetime membership. Joe Zitarelli will be taking over as Librarian.

South Mountain Maintenance – Bill Dahlenburg

- We are currently waxing the floors so there is some disruption at South Mountain facilities. We hope to have this completed in the next couple of weeks. We are usually available on Saturday mornings at South Mountain if you need help with equipment or to be trained on the telescopes.

Astroimaging: Tom Duff

- We have a very active astroimaging group for anyone who is interested in taking those beautiful images that you have seen. The group is currently on hiatus and will not be meeting until April 6, 2024 at 7 p.m. at South Mountain. If you are interested, sign up for the AI io.group.

Stargazers: Kyle Kramm

- The Stargazers Group is an informal get together on the second Friday of each month for members of all levels of experience to meet, with an agenda determined by the members who attend. We are currently also on winter hiatus and will resume meeting on Friday March 8 at 7 p.m. at South Mountain.

Pulpit Rock – Ron Kunkel

- Ron works with Frank Lyter on the facilities at Pulpit Rock. Members who would like training on telescopes at PR should contact Ron or Frank. See the contacts page of our website.

Education – Blaine Easterwood

- A reminder that the Kalamazoo Astronomical Society's "Introduction to Amateur Astronomy" lecture series started yesterday, but it's not too late to sign up (and view the first session on YouTube later). There was more information on this in the January issue of *The Observer*.
- We work closely with the Da Vinci Science Center in Allentown. They are making plans for an event on Monday April 8 for the solar eclipse and are asking for our help. Many of our members are traveling to experience totality. If you are not traveling and would be able to help please contact Blaine (contact information on website). Even if you are not very experienced we will help guide you, and your assistance will be appreciated.
- Blaine is a committee of one and could use help from anyone who is interested, or has suggestions for educational activities.

The meeting was adjourned at approximately 5:10 p.m., and was recorded.

Submitted by Joe Zitarelli, Secretary



2024

It's time to renew 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 are 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

LVAAS General Meeting

Sunday, February 4, 3 p.m.

Muhlenberg College, 130 Trumbower Hall *and via Zoom*

"The Allure of the Multiverse: Beyond the Limits of Direct Observation"

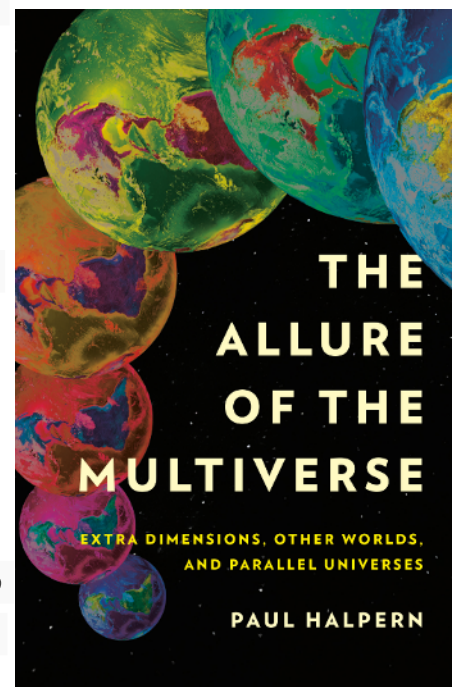
presented by

Dr. Paul Halpern



Science, including astronomy, is done by observation and verification. However, not everything can be observed directly. Many physicists and astrophysicists today, in an effort to solve dilemmas such as the overall uniformity of the observable universe on the largest scale, have embraced theories such as inflation, that lead to the idea of other bubble universes, well beyond direct measurement. This talk will explore the controversial embrace of the multiverse.

Acclaimed science writer and physicist Dr. Paul Halpern, a professor at Saint Joseph's University, is the author of eighteen popular science books. The recipient of a Guggenheim Fellowship, a Fulbright Scholarship, and an Athenaeum Literary Award, he has contributed to *Nature*, *Physics Today*, *Aeon*, NOVA's *The Nature of Reality* physics blog, and *Forbes'* *Starts with a Bang!* He has appeared on numerous radio and television shows including *Future Quest*, *Science Friday*, *Radio Times*, *Coast to Coast AM*, *The Simpsons 20th Anniversary Special*, and C-SPAN's *BookTV*. There will be a book signing at this event.



