



LANGLEY ALUMNI ASSOCIATION

NASA Day of Remembrance 2023

March 2023

Contributed by Wayne Richie

Original article at

<https://www.nasa.gov/specials/dor2023>

Each January, NASA pauses to honor members of the NASA family who lost their lives while furthering the cause of exploration and discovery, including the crews of Apollo 1 and space shuttles Challenger and Columbia. In 2023, the Day of Remembrance was observed on January 26, and also marked the 20th anniversary of the loss of the Space Shuttle Columbia on February 1, 2003.

Remembering Columbia

The seven-member crew of the STS-107 mission was just 16 minutes from landing on the morning of February 1, 2003, when Mission Control lost contact with the shuttle Columbia. A piece of foam, falling from the external tank during launch, had opened a hole in one of the shuttle's wings, leading to the breakup of the orbiter upon re-entry.

Addressing the nation, President Bush said, "mankind is led into the darkness beyond our world by the inspiration of discovery and the longing to understand. Our journey into space will go on."

Remembering Challenger

Just 73 seconds after launch on the morning of January 28, 1986, a booster engine failed and caused the shuttle Challenger to break apart, taking the lives of all seven crewmembers.

President Ronald Reagan eulogized the crew, quoting from John Gillespie Magee's poem High Flight: "We will never forget them, nor the last time we saw



*In memory of the Crew of United States Space Shuttle Columbia
1 February 2003,
Photo credit: NASA*

them, this morning, as they prepared for the journey and waved goodbye and 'slipped the surly bonds of earth' to 'touch the face of God.'"

Remembering Apollo 1

On January 27, 1967, veteran astronaut Gus Grissom, first American spacewalker Ed White, and rookie Roger Chaffee were sitting atop the launch pad for a pre-launch test when a fire broke out in their Apollo capsule.

The investigation into the fatal accident led to major design and engineering changes, making the Apollo spacecraft safer for the coming journeys to the Moon. ♦

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President's Report

By Dan Palumbo, President

Over these last few months, many members may have done as my wife and I have and stopped wearing masks unless required. This had the immediate effect of a surge of viral infections. My wife and I did not go unscathed and it made me think that there's a balance to be struck between isolation to protect yourself and maintaining resistance to these bugs. And I think the crux of this balance boils down to keeping the hospitals from becoming so overwhelmed that the folks that need treatment can't get it. I don't know if I was prepared to demask in the Fall of 2021 with COVID still surging. But in retrospect, the ability of a common virus like respiratory syncytial virus (RSV) to become threatening gives me pause.

We do not require masks for our LAA meetings in the NACA Room. You, of course, are free to wear a mask if you feel you must, although I might recommend connecting remotely for any reason you may have that requires you to mask up.

But you need a badge to attend the meeting in the NACA Room. And just as we worked to finish registering everyone in 2022, our badges are beginning to expire and the process starts all over again. A new process will be put in place that will be very similar to what we have done in the past. You will need to fill out an online form if you want to register for a new 6-month badge, renew your expired 6-month badge or get a one-day temporary badge. Once a month, two weeks before the next meeting, up to twenty requests will be forwarded to our NASA Liaison for processing.

I know the process has not been ideal. I hear a lot of complaints from individuals and I try to facilitate their problems. But know there is a lot of

frustrating work associated with this on our end as well. I have been willing to work through the frustrations because I want to see members coming to our meetings to socialize with other members. This is the primary purpose of providing a badge to you.

Considering how low attendance has been and the overhead required to provide badges, I have asked the Board to consider instituting a policy making some level of attendance a requirement for badge renewal. For example, if you attend one or two meetings a year, you can request a one-day temporary badge. This is an evolving discussion, so don't jump to conclusions; there's a lot to consider. If you wish to voice an opinion, attend February's meeting or email me at dlpalumbo@larcalumni.org. ♦

Memorial Donations

By Geoff Tennille, Treasurer

One of our long-time members made two \$50 donations in memory of former co-workers in December, 2022. The donor member wishes to remain anonymous but gave me permission to tell the families who the donor was. I have corresponded with the families of the two individuals, both of whom worked in the Operations Support Division (OSD), but have not yet received a response from either family. The families must have been surprised to find out that someone remembered their loved ones after so many years. I hope that the thoughtful gesture brought back some wonderful memories for them.

