National Aeronautics and Space Administration, Ames Research Center, Moffett Field, CA
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Astrogram
Communication for the Information Technology Age

Utah Explorer school visit inspires young, changes lives

In early June, NASA Assistant Administrator for Legislative Affairs Lee Forsgren, Utah Governor Olene Walker and astronaut Sandy Magnus visited Wendover Junior/Senior High School in Wendover, Utah, to inspire students at the recently named NASA Explorer School to reach for their dreams.

NASA photos by Tom Trower

Utah Governor Olene Walker and Wendover High School Principal Steven Lawrence display the NASA Vision for Space Exploration plaque and miniature space-flown flag presented to them by NASA Assistant Administrator for Legislative Affairs Lee Forsgren and astronaut Sandy Magnus.

During the visit, Forsgren and Magnus spoke with students about the Vision for Space Exploration and America's destiny as explorers. They told students about NASA's stepping-stone approach to exploring the moon, Mars and beyond, how space impacts our daily lives, and how people and robots can work together in space to achieve our exploration goals.

Walker recognized students for their outstanding achievements in the past year and presented scholarships to several students as part of her Governor's Initiative on Families Today (GIFT).

"As NASA moves forward in its quest to explore Mars and beyond, it's important for us to energize and excite the next generation about the possibilities," Forsgren observed. "We must create learning environments that nurture the first human beings, from all segments of our society, who will become explorers of the universe."

The visit has had a significant impact, judging by the reactions of both the teachers and students. According to Carolyn Bushman, the NASA Explorer School program point of contact at Wendover, "some of my co-workers have had an attitude change about being a NASA Explorer School and have jumped aboard due to the visit. They told me that they did not realize what a great opportunity working with NASA was until they came. Now they can hardly wait to be involved."

She reports that students ran up to her and said "the astronaut visited our school today. Look what I got." They showed her the autographed picture of astronaut Sandy Magnus. "Before I knew it, I had seven students excitedly telling me about her visit and what had happened at school that day.

Elementary school children in Wendover received a surprise astronaut visit during the NASA Explorer School team's recent trip to their city. Here they are all smiles as they pose with their teachers, Sandy Magnus and Lee Forsgren.

It has been a while since I have seen this much excitement," Bushman concluded.

Student Rebecca Del Muro was impressed with astronaut Magnus. "I think that Sandra was a very interesting person to talk to," she said. "She talked about how she got to NASA and how

continued on page 12

O'Keefe outlines core NASA values

NASA Administrator Sean O'Keefe has announced four core values for the agency, establishing a foundation for the way NASA conducts its daily business now and in the future.

During a televised NASA Update broadcast in June from NASA Headquarters and viewed by Ames senior management and staff in the main auditorium and on monitors throughout the center, the administrator discussed how the four values pertain to the agency's mission and serve as personal codes of conduct for all employees. In doing so, O'Keefe provided an answer to questions raised about what comprises 'NASA's culture' and how it needs to be changed to improve the agency.

"We are dedicated to the values of safety, the NASA family, excellence and integrity," O'Keefe said. "We aspire to achieve these values in everything we do. We commit ourselves to the hard work ahead to realize these values. Once we achieve them, we will be vigilant in upholding them."

O'Keefe described the first value, safety, as "the price of admission in everything we do. We are committed, individually and as a team, to protecting the safety and health of the public, our partners, our people and those assets that the nation entrusts to us. Safety is the cornerstone upon which we build mission success."

The second value, the NASA family, O'Keefe said, defines what NASA does in a broader sense as a community. "We are a diverse team who are bound together in the most challenging and rewarding of endeavors. We respect each other, trust each other, support each other, mourn together, celebrate together and dream together."

The third value, excellence, according to O'Keefe, is one that everyone can relate to. "We are committed to achieving the highest standards in engineering, science, management and leadership as we pioneer the future. We thrive on new ideas, experiences and continuous learning. We are always rigorous in our operations. We demonstrate and communicate an unquenchable spirit of ingenuity and innovation."

The fourth value, integrity, O'Keefe observed, refers to the trustworthiness of all employees and the credibility of the agency. "We embrace truthfulness and trust, and have the moral courage and obligation to be open, honest and

continued on page 7

Hubbard welcomes new Deputy Director Stan Newberry

In an ebullient mood as bright as the morning sunshine, NASA Ames Center Director G. Scott Hubbard warmly welcomed Stan Newberry as his new deputy director and introduced four other new members of the Ames senior staff to center employees.

NASA photo by Tom Trower

Ames incoming Deputy Center Director Stan Newberry addresses a recent all-hands meeting.

"It's good to see you; you're a fine-looking group," Hubbard told a gathering of Ames employees assembled in the main auditorium for an all-hands meeting on May 25. Smiling broadly, Hubbard said he had " lots of good news to share with you today."

But before he shared his "good news," Hubbard said he wanted to respond to employee concerns about some of the changes that NASA is undergoing during the formation of the new Code T, Office of Exploration Systems, at NASA Headquarters.

"Be confident and stay calm," Hubbard advised. "The agency at this point is of two minds about how we address capabilities and competencies throughout the agency." He said administrators in the new Code T "believe very strongly in competition" as a means to seek out bright ideas and new technologies, while other senior officials want to retain NASA's core capabilities and to do so, they are developing a "capabilities matrix."