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



Via Sandy Mesics, Programs Chairperson

Upcoming LVAAS General Meeting Speakers

February: Paul Halpern will speak on his new book "The Allure of the Multiverse" and do a book signing.

March: Dave Sobel will speak via Zoom on "The Glass Universe"

April: speaker is needed; please contact Sandy if you have an idea for a speaker

May: Greg Shanos, a Solar System Ambassador, will speak on Meteorites via Zoom

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

Via Tom Duff, Astroimaging Director

Coming this April, the **World's Largest Astronomy and Space Expo for 33 years at NEAF** read more [here](#)

Via John Kmetz, Global Meteor Network

Read about the meteorite that fell to earth January 21 over Berlin Germany, with fragments being found to the west of the city by amateur prospectors from Poland in this [Sky and Telescope](#) article.

Via Earl Pursell, UACNJ Liason

NASA Summer Internship Opportunities, Application deadline Feb 2, 2024

<https://www.nasa.gov/learning-resources/internship-programs/>

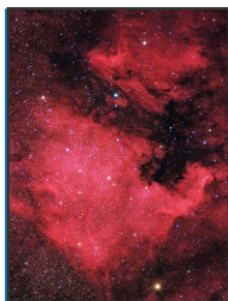
Via France Kopy, Observer Editor

All LVAAS members are welcome and encouraged to contribute material for our newsletter, including photos (astroimages, skyscape or event), original articles of astronomical interest, or advertisements for equipment.

The Observer has a world-wide audience; why not use it to share your love of astronomy? (Please see the black box, last page for specifics on ads.)

Via Earl Pursell, UACNJ Liason

During the off-season (November through March) UACNJ is now presenting an online astronomy-related presentation that begins at 8 p.m. on Saturdays. You can tune in by visiting us at our [YouTube channel](#). To view the program line-up please visit uacnj.org.



Cover image NGC 7000 The North America & Pelican Nebulae

Imager Michael L. Morgan

Taken at Cherry Springs State Park 6-28 & 6-29-2011. (L, Ha) RGB Luminance 16 x 4 minutes unbinned Ha 12 x 10 minutes unbinned RGB 3 x 5 minutes each binned 2x2.

Total exposure 3 hours 49 minutes. William Optics 66SD w/WO 0.8 x reducer II, QSI 583wsg.

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.

Amateur Astronomy Lecture Series

Looking for a way to spend a few winter Saturday afternoons? Well, look no further. The Kalamazoo Astronomical Society is hosting a free five-part Introduction to Amateur Astronomy lecture series beginning January 13th at 1PM. The series consists of 5 two hour Zoom sessions held every other Saturday afternoon through March 9th.

This is an excellent series that has something for both the beginner as well as the seasoned amateur. The presentations are both informative and thorough. Attendees will receive a comprehensive set of prepared notes for each session and participants who attend all sessions will receive a certificate of completion! I can't think of a better way to spend a few winter afternoons.

So head on over to the KAS website to register, and mark your calendar so you don't miss this great opportunity!

<https://www.kasonline.org/amastro.html>

Wishing you clear skies and latency free Zoom sessions!

Help Guide Education Programs for LVAAS

Want to help identify and facilitate educational activities and programs? If so, why not join the Education Committee? For as far back as my LVAAS memory reaches, the Education Committee has been a committee of one. I would like to change that and collaborate on ways to enhance our education efforts. This is a great way to help contribute to the society. So bring your ideas and talents to the Education Committee!

Volunteers Needed for April 8th Eclipse Event at the Da Vinci Science Center

Over the years our partnership with the Da Vinci Science Center has grown nicely. The number one reason for this and our successful partnership is the dedication of our volunteers.

Many of us will be traveling to the path of totality for the April eclipse, so staffing this event will likely be more of a challenge than previous events. I will help coordinate this as needed, but will not be able to attend the event on eclipse day.

If you are not traveling and can volunteer at the Da Vinci Center please let me know. The primary activities will be assisting guests with viewing the sun, and sharing your enthusiasm about the wonders of the sky.

We appreciate any time that you can volunteer. So even if it's for only an hour or two, we would love to have your help!

