NASA Glenn Research Center
AEROSPACE Frontiers
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Campbell and Earls step up to new Agency positions


Campbell


Dr. Earls

During the August 8 town hall meeting at Glenn, NASA Deputy Administrator Frederick D. Gregory announced that Glenn's Center Director Donald Campbell has been selected to lead NASA's Special Projects Office for Nuclear Power Systems, effective October 1. Deputy Director Dr. Julian Earls has been chosen to become the Center's new director.

In his position as special assistant to the deputy administrator, Campbell will provide the leadership required to focus and integrate NASA's in-space alternative power generation development activities. Campbell's efforts, which will be based at Glenn, represent a revolutionary approach for next-generation power and propulsion systems. High capacity power generation is a fundamental building block for sustained robotic and human exploration beyond low Earth orbit.

"Don has been an innovator his entire career and he's been a tireless advocate for both Glenn and his hometown," Gregory said. "I know the entire NASA family looks forward to Don's continuing contributions in this important position critical to opening the frontiers of deep space and fulfilling NASA's vision."

In announcing Earls' new appointment, NASA Administrator Sean O'Keefe said, "Julian's selection brings stability and continuity to Glenn during this important transition. He's a proven leader with unparalleled academic credentials, and I am pleased he accepted the challenge to lead Glenn at this juncture in the Agency's history." ◆

Bioconsortium proves fruitful

BY S. JENISE VERIS

"New treatments and products resulting from biotechnology are not only achieving breakthroughs in the lab, (but also making) growing contributions to our economy, our homeland and national defense, and our public health. . . (The) potential medical benefit of biotechnology is the main reason why most medical experts believe that the most important innovations are still ahead of us."—FDA Commissioner Mark McClellan at the BIO 2003 Annual Convention at the Washington Convention Center in Washington, DC.

After little more than a year since NASA's Office of Biological and Physical Research (Code U) granted $7.5 billion in seed money (spread over 3 years) to establish the John Glenn Biomedical Engineering Consortium, the synergy of its membership is already bearing fruit. Ten research projects are underway that not only highlight NASA's technology transfer to the biomedical

Continued on page 9

Jim King, QSS/6712, demonstrates how this prototype headset peers into the eyes of a subject and sends data back to the notebook for analysis.

Inside

AeroSpace Frontiers **has earned a prestigious award for publication excellence for the second year in a row. See page 11.**

2003 APEX AWARDS FOR PUBLICATION EXCELLENCE

New space station crew named

Veteran NASA astronaut Michael Foale and seasoned Russian cosmonaut Alexander Kaleri are set to become the eighth crew living aboard the International Space Station. Foale will serve as the Expedition 8 commander and NASA/space station science officer. Kaleri will be the Soyuz commander and space station flight engineer.

Foale

The Expedition 8 crew is scheduled to begin their mission October 18 when the Russian Soyuz TMA–3 launches from the Baikonur Cosmodrome in Kazakhstan. European Space Agency astronaut Pedro Duque of Spain will make the outbound trip with Foale and Kaleri as flight engineer. Duque will return to Earth 10 days later with the Expedition 7 crew of Yuri Malenchenko, commander and Russian cosmonaut, and Ed Lu, NASA/space station science officer, who conclude a 6-month tour-of-duty aboard Station that began in April.

Kaleri

Foale is a veteran of five space flights totaling more than 178 days in space, including more than 4 months on the Russian *Mir* space station. Kaleri has flown on three previous missions to the *Mir* logging 416 days in space. October's mission will be Duque's second space flight, following his STS–95 mission on *Discovery* in 1998.

Duque

More information about the space station is available on the Web at *www.spaceflight.nasa.gov*. ◆

Asteroids dedicated to memory of STS–107 *Columbia* crew

The names of the final Space Shuttle *Columbia* crew—Commander Rick Husband; Pilot William McCool; Mission Specialists Michael Anderson, Kalpana Chawla, David Brown, Laurel Clark; and Israeli Payload Specialist Ilan Ramon—will be immortalized in the heavens thanks to a proposal through the Near-Earth Asteroid Tracking Progam at NASA's Jet Propulsion Laboratory (JPL) .

The STS–107 Columbia crew include, from the top, clockwise, Chawla, Husband, Clark, Brown, McCool, Ramon, and Anderson.

The International Astronomical Union recently approved the proposal to name seven asteroids in the crew's memory. The asteroids were discovered at the Palomar Observatory near San Diego on the nights of July 19 to 21, 2001, by former JPL astronomer Eleanor Helin. The seven asteroids, easily seen from Earth, range in diameter from 5 to 7 kilometers (3.1 to 4.3 miles).

Information about JPL's Near-Earth Asteroid Tracking Program is available at *http://neat.jpl.nasa.gov*. ◆

NASA partners with Library Association

NASA and the American Library Association (ALA) are partners in a one-of-a-kind interactive space research exhibit currently on display at the Enoch Pratt Free Library in Baltimore.