Hubbard said he recognized that the transition has resulted in a lot of work for Ames employees as they attempt to respond to numerous requests from NASA Headquarters for a variety of documents. While he admits the resulting workload is huge, Hubbard said the work is definitely "value added," and that it's important to be responsive to both sides of the issue.

Declaring that competition "is not a panacea; it's not a one-size fits all," Hubbard said that while it is important to understand the value of competition for learning about new ideas and innovative technologies, it's also vitally important to retain the world-class research capabilities that Ames has been developing during the past 10 years.

"That's why the capabilities matrix is so important," Hubbard said, adding that at Ames, Steve Zornetzer is leading a capabilities matrix group. He said that although the current reorganization and its accompanying workload are causing stress and turmoil throughout the agency, there also are opportunities. "I know that in chaos there is opportunity, and right now, we have a whole lot of opportunity," he said. "This is really a seminal time for the agency; we're going through a major transformation."

Turning to his "good news," Hubbard first introduced Tom Dougherty as the new assistant director for flight projects. A former chief engineer at Lockheed who recently retired after 42 years, Dougherty served as Lockheed's project manager for the Lunar Prospector mission. Dougherty also served as Lockheed's project manager for the Hubble Space Telescope corrections. In his new role at Ames, Dougherty will head a new flight project office to keep tabs on future space missions and ensure that Ames plays a significant role.

Hubbard next introduced Chuck Smith as the new chief of the Space Technology Division. Smith, who previously worked at Ames and also at the NASA Marshall Space Flight Center in Huntsville, Ala., suceeds Jim Arnold, who retired.

Hubbard then introduced two new division chiefs who were not present for the meeting. Michael D. Bicay is the new chief of the Space Science Division and Russel Kirschmann is the new chief of the Life Science Division. Bicay succeeds Don DeVincenzi and Kirschmann is filling a position that has been vacant for more than four years.

Finally, Hubbard introduced Newberry as his new deputy. Newberry succeeds G. Allen Flynt, who is returning to NASA Johnson Space Center to head the Mission Operations Directorate following one year of service as the Ames deputy director.

Newberry comes to Ames from the NASA Engineering and Safety Center (NESC), located at the Langley Research Center in Hampton, Va. At the NESC, Newberry served as manager of the Management and Technical Support Office and was instrumental in establishing the new organization and developing partnerships with experts from NASA, industry, academia and other federal agencies.

Newberry began his NASA career at the Kennedy Space Center in Florida after previously working at the Department of Defense. During his career, he also has worked at NASA Headquarters and the Johnson Space Center. In 2001, he was assigned to Colorado Springs, Colo., as NASA's representative to the Headquarters Air Force Space Command.

During his brief remarks to Ames employees, Newberry cited three themes that he said would contribute to the center's future success: focus, respect and balance. He called upon Ames employees to maintain their focus on the national Vision for Space Exploration and safety, both personal and mission related; to continue to respect each other and to maintain a good balance between their personal and professional lives.

"If we stay focused on the national vision and safety while maintaining respect for each other and balance in our lives as the transformation plans at Ames, the tasks will be monumental, but attainable," Newberry ventured.

Noting that this will be the fifth NASA installation where he has worked during his career, Newberry said he had told everyone about the pending move to Ames, except the family dog. "We'll probably just put him in the car some Sunday and start driving," Newberry quipped.

Despite all the moves during his career, Newberry said he was looking forward to working at Ames. "I'm really excited to be a part of your team and I look forward to the challenge here," he said.

BY MICHAEL MEWHINNEY

Environmental forums scheduled

The Safety Office is hosting environmental health and safety forums that will be held in Building N221, room 155 from 8:30 a.m. to 9:30 a.m. The dates and subjects of the scheduled forums are:

July 1, 2004
Disaster Assistance and Rescue Team - DART

Aug. 5, 2004
Ames recycling and composting programs

Sept. 2, 2004
Ames construction permit process

NASA and Xerox announce technology partnership

NASA and Xerox formed a new technology partnership recently in which the Stamford, Conn., company will help NASA develop state-of-the-art collaboration and knowledge management systems, while providing new tools and applications to help NASA implement the Vision for Space Exploration.

By collaborating with public companies such as Xerox, NASA will be able to save taxpayer dollars on research and development by using proven technology and expertise to advance agency missions. The collaborative effort will benefit NASA scientists and affiliates and the commercial sector through innovations that provide software solutions to large-scale problems in information management.

NASA and Xerox personnel conduct a live demonstration of the NX system.

"This joint venture combines the best software technology from NASA and Xerox," said Ames Center Director G. Scott Hubbard. "Since both partners bring new technology to the project, we will get new tools tailored specifically for NASA needs in a very cost-effective way," Hubbard said.

"Working with high-tech companies allows NASA to pursue its mission of space discovery in a more collaborative spirit, while taking advantage of the best technology the commercial sector has to offer," said Craig Steidle, NASA's associate administrator for exploration systems.

The first result of the partnership is a new system called the NX Knowledge Network. NX incorporates NASA Ames' Netmark search and recomposition software and content management with collaboration software from Xerox's global research centers. NX is already used to support collaborative research across the various missions and project teams at Ames.

One pilot application will assist researchers at the NASA Astrobiology Institute (NAI) to sort and quickly analyze data, collaborate and answer questions, such as whether organic life exists on Mars. NAI researchers use NX on a distributed basis across a dozen universities in addition to NASA Ames. NX also will enable applications to help manage project risk, investigate mishaps and analyze anomalies.

