



## Glenn Welcomes Headquarters' Space and Aero Leaders



GRC-2015-C-2867

Photo by Bridget Caswell

Glenn's Santo Padula, left, explains the value and efficiency of shape memory alloys to, left to right, Associate Administrator (AA) STMD, Jurczyk; Deputy AA, STMD, James Reuther and Deputy AA for Management, STMD, Amy Radford. Jurczyk and staff toured several test facilities at Glenn that support the STMD mission.

## Jurczyk Stresses Enabling Missions

Stephen Jurczyk, who took the helm as NASA's Associate Administrator for Space Technology Mission Directorate (STMD) in March, visited Glenn, May 7.

During his All Hands meeting at Lewis Field, Jurczyk shared strategies that will enable the development of technologies and capabilities to make NASA's missions affordable. More specifically, he cited areas that are key to enhancing national space capabilities for future missions to Mars.

"We need to develop reliable systems to get there, land there and live there," Jurczyk explained. He affirmed Glenn's role in developing technologies toward this goal.

By Doreen B. Zudell

## Dr. Shin Visits, Recognizes Employees

Center Director Jim Free, Aeronautics Director Therese Griebel and staff welcomed NASA Associate Administrator for the Aeronautics Research Mission Directorate (ARMD) Dr. Jaiwon Shin to Glenn, April 16 to 17.

"I'm here to honor all of you for your accomplishments," Shin told employees in opening remarks at his Town Hall at Lewis Field. The event featured an awards ceremony and his "State of NASA Aeronautics" presentation, which included budget highlights and strategies for maintaining global preeminence in aeronautics research.

Free recognized the 100th Anniversary of the National Advisory Committee for Aeronautics (NACA), NASA's predecessor. He presented Shin with a proclamation from

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## National Lab Day



Photo by Doreen B. Zudell

Students take on an engineering challenge at Plum Brook Station during National Lab Day. For more highlights, see page 8.



## Let's Teach Our Summer Interns About Safety

Nearly 200 high school/college interns and faculty fellows will join the Glenn workforce this summer—stationed throughout Lewis Field and Plum Brook Station campuses—working beside us in our amazing laboratories, test facilities and offices. In addition to providing them with opportunities and exposure to NASA with meaningful assignments, it is equally important to impress upon them the value we place on safety. Obeying traffic laws, properly handling equipment, wearing protective clothing and looking after others' safety are daily practices here. Let's watch out for visiting students and faculty and show them by our words and actions that safety truly is NASA's number one priority.

*Welcome summer students and faculty! Have a spectacular and safe experience at NASA Glenn.*

—Jim

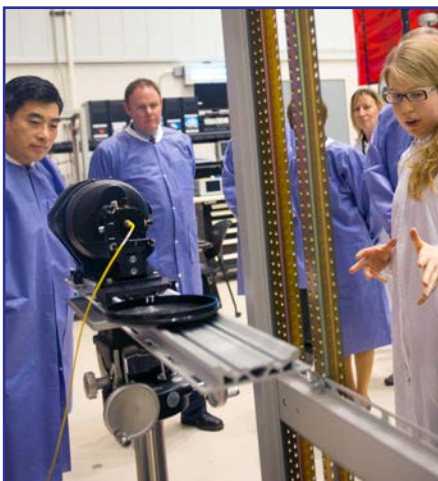
## Check Out New Glenn History App, Website

"GRC—The Early Years" offers a web-based detailed history of the center through a carefully curated collection of extraordinary photography. There are more than 300 images (many previously unpublished) arranged in chronological galleries with detailed information. Whether you peruse for a few minutes or really dive in, you are guaranteed to learn something new about NASA Glenn.

The free app is available for the iPad (iOS 7 or higher) through the Apple App Store: <https://itunes.apple.com/us/app/nasa-glenn-research-center/id562903295?mt=8>.

No iPad? No problem! The same content can also be viewed at <http://www.grc.nasa.gov/WWW/portal/gallery/>.

## Dr. Shin Visits, Recognizes Employees



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Ohio Governor John Kasich acknowledging the anniversary. Shin affirmed the importance of the Aircraft Engine Research Laboratory—the premier aeronautics research laboratory of its day, where advanced air-breathing propulsion and icing research continues today at the since renamed NASA Glenn Research Center.