— — — —

Contact me with any questions or to volunteer: blaine@ieee.org or education@lvaas.org

For Sale – Explore Scientific 102mm triplet telescope with Celestron AVX mount/tripod and much more

This is a five year old Explore Scientific 102mm telescope and Celestron AVX mount/tripod system that was lightly used and in excellent condition. It can be used for typical astronomical viewing or for astrophotography [some camera adapters included]. The goto mount can find clusters, nebulae, planets, galaxies, etc. The replacement cost for all the equipment included in this sale is roughly \$3,100 at Skies Unlimited. Asking \$1345 cash with local pickup in Emmaus, no shipping.

price reduction

More pictures and/or details upon request.

Included in the sale:

Explore Scientific ED 102 Telescope, 5 mm Cel LX eyepiece, 25 mm Cel LX eyepiece, explore Scientific 2" diagonal, Celestron Powertank Lithium Pro, Celestron AVX mount/tripod, Telescope cover, 8x50 finder scope with reticle.

Please email Mike Waddell if interested: mgwaddx@gmail.com





Peter Detterline's
Night Sky Notebook
FEBRUARY 2024

Night Sky Notebook

what you see when you look up



Peter
Detterline



Michael Lee Morgan, 69, of Albion, PA, an avid photographer and certified curmudgeon, passed away peacefully at his home on January 23, 2024. Michael worked for the Drakes Cakes Factory in Wayne, NJ. He was the very last man to leave the building when the doors officially closed in 2013. After his retirement he spent some time in New Jersey before relocating in 2018 to Albion, PA. It was here that he met his wife, Christine. They loved to travel and photograph quaint local places together and to take in an evening of live music. They were both over the moon in love with their dog Zoey. He wasn't one to wear his feelings on his sleeve. In fact, it was hard to tell just how he was feeling about anything. However, we do know that he loved the following things: Music. We would be hard pressed to tell you that there was ever a weekend; that we weren't woken up by the melodic beats of 60's and 70's rock n roll, progressive rock, and/or

new age music coming up the stairs from our living room. Trust me, until you've been woken from a sound sleep by the music of the Moody blues, you haven't lived. Some days you could see him bopping around to the beat if it caught him just right. Space. Specifically, the stars. He was an avid star gazer, and an amazing astrophotographer. As a member of the Lehigh Valley Amateur Astronomical Society, he took several star gazing trips with them, his favorite spot being Cherry Springs. He set up the Vitale Solar observatory while staying with his daughter to capture those sun flares in calcium-K. He always said it's not the camera, it's the photographer that takes amazing pictures. Cinema. When it came to movies, he had one strict rule for a Christmas Carol. It had to be with Alastair Sims in black and white only. He loved the old corny monster movies, but was always game for a Samurai classic, like Harakiri. He loved taking his kids to the drive-in to see movies, like The Goonies, where they would chomp Doritos loudly in his ear. Oddly enough, he loved the movie Lilo and Stich, when asked why he said the colors of the movie were beautiful blues. Of course, these were all squeezed in when he wasn't watching Sasquatch hunters, The Curse of Oak Island, or some other mystery show on Discovery ID. A camping trip was never complete until he fired up an episode of the Grease man and sat back and laughed uncontrollably. We all know about what happened to poor Phil Kronenberg because of this. I think if there was one imparting piece of wisdom, he would want everyone to know it would be this, that most people call them green onions, but they're really scallions.

Michael is survived by his loving wife Christine Morgan, and his three children, Melissa Vitale, Charles Morgan and Jason Morgan. His step children, Sabrina Eugenio, Angelina Eugenio, Nicole Sanfilippo and Nicholas Sanfilippo. As well as his grandchildren Dexter, Spencer, Ava, Lana, Nathaniel, Charlotte and several nieces and nephews. Michael was predeceased by his parents, Charles and Charlotte Morgan, as well as his brother Richard and sister Diane. Calling hours will be held at the Mattera Funeral Home, 188 East State Street, Albion, on Saturday, January 27, 2024 from 2pm-4pm. Burial will be private in Hope Cemetery, Wellsburg. In lieu of flowers, donations may be made to the family. To light a memory candle or leave a condolence, please visit www.matterafuneralhome.com

Posted online on January 25, 2024

Published in Erie Times-News



Mike Morgan (L) in the company of LVAAS astroimagers and family at Cherry Springs State Park in 2015.

When I joined LVAAS and got interested in astrophotography, I found Mike. He along with Mike Tapper, Simon Porter, and Lynn Krizan guided me through my astrophotography adventure. To this day I can still picture Mike telling me what I was doing right and what I was doing wrong. That was Mike - strongly opinionated, but at the same time always willing to help.