"Many of the challenges at NASA mirror those of the global commercial enterprise," said Xerox chief technology officer Herve Gallaire. "We see this as an excellent opportunity to partner two highly sophisticated technical teams to address complex, yet real-world information management problems," Gallaire said.

BY VICTORIA STEINER

NASA photos by Dominic Hart

Hérve Gallaire, the chief technology officer for Xerox, is seen here with Ames Center Director G. Scott Hubbard (right) signing the partnership agreement between NASA Ames and Xerox.

Ames' Mars airplane project to continue

NASA has given the go ahead for Ames to develop a prototype of the next generation of Mars airplane.

"On May 20, 2004, the Kitty Hawk 3 project at Ames was notified that its Mars Advanced Technology Airplane for Deployment, Operations and Recovery (MATADOR) proposal for new Mars airplane technology had been approved," said Larry Lemke, the project's principal investigator.

"The entire project team is extremely pleased and have begun the initial steps required to implement the proposal plan," said Andy Gonzales, Kitty Hawk 3 project manager.

Project team members envision two demonstration flights and a simulated survivable landing on Mars-like terrain. The first demonstration flight is tentatively planned for late summer of 2005 and the second demonstration flight is proposed for the summer of 2006. The landing tests on simulated Mars terrain are tentatively planned for the fall of 2005 or the spring of 2006.

The research will be conducted in collaboration with the Naval Research Laboratory, which develops specialized unpiloted aerial vehicles (UAVs) for the U.S. Navy. During the past eight years, Ames and the Naval Research Laboratory have worked closely together to develop Mars airplanes, according to Gonzales.

"We will be closely studying the results of current missions, such as NASA's Mars Exploration Rover (MER) and the European Space Agency's (ESA) Mars Express in order to ensure the technology we are developing will closely match the needs of future Mars missions," Lemke said.

Lemke said the MATADOR project team will implement lessons learned from two high-altitude flight tests of the previous Mars airplane 'Orville NASA 731,' conducted in August 2001 and September 2002.

"MATADOR will conduct two high-altitude flight tests and approach and landing tests in order to demonstrate that a Mars airplane can survive a landing so that acquired data can be downloaded," explained Gonzales.

"Protection of data is a key technology element that the MATADOR proposal successfully addressed," Lemke added.

BY MICHAEL MEWHINNEY

Ames' Meyyappan earns two prestigious honors

Because of his "outstanding contributions in nanotechnology," Meyya Meyyappan of Ames has earned the Flemming Award that recognizes men and women in the federal government each year. Nanotechnology is the creation of materials, devices and systems through the control of matter on the nanometer scale. A nanometer is one-billionth of a meter. Scientists say nanotechnology could lead to changes in almost everything from computers and medicine to even automobiles and spacecraft.

Meyya Meyyappan

Meyyappan, in late May, also was elected to be a fellow of the Electrochemical Society for his contributions to the modeling and diagnostics of semiconductor plasma and leadership in nanotechnology.

Meyyappan's Flemming Award is in the scientific category. This year's awards were presented in June at a ceremony on the campus of George Washington University, Washington, D.C. "Dr. Meyyappan was chosen for his outstanding contributions in nanotechnology at the Ames Research Center," said Peter Williams, president of the Arthur S. Flemming Awards Commission. "Both he and your agency are to be commended," Williams added.

"I am delighted to hear that my friend and colleague, Dr. Meyya Meyyappan, will soon receive two new honors for his achievements in the field of nanotechnology: (1) The Arthur S. Flemming Award, sponsored by the George Washington University to honor outstanding civil servants who have made significant contributions to the federal government on a sustained basis and (2), being elected as a fellow of the prestigious Electrochemical Society," Jim Arnold, the area manager for nanotechnology, University Affiliated Research Center at Moffett Field, said.

"In my opinion, the awards acknowledge his outstanding personal research and advocacy for the advancement of his field, as well as his leadership of the largest and world-leading group of nanotechnologists supported by the federal government. So, in a real way, these awards also acknowledge the work of all those involved with the Ames Center for Nanotechnology," Arnold added. He is the former division chief of Ames' Space Technology Division who was responsible for hiring Meyyappan.

Recognized by the president of the United States, agency heads and the private sector, the Flemming Award winners are selected from all areas of the federal service, according to Williams. "The awards were established in 1948 in honor of Arthur Flemming's commitment to public service throughout his distinguished career, which spanned seven decades and 11 presidencies," Williams said.

BY JOHN BLUCK

Author speaks at heritage event

NASA photo by Tom Trower

Angela Oh, author of 'Open: One Woman's Journey', was the keynote speaker at the recent Asian/Pacific American Heritage Month's celebration event held at NASA Ames in May.

Juneteenth celebration held

The Ames African-American Advisory Group (AAAG) recently hosted a Juneteenth Celebration at Ames on June 16. Juneteenth is a celebration of African-American freedom and cultural diversity. Dr. Arthur Wayne Bowman, a current professor in the biology department at Norfolk State University, gave a talk on 'Space Science and the Human Endeavor.' Bowman provided a discussion of the relationship of space science to minority populations. Immediately following his talk, there was a brief reception in the lobby of N-200.

Bowman frequently serves as an educational consultant to governmental agencies, private foundations, public school divisions and institutions of higher learning.

More information about the AAAG can be found on its Web site, which is linked to the Equal Opportunities Program Web site at: www.eo.arc.nasa.gov

NASA photo by Tom Trower

Arthur Bowman speaks at Ames' recent AAAG Juneteenth celebration.

