



AeroSpace FRONTIERS

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**ACTING
DIRECTOR'S
SAFETY CORNER**

I'm thrilled to be here at Glenn and to work as part of this great team. There's a lot of change happening at Glenn and not just in leadership. We're opening new buildings, increasing our on-site presence at the center after two years, experimenting with new ways of working, and so much more.

But one thing isn't changing—our commitment to safety! Be mindful of hazards and report anything you see that appears to be unsafe. Also, be mindful of your health. If you are ill, stay home! We need you here safe and healthy. So, take care of yourselves, and by doing that, you'll also take care of our Glenn family.

AeroSpace Frontiers

is an official publication of NASA's Glenn Research Center. 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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Glenn Celebrates Innovative Research Support Building

NASA Glenn leadership, employees, and guests marked the completion of the Research Support Building (RSB) with a ribbon-cutting ceremony on July 11. The RSB sits adjacent to the Mission Integration Center, which opened in 2014. These two buildings are part of the Facility Master Plan's multiyear effort to revitalize the central campus and renovate or replace WWII-era campus buildings.

Bryan Smith, director of Facilities, Test and Manufacturing, welcomed employees and VIPs. He thanked them for attending the event and celebrating the importance of this innovative new building.

"I appreciate the strong network of support across the community from organizations like the Ohio Aerospace Institute, the Greater Cleveland Partnership, Team NEO, and JobsOhio, as well as the strong bipartisan support from the entire Ohio congressional delegation and from local and state elected officials," he said. "This support is vital, because it helps to make modernization efforts—like the one we're celebrating today—possible."

The **64,000-square-foot multiuse office building** provides office space for approximately 160 permanent occupants. The building also houses



GRC-2022-C-04847

Photo by Bridget Caswell

Center Sustainability representatives Smith, left, and Heyd, center, present Sivic with a plaque signifying Gold LEED certification.



On the Cover:

Participating in the ribbon-cutting ceremony, pictured left to right: Bryan Smith, director of Facilities, Test and Manufacturing; Associate Director Larry Sivic; Andrea Steele, Andrea Steele Architecture; Aaron Hill, Bialosky Cleveland; Tim Wardlow, Project Management Branch and RSB project manager; and Ed Kerber, Walsh Construction.

GRC-2022-C-04850

Photo by Bridget Caswell

the cafeteria and exchange store, hoteling spaces, credit union, an ATM, conference rooms, and training rooms. The RSB is designed with collaboration in mind, including multiple breakout spaces throughout the building, low partition workstations, and specialized concurrent engineering rooms. Additionally, the new Compass Lab is used to conduct rapid conceptual spacecraft designs for NASA, industry, and the scientific community.

Associate Director Larry Sivic stressed the importance of RSB in enabling employees to meet agency goals. "As NASA's missions evolve, our workplace needs to evolve as well," he said.

The RSB takes an integrative approach to sustainability, workplace evolution, and maintainability. During the ceremony, Center Sustainability Program Lead Michelle Heyd and Sustainability Coordinator David Smith presented a plaque signifying Gold certification by the U.S. Green Building Council's Leadership in Energy and Environmental Design, or LEED.

The event concluded with self-guided tours and informal presentations by employees.

By Doreen B. Zudell



GRC-2022-C-04822

Photo by Bridget Caswell

Betsy Turnbull provides an overview of the Compass Lab to guests touring the RSB.

Members of the RSB design and construction team gather in front of the building.



GRC-2022-C-04920
Photo by Jef Janis

Astronaut Shannon Walker Presents Silver Snoopy Awards



GRC-2022-C-03904

Photo by Jef Janis

Walker, front left, joins Glenn leaders and Silver Snoopy recipients.

On June 30, employees from NASA's Neil A. Armstrong Test Facility and Lewis Field received the coveted NASA Silver Snoopy Award from NASA astronaut Shannon Walker, who was joined by Acting Center Director Dr. Jimmy Kenyon. The in-person event took place in the Mission Integration Center Auditorium.

Walker served as mission specialist on the SpaceX Crew-1 maiden flight of the Crew Dragon Resilience spacecraft, which landed May 2, 2021. She also served as flight engineer on the International Space Station for Expedition 64 and Expedition 24/25, a long-duration mission that lasted 163 days.

The Silver Snoopy award is a special honor given to NASA employees and contractors for their outstanding achievements related to human flight safety or mission success. The event affirmed to employees that the work they perform is appreciated not only by Glenn management, but also by our astronauts.

