NASA Langley Alumni Association

LANGLEY ALUMNI ASSOCIATION

2024—A Promising Year for the LAA

March 2024

By Kathy Ferrare, Vice President and Programs Chair

Thank you so much to all who have helped with the smooth transition to the newly elected Board. The Board is settling into their roles, making contributions through their active engagement. Olaf and I appreciate everyone's participation!

Walt Engelund's presentation on the Space Technology Mission Directorate and Moon-to-Mars Strategic Framework was very enlightening. He referenced during his talk *NASA's Moon To Mars Strategy and Objectives Development* document. You can download this document using the QR code shown below.

An exciting line-up of speakers and events are scheduled for the next few months. The Reminder list to the right of this page provides a quick view of upcoming events. For more details on these events, please visit our website at https://larcalumni.org.

In particular, please mark your calendars for the LAA picnic on July 9th. We are open to suggestions for places to go, and we are looking for members to help organize this event!

Work is underway to schedule the remainder of events in 2024. Through your conversations with family, friends and peers, has someone or an activity sparked your interest that you feel other LAA members would be interested in? We welcome your suggestions, so please share your thoughts with me (kferrare@verizon.net) or any board member. We are dedicated to engaging all LAA members in our planning process. ◆

Reminder—Upcoming events

March 12: Loretta Kelemen

Langley's Facility Strategy (2000's and Beyond)

April 9: Dave Richwine

Quieting the Boom over 8 decades

May 14: Charles Camarda

NASA's culture and safety — discussion on concerns and how to correct them

June 11: Flight Dynamics Research Facility Tour

July 9: LAA Picnic

NASA's Moon to Mars strategic framework document and QR code from Walt Engelund's presentation to the LAA in February 2024.

In This Issue

2024 LAA Officers

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Mary DiJoseph
Ray Rhew

President's Report

By Olaf Storaasli, President

LAA has been off to a great start in 2024! Our first two guest speakers, David Young (NASA Langley Deputy Director) and Walter Engelund (NASA Deputy Associate Administrator for Programs), shared the future visions of LaRC and NASA.

Walt's talk topped prior LAA attendance records at over 100 attendees, more than half of whom attended remotely. Click here to view talks you missed or to see information on future speakers.

Dave Young requested and got LAA feedback on LaRC's plan in a follow-up meeting on February 1. Astronaut Charlie Camarda also will solicit LAA feedback in his September talk. Your expertise is appreciated!

Please check out the list of upcoming guest speakers posted on page 1 of this newsletter. We have some great speakers lined up!

Our streamlined membership and badging process, plus extending LAA membership retirees from NASA sister centers, may also grow our membership. LAA dues are lower than those for other NASA alumni associations. LAA dues are just $10 per year, with the first year being free.

Thanks to members for suggesting speakers, to Kathy Ferrare for leveraging her close ties with Langley senior management, and to Dave Hinton and Ray Rhew for streamlining the member badging. Thanks also to Rick Ross for facilitating hybrid meetings, to Dick Hueschen for timely communications, and to Mary DiJoseph for her excellent meeting minutes. These have all contributed to our great success.

Who is an LAA member? Our LAA roster, which contains personal identifiable information (PII), is closed to members except for this. Members can ask Officers and Board Members who have our roster to find colleagues in LAA.

We would like to make it easy to locate former colleagues who are LAA members while still protecting the privacy of our members. Would it help to list members' first name, last initial, and retirement date on our LAA website (e.g., Olaf S. 2005)? Should we ask for consent before posting this information?

Please let me know your thoughts.

LAA is a great organization. We hope to make it even better by harnessing your thoughts and ideas.

Best wishes,

Olaf O. Storaasli
LAA President ◆

Langley Alumni Association
A tax-exempt organization

The LAA Newsletter is published quarterly. Please submit articles for publication to rick.ross@verizon.net no later than the 10th of February, May, August, or November for publication the following month. Please contact mhueschen@gmail.com to subscribe or unsubscribe.

Membership News

By Dave Hinton, Membership Chair

Welcome to all of our new members, with eight joining in the past month. We have an exciting 2024 in store with a great lineup of guest speakers being formed (see details on our website at https://larcalumni.org (Events tab) and the article on the front page of this newsletter), a tour of the new Flight Dynamics Research Facility (new wind tunnel!), and more opportunities emerging to directly participate with NASA Langley Research Center activities.