'Hero for the planet' visits Ames

"NASA's next mission should be to planet Earth" said William McDonough at a recent lecture he presented at Ames. What do nematodes and a non-toxic, 400-watt hour / kilo battery have in common? According to renowned environmental designer McDonough, a fellow of the American Institute of Architects (FAIA), these should be the next projects for NASA Ames.

McDonough has been a pioneer in sustainable design and is considered a leader at the forefront of what he calls "the next industrial revolution." Projects that benefit mankind are his goal, and he makes a strong case for Earth sciences research. His firm, William McDonough and Partners, helped launch green building design in 1977. More recently, his collaboration with German chemist Michael Bruangart has resulted in McDonough Braungart Design Chemistry (MBDC). This firm creates new scientifically based design protocols that are revolutionizing the concepts of building design, industrial design and more importantly, radically changing the philosophical mindset of the industrial age corporation.

McDonough says that the current standard operating procedure for architectural design is to use brute force. "If a building is too hot, add energy; too dark, add energy," he says. When tough regulations are imposed, he says there is a flaw. "Regulation," he states, "is a signal of design failure." His intention is to provide a delightful, safe and healthy world with clean water and renewable power. He is a proponent of nuclear power, but his sentiment regarding man-made nuclear power is problematic at the local levels where, he says, "It is fraught with complex safety precautions and provides very little employment potential." Then, he points upward. "We have the best power plant around only 93 million miles away."

McDonough's gentle manner and soft tone belie his true nature as a tough crusader against pollution, 'eco-terrorism' and the failure of design. In fact, he speaks harshly about his own profession. In an opening address to a gathering of 10,000 architects, he was dismayed that only four could correctly identify the direction true south. McDonough believes we all need to understand the laws of nature to be better stewards of the planet. When he posed the question of locating true south to an audience at NASA Ames recently, McDonough was very pleased to see that almost everyone knew exactly which way it was. "I should hope so," he quipped.

McDonough likes to take us beyond the 'built environment.' He speaks less of how to design, than of changing the mindset of how we think about how to design. McDonough asks "How smart are we as a population that took 5,000 years to put wheels on our luggage?" He wants us to know that how we perceive the world is perhaps not as it should be. He says "We measure activity instead of legacy." As a former dean of the University of Virginia School of Architecture, he frequently draws from the writings and history of Thomas Jefferson and notes that on Jefferson's headstone is written "Author of the Declaration of American Independence of the Statute of Virginia for Religious Freedom and Father of the University of Virginia." "Can you imagine," he says, "that being president of the United States, twice, is not important enough to put on your tombstone?"

NASA photo by Dominic Hart

William McDonough makes a point during his recent lecture at Ames.

McDonough connects corporate leaders with environmental protection by speaking the language of the boardroom--money. In a restrictive, two-minute presentation at Ford Motor Company, he compared his $13 million natural plan with the $25-$48 million multiple treatment plant facility plan. They hired him. The Gap Inc. campus, located in San Bruno, was one of the first companies to create a building using 'green design' techniques. McDonough's concept came from a single thought, "Wouldn't it be great if the birds flying over thought nothing had happened?" His simple line drawing showed a curved shape topped off by a grassy roof. The building, completed in 1997, now serves as a source for native plant seeds. It employs raised floors to allow air circulation to cool the building, renewable wood furniture and five views of the outdoors for every employee. McDonough smiles as he tells of a Wall Street Journal article that claimed 'Windows that Open are Latest Office Amenity.'

Although a proponent of environmental protection, McDonough does make a distinction: he is not interested in sustainable design. Instead, he says he is working toward "fecundity," an abundance or effectiveness of use. This is not the same as efficiency. "Doing something wrong efficiently is not right," he said. "Being less bad is not the same as being good," McDonough said, adding that it is effectiveness that hits the mark. He asks us to celebrate diversity in biology because nature is very effective in its diversity. However, we do not

continued on page 7

Camarda visits Ames' arc jets

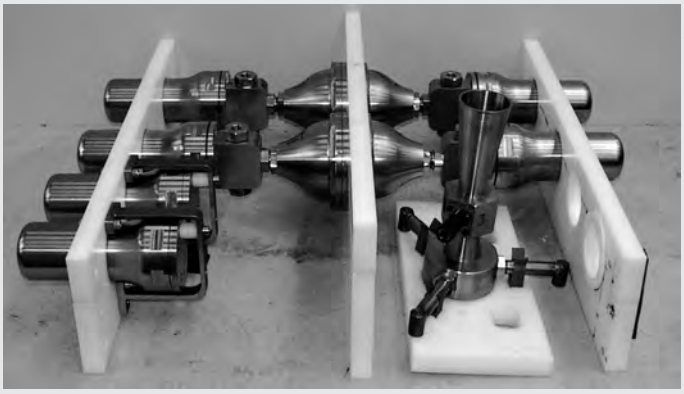
Astronaut Charles J. Camarda autographs copies of the NASA astronaut corp poster for the Thermophysics Facilities Branch arc jet crew.

In May, NASA astronaut Dr. Charles J. Camarda visited the Thermophysics Facilities Branch arc jet facility to witness tests of candidate wing-leading, edge-repair materials in support of NASA's Return to Flight program. He was at Ames for exercises at the vertical motion simulator's space shuttle simulator.