I got to know him much better when I started going to Cherry Springs State Park to observe and image. Mike was a regular there, and when I started coming, he and his friends welcomed me with open arms. We would often have long winded discussions about astrophotography, family, and the politics of the day. We often did not agree on politics but that did not stop us from being friends. Many discussions ended with "we will agree to disagree." The one discussion we always agreed upon was family. Mike loved his children and grandchildren, and spoke of them often.

In later years he stopped coming to Cherry Springs State Park so he could be closer to his family. He found a new wife who he loved dearly. I then followed Mike on Facebook where his love for his family and his wife always came through in the images he posted.

Mike was an extremely talented astrophotographer. He would show me an image he had just created, and I would ask him how he processed the image. I would sit and listen quietly knowing that I only understood half of what he was saying. Little by little I learned more about astrophotography. To this day I can still picture him lecturing me on what I should be doing.

I, like many other LVAAS members, will miss Mike.

~ Tom Duff

Mike Morgan was a very decent guy, and was among one of the best image processors in the club. It was a pleasure to know and image with him over the years. So sorry to learn of his passing. Hopefully he's closer to the stars he loved to image.

~ Mike Tapper

I have many fond memories of Mike. He was a pioneering astroimager in LVAAS, a guy many went to for guidance and equipment recommendations, -help which he freely and kindly gave. I spent quite a few nights imaging with him at Pulpit Rock. I have an image of the Cocoon Nebula that I treasure. It is a combination of Mike's data and my data, and Mike processed it into a real gem of a photo. Mike's processing skills were beyond 'over the top' in an era when we didn't have all the AI tools we have today. He taught me so much, I can't begin to articulate it. When he moved to Albion, PA to be closer to his son, I missed him for a long time. He was a darn good friend.

~ Dave Moll

I think some at LVAAS may not have known that Mike came to LVAAS through his friendship with Bob Bukovski at Cherry Springs. Mike was living in north Jersey at the time and had other choices regarding astronomy clubs but said he preferred our company after meeting Bob and other LVAAS members at Cherry Springs. Mike was one of the first in our group to do digital photography and do it well! I was always amazed at his skills processing a photo. He could take data I collected, and thought was junk, and turn it into something I could be proud to display.

Usually one of the first to set up camp for a weekend at Cherry Springs, Mike always made room for latecomers like myself. Camping next to Mike was a choice spot with readily available advice and setup help or processing lessons. Forget a cable or need a tool - he had one ready for you to borrow. I can clearly recall the sound his camper door slamming as he was in and out retrieving equipment or checking on his setup. Conversations with Mike or sitting in on his conversations with others as we waited for the skies to clear could be quite the experience. Mike had a strong opinion and expressed it freely on many topics but without malice to those that disagreed - he remained friends with all and joked about their disagreements. I think we were all happy that he and Christine found each other in later years and will miss following their adventures as they posted photos of their travels. I will miss Mike.

~ Bill Dahlenburg

Astroimager Sandra Repash was able to locate several of Mike's astroimages from our 2015 calendar, and they will be featured in upcoming issues of our newsletter. Thanks Sandra.

~ editor

The Cocoon Nebula (IC 5146, Caldwell 19) in Cygnus. Imaged from Pulpit Rock Astronomical Park, summer of 2015. Combined data from Michael Morgan and David Moll. Equipment and acquisition information not available. Processing by Michael Morgan...RIP." (pg.15)



© 2015 David M. Hill
© 2015 Michael L. Morgan

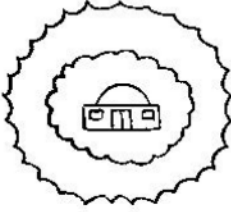
A History of LVAAS Holiday Parties

By Sandy Mesics

LVAAS has been celebrating the holidays for a long time. The first LVAAS "Xmas Party" was held on Sunday December 4, 1960, at 2 p.m. at the South Mountain headquarters. The party featured a lot of activities: a short movie on "The First Christmas," and talks on Supernova and Planetary Conjunctions by LVAAS members Richard Trumbore and Bill Ference, followed by carol singing and finally, a buffet lunch.