The in-person ceremony recognized 2020 and 2021 recipients:

- | | |
|----------------------------|--------------------------|
| Jennifer K. Allred | Michael E. Kahwaji Janho |
| Gordon M. Berger | Thomas G. Kraft |
| Christopher M. Bodzioney | Yinan Li |
| Laura M. Burke | *Rochelle L. May |
| Christopher S. Czernek | Craig A. Motil |
| Richard K. Evans | Steven R. Oleson |
| *Philip T. Gonja (retired) | Christopher J. Pestak |
| Debra A. Goodenow | Elliot A. Schmidt |
| Emily A. Griffin | Stephen M. Sinclair |
| Monica C. Guzik | Mark R. Sorrells |
| Kelly L. Hall | Deanna M. Thomas |
| Tyler R. Hatch | Harold F. Weaver |
| *Kimberly A. Johnson | John C. Zang |

*Unable to attend

See the July 5 Inside Glenn post for information on each recipient.

Industry Leaders Plot Ohio's Course in the Future of Space Exploration

The birthplace of aviation is essential to America's mission to return humans to the Moon. This conclusion was made clear by aerospace industry leaders who gathered at the third annual Ohio Space Forum, May 17–18.

The event, hosted by the Dayton Development Coalition, was held at NASA Glenn's Lewis Field, and attracted leaders from across the city and the country. Officials and agency heads from the U.S. military, NASA, and several Ohio colleges and universities listened alongside business leaders as Cleveland Mayor Justin Bibb and Ohio Governor Mike DeWine kicked off the event with virtual remarks.

"Ohio's role in space is powerful and it is growing rapidly..." said DeWine. "When it comes to space, Ohio has the educated workforce, industry, and university system to serve a broad national interest."

The two-day forum included networking opportunities and panel discussions focused on commercial space exploration, developing a future space workforce, the aerospace supply chain, and the event theme, "Ohio is Leading Space Industrialization by Enabling Life and Operations in Space." The information exchange among thought leaders highlighted the important role of Ohio and its many institutions in the space industry with discussions to further the state's continued leadership and influence.

During a keynote speech, NASA's Deputy Administrator Pamela Melroy shared progress on NASA's Artemis program to return astronauts to the Moon and highlighted several key technologies being led by the agency's Cleveland hub.

"Glenn's main contributions to Artemis and deep space exploration efforts include developing space propulsion

and surface power systems, understanding combustion and fluid physics in space, creating advanced materials for extreme environments, testing flight hardware, and studying the physical effects of living in reduced gravity for long durations," she said. "Those are some pretty big pieces of the puzzle."

Melroy emphasized that NASA is not doing the work alone with compelling statistics on industry contributions. In the Buckeye State, 62 companies support essential work to help the agency on a variety of missions to the Moon, Mars, and beyond. "Ohio is critical to that work—critical to NASA—and is in fact one of our top 10 states in terms of aerospace investments," she said.

Glenn former Director Dr. Marla Pérez-Davis expressed optimism about the value of the interchange and emphasized the importance of NASA's strong partnerships with industry and academia. "When you think about the big challenges we have in space exploration and all of the benefits of space exploration, we really need that innovation and creativity," she said.

Attendees strengthened networks and gained valuable information from national leaders who continue to build on the state's unparalleled space heritage, innovation, and tech workforce and pave the way in fortifying America's national and economic security and space exploration objectives.

by Nikki Welch



GRC-2022-C-02790

Photo by Quentin Schwinn

A tour stop at Glenn's Simulated Lunar Operations Laboratory showcases where engineers are testing a new rover that will search for water ice at the Moon's South Pole.



GRC-2022-C-03083

Photo by Jef Janis

Melroy delivers keynote remarks at the forum.

INTERNING THROUGH NEW FRONTIERS

NASA Glenn welcomed more than 125 full-time interns this summer, with 46 working on-site. Through telework and hybrid intern options, however, students have opportunities to experience rewarding internships, no matter where they set up their office. This year's interns successfully showcased the versatility of work modes in the modern age. Hear from a few summer interns who are pioneering the way for future Glenn interns to work, and extending the frontiers of internships to come.

By Isabel Rodriguez

Virtual

Andrew Scott, Systems Engineering and Architecture Division

Mentor: Janice Romanin

As a knowledge management (KM) intern, Scott focuses on updating material to reflect current knowledge management practices and data, such as KM presentations and Glenn's Knowledge Management [website](#). He believes there are advantages and disadvantages to his virtual internship.

"Working virtually both constrains and widens my opportunities with NASA," Scott said. "I, unfortunately, cannot be on-site with my mentors, physically visit the buildings, or hang out with my fellow interns," he said. "Yet, I work to make connections with other students. Ultimately, I wouldn't have been able to intern at NASA if this internship was not virtual."



