

National Aeronautics and
Space Administration
Langley Research Center

News Researcher

Biweekly Employee and Contractor Publication

Volume 18 ♦ Issue 13 ♦ July 2, 2004

Transforming NASA

O'Keefe Announces New Organizational Structure

By **GLENN MAHONE**
NASA Headquarters

NASA Administrator Sean O'Keefe announced on June 24 a transformation of NASA's organizational structure designed to streamline the agency and position it to better implement the Vision for Space Exploration.

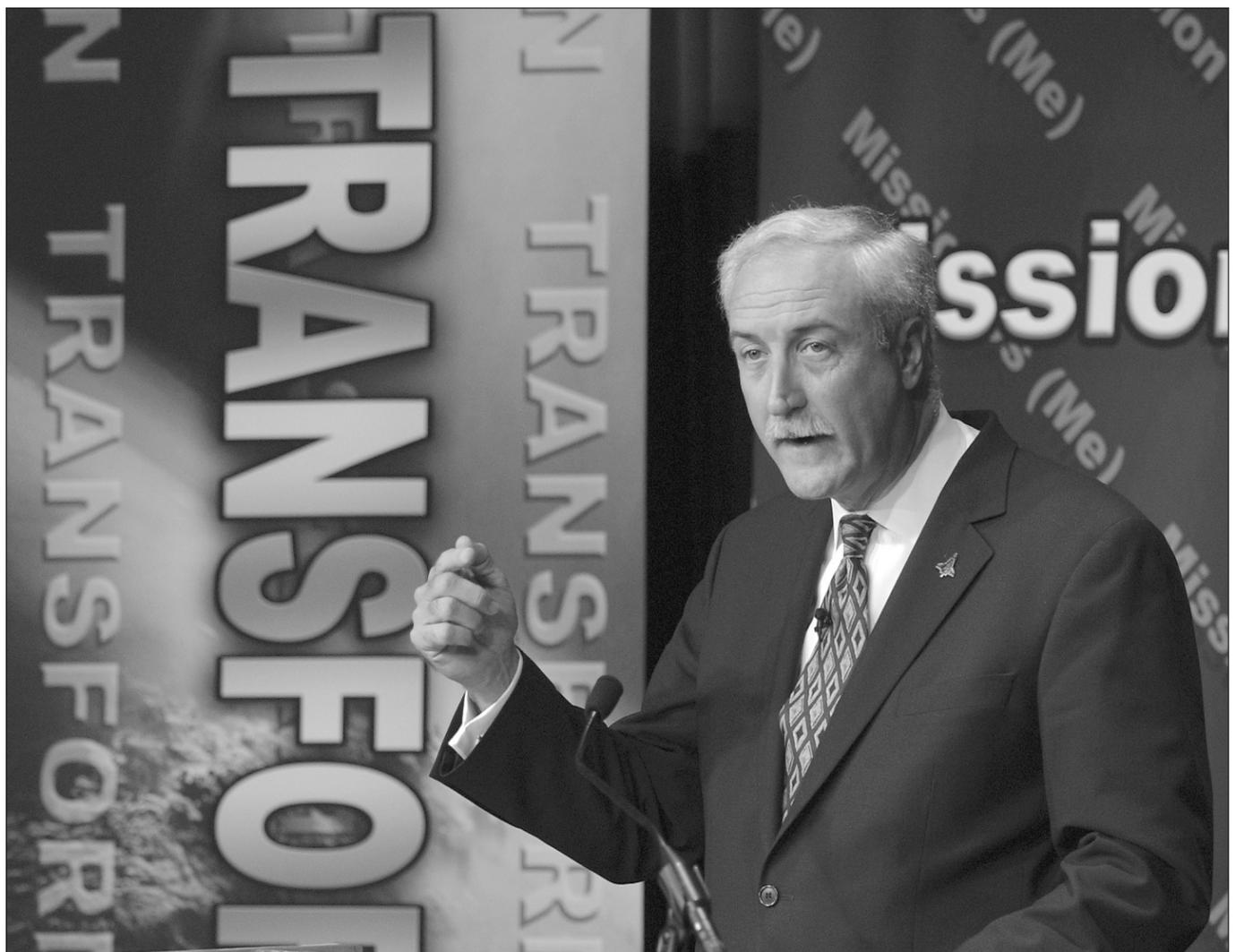
“Our task is to align Headquarters to eliminate the ‘stove pipes,’ promote synergy across the agency and support the long-term exploration vision in a way that is sustainable and affordable,” O'Keefe said. “We need to take these critical steps to streamline the organization and create a structure that affixes clear authority and accountability.”

The transformation fundamentally restructures NASA's Strategic Enterprises into Mission Directorates to better align with the Vision. It also restructures Headquarters support functions and clarifies organizational roles and responsibilities. The Mission Directorate organizational structure includes:

■ **Aeronautics Research:** Research and develop aeronautical technologies for safe, reliable and efficient aviation systems

■ **Science:** Carry out the scientific exploration of the Earth, Moon, Mars and beyond; chart the best route of discovery; and reap the benefits of Earth and space exploration for society. A combined orga-

■ **New Org Chart On Page 3.**



NASA Administrator Sean O'Keefe outlines changes to the agency's organizational structure during a "NASA Update" broadcast on June 24. "Our task is to align Headquarters to eliminate the 'stove pipes,' promote synergy across the agency and support the long-term exploration vision in a way that is sustainable and affordable," he said. "We need to take these critical steps to streamline the organization and create a structure that affixes clear authority and accountability."