The NASA–ALA partnership creates *NASA@your library*, a program designed to increase interest in our Nation's public libraries while introducing and exposing the public to NASA research in health, home and transportation, agriculture and environment, and commerce.

The unique exhibit will tour 120 public libraries in five regions across the Nation for the next 2 years. The exhibit is self contained and complete with six desktop computers and workspace. Participating libraries will be given a stipend to enhance their book and electronic resources and collections and to host various social and academic activities of their choice.

ALA also created a new Web site to engender interest in International Space Station research through reading lists, information on careers, and other space-related activities. You can find the information on the Internet at *www.ala.org/alsc or www.ala.org/@yourlibrary.* ◆

IFMP budget training

Training on SAP for Budget Formulation users is available and will run through the Release .5 go-live date October 27. This application will prepare users for the 2006 pre-POP process in fall 2003 utilizing the new full cost policies. For the latest updates, visit http://cfo.grc.nasa.gov/ifm/budget.asp.

Software improvement plan underway

Much of what NASA is able to achieve relies on software developed and/or used within the Agency. To produce software with the quality and safety, needed for mission success and within project cost, a Software Working Group—with representatives from each center—has instituted the NASA Software Engineering Initiative Implementation Plan.

Administered under the Agency's Office of the Chief Engineer, the initiative calls for each center to adopt the Capability Maturity Model (CMM) developed by the Carnegie Mellon's Software Engineering Institute. CMM is a set of best practices found throughout the software industry that enables all NASA centers to address common concerns of maintainability, planning, management, and problem resolution.

Groups representing different levels of management were chartered at Glenn to develop a plan for implementing the Software Engineering Initiative. The Glenn Software Engineering Process Group (SEPG) prepared the Glenn Center Plan for Software Process Improvement. Glenn's Management Steering Group and Software Working Group approved the plan last summer.

"Our purpose is not to just 'fly the CMM flag' over the Center, but to make our software products even better," said Glenn's chair of the Management Steering Group, Kevin Carmichael, Flight Software Engineering Branch. "Rather than applying broad, general rules for all, the SEPG analyzes current software practices, recommends improvements to current practices using the CMM as a guide, and coaches development teams in the use of these improved practices."

The Glenn SEPG rolled out the first set of new processes, including Requirements Management and Project Planning Tracking and Oversight, in May. The processes describe sound, fundamental approaches to managing requirements and planning and tracking software development efforts. Six projects were selected to pilot the new processes and are now underway. The SEPG will work to ensure that the new processes fit well with the Agency's organizational and mission needs.

"The SEPG also conducted a comprehensive software census for the purpose of getting a snapshot of how much software development is being performed now at the Center, and understanding how that work is done so that resources, good practices, and tools can be shared and applied more effectively among the entire Glenn software community," Carmichael added. "A summary report on the census is available on the Web."

Further information about the Center's software initiative, including the Center plan, the census report, pilot processes, and SEPG points of contact are available on the *Software@Glenn* Web site *http://software.grc.nasa.gov.* ◆

Seeking ways to tell NASA's story

NASA is looking for innovative "out-of-the-box" ways to tell the Nation about the Agency's projects and programs. The private sector is encouraged to submit suggestions on where NASA information could appear on a consumer product either as an insert in packaging or delivered by a service. NASA is particularly interested in opportunities that are popular with students and those under 35 years old.

Organizations that produce, market, or distribute popular products or services may submit proposals to NASA Headquarters by 4:30 p.m. EDT, October 3. The solicitation is entitled "Seeking Offers to Disseminate NASA Information by Means of Consumer Products or Services."

For details about the purpose, benefits, proposal requirements or evaluation criteria, visit *http://prod.nais.nasa.gov/cgi-bin/eps/synopsis.cgi?acqid=106951.* ◆

AA for External Relations appointed

O'Brien

Administrator Sean O'Keefe has appointed Michael O'Brien as the assistant administrator (AA) for External Relations, effective immediately. O'Brien replaces John Schumacher who became NASA's chief of staff in July.

As assistant administrator for External Relations, O'Brien will be responsible for NASA's interaction with Executive Branch offices and agencies; international relations for each NASA Enterprise; administration of export control and international technology transfer programs; the NASA History Office; and NASA advisory councils and commissions.

O'Brien has served as deputy assistant administrator for External Relations (Space Flight) since 1994. He was responsible for the international aspects of NASA's human space flight activities. He led the team that negotiated the agreements for the International Space Station with the Europe, Japan, Canada, and Russia space agencies as well as the agreements related to space shuttle flights for international astronauts and other space agencies, such as Brazil and Israel. ◆

Savings Bond drive

Master of Ceremony Dennis Pehotsky dedicated this year's Savings Bond Drive Kickoff, reminiscent of the bond drives of yesteryear, to the fighting men and women in Iraq. Like the Series E bond introduced during WW II to aid the war effort, the Series I Patriot Bond was unveiled following the events of September 11. Spirits ran high throughout the kickoff, thanks to more than 50 door prizes donated by generous local vendors and trivia games led by Pehotsky. Pictured left to right are Pehotsky and Kathleen Webb (0612) presenting Blanche Preusser (0220) with the grand prize worth $525.