This set a pattern for the following decades: remarkably, from 1960 through 1987, the holiday party was held at South Mountain headquarters. There was always food: initially under the direction of the Ladies Auxiliary, and later by volunteer coordinators. While the entertainment events varied from year to year, there was always something for both the young and the old. In 1961, there were more child-friendly events: cartoons and a surprise visit by Santa. This resulted in the biggest turnout of people ever to fill the planetarium up to that time, although the exact number of attendees is not recorded. In 1962, the group viewed Woody Woodpecker cartoons, a magic show, and a double quartet of carolers. In 1963 Dick Machamer did a comedy juggling routine, and in 1965 a puppet show was offered. The following year, offerings included "The Stars at Christmas" slide show, "The Pup's Christmas" and "The Littlest Angel," cartoons.



L. V. A. A. S. CHRISTMAS PROGRAM
1964

The Story of the Christmas Star
----- *

o Come All Ye Faithful ---- The Celestial Trio
Linda Maurer 1st violin, Robert Robson 2nd
clarinet, George E. Maurer 3rd clarinet

The Christmas Star -- Part 1 William Ference

It Came Upon A Midnight Clear The Celestial Trio

The Christmas Star -- Part 2 Richard Trumbore

Silent Night The Celestial Trio

A Ventriloquist -- Mrs Timothy Reynolds and friend
Charlie

----- *

Buffet and Refreshments served by the Ladies Auxilliary

We wish to call your attention to the display of Christmas
items on sale by our Ladies Auxilliary. Please look these
things over and help the Ladies to a successful effort.

A MERRY CHRISTMAS AND A HAPPY NEW YEAR TO ALL

Toward the end of the "swinging sixties" there was even something for the teens: in 1967 there was dancing by Miss Gee, and psychedelic music provided by Mike Meiley. Mike repeated the musical offering in 1968, along with an "informal program of films." According to the January 1970 Observer, the 1969 event was special: "There was a marked difference in our Christmas program, one that produced both a friendly, casual air with our traditional seasonal festivities. The card tables and chairs allowed for greater freedom for circulation and comradie. [sic] The punch, coffee, ice cream and home baked goodies were greatly enjoyed by all. Dispite [sic] the snow and sleet, the attendance numbered nearly 70. A bouquet to Program Chairwoman, Marion Robson and the ladies for a fine event." (*Observer*, January 1970)



Top row: scenes from the 1965 party. Bottom row: photos from the 1966 party.

In 1970, the cabaret seating arrangement was repeated and attendance was reported to be sixty persons. Throughout the seventies, the parties featured:

- 1971: A showing of Buster Keaton's classic comedy, "The General."
- 1972: "The Fun Factory:" a film of clips from Keystone comedies. Also, a magic act by Tom Hilton. More than 75 folks were in attendance.
- 1974: Screening of a 1912 film "Through the Telescope"
- 1975: This comment stands by itself: "Even if you're Jewish we guarantee a good time." (*Observer*, Dec. 1975)
- 1976: Screening of a 16-minute comedy film by LVAAS members George Maurer and Walter Leight entitled "A Question of Gravity." This film will be shown repeatedly at LVAAS holiday parties for many years. There were also skits by members, carol singing by a trio of members, and a magic act by LVAAS member Bill MacHose.
- 1977: A barbecue supper
- 1978: Comedy skits, a ventriloquist, a silent film, and a magic act.

- 1979: A reprise of “A Question of Gravity” plus music, a puppet show for kids, and magic by Mill MacHose.

From 1980 to 1987, the Christmas party continued to be held at South Mountain. Some of these parties featured:

- 1981: A new film by George Maurer: “The Martian Blues” and slides from Astro-Con 81 by Gary Becker.
- 1982: A skit by members about the Three Wise Men and the Star of Bethlehem, a magic act by Bill MacHose, and a Reshowing of the film “A Question of Gravity.”
- 1983: A return of Bill MacHose’s magic act, and a reprise of the film “Martian Blues.”
- 1984-90: All these parties featured LVAAS member Rae Klahr’s barbecue.

Because of space limitations, Director Rae Klahr negotiated to have the 1988 Christmas party at St. Andrew’s Evangelical Lutheran Church at East Rock Road and South Fourth Street. In 1989, there was a cartoon slide show by Walter Leight entitled “Snoopy’s Dream,” a skit by Paul Hunsberger about the trials of amateur astronomy, and music by LVAAS members playing recorder, oboe, piano, and guitar.