One donation was in memory of Henry P. "Skinny" Watkins, who was a retired Electrical Technician. He passed away in 2014. The other donation was in memory of George T. Stainback, who was a retired Engineering Technician. He passed away in 1998. I was truly impressed with the thoughtful gesture made by the anonymous donor. ♦

Year-end Report on LAA Financial Status

By Geoff Tennille, Treasurer

In spite of having to cancel the planned Holiday Luncheon because of COVID, 2022 was a very good year for the Langley Alumni Association. We had a great time at the Summer Picnic in July, which was catered by our own Donis Anders at the Corner Bistro, located at the Hampton Golf Course.

A couple of days later, the LAA sponsored the third Hall of Honor program that inducted fifteen new members for the Class of 2022. The honorees have pictures and plaques on display in the NACA Room. If you haven't had a chance to see the pictures or plaques, be sure to come out to our next monthly meeting!

The LAA also achieved IRS 501(c)(3) tax-exempt status and exemption from Virginia state sales tax during 2022. The tax-exempt status allows

donors to deduct donations to the LAA on their taxes.

We also upgraded the capabilities for hybrid meetings in the NACA Room for our general membership and Board meetings, which included the purchase of a new computer and other audio and communication gear.

The LAA also added over 30 new Life-Paid members in 2022 as well as about 18 new annual members. The year ended with the LAA nearly \$2,000 in the black; however, \$700 of that was unreturned payments for the Holiday Luncheon. All Life-Paid dues for 2022 were deposited into our Money Market Account at Langley Federal Credit Union (LFCU) to earn more interest.

So the LAA is in good financial shape to begin 2023. ♦

Refunds from Canceled Holiday Luncheon

By Geoff Tennille, Treasurer

Fifty-three people signed up for the planned 2022 Holiday Luncheon at the Chamberlin at \$25/person for a total of \$1,325. Twenty-five have obtained a refund via member-to-member transfer or converting the payment to dues or a donation to the LAA for a total of \$625. Ten individuals left the money on deposit for a future event totaling \$250 and eighteen didn't respond for an extra \$450 in the LAA's account.

The next event that we will be planning is the Summer Picnic. I don't want to hold funds on deposit past that point in time, so I request that those individuals who have not yet asked for a refund please consider one of the following options:

- Request a refund via a Member-to-Member transfer to their LFCU account
 - Please don't ask for a check unless you do not have an account at LFCU
- Convert the payment for the luncheon to a donation to the LAA
 - A donation to the LAA that will be transfer to our Money Market Account, or
 - A donation to support the AIAA's STEM activities and scholarship
- Continue to keep the money on deposit to pay for the Summer Picnic
 - All funds remaining after the picnic will be refunded or converted to donations and/or payment of dues

Please note that if you have funds still on deposit, you will still need to register for the picnic so that the LAA can account for the disbursement of those funds. ♦

Please Pay 2023 LAA Dues by March 31, 2023

By Geoff Tennille, Treasurer

According to our By-Laws, annual dues are to be paid by the end of the first quarter of the fiscal year, which for the LAA is March 31st. We have 20 members who paid for 2022, who have not yet paid for 2023. An additional 15 members paid for 2021 but not for 2022. Those members may regain active status by simply paying dues for 2023. There is no requirement to pay dues for years in which you were not an active LAA member.

Dues may be paid by a check, made out to **Langley Alumni Association** or **LAA**, and mailed to **Geoff Tennille, 309 Burgh Westra Drive Hampton, VA 23669-1772**. The check should note the years that the dues payment covers.

Another option is using a Member-to-Member transfer to the LAA Langley Federal Credit Union (LFCU) account from another LFCU account. Details of that process are described on <https://larcalumni.org> by clicking on the Pay Dues-NEW tab on the left side of the website's home page.

Finally, you always have the option to become a Life-Paid member for \$100. If you have already paid dues for 2023 you already have at least a \$10 credit toward an upgrade (\$90 to upgrade). The credit is \$10 for each year of annual dues that have been paid. So, if you are paid through 2024, your credit is \$20 (\$80 for the upgrade) and if you are paid through 2025, your credit is \$30 (\$70 for the upgrade). ♦

Upcoming LAA Monthly Speakers

By Vicki Crisp, Vice President and Programs Chair

We continue to enjoy our monthly speakers program and are set through June. July will once again be our summer celebration. Please email me at vkcrisp@gmail.com with ideas as to where you might want to see that celebration take place.

