National Aeronautics and Space Administration

AeroSpace FRONTIERS

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A Pause for Reflection

As we begin another exciting year in support of space exploration and look forward to the Artemis I launch, we must not forget those who paved the path to get us where we are today. In January, we paused to remember the fallen heroes of the Apollo 1, Challenger, and Columbia crews. We honor their ultimate sacrifice by integrating the lessons learned and a culture of safety and excellence into everything we do at Glenn. Whether conducting research in our laboratories or developing and testing technologies and flight hardware in our facilities, we must stay vigilant and engaged and be willing to speak up when necessary for safety and mission success.

Thank you for your dedication to a strong safety culture at Glenn.

AeroSpace Frontiers
is an official publication of Glenn Research Center, National Aeronautics and Space Administration. It is published the second Friday of each month by the Office of Communications in the interest of the Glenn workforce, retirees, government officials, business leaders, and the general public.

Submit short articles and calendar items to the editor at doreen.b.zudell@nasa.gov.

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NASA History

Administration Building Completes Its Eighth Decade

GRC-1942-C-01186 Photos from GRC Image Archives

With little fanfare, NACA employees moved into the brand-new Ad Building on Monday morning, Dec. 14, 1942.

On Dec. 14, 1942, the new Administration (Ad) Building opened at the NACA's Aircraft Engine Research Laboratory (today, NASA Glenn). The Ad Building, located just inside the main gate, has been a hub for center leadership, employee activities, visitor interaction, and communications for nearly 80 years.

Manager Raymond Sharp and his immediate staff were previously stationed in an old farmhouse nearby, while the other employees had occupied temporary offices inside the hangar. The primary function of the Ad Building was to, and continues to, provide a base for center leadership.

It has also been the location for workforce events such as holiday gatherings and celebrations. NASA Glenn's Ad Building will be a central meeting point for years to come.

To learn more about the Ad Building's history and to view historic photos, visit https://go.nasa.gov/3mt401T.

GRC-1952-C-29134

From the very beginning, the Ad Building's large auditorium provided a central location for employees to meet for technical meetings, award ceremonies, and social affairs. Here, Director Raymond Sharp addresses graduates of the laboratory's Apprentice Program in 1952.

GRC-2021-04394 Photo by Marvin Smith

Glenn Director of Aeronautics Timothy McCartney, left, and ARMD staff, top to bottom, Clarke, Dr. Waggoner, Montgomery, and Pearce, participated in the virtual all-hands meeting.

Pearce Looks Back and Beyond

Last December, Aeronautics Research Mission Directorate (ARMD) Associate Administrator (AA) Robert Pearce and his staff connected with NASA Glenn employees through several in-person and virtual activities.

Pearce's visit to both Lewis Field and the Neil A. Armstrong Test Facility included meetings with leadership, research updates, tours, and discussions on projects with several early career hires. Former Deputy Center Director Susan Motil, Glenn Aeronautics Director Timothy McCartney, Acting Deputy Mary Reveley, and other Glenn leaders led and/or participated in the visit.

During a virtual town hall meeting, Pearce reflected on 2021 accomplishments and shared goals for 2022 and beyond. He applauded employees' dedication in forging through challenges during the year to complete tasks.

"By and large, we [ARMD] met our milestones," said Pearce. "This is a testament of our workforce during the pandemic."

Pearce provided an ARMD overview that focused on goals relating to NASA's global, sustainable, and transformative vision for aviation in the 21st century. Areas of highlight included ultra-efficient transport, future airspace, high-speed commercial flight, and advanced air mobility.

Pearce introduced ARMD staff—Deputy AA Steven Clarke; Deputy AA for Programs Dr. Ed Waggoner; and Deputy AA for Policy Jon Montgomery—who joined him on the visit. They participated in the question-and-answer portion of the meeting.

Pearce also recognized Glenn's Dr. Jamesa Stokes, who is spearheading NASA's Early Career Network (ECN) for Aeronautics. The network promotes communication and collaboration among NASA early careerists. He said ECN is creating opportunities for interaction that has never been done before.

On the Cover:

Natasha Jackson, Space Environments Test Branch (HX5 Sierra), supports the development of Dynamic Radioisotope Power Systems. She is pictured working on new Stirling heat-to-electric convertors undergoing verification and validation testing in the Stirling Research Laboratory. This is one of several technologies highlighted in the 2021 Year in Review video. (See page 4.)