Photo by Bill Ingalls/NASA Headquarters

Continued on Page 3

Culture Change Team Publishes Final Report

Langley Research Center's Culture Change Team published its final report on June 28. It can be found online at: <<http://kickstart.larc.nasa.gov>>.

Langley Deputy Director Lesa Roe, who led the team, said the report outlines methodologies used and makes recommendations for culture change actions in

three phases. Some of those actions already are underway or have been implemented.

"The team has worked hard and struggled with many issues in an effort to assess the current culture, define a desired state culture, and determine 'how to get there from here,'" Roe wrote in an e-mail

to Langley employees. "We know, as do you, that culture change does not happen overnight and that it will take an ongoing effort, engagement and commitment from all of us to succeed."

Langley's Center Reorganization Team, also led by Roe, is still in the process of finalizing an organizational chart

and report and getting approval from NASA Headquarters. Once those actions are complete, the team will develop an implementation plan, and competition for key leadership positions will begin.

For more information about the Center Reorganization Team, visit: <<http://kickstart.larc.nasa.gov/reorg.html>>.

Inside
This Issue:



Langley Hosts Safety
Stand Down Day

Page 2



Contractor Featured
On TV Talent Search

Page 5

NASA Vision: To improve life here, To extend life to there, To find life beyond
NASA Mission: To understand and protect our home planet • To explore the Universe and search for life
To inspire the next generation of explorers ... as only NASA can

Around the Agency

NASA DEVICE MONITORS HEALTH OF EXPLORERS

A lightweight, portable device developed by NASA scientists is enabling physicians to monitor the health and safety of explorers in remote locations on Earth. It may eventually be used in space to monitor astronauts during space travel.

The wireless LifeGuard system watched over the vital signs of several expedition members who sampled soils and water from the world's highest alpine lake, nearly 20,000 feet up the Licancabur volcano, on the border between Chile and Bolivia, last year.

"Having the team wearing these LifeGuard systems added an element of safety in this extreme environment," said expedition leader Nathalie Cabrol of NASA's Ames Research Center.

For more information about LifeGuard on the Internet, visit: <<http://LifeGuard.stanford.edu>>. NASA HQ RELEASE: 04-191

TEST LEADS WAY FOR SAFER SHUTTLE ROCKET

NASA's Space Shuttle program has successfully fired a full-scale Reusable Solid Rocket Motor, testing modifications that will enhance the safety of the Space Shuttle.

A slightly different propellant grain was tested. The new design improves flight safety by decreasing the risk of cracks in the propellant during storage and transportation, according to Jody Singer, manager of NASA's Reusable Solid Rocket Motor Project at Marshall Space Flight Center.

For information about NASA's work to return Space Shuttles to safe flight, visit: <<http://www.nasa.gov/news/highlights/returntoflight.html>>. NASA HQ RELEASE: 04-190

NASA STUDY ID'S HUMAN IMPACT ON ECOSYSTEMS

NASA scientists working with the World Wildlife Fund and others have measured how much of Earth's plant life humans need for food, fiber, wood and fuel. The study identifies human impact on ecosystems.

Satellite measurements were fed into computer models to calculate the annual net primary production (NPP) of plant growth on land. NASA developed models were used to estimate the annual percentage of NPP humans consume. Calculations of domesticated animal consumption were made based on plant-life required to support them.

Marc Imhoff and Lahouari Bounoua, researchers at NASA's Goddard Space Flight Center, and colleagues, found humans annually require 20 percent of NPP generated on land. Regionally, the amount of plant-based material used varied greatly compared to how much was locally grown.

The research appears in this week's Nature Magazine. For information and images about this research on the Internet, visit: <<http://www.gsfc.nasa.gov/topstory/2004/0624hanpp.html>>. NASA HQ RELEASE: 04-201

Safety Stand Down Day



Jim Wetherbee speaks to Langley Research Center employees about "NASA Safety Cultural Improvements" on June 23, the Center's Safety Stand Down Day. Center Director Roy D. Bridges Jr. and Grant Watson, head of Langley's Safety and Facility Assurance Office, also spoke as part of the day's activities. For more information, visit <<http://safety/OSFAHomePageStuff/SSDD/SSDDHome.html>>.

Photo by Jeff Caplan

McGowan Honored By Purdue

Langley Research Center employee **Anna McGowan** has been selected to receive Purdue University's Outstanding Aerospace Engineer Award.



McGowan

The award is given each year to Purdue alumni who have made significant contributions to the field of aerospace engineering. McGowan works in Langley's Aerospace Vehicle Systems Technology Office.

Previous Langley recipients have included: **Roy D. Bridges Jr.** (1966), **Lana Couch** (1963) and **Richard Peterson** (1956).

NIA Names Peake VP

The National Institute of Aerospace (NIA) announced on June 23 the appointment of **David J. Peake** as vice president of research and program development.

Peake has served as the head of the Centre for Aeronautics and professor of aero and fluid dynamics at City University in London since 1995.

He previously served as president and CEO of Dynamic Engineering Inc. in Newport News and spent nine years at Ames Research Center.

