Dr. Shin Presents Collier Trophy at Glenn

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Shin joined Associate Administrator for Mission Support Dr. Woodrow Whitlow Jr., former Aviation Safety Program Director Dr. Amy Pritchett, Glenn’s Acting Center Director Ray Lugo and Director of Research and Technology Dr. Jih-Fen Lei in presenting the award to several key contributors. They include: Dr. Mary Reveley, Multidisciplinary Design, Analysis and Optimization Branch; Tom Ratvasky and Randy Reehorst, Icing Branch; Mary Wadel, Space Flight Systems Directorate; and retirees Bill Rieke and Tom Bond. They were named as the key contributors to this winning effort.

The 2008 Collier Trophy was awarded to the Commercial Aviation Safety Team (CAST) where NASA is a member. The CAST, established in 1997, was chosen for the award based on an unprecedented safety level in U.S. commercial airline operations that reduced the risk of a fatal accident by 83 percent, resulting in two consecutive years of no commercial airline fatalities.

Glenn Passes Hazardous Materials Test

How well is Glenn prepared to handle a biological incident? What technologies are available to help minimize the potential for human contamination? A response to those questions was measured on June 9 during Glenn’s Hazardous Materials (HazMat) Exercise: Mail Room Mayday 2010.

Glenn’s Office of Protective Services oversaw the exercise that used Glenn’s Mail Room as a platform for the simulated threat. Cutting-edge robotic technology was introduced as a pilot test for the detection of the simulated biological contaminant, Anthrax.

While at Glenn, Shin also met with center leadership and toured several research facilities. During an all hands meeting, Shin talked about the goals and successes of NASA’s aeronautics research and the proposed increase in the fiscal year 2011 Aeronautics budget. He thanked employees for their contributions and pointed out the relevance of their efforts to the needs of the nation.

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HazMat team members set up a decontamination shower in mail room of simulated incident. Inset photo: MARSHA the robot.

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GRC Inside: a Strategy for Success

The Center’s Strategic Action Plan is well on its way to being completed and I am confident it will lead us to a new way of approaching our work here at Glenn. Clearly there is uncertainty in the world we live in, and we have a choice—a choice to stay positive, to work as a team, and most importantly to exploit the opportunities that are available to us.

There are no guarantees that we will be successful, but we won’t even have a chance if we are unprepared and unable to see opportunities when they present themselves. The President’s proposed budget stabilizes our portfolio, as it is a balanced mix of research and technology and systems development work. I would offer that stability is particularly important to us at Glenn. Over the last three years, we have been fortunate to have valuable space systems development and research and technology work assigned to us. However, we have also been distracted by “available for new work” issues. In 2011, the establishment of the Unified Labor Account will eliminate this problem.

I believe we must embark on a new approach of building a business model at Glenn, which I refer to as GRC Inside. Right now, Glenn’s budget represents roughly 4 percent of the NASA budget, or less than $1 billion annually. While I do not expect nor am I asking for a larger share, I believe we can grow to $1 billion annually or even more if we commit to a new model for work. I would like to see Glenn technology and hardware flying on every NASA mission. I would like us to be not only the internal technology and hardware provider in NASA, but to extend these services to other government agencies and commercial entities. I have been using the notional construct of 20 percent of all the NASA business as a point of departure; however, Jim Free suggested a less restrictive model for GRC Inside, which is a play on the Intel Inside® cooperative marketing program.

It is estimated that aerospace-related work contributes 15 percent of the U.S. gross domestic product (GDP), which means that aerospace accounts for roughly $2.3 billion of the U.S. GDP. I contend it is not unrealistic to capture a share of the market that extends beyond the traditional business base of Glenn.

I do not want to portray myself as an unbridled optimist, but we need to consider the opportunities that exist beyond the fence line; how we can contribute to the national needs in alternative energy, material science and biofuels; and the delivery of not only the technology, but end-to-end solutions. I think we can build this kind of future, if we work together to make this future a reality. I would offer that I am not totally sure of the path, but I clearly have a vision, a vision of opportunities and possibilities. We have an opportunity to make our planet a better place to live, make space and air travel safer and more affordable, and make a difference, if we commit to a new idea, GRC Inside.