GRC-2021-C-03287
Photo by Bridget Caswell

2021 Year in Review

Glenn Continues Moving Forward

NASA Glenn's 80th anniversary year would make our founders proud.

GRC-2011-C-00669
Photo by Marvin Smith

Glenn's S–3B Viking research aircraft retired to the San Diego Air and Space Museum last July.

During Glenn's 2021 Virtual Holiday Town Hall on Dec. 13, 2021, Center Director Dr. Marla Pérez-Davis led a celebration that highlighted many activities and accomplishments achieved during our 80th anniversary year.

The Glenn Band kicked off the event by setting the holiday mood with its rendition of "I Want a Hippopotamus for Christmas," followed by a welcome from Pérez-Davis. She invited employees to join her in 30 seconds of silence in remembrance of Glenn employees we lost in 2021.

The town hall featured several 2021 Year in Review videos. In addition to a video that highlighted space and aeronautics achievements, others centered on STEM-focused outreach with students at various levels, collaborations and lecture series, awards, senior leader farewells and welcomes, and accolades from NASA and local community professionals.

"Despite challenges we continue to face; we are moving forward!" Pérez-Davis said.

During the town hall, she shared slides on significant activities and events scheduled for the fiscal year's first and second quarters. She also presented Glenn's top priorities. (See Glenn's 2022 Top Priorities, page 5.)

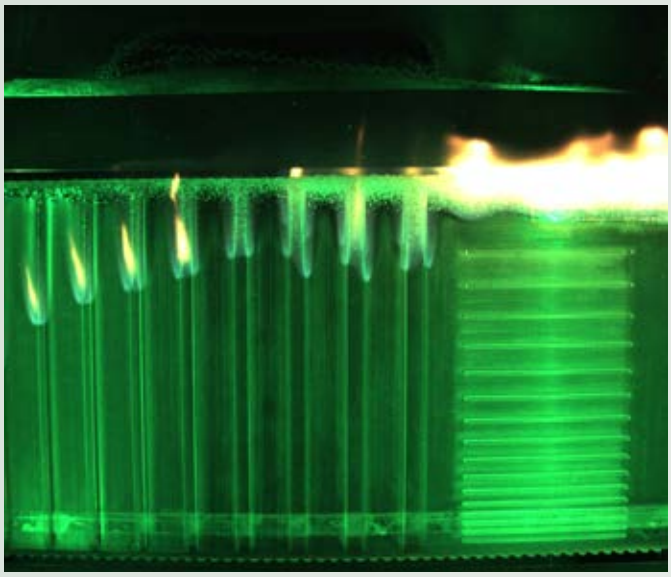
Glenn's Associate Director for Strategy Charles Cockrell briefed employees on the updated Glenn Strategic Plan. He said the plan is our commitment to a strong and vibrant future.

Directorates added humor with live and recorded year-end messages and holiday wishes.

Deputy Director Susan Motil, who retired on Dec. 31, 2021, thanked senior staff for their support and shared heartfelt wishes to the Glenn family for their continued success. "You made it easy for me because of your dedication," she said.

The town hall culminated with a pictorial collage thanking employees for their commitment and hard work in 2021.

By Doreen B. Zudell



GRC-2021-CN-00002 Photo by NASA

International Space Station ground operators ignited the fifth Spacecraft Fire Safety Experiment, Saffire-V.

GRC-2021-C-01744
Photo by Marvin Smith

Right: Glenn completed construction on the Research Support Building, an innovative new building designed to provide a flexible, inclusive, and collaborative workplace.

GRC-2021-C-03514 Photo by Bridget Caswell

The NASA Electric Aircraft Testbed at Neil A. Armstrong Test Facility performed work on sustainable aviation.

Glenn's 2022 Top Priorities

SPACE

- Artemis I Launch/Operations Support
- Artemis II Orion/European Space Module (ESM–2)
- Power and Propulsion Element (PPE) and Advanced Electric Propulsion System (AEPS)
- Radioisotope Power Systems
- Communication Services Project.

Aeronautics

- Hybrid Thermally Efficient Core (HyTEC)
- Electrified Aircraft Power Systems and Thermal Management Technology Development
- Electrified Powertrain Flight Demonstration (EPFD).