Camarda is scheduled on the next space shuttle flight, STS-114, as the mission specialist. Since Camarda will be involved in evaluating repair techniques on STS-114, he was very interested to see the testing of the wing-leading edge repair materials. The Ames arc jets are supporting JSC's RCC Repair SE&I team in this development.

NASA developing detector to discover life on other planets

Ames scientists are developing a 'life detector' to enable researchers to look for exotic life forms under a sea that may exist on Europa, a moon of Jupiter.



NASA photo

The modular design of Medusa's 'isosampler' makes the addition of sensors and other devices easy -- each element of the instrument has its own internal microcontroller, data acquisition and data storage

Scientists hope to assemble a prototype life-detection system called the 'Medusa' system by late summer at Oregon State University, Corvallis, Ore. Medusa, an instrument package about the size of a big footlocker, will 'sense' life by analyzing samples from severe environments on Earth similar to conditions on Europa, Mars and other planets in the solar system, according to Ames researchers. Small submarines will be used to carry Medusas to research sites to gather scientific data.

"Our goal is to find Earth life that exists in environments that are similar to conditions that we know exist on other planetary bodies. Identification of such life forms would help to build the case that extraterrestrial life could exist in our solar system," explained Michael Flynn, a NASA Ames scientist. "We are looking below the surface of Earth's oceans near hydrothermal vents because they could be similar to vents scientists theorize may be under an ice-covered ocean on Europa." A hydrothermal vent is a hole in the ocean floor where hot liquids, often containing minerals and gases, rise from subsurface magma.

The study of life in extreme environments on Earth provides important facts that scientists can use in the search for extraterrestrial life. Investigators believe that the ultimate source of energy for all known life forms on Earth comes from the sun. Scientists believe, however, that for life to exist much farther away from the sun than Earth in places with thick ice crusts, such as Europa, life would need other sources of energy.

Sunshine by itself is not enough to support life on Europa, according to Flynn. If scientists can find a terrestrial example of a life form that lives on energy completely decoupled from the sun, the case for life on Europa would be greatly strengthened, observed Flynn.

Some scientists theorize that one environment that might foster life, independent of the sun, is in the deep subsurface of Earth. This underground environment may contain organisms that exist solely on chemical energy that comes from off-gassing magma. Hydrothermal vents may be openings into the subsurface community of life, or 'biosphere,' Flynn said. "The goal of our work is to develop an instrument capable of testing this hypothesis," Flynn explained.

The Medusa system can monitor chemistry and biology in remote, harsh places. This instrument package can collect and store samples. Medusa carries its own on-board power, data storage and processing and communications, as well as sensors to measure temperature and flow.

Medusa also contains a flow-through spectral chemical sensor. This instrument uses 'spectral analysis' to examine light coming from samples. A spectrograph in Medusa sees unique light combinations that come from objects to identify them just as unique fingerprints identify persons. Color combinations also can reveal various chemicals and conditions. A sample injected with a dye will emit a color that indicates which chemicals are present.

In addition, Medusa includes an instrument that measures how much carbon 12 and carbon 13 are in gases coming from undersea vents to find out if living things have used these gases. The presence of these gases provides scientists with clues that life might exist at a particular site. A third major instrument aboard Medusa looks for the natural glow, or fluorescence, emitted by all living things when light strikes them. Each life form has a fluorescent 'fingerprint' that scientists can use to identify it as an organism.

In the near future, NASA is planning to use fully equipped Medusa systems to explore extreme undersea and other environments on Earth, seeking unknown life forms, according to Flynn.

Images related to Medusa are available on the Internet at: http://amesnews.arc.nasa.gov/releases/2004/medusa/medusa.html

BY JOHN BLUCK

Summer interns bring youth, enthusiasm

NASA photo by Dominic Hart

Forty-seven interns from five NASA higher education summer programs: the Undergraduate Student Research Program (USRP); the NASA Minority University Research Education Program (MUREP); the American Association for the Advancement of Science - Project ACCESS Program; the Ohlone College Internship Program; and the Ames Free Flight Program. All are photographed above with their Ames' mentors and with the Office of Education Staff, Donald James, education director, and Brenda Collins, higher education officer. The interns are at Ames for 10-weeks conducting research and scientific experiments.

Hero for the planet visits Ames

continued from page 5

want diversity in technology. "We should be working toward cohesive global standards to ensure that technology can be used as a nutrient. Technology products, or 'service tools' should be able to be returned to the technical metabolism," he said.

McDonough would like to see all products returned to manufacturers for reuse. In fact, by 2010, Germany will require that all vehicles be returned to the factory for reclamation. This requirement has prompted Japan to build additional factories in Germany for the manufacturing process, thus creating jobs. McDonough wants us to not only eliminate waste, but to eliminate the concept of waste by thinking of it as a nutrient. Born in Japan, raised in Hong Kong and the U.S., McDonough is knowledgeable about the Eastern sensitivity of accommodating nature in the process of life. He refers to land in China that has been farmed for 400 years and still thrives because the Chinese understand how nutrients flow.

One of the ways that McDonough and his firm have raised the bar for other designers is through industrial design changes. When the trimmings from upholstery fabric manufactured in Switzerland were considered hazardous waste, a company turned to him for a solution. His staff went to work to analyze over 8000 chemicals used in the process. Using a "children's health" benchmark, they eliminated all but 38 chemicals. When the new textiles were created, they were so good that the trimmings are now being used as garden mulch. McDonough is also proud of the fact that water coming out of the mill is now cleaner than that going in.