HazMat Exercise Tests Robotic System

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“The exercise was a total success,” said Seth Harbaugh, Glenn’s emergency management specialist. “Because of the focused efforts of all the participants, we achieved a realistic environment that enabled results exceeding our expectations.”

The simulation was initiated with the explosion of a powdered substance from an envelope opened by a Mail Room employee. Glenn’s Emergency Management Office deployed a prototype of the Glenn-developed robotic system, named MARSHA (MARS HazMat), for initial entry and data collection (air quality testing and other test monitoring). This was remotely assessed to reduce potential for further injury to human capital. From that point, the coordinated roles of over 60 participants from nine agencies at the local, regional and federal level was set in motion.

Five objectives of responsiveness were tested through this exercise, in addition to pilot testing MARSHA’s viability to assess, gather, relay and deploy for unknown substances. The objectives of responsiveness tested included: communications, facilities and equipment, detection, decontamination and waste removal and re-entry and evaluation.

A lessons learned video showing the highlights of the exercise has been produced, which includes footage of MARSHA in action. By demonstrating the benefits of MARSHA, the event coordinators hope to secure funding that will continue developing a prototype robot that could potentially be used in future emergency responses at Glenn and in local communities.

“Were always looking for ways to be proactive rather than reactive to potential hazards,” said Jeffrey Scott (KPS), Glenn’s emergency management specialist assistant. “Access to cutting-edge technology not only ensures we are able to perform efficiently and effectively, but also helps keep the work environment safer. We have an opportunity to be at the pinnacle of using robots for detection across the agency.”

—BY S. JENISE VERIS
Construction Activities: Busiest in Decades

Orange cones. Barricades. Road detours. Bulldozers. These are all part of the highly visible construction projects, combined with behind-the-scenes activities totaling over $200 million at NASA Glenn. These activities show a healthy progression in the Facility Master Plan and pave the way for exciting opportunities for future work.

In addition to the new Main Gate project, several other construction activities are in full swing at Lewis Field:

• Bldg. 11 Expansion: 1530-square-foot expansion of existing shop area to be used as model preparation area. Due to historical significance of Icing Research Tunnel (IRT), new addition will match existing building appearance (bldg. 125).
• IRT Refrigeration Plant: Replace IRT’s existing refrigeration units (bldg. 9) with an updated system, new tunnel heat exchanger (bldg. 11) and new Chiller Building (bldg. 170). Funded by American Recovery and Reinvestment Act (ARRA) of 2009
• Propulsion Systems Laboratory (PSL) Icing Capability: Modifications to test cell PSL-3 to add capabilities to simulate ice crystals in flying environment. Funded by the ARRA of 2009.
• Media Center (bldg. 14): Construct media center with studio area, control room and green room to create centerwide resource to host activities such as center addresses, press conferences, videoconferences, training sessions and symposiums and briefings.
• Central Office Building: Construct a 94,000-square-foot office building (bldg. 164) on Taylor Road to consolidate 300 personnel from buildings 500 and 501 to the main campus.

In addition to construction on the Reverberant Acoustic Test Facility at Plum Brook Station, other construction and demolition is in progress:

• Energy-Efficient Building Systems: Install ground source heat pump (GSHP) for heating and cooling to second floor of Space Power Facility Office Building. GSHPs significantly reduce energy costs and provide renewable energy option to the agency.

Building Demolition: Remediated or demolished 25 buildings and tanks, with more on the horizon.
A variety of vital infrastructure repair and/or replacement to roofs, sewers, electrical power and water supply systems, fire protection and steam systems are being performed at both Lewis Field and Plum Brook Station.

“This is one of the busiest construction seasons in decades,” explained Rickey Shyne, director of the Facilities and Test Directorate. “Due to the nature of the projects, these activities must be completed within a short time frame. Therefore, our capable staff and contractors are moving ahead quickly with simultaneous projects while minimizing the impact on employees and visitors as much as possible. These construction activities are critical components of our Facility Master Plan and will help make Glenn’s infrastructure more efficient and reliable as we implement the agency’s mission.”

For more information on the construction activities, visit http://fd.grc.nasa.gov and select “active projects” (internal only).

