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National Aeronautics and
Space Administration



AeroSpace *Frontiers*



THERE'S
MORE TO
THE STORY



DIRECTOR'S SAFETY CORNER

Safety Reporting

The recent Safety Culture Survey indicated some employees don't know how to report a safety concern. Reporting of hazards or safety concerns is fundamental to a healthy safety culture. There are multiple pathways for you to report, including the "Safety Reporting" button on Inside Glenn and reporting to your supervisor. If your concern is not resolved locally, you may escalate it to the center level (including anonymously), to the agency, and the anonymous NASA Safety Reporting System, if necessary.

Click this link for more information: <https://go.nasa.gov/3yUWrII>. Scroll down to "Safety and Health Hazard Reporting Pathways," and click on the PDF.

AeroSpace Frontiers

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

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Celebrating 80 Years

There's More to the Glenn Library Story

This year's National Library Week, April 23 to 29, theme "There's More to the Story," stresses that libraries are more than books and online resources; they transform lives and strengthen communities. The Glenn Library is no exception, and employees are part of the story.

The story began in 1943 when the Aircraft Engine Research Laboratory (now NASA Glenn) opened its first on-site library to support research and projects primarily pertaining to propulsion systems for military aircraft. Over the years, the library also maintained building floor plans, technical specifications, and equipment manuals. In addition, arrangements were made so the NACA (now NASA) staff could borrow materials from other libraries, both local and at other federal agencies.

Those support functions remained but evolved over the years as technology changed how information is accessed and research is done. Today, the Glenn Library continues to meet the center's science, engineering, and aerospace research needs in ways that could never have been imagined by the library staff 80 years ago.

Collections and technology have naturally adapted over the past eight decades. While some may assume these new technologies will replace fundamental library operations; in reality, they are strengthening the research output and improving the customer's experience.

"These new tools have been a catalyst to transform



Hamilton, right, assists Jack Fortner-Monegan, with training materials at the Library's Learning Center.

GRC-2023-C-01630
Photos by Marvin Smith



GRC-2023-C-01630

Pictured, left to right: Kathy Hamilton, library technician; Jillien Zudell, science librarian; Robin Pertz, library supervisor (back); Marcia Stegenga, interlibrary loan specialist (front); Shannon Titas, science librarian; Kate Dunlap, senior librarian; and Kerri Novakovic, library technician.

our services and added value to the research here at Glenn,” said Library Supervisor Robin Pertz, ATS/Office of Communications. “With artificial intelligence tools that can index structured and unstructured data both quickly and efficiently, our librarians are able to read massive amounts of written content, like journal articles and patents, to visually tell the story of data.”

Pertz said the return on investment is immeasurable because it gives the customer their time back. By having the library perform this value-added research, it allows the researcher to perform more impactful work for the agency.

In the last two years, the Glenn Library expanded further by establishing a Microsoft Teams channel. Additionally, the Glenn Library and Learning Center Teams’ channel is supporting Glenn and the agency by providing monthly Information Cafe programs, online resource demos, and more.

The story doesn’t end there. The librarians and technical staff are there to guide you through the resources and connect you to the information you need, wherever it comes from and whatever form it comes in.

“Glenn library staff are your partners in data stewardship, data literacy and analytics, knowledge management, and the future of work,” said Senior Librarian Kate Dunlap, Office of Communications. “We’re excited about our next chapter and to continue the story of the Glenn Library.”

The library is open Monday through Friday from 10 a.m. to 2 p.m. Contact robin.pertz@nasa.gov to set up an appointment before or after hours.

For more information on the history of the Glenn Library, visit <https://go.nasa.gov/3JoJxGj>.

On the cover:

Library Supervisor Robin Pertz, left, and Senior Librarian Kate Dunlap continue sharing the story of the Glenn Library.

GRC-2023-C-01635

Photo by Marvin Smith

Facility Upgrades Improve Sustainability Goals

This year's National Earth Day, April 22, theme "Invest in Our Planet," engages governments, institutions, businesses, and citizens to do their part in protecting the planet. It should come as no surprise that companies which develop strong environmental social governance standards are seeing better profitability, stronger financial performance, and happier employees.