"We are very excited to have Dave join our team," said Robert Lindberg, NIA president and executive director. "His 30 years of leadership expertise in aeronautical engineering will undoubtedly benefit our current and future research programs."

For more information, visit the NIA web site: <<http://www.nianet.org>>.

In Memoriam

Marion E.S. Chaltry

Marion Elizabeth Stillwell Chaltry died on June 11 at the age of 65. Chaltry was a NASA retiree; she worked as an accounting assistant at Langley Research Center.

William R. Motley II

William Robert Motley II died on May 28 at the age of 57. Motley was a NASA retiree; he worked as an electrician engineer at Langley Research Center.

Letter To The Editor

More Information On AEDs

I was extremely pleased to see the attention given to Automatic External Defibrillators (AEDs) at Safety Stand Down Day. I would like to provide some additional information from the Department of Health and Human Services and the American Heart Association in the hope of encouraging you to participate in Langley Research Center's Public Access Defibrillation Program.

Why is defibrillation important? A major problem in a heart attack is the deprivation of oxygen to the brain. The victim is not breathing air into his/her lungs and there is no circulation of oxygenated blood since the heart is in fibrillation (chaotic motion). The probability of survival from a heart attack decreases by 7-10 percent for every minute delay in returning oxygen to the brain. After two minutes, there is significant danger of

brain damage. Therefore, time of response is absolutely critical. Traditional manual CPR is aimed at sustaining a minimal blood flow through repeated pressures to the heart through the chest. Successful use of an AED permits the heart to recover its natural rhythm, thus restoring the flow of oxygenated blood naturally — with no further external stimulation. Johnson Space Center has recorded seven saves with AED's since starting their program.

Adult CPR training with AED certification ranges from 4 to 6 hours — a half-day. It is simple and valuable. It teaches the participant what to expect and what to do if somebody collapses. I strongly urge my colleagues at Langley to join me in this training for the health and safety of Langley, your family and our community.

Jim Batterson
Dynamics and Control Branch

News Researcher

The Researcher News is an official publication of Langley Research Center, National Aeronautics and Space Administration, Hampton, Va., 23681-2199. It is published every other Friday in the interest of all Langley employees, contractors and retirees and has a circulation of approximately 7,200. It is distributed to all Langley employees, contractors, retirees and on-site university personnel, with limited distribution to NASA Headquarters, other NASA centers and, by special request, to other non-NASA individuals and organizations. Questions related to the content and distribution of the Researcher News should be addressed to Keith Henry, Mail Stop 115, (757) 864-6120. Submit contributions and off-site address changes to the editor via e-mail <j.r.roberts@larc.nasa.gov>, fax (757) 864-6477, telephone (757) 864-8150 or Mail Stop 147. Articles, photos and announcements are due by 5 p.m. the Monday following the date of this issue.

Managing Editor Keith Henry

Editor..... Jim Roberts
Planners Collaborative/
Science and Technology Corp.

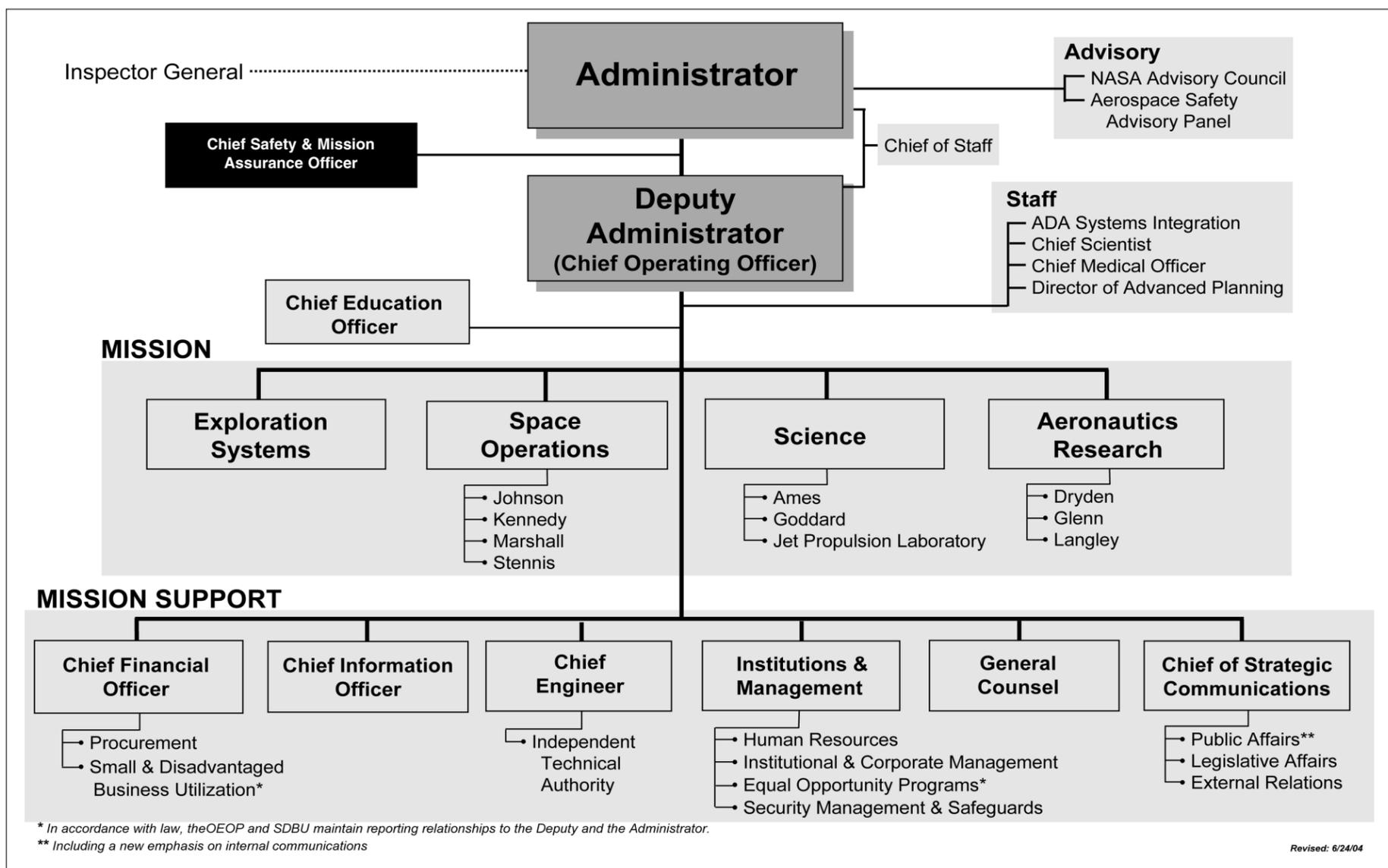
Assistant Editor Bill Uher
Planners Collaborative/
Science and Technology Corp.