Shin, Free and Griebel presented prestigious ARMD awards to Glenn employees who have demonstrated exemplary



GRC-2015-C-1836

Photos by Bridget Caswell

Above: Free, Griebel, and ERA Project Control Team, left to right: Dr. Suder, Harcula, Vlach, Grzincic, Rodgers and Polansky with Dr. Shin.

Above, left: Jennifer Nappier, Information and Signal Processing Branch, right, briefs Dr. Shin, far left, on the prototype radio frequency and optical software defined radio for the Integrated Radio and Optical Communications (iROC) project.

performance contributing to ARMD activities over the past year:

### Leadership and Management Excellence

#### Dr. Ruben Del Rosario

For his leadership as project manager for the Fixed Wing Project, with special focus on improving communications and planning with Line Management through inclusion and collaboration.

### Program and Mission Support

#### Environmentally Responsible Aviation (ERA) Project Control Team

Tina Grzincic, Kathy Harcula, Maureen Kudlac, George Polansky, Terri Rodgers, Dr. Ken Suder, Dale Van Zante and Michele Vlach

The team employed process controls and rigor that embraced lessons

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# Shin Visit

Continued from page 2

learned from Phase I work, creating a suite of processes for tackling eight integrated technology demonstrations in Phase II. This included risk and change management, full cost integrated master schedule, key decision point reviews, milestone completion documentation, integrated baseline reviews and interim tabletop walk-throughs where the status of milestones was discussed.

## Honorable Mention

### ACCESS II NASA Social Team

Awarded for successful coordination and implementation of a NASA Social event in support of the Alternative Fuel Effects on Contrails and Cruise Emissions II (ACCESS II) flight campaign. The event ushered in NASA Aeronautics' social media presence and laid the groundwork for ARMD to talk with audiences never reached before with messages about how "NASA is with you when you fly."

### Advance Planning Team

Dr. Ruben Del Rosario

### Implementation Team

Frank T. Jennings

By Doreen B. Zudell



GRC-2015-C-1876

Photo by Bridget Caswell

Dr. Del Rosario, left, and Jennings, center, were recognized for their work on the ACCESS II NASA Social Team. Del Rosario was also recognized for his leadership in the Fixed Wing Project. Dr. Shin is pictured right.



## A century of aerospace achievement

*What was it like to work here when NASA was NACA? Over the coming months, we will share a few memories of NACA employees still working at the center. Our third profile is Earl Hanes, who works in the Ceramic and Polymer Composites Branch.*

## Earl Hanes

**Q.** How did you begin your career at NACA?

**A.** I became interested in a NASA career at the age of 13, while attending Cleveland air shows and West Tech High School's aeronautics classes.

Then, after attending open houses and other events at NACA facilities, I was hooked. I became one of the youngest employees to start working at NACA when I entered the Apprentice Program in 1953 at age 16. During and after graduating from the Apprentice Program, I attended Baldwin Wallace College and The Ohio State University. Little did I realize my Baldwin Wallace math instructor, Robert Hendricks (a fellow NASA employee) and I would be here to celebrate NACA's 50th anniversary.

**Q.** What do you remember most about the workforce culture of the early years?

**A.** The focus of research in the early days was on aeronautics. The technical expertise was dedicated to the areas of materials, heat transfer, fluid dynamics and rocket fuels.

**Q.** As NASA has evolved through the years, what has stayed the same?

**A.** As NASA Lewis' expertise began shifting towards an expanded role in space, intensity, energy, eagerness and new challenges in technology would increase dramatically. New technological challenges provided opportunities to continue NASA's legacy.

**Q.** Who stands out among those you have mentored over your career?

**A.** It would be hard to pick out one individual. I would rather say I introduced them to the proper technical and scientific methods of the Ceramics Branch.

**Q.** What do you feel is the most important contribution you have made to NASA's mission?

**A.** I've worked in the same branch my entire career, although the focus of my work has changed through the years. I started in physics and chemistry research then progressed to nuclear and mechanical engineering. My current research is centered on ceramic composites where I am developing high-temperature, high-strength and lightweight materials for the aeronautics industry.