Photo by S. Jenise Veris

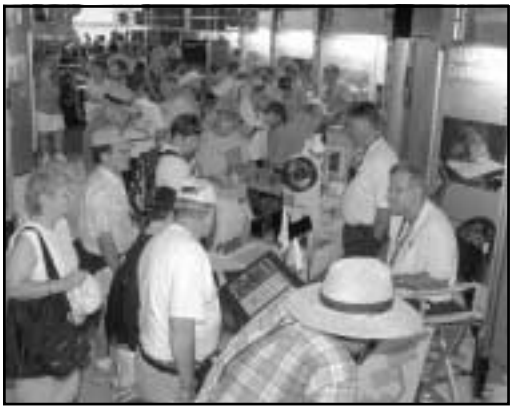


Photo by Tom Tschida, NASA Dryden

AirVenture 2003

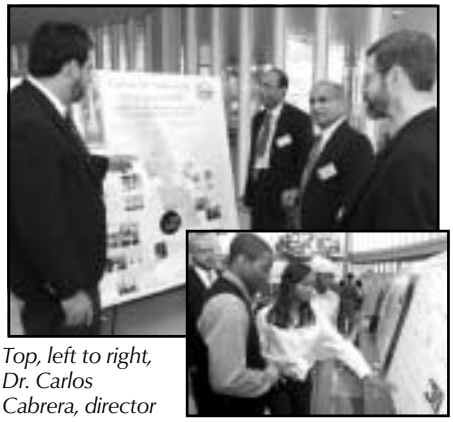
The Experimental Aircraft Association touted AirVenture Oshkosh 2003 as "one of the best ever" with an estimated attendance of 770,000 people and 11,000 aircraft on the ground. Once again NASA made major contributions to the successful event. Managed by Glenn's Community and Media Relations Office, NASA's Centennial of Flight touring exhibition, "Powering Flight, Powering Dreams . . ." filled two exhibit buildings with historical retrospection and glimpses into the future. Added to that was NASA's Craftsmen display with support from Glenn and Langley (pictured). Glenn's Educational Programs Office organized NASA educational representatives to conduct activities and demonstrations at the KidVenture tent. Aircraft displays included the Active Aeroelastic Wing F/A-18 and ER-2 research jets from Dryden. NASA met the challenge to engage, inform, and inspire those in attendance.

HBCU/OMU research conference showcases partnerships

Deputy Director Dr. Julian Earls welcomed more than 100 attendees to the 10th annual Historically Black College and Universities (HBCUs) and Other Minority Universities (OMUs) Research Conference held July 15 and 16 at OAI. Eight HBCUs and three Hispanic institutions presented 22 technical papers and poster displays during the 2-day conference showcasing the high quality and diversity of Glenn-sponsored work by HBCU/OMU Research Program participants.

"The conference is a critical element of the program because the presentations are a progress report on HBCU/OMU researchers and students ability to conduct fundamental science and develop physical infrastructure related to NASA's disciplines," said Dr. Sunil Dutta, program manager and Center focus for Small Disadvantaged Businesses.

Glenn has awarded more than $45 million to HBCUs/OMUs since 1993, ranking first in grants awarded among all NASA centers for the last 7 years, due to the commitment of Glenn management and institutionalization of a Glenn plan for HBCUs/OMUs. "Glenn's support for HBCUs/OMUs continues NASA's tradition of stimulating research interest in minority institutions and increasing the production of underrepresented students in science and engineering," said Earls.



Top, left to right, Dr. Carlos Cabrera, director of the Center for Nanoscale Materials, University of Puerto Rico, reviews a poster with Dr. Dutta, Dr. Ram Katiyar, University of Puerto Rico, and Dr. Phillip Abel (5960). Bottom photo: HBCU/OMU students share poster information.

"Fostering partnerships with HBCUs/OMUs ensures the Agency's goals of diversity and enables the preservation of strong leadership and the technical foundation forged by many years of extraordinary space exploration and aeronautical advances."

Director's Corner
With Donald Campbell

Coming together for Inventing Flight

I recently observed an excellent example of the One NASA ideal. I felt great pride to see personnel across the Agency come together in Dayton for the Inventing Flight Celebration. During the 17-day event, and long before, hundreds of NASA civil servant and support service contractor employees alike gave generously of their precious time and talents to showcase NASA's pioneering spirit and technical know-how.

I'm especially proud of the lead this Center took within the Agency to ensure that NASA's crucial role in aviation—past, present, and future—came alive during the celebration. While some personnel worked tirelessly "on the front line," planning exciting activities, staffing impressive exhibits, and conducting educational discussions, I'm also aware of the myriad of other roles and responsibilities employees took on to ensure a smooth and enjoyable experience for visitors.

The One NASA spirit peaked during NASA Day festivities beginning with the barbeque held the evening of July 17, which provided an opportunity to relax and enjoy the company of fellow NASA employees and their guests. The following day, Agency leaders and special guests such as Deputy Administrator Frederick Gregory, Associate Administrator for Education Dr. Adena Williams Loston, and Senator John Glenn and I took to the main stage to offer words that inspire us to continue what the Wright Brothers so boldly began.