McDonough's latest innovative design is in the form of a book 'Cradle To Cradle: Remaking the Way We Make Things.' Written with Michael Braungart, the book itself is actually a 'treeless' synthetic made from plastic resins and inorganic fillers. It is waterproof, rugged and can be recycled. According to McDonough, the cradle to cradle philosophies are being adopted in China and Madrid.

McDonough spoke to a standing-room-only audience at Ames in April. He was asked where he thinks NASA should be going. "Look at the systems of this planet first while we develop our wanderlust," he said, "I could easily imagine 'mission to planet Earth.'" He then asked, "Could you [develop] a battery… a non-toxic, 400-watt hour / kilo battery, please? We need it here urgently; and then [you can] take it to space."

McDonough commented about eliminating the need for fossil fuels by sharing the history of OPEC pricing and how each time funding for alternative energy sources are secured, the price of oil is dropped. He noted that this has happened three times. He doesn't think America needs an oil shortage to change this dependence on oil. He is not optimistic about hydrogen as a future fuel, but rather wants more focus on solar power. This would give cars all the range we ever want. "We should be transforming into non-toxic, solar-powered electric vehicles as fast as we can." What is needed in the future are more three to five year "defined life" cars that can be easily and quickly transformed into the new protocol instead of 20-year vehicles with lots of toxic materials.

Another project that he thinks would benefit mankind would be the re-car-

continued on page 10

Administrator outlines core values

continued from front page

ethical in all that we do. We treat everyone with dignity and respect. We recognize our responsibility and are accountable for the important work entrusted to us to better our society for future generations."

During his presentation and a question-and-answer session that followed, O'Keefe stressed that the four core values were chosen as part of a collective effort. "These were not written by a committee," O'Keefe said. Instead, he said the values were arrived at following completion of an agency-wide employee survey and after several months of discussion.

The key to achieving successful implementation of the core values, O'Keefe noted, is to have open and clear lines of communication at all times and to have "rigorously informed decisions." He said employees should have a personal sense of responsibility to ensure that the core values are followed every day in everything they do "from the moment they wake up to the time when they go to sleep."

By following these core values, O'Keefe concluded, NASA will achieve mission success in its journey of exploration and discovery.

BY MICHAEL MEWHINNEY

Spring Fun Run draws Ames' health enthusiasts

The annual 'Spring Fun Run and Walk' was held in May at Ames. Many onsite staff members participated in this fun event. Entrants covered a 2-mile course, weaving their way around the center. Here they bunch up on the line, eager to get off to a fast start.

NASA photo by Tom Trower

Length of Service Awards 2004 ceremony held at Ames

The Length of Service Awards Ceremony 2004 was held in June. Employees who reached an accrued 25 years or more of federal service between July 1, 2003 and June 30, 2004 were honored.

Special recognition was paid to 10 Ames employees who reached their 40, 45 and 50 years of federal service milestone.

40 Years of Federal Service
Charles R. Castellano
Benny Chin
Thomas J. Coakley
Bonnie P. Dalton
Gerd Kanning
George Meyer
Kazuko J. Nozaki
Ruben Ramos

45 Years of Federal Service
Luigi S. Cicolani (Retired)

50 Years of Federal Service
David A. Stewart

Code J - Office of the Director of Center Operations

25 Years of Service
Richard W. Anderson
Robert L. Bilikas
Carol A. Dones
Barbara A. Drake
Patricia B. Hudson
Lana J. Jones-Clemon
Jill Willard

30 Years of Service
Carlos R. Brown
Joanne A. Comstock
Tice F. Deyoung
Marvin D. Feil
Kline W. Gidcumb (Retired)
Thomas J. Kolis
Robert S. Munoz
Paul A. Pinaula

35 Years of Service
Munro G. Dearing III
Joseph R. Gippetti
Gustave Gold
Nancy L. Johnson

40 Years of Service
Kazuko J. Nozaki

Code A - Office of the Director of Aerospace

25 Years of Service
Cecil W. Acree Jr.
Michael R. Dudley
Jolen Flores
Edward B. Irby
Robert A. Jacobsen
Wayne T. Momii
Dale R. Satran (Retired)
Kuo-Chuan Shih (Retired)
William G. Warmbrodt

30 Years of Service
Mark D. Betzina
Daniel C. Dugan
Dennis Johnson (Retired)
Mark S. Mc Glaughlin
Daniel J. Rendon
Edward T. Schairer
Thomas K. Timbal
Francisco J. Torres
George P. Wong
David M. Yaste

35 Years of Service
Judy E. Choate
Joe R. Paz Jr. (Retired)

40 Years of Service
Thomas J. Coakley
Gerd Kanning
George Meyer

45 Years of Service
Luigi S. Cicolani (Retired)

50 Years of Service
David A. Stewart

Code I - Office of the Director of Information Sciences and Technology

25 Years of Service
Robert K. Dismukes
Francis Y. Enomoto
Thomas H. Pulliam
Trent J. Thrush

30 Years of Service
Christopher A. Leidich
Joseph E. Peddecord

35 Years of Service
Irving C. Statler

Code D - Office of the Director

25 Years of Service
J. Victor Lebacqz
David Morrison
Maria Triarsi

30 Years of Service
John J. Coy

Code E - Office of the Director of External Relations and Development

30 Years of Service
Roger L. Brimmer

40 Years of Service
Charles R. Castellano

Code F - Office of the Director of Research and Development Services

25 Years of Service
Clyde A. Best (Retired)
Kevin J. Carey
Szuchuan Chang
Paul R. Fusco
George H. Hopf-Lovette
Nelson T. Hsu
Phil M. Luna
Carmen F. Park
Raymond F. Schuler
James M. Strong