—BY DOREEN B. ZUDELL

Glenn Funds Technologies with Highly Potential Commercial Value

Four Glenn-developed technologies have been selected to benefit from the 2010 Technology Transfer Fund. The fund helps NASA researchers and commercial partners accelerate the development and maturation of Glenn technologies that have demonstrated great potential to create new products.

The 2010 Technology Transfer Fund winners are:

Manufacturing of High Temperature RTM Resins and Composites—Dr. Kathy Chuang, Polymers Branch, partnering with Akron Polymer Systems, Akron, Ohio.

Atomic Oxygen Textured Optical Fibers for Glucose Monitoring—Sharon Miller, Bruce Banks (ALPH) and Deborah Waters (ASRC), Space Environment and Experiments Branch, partnering with LightPointe Medical, Inc., Eden Prairie, Minn.

Release Strategy for VESGEN Software: User Documentation and Validation—Dr. Patricia Parsons-Wingerter, Bio Science and Technology Branch; Patricia Keith, Data Systems Branch; and Mary Vickerman, Office of the Chief Information Officer; partnering with the University of New Mexico and the Taussig Cancer Institute, Cleveland Clinic Foundation.


For more information on these technologies, visit: http://www.nasa.gov/centers/glenn/news/pressrel/2010/10-029_funds.html.
Commonalities Outweigh Differences

During the 2010 Asian/Pacific Islander American Heritage Observance on May 21, Glenn’s Larry Liou, Dr. Sasi Pillay and Dr. Afroz Zaman shared personal stories of how, despite diverse backgrounds, their commonalities helped them in their pursuit of excellence. Themed “Diverse Leadership for a Diverse Workforce,” the program was sponsored by Glenn’s Asian/Pacific Islanders Advisory Group and the Office of Equal Opportunity Programs. Pictured are the J.G.N. Bhangra Dance Group of Cleveland performing harvest dances as one of several cultural performances at the heritage event.

Understanding Diversity

On June 8 and 9, NASA Glenn hosted its Ninth Annual Understanding Diversity Workshop at the Ohio Aerospace Institute (OAI). Sponsored by the FBI and U.S. Attorney’s Office in partnership with Glenn’s Diversity Management Office, this year’s workshop focused on the value of an inclusive society and the benefits an organization realizes by leveraging the strengths of a diverse workforce. Pictured are Diversity Speak panelists, left to right: Dr. Tameka Taylor, Renee Batts (Glenn’s Diversity Officer), Liz Roccoforte, Kathy Kitterman and Sharon Reeves.

Remembering the Fallen

Glenn’s Veterans Awareness Committee held their annual Memorial Day Observance on May 27 at the flagpole in front of the Administration Building. Glenn’s Chief of Aircraft Operations and Ret. U.S Naval officer Alan Micklewright spoke about the sacrifice of fallen soldiers and support for their families. The observance included an invocation, ceremonial flag lowering and presentation of the wreath.

Focus on Microgravity

High school teams competed nationwide to participate in Glenn’s “Dropping In a Microgravity Environment” (DIME) program. Four winning teams traveled to Glenn in April to conduct their experiments in the 2.2 Second Drop Tower and reviewed the results with Glenn engineers and scientists. Glenn extended the competition to younger students in grades six through nine this year through the new “What If No Gravity?” (WING) program. Pictured are students from Plattsburgh High School, Plattsburgh, N.Y., loading an experiment.

Fit For Funds

The Spongeblobs soaked up applause and prizes as the winning team of the 2010 Slimathon Program at the Annual Picnic and Awards Ceremony on May 6. The team was among a record-breaking 39 teams/292 employees that participated this year, losing a total of 2,190 pounds. The teams made nonperishable food items and cash donations exceeding half the weight lost to Glenn’s Harvest for Hunger Campaign. Spongeblobs team members, standing, left to right: Dr. Mary Reveley, Ken Fisher (captain) and seated, Denise Szajko. Not pictured: Al Linne (with the greatest body fat change), Marty Krupar, Laura Stokley and Sarita Thomas.
Astronaut Assigned to External Programs Post

Acting Center Director Ramon “Ray” Lugo named veteran astronaut and Ohio native Michael Foreman chief of the External Programs Division effective June 1. Foreman is assuming the role for a 1-year detail assignment and will retain his position in the astronaut corps. While at Glenn, Foreman will oversee Community and Media Relations and Educational Programs Offices, which are areas responsible for the development and implementation of educational, informational and outreach programs that contribute to scientific literacy and communicate NASA’s mission and vision to the public.