Although 100 years may seem like a long time, it is, in reality, a brief time in our history. Only a small time has elapsed between our first liftoff from the ground by the Wright Brothers to our liftoff to visit our nearest neighbor in space. We have come so far since then—but, in fact, in one century, we've only scratched the surface. Where will we be when we celebrate the Wrights' next centennial? ◆

News Notes

LESA MEETING: LESA/IFPTE, Local 28, will hold its next monthly membership meeting on Wednesday, September 10, at noon in the Employee Center, room 101.

POW–MIA RECOGNITION: On September 19 the Glenn Veteran's Awareness Committee will hold the annual National Prisoner of War–Missing In Action (POW–MIA) event at 1 p.m. in the Ad. Bldg. Auditorium.

EXCELLENCE IN LEADERSHIP AND MANAGEMENT: The Learning Center, Organization Development and Training Office, is sponsoring a live satellite program featuring Ken Blanchard on Excellence in Leadership and Management. The program will be held September 24, from 11:00 a.m. to 12:30 p.m. in the Ad. Bldg. Auditorium. A post-broadcast discussion follows from 12:30 to 1:00 p.m. The program will focus on the keys to self leadership, how to be an effective manager in a one-on-one context, the elements of team leadership, and the essence of organizational leadership. The program is produced by Linkage, Inc., and is paid for by Headquarters for all NASA centers to participate. To register, submit your name and mailstop via e-mail to learningcenter@grc.nasa.gov, or call the Learning Center at 3–2996/2997.

HISPANIC HERITAGE MONTH: The Hispanic Advisory Council and Office of Equal Opportunity Programs welcomes Jimmy Cabrera as the Heritage Month guest speaker on September 25, 9:30 to 11:30 a.m. in the Ad. Bldg. Auditorium.

AFGE MEETING: AFGE Local 2182 will hold its next monthly membership meeting on Wednesday, October 1 at 5 p.m. at Denny's Restaurant, 25912 Lorain Road, North Olmsted. All members are encouraged to attend.

NACA REUNION: There is still time to secure reservations for the NACA Reunion X, which takes place October 10 through 12 in Cleveland. For questions or further information, contact the Reunion X Committee Office, 216–433–5358.

NATIONAL SBIR CONFERENCE: Glenn will cosponsor the national Small Business and Innovation Research (SBIR) conference with the Air Force Wright Labs. The event will be hosted by the State of Ohio Department of Development October 27 to 30 at Cleveland's Renaissance Hotel. NASA Code R's Technology Expo will be held concurrently during the conference and at the same venue.

September 23 to October 31
Kickoff: September 23
Pacesetter: September 23 to October 3
Agency Fair: September 30 to October 2
Ice Cream Social and Car Show: October 9

Inventing Flight Celebration

From July 3 to July 20, at the Inventing Flight Celebration in Dayton, OH, NASA shared its history with thousands. People came from around the world to see how far we've come. They saw how the Agency has pursued the dream of human flight—realized by Orville and Wilbur Wright 100 years ago—to heights that even the Wright Brothers could not have fathomed.

During the celebration, contributions from each NASA center displayed the accomplishments of the past and shared the Agency's dreams for the future with the world. From Ames, Dryden, Glenn, Goddard, Johnson, Kennedy, Langley, Marshall, and Stennis to Headquarters and the Jet Propulsion Laboratory, the Agency demonstrated the One NASA philosophy: our ability to work and dream as one team.

Guests marveled at engine research and aeronautics advancements, space suits, and a moon rock. Visitors were excited by our current projects on display, such as a mock-up of the International Space Station research module. And they were inspired by our vision for the future of more efficient—and even intelligent—aircraft engines and advanced space propulsion systems that will reach the farthest parts of our solar system.

Our presence at Dayton demonstrated how NASA has carried on the legacy of the Wright Brothers and how we continue to challenge ourselves as we raise the bar that was set a century ago. ◆

Senator John Glenn celebrated his birthday at NASA Day with, left to right, Deputy Administrator Frederick Gregory, (Senator Glenn), Annie Glenn, Glenn Director Donald Campbell, and astronaut Mark Brown.

Astronaut Robert Curbeam talks with a future space explorer at the Dayton Black Cultural festival.

These two pilots—Senator Glenn and actor John Travolta—appeared at the American Institute of Aeronautics and Astronautics Honors Night Banquet at the Air Force Museum at Wright-Patterson Air Force Base.

Excellent planning and beautiful weather combined to make a terrific NASA Day Barbeque.

Part of the magnificant NASA exhibit at the Dayton Air Show.