Sustainability is the path to prosperity for humanity and businesses alike. NASA Glenn is committed—through the Environmental Management System—to working together to create a more sustainable planet. Part of that commitment centers on facility design, operation and maintenance, and energy management.

All new federal facilities, including those at Glenn, must meet specific requirements for sustainability and receive at least a Leadership in Energy and Environmental Design Silver certification. For existing facilities and infrastructure, however, modern upgrades are key to improving energy and water efficiency and helping the agency strive to reach sustainability goals.

Here are three innovative projects underway or on the horizon at Lewis Field:

Energy Management Control Systems (EMCS) Upgrade Project

Glenn's EMCS comprises 167 main field panels and nearly 200 application-specific equipment controllers throughout buildings at Lewis Field.



Upgrading existing or obsolete EMCS panels and the network will ensure the system is maintainable for the future. New controls and data software will bring Glenn's digital transformation to the next level, which will provide the capability of artificial intelligence as well as improved energy and water efficiency across the center.

Delaval Synchronous Condenser Conversion Project

Delaval exhausters were part of Lewis Field's central process air system until about 10 years ago. While the exhausters could no longer run without replacing the machines, the motors are still operational. This project involves repurposing the motors from decommissioned exhausters to improve the center electrical power factor. Doing so will reduce electricity consumption by 5% to 10% when no large machines are running and allow Glenn to meet energy- curtailment requirements with FirstEnergy Corp.

Electrochemical Cooling Tower Water Treatment Project

Electrochemical water treatment will be installed in two chilled water plant cooling towers at Lewis Field. These chillers remove heat to cool the water used in projects. Unlike the existing system, where chemicals are purchased and added manually to prevent algae and bacteria growth, this new system uses electricity to create a chemical reaction effectively treating the water without adding chemicals. The water treatment system requires 30% less water than the previous system.

To learn more about Glenn's sustainability goals and efforts, visit <https://go.nasa.gov/3LAAWhu>.

By Doreen B. Zudell

10-by 10-Foot Supersonic Wind Tunnel Cooling Tower Water Pump Building



GRC-2023-CN-00003

Glenn Welcomes Deputy Center Director

On Feb. 27, employees gathered at the MIC Auditorium at Lewis Field to welcome Dawn Schaible to the Glenn family. Schaible, who served as Glenn's acting deputy center director since June 2022, was officially named deputy center director on Feb. 24. During the meet and greet, employees shared congratulatory well wishes with Schaible.

"Dawn has been a member of the NASA family for 35 years, and she brings a wealth of NASA research,

engineering, and programmatic knowledge with her to Cleveland," said Center Director Dr. Jimmy Kenyon. "She's done a phenomenal job while serving as acting deputy center director. She jumped in and immediately began making an impact. I look forward to continuing to support NASA's mission and people with her permanently on our leadership team."

To learn more about Schaible, visit <https://go.nasa.gov/3xYSc82>.



GRC-2023-C-01232

Photo by Bridget Caswell

Schaible addresses employees at the meet and greet.

President's Proposed Budget Released

The fiscal year 2024 funding request demonstrates the Biden-Harris Administration's commitment to NASA and maintaining the agency's position as a global leader in aeronautics, exploration, technology innovation, and discovery for the benefit of all.

It proposes \$27.2 billion for NASA, including over \$877 million in spending at NASA Glenn. This represents a nearly 6% increase over Glenn's proposed 2023 budget.

For details, visit <https://www.nasa.gov/news/budget/index.html>.



GRC-2023-C-01139

Photo by Jef Janis

Glenn Scores With Cavs

Glenn employees, Lilia Miller, left, and Molly Kearns, seated, help with hands-on activities that promote NASA's Space Communications and Navigation program during the Cleveland Cavaliers' Score with STEM at the Rocket Field House, Feb. 26. Nearly 2,000 students and families across Northeast Ohio attended the event, designed to spark excitement in STEM and cultivate career awareness. Employees also staffed tables featuring the Graphics and Visualization Lab and Picture Yourself in Space photobooth.