Dr. Jim Heidmann was selected chief of the Turbomachinery and Heat Transfer Branch, Aeropropulsion Division. Heidmann, who recently served as associate principal investigator for aerothermodynamics within NASA’s Subsonic Fixed Wing Project. He holds the distinction of American Society of Mechanical Engineers (ASME) fellow for 20 years of research and technical leadership in the areas of turbomachinery and heat transfer.

Dr. John Sankovic was selected chief of the Space Operation Project Office, Space Flight Systems Directorate. Sankovic has served in an acting capacity for the position since October 2009. He has held various project management and research positions across the center, most recently serving as the chief of the Bioscience and Technology Branch, Research and Technology Directorate.

Susan Kevdzija has been selected chief of the Planning and Integration Office in the Facilities and Test Directorate. Kevdzija previously served as chief of the Facilities Management and Planning Office.

Elaine Pappas was selected administrative and clerical technical representative for the TIALS contract in the Logistics and Technical Information Division. Pappas previously served as executive support assistant for the Research and Technology Directorate Office.

Retiree Turns 100!

In May, NASA retiree and Palmdale, Calif., resident Spurgeon Westbrooks returned to Cleveland to celebrate his 100th birthday (Feb. 16). Westbrooks served as a stock order specialist at Glenn prior to retiring in 1974 with 33 years of federal service, including 4 years in the U.S. Army. The former neighborhood activist and sergeant-at-arms for Cleveland’s First District Community Relations Committee was honored at the district’s meeting and at Saint Paul Church in May.

Gordon Honored

The Junior League of Cleveland (JLC), Inc. bestowed the Frances Payne Bolton Award on NASA Glenn’s Director of Center Operations Robyn Gordon, May 17. The award recognizes individual professional achievement, local or national, that reflects the service of Congresswoman Bolton, who was active in public health, nursing education and other philanthropic work. The JLC is an organization of women committed to promoting volunteerism and developing the leadership potential of women to make a positive impact in their communities.

SFA Leadership Award

Two Glenn managers received the Space Flight Awareness Leadership award during the Orion Project All Hands meeting at Glenn, June 9. The managers and their contributions include:

Susan Motil, GRC Orion Project Office, for exceptional leadership as Orion Space Environmental Test (SET) project manager overseeing design, construction and installation of the SET facility at the Space Power Facility at Plum Brook Station supporting the Orion Crew Exploration Vehicle Project.

Tom Cressman, Applied Structural Mechanics Branch, for outstanding project and technical leadership identifying and overseeing critical design enhancements and development of the Orion Crew and Service Module structures and mechanism subsystems.

Pictured, left to right, Motil and Cressman.
STS–131 Crew Shares Thrill of First Flight

On June 21, NASA astronaut and educator Dorothy Metcalf-Lindenburger and JAXA astronaut Naoko Yamazaki visited Plum Brook Station to share highlights of their first mission, Discovery/STS–131, to the International Space Station (ISS).

Discovery delivered a multi-purpose logistics module filled with supplies, new crew sleeping quarters and science racks that were transferred to ISS laboratories, including four experiments designed, fabricated, tested and managed at NASA Glenn.

Five Glenn employees enjoyed the opportunity to view the STS–131 launch at NASA Kennedy as Space Flight Awareness (SFA) honorees. Glenn honorees and their contributions are cited below:

Dr. DeVon Griffin, ISS and Human Research Project Office, for outstanding contributions to the Human Research Program’s efforts to improve the quality and effectiveness of crew medical capabilities for space exploration missions.

Dr. Beth Lewandowski, Bio Science and Technology Branch, for extending the Bone Fracture Risk Module of the Integrated Medical Model to predict astronaut fracture risk of the hip and spine for off-nominal landing conditions of the Orion Crew Exploration Vehicle.