To all, thank you for your patience as we revamped our membership application and badge processes. Our Bylaws were modified to open membership to retirees from all of NASA, creating the potential for applications from individuals that we have never known. Hence, we realized we needed an enhanced process to ascertain that applicants were, in fact, former employees. For a time, we suspended badge renewals and new badge requests. As we examined the process, we realized that we also needed to modify the badge issuance for current members to fully align with the NASA purpose and polices for use of the badge. The activity badge is not for general purpose Center access, but rather for those who require physical access for LAA activities on an ongoing basis.

The new membership application process looks the same to new applicants. We perform checks after receiving an application to verify that they meet the Bylaws eligibility requirements. The new badge process looks significantly different to the members. We are no longer asking members to request a renewal on a web form when their badge is nearing expiration. We now examine a list that we can access of soon-to-expire badges. If the member is in good standing, we will make the badge request for you and send you an email when it is time to pick it up. The good standing requires (1) that dues are current, (2) the member is participating in LAA activities on the Center, (3) the member has read and agreed to comply with a badge use policy that we have posted on our website at https://larcalumni.org/membership. New applicants will indicate on their application that they agree to the badge policy. Current members can do so by sending me an email (davidhinton@larcalumni.org) to state that they have read and agree to comply.

Hall of Honor plaques at the LAA's meeting location, Langley's NACA room.

Here are a few tips for a smoother process:

1. Be sure to use the sign in sheets at each meeting. LAA attendance will be factored into badge renewals as we go forward.

2. If not already done, review the posted badge policy and send me an email if you agree to follow that guidance.

3. Do not be looking for the email from us to go to a web form to request a renewal. That web form is no longer in use. If you are uncertain about your upcoming renewal, please contact me. You should get an email from me about two weeks before your badge expires with instructions for pick up at Badge & Pass (B&P).

4. When a new badge (not a renewal) is needed, B&P will send you and email with a link for additional data needed for their processing. The email will come from Identity.Manager@nasa.gov. Since the link expires in five days, please be sure to promptly respond to that email. Once expired, there is additional work required by our Liaison to re-enter the request to B&P.

5. Keep in mind that we can also request single-day visitor badges for a specific LAA event on Center. If you are only attending one meeting a year, for example, NASA prefers that a day-badge be requested rather than an Activity Badge. Send any requests for a day badge to me a **minimum** of a week before the event.

6. Please contact me directly with any badge question or issues rather than calling the LAA's NASA Liaison first. Melanie and I coordinate on badging and if you call her first, she will in general need to call me to ask if the member meets the LAA requirements. If phoning me, leave a message. My phone is silenced to screen telemarketer calls.

Again—thank you for your patience and understanding as we work through these necessary changes. Please contact me with questions or concerns. I will do the best I can to make this a smooth transition. ◆

LAA HOLIDAY LUNCHEON

HARPOON LARRYS

NASA, Potential Return to Supersonic Flight, and International Economic Impact

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

The prospect of reintroducing commercial supersonic travel, capable of drastically reducing travel times, presents a vision for the future of global connectivity. The resumption of supersonic flight is poised to catalyze significant growth in the already multi-billion dollar aerospace industry, potentially transforming the economics of air travel and fostering a surge in tourism. With such an increase in global mobility, the economic implications are profound, potentially spurring unprecedented levels of economic growth and international collaboration.

Fig. 1. "NASA and Lockheed Martin publicly unveil the X-59 quiet supersonic research aircraft at a ceremony in Lockheed Martin's Skunk Works facility in Palmdale, California. The X-59 is the centerpiece of NASA's Quesst mission, which seeks to solve one of the major barriers to supersonic flight over land, currently banned in the United States, by making sonic booms quieter."

Source: https://www.nasa.gov/image-article/nasa-x-59-unveiled-during-rollout-ceremony

However, a second renaissance of supersonic commercial flight is not without its challenges. The cost associated with developing and operating these aircraft is substantial, likely rendering ticket prices higher than those of contemporary transonic aircraft, which could limit long term accessibility. Environmental concerns, particularly carbon emissions from high-speed travel, loom large in a world increasingly conscious of climate change. Additionally, the noise impact, both from conventional takeoff and landing and the characteristic sonic boom, remains a significant hurdle. These issues necessitate a careful balance between the benefits of rapid travel and the overarching imperative for sustainable and community-friendly aviation practices.