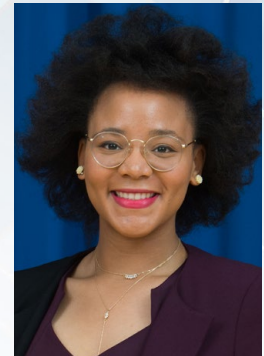
BEYA STEM Honors Glenn Scientists

The 2023 Black Engineer of the Year Awards (BEYA) in Science, Technology, Engineering, and Math (STEM) Selection Committee have named two Glenn employees "Most Promising Scientist in Government."

Dr. Lyndsey McMillon-Brown, research electrical engineer, Photovoltaic and Electrochemical Systems Branch; and **Dr. Jamesa Stokes**, aerospace materials research engineer, Environmental Effects and Coatings Branch, were recognized during the 37th BEYA STEM Conference. Congratulations!



Dr. McMillon-Brown



Dr. Stokes

Dr. Earls Addresses Black History Month Theme

In celebration of Black History Month, Glenn hosted a program featuring former Center Director Dr. Julian Earls. During the Feb. 23 event, broadcast live throughout the agency from Lewis Field, Earls addressed this year's African American Employee Resource Group's Black History Month theme "Building a Legacy of Achievement, Connection, and Knowledge." Audiences in-person and on-line embraced Earls' presentation, which included personal experiences and anecdotes to emphasize the importance of unity and collaboration among all people, regardless of race. A question-and-answer session followed.



GRC-2023-C-01125

Photo by Marvin Smith



Information Cafe

Join the Glenn Library staff for the next Information Cafe on Wednesday, April 19, from 11–11:45 a.m., in building 142, room 188, or on Teams. Check Inside Glenn for the topic and link.

POC: robin.n.pertz@nasa.gov.

Retirements

Joseph J. Kan, Financial Services Branch, retired March 3, 2023, with 43 years of NASA experience.

Rex A. Delventhal, Chemical and Thermal Propulsion Systems Branch, retired March 31, 2023, with 41 years of NASA service.



Kan



Delventhal



Promotion

Ryan J. Munro has been selected Chief, Engineering Management Branch, in the Facilities Infrastructure Division of the Facilities, Test and Manufacturing Directorate. He previously served in every function within the branch and oversaw critical tasks within the division. Munro will provide leadership for facilities design and construction tasks.

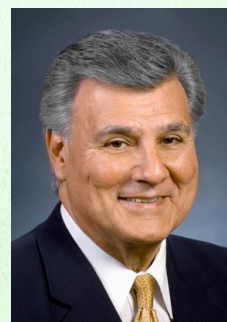


Munro

More Than a Memory

Kenny E. Aguilar, 82, a 2009 retiree with 30 years of NASA service, died March 4. He began his career at Glenn (Lewis) as Deputy Personnel Director and as the Director of Equal Opportunity Programs. He served in several capacities within NASA, including Director of Personnel at Kennedy Space Center and Deputy Administrator for Diversity and Equal Opportunity at NASA Headquarters. Aguilar returned to Glenn in 2005 and retired as Director of Center Operations. He received many awards, including the National Presidential Executive Rank and the Exceptional Service Medal. For his online obituary, visit <https://go.nasa.gov/3FoUWQd>.