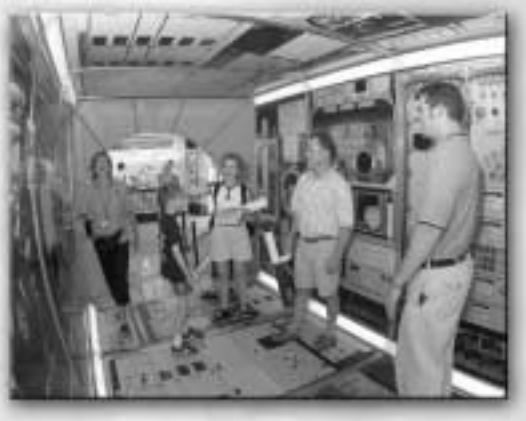
Graphic design by Jim Lucic

Children take the NASA meatball for a balloon flight at the Blimp Meet.

NASA staffers and administrators talk about the Wind Tunnel Exhibit at Carillon Historical Park. From left to right are David Anderson (6910), Deputy Administrator Frederick Gregory, Associate Administrator for Education Dr. Adena Loston, and Glenn's Centennial of Flight Project Manager Susan Hennie (5000).

Dr. Valerie Lyons, chief of Glenn's Power and On-Board Propulsion Division, engages visitors with her solar-powered items at the Blimp Meet.

NASA exhibits were the highlight at Celebration Central at Deed's Point.



Glenn's Nancy Welter (ZINT/0200), left, and Matt Wirks (MGIT/ 6700), right, show off the International Space Station Destiny Module at Celebration Central at Deed's Point. In the module, visitors were given a true-to-life look at the inner workings of the outer space lab.

Senator Glenn, Annie Glenn, and NASA Deputy Administrator Frederick Gregory were among the guests at the NASA Day Breakfast at the Engineers' Club of Dayton.

Huffman Prairie Field—the Wright Brothers' practice flying field—exhibits spanned a century, housing a replica Wright Flyer, the Wright's original hangar, and NASA's ground-breaking fuel cell technology. Pictured is Lisa Kohout (5420), left, demonstrating the applications of fuel cell technology.

Summer students work toward their dreams

BY BRANDON STUBBS

Do you remember when your teacher asked, "What did you do over summer break?" This summer more than 270 students from across the country participated in the Lewis Educational and Research Collaborative Internship Program (L.E.R.C.I.P.). This program consists of internships for students ranging from high school juniors to those pursuing Ph.D.s who are interested in an array of fields. L.E.R.C.I.P. is a collaborative undertaking of Glenn's Educational Programs Office (EPO) and OAI.

The following are just three students whose L.E.R.C.I.P. experiences at Glenn are making a difference in their lives.

Kelly Halacka, a Case Western Reserve University graduate, is a second year co-op student at Glenn and a former L.E.R.C.I.P. participant. She will continue school in the fall to earn her masters in mechanical engineering. Halacka exemplifies how One NASA is achieved by collaborating with students from Johnson Space Center in writing a National Research Proposal on the effectiveness of exercise equipment on the International Space Station. Born with profound hearing loss, Halacka has overcome her disability and is currently working to prevent potential hearing loss for astronauts on space station. Outside of NASA, Halacka inspires children who also live with hearing loss.

"L.E.R.C.I.P. has given me the opportunity to excel in my technical field," Halacka said, "I believe that NASA's educational programs are absolutely essential to the future of the Agency. I don't think NASA can grow without them."

Arati Deshpande, a senior at North Olmsted High School, is a second year intern under the NASA Summer High School Apprenticeship Research Program (SHARP). This year, Deshpande used a test rig to conduct 90 experiments that involved determining the relationship between space lubricants and their coefficient.

Deshpande's favorite aspect of the program was the one-on-one interaction with professionals. She believes that these opportunities will help her reach her ultimate goal. "After graduating from college I plan to make a difference in the world by helping people through medicine."

Cornelius Howard, a senior at Collinwood High School, is a second year intern under the newer Engineering Technology Program. Although his fellow high school interns label him a "jokester," Howard knows when to be serious. This summer he assembled and programmed a Help Mate Robot, which keeps a distance of 12 inches from objects in front of it. If the object moves, the robot follows.

Photo by Doreen B. Zudell

L.E.R.C.I.P. intern Brandon Stubbs, center, talks with fellow interns Kelly Halacka, left, and Arati Deshpande about their work experiences at Glenn.

Howard is working toward a degree in engineering and hopes to become an entrepreneur. Howard commented, "People treat you different when you tell them that you work at NASA." He commends the summer programs for providing an opportunity for students, especially from the inner city, to experience the world beyond their immediate surroundings.

L.E.R.C.I.P. Program Manager Susan Gott, EPO, believes strongly that the program provides a quality work experience for its students. "L.E.R.C.I.P. is a truly unique program," Gott said. "It provides students the opportunity to grow professionally and socially as well as mentors who want to foster their success at NASA. It's a win-win situation." ◆

Editor's note: *Stubbs is an L.E.R.C.I.P. intern who worked in the Thermal Fluids Design and Analysis Branch and the Community and Media Relations Office this summer. He will attend Howard University this fall.*

Success story

Mentor of the Year is a title that Benjamin Rodriguez, deputy branch chief for Research and Development Technical Branch, is proud to have earned. Rodriguez was a past recipient of a Mentor of the Year award for the NASA SHARP program. His student, Cirse Gonzalez, nominated him for trusting her to work hands-on in a high-risk mechanical and electrical environment, and dedicating his time to helping prepare her for the future.