**Editor's note:** Hanes received NASA's Exceptional Service Medal in 2006 for outstanding contributions toward establishing Glenn's world-class laboratory facilities to advance ceramics materials.

By Doreen B. Zudell



C-2006-1790

Photo by Marvin Smith

*Hanes in his laboratory determining physical properties of ceramic composites.*

### Focus on Environment, Sustainability



Photo by Bridget Caswell



Photo by Bethany M.G. Eppig

Glenn's Sustainability Committee—"Greening NASA Glenn One Event at a Time" recognized the value of preserving the environment with events at Lewis Field and Plum Brook Station throughout April and May. At Glenn's Sustainability Fair 2015, April 30, Center Sustainability Officer, Thomas Hartline, kicked off the event. External vendors, including Fresh Fork Community Supported Agriculture, pictured above, and internal organizations showcased environmentally friendly practices. On May 7, Students from EHOVE's environmental science class, left, took a species management tour at Plum Brook Station before pulling invasive garlic mustard plants.

### National Day of Prayer



Photo by Doreen B. Zudell

NASA Glenn's Prayer Group hosted its annual National Day of Prayer Observance, May 7, at Lewis Field. A brief morning observance was held at the flagpole, pictured above, and a service in the Ad. Bldg. Auditorium during lunchtime.

### Nurturing Artistry for All

Glenn's Office of Diversity and Equal Opportunity and the Disability Awareness Advisory Group supported an annual outreach event to encourage artistry for special needs children, May 7, at the Cuyahoga County Fairgrounds. Previously known as "Very Special Arts," the event has been renamed "Art for All." Twenty-four members of Glenn's staff supported hands-on activities for an estimated 800 students from across the county.



Photo by Dick Woodard

## Program Enables Students to Develop NASA Hardware

NASA Glenn hosted a recognition ceremony and tour of the Fabrication and Manufacturing Facility, May 9, for students and teachers who participated in the High school students United with NASA to Create Hardware (HUNCH) program.

An innovative, school-based program, HUNCH focuses on inspiring vocational/technical high school students who may enter the trades—possibly becoming future engineers who design hardware for vehicles going to Mars.

Center Director Jim Free and HUNCH founder Stacy Hale from NASA's Johnson Space Center attended the event. They welcomed more than 50 guests, representing three of the five participating schools, from Glenn's six-state region and New York.

"Over the past year, Glenn worked with these students to produce individual pieces of hardware to assemble an International Space Station single stowage locker," explained Nancy Rabel Hall, ISS and Human Health Office, serving as Glenn's HUNCH program coordinator. "This partnership benefits both NASA and students. NASA receives cost-effective hardware, while students receive real-world, hands-on experiences."

NASA provides the raw materials, tooling and mentoring required to fabricate the items. Amanda Phelps (ZINT), a machinist supporting the HUNCH program, provided quality inspection oversight during the fabrication of these items.

The schools were selected based on their ability to provide the right equipment, a qualified instructor and a safe



*Hall, far left, listens as students point out individual parts their school made on an assembled space station single stowage locker.*

working environment. The five partners for this inaugural year included the Apollo Career Center (Lima, Ohio); Cattaraugus-Allegany Boards of Cooperative Educational Services (Olean, N.Y.); Medina County Career Center (Medina, Ohio); Orleans Career and Technical Education Center (Medina, N.Y.) and Romeo Engineering and Tech Center (Washington, Mich.).

Word of this innovative program is spreading. Hall has initiated talks to add several new schools for the 2016 school year, including Cleveland's Collinwood High School.

For more information about NASA's HUNCH program, visit <http://www.nasa-hunch.com/about-hunch/>.

By S. Jenise Veris



*Greg Blank, Fabrication & Instrumentation Branch chief, demonstrates the collet mechanism on a tree mill to HUNCH vocational students.*

## NASA Modernizes Website to Offer Better Experience

Based on extensive research and user feedback, NASA has modernized [nasa.gov](http://nasa.gov). Designed to work across all mobile devices, the new site puts the focus on the continuous flow of the agency's news updates, images and videos.