GRC-2022-CN-00032

Scott



GRC-2022-CN-00034

Khalique

Virtual

Monica Khalique, Space Communications and Navigation (SCaN) Intern Project

Mentors: Taylor Pember and Tim Gallagher

Through this internship, Khalique works in different project areas, including the LunarLiTES mission, which focuses on bringing 4G/LTE to the Moon. Despite the virtual mode of her internship, Khalique feels she is still "maximizing" her time and efficiency working for Glenn because of the support she has received from mentors.

"Although at first I worried about a virtual format, I can confidently say that my mentors put their best efforts forward to ensure I get the full experience interning at NASA," she said. "I feel prepared and ready to work on real-mission initiatives with immense support from my mentors."

About the Author



GRC-2022-CN-00035

Photo by Bridget Caswell

Isabel Rodriguez works virtually in Glenn's Office of Communications. Her mentor is Jan Wittry.

On-site

Samuel Dillenbeck, ISS and Human Health Office

Mentors: Dr. Suman Sinha Ray and Nancy Hall

Dillenbeck's project revolves around computer coding and electronics, with his project focusing on automating micrometer movement along two dimensions. His work consists of writing a program, assembling the wiring and "breadboard," and then building a rig to support the micrometers' movement. Through his internship, Dillenbeck gains hands-on experience within his project area.

"Working on-site has made the internship much more personally impactful than it would have in a virtual environment," he said. "It allows me to take in the full experience of what it means to be a NASA employee."



GRC-2022-C-04777

Photo by Bridget Caswell

Hall, right, with Dillenbeck



GRC-2022-C-04798

Photo by Jef Janis

Hatch, left, with Ray

On-site

Katherine Ray, Low-Gravity Exploration Branch

Mentor: Tyler Hatch

Ray works in different projects and experiment areas, such as in the 2.2 Second Drop Tower and with the Intravenous Fluid Generation Mini and Capillary Effects on Liquids Exploratory Research experiments. With these various areas of research and project contributions, Ray feels working on-site has greatly contributed to her overall NASA experience and future career.

"This opportunity enables me to make more connections with people and network," she said. "Being on-site allows me to work with laboratory instrumentation and technology that I could not have experienced in a virtual setting."

Hybrid

Brianna Hobert, Turbomachinery and Turboelectric Systems Branch

Mentor: Mark G. Turner

Hobert is working as a turbomachinery design intern designing components for a turbofan engine on a novel hybrid-electric aircraft known as SUSAN (SUBsonic Single Aft eNgine). She feels a hybrid internship offers the flexibility that gives her the best of both worlds.

"I have worked both hybrid and in-person and I honestly feel like I am getting the full experience either way," she said. "There is an equal balance of outreach opportunities, networking opportunities, and technical work."



GRC-2022-CN-00036

Hobert

Glenn Bids Farewell to Director Dr. Marla Pérez-Davis

Glenn employees, leadership, and visitors gathered in the Mission Integration Center Auditorium on June 16 to recognize Center Director Dr. Marla Pérez-Davis' trailblazing career. She retired the following day after 38 years with Glenn.

The event included many grateful accolades and commendations from and on behalf of leadership from Glenn, the agency, and other NASA centers.

NASA Deputy Associate Administrator for Business Operations Casey Swails shared her gratitude for Pérez-Davis in leading the center through challenging times while empowering and mentoring many along the way. "Thank you so much for your leadership," she said.

Pérez-Davis' tenure as Glenn's director began in January 2020, just two months before the country experienced its first pandemic in 100 years. She effectively and compassionately guided the center workforce through the global COVID-19 pandemic, engaging regularly and frequently with them to ensure the mission continued safely. Major milestones and activities completed at Glenn during this time include the construction of the new Research Support Building, testing on the



GRC-2022-C-03472

Photo by Marvin Smith

Swails presented a plaque of 67 patches and flags that flew aboard missions during Dr. Pérez-Davis' tenure. Left to right: Swails, Kara Eck, Larry Sivic, and Dr. Pérez-Davis.

Orion spacecraft for the Artemis I Moon mission, and testing for the X-59 QueSST quiet supersonic aircraft.

Pérez-Davis humbly thanked the presenters and employees for helping her to learn and grow along the way. "It has been a wonderful journey," said Pérez-Davis, "but it has been all about you—the people who taught me...making me the person I am today."

