2025—What a Year It Was!

December 2025

By Charlie Dunton, Vice President and Programs Chair

This year proved to be a very turbulent one for NASA Langley and the Langley Alumni Association. Langley faced significant budget cuts, particularly in the Science Directorate, and reductions in the federal workforce were also demanded. Through the Deferred Retirement Program, over 400, mostly senior people, left Langley. While this reduction was a blow to the agency, it was a major factor in the growth of Langley's Alumni Association, which added over 60 new members this past year. Not all the employees who left Langley were ready to retire. To assist them, Langley sponsored job fairs for those departing. Alumni Association members assisted with this effort by helping conduct resume reviews and mock job interviews.

On a more inspiring note, the speakers at the LAA monthly meetings covered a wide range of engaging topics this year. Chris Carter, Director of the Virginia Space Grant Consortium, started the year off with a presentation on the mission of the Consortium and their close relationship with Langley and the Alumni Association. As in past years, alumni members assisted with the high school student summer academies for the Virginia Aerospace Science and Technology Scholars (VASTS) and the Virginia Earth System Sciences Scholars (VESSS).

At the February meeting, Dawn Schaible, Langley's Acting Center Director at the time, spoke briefly and then J. D. Reeves, Acting Director of the Science Directorate gave a presentation on Langley Is the Future (LIFE).

Mike Fremaux and David Storch gave an update on the new Flight Dynamics Research Facility (FDRF) at the March meeting. In May, they hosted a tour of the facility for LAA members.

April brought one of the largest turnouts ever for an LAA meeting. Bradley Weidenhammer, Project Manager for the Hampton Roads Bridge Tunnel Expansion Project, gave an engaging talk on the progress of the project. Because of the relevance of the talk to all Center employees, Langley partnered with the LAA to host Mr. Weidenhammer's presentation. Between those present in the Reid 1 and Reid 2 conference rooms, and those watching virtually, more than 250 people viewed his talk.

In May, James Doe, Associate Director for the REaKTOR Technology Innovation Center, spoke on the work of the Innovation Center as an incubator for technology-based businesses in the Hampton Roads area. Steve Sandford, CEO and founder of Psionic, spoke briefly about the role that the Innovation Center played in the founding of his company.

In June, Linda Bangert gave a presentation on the Ninety-Nines as well as on the history of women in aviation. The Ninety-Nines are a strong, international, organization of women pilots that was founded in November, 1929 by Amelia Earhart and 21 other female pilots. Today, the organization has a worldwide membership of approximately 7000.

The annual LAA summer picnic was held in the NASA cafeteria in July, with 46 members and guests in attendance at the event.

August saw another much-anticipated talk, as Walt England, recently the Deputy Associate Administrator for Programs of the Space Technology Mission Directorate, and Frank Taylor, retired Senior Director of Technology for Sierra Nevada Corporation, gave an engaging talk on the Sierra Space Dream Chaser. Walt began with a history of Langley's work in developing lifting-body spacecraft that culminated in the development of the HL20. Frank then carried the discussion forward by sharing how the HL20, through what he referred to as four phoenix moments, finally evolved into the Sierra Space Dream Chaser spacecraft, which is expected to make its maiden flight in 2026. Dream Chaser will be used to ferry

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President's Report

By Kathy Ferrare, President

With the holidays fast approaching, the hustle and bustle of the season is upon us. From Thanksgiving to New Year's and everything in between, life can get hectic. In those quiet moments as you think back through 2025, please know the LAA Board is thankful that you are a member of the alumni association and for your engagement to help foster our mission. As our membership has increased, we have seen new faces engaging in our monthly meetings, volunteering for events, and supporting our outreach and membership committees. This will surely position us for an exciting 2026 to help our community as well as our NASA Langley family. For this, we are truly thankful to you!

We also want to thank the stellar speakers who gave excellent presentations at our LAA meetings this year. Our alumni presenters have come from all walks of life and have graciously shared their world travels, pilot, entrepreneur, and weather experiences as well as their knowledge of aeronautical and facility projects with our community. Thank you so much for taking time to share with us!