The NASA/Lockheed Martin Skunk Works in Palmdale, California, showcased the X-59 aircraft at its rollout ceremony on January 12, 2024, marking a significant step towards its inaugural flight (see Figure 1). This event not only commemorates the extensive technical progress achieved over the years, but also pays tribute to the exceptional NASA personnel involved in the research, development, and construction of this unique supersonic research aircraft. The X-59, integral to NASA's Quesst mission, aims to demonstrate the feasibility of quiet supersonic travel, with plans to fly over selected U.S. communities to gather data that could potentially influence the modification of current regulations on commercial supersonic flight over land.

Fig 2. Concorde in Sydney, June 17, 1972, still holds the London to Sydney speed record.

Examining historical data from the Concorde's operational period offers insight into the potential of supersonic travel. The Concorde, with its remarkable speed, was capable of significantly curtailing the duration of long-haul flights, such as those from the United States to Australia (see Figure 2). For instance, conventional flights from Florida to Australia currently span an arduous 30 hours, including layovers. Conversely, archival estimations from the AIAA suggest that utilizing supersonic flight could have more than halved this travel time. A shorter transit can lower the duration of trans-Pacific travel, thereby increasing tourism and economic growth between great allies such as Australia and the United States (see Table 1). ◆

	Flight time	Leave East Coast (Local time) Monday	Arrive Australia Tuesday
DC-8/707 via Mexico	22.7 hours	10:00 AM	11:40 PM
SST Supersonic over water via Mexico, Tahiti	9.7 hours	10:00 AM	10:40 AM

Table 1. Study of flight times from Mexico to Sydney, Australia

President's Budget Request for FY 2024

Contributed by Gary Price

National Aeronautics and Space Administration

FY 2024 PRESIDENT'S BUDGET REQUEST SUMMARY

	Fiscal Year						
Budget Authority ($ in millions)	Op Plan 2022	Enacted 2023	Request 2024	2025	2026	2027	2028
NASA Total	**24,041.3**	**25,383.7**	**27,185.0**	**27,728.7**	**28,283.2**	**28,848.9**	**29,425.8**
Deep Space Exploration Systems	**6,855.1**	**7,468.9**	**7,971.1**	**8,130.5**	**8,293.1**	**8,459.0**	**8,628.2**
Common Exploration Systems Development	4,590.7	4,737.9	4,525.4	4,241.7	4,009.3	3,557.3	3,529.7
Artemis Campaign Development	2,007.6	2,600.3	3,234.8	3,674.4	4,068.9	4,686.2	4,879.6
Human Exp Requirements & Architecture	--	--	49.1	50.0	50.5	51.0	51.1
Mars Campaign Development	187.4	--	161.8	164.4	164.4	164.5	167.8
Exploration Research & Development	69.4	--	--	--	--	--	--
Space Operations	**3,974.9**	**4,250.0**	**4,534.6**	**4,625.3**	**4,717.8**	**4,812.2**	**4,908.4**
International Space Station	1,261.8	--	1,302.6	1,302.1	1,302.5	1,302.9	1,321.7
Space Transportation	1,716.9	--	1,956.7	1,990.6	2,036.2	2,068.7	2,153.4
Space and Flight Support (SFS)	889.1	--	1,047.0	1,103.0	1,076.8	1,005.4	995.4
Commercial LEO Development	102.1	--	228.4	229.6	302.3	435.2	437.8
Exploration Operations	5.0	--	--	--	--	--	--
Space Technology	**1,100.0**	**1,200.0**	**1,391.6**	**1,419.4**	**1,447.8**	**1,476.8**	**1,506.3**
Science	**7,610.9**	**7,795.0**	**8,260.8**	**8,426.0**	**8,594.5**	**8,766.4**	**8,941.7**
Earth Science	2,061.2	2,195.0	2,472.8	2,597.5	2,730.0	2,791.2	2,849.0
Planetary Science	3,120.4	3,200.0	3,383.2	3,265.8	3,246.1	3,350.8	3,389.7
Astrophysics	1,568.9	1,510.0	1,557.4	1,622.1	1,665.9	1,689.6	1,749.4
Heliophysics	777.9	805.0	750.9	837.4	847.3	827.4	844.0
Biological and Physical Sciences	82.5	85.0	96.5	103.2	105.3	107.4	109.6
Aeronautics	**880.7**	**935.0**	**995.8**	**1,015.7**	**1,036.0**	**1,056.7**	**1,077.8**
STEM Engagement	**137.0**	**143.5**	**157.8**	**161.0**	**164.2**	**167.5**	**170.9**
Safety, Security, and Mission Services	**3,020.6**	**3,129.5**	**3,369.4**	**3,436.8**	**3,505.5**	**3,575.6**	**3,647.1**
Mission Services & Capabilities	1,987.2	--	2,259.3	2,304.1	2,350.0	2,397.1	2,445.0
Engineering, Safety, & Operations	1,033.4	--	1,110.1	1,132.7	1,155.5	1,178.5	1,202.1
Construction and Environmental Compliance and Restoration	**416.8**	**414.3**	**453.7**	**462.8**	**472.1**	**481.5**	**491.1**
Construction of Facilities	342.1	--	375.9	383.4	391.1	398.7	406.6
Environmental Compliance and Restoration	74.7	--	77.8	79.4	81.0	82.8	84.5
Inspector General	**45.3**	**47.6**	**50.2**	**51.2**	**52.2**	**53.2**	**54.3**
NASA Total	**24,041.3**	**25,383.7**	**27,185.0**	**27,728.7**	**28,283.2**	**28,848.9**	**29,425.8**