Photographer..... Jeff Caplan
Planners Collaborative/
Science and Technology Corp.

The privilege of listing announcements in this publication is restricted to the employees, contractors and retirees of the Langley Research Center. Articles must be offered without regard to race, color, religion, sex or national origin. All materials are subject to editing.

The Researcher News accepts signed letters to the editor from Langley Research Center employees, on-site contractors and retirees. Letters are limited to 250 words and will be edited only for grammar. When necessary, letters may be edited for space, but only with the author's approval. Letter-writers are limited to one submission on a topic every six months. Questions regarding this policy should be directed to Keith Henry, managing editor, at 864-6120 or <h.k.henry@nasa.gov>.

Read the Researcher News online at <<http://researchernews.larc.nasa.gov>>.



Transform

Continued from Page 4

nization is best able to establish an understanding of the Earth, other planets and their evolution, bring the lessons of our study of Earth to the exploration of the Solar System, and to assure the discoveries made here will enhance our work there

■ **Exploration Systems:** Develop capabilities and supporting research and technology that enable sustained and affordable human and robotic exploration; includes the biological and physical research necessary to ensure the health and safety of crew during long duration space flight

■ **Space Operations:** Direct space flight operations, space launches and space communications, as well as the operation of integrated systems in low-Earth orbit and beyond

Two agency-wide priorities will continue with direct responsibility for all related activities across NASA:

■ **Safety and Mission Assurance Officer:** Reports directly to the Administrator and reflects NASA's commitment to provide a clear and direct line to agency senior leadership for issues regarding safety

■ **Chief Education Officer:** Directs the agency's important work to improve scientific and technological literacy and inspire a new generation of explorers

NASA functional offices will be restructured as Mission Support Offices. Headquarters and field center offices will be aligned to improve communications and responsibility.

The major Mission Support Offices are:

Bridges Responds To NASA's Transformation

Langley Research Center Director Roy D. Bridges Jr. offered the following statement after NASA Administrator Sean O'Keefe's June 24 announcement: "Langley Research Center fully supports the transformation and is already working to align the Center to meet this exciting mission. We will continue to focus our considerable educational efforts on preparing future employees to participate with us in this exciting journey. We will also participate with the agency in exploring alternative management models for the Center to ensure that Langley is an important contributor to the success of the Vision."

■ **Chief Financial Officer (CFO):** Conducts all financial matters, including procurement and small and disadvantaged business activities. All field center financial officers report directly to the Headquarters CFO to better address critical financial issues

■ **Associate Administrator for Institutions and Management:** Responsible for providing operational and management support for Headquarters; directs a full range of activities relating to personnel and institutional management across the agency

■ **Chief Information Officer:** Responsible for the development of an integrated focus on information resource management strategies, policies and practices

■ **Chief Engineer:** Ensures the development efforts and missions operations are being planned and conducted on a sound engineering basis; assures independent technical authority within the agency's engineering, operations and safety organizations

■ **Chief of Strategic Communications:** Directs NASA's communication efforts in public affairs, legislative affairs and external relations; responsible for internal communications management

■ **General Counsel:** Responsible for the legal aspects of all NASA's activities; manages the agency's intellectual property and ethics programs

To improve the decision-making process, NASA will create:

■ **Strategic Planning Council:** Chaired by the NASA Administrator, the Council develops multi-year strategic plans, strategic roadmaps and a multi-year detailed plan that forms the basis for policies and budgets

■ **Director of Advanced Planning:** Responsible for the preparation of options, studies and assessments for the Strategic Planning Council

■ **Chief Operating Officer Council:** Chaired by the Deputy Administrator, implements direction provided by the Strategic Planning Council and develops standard administrative practices to build on the President's Management Agenda

The Associate Deputy Administrator for Systems Integration is responsible for strategic and systems integration across Mission Directorates and mission support functions

The agency also will redefine its relationships with the NASA field centers by developing clear and straightforward lines of responsibility and accountability. Specific Mission Associate

Administrators will be assigned as Headquarters Center Executives. They will have oversight of field center performance in implementing agency policies and programs. The Associate Administrator for Institutions and Management will address field center infrastructure concerns.

