



A Summer Like No Other

September 2025

By Charlie Dunton, Vice President and Programs Chair



2025 Langley Alumni Association Picnic, July 2025

The summer of 2025 will likely go down as the most tumultuous in the history of NASA. Across the Agency, thousands of employees left, while at Langley over 400, mostly senior people, turned in their badges. LAA members helped where they could in this difficult period. Kathy covers this subject very well in her President's Report.

On a more inspiring note, Langley again teamed up with the Virginia Space Grant Consortium to sponsor summer academies for the Virginia Aerospace Science and Technology Scholars (VASTS) and the Virginia Earth System Sciences Scholars (VESSS). This partnership has been ongoing for over 40 years and has provided over 7000 students with the opportunity for a week-long residency program at NASA Langley.

This year, over one hundred 11th and 12th grade students from across the state took part in an intensive and grueling week

of planning a major scientific program. In the case of VASTS, four teams of students developed a mission to Mars that involved the construction of habitats on Mars, living and performing experiments on the surface of Mars for over 500 days, and a return of Martian samples to Earth. Students in the VESSS program were challenged to develop four sphere event missions, Atmosphere, Biosphere, Hydrosphere and Lithosphere, that focused on Earth's systems and climate variability. LAA members assisted by providing mentorship as well as project reviews of the student's programs.

The LAA held their annual picnic in July, and this year we had 46 members who attended. The menu featured barbeque, hamburgers, cole slaw, potato salad, and mac and cheese. The vegetarian option was Beyond Burgers, a meatless pattie that was well received. For this year's

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President's Report

By Kathy Ferrare, President

These summer months have flown by. Soon we will be seeing school buses during our morning walks and the initial excitement of the children getting ready for the new school year.

Thinking back over the past few months about the twists and turns of the NASA budget and its effect on the NASA Langley workforce, I am very proud of our members and how we have volunteered our individual experiences and lent our support. By participating in the NASA Langley career fair (six members volunteered 35 hours), off-boarding sessions (13 members volunteered 40 hours) and Youth Day (five members volunteered 25 hours), we helped guide the next generation and provided compassion and encouragement to employees as they pursue activities beyond NASA.

The LAA needs your support as we look forward to our January 2026 elections. Ms. Susan McClain, our Nominating Committee Chair, is looking for volunteers to assist with nominations to fill key officer, committee chair, and members-at-large positions. You can reach Susan by emailing (info@larcalumni.org).

2026 open LAA board positions:

- Officers: Vice President, Secretary
- Committee Chair: Membership
- Members-at-Large: Class of 2029—six positions

In addition to the nominating committee, we seek several volunteers to join our Programs and Membership Committees as soon as possible so we can continue our volunteer/outreach, marketing, and tour activities. We are in need of:

- Two volunteers to work on the Programs Committee with our Vice President, Charlie Dunton (info@larcalumni.org)
- One person to work our LAA marketing activities on the Membership Committee with Membership Chair, Dave Hinton (membership@larcalumni.org) ♦

Volunteers are paid in six figures—S-M-I-L-E-S!

Attributed to Gayla Lemaire



Amy Radford and Candy Johnson volunteering at Youth Day, August 14, 2025

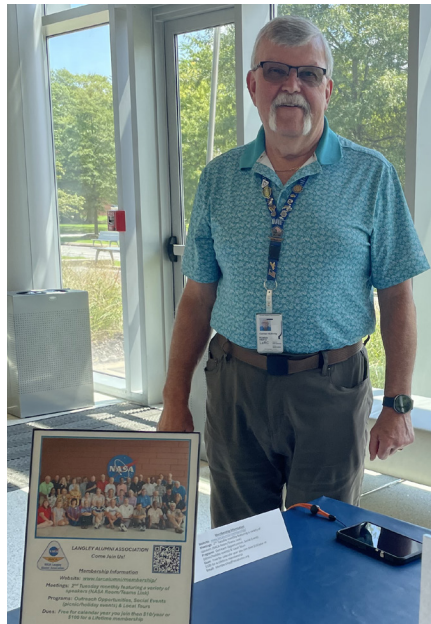
Changes to NASA Badging Policy

By Dave Hinton, Membership Chair

The LAA has welcomed a large number of new members recently—19 new members in June/July—due to the government workforce situation and individuals exercising the Deferred Resignation Program (DRP). The LAA is an excellent means to stay in touch with NASA colleagues and the Center, and we welcome you.

For those who accepted the DRP, NASA cannot issue activity badges while you are still an employee of NASA; however, we can arrange for visitor badges for meetings you wish to attend. Following your separation, we can request the six-month activity badge. Please send a reminder to me when you have retired to place your name on the badge request list. For a visitor badge, we need your request at least five business days before the visit. Please send badge requests and questions to me at membership@lar-calumni.org.

