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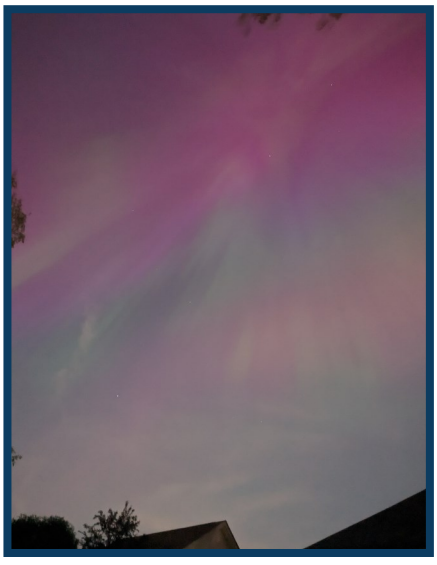
Summer 2024
Second Quarter

PSF NEWS

Planetary Studies Foundation

IN THIS ISSUE

The "Northern Lights" in the Midwest



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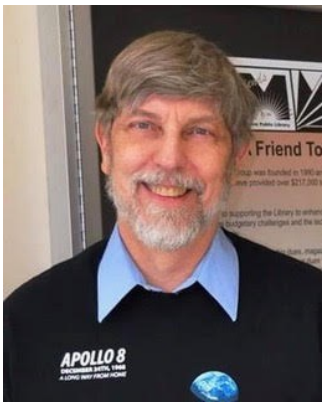
PRESIDENT'S MESSAGE



The second quarter of 2024 proved to be an example of a real "roller-coaster" of an emotional ride. It began on a very positive note with the exceptional April 8th American Total Eclipse. This over 4-minute total eclipse was greatly anticipated with almost half of the United States lying in its path. Based on the wonder and excitement that occurred during the 2017 American Total Solar Eclipse millions of people planned on seeing this one. Hotel reservations and viewing sites were planned years in advance knowing that the calculated positions of the Earth, Sun and Moon would not fail them. The only variable left to chance was the weather, April rain and cloud cover could literally "rain down on the parade". Hoping only for the best, many determined PSF members took their chances and arrived at their selected viewing sites. As the Moon's shadow began racing across the Earth's surface the weather blessed most viewers with nearly perfect viewing conditions. For the Sipiera clan, we choose Bloomington, Indiana as our best viewing site. We were able to rent a private home as our headquarters. From there we hoped that we could find a location where we would see as much of the totality as possible. Talking about good luck, it turned out that this house was located right on the centerline of totality and under a beautiful blue cloudless sky. So, without moving an inch we saw four minutes and four seconds of totality. From first contact through totality to last contact we all agreed that this was a most unforgettable and emotional experience.

Continuing the "up-side of the roller-coaster ride" was our continuing research on unclassified meteorites from the collection of PSF member, the late Dr. Ted E. Bunch. This involved the "clean-up" of several hundred of his unclassified meteorites at the time of his death. During his lifetime Ted Bunch classified over a thousand meteorites that he later donated to various scientific institutions in the United States and Canada. Several hundred of those meteorites eventually came to the PSF and are now part of the larger collection at the Yale Peabody Museum in New Haven, CT. I am also pleased to report that our assistant curator Evelyn Larson has been working at the museum for these past six months. Her duties include cataloging and photographing all 2,800+ specimens in our combined James M. DuPont and Planetary Studies Foundation Meteorite Collections. Most recently we were honored with the donation from PSF member David Smith's personal meteorite collection. Among the hundreds of specimens were over 100 that were new to our other collections. This is very much appreciated and many of these new specimens will be added to those already in the Yale Peabody Museum Meteorite Collection.