Our Board members have been very busy coordinating among committees, investigating and implementing policy changes, and working tirelessly to ensure our organization is well documented and moving forward. Their ideas and viewpoints, along with caring hearts, have strengthened the LAA. I truly appreciate these interactions and the generous support the board members have given to me personally and the LAA.

I am most grateful for our members and the support they have shown to our entire NASA Langley family. Our LAA purpose of "assisting Langley to maintain contact with Alumni to the mutual benefit of Langley and the Alumni" shined through this year. Our outreach activities show our dedication and caring spirit for our NASA family.

Please embrace your time with family and friends, enjoy their company, and treasure the wonderful memories that will be made. Whether your travels include a staycation or a sun-filled getaway, we wish you a safe and happy holiday season and prosperous new year! ◆

If you want to touch
the past, touch a rock.

If you want to touch the
present, touch a flower.

If you want to touch
the future, touch a life.

— Author unknown

Remember!

Dec 9: Holiday Lunch
Surf Rider (Poquoson, VA)

Jan 13: LAA Annual Meeting
2026 Elections and By-law and Policies & Procedures document approval

Feb 10: State of Langley
Presentation from the NASA Langley Office of the Director

Bylaws and Policies & Procedures (P&P) Update

By Dave Hinton, Membership Chair

The annual review of the LAA Bylaws and Policies and Procedures (P&P) documents are underway. We would like to encourage the LAA membership to provide suggestions and feedback to the review team. The review team consists of Dave Hinton, Rich Antcliff, and Marilyn Ogburn.

Last year the LAA took the Bylaws and created two documents. The Bylaws define "what" we are and the P&P defines "how" we do it. The concept is that the Bylaws will rarely change while procedures may require more frequent updates. This has proven to be the case.

The proposed changes to the Bylaws focus on improving clarity and grammar, reducing duplication between the Bylaws and P&P, and reorganizing into to a more logical flow. The P&P has more extensive edits. The most significant P&P updates are described in an email to the membership of November 4. The most significant policy changes relevant to the general membership include:

1. Updates with two changes previously approved by the Board:
    a. We may now request activity badges for up to 12 months.
    b. The grace period for paying dues, for renewing an activity badge, and for participating in special LAA events has been reduced from five months to two months (to the end of March).
3. The length of time that a member can go unpaid in dues before becoming a "past member" is being reduced from two years to one year.
4. "Honorary" membership is being removed. Current honorary members will remain as life members. There were no criteria listed for free membership and none have been recently admitted.
5. Changed "researchers and managers" to "employees" when describing who is to be recognized by the Hall of Honor.
6. And other changes articulated in the November 4 email that primarily affect Board member processes or the document style.

Comments to these drafts have been received and updated versions will be distributed to the membership in mid-December. Please provide comments to those as well as they will be the basis for an approval vote by the Board at our annual meeting in January. The more eyes on this the better the results will be! Please provide feedback or questions to davidhinton@larcalumni.org. ◆

Nominating Committee Is Seeking Volunteers

By Susan McClain, Nominating Chair

It has been a very busy few months for the nominating committee as we look forward to our January 2026 elections.

Thanks so much to Amy Radford and Mary DiJoseph; between the three of us, we reached out to a large number of LAA members to discuss serving in a position on the board or one of the various committees.

There is still time to volunteer! If you are interested, please reach out to me via email (info@larcalumni.org).

For 2026, we have open LAA Board positions for:

- Officers:
    - Vice President
    - Secretary
- Committee Chairs
    - Membership Chair
    - Hall of Honor Chair
- Members at Large, Class of 2029
    - Several members

The Nominating Committee must present the final slate of nominees for the open LAA Board positions around December 13, 2025, so if you are interested in one of the above open board positions, please reach me by email (info@larcalumni.org) as soon as possible. ◆

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supplies to the International Space Station.

September's program featured two speakers. Dr. Jennifer Inman, Project Manager for Langley's Scientifically Calibrated In-Flight Imaging (SCIFLI) team, gave a fascinating talk on how the Columbia disaster led to the eventual creation of the SCIFLI team as a way to capture real-time data from the launch and recovery of spacecraft. Neyda Abreu, Langley's Chief Scientist, also spoke on the new Emeritus Langley Associate (ELA) Program, formerly the Distinguished Research Associate (DRA) program.