The changes will take effect on Aug. 1. They represent the next step in implementing the recommendations of the President's Commission on Implementation of U.S. Space Exploration Policy and reflect NASA's ongoing efforts to apply the findings and recommendations of the Columbia Accident Investigation Board across the agency.

Over the next several weeks, the Administrator will engage teams in each NASA location to provide front line guidance on implementing their early stages of the transformation plan. The discussions will be the precursor for a renewed commitment to mission success and excellence in an employee-centric organization.

"This transformation will be an evolutionary process, exploring new ways to move forward and implement change. We'll also be engaging other government agencies, industry, academia and the international community to assist us in developing the tools and processes we need to successfully advance the Vision for Space Exploration," O'Keefe said. "Doing so will enable us to take the next bold steps into space and rekindle the innovation and entrepreneurial skills that is our legacy to humankind."

■ *Additional information and a new NASA organizational chart is available on the Internet at: <<http://www.nasa.gov/formedia>>.*

One NASA Tackling Competition Issue

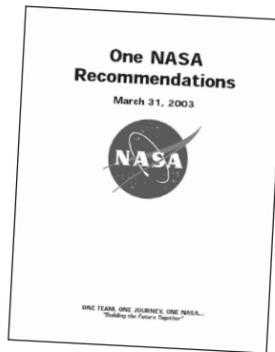
Editor's note: This article was submitted by NASA's One NASA Team. Langley Research Center's point of contact is Manjula Ambur.

Many NASA employees have identified the use of competition as a barrier to collaboration and information-sharing. Feedback from the One NASA survey has led to the creation of One NASA Action 1c/1d: "Program Priorities and Resources/Selecting Competing Projects."

Placed in perspective, NASA's science enterprises have long used competition and peer review to successfully identify the best approaches to address some of the scientific challenges within the agency's vision. More recently, many new opportunities for competition by individuals and organizations at NASA Centers

are arising with the Vision For Space Exploration. NASA is faced with the issue of competition on a daily basis as it seeks to balance the benefits of surfacing the best ideas and obtaining best value with the potentially adverse effects of hoarding knowledge, duplicating capabilities, inadequately maintaining critical infrastructure, and building organizational stovepipes. To address this issue, a Competition Working Group (CWG) has been created to focus on how competition is used at NASA.

"We are seeking to get a better understanding of the costs and benefits of internal competition so that our agency can



best use it in a judicious manner," said Steve Pearson, team lead for the CWG.

NASA's challenge is finding the optimal balance between competition and cooperation. This can be a complicated task, given the mix of signals being received: Individuals at centers must compete for project funding and the use of various agency resources, yet simultaneously promote cross-center teamwork.

The CWG will make recommendations and participate in the implementation of changes to current competitive practices that are assessed as unhealthy to One NASA principles. The more than 20

CWG participants, including representation from various centers and enterprises, identified three competitive environments for detailed study: Science and Technology, Programs and Projects, and Institutional Investments. Each competitive environment was assigned to a specific subteam that submitted its initial findings and draft recommendations by the end of June.

Once the recommendations have been developed, the CWG will meet with senior agency leadership to begin a dialogue that will optimize the effectiveness and success of the overall effort.

■ For more information about the One NASA effort, visit: <http://www.onenasa.nasa.gov>. Input may be sent to OneNASAComments@nasa.gov.

Colloquium and Sigma Series Lectures

Jones On 'Electronic Textile Applications'

Mark T. Jones will present a Colloquium lecture titled "The Design of Electronic Textile Applications" at 2 p.m. July 13 in Langley Research Center's H.J.E. Reid Conference Center. A Sigma Series lecture will follow at 7:30 p.m. at the Virginia Air & Space Center in Hampton.



Jones

commercial efforts currently underway, this talk will focus on a design framework for e-textiles under development at Virginia Tech. The use of this framework will be illustrated using two application prototypes currently under development in Virginia Tech's E-Textiles Laboratory: a wearable system

for human gait analysis and an autonomous garment for determining the wearer's location within a building. The talk will close with (disclaimer: likely inaccurate) prognostications on future developments in e-textiles.

The Speaker

Jones is an associate professor in the Bradley Department of Electrical and

Computer Engineering at Virginia Tech. He earned a bachelor's degree from Clemson University in 1986 and a doctorate in computer science from Duke University in 1990. As a graduate student, Jones spent part of his time at Langley, working in the area of parallel computation.

Upon graduation, he joined the Mathematics and Computer Science Division at Argonne National Laboratory, where he worked in the area of large-scale scientific computing. In 1993, Jones joined the faculty at the University of Tennessee, where his interest in embedded computing began. In 1997, Jones moved to Virginia Tech, where he continues his interest in high-performance large-scale and embedded computing.