The "down-side of our roller-coaster ride" came with news of the tragic death of our PSF member and Apollo 8 astronaut William A. Anders. It was only last October that we all celebrated with Bill and his family for his 90th birthday. It was a Gala affair held at his Heritage Flight Museum in Burlington, WA. It was an exciting celebration with many of his friends and "flight buddies" honoring him. The highlight of the event was a three-formation flight with Bill in the middle and his two sons Greg and Alan on his wings. Bill also provided each of his guests with a commemorative coin entitled "Older Than Dirt". This coin featured dust from a carbonaceous chondrite meteorite in his collection. This is where I came into Bill's life. It was our mutual "obsession" with meteorites that formed the common bond in our friendship. Since 1968 I had always admired the courageous flight of Apollo 8 and considered it the pivotal moment in America's efforts to get to the Moon. The crew Frank Borman, James Lovell and William Anders would be the first humans to literally leave the Earth's gravity and be pulled into the gravitational field of another world. This was an unbelievable moment and to have it happen over the Christmas holidays made it even more dramatic than one could imagine. The primary success of the mission was the accomplishment of achieving lunar orbit and more importantly a safe return home. Apollo 8 paved the way for all the future lunar missions. One aspect of the mission that would later overshadow all the scientific data came from one of the hundreds of photographs taken from lunar orbit. That would be the now iconic color photo taken by Bill Anders of the Earth rising above the barren lunar horizon. For the first time humanity could see the Earth positioned alone against the blackness of space. For many like me it had a profound effect on the way I perceived our overall place in the universe. I now had a new appreciation of our unique and beautiful Blue Planet. So how did a 20-year-old college student in 1968 become friends with an international hero like Bill Anders? The answer may be that I was lucky enough to follow a career in geology that also incorporated astronomy. Later, having a wife that was also so infatuated with astronomy and space science didn't hurt either. Diane's professional career brought her in constant contact with many of the Apollo astronauts and her networking ability opened many doors. It was through our efforts with the Planetary Studies Foundation that brought us in contact with many of these famous astronauts. I first met Bill Anders at a cocktail party hosted by Apollo 7 astronaut Walt Cunningham. During our conversation Bill mentioned that he had a beautiful 300-pound Gibeon Iron meteorite on display at his home. This led to more talk about meteorites and later an invitation to visit me in 2010 to see the meteorite collection at the Field Museum in Chicago. From that time on we became "meteorite buddies" and I helped him build his collection with additional interesting meteorites. Over the years as we became closer friends, we had many personal and scientific conversations. In the over fifteen years that I have known Bill I could never get over the idea that I was so privileged to be his friend. Going back to Christmas Eve 1968 I could never have guessed that of the three Apollo 8 astronauts I would become close friends with Bill Anders and Jim Lovell, too. I guess I lived the dream I never had! I will cherish the memories of the times we shared and miss the opportunities the future may have held. I am really going to miss our phone conversations the most. Goodbye, my friend.

Paul P. Sipiera

DONORS & MEMBERS CORNER

In-Kind Donation

Dave Smith

Donated his personal meteorite collection consisting of several hundred specimens.

Life Member

Eugenia Krzyzanski
Upgrade from Contributing

Renewing Members

Individual Membership

Wilbur Boike, Jr.
James Dole
Nancy Heggam
Candace Kohl
Lyle Johnsen
Deborah Pausz

Family Membership

Juile & Steve Helman
Mary & Kevin Ramsden
Dan & Pam Tindell
Zeke & Emily Winders

PSF Member and Apollo 8 Astronaut, Bill Anders, died in a plane crash at the age of 90

William “Bill” Anders, who took the iconic “Earthrise” photograph that showed the Earth from the moon’s surface, died while piloting a plane that plummeted into the waters off of the San Juan Islands in Washington state.

Bill’s famous photo (seen right) was taken on Christmas Eve in 1968 during the Apollo 8 mission. In addition to his influential role in the Apollo program, Bill graduated from the U.S. Naval Academy in Maryland in 1955. He went on to receive a commission in the U.S. Air Force and obtain a master's degree in nuclear engineering from the Air Force Institute of Technology at Wright-Patterson Air Force Base in 1962. In late 1963, Bill was among only 14 men chosen by NASA from thousands of applicants for the Astronaut Corps. Bill founded the Heritage Flight Museum in 1996 with his wife, Valerie. We thank him for his many contributions to space flight. He will be missed dearly.