The year 2025 marks the 20th anniversary of the landfall of Hurricane Katrina in Louisiana. In October, in recognition of that important anniversary, Dave Throckmorton, who was then the Deputy Center Director at NASA Stennis, spoke on the events surrounding the tragedy and its effect on NASA, then and now. Kim Ward, Gallery Engagement Manager for the Virginia Air and Space Science Center (VASSC), also spoke on volunteer opportunities for LAA members at the VASSC.

Life After Langley was the focus of the November meeting and featured two LAA members, Roman Paryz and Jill Marlowe. Roman shared his experiences from a recent cruise along the Alaskan coast, while Jill Marlowe shared a two weeks-long trip she and her family made to Japan. Both speakers spoke not only of the sights and sounds of their trips, but also provided valuable tips for others interested in cruising or trips abroad.

That brings us to December and the LAA holiday luncheon. This year's luncheon will be hosted by Surf Riders Restaurant in Poquoson on December 9th. We have 77 LAA members and guests signed up for this sold-out event, making it one of the highest attended holiday luncheons for the association.

Thanks to everyone for helping make this a very successful year for your alumni association. We look forward to seeing you in 2026. ◆

Scientific Contributions of Charles Mason of "Mason-Dixon Line" Fame

By Chuck Byvik

Most are familiar with the "Mason-Dixon Line" as the boundary between Maryland and Pennsylvania that was surveyed by Charles Mason and Jeremiah Dixon. Their survey resolved the near century-long territorial dispute between the British colonial Penn and Calvert families that defined the current borders of Pennsylvania, Maryland, and Delaware. Interestingly, the Mason-Dixon Line was completed just seven years before the Revolutionary War. It is worth noting that Mason, however, made remarkable scientific contributions beyond this political, historical, and cultural "line."

Charles Mason was an Assistant Astronomer at the Greenwich Observatory and was intimately involved in developing the lunar tables that attempted to address the determination of longitude at sea. He also participated in the 1761 international mission to document the transit of Venus to determine the distance between the Earth and the Sun.

He was commissioned to locate a mountain that was sufficiently isolated from surrounding mountains to enable measurements of the gravitational attraction between its mass and a pendulum and estimate the density and mass of the Earth. He identified Scheihallion, a mountain in Scotland, for this experiment. He was selected to perform these measurements but declined.

The Mason-Dixon Survey included the determination of longitude of the State House in Philadelphia, the first scientific transcontinental geographical connection to the Greenwich Observatory. Coincidentally, it was from this State House that our Declaration of Independence was announced in 1776!

Charles Mason made contributions to scientific challenges of his era—scale of the Solar System, mass/density of the Earth, and determination of longitude at sea. Enamored with America, Charles Mason moved his family to Philadelphia in September 1786 and died a month later.

I recommend Drawing the Line: How Mason and Dixon Surveyed the Most Famous Border in America by Edwin Danson—a fascinating read. ◆

[Editor's note: For further information on solving the problem of determining longitude at sea, I would also recommend Longitude: The True Story of a Lone Genius Who Solved the Greatest Scientific Problem of His Time by Dava Sobel.]

VASBA 2025 Gala

By Jack Schlank

VASBA held our 2025 Gala on September 25th at the City Center Marriott. It is an annual fundraising event that allows us to provide yearly sponsorships for K–12 STEM organizations and scholarships for students pursuing degrees in either 2- or 4-year engineering programs. Once again, the black-tie optional event was held in conjunction with the AUVSI three-day symposium.

The event was emceed by VASBA President and past LaRC Center Director Dave Bowles. After welcoming our attendees and corporate sponsors, Dave introduced our keynote speakers. This year our featured presenters were all either present or past recipients of VASBA scholarships.

First up was current Old Dominion University student Brittany Ballard, who is now majoring in chemistry after serving our country as an Engineering Laboratory Technician in the United States Navy.

Brittany was followed by Averett University's Gabrielle Lang, who is double majoring in Aviation Business and Flight Operations and Aerospace Management. She is also holds a private pilot's license with an instrument rating and is working towards her commercial license as well.