NEWS AND EVENTS

LGBTQI+ Event Promotes Conversation

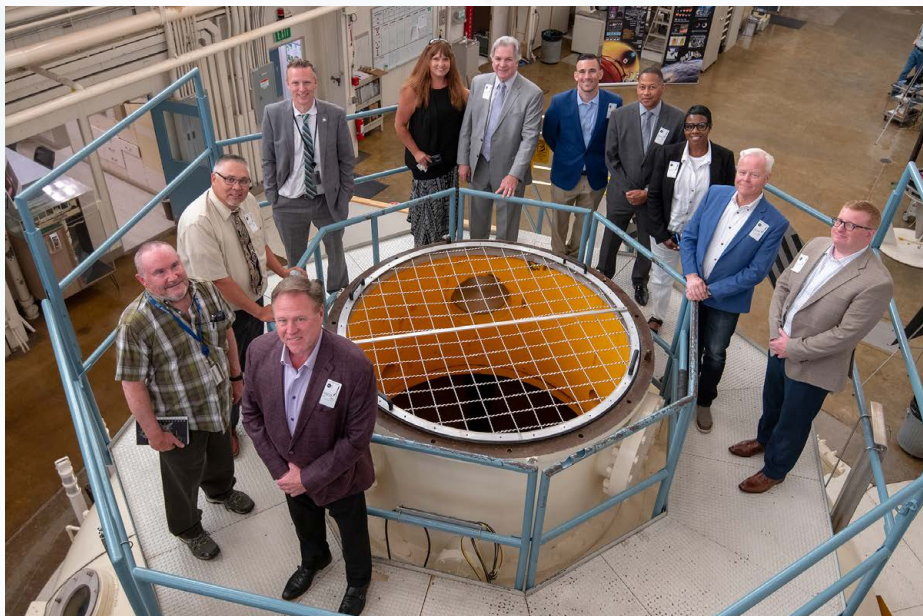
The Office of Diversity and Equal Opportunity hosted Glenn's 2022 Pride Month Observance, "Power of Conversation," on June 22. This hybrid event featured Shaashawn Dial, founder of Voycetrress Media LLC. She hosted an interactive workshop on basic LGBTQI+ concepts, language, and promising practices to create and maintain an LGBTQI+ affirming and welcoming workplace.



Dial

Glenn Hosts Mayors, City Managers

Members of the Northeast Ohio Mayors and City Managers Association and the Cuyahoga County Mayors and City Managers Association gathered at Lewis Field for a briefing and tour on June 30. During the visit, the group met with Acting Center Director Dr. Jimmy Kenyon to hear details on Glenn’s efforts to advance aircraft technology, our contributions to NASA’s Artemis program, and our impact on Ohio’s economy. Visitors toured several research and test facilities, including the Zero Gravity Facility, pictured.



GRC-2022-C-04192

Photo by Quentin Schwinn

Aero Projects Showcased at International Conference



GRC-2022-CN-00031

Ashlie Flegel, left, and Tony Nerone stand by the Hybrid Thermally Efficient Core (HyTEC) banner, part of a NASA Aeronautics-focused exhibit at the American Society of Mechanical Engineers Turbo Expo 2022 Conference in Rotterdam, Netherlands, June 14–16. The exhibit highlighted the Sustainable Flight National Partnership, HyTEC Phase 1 activities, W–8 Single-Stage Axial Compressor facility upgrades, and NASA Alloy GRX–810.

Turbo Expo is the largest yearly conference dedicated to gas turbines for land, sea, and air applications with more than 960 papers presented and more than 2,000 attendees this year. Members of Glenn’s Aeronautics Directorate attended the conference and staffed the exhibit.

Promotions

Joyce Dever has been selected chief, Materials and Structures Division for the Research and Engineering Directorate. She previously served the division in roles including deputy division chief, chief of the High Temperature and Smart Alloys Branch, and chief of the Durability and Protective Coatings Branch.



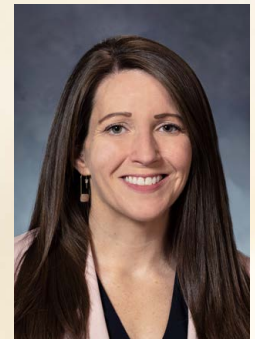
Dever

Frank Gati has been selected chief, Chief Engineer Office for the Research and Engineering Directorate. He previously served as deputy chief, Systems Engineering and Architecture Division. Gati brings a strong background and experience to the position having held positions of significant technical and project management breadth and scope.