Scenes from the 1987 Holiday Party

In 1990, the party featured music by George Maurer on piano and Bill Edwards on harmonica. In 1991, the term used to refer to the event was changed from “Christmas Party” to “Yule Party,” and the event moved back to South Mountain. The party featured ventriloquist Burke Bradbury and his “partner,” Oscar Zilch. There was also a reshowing of “A Question of Gravity.” In 1992, the “Yule Party” was referred to as the “Holiday Party” for the first time, a change that remains in place to this day. In 1993, the Holiday party was moved back to St. Andrew’s Church, which continued until 1996. In 1994, the *Observer* reported that attendance was 60 people. In 1996, for one year only, the venue was St. James Lutheran Church in Coopersburg.

1997 marked LVAAS’s 40th anniversary, so the Holiday Party was combined with an anniversary banquet held at the Days Inn on routes 22 & 309. Alan Hale of comet Hale-Bopp was the guest speaker. In 1998, the venue was St. Andrew’s Church for the last time.

Between 1999 and 2007, the party was held at Trinity Episcopal Church in Bethlehem. The venue was chosen because Trinity's rector, Nick Knisely, was also an LVAAS member as well as a professor of Physics and Astronomy at Lehigh University. During this time, some of the events were as follows:

- 1999: An episode of The Simpsons was shown
- 2000: George Maurer presented his video of the 1993 Pulpit Rock rededication.
- 2001: A magic show by George Raiger.
- 2003: For the first and only time so far, the Holiday party was canceled due to inclement weather.
- 2004: A presentation of the Monty Python "Mr. Creosote" sketch left many members queasy and made Gary Becker promise never to show it again. On a brighter note, during dinner attendees were treated to the video "The Concert for George." The Simpsons episode "Bart's Comet" was also shown.
- 2006: A presentation entitled "The Christmas Star" by Nick Knisley
- 2007: A demonstration on lasers and holograms

In 2008 Trinity Church was no longer available, and the venue moved to Grace Community Church in Allentown thanks to the generosity of the pastor, John LaShell, who was also an LVAAS member. Approximately 60 members and their guests attended and enjoyed the fellowship and a wide variety of covered dishes and a video spoof on the validity of the "flat earth theory". For the next few years, the party featured:

2009: According to the *Observer*, "A superbly researched and passionately delivered presentation about Global Warming was delivered by Mike Turco."

2010: A presentation on the Galaxy Zoo program by LVAAS member Simon Porter.

2011: A talk by Matt Binder about his experiences in the NASA Astronaut Program.

2012: No record exists of this year's program.

2013: A presentation of astroimages by LVAAS members.

2014: Joshua Pepper from Lehigh University speaking on "Exoplanet Discovery."