Tony Pototzky created a list of possible field trips to share together between our meetings. As weather improves, we plan to set up a few. Day trips will be tried first. Examples include the following:

- Military or flight tours (for example, Pungo Aviation Museum, Norfolk Naval Base Warships, Wallops Launch Facility, or the Virginia Air and Space Science Center).

- Purely social gatherings, such as local breweries, harbor cruise, or bowling.
- Local favorites, such as a tour of the Langley facilities, Virginia Institute of Marine Science (VIMS), Surry Nuclear Power Station, or Hampton University Proton Therapy Institute).

We did a poll but feel free to email myself or Tony with any suggestions for future speakers or activities!

Be sure to check our website at <https://larcalumni.org> for information on our upcoming guest speakers in 2023. Our most recent guest speaker was Charles “Chuck” English, the Interim

Director and CEO for the The Virginia Air and Space Science Center.

Our speakers for the next four months are the following:

- Lisa M. Ziehm—Langley Research Center Associate Director.
- Steve Jurczyk—Co-founder, President and CEO of Quantum Space.
- Dr. Mark Lewis—University of Maryland, Professor Emeritus and Executive Director for the National Defense Industrial Association’s Emerging Technologies Institute.
- Dr. Chauncey Wu—Space Mission Directorate. ♦

January Visit to Titusville—SpaceX Launch and Warbird Museum Visit

By Ray Rhew

In a recent visit to Titusville, Florida, we had the opportunity to view a SpaceX Falcon Heavy launch from approximately 15 miles away on a clear evening near sunset. The launch’s primary payload was a classified United States Space Force satellite. We were able to view the ascent and side booster landings from a great vantage point.

Additionally, we took time to visit the Valiant Air Command, Inc. Warbird Museum that includes a restoration hangar and access to an active airfield. They provided a docent-led tour that was very informative and included discussions with Vietnam War veteran pilots. We were fortunate to be present for engine run-ups and then multiple touch-and-go landings of a Douglas C-47 Skytrain. If you are ever in that area, a visit is highly recommended. ♦



C-47 engine run-up at the Warbird Museum



Plume with shadow and ascent



SpaceX Falcon Heavy side boosters nearing touchdown

VASBA Gala and Fall Mixer



LaRC Center Director, Mr. Clayton Turner



*NASA Associate Administrator
Dr. Thomas Zurbuchen*



*LaRC Associate Center Director, Technical
Mr. Kevin Rivers (Photo credit: VASBA)*

By Jack Schlank

The Virginia AeroSpace Business Association, (VASBA), held its 2022 Gala in September at the Marriott at City Center, in Newport News, Virginia. The annual event is VASBA's main fund-raiser to generate monies for its yearly K-12 STEM-related sponsorships, and both 2- and 4-year college STEM scholarships. During the reception, VASBA recognized NASA's 105th Anniversary, and welcomed Langley Research Center Director, Mr. Clayton Turner, to say a few words regarding this noteworthy milestone. During the dinner portion, VASBA featured Key-note Speaker, Dr. Thomas Zurbuchen, who is the Associate Administrator for NASA's Science Mission Directorate. The Gala was held in coordination with a three-day exposition offered by the Hampton Roads Chapter of Association for Uncrewed Vehicle Systems International. VASBA is the premier nonprofit trade association representing all aspects of the aerospace industry in the Commonwealth of Virginia, with a mission to heighten awareness, promote business development, and cultivate the aerospace workforce.

VASBA also held a Fall Mixer in early November. Once again held at the

beautiful James River Country Club, the event included a dinner featuring our guest speaker NASA LaRC Associate Center Director, Technical, Mr. Kevin Rivers. Mr. Rivers presented information on some of the latest activities on the Center, and its vision for the future.

VASBA held its annual end-of-the year Membership Mixer at the Capstan Bar Brewing Company on December 1. During the meeting, VASBA President Laura Blumberg gave a year in review presentation, went over our goals for the upcoming year, and the member-

ship voted on a slate for the Board of Directors positions.