30 Years of Service
David B. Ackard
James J. Hanratty
Ronald E. Mancini (Retired)
Gary J. Parola
Dennis J. Romano
Lawrence R. Whiteside

35 Years of Service
John L. Holmberg
LeGrand E. Morgan
Gerald Temple
Felipe Ugale

Length of Service Awards 2004 ceremony held at Ames

Code S - Office of the Director of Astrobiology and Space Research

25 Years of Service
Marc M. Cohen
Jeffrey N. Cuzzi
Donald B. Herlth
Harry W. Jones Jr.
Nans Kunz
Lawrence G. Lemke
Kent C. Shiffer
Charles K. Sobeck
Robert L. Walker

30 Years of Service
Craig R. McCreight
Fredric R. Van Wert

35 Years of Service
Barbara L. McCalment

40 Years of Service
Benny Chin
Bonnie P. Dalton
Ruben Ramos

Code C - Office of the Chief Financial Officer

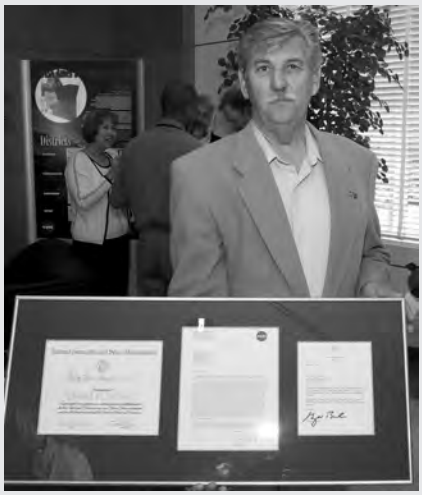
25 Years of Service
Daniel A. Heacock
Maxima F. Torres

Code Q - Office of the Director of Safety, Environmental and Mission Assurance

35 Years of Service
Edgar O. Beatty
Robert J. Navarro

Code H - Office of the Director of Human Capital

30 Years of Service
Maureen Y. Sarjeant



NASA photo by Dominic Hart

David Stewart with the 50-year federal service award recently presented to him at the service award ceremony held at Ames.

NASA computer scientists integrate complex info systems

Government agencies face significant challenges in developing new information management tools that capture every user and operational requirement. Often, these new systems need to integrate with legacy systems, and other systems based on different enterprise architectures that typically consist of different hardware and operating systems. The resulting mismatch makes it difficult to exchange information between systems easily.

NASA information technology systems are no exception. One such system used by the agency, Erasmus, is the agency-wide program management system used by most NASA programs. Erasmus provides project managers, program managers, theme directors and associate administrators with an information systems tool that supports the management accountability and performance measurement process. Projects and programs can be sorted and viewed by enterprise, project type, theme, stoplight status or many other parameters.

The Erasmus system is updated monthly to include key accomplishments, top issues, reserves status, risk matrix, estimate to complete, quality and performance indicators and human capital assessment schedule status. Although this system is good at showing the big picture, it does not necessarily accommodate each and every program's management software requirements needs.

To manage a wide variety of complex technology research projects and products, the Engineering for Complex Systems program (ECS) developed an information management system called PMT (Program Management Tool). PMT provides the ECS program a high level of granularity in monitoring all aspects of its research milestone progress.

"ERASMUS is a very good strategic management tool for the agency, but we developed PMT to provide a finer level of granularity to our management processes," said David Maluf, principle investigator for the PMT. PMT is a robust, Java 2 Enterprise Edition (J2EE) - based system utilizing the latest Internet technologies and protocols. Thus, to support both program and agency requirements, ECS is required to periodically synchronize the information between systems. This synchronization process is very time consuming, and does not allow managers to make decisions with real-time data.

As a result, Maluf and integration architect and lead developer Jason Duley, in conjunction with Erasmus developers Brett Lewinski and Ken'yon West, developed an integration architecture to connect PMT and ERASMUS using Web services.

"Previously, low-level programming methods were required to implement this distributed-processing model. With Web services, communication and transactions are facilitated using universally-understood XML over HTTP." said Duley, who works in the Aerospace ExtraNet Information Laboratory (AEN Lab) at Ames.

This 'government to government' system provides for seamless, automated, Web-based updates between the two information-management systems. As a result, workloads and error rates have been reduced, helping the agency achieve efficiency goals set by the Office of Management and Budgets (OMB).

"At a more abstract level, the architecture that we have developed facilitates data synchronization between large, complex data management systems. This is the same challenge that faces many commercial organizations today. How do we develop new tools to meet current and future organizational challenges while maintaining connectivity with current or even legacy systems? Our efforts in developing government to government integration architectures, much like companies develop business to business systems, is paying large dividends," said Maluf.

BY JASON DULEY

Safety and health continuous improvement goals for 2004

All participants in the OSHA Voluntary Protection Program (VPP) are striving to continually improve their safety and health program. Nowhere is that more evident than here at NASA Ames.

Recently, Ames Center Director, G. Scott Hubbard signed off on the continuous improvement goals for 2004 that were created by the Ames Federal Employees Union (AFEU) and the 10 directorates. These goals reflect the four elements of VPP.