His work in the area of e-textiles began in 2000 as an extension of his

Future Lectures

■ **Aug. 3:** Rich Wlezien on "Developing New Vehicles for Flight"

■ **Sept. 14:** Ranji Vaidyanathan on "Advanced Materials Research"

For more information about the lecture series, visit <http://shemesh.larc.nasa.gov/Lectures/> on the Internet.

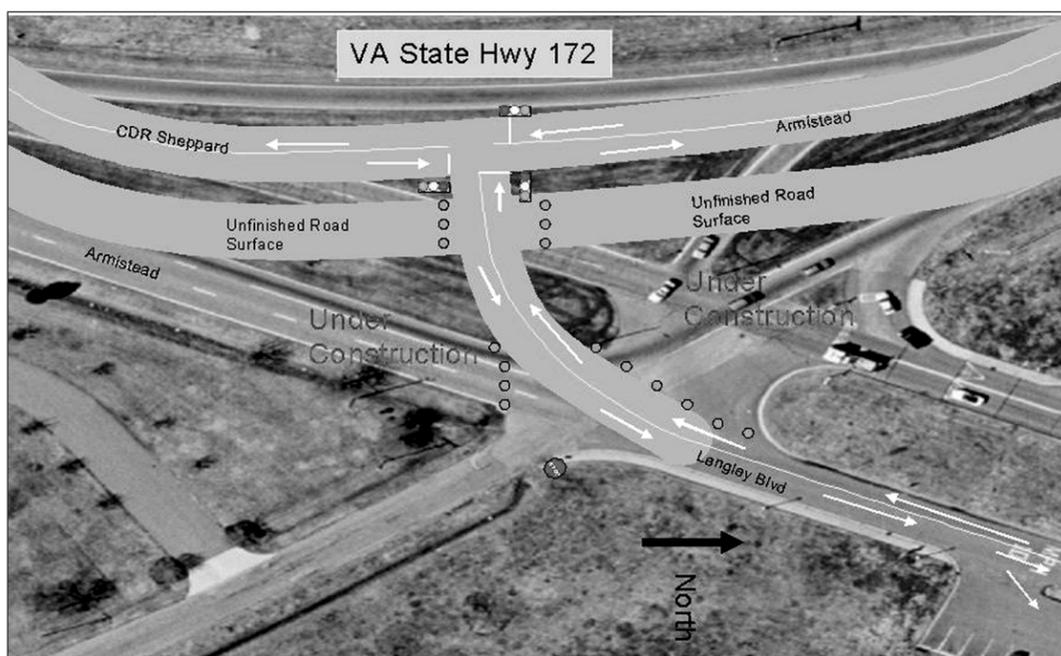
interests in embedded computing. He and Thomas Martin formed the E-Textiles Laboratory with funding from the Defense Advanced Research Projects Agency (DARPA) and the National Science Foundation.

The Lecture

Electronic textiles (e-textiles) have received considerable attention of late. Significant commercial and research efforts are underway to develop a wide array of e-textile applications in areas such as health care, military and first-responder uniforms, and entertainment.

After reviewing the state of the art in e-textiles, including an examination of

Main Gate Traffic Pattern Still In Progress



On June 28, the traffic lights at the intersection of Langley Boulevard and Rt. 172 (Armistead Avenue) were relocated, resulting in a two-way traffic pattern at the main gate.

Illustration courtesy of Langley's Security Management and Safeguards Office

By **JIM ROBERTS**

Researcher News editor

The Virginia Department of Transportation (VDOT) project outside Langley Research Center's main gate has transitioned to its next phase of construction.

On June 28, the traffic lights at the intersection of Langley Boulevard and Rt. 172 (Armistead Avenue) were relocated, resulting in a two-way traffic pattern at the main gate. Outbound traffic at the main gate has been re-routed to one of the inbound lanes, reducing the inbound and outbound traffic to a single lane each.

The current traffic pattern will remain in place until September or later, depending on VDOT's progress on the project.

Charles Cramer of Langley's Security Management and Safeguards Office said employees should exercise caution and patience when driving through the main gate. He also said employees can ease congestion by altering arrival and departure times, using carpools and using alternate gates, such as the Wythe Creek or Durand gates.

"We appreciate your patience and increased safety awareness as the VDOT construction proceeds," Cramer wrote in an article posted on the @LaRC intranet site. "We will continue to monitor and evaluate the traffic situation throughout the project cycle."

Volleyball Champions Announced

Langley Research Center's Volleyball Club recently announced the champions of the 2004 Spring Volleyball League. For more information, visit the club's web site at: <http://volleyball.larc.nasa.gov/>.