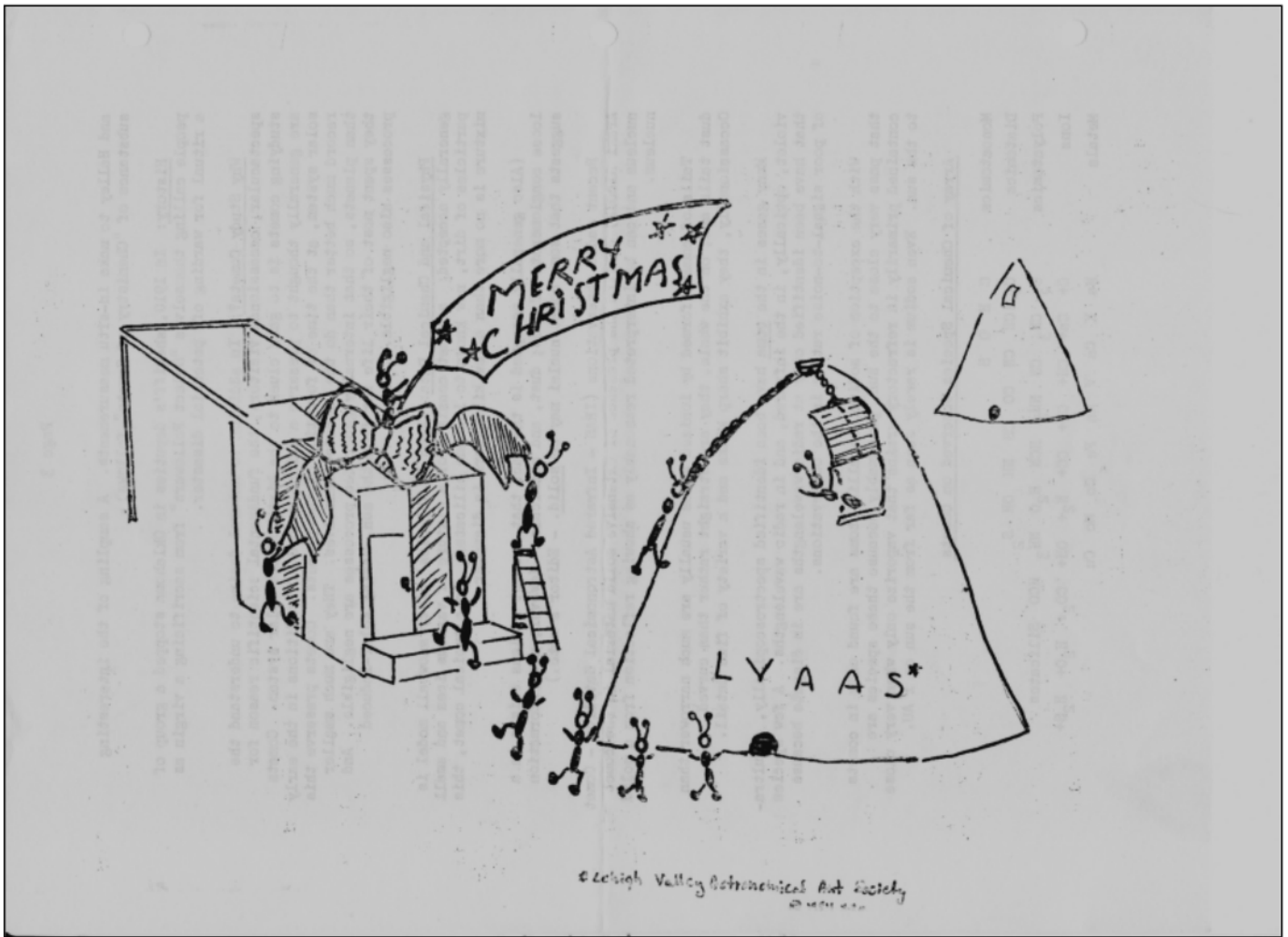
2015: A screening of the PBS film by Tim Ferris, "Seeing in the Dark."

2016: A trivia contest with Dave Melman

2017: A presentation and book signing by Paul Halpern on "The Quantum Labyrinth."



Left: John LaShell. Right: Dr. Josh Pepper speaks at the 2014 Holiday Party



In 2018 after John LaShell moved to North Carolina, the venue was the Lower Macungie Community Center. This was the first time the party featured the popular “Astronomy Trivia” game. In 2019, the venue moved to the Da Vinci Science Center, and the “Astronomy Trivia Contest” with Dave Melman was reprised. The 2020 party was held online due to the Covid-19 pandemic. Megan DeCesar spoke on “Pulsars and Gravitational Waves.” The online format continued in 2021, with a presentation entitled “Comet Tales” by Larry McHenry. In 2022, we went “live” again from the Da Vinci Center as well as virtual via videoconferencing. The presentation was a virtual one by Vic Maris on Stellarvue refractors. Most recently in 2023, we had LVAAS member Linda Prince presenting on “City of Stars.”

Food, fun, fellowship, and education: it seems to be a formula for success! There aren’t many events that survive for over 60 years, but the LVAAS Holiday Party seems to be one of them. Next month, I’ll write about another notable, but short-lived LVAAS Holiday tradition.

References

The Observer, various issues, 1958-2023.



StarWatch

Travel Wisely to See April's Eclipse

If you are traveling to witness the April 8 total solar eclipse and staying at a specific location to observe it, make sure that you are booking lodging within the path of totality warns Jamie Carter of www.space.com. He notes two places planning eclipse venues for guests where viewers will be highly disappointed: Fogo Island Inn in Newfoundland, with 99.02 percent coverage at maximum eclipse, and the Johnny Cash Boyhood Home in Arkansas (99.4 percent). Yes, the sky will look very dusky, and the area from which the shadow is passing will look much darker, but participants will miss the wondrous scenes, such as the diamond ring, Bailey's Beads, prominences, and the magnificent corona (sun's outer atmosphere). If a full moon highly restricts what can be seen in the sky during the night, then the sun, which is 436,500 times brighter, masks everything until about 10-15 seconds before totality. * Jon D. Miller, a public science literacy advocate from the University of Michigan, estimated that 19.8 million American adults traveled in 2017 to view the August 21 total solar eclipse from inside the path of totality. He notes that many of those individuals would have seen a total solar eclipse from their homes but ventured deeper into the shadow zone to make the period of totality last longer. I have enclosed a [link](#) allowing readers to experiment using computers and smart technology with positions that are located on or off the path of totality. The different moments of the eclipse are noted