Rodriguez

"Young people need to know what the real world is like," explained Rodriguez. He should know. Rodriguez was a product of Glenn's summer programs. Having been raised in Cleveland's inner city, Rodriguez feels fortunate to have had the opportunity to intern at the Center and later to become a full-time employee.

Ben stressed, "I can personally attest that these programs work." ◆

Bioconsortium research

Continued from page 1

community but also leverage Glenn expertise in fluid physics and sensor technology for the benefit of human health and safety in space and on Earth.

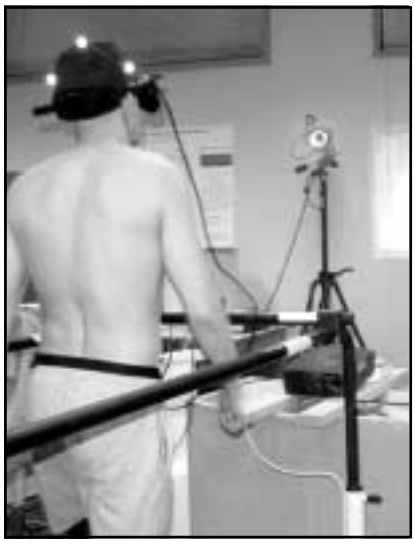
Consortium members include NASA's Glenn, Case Western Reserve University, (CWRU), the Cleveland Clinic Foundation (CCF), University Hospitals of Cleveland (UHC), and the National Center for Microgravity Research on Fluids and Combustion (NCMR), a partnership between Case Western and the Universities Space Research Association.

"With the combined resources of the consortium, we have an opportunity to create a center of excellence for life sciences and biomedical technology in Northeast Ohio—one of the fastest growth areas in the market—with Glenn leading the way," said Dave Francisco, chief of the BioScience and Engineering Branch.

Although NASA has a long history of transferring aerospace technology to the biomedical community, the consortium places greater emphasis on interdisciplinary research in biology, physical sciences, engineering, and medicine to develop techniques and equipment to address health issues from a distance. NASA Johnson Space Center is working closely with consortium members to follow the Bioastronautics Critical Path Roadmap (CPR).

"The CPR serves as a guide for Code U's evolving bioscience and engineering program of research focused on the prevention and reduction of the most critical space flight risks that astronauts face," explained Marsha Nall, Glenn's BioScience and Engineering program manager. "The Agency's priority remains, 'safety first' and continues as we return to flight."

Progress reports on the consortium's initial research projects have been reviewed and funding approved for the second year. The ten projects and principal investigators are (1) Therapeutic application of ultrasound to prevent bone loss in microgravity—Ulf Knothe, M.D., (CCF); (2) Portable analyzer to measure crew activity at a faster rate than presently possible—Daniel Dietrich, Ph.D., (Glenn); (3) Bioluminescent molecular imaging to measure the effects of radiation on the body in space—David Wilson, Ph.D., (CWRU); (4) Headset for noninvasive, diagnostic measurements through the eye—Rafat Ansari, Ph.D., (Glenn); (5) Wireless system to detect and report cardiac dysrhythmia remotely using the Web—David York, (Glenn); 6) Microminiature glucose sensor for vital electrolyte and metabolite levels—Miklos Gratzl, Ph.D., (CWRU); (7) A virtual reality treadmill to help crews with neurological adaptation in space—Susan D'Andrea, Ph.D., (CCF); (8) Biochip simulation design tailored for space applications—Arnon Chait, Ph.D., (Glenn); (9) Fluorescent microscopy to assess bone cell cultures and develop countermeasures against bone loss—Gregory Zimmerli, Ph.D., (Glenn); and (10) Implantable microsystems for the controlled release of medicines—Shuvo Roy, Ph.D., (CCF).



Unlike the conventional treadmill, the dual-track actuated treadmill in a virtual environment allows a person to move each foot independently on its own belt and, aided by the virtual reality component, maintain a sense of orientation.

The Glenn-managed consortium is one of seven avenues of research for which Glenn has partnered to meet Code U's Bioscience/Bioengineering Program objectives. *AeroSpace Frontiers* will highlight Glenn's role in others in upcoming issues. More information on the John Glenn Biomedical Engineering Consortium including descriptions of projects can be found at *http://microgravity.grc.nasa.gov/grcbio/bec.html* ◆

WebTADS is coming!

In October 2003, a new system will be used to enter time and attendance information into the payroll system. WebTADS, the Web-based time and attendance distribution system, is an easy-to-use application that will replace the current electronic and paper timekeeping process at Glenn.

The WebTADS system is consistent with NASA Administrator Sean O'Keefe's goals to foster a One NASA organization, and commitment to the Freedom to Manage philosophy of treating professional colleagues with confidence and respect.