Institution

- Enable Future of Work possibilities and Digital Transformation
- Invest in Institutional Infrastructure to maintain operational readiness for Glenn's world-class facilities and capabilities
- Safe reactivation of key facilities, test rigs, and laboratories
- Leverage human resources hiring flexibilities to attract talent and skills at NASA.

External Partnerships

- Successful completion of tests at NASA's Neil A. Armstrong Test Facility in support of commercial partners
- Develop partnership opportunities that promote innovation, NASA technology commercialization, and small business growth within Ohio and the nation
- Enhance communication and collaboration with industry, academia, government, and other federal research laboratories throughout the Midwest region.

Retirements

Joseph Kerka, Fabrication Division, Facilities, Test, and Manufacturing Directorate, retired Dec. 31, 2021, with 36 years of NASA service.

Robert Kowalski, Neil A. Armstrong Test Facility, retired Dec. 31, 2021, with 41 years of NASA service.

Jack Oldenburg, Test Facility Management Branch, Management Integration Division, Facilities, Test and Manufacturing Directorate, retired Jan. 1, 2022, with 41 years of NASA service.

Mark G. Potapczuk, Icing Branch, Propulsion Division, Research and Engineering Directorate, retired Dec. 31, 2021, with 34 years of NASA service.

Kerka

Kowalski

Potapczuk

More Than a Memory

John P. Kelley, 103, a 1979 retiree and an Air Force veteran, died Nov. 18, 2021. Kelley joined the center in 1949 as an electrical engineer in the Research Engineering Branch. He later served as an electrical design engineer. Kelley designed electrical control systems for rocket engine test facilities both at Lewis Field and Plum Brook Station (now Neil A. Armstrong Test Facility). He met his wife, Jean, at the center and was active in the center's golf leagues.

Kevin D. Roberts, 61, a 2019 retiree with 30 years of service, died Dec. 7, 2021. Roberts was a mechanic in the Test Installations Division for over 20 years. He graduated from the center's Apprentice Program in 1994 as an electronic systems mechanic. Roberts spent most of the 1990s in the Engine Research Branch before moving to Aircraft Operations and working in the hangar in the 2000s.

Robert L. Wells, 68, a 2009 retiree with 38 years of service, died Dec. 17, 2021. Wells began his career as a high school student in the Neighborhood Youth Corps program in 1969. He became a NASA employee in the Environmental Health Office. Wells graduated as a journeyman from the center's Apprentice Program and worked as an instrument maker in the Research Instrumentation Branch. In 1997, he attended the New Leader Program in the Graduate School, USDA. Wells was a lifetime member of Blacks In Government, where he held various leadership positions. He retired as chief of the Research Instrumentation Branch. Wells received numerous individual and group achievement awards throughout his career.

Kelley

Roberts

Wells

Start 2022 With a Healthy Lifestyle

NASA Glenn's Fitness Center kicked off the new year by sharing ways to create healthy habits in 2022. Fitness specialists Heather Mueller and Bob Laws hosted the Fitness Center's first Virtual Wellness Connection of the year "Lifestyle Changes for You and Your Family" on Jan 5. Mueller shared quick, sustainable, and simple ways to get started towards a healthy lifestyle. Some of the many tips shared included eating more fruits and vegetables, spending more time outside, increasing water intake, preparing more home-cooked meals, and aiming for 7,000 steps per day. Mueller added that starting small goes a long way towards loftier health and fitness goals. The 30-minute monthly Wellness Connection series, which began in 2020, covers a variety of health-related topics. For more information, to join Wellness Connection, and for past recordings, visit https://www.grc.nasa.gov/smad/medical-fitness/.

Attention Employees and Retirees

Do You Know This Person?

Glenn's Logistics and Technical Information Division needs your help identifying people, places, and research from archived images. If you recognize a photo placed here, email GRC-ITC@mail.nasa.gov.

To ensure your email reaches the right individuals, please enter "DYKTP" into the subject line. Although we cannot respond to individual emails, please know your participation is appreciated!

GRC-1990-C-05146

Honoring America's Presidents

Monday, Feb. 21

INFORMATION CAFÉ

Each month the Glenn Library staff hosts Information Café, a forum to highlight a library or information resource. Join them on the third Wednesday of each month from 11–11:45 a.m. On Feb. 16, representatives from Elsevier will share how to use their API in the Glenn Library subscribed Elsevier products (Engineering Village, Scopus, and Science Direct). Check Inside Glenn for the link.