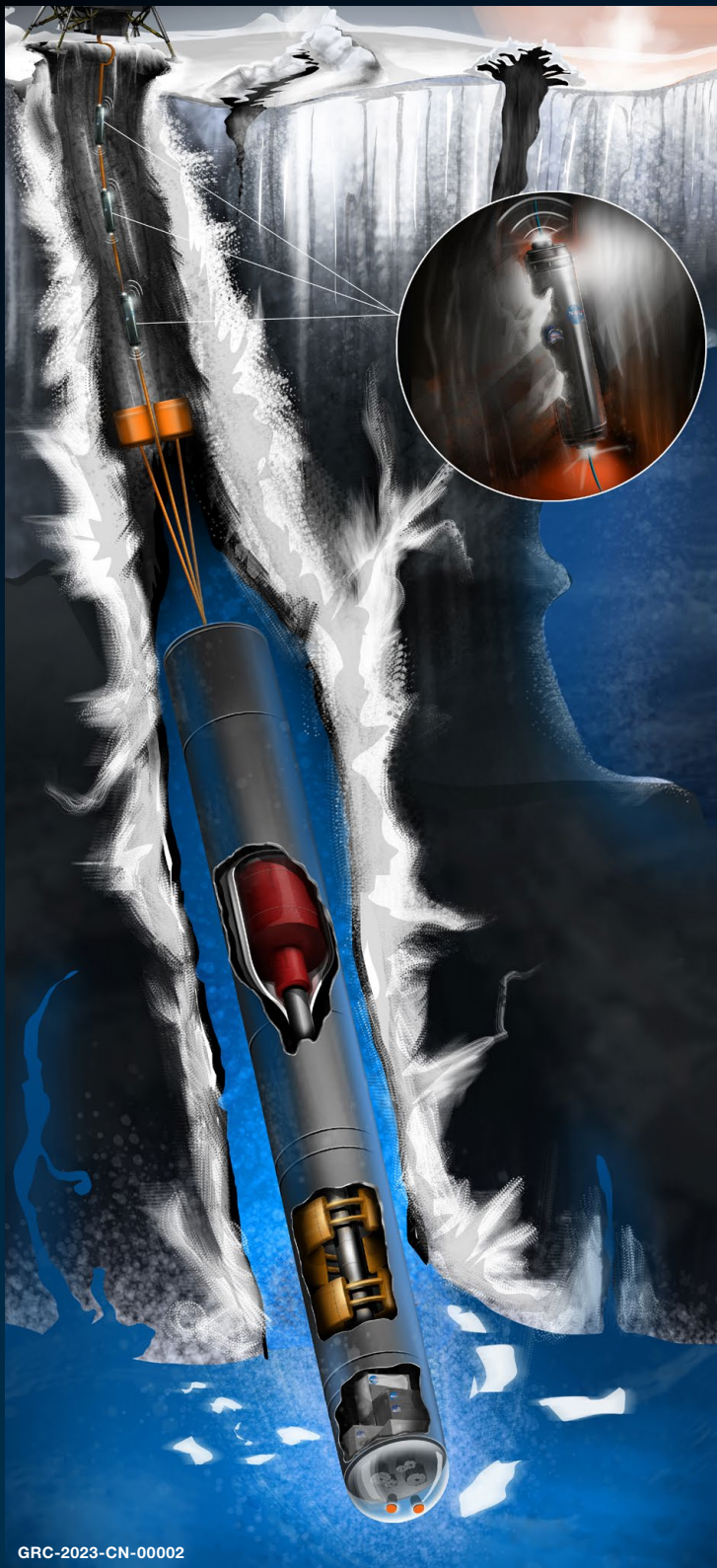
Ray A. Leidy, 92, a 1988 retiree with 34 years of service, died Feb. 12. A U.S. Army veteran, Leidy began his NASA career as an apprentice for NACA in 1956, graduating as an aviation metalsmith. He worked in the Sheetmetal Branch throughout the 1960s and the early 1970s. He later moved to the Outside Fabrication Branch, which contracted fabrication work to external companies. He received a patent with three co-inventors for a Refractory Metal Forming Die and authored a Tech Brief on Heated Die for Tungsten Forming. His son, Gary, works for OAI at the NASA Safety Center. For his online obituary, visit <https://go.nasa.gov/3Z9pLQK>.



Aguilar



Leidy



GRC-2023-CN-00002

Grant Funds Study of Space Technology Concept

A team at NASA Glenn is working to help NASA penetrate the many kilometer-thick ice caps of Icy World Oceans in its search for extraterrestrial life. The team's Accessing Icy World Oceans Using Lattice Confinement Fusion Fast Fission project has been selected for a 2023 Phase I NASA Innovative Advanced Concepts (NIAC) Program.

The NIAC fosters innovation by funding early-stage studies to evaluate technologies that could support future missions. NIAC will provide a \$175,000 grant to the Glenn team to design a robotic probe that can break through 40-kilometer-thick ice in worlds such as Ceres, Enceladus, Pluto, and Europa. To do this, the team will develop a non-fissile, compact nuclear energy source that can power and provide heat for melting and boring through icy shelves never penetrated before.

The team comprises Dr. Theresa Benyo, Larry Forsley, Dr. Rodger Dyson, and Mike Becks.

For more information on this proposal, visit <https://go.nasa.gov/3XKqtmj>.

National Aeronautics and Space Administration



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