Finally, three-time past scholarship recipient Zack Ware closed out the evening with a heartfelt story of how VASBA helped him overcome personal challenges to obtain an associate's degree from Tidewater Community College and bachelor's and master's degrees from Old Dominion University. Zack recently passed his Civil Engineering Professional License and is an award-winning structural engineer at a local engineering firm.

As always, our dinner was accompanied by the Strolling Silver Strings, a joint presentation of the Music Education and Programs for the Gifted organizations of Norfolk Public Schools. The members are students in the five Norfolk high schools. They thrilled us by wandering amongst our tables, playing famous pieces of music that spanned many music genres.

VASBA held a Speaker's Social on November 12th featuring Kume Goranson, the Executive Director of CodeRVA Regional High School. Ms. Goranson discussed the activities at CodeRVA and what their students offer as interns to science and engineering organizations in the area.

We will be electing board members and enjoying an evening of networking and camaraderie at our annual Members Mixer in December. We began preparations for Aerospace Day 2026. This event has members of the Commonwealth's aerospace community traveling to Capitol Hill in Richmond to meet with Virgina lawmakers. VASBA plays a key role in scheduling the meetings and presenting the local aerospace community's interests to the lawmakers.

For information on joining VASBA, or on attending any of the upcoming events, contact Jack Schlank, jschlank@sierralobo.com. Merry Christmas, Happy Holidays, and happy and healthy New Year to all of the LAA! ◆

Views of Our Planets

By Geoff Tennille

"Views of Our Planets" was issued in conjunction with a two-stamp setenant issue "Pluto Explored," which featured both Pluto and the New Horizons spacecraft.

The stamps were issued to honor the NASA space exploration efforts within our Solar System that have given us up-close images of every planet and—as of 2015—dwarf planet Pluto.

Each of the eight stamp designs pictures a planet in our Solar System. Some show the planet's "true" color—what we might see with our own eyes if traveling through space. Others use colors to represent and visualize certain features of a planet based on imaging data. Still others use the near-infrared spectrum to show things that cannot be seen by the human eye in visible light.

Spanning billion of miles, our solar system is home to the Sun and hundreds of thousands of celestial bodies including dwarf planets, moons, comets, and asteroids. The most studied bodies are the eight planets.

The four planets closest to the Sun (Mercury, Venus, Earth, and Mars) are known as terrestrial planets because they have solid rocky surfaces. The next two planets, Jupiter and Saturn, are known as gas giants because they do not have solid cores. Finally, the two farthest planets from the Sun, Uranus and Neptune, are ice giants, with rocky cores coated in a thick layer of water, ammonia, and methane ice. The outermost layer after the ice is composed of hydrogen, helium, and methane gas (though it is found in much smaller quantities than the gas giants).

All the planets have an atmosphere, but Earth's is the only one that humans can survive in. Most of the planets also have magnetic fields that extend into space, forming magnetospheres that pull in charged particles.

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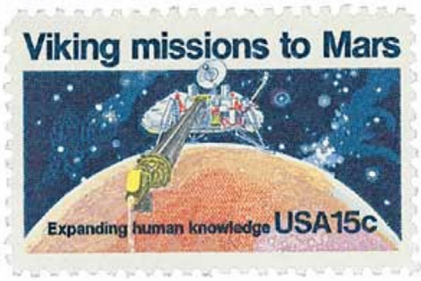
Astronomers first discovered Saturn's rings in 1659. For over 300 years, humans believed Saturn was the only ringed planet, but in fact Jupiter, Uranus, and Neptune have rings as well. All but two of the planets (Mercury and Venus) have moons. There are hundreds of known moons, with many more awaiting official validation. Moons vary greatly—Saturn's Titan has a thick atmosphere, while Jupiter's Io has active volcanoes. Another of Jupiter's moons, Europa, is believed to have an ocean twice the size of Earth's.

Although we have discovered a great deal about the planets, there is still much we do not know. Better understanding of our planetary neighbors can give greater insight into our own world. While Earth-based telescopes can provide us with some answers, space missions can help unlock the mysteries of our solar system.

See the September 2025 newsletter for related articles *Viking Mission to Mars Stamp* and *Pluto Explored*. ◆



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