POC: robin.n.pertz@nasa.gov

OUTDOOR SIREN TESTING

Emergency Management Office staff will conduct a mass notification voice test at building 15 on Wednesday, March 2, at Lewis Field. An audible siren test will be conducted on the "all clear" tone on Saturday, March 5.

POC: allen.r.turner@nasa.gov

NASA PRAYER GROUP

In these challenging times, Perseverance is needed on Earth as well as on Mars! The NASA Prayer Group has several prayer times and Bible studies, and they are always open to new members. Visit their website and check out the list of ongoing virtual Christian activities. Visit https://www.grc.nasa.gov/prayergroup/.

POC: david.m.defelice@nasa.gov

Deadline for the next calendar section is **Wednesday, Feb. 16, noon**. News and feature stories require additional time.

For more information on upcoming events, visit **https://nasa.sharepoint.com/sites/grc/SitePages/calendar.aspx**

National Aeronautics and Space Administration

John H. Glenn Research Center

Lewis Field
21000 Brookpark Road
Cleveland, Ohio 44135

Neil A. Armstrong Test Facility
3597 E. Scheid Road
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www.nasa.gov

Read AeroSpace Frontiers online at https://www.nasa.gov/glenn/aerospacefrontiers.

McVetta Connects Love for NASA Career and *Auto Racing*

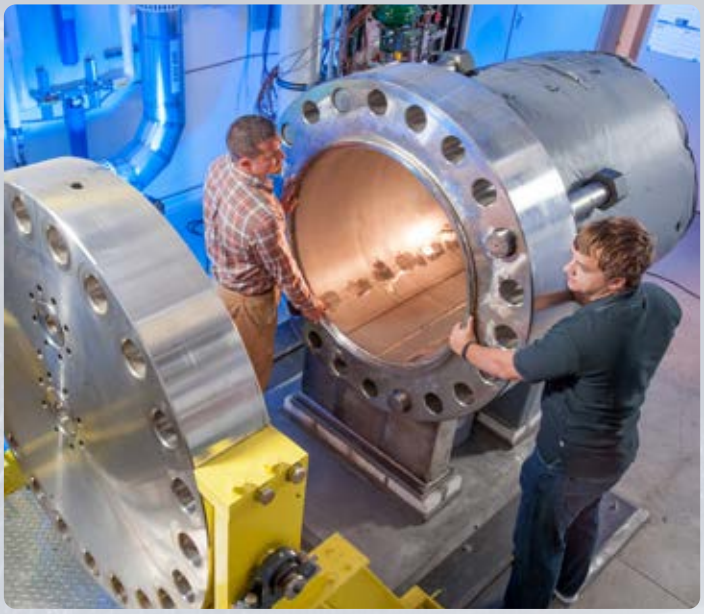
How does managing a NASA facility and racing hand-built cars come together? Just ask Mike McVetta. He uses his engineering skills for both.

Glenn's McVetta began racing at 9 years old, and years later, he put his love for mechanics to the test by racing hand-built cars and working as the facility manager for Glenn's Electric Propulsion and Power Laboratory (EPPL).

Driving a variety of race cars throughout adolescence, McVetta even competed against international drivers while in college. After earning a degree in mechanical engineering from the University of Toledo, he started as a test engineer at NASA.

Now, McVetta puts the pedal to the metal overseeing the EPPL's 40 staff members and coordinating testing at the facility. The massive lab's 25 chambers can subject thrusters, which propel spacecraft, to thermal and vacuum conditions that mimic the environment of space.

To learn more about how McVetta finds connections between being a NASA facility manager and a champion race car driver, and to view a highlight video, visit https://go.nasa.gov/3lq411e.



GRC-2013-C-04415 Photo by Michelle Murphy

McVetta, left, works with Edward Reehorst inside the Glenn Extreme Environments Rig, GEER, test chamber.

GRC-2022-CN-00001 Photo courtesy of Mike McVetta

McVetta and his family celebrate after a race.

Emergency and Inclement Weather Lines

Lewis Field: 216–433–9328 (WEAT)
Neil A. Armstrong Test Facility: 419–621–3333

Connect With Glenn