This is a reminder that the REAL ID requirement is in effect as of May 7.



Roman Paryz helps employees ease the transition during an offboarding session

This can either be a REAL ID driver's license, a passport, or passport card, and a few other documents that are less likely to be held by our retirees. Please note that you can no longer use

an expiring badge as one of the two forms of ID.

When being issued a new activity badge, and periodically when renewing a badge (currently every three years), you will have fingerprints and a photo taken. The overall process can take 30 minutes, so allow time at the Badge and Pass Office (BPO) and do not come to BPO close to closing time (3:30 PM). BPO suggests the best times to come in are between 10:00 AM–3:00 PM Tuesday through Thursday to avoid long waits. LAA members have been turned away after arriving at BPO too close to their closing time to complete the process.

NASA Langley can now issue activity badges for up to 12 months. The Board decided that new members will first be issued a six-month badge. After that, the renewals will be for 12 months. The required frequency of meeting attendance is the same, one each six months or two each 12 months. ♦

Short Course on “Signals and Modulation”

By Stephen Horan

At the invitation of the Langley Spectrum Manager, Stephen Horan presented a one-day short course titled “Signals & Modulation” on July 23, 2025 in the Measurement Systems Laboratory conference area. Fifteen LaRC participants from multiple directorates attended the class.

The goal of the class is to present the techniques and considerations a telecommunications engineer uses when determining if a planned radio link is appropriate for sending and receiving data while meeting the customer's requirements for data quality upon reception. The class content started

with signal characteristics and signal sampling. Waveform shaping and filtering were next covered. Finally, the presentation examined digital modulation formats and link performance metrics. The presentation also covered introductory concepts related to spectrum management.

In addition to the class notes, participants were also provided with spreadsheets to estimate the radio link performance with margin and safe distances from radio signal emitters. The class notes are archived on Teams. ♦



Remember!

Sept 9: Jennifer Inman (Scientifically Calibrated In-flight Imagery (SCIFLI)) & Nayda Abreu (Emeritus Langley Associate (ELA) program formerly DRA)

Oct 14: Katrina's 20th Anniversary (Dave Throckmorton) & LaRC's Emergency Preparations (Tim Mitchell)

Nov 18 (3rd Tuesday of Nov): Life After Langley Travels
 • Jill Marlowe—Japan
 • Roman Paryz—Alaska
 • Amy Radford—Ireland

Dec 9: Holiday Lunch (details to follow)

A Summer Like No Other

By Charlie Dunton, Vice President and Programs Chair

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Charlie Dunton hosting the picnic fun

ice-breaker, attendees were asked to tell three or four things about themselves, one of which was a lie, and the audience tried to guess which was the lie. We had a few whoppers, (lies, not burgers) and a lot of laughs while learning quite a bit about each other.

The August LAA meeting was a standing room only event in the NACA room as Walt Engelund and Frank Taylor teamed up to present “From The HL-20 to Dream Chaser: A Forty Year Journey From Concept To Flight.” Walt, who recently retired after more than 30 years at Langley and HQ, told how the HL-20 evolved from early lifting-body studies at Langley, into the HL-10, and finally to the HL-20. Frank, who retired in 2024 from Sierra Ne-



*Mary DiJoseph, Ray Rhew,
and J.F. Barthelemy*

vada Corporation where he was the Senior Director of Technology, related how Dream Chaser evolved from the HL-20, starting with an \$80K grant from California, into the \$2B+ spaceplane that it is today, while surviving four near-death experiences, or Phoenix Moments as he called them, along the way. Dream Chaser is expected to make its first flight by the end of 2025 or early 2026.



Geoff Tennile reads his four items

The September 9th meeting features two speakers. Neyda Abreu, Langley’s Chief Scientist, will discuss the new Emeritus Langley Associate (ELA) program, which is replacing the Distinguished Research Associate program. Jennifer Inman, Project Manager for the Scientifically Calibrated In-Flight Imagery (SCIFLI) team, will explain how the team acquires images from both aircraft and ground-based systems that provide engineering quality data on spacecraft launches, reentries, and test flights.

On August 29, 2005, Hurricane Katrina made landfall in Louisiana.



Dan Palumbo challenges the audience

Katrina was the fourth-largest Atlantic hurricane to make landfall in the United States and devastated New Orleans and much of the Southeast. At the LAA’s October meeting, Dave Throckmorton, who was the Deputy Director of NASA’s Stennis Space Center at the time, will share his experiences with Katrina at both Stennis and the Michoud Assembly Facility. Tim Mitchell, Langley’s current Emergency Manager, will also talk about how Katrina impacted the agencies hurricane preparedness.