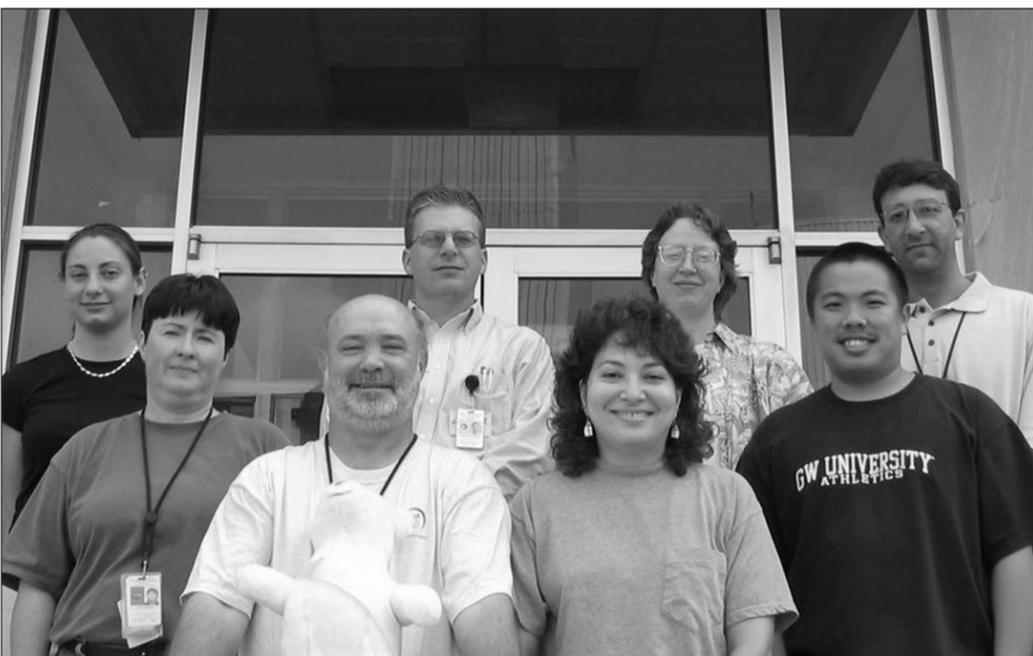
Photos courtesy of Scott Goodliff



"Spike Me" was the regular season winner in the BB division and the winner of the end-of-the-season tournament, finishing 11-0. Pictured (left to right) are: Steve Williams, Cathy Williams, Paul Ferlemann, Henry Chambers, Sue Delong and Dan Perey. Team member Byron Meadows is not pictured.



"The Screwballs" were the regular season winners in the B division and the winners of the end-of-the-season tournament, finishing 8-0. Pictured (left to right) are: Tom Britton, Scott Goodliff, Kandyce Goodliff, Bryan Barmore, Andy Turnbull and Helen Anders.



"The NTF Polar Bears" were the regular season winners in the C division and the winners of the end-of-the-season tournament. Pictured (left to right) are: Courtney Spells, Linda Humber, Bill Dressler, Tom Popernack, Pat Quander-Jones, Judi Hannon, David Chan and David Coleman. Team members Allen Kilgore and Mike Chambers are not pictured.

Langley Singer To Be Featured On WSKY-TV

'Gimme The Mike!' Begins July 7 And Continues For Five Weeks

By **MEREDITH CARR**
Langley Research Center

WSKY-TV has spun off a local version of "American Idol," and a contractor at Langley Research Center is among the 25 contestants.

Jennifer Jones, who works for DynCorp Technical Services in Langley's Security Management and Safeguards Office, will be featured on "Gimme The Mike! Hampton Roads," a talent search program to find the best singer in Hampton Roads and north-eastern North Carolina region.

The show will begin at 8 p.m. July 8 and air for six consecutive Thursdays. Five contestants will be featured each week, and the winners from each of the first five weeks — along with a "wild-card" chosen by online voting — will be featured in a live finale on Aug. 12.

Jones will perform on the July 29 episode but can be seen in a commercial that will air throughout the competition.

Jones has worked at Langley since 1991 but has been singing her entire life. As a child, she loved to sing along with records and knew all the music to movies like "Mary Poppins." Her elementary school music teacher encouraged her to develop her talents and selected Jones to sing "Tomorrow" for a school talent show.

Since then, she has become an accomplished soloist and has performed for special events at Langley, the Arthritis Foundation and the VA Hospital. She also has performed the national anthem at Norfolk Tides and Admirals games.

Jones was one of more than 200 people to audition after hearing about the "Gimme the Mike! Hampton Roads" contest on the radio. She said she had

only one minute to impress the judges.

"I was doing 'Eenie, Meenie Minie, Moe' all the way there to pick the right song," she said.

She settled on "Big Deal" by LeAnn Rimes. (Country-pop is her favorite genre.) It was a good choice that helped earn her a spot in the final 25. She will perform the same song for the actual competition.

Jones and the 24 contestants taped the shows on June 12 and 13 before a live audience at the Norfolk Waterside Marriott.



Jennifer Jones prepares for the taping of "Gimme The Mike! Hampton Roads." Her episode will air at 8 p.m. July 29 on WSKY-TV (Channel 4).

Photo by Meredith Carr

The judges were Kensey Wright, president and CEO of Fifth Degree Records; Kristen Croot, DJ for WKCK 93.7 FM; and Skip DeRupa, musician, engineer and producer for Windmark Studio. Eric Worden, DJ for WPYA 106.1 FM, served as host.

If Jones is not selected to advance on July 29, she asks fellow Langley employees to support her in the online voting at <http://www.wsky4.com>.

Meredith Carr, a Longwood University student, is working in Langley's Public Affairs Office through the Langley Aerospace Research Summer Scholars (LARSS) program.

CLASSIFIED

FOR SALE: House in Hampton, 4/5 BR, 2.5 BA, located on a dead end, quick sell by owner, as is. Call 717-0320.

FOR SALE: Kayak/Surfski, composite material construction, 20.5 feet long, weighs 18 lbs, \$1,200. Call 722-8147.