Shane Malone, Space Propulsion Branch, for outstanding performance in development of the propulsion subsystem for the Orion Service Module.

Jeffrey Rusick, Program and Project Assurance Division, for exemplary leadership of the Ares I–X Upper Stage Simulator Safety and Mission Assurance Team.

Dr. Peter Struk, Icing Branch, for improving future spacecraft reliability through development of ways to maintain and repair critical electronic systems on orbit.

SFA honoree Diane Centeno-Gomez, who was unable to attend a previous SFA event, also viewed the STS–131 launch.

The SFA is one of the most prestigious awards available to employees of NASA, the Department of Defense and industry recognizing contributions and dedication to quality work and flight safety.

—BY S. JENISE VERIS

Ohio Elected Officials Visit; Governor Signs MOU

On May 21, Governor Ted Strickland met with Acting Center Director Ray Lugo and local economic development organization representatives and toured facilities. The Governor then joined Lugo in a press event where they signed a Memorandum of Understanding (MOU) between Glenn and the State of Ohio to collaborate on mutually beneficial technology initiatives. On May 24, Senator Sherrod Brown visited and toured the Simulated Lunar Operations (SLOPE) Laboratory before joining Lugo and Gail Dolman-Smith, President and CEO of NASA Glenn contractor Paragon-Tech, Inc., in a press event to discuss the potential benefits of the fiscal year 2011 budget proposal for Glenn.

Social Media Hot Spots

Glenn’s official social media channels are growing by the day! More than 812 people ‘like’ us on Facebook and more than 905 people follow us on Twitter. Join in by visiting www.facebook.com/nasaglenn and www.twitter.com/nasaglenn.
Kovitch: A Skilled, Positive Resource

Jay P. Kovitch, 42, an Arctic Slope Regional Corporation (ASRC) information technology administrator supporting NASA Glenn’s Engineering Directorate, died on June 6 as a result of a hit and run accident.

Since 1993, Kovitch provided specialized technical support for a variety of ongoing program and projects, including basic and specialized research, under the Glenn Engineering and Scientific Support (GESS–2) contract. More recently, Kovitch was part of the Engineering Support Team for the Management Integration Office, where he provided software implementation architecture for a large number of engineering and scientific applications to his customers. He was a veteran of the U.S. Navy.

“Jay contributed a ‘get it done’ attitude that highlighted his skill as a troubleshooter and inspired an atmosphere for others to rise to a challenge,” said ASRC’s Jeffrey Munger, GESS contract manager. “He often sparked conversations regarding the latest technology and philosophy that provided his coworkers a positive energy and focus to never give up. Jay will be deeply missed.”

Benjamin “Ben” Suber, who retired in 1990 with 30 years of NASA service, died May 10. Suber was a technician for the Research Support Group of the Equipment and Instrument Utilization Branch. The group was responsible for CURE (Controlled Utilization of Research Equipment), a system established to repair, calibrate and reissue equipment and instruments. Prior to retiring, Suber earned a 1988 Group Achievement Award as a member of the Glenn “Gear Noise Team” supporting the Space Shuttle Main Engine and Orbital Transfer Vehicle Program.

John R. Szuch, 69, who retired in 1995 with 33 years of NASA service, died May 24. Szuch retired as head of the Systems Dynamics Section for the Wind Tunnel and Flight Division. He specialized in mathematical modeling and simulation of rocket and jet engines. He received multiple Special Act/Service Awards, in addition to Space Act Awards, for his innovation and leadership in developing low-cost tools, modeling and simulation systems such as the Real-Time Multiprocessor Simulator, which significantly improved aircraft research techniques.

Siren Testing

In conjunction with the cities of Fairview Park and Brook Park siren testing, NASA Glenn will begin testing its Mass Notification System at Lewis Field on a monthly basis. Siren (voice) tests will occur on the first Wednesday of each month. Siren (audible) tests will occur on the first Saturday of each month. Tests will run for approximately two minutes beginning at noon. The next tests are scheduled for Aug. 4 and Aug. 7.