WebTADS will provide a simple way for all civil service employees to

- Enter their own time online
- Access timesheets via the World Wide Web
- Validate data at point of entry
- Route timesheets electronically
- Access leave balances

WebTADS is scheduled for rollout at Glenn in the fall of 2003. Watch for your invitation to attend training. ◆

WebTADS
IT'S ABOUT TIME

People

Awards


Britton


Reid


Rodgers


Dr. Zaman

Four Glenn employees will be honored at the 3rd Annual Women of Color (WOC) Research Sciences and Technology Conference September 12 and 13. Sponsored by *USBE & Information Technology* magazine, the event celebrates the contributions of distinguished Hispanic, Asian American, Native American, and Black women who through their hard work and perseverance have excelled in the fields of research science and technology in government, industry and academia, while inspiring those that will follow.

WOC Emerald Awards will be presented to **Doris Britton**, Power and On-Board Propulsion Technology Division, for Technical Innovation; **Terri Rodgers**, Systems Management Office, for Professional Achievement; and **Dr. Afroz Zaman**, Applied RF Technology Branch, for Research Leadership. A Certificate of Achievement for a Young Scientist will be presented to **Concha Reid**, Power and On-Board Propulsion Technology Division, recognizing her as one of America's future technology leaders.

For more information about the WOC conference and awards visit http://www.womenofcolor.net/NashvilleRST/index.htm.


Zaretsky

Erwin Zaretsky, chief engineer for the Structures and Acoustics Division, was recently honored by Northern Illinois University, Dekalb, IL, for his long and distinguished service on their Board of Executive Advisors for the College of Engineering and Engineering Technology.

Promotions


Holton


Meyer

Annie Holton was selected project control specialist for the Business Management Office, Microgravity Science Division. Prior to joining Microgravity, Holton served as the executive support assistant for the Aeronautics Directorate. Since becoming a Center employee in 1996, Holton has earned several awards and currently serves as vice-chairperson of Glenn's Hispanic Advisory Council.

Michael Meyer has been named chief of the Propellant Systems Technology Branch, Turbomachinery and Propulsion Systems Division. Since joining Glenn in 1989, Meyer has become a nationally recognized expert in the area of heated tube research for fuel thermal characterization and stability. He has also contributed significantly to the densified propellants program, where he served as the level 3 manager for the advanced propellants element of the Propulsion Research and Technology project. Meyer's strong technical background and ability to lead complex teams will be important assets in assuming his new position.

In Appreciation

I wish to thank all of you for your warm expressions of sympathy upon the passing of my mother. Your thoughtfulness is very comforting. **—Kathy Delaney**

Thanks to all my coworkers and friends who attended or participated in planning my retirement party. I just love the beautiful engraved clock. Every time I look at it, I'm reminded of the generosity shown and the friendships made while working the past 5 years in Building 3—the best of my 28 years at the Center.

—Dorothy "Dottie" Edwards

To keep upated on NASA's Centennial of Flight activities across the country, refer to the Web site at http://centennial.grc.nasa.gov.

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DEADLINES: News items and brief announcements for publication in the October issue must be received by noon, September 12. The deadline for the November issue is noon, October 17. Submit contributions to the editor via e-mail, doreen.zudell@grc.nasa.gov, fax 216–433–8143, phone 216–433–5317 or 216–433–2888, or MS 3–11. Ideas for news stories are welcome but will be published as space allows. View us online at http://AeroSpaceFrontiers.grc.nasa.gov.

Honor Awards highlight

The Instrumentation Team received a Group Achievement Award at the *2003 Honor Awards Ceremony* on Friday, August 8. Detailed information regarding the team's accomplishments was inadvertently left out of the program booklet.

Congratulations to **Terrian Nowden, John Brodkowski, Perry Cardwell, Jose Gonzalez, Adam Redding**, and **Johnny Napier** for significantly contributing to the safe, reliable, and successful operations of numerous air-breathing engine test programs that directly support the goals of the NASA Glenn Research Center Aeronautics Directorate and the NASA Aerospace Technology Enterprise. Specifically, the Instrumentation Team provided design, fabrication, and installation services in support of research instrumentation devices that detect pressure, temperature, force, and strain for air-breathing engine tests in numerous test cells at Glenn. These tasks require the Instrumentation Team members to utilize thorough hardware fabrication and instrumentation knowledge that includes lathes, mills, and laser welding techniques with emphasis on miniature wire bonding, welding, brazing, and attachments for wire diameters less than 0.010 in. These tasks also require extensive test facility knowledge that could only be attained with experience and mentoring of apprentices and co-op students.

In Memory

Dr. John Evvard, 88, who retired from NASA in 1973, recently died. Evvard came to the Cleveland Laboratory, then known as the AERL, from Langley Field. He conducted and supervised research for 31 years in rocket fuels and lubricants for a variety of aerospace applications. Evvard served as assistant director, associate director, and was Glenn's first chief scientist.