FY 2022 reflects funding amounts specified in Public Law 117-103, Consolidated Appropriations Act, 2022, as adjusted by NASA's FY 2022 Operating Plan, August 2022.

Source: https://www.nasa.gov/wp-content/uploads/2023/03/nasa-fy-2024-cj-v3.pdf
See also: https://www.whitehouse.gov/wp-content/uploads/2023/03/budget_fy2024.pdf
https://www.whitehouse.gov/wp-content/uploads/2023/03/nsa_fy2024.pdf

VASBA Luncheon

By Jack Schlank

VASBA held their first luncheon of the new year on 18 January with two guest speakers presenting to our membership. First up was Dave Young from the NASA Langley Research Center. Mr. Young is serving as a special assistant to the Center Director. Mr. Young explained the Center's Langley is the Future (LIFE) initiative that he is leading. LIFE is defining Langley's strategic path to the future and the steps needed to get there. The process should be complete by this summer.

Our second speaker was Mr. Rick Dwyer, Executive Director of the Hampton Roads Military and Federal Facilities Alliance (HRMFFA). It was several years since our members had heard from HRMFFA, and it was good to reconnect and learn how they continue to help build our local community.

Dave Young, NASA LaRC

In early February, several VASBA members once again traveled to Richmond to support Aerospace Day in the Capitol. Construction on the new General Assembly Building is complete, making this year feel a little more special than normal. VASBA had a table at the evening legislative reception as we have in the past. New for this year, our president presented a short briefing on VASBA activities to the Virginia General Assembly Aviation and Aerospace Caucus (VGAAC) that was held the morning after Aerospace Day.

Later in the quarter, we hope to have our second luncheon—targeting the early to mid-March timeframe. We are working on potential speakers and will send out an announcement as soon as our plans are finalized. ◆

Rick Dwyer, HRMFFA

LAA vs. U.S. Life Expectancy

By Olaf Storaasli

One LAA Webmaster duty is to post obituaries of our Langley colleagues who pass and we honor each month as Dick Hueschen reads their names, a solemn experience.

As a "data guy" like most of us at NASA, I saw a huge trend staring me in the face each month: we live 10–15 years longer than others in the U.S.! Doug Morris confirmed the trend among Space Systems colleagues he'd tracked. We felt the trend so remarkable, I added average age at death to our monthly obituaries. For January 2024, the average age was 88 (see chart), outliving the US average of 73.8 by 14 years, despite Steve Jurczyk passing at 61.

Why do we live so long? Both nature (genes) and lifestyle play a role and I'd love to hear your thoughts. Our family was blessed to observe our mom who recently passed at 104 with no aches or pains or mental issues.

Although not NASA, like most of us, she was optimistic, adventuresome, traveled the world, and was an early adopter of new technology—her GrandPad kept her in constant video contact with dozens of her family members, which we feel kept her mind alert and motivated.

In her 90s, mom flew in my son's experimental aircraft. She shared our NASA positive spirit toward the future! To explore more, I had her and others in our family try this Lifespan Calculator. Even in her 90s, it predicted she'd live past 100, as it did me. In the last few years it consistently predicted 103 which was "spot on" as she passed 25 days short of 104. I tested her MBTI, also indicative of her healthy lifestyle and personality.

I hope reading this, many of you may feel inspired and look forward to your future and many more years of creativity. ◆

LAA vs. U.S. Life Expectancy

	LAA	US
Jan	87	74
Feb	86	74
Mar	78	74
Apr	89	74
May	83	74
Jun	77	74
Jul	87	74
Aug	87	74
Sept	84	74
Oct	98	74
Nov	89	74
Dec	88	74
Jan04	88	74