FOR SALE: Two Bush Gardens tickets, purchased from NASA Exchange for \$46.95 each, will sell for \$40 each. Call 303-7062.

FOR SALE: Toro Super Blower Vac, used twice, \$40. Call 816-4469.



The deadline for the July 16 edition is July 5. Send submissions to <j.r.roberts@larc.nasa.gov>.

Special Activities Planned At VAM

A new exhibit titled "Lindbergh's Return to Richmond" will open at the Virginia Aviation Museum (VAM) on **July 3** and remain on display through **Sept. 26**.

The VAM also has the following activities scheduled in July:

■ "Aviation Mondays," hands-on activities for students in grades 1-6, will be offered from 9:30 to 10:30 a.m. and from 11 a.m. to noon on **July 5** and **19**. (Cost is \$1 plus museum admission.)

■ "Introduction to Aviation," a two-day study of the basics of flight for boys and girls between the ages 10 and 17, will be offered from 9:30 a.m. to 12:30 p.m. on **July 7-8** and **July 21-22**. (Pre-registration is required. Cost is \$25 for members and \$35 for nonmembers.)

■ "A Week of Flight," hands-on activities for rising sixth-, seventh- and eighth-graders, will be offered from 9:30 a.m. to 12:30 p.m. **July 12-16** and **July 26-30**. (Pre-registration is required. Cost is \$75 for members and \$85 for nonmembers.)

The VAM, located at Richmond International Airport, is open from 9:30 a.m. to 5 p.m. Monday through Saturday and from noon to 5 p.m. Sunday.

For more information, call 804-236-3622 or visit <<http://vam.smv.org>> on the Internet.

Blood Drive On July 14

The American Red Cross will host a blood drive on **July 14** in Langley Research Center's H.J.E. Reid Conference Center. Langley employees, contractors and retirees are invited to participate. Civil servants should charge their time to "Excused Leave."

Future blood drives are scheduled on **Sept. 15** and **Nov. 24**. For more information, contact Connie Small at 864-2564 or <Connie.J.Small@nasa.gov>.

Bridge Club To Meet On July 14

Langley Research Center's Duplicate Bridge Club will host its monthly game at 5:30 p.m. **July 14** in the H.J.E. Reid Conference Center. Players of all levels are welcome.

Winners of the June game were: first place, tie between Sumi and Ram Prabhu and Vijaya Unnam and Tom Finley; and third place, Tim Berry and Will Johnston.

For more information, call Tom Norum at 864-7902.

LAA Covered Dish Supper July 20

Langley Research Center's Alumni Association (LAA) will hold its annual Covered Dish Supper at 5 p.m. **July 20** in the H.J.E. Reid Conference Center. (Note the date change to the third Tuesday.) Members are asked to bring their favorite dishes; beverages will be provided. For reservations or more information, call 864-7330.

J-Lab Hosting Summer Physics Fests

Jefferson Lab will host "Summer Physics Fests" from 10 a.m. to noon **July 28, Aug. 11** and **Aug. 25** in the CEBAF Center auditorium in Newport News.

The "Physics Fests," designed for families and student groups, include an interactive summary of the research conducted at the Jefferson Lab followed by the popular "Deep Freeze" and "Hot Stuff" presentations.

The presentations are free and open to the

public, but reservations are required. For reservations or more information, contact Stacy Ring at 269-7560 or <ring@jlab.org>.

Soccer Club Hosts Weekly Games

Langley Research Center's Soccer Club hosts co-ed games after work every Tuesday and Thursday. All levels are welcome; players are asked to bring a white T-shirt and a dark T-shirt for ease of team segregation.

For more information or to be added to the Soccer Club's e-mail list, contact Mahyar Malekpour at 864-1513 or visit the club's web site: <<http://larc-exchange.larc.nasa.gov/lea/soccer/>>.

Space Camp Offered At Wallops

The Virginia Space Flight Academy will host nine Space Flight Adventure Camp sessions this summer. The weeklong camps for boys and girls between the ages 12 and 15 will be offered through **Aug. 15** at NASA's Wallops Flight Facility on the Eastern Shore of Virginia.

For more information, call 866-757-7223, e-mail <spaceacademy@intercom.net> or visit the Virginia Space Flight Academy web site: <<http://www.VaSpaceFlightAcademy.org>>.

ODU Offering New Aero Course

Old Dominion University will offer the course, AE 684 "Virtual and Synthetic Environments and Applications," in the 2004 fall semester.

For more information, call the aerospace engineering department at 683-3720 or visit: <<http://www.aee.odu.edu/consortium/index.html>>.

PRESORTED STANDARD
U.S. POSTAGE PAID
NASA WASHINGTON, D.C.
PERMIT NO. G-27

News
Researcher

National Aeronautics and
Space Administration

Langley Research Center
Hampton, Virginia 23681-2199

Official Business. Penalty for Private Use \$300.



Center Snapshot

Mike Powers has worked at Langley Research Center for 19 years. He is currently assigned to the Advanced Prototype Development Section. He attended Morgan State University and Thomas Nelson Community College. In his spare time, he works with a high school basketball team. What does he like about working at Langley? "I enjoy the people I work with, and I love doing research as far as fabrication ceramic models for wind tunnel testing," he says.

Photo by Jeffrey Sykes