NASA's Web Team at headquarters has simplified navigation to web features,

image and video galleries by emphasizing NASA's current areas of work. Every piece of content can be shared on personal social media accounts by clicking on a sharing icon.

Kelly Heidman, programmer analyst with Peerless Technologies, serving the Office of Communications and

External Relations, incorporated Glenn content to ensure it is consistent with the agency's mission and objectives.

"NASA's goal is to have a website that is truly responsive, so users on mobile devices have as good an experience as users on desktops or laptops," Heidman said.

# Employees Showcase NASA Mission to Family Members



GRC-2015-C-2029

Photos by Marvin Smith

Glenn employees welcomed young members of their families to the NASA family when the center celebrated Take Our Children to Work Day, April 23. More than 270 children, grandchildren, nieces and nephews, ages 9–15, visited Lewis Field to participate in tours and activities. The event introduced them to the work their family members perform in support of NASA's mission, and helped to inspire them to consider careers in science, technology, engineering and mathematics fields. Astronaut Mike Foreman, pictured above, helped kick off the event. Photos to the right showcase hands-on activities in the hangar (top) and a tour in the Graphics and Visualization Lab (bottom). Glenn's Office of Diversity and Equal Opportunity, in collaboration with center Advisory Groups, sponsored the event.



GRC-2015-C-2066



GRC-2015-C-2097

**Welcome to NASA Glenn, Summer Interns and Faculty!**

## Retirements



*Mader*

**Regina Kelly**, Wind Tunnel and Propulsion Test Branch, Testing Division, retired May 30, 2015, with 39 years of NASA service. (Not pictured)

**Michelle Mader**, Procurement Division, Center Operations Directorate, retired June 2, 2015, with 36 ½ years of NASA service.



*Pelaez*



*Plencner*

**Robert Pelaez**, Space Combustion and Materials Branch, Testing Division, retired Jan. 3, 2015, with 42 years of federal service, including 38 with NASA.

**Robert Plencner**, Propulsion Systems Analysis Branch, Propulsion Division, retired May 3, 2015, with 40 years of NASA service.

## Calendar

### SATURDAY TOURS AT LEWIS FIELD:

Glenn offers free tours of its world-class facilities at Lewis Field one Saturday a month through October. Tour buses depart from the Main Gate every hour starting at 10 a.m. One-hour tours begin with a multimedia presentation in the Briefing Center Auditorium. The July 11 tour will showcase the Abe Silverstein Supersonic Wind Tunnel. For more information and a complete schedule, visit <http://www.nasa.gov/centers/glenn/events/tours.html>.

### IFPTE LOCAL 28, LESA MEETING:

LESA will hold its next membership meeting, Wednesday, July 8, noon, in the Glenn Employee Center's Small Dining Room.

### Emergency and Inclement Weather Lines

**Lewis Field: 216-433-9328 (WEAT)**  
**Plum Brook Station: 419-621-3333**

### Connect with Glenn



## Awards

The Rotary National Award for Space Achievement (RNASA) Foundation has awarded NASA Glenn's Solar Power for Electric Propulsion (SEP) Team with a 2015 Stellar Award. Dr. Carolyn Mercer, Space Technology Project Office, accepted the award on behalf of the team during RNASA's 29th annual event in Houston, April 24.

The SEP team included 16 members from Glenn's Lewis Field and Plum Brook Station, as well as members from NASA's Langley, Goddard and JPL; Orbital ATK, Deployable Space Systems, the Virginia Military Institute, the National Institute of Aerospace, Sierra Lobo, and Vantage Partners. They developed an innovative solar array technology critical to NASA's mission to enable high-power solar electric propulsion for 21st century space exploration. Glenn is one of four centers contributing to the SEP mission.

The RNASA Stellar Awards recognize individuals and teams whose accomplishments hold the greatest promise for furthering future activities in space.



Photo courtesy of NASA

*Dr. Mercer, third from left, was one of 10 team representatives that accepted a Stellar Award trophy presented by astronauts Tracy Caldwell-Dyson, far left, and Randy Bresnik (not pictured).*

## 2015 Center Picnic

### Save the Date!

Wednesday, Aug. 5  
11 a.m.-2 p.m.  
Lewis Field Picnic Grounds

Rain Date: Thursday, Aug. 6  
(same time and location)

Watch *Today@Glenn*  
for details!