Dr. Evvard

Award of excellence

Glenn's *AeroSpace Frontiers* newsletter has earned an award for publication excellence the second year in a row. Editor Doreen Zudell and Assitant Editor S. Jenise Veris, IDI/Community and Media Relations, earned the 2003 Award For Publication Excellence (APEX) honor in the category of One-of-a-Kind Publications for their commemorative issue of the STS–107, Space Shuttle *Columbia*.

The editors of *Writing That Works, The Business Communications Report*, sponsor the contest, which this year drew nearly 5000 entries. APEX awards are based on excellence in graphic design, editorial content, and the ability to achieve overall communications excellence in the areas of print and electronic media.

Behind the Badge correction

The name of the August **Behind the Badge** employee was incorrectly stated as "David Thomas" instead of "David Williams." Fortunately, Williams was a good sport about the error, refering to one of his answers that stated, "Thomas (my son) and I share the same birthday. So as it goes, all the attention goes to him. . . Now this proves it. But having such a wonderful son, I really don't mind because the kids refer to me as Thomas' dad anyway."

Behind the Badge

a closer look at our colleagues

Leon Dozier, Sr.

Job assignment: I'm an electrical engineer in the Avionics, Power, and Communications Branch, Engineering Development Division.
Time at NASA: I've worked at the Center for 19 1/2 years.
Hometown: I currently reside in Berea.
Describe your family: We are born-again Christians, and God has blessed me to be happily married for over 24 years to my lovely wife, Cathy. We are a very close family. Our son, Aaron, is in his second year of college and our daughter, Noelle, is a junior and a cheerleader in high school. Our oldest son, Leon, died when he was 6 years old.
Career alternative: I always wanted to be a senator.
Favorite food: French fries (with ketchup)
Favorite Web site: *www.dogpile.com*—from where I find other Web sites I'm searching for.
Favorite book: I have favorite subject areas. My favorite book is the *Bible* (King James Version), and then other books related to biblical areas. My favorite magazine subjects are health and fitness, firearms, and self-defense.
Person you most admire: I admire both my dad and my mom. They are unique, God-fearing, dedicated, dependable, and caring. Their influence has shaped and molded me into what I am. They also recently celebrated their 55th wedding anniversary. That says a lot about their character and commitment, especially considering today's high divorce rate.
Activities when away from NASA: Although I don't like to admit it, I'm quite busy. I'm an ordained Baptist deacon, and I play bass guitar. I also teach part-time at Cuyahoga Community College. I enjoy spending time with my family, weight lifting, and target shooting (NRA member) .
What do you see as an area of expertise to be proud of at NASA? The high-quality engineering capabilities of the Engineering Development Division.

Exchange activities offer summer breaks

BY DOREEN B. ZUDELL

Taking advantage of festivities ranging from ice cream socials to barbeques, employees and summer students enjoyed a variety of outdoor mid-day breaks this summer hosted by the Glenn Exchange on the Main Cafeteria patio.

The recent sidewalk sale, for example, featured two trailers, one cooking up a lunchtime special of hot dogs, chips, and soda pop, and a second that offered closeout items from the Exchange Store. Glenn employees, who play in various area bands, came together to supply rock and blues music, which added to the lively ambiance.

"Many employees feel they're too busy to take the time for a relaxing lunch, so they stop by the cafeteria to pick up a meal to bring back to their desk," said Exchange Store Manager Connie Carol, EXCH/Office of the Chief Financial Officer. "During the sidewalk sale, however, the live music and outdoor lunch special made them stop and sit a bit, enjoying time with coworkers and taking a pleasant break from the workday."

While the Main Cafeteria patio provided opportunities to mingle and enjoy the Sun, the Exchange also hosted a variety of indoor promotions at the DEB and Main cafeterias and the Exchange Store this spring and summer.

Glenn employees, who play in various bands, came together to supply live music during the sidewalk sale. Pictured, left to right, are Dennis Veverka (7210), Brian Good (5160), (hidden) Herman Ezell (OWM/7530), Dave Wilt (5410), Bob Allen (ANLX/5000), Rick Sockel (7220), Jim Simon (AKAC/7210), and (not pictured) Debbie Zamostny (7550).

Along with annual customer appreciation events in the Exchange Store, such as Father's Day and Mother's Day sales, this year the Exchange celebrated the song, "Happy Birthday to You," which was composed by Mildred Hill in 1859. By simply telling cashiers that "today is my birthday" (even if it wasn't) customers received a 10-percent discount on purchases and a free piece of birthday cake at the cafeterias. This provided many opportunities for interaction between the staff and customers.

"This was another way for us to say 'thanks' to our valued customers," said Main Cafeteria Head Supervisor Ella Scott, EXCH/Office of the Chief Financial Officer.

Exchange Business Manager Mark Betlejewski, EXCH/Office of the Chief Financial Officer, said he and the staff plan to continue offering specials and activities to the Glenn workforce, including the popular Halloween party and costume contest, celebrating its sixth year on Friday, October 31.

"In addition to our daily services, these special events, which emphasize fun and fellowship, help the Exchange promote the welfare and morale of our customers," said Betlejewski. ◆

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