PSF Member, Michael Gillig, passed away on April 16, 2024 at the age of 68

Michael Gillig passed away in April after a short battle with cancer. Michael is the stepfather to PSF Treasurer, Ryan Nolan, father-in-law to PSF’s Chief Communications Officer, Andrea Nolan, and Grandfather to their sons, James and Roc. Michael always had a curiosity for learning especially about nature, science and technology. Michael became involved in the Planetary Studies Foundation after Andrea and Ryan invited him to the Karl G. Henize Observatory at Harper College. He was fascinated by all the “big” things the PSF was involved with despite being a “small” organization.

Growing up in Grand Forks, North Dakota with a family lake house in the Bemidji, Minnesota area, Michael quickly acquired many water hobbies, most notably fishing. He loved being on the water surrounded by fresh air and nature. Throughout his career, Michael used his analytical ability to master a variety of computer programming and IT skills at companies such as Lucent Technologies and the VA, where he retired on April 1, 2022. Michael lived with his wife, Gayle, in Aurora, Illinois in a home overlooking a large pond which gave him plenty of opportunities for birdwatching and stargazing. He will be missed by so many!

Meet Our 2024 Planetary Studies Scholarship Recipient

Board Member, Mary Becker, represented the Planetary Studies Foundation at the April 18th "Realizing Dreams" Educational Foundation event held at Harper College in Palatine, Illinois. The scholarship is especially important to our organization because we're able to help students from a school that is at the heart of the PSF.

Mary was able to meet the most recent recipient of the Planetary Studies Scholarship recipient, Melanie E. Lobos Torres. Melanie was born in Boston and raised in Guatemala and is interested in pursuing a career in civil engineering. According to Mary, "Melanie is a bright, determined student and it was a pleasure getting to know her."

We wish the very best to Melanie in her continued studies and a special thanks to Mary and the Harper Scholarship team for their effort.

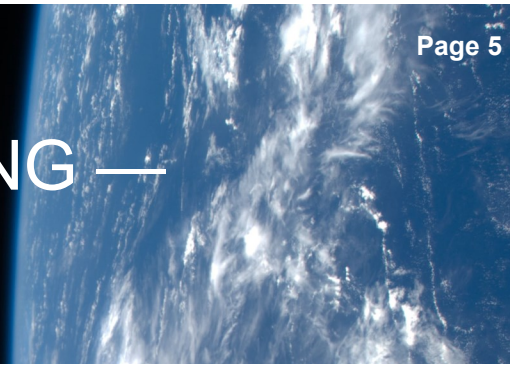
Doug Firebaugh Observatory

2892 W Stephenson St | Freeport, IL | 815-291-3072

Public Observing Nights
May–October, 1st and 3rd Saturday of the month, 8pm

There will be an astronomy related presentation as the prelude to observing on public nights. Come and share the beauty of the nighttime flies with the telescopes and imaging.

ANNUAL MEMBER'S MEETING — SEP. 14 @ 1P CDT



This year's Annual Member's Meeting will be hosted in-person at Miss Murphy's in Galena, IL and virtually on September 14th at 1:00 p.m. CDT. If you are interested in participating in the meeting, please send Andrea Nolan an email at amcplanets@gmail.com. We will then add you to a guest list and we'll share additional details prior to the meeting. **Please note: there will not be an opportunity to vote on the day of the meeting, so members who wish to cast their vote will have to do so through email or mail by Friday, August 30th.**

Meet the 2024 Candidates for the Board of Directors

JOSEPH A. AUER

Joe serves as Chairman of the Board of the Foundation. He brings a unique blend of senior-level experience in industry, government, academia and not-for-profit organizations to the Foundation. Joe is one of the PSF's longest members and has always taken a great interest in its mission to advance science education. Recently retired, he hopes to shortly get to practice his Kitt Peak imaging training and, if reelected to the Board, to more actively provide his planetary physics education and prior multifaceted work experience to help further both the educational and scientific missions of the Foundation.

DR. DAVID KAHN

Dr. Kahn has been a member of the PSF since 2004 and became involved in our organization while studying astronomy and geology under Dr. Paul Sipiera at Harper College in preparation for his teaching certification in the Physical Sciences. While going to school, Dr. Kahn was a regular contributor to our PSF newsletter and wrote many fascinating, easy-to-digest "Astronomy 101" articles that were a big hit for our members and their families.