VASBA's yearly support of Aerospace Day, on Capitol Hill in Richmond, occurred on January 25th this year, and included the coordination of the congressional meetings, attending those meetings, and providing a table at the Legislative Reception.

Events in the planning stages for 2023 include our annual luncheon at Wallops Flight Facility, more monthly guest speaker presentations, and another Mixer or two. ♦



LaRC Center Director Clayton Turner addresses the VASBA (Paul Harrison Photography)

On Large Language Models and Aerospace Education

By Associate Professor Stephen A. E. Miller, Ph.D., saem@ufl.edu
University of Florida Department of Mechanical and Aerospace Engineering

Artificial intelligence (AI) is changing all aspects of our lives, much like the Internet did when it became widely available to consumers in the mid-1990s. There are many discussions about how the AI revolution has affected different areas, including the workplace, art, culture, writing, and academics. Recently, the “ChatGPT: Optimizing Language Models for Dialogue” has been making significant impacts in these areas.

The development of large language models was initiated at Google, where they were working on creating algorithms for text translation (e.g., English to French). This model was later published in an academic paper, and companies like OpenAI quickly adapted the approach. For a technically minded audience, I would recommend the free article at Ars Technica (January, 2023, <https://arstechnica.com/gadgets/2023/01/the-generative-ai-revolution-has-begun-how-did-we-get-here>) to understand the algorithms. Despite initial skepticism, OpenAI is now receiving billions of dollars in investment from companies such as Microsoft.

As a professor at the University of Florida, which is at the forefront of integrating AI technology in research and teaching, I have seen firsthand the impact of AI in the classroom. The University of Florida has the world’s largest nVIDIA-based supercomputer, which has been instrumental in advancing AI research.

However, many of my colleagues at the university are concerned about the effect AI is having on students’ understanding of the material. These concerns are not limited to the University of Florida and are being discussed at universities across the United States. These discussions at University of

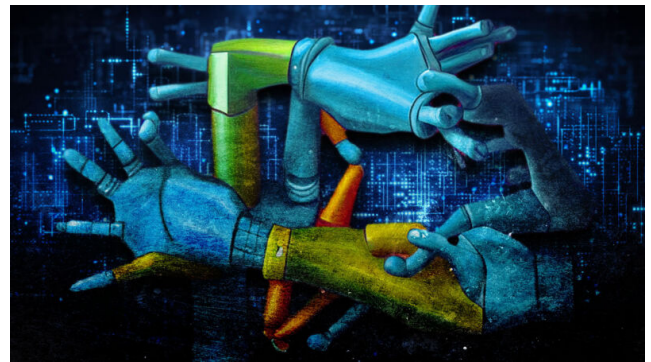
Florida and some other regional and local universities within the United States are detailed in the New York Times (January, 2023, <https://www.nytimes.com/2023/01/16/technology/chatgpt-artificial-intelligence-universities.html>).

In my class this semester, my graduate students are required to write a ten-page term paper in the style of an AIAA Journal article. I’ve noticed improvements in their writing, but at the same time, I’ve also noticed a decline in their understanding of the material compared to previous years I’ve taught the class. I suspect that they are using a transform algorithm to assist with their writing. The question remains, how should we respond if our goal is to teach critical thinking (as discussed in my article in the previous LAA newsletter at <https://larcalumni.org/wp-content/uploads/2022/11/LAA-Newsletter-December-2022.pdf>)?

The genie of language generation and AI is out of the bottle. AI and its use will not leave the classroom, workplace, or industry, even if rules are made against it. This is a new revolution that is happening. In my class, I have instructed the students to in-

clude a new section under Acknowledgments in their term papers. They must specify exactly how they used AI, if they chose to do so, to aid in their writing. AI should not be used to write a term paper in a university, but it can help revise and guide the writing. Perhaps, this is the most ethical approach to take.

The question of whether humans can differentiate between AI-generated



Partially AI-generated image from [Ars Technica](https://arstechnica.com)

and human-written content remains to be seen. I challenge the readers to identify which parts of this article were written by AI (send an email to saem@ufl.edu), and I will offer a small gift from the University of Florida to anyone who is correct.

Disclaimer: Part or all of this article was written using an AI translation algorithm. The specific parts that were generated by AI are not disclosed to keep the proposed game intact. ♦



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