Finally, at our November meeting, which will take place on the 18th, rather than the 11th, due to the Veterans Day Holiday, three LAA members will share their around the world experiences as part of our Life After Langley series. Roman Paryz will start us off in Alaska, Amy Radford will tell of her trip to Ireland, and Jill Marlowe will finish our globe-trotting journey with her presentation on her trip to Japan. You won’t want to miss their stories.

And don’t forget the holiday luncheon in December. More to come on that. ♦

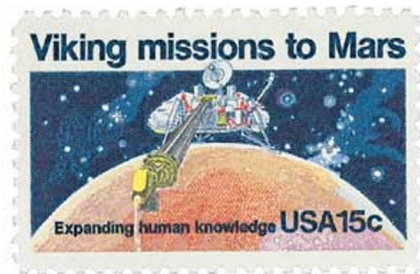
Viking Mission to Mars Stamp

By Geoff Tennille

This stamp honors the second anniversary of the successful landing of Viking I on Mars, which was the first man-made object to land on the red planet, on July 20, 1976. The landing had been planned to coincide with the nation's Bicentennial celebration.

Viking I and Viking II were the first spacecraft to conduct prolonged scientific studies on the surface on another planet. They were launched in August and September 1975, respectively, each traveled for a year, making the 440-million-mile journey to Mars. They were designed to last for 90 days; however, they far exceeded their designed lifespans.

Viking I entered Mars' orbit in June of 1976 and began hunting for a safe landing site. Problems locating a site postponed the landing until July 20, 1976, ironically the 7th anniversary of the landing of Apollo 11 on the Moon. Viking I released a pod that plummeted to the surface of Mars. The Viking



Scott 1759, July 20, 1978, Hampton, VA

Lander 1 plunged Mars-ward at a speed of 600 miles per hour. Twelve rocket nozzles kept the probe steady, and at about four miles above the surface of the planet, a parachute opened up to slow the fall. A heat shield fell away a mile above the planet, and Viking Lander 1's legs unfolded. The engines controlled the descent, and moments later, Viking Lander I touched down on Mars. Viking Lander 1 immediately started transmitting images of the surface of the planet. Six weeks later, on another part of the planet, Viking Lander II landed and joined its companion in gathering data. The Orbiter probes, which had surveyed the

*Featured in the next issue:
8-stamp Views of Our Planets*

planets for "soft landing" locations, continued their own surveys. Viking I transmitted the most detailed photos then seen of the Red Planet. It also collected surface samples, studied the atmosphere and weather, deployed seismometers to detect earthquakes, and tested for the presence of life.

The four space probes gathered the most comprehensive information yet seen about Mars. One orbiter failed just less than two years into the mission, while the Viking Lander I lasted for more than six years before a human mistake closed down its antenna in November 1982, forever preventing it from sending more data. Viking I held the record for the longest operational Mars surface mission of 2,037 days until it was surpassed by Opportunity in 2010, which operated for over 5,250 days before being hit by a dust storm in 2018. Legal ownership of Viking I has been transferred to the National Air and Space Museum of the Smithsonian Institution. ♦

Pluto Explored

By Geoff Tennille

Scientists had long dreamed of exploring Pluto. But it was the issuing of a postage stamp in 1991 that served as a rallying point to launch a mission to the most distant planet in our solar system.

The Voyager mission did its final flyby of Neptune in 1989. Two years later, USPS issued a set of stamps featuring each planet with the spacecraft that explored it, but one stamp stood out. Picturing a lone planet, it proclaimed "Pluto: Not Yet Explored." The statement was taken as a challenge.

NASA created the New Horizons mission with plans to explore Pluto, its moons, and objects beyond them. The



Pluto Explored—Scott 5067-68
Issued May 31, 2016

mission launched in January 2006, the same year Pluto was declared a dwarf planet. With the stamp that inspired the mission aboard, New Horizons reached Pluto on July 14, 2015. The same day, the probe began transmitting back the first batch of data, including the first up-close images we had ever seen of Pluto.

In the following months, New Horizons revealed that Pluto has been changing for much of its existence, contrary to what scientists had long believed. The images showed curious cone-shaped mountains with craters in the center and unexplained volcanic activity. New Horizon's next goal is to discover more of the Kuiper Belt. Pluto's exploration has already made the mission a resounding success.

I had the opportunity to meet Dr. Kuiper when he visited UVA while I was an undergraduate astronomy student. He presented his theory about a vast swarm of small objects beyond Pluto's orbit that was named the Kuiper Belt in his honor. ♦

Saving the Charters of Freedom

Editor's note: The Virginia Gazette (Daily Press) published an article titled “[World Focus: Saving the Charters of Freedom](#)” on July 22, 2025. I requested, but did not receive, permission to reprint the article. Information in this article is from an email and photos from James West and from NASA/TM-2002-211433 by James West, Cecil Burkett, and Joel Levine.