For nearly 20 years, Dr. Kahn has taught Earth Science, Physical Science, and Astronomy classes at Libertyville High School in Libertyville, Illinois. Furthering his education as a lifelong learner, David has earned a Master of Arts in Teaching from National-Louis University, a Master of Science in Geosciences from Mississippi State University, and a Doctorate in Educational Leadership from Olivet Nazarene University. He is also a National Board Certified Teacher in Secondary Science education. In his free time, David enjoys hiking, biking, and studying martial arts. David is a 4th degree Black Belt in Okinawan Uechi-ryu Karate and he has been the owner & Chief Instructor at Chicago Uechi-ryu Karate for 35 years. David currently resides in Vernon Hills, Illinois with his wife, Dr. Jennifer Kahn, who also teaches Earth Science, as well as AP Environmental Science, at Libertyville High School.

LIZ LARSON

Liz Larson has been a graphic designer since 1991 and has owned her own design studio since 2005. She is also the Art Director at the Galena ARC, where she teaches art to ages 3-14 and develops and oversees youth and adult art programs. Over the years, she has served on several boards, including the Friends of the Galena Public Library, the Galena Rails to Trails Initiative, and the Youth Arts Festival of Jo Daviess County. For the past 30 years she has assisted many boards, event committees and businesses with their marketing and design goals. She recently redesigned the PSF website to help redefine PSF's digital presence.

YOUR VOTE MATTERS! Included with your copy of the newsletter is a ballot to cast your vote for this year's election of Directors. Please send in your vote electronically (preferred) to amcplanets@gmail.com or via standard mail to:

Planetary Studies Foundation, 10 Winterwood Lane, Unit B, Galena, IL 61036

AURORA BOREALIS IN THE MIDWEST

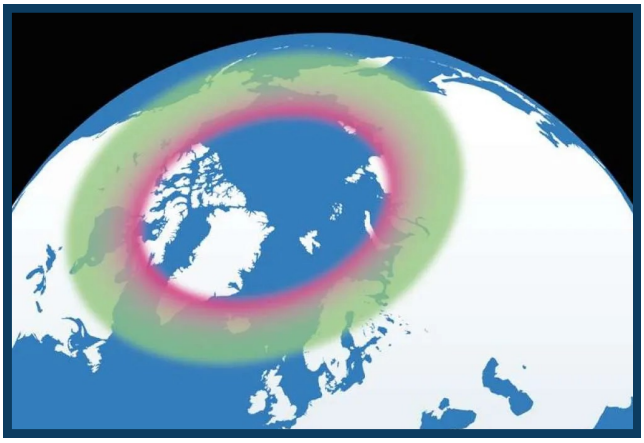
MAY'S MAGIC SKIES

By: Avery Engle

Avery will be a freshman at Kansas State University this fall, studying Animal Science on the Pre-Veterinary Path with an emphasis in equine. Over the summer, she is a lifeguard and often works for PSF. She has always had a love for nature and astronomy.

Has there ever been a time in your life in which nature has taken your breath away? Maybe it was a beautiful sunset, a double rainbow at the end of a strong storm, experiencing the first snowfall of the year, or a drive through the mountains. The aurora borealis which occurred in the early morning of May 11, 2024, was what did it for me, taking my breath away as I stood staring in awe at the sky. Many U.S. citizens, and other countries as well, were fortunate enough to see this fantastic light show. You may be wondering why this specific aurora borealis event was so grand, and how it wasn't localized to just one region. Maybe you're wanting to find out where these lights are usually visible, so that you can see them again. There's so much we can learn about the northern lights- these flashing, colorful paintings in the sky!

I had just graduated high school earlier in the evening, and was outside getting some fresh air with my classmates while we all soaked up one more night together as a class. I saw headlight-looking images above us, and yelled, "Where are those lights coming from?!" After I pulled out my camera, I realized what I was witnessing. "It's the northern lights!", I exclaimed to my classmates, unable to hold my excitement. The River Ridge Class of 2024 all watched the northern lights together that night, which is why this event will always hold such a special place in my heart. People all over the world had remarkable experiences, including some as far south as Florida in the U.S. and Ladakh in northern India. These lights were also visible the night of Mother's Day, making for a priceless Mother's Day gift from the sky!