Gati

Kristen Parker has been selected as Glenn's communications director. She leads the communications team and manages all center internal and external communications. Parker previously served as the chief of Communications & External Affairs for the Veterans Administration (VA) Northeast Ohio Healthcare System. Prior to that, she served in a variety of civilian public affairs roles within the VA and the Department of the Army.



Parker

Employees Train in Leadership

Four Glenn employees graduated from the Cleveland Federal Community Leadership Institute (CFCLI) during a ceremony at the Rock and Roll Hall of Fame in Cleveland, June 16. CFCLI is an intergovernmental, community-based leadership development program for federal employees. The nine-month training program offers opportunities to learn models of successful leadership from top management and key decision-makers in Cleveland area government, public, private, and academic sectors. Graduates pictured are, left to right, Peter Simon, Avionics Branch; Maria Choi, Electronic Propulsion Systems Branch; Debbie Lockhart, Office of Communications; and Andrew Fausnaugh, Aerospace Test Branch.



GRC-2022-CN-00030

Photo by James Welch



GLENN HAPPENINGS

INFORMATION CAFÉ

The Information Café will focus on what is new in the O'Reilly Learning Platform. Join the Library staff on Wednesday, Aug. 17, from 11–11:45 a.m., in building 142, room 188 or on Teams. Check Inside Glenn for the link.
POC: robin.n.pertz@nasa.gov

OUTDOOR SIREN TESTING

Emergency Management Office staff will conduct an audible siren test on the “tornado” tone on Saturday, Sept. 3, at Lewis Field. A mass notification voice test will be conducted at building 15 on Wednesday, Sept. 7.
POC: allen.r.turner@nasa.gov

Deadline for the next calendar section is **Wednesday, August 17, noon**. News and feature stories require additional time.

Get Ready to Celebrate!

11 a.m. - 2 p.m.

In Front of the Research Support Building,
Along Taylor Road

Employee Registration closes Monday, Aug. 15.

Retiree Registration: Kathy Clark, 216-433-8354 or
kathy.m.clark@nasa.gov

See Inside Glenn for details.

POC: betsy.e.lavelle@nasa.gov

Rain date: Thursday, Aug. 25

Retirements

Karen F. Bartos, Technology Transfer Office, Office of Incubation and Innovation, retired July 30, 2022, with 36 years of NASA service.

Joan G. Hill, Safety and Health Division, Safety and Mission Assurance Directorate, retired July 30, 2022, with 36 years of NASA service.

Angela Pierce, Office of Diversity and Equal Opportunity, retired July 29, 2022, with 33 years of NASA service.



Bartos



Hill



Pierce

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
Sandusky, Ohio 44870

www.nasa.gov

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



★ Keeping the Center Moving *Forward*

While many employees transitioned to telework due to the pandemic, others remained on-site to ensure a safe and secure environment at the center. This column highlights these services.

NASA Glenn's Logistics Office, operating under the Logistics and Technical Information Division (LTID), manages the areas of freight traffic, vehicle maintenance, fuels distribution, move operations, property, supply, and transportation. This multi-faceted organization, which includes Alcyon Technical Services (ATS) employees, demonstrated great flexibility and customer focus throughout the NASA COVID-19 Response Framework.

From the beginning, when it was unknown how the pandemic would impact the workforce, Logistics took a proactive approach by procuring for inventory COVID-19-specific personal protective equipment, such as N95 masks, hand sanitizers, and disinfectant sprays. This ensured that these vital protections were available to the workforce, including their own staff members who followed all COVID-19 protocols.

This team managed the process for employees to come on-site to pick up equipment needed for telework. They also procured and distributed office supply orders to ensure customers received the necessary supplies to complete their work more effectively, on-site, and while teleworking.

Shipping and Receiving Facility (SaRF) operations remained open and Logistics staff coordinated a plan for storage overflow to satellite locations across the center. Incoming hazardous chemicals were managed and stored in the Chemical Storage Facility.

Inbound mail and packages were distributed based on customer's need and later to full delivery when on-site populations increased.

The team also performed preventive maintenance on government vehicles on a regular basis. When employees returned to on-site work, most vehicles were ready to go. If a problem, such as a dead battery on a forklift, was discovered after the vehicles were back in circulation, Logistics quickly addressed those issues.

Many thanks to our Logistics Office for their critical support of the center during the pandemic.



GRC-2022-C-04162

Photo by Bridget Caswell

Marvin Meriwether, ATS/LTID, packages outgoing cargo at the SaRF.

Emergency and Inclement Weather Lines

Lewis Field: 216-433-9328 (WEAT)

Neil A. Armstrong Test Facility: 419-621-3333

Connect With Glenn