in Universal Time, i.e., Greenwich Mean Time. Subtract four hours from UT to obtain the Eastern Daylight Time and five hours for Central Daylight Time. The different events are offered in a 24-hour clock format. For example, 1 p.m. equals 13 hours; 2 p.m., 14:00 hours; 6 p.m., 18 hours, etc. * Once eclipse enthusiasts have reached the path of totality, all of the phenomena related to total solar eclipses are waiting to be enjoyed. At the northern or southern limits, totality is instantaneous, but just traveling 15 miles into the 110-mile-wide shadow path as it crosses Pennsylvania near Erie, increases totality from instantaneous to 2 minutes, 50 seconds. Double that distance to 30 miles, and the length of totality to be experienced is approximately 3 minutes and 33 seconds, an increase of 43 seconds. On the centerline, which passes about 15 miles to the NW of Erie, over Lake Erie, an additional 15 seconds of shadow time will occur. * Keep in mind that most enthusiasts traveling into the moon's primary shadow and darkness are most likely headed for the centerline. However, locating yourself 10 or 20 miles from that position for this event will allow you to witness the eclipse in near-centerline conditions but in a less congested locale. You may even find yourself entertaining the local neighbors as my friends and I did in Osceola, North Carolina, for the 1984, May 30 annular eclipse. The Rumley family even gave us bathroom privileges before we left. Not a bad way "to go..." Ad Astra!

LVAAS Global Meteor Network Update

Congratulations to **Steve Walters** for the successful installation of his home meteor camera in Albrightsville, PA. Steve's station has been successfully calibrated and is now part of the Global Meteor Network official data stream! His images, time-lapse video and astrometric results can be found at the at following weblog:

<https://globalmeteornetwork.org/weblog/US/US003Y/>

This new camera is now the fourth station in the LVAAS family after **South Mountain**, **Terry Pundiak** in Easton, and **me** in Upper Providence. Timing could not have been better with the upcoming Geminid Meteor Shower on December 13th and 14th. Last year our cameras each captured over 400 meteors during the peak evenings. For more information on the GMN, please see their website at:

[What is the GMN? - Global Meteor Network](#)

The network now has over 500 cameras worldwide used to capture daily meteor flux, discover the debris fields of well know and sometimes long-lost comets, and track the trajectories of fireballs and smaller meteors. In a few cases, the network has been instrumental in tracking meteorites right to the ground. If anyone is interested in building their own camera or would like to have one pre-assembled, please contact **Frank Lyter** or myself. We still have extra parts and components for constructing a station for you at cost. Dark skies are not required, just a decent swath of open sky to position the wide field lens.

Clear Skies and Good Luck to Steve!

John Kmetz

FEBRUARY

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					01 Last Quarter Moon	02
General Meeting 3:00 PM Muhlenberg College	04	05	06	07	08	09
Super Bowl	11	12	13	Valentine's Day 14	15	16 First Quarter Moon
Deadline for submissions to the Observer	18	President's Day 19	20	21	22	23
LVAAS Board of Governors Meeting	25	26	27	28	29	24 Full Moon

MARCH

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					01	02
Last Quarter Moon	03	04	05	06	07	08 Stargazers Group Meeting
Dalight Savings Time Begins	10	11	12	13	14	15
General Meeting 3:00 PM Muhlenberg College						16 Star Party
Deadline for submissions to the Observer	17	18	Spring Equinox 19	20	21	22
First Quarter Moon						23
LVAAS Board of Governors Meeting	24	Full Moon 25	26	27	28	29 Good Friday
Easter	31					30



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 5/3 - 5/5
 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@g.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. PDF format is preferred. Early submissions are greatly appreciated. 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 at observer@g.lvaas.org

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 .