In 1998, the National Archives and Records Administration (NARA) contacted Dr. Joel Levine to analyze the atmosphere in the case containing the Charters of Freedom after discovering small spots on some documents.

From Jim West: “What really motivates me to support the continuation of our Democratic Republic experiment was my experience with the ‘Charters of Freedom.’ The National Archives wanted to know the moisture content inside the sealed encasements that included the US Constitution and the Bill of Rights. Joel Levine was contacted by NARA, he contacted Billy Upchurch who contacted me to help



identify the moisture content. IRD still existed at that time. Cecil Burkett and myself made a small thermoelectric cooling device that allowed us to find the dew point inside the sealed encasements and deliver accurate in situ relative humidity data. NBS in 1951 tried to seal the encasements with helium at 35% RH; our tests indicated it increased to about 62% RH. The NARA folks called the measurement technique ‘elegant.’ Both Cecil and I actually ‘hugged’ the document enclosures while making a number of measurements in different locations. That was a moving experience that left us in awe and changed both of

our lives. The NARA folks could feel our excitement too. I named my son after Benjamin Franklin. Our Founding documents became very personal for us. Photos were taken at the NARA two facility.”



The increase in RH was believed to be from water vapor outgassing from the documents. The spots were caused by high levels of humidity and a chemical reaction with the glass in the case. To correct the problem, NARA used a new encasement built by NIST in an atmosphere of argon and water vapor at 25%–35% relative humidity to prevent further deterioration of the Charters of Freedom. ♦



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(05/25)

VASBA Is the Virginia Chapter of the Aerospace States Association (ASA)

By Jack Schlank

VASBA is the Virginia chapter of the Aerospace States Association (ASA). As described by the ASA National Chair, Virginia Lt. Governor Winsome Earle-Sears: "ASA is an organization of state lieutenant governors, governor appointed delegates, state legislators, territorial and tribal government representatives and associate members from aerospace businesses, organizations, and academia. ASA brings together aviation and aerospace interests across each state to educate state legislators on issues specific to their state and provide networking opportunities to grow jobs and expand economic development. As leaders in our state, tribe, and territory governments, ASA members not only impact policy at their levels of government, but also on the national level, by informing our congressional delegations on aerospace priorities."



Each year ASA holds a conference and aerospace policy summit, and this past July it was held here in Hampton Roads, with VASBA as a sponsor. Spanning four days, the 33rd Annual Meeting and 6th State Aerospace Policy Summit combined site visits with policy panel discussions at locations that included the Mid-Atlantic Regional Space Port, NASA Langley Research Center, and Naval Station Norfolk. Panel discussions included Advance Air Mobility (AAM) and the Multistate Collaborative, the Virginia Innovation Eco-System, and Regional Space Compacts-building regional space networks for launch, manufacture, and operations. Other discussions included the China Space/Defense Infrastructure.

VASBA hosted a speaker's social on August 21. It was held at the Tradition Brewing Company, and featured Rick Dwyer, the Executive Director of the [Hampton Roads Military and Federal Facilities Alliance](#) (HRMFFA)). Rick explained what HRMFFA is and what it provides to the region.

On September 25th, VASBA will be hosting our annual black tie option-

al GALA, the main fund raiser for all our STEM related K-12 sponsorships and college/university scholarships. As in years past, VASBA is holding the event in conjunction with The Hampton Roads Chapter of the Association for Uncrewed Vehicle Systems International (AUVSI) [Advanced Air Mobility \(AAM\) Exposition](#). To register for either event, go here: [Tickets to Events](#). ♦

Join us for an enjoyable evening!



VASBA AEROSPACE GALA



Thursday, September 25, 2025
6:00 p.m. – 11:00 p.m.

The Marriott City Center
Newport News, VA 23606


Enjoy Mingling at a
Cocktail Reception starting at 6:00

Dinner entertainment provided by
[The Strolling Silver Strings](#)

Hear from our Scholarship Recipients

Previous Scholarship Recipient
[Zack Ware, PE, MSCE Graduate of ODU](#)

2025 Scholarship Recipients
[Gabrielle Lang, Averett University](#)
&
[Brittany Ballard, Old Dominion University](#)



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The LAA Newsletter is published quarterly. Please submit articles for publication to Rick Ross (info@larcalumni.org) no later than the 10th of February, May, August, or November for publication the following month. Please contact Dick Hueschen (info@larcalumni.org) to subscribe or unsubscribe.