Auroral Oval

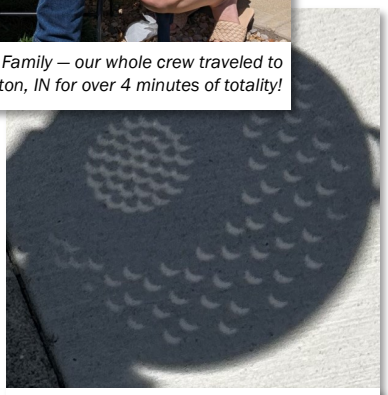
How did this phenomenon happen, and how could so many people see it? Well, we have a rare G5 geomagnetic storm to thank, which was unleashed by our hyper-active sun a few days prior to the aurora borealis. Between May 3 and May 9, NASA's Solar Dynamics Observatory cataloged 82 "notable" solar flares spawning from two active regions on the sun. These clusters of sunspots grew so complex that they erupted repeatedly during the week. Starting on May 7, at least seven coronal mass ejections charged toward Earth and began storming our planet on May 10, which was when the strongest auroras were seen on Earth.

Northern lights are most commonly seen in the northern hemisphere, but more specifically within the auroral oval. This area has latitudes of 60-75°, and includes places like Iceland, Northern Sweden, Finland, Norway, Russia, Canada, Alaska, and Southern Greenland. To find an accurate forecast for auroras, websites like the Space Weather Prediction Centre, a part of NOAA (National Oceanic and Atmospheric Administration), generate an animated ovation map depicting the auroral oval based on current solar wind conditions, which is updated every 30 minutes.

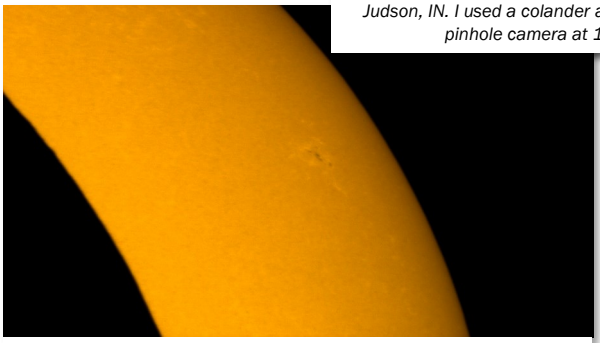
If you didn't already in May, I truly hope your breath will get taken away by aurora borealis at least once in your life, and that you get to experience nature's greatest light show!

Highlights from the Total Solar Eclipse

Submitted by the Sipiera Family — our whole crew traveled to Bloomington, IN for over 4 minutes of totality!



Submitted by Janet Landato — from North Judson, IN. I used a colander as a multiple pinhole camera at 1:38 pm CDT



Submitted by Mike Otte — I took pictures with the 8" Celestron in Freeport, IL. This photo is near max of 90% west of Freeport

Submitted by Mary Beth and Amelia Stark — traveled to Dieterich IL to witness over two minutes of totality!

Submitted by Jim Dole — Tom, Bill, Pam, and I had a beautiful day in Dahlgren, IL at a small park with around 100 people. We had small telescopes setup for safe solar viewing. Two very popular telescopes for the crowd were the 50mm Lunt hydrogen alpha telescope and an 80 telescope that projected the solar image using a "Sun Funnel".

Submitted by Mary & Alan Becker — the eclipse from Delphos, Ohio

MEMBERSHIP FORM

Regular Membership	____ $	20.00	1 year	**or** ____ $	35.00	for 2 years
Family Membership	____ $	35.00	1 year	**or** ____ $	60.00	for 2 years
Sponsoring Membership	____ $	50.00	1 year	**or** ____ $	90.00	for 2 years
Contributing Membership	____ $	100.00	1 year	**or** ____ $	180.00	for 2 years
Student Membership	____ $	10.00	1 year			
Life Membership	____ $	500.00				
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Our mission is to promote the study of planetary science and astronomy with an emphasis on meteorites; and to sponsor, encourage, and assist in the physical, astronomical, environmental, and cultural sciences so as to broaden man's knowledge of all phases of the universe.

For more information about our mission, articles and upcoming events, visit:

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