POC: Betsy Lavelle  
216-433-3198.

## More Than a Memory



Boros

Dr. Rosenbaum

Charles J. Boros, 74, a 1994 retiree with 33 years of service, died April 25. Boros was a 1966 Apprentice Program graduate who became a respected research laboratory mechanic in the Test Installations Division. He earned several Group Achievement Awards and Suggestions Awards. Notable among the suggestions: a "Movable Water Spray System" that reduced a process from 8 hours to 15 minutes for aircraft engine after-burner research, 1971; and a "Variable Eccentric Bushing," for fast and simple engine stand repair, 1986.

Dr. Burt M. Rosenbaum, 91, a 1973 retiree with 30 years of service, died March 30. Rosenbaum was a member of the Army assigned to NACA/NASA Lewis in 1944 after graduating City College of New York. He retired from the Analytical Fluid Mechanics Section. During his career, Rosenbaum earned a doctorate from Case Institute of Technology, taught evening classes, published nearly 30 papers on applied mathematics research and statistics, and co-authored a textbook entitled "Introduction to Abstract Analysis."

The Federal Laboratory Consortium (FLC) for Technology Transfer has awarded its Rookie of the Year Award to Kim Dalglish-Miller, chief of Glenn's Technology Transfer Office. The award recognizes the efforts of an FLC laboratory technology transfer professional who is new to the program and has demonstrated outstanding work in the field of technology transfer. Dalglish-Miller has implemented an overall strategy for the Technology Transfer Office by developing systematic and streamlined processes to implement that strategy. This includes the management of Glenn's patent portfolio with a renewed focus on licensing success.



Photo courtesy of Bryan Grant, Pixil Studio

*Pictured, left to right: FLC Chairman Paul Zielinski, NASA Representative for FLC Ramona Travis, Dalglish-Miller and FLC Vice Chair Mark Reeves.*

## Welcome to the NASA Family



*Front: Carney-Sullivan and Sadhukhan; and back: Weisenberger, Rock and Sessa.*

Glenn welcomed four new employees and a student trainee to the workforce in May. They include Jennifer Rock, Energy and Environmental Management Office; Joseph Sessa, Aero, Education & Reimbursables Support Branch; and Christina Carney-Sullivan and Leslie Weisenberger, Accounting & Financial Analysis Division. Deboshri Sadhukhan is a student trainee in the Operational Safety Branch.

## National Aeronautics and Space Administration

### John H. Glenn Research Center at Lewis Field

21000 Brookpark Road

Cleveland, Ohio 44135

[www.nasa.gov](http://www.nasa.gov)

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**News and feature stories require additional time**

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Read *AeroSpace Frontiers* online at <http://aerospacefrontiers.nasa.gov>

# National Lab Day Draws Hundreds of Young Explorers

NASA Glenn hosted National Lab Day at Plum Brook Station (PBS) May 19, and Lewis Field (LF), May 22. Nearly 400 middle school students participated in a variety of tours, hands on activities and demonstrations conducted by Glenn staff that centered on work performed at NASA. The day was aimed at inspiring and motivating students to pursue careers in science, technology, engineering and mathematics (STEM) fields.

Glenn senior managers and dignitaries provided welcoming remarks to kickoff the day's activities at PBS and LF campuses. David Stringer, PBS director, and Seth Harbaugh, Center Operations deputy, welcomed students at PBS. Robyn Gordon, director of Center Operations, welcomed the visitors to LF. Center Deputy Director Dr. Janet Kavandi, NASA's Deputy Associate Administrator for Education Dr. Roosevelt Johnson, Associate Superintendent, Ohio Dept. of Education, Jennifer Felker and astronaut Mike Foreman gave brief presentations at LF.

*Pictured, right, is a sampling of the hands-on activities that students participated in throughout National Lab Day at both Glenn campuses.*

More photos are available on Glenn's Flickr gallery, visit [bit.ly/1LDC0IN](http://bit.ly/1LDC0IN).



Photo by Tim Dedula



Photo by Tim Dedula



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Photo by Michelle Murphy



GRC-2015-C-3158

Photo by Michelle Murphy



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