DEADLINES

News items and brief announcements for publication in the August issue is noon, July 23. Larger articles require at least one month notice.

http://aerospacefrontiers.grc.nasa.gov

SBIR DAYS AT GLENN: The SBIR/STTR Program will sponsor SBIR Days to present mission-specific poster sessions—Aeronautics Research, Exploration Systems, Space Operations and Science—highlighting SBIR-funded technologies. Glenn COTRs and SBIR Office staff will be available to discuss opportunities for collaboration and further development. SBIR Days are Wednesday, July 21; Monday, July 26; Tuesday, Aug. 3; and Wednesday, Aug. 4.

IFPTE LOCAL 28, LESA MEETING: LESA will hold its next membership meeting on Wednesday, Aug. 4 at noon in the Small Dining Room of the Employee Center, building 15.

GLENN PUBLIC TOURS: Glenn invites the public to tour its laboratory and testing facilities on the first and third Saturday of each month this summer. Tours are free to all ages and available to U.S. citizens and foreign national students in grades K–12. A NASA bus will start the tours from Glenn’s Briefing Center at 10:30 a.m., and run every hour with the last tour departing at 1:30 p.m. The August tours include: Aug. 7—Telescience Support Center and Aug. 21—Zero Gravity Research Facility. For further information and list of all the tours, or to reserve a spot, call 216–433–9653, or visit http://visit.grc.nasa.gov.

RETIREES REUNION: Mark your calendar for a NASA retiree reunion hosted at the Gardens At Westlake on Friday, Aug. 20, from 7 to 9 p.m. Come and enjoy the music, hors d’oeuvres and fellowship. For reservations, contact NASA retiree Lou Chelko, 440–871–5821.

WOMEN'S RETIREE LUNCHEON: The next NASA Retired Women's Luncheon will be Thursday, Aug. 19 at Don's Pomeroy House 13664 Pearl Road, Strongsville at noon. Please notify Gerry Ziembu, 330–273–4850, to reserve a place. Luncheons are held the third Thursday of February, May, August and November and are open to all.
Glenn High School Shadowing Program

Give Us a Day, We’ll Show You a Lifetime

Can one week—or even one day—help determine the course of a life? Students and mentors involved in Glenn’s High School Shadowing Program say it can.

Every year, high-school-age students come to the center to explore career possibilities in a research and development environment while under the guidance of a Glenn scientist, engineer, technician or administrative professional. Most of the visits are brief, one day to one week, but the impact of the tours and interactions with employees often has dynamic and lingering effects on the students.

Shadowing Program Manager Lynne Sammon, Educational Programs Office (EPO), said this year the program provided 92 career exploration opportunities for students from 55 high schools representing the states of Ohio, Pennsylvania, Michigan and New Jersey. Seventy-five employees served as mentors.

On May 20, a group of mentors from the Space Power & Propulsion, Communication & Instrumentation Branch within the Facilities and Test Directorate, hosted a shadowing day for five local students interested in engineering fields. Highland High School senior, Kory Wiita, who sustained a spinal cord injury in his neck during a tackle at a football game last October resulting in paralysis, was part of that group.

“Since Kory was interested in pursuing an engineering career prior to the accident, we at Glenn wanted to show him that his dream was still within reach,” Sammon explained.

During the one-day visit, mentor Floyd Truskot, who experienced a similar spinal cord injury, met with Wiita. Truskot explained how he challenged himself to pursue his dreams, achieve his goals and obtain an electrical engineering position at Glenn. Truskot stressed to Wiita, “You don’t need legs to run after your dreams, ambitions and goals in life!”

Mentor Tom Sours, who helped arrange the visit, said he has met many students who attest to the impact of the shadowing experience. “It’s amazing how a brief visit can expose students to possibilities they hadn’t even imagined and show them how technical careers can make a difference in the world,” Sours explained. “For mentors, it’s a chance to inspire the future workforce by sharing the work we do at NASA.”

Information on the Shadowing Program can be found at the EPO website at http://www.nasa.gov/centers/glenn/education/index.html. If you would like to mentor a shadowing student in the upcoming school year, watch for the annual call for shadowing mentors on Today@Glenn in late summer or contact Lynne Sammon at 3-3952.

—BY DOREEN B. ZUDELL