Goal 1: Improve the safety culture at Ames
-- VPP element: management leadership and employee involvement

Goal 2: Increase awareness of potential hazards
-- VPP element: worksite analysis

Goal 3: Reduce hazards
--VPP element: hazard control and prevention

Goal 4: Improve safety and health communication
-- VPP element: safety and health training

You can help the center achieve these goals by:

• Participating in centerwide or directorate safety committees;

• Nominating a co-worker whose actions, behavior and/or job performance go above and beyond the call of duty and result in improved health and safety conditions at the center. Nomination forms can be found on the Ames Safety Awards Program (ASAP) Web page at http://q/qh;

• Contribute to the close call/hazard reporting program by reporting any close call or hazard you may see at http://closecall;

• Volunteer to participate on a monthly facility inspection with your supervisor;

• Submit your safety suggestions by choosing Safety Suggestion Committee Web page at http://q/qh or e-mail them to slomas@mail.arc.nasa.gov; and

• Participate in the centerwide Performance Evaluation Profile (PEP) survey later this year.

There are additional specific actions related to each of these goals. They are available on the VPP Web page at http://q/qh.

Center transitions to new Ames Management System

Nearly all of Ames' civil servant managers have completed their training in the new Ames Management System (AMS). Beginning in FY04, the AMS, based on existing Ames directives, replaced the ISO 9000:1994 Quality System formerly used by the center and currently used across the agency.

Unlike that system, the AMS is homegrown and has been created, at the center director's request, to describe the way in which the center should be managed, without unnecessary documents or controls. Headquarters' Code OJ is watching Ames' implementation of the AMS with interest, as Ames is the first center to develop a new management tool customized to its research environment.

Ames' executive council has developed six center-level metrics and objectives (CLeMOs) to communicate key desired outcomes of center activities. These objectives will help Ames meet its assigned mission in the agency and strengthen customer focus. The center-wide performance metrics are tied to the Ames' Center Implementation Plan (CIP) goals for this year. The metrics will provide senior management with benchmarks for evaluating Ames' performance and identifying areas for process improvements. They also will provide a basis for tactical and strategic decision-making. In addition to this center-level effort, each directorate and division has written a formal profile detailing the organization's function, objectives, products/services, customers and metrics.

The Executive Council will review the AMS at least quarterly to ensure its continuing suitability, adequacy and effectiveness. An internal assessment took place June. An external assessment, performed by our former ISO registrar DNV, will return at the end of September to conduct a final FY04 external assessment. Managers interviewed during these assessments will have the opportunity to talk about their organizations' objectives, customers' satisfaction and the metrics used to track that Ames work is consistently well done.

For more information about the AMS, check out the Web site at http://ams.arc.nasa.gov

'Hero for the Planet' visits Ames

continued from page 7

bonization of soils. Pesticide use has increased because nematodes are coming to the surface of the soil to feed on plant roots and "…then we have to poison them, which poisons us."

One concept to promote radical change came because of his book. After reading the book, the head of Innovation and Pollution Prevention at the Environmental Protection Agency called McDonough and said he had just finished reading it and looked up at the box it came in. He asked McDonough if he could solve the problem of packaging. McDonough said no, but he had an idea. "Let's create a Cradle To Cradle Challenge to design packaging that doesn't require regulation." The idea turned into a competition ultimately won by Microsoft. He thinks that design challenges work much better than regulation that causes everything to freeze while people talk.

In 1996, President Clinton presented him with the Presidential Award for Sustainable Development. Time magazine recognized McDonough in 1999 as a 'Hero for the Planet' because of his unified philosophy that is changing the design of the world. This year he received the award for the Presidential Green Chemistry Design Challenge from the U.S. Environmental Protection Agency. McDonough's concerns and efforts are clearly centered on Terra Firma. He is not alone. Lennard Fisk, chairman of the National Academy of Sciences' Space Studies Board, said NASA "should not falter" on its responsibility to provide data for policymakers and the public on "how to be good stewards" of the Earth.

By Ola Marra Cook

NASA research, technology featured at air and space show

NASA's cutting-edge research in information technology, aeronautics and space science was featured at the 2004 Air and Space Show at Moffett Field on May 29-30. Over 100,000 visitors attended the event.

"The 2004 Air and Space Show at Moffett Field offered NASA an extraordinary opportunity to promote our mission in information technology and aeronautics," said Ames Center Director G. Scott Hubbard. "We were delighted to be a participant in this exciting event that gives our friends in the neighboring communities the opportunity to view our exhibits of cutting-edge research and technology."

Housed in a large tent adjacent to historic Hangar One, the 16,000-square foot NASA display featured a variety of exhibits highlighting new and emerging technologies. NASA Ames' information technology displays highlighted advances made by applying the latest techniques in digital technology to real-world problems and situations.

NASA photo by Tom Trower

Visitors explore offerings in the NASA display tent at the recent Air and Space Show held at Moffett.

NASA Ames' exhibits were organized around four themes: 'All About Ames;' 'Life on Earth;' 'Living in Space and on Other Planets;' and 'Exploring the Universe' in support of the national Vision for Space Exploration.

In the 'All About Ames' exhibit, visitors learned about the history of NASA Ames and its current mission in research and development. Visitors also learned about the future of Ames and the development of NASA Research Park, a dynamic research and development campus at Moffett Field.

The 'Life on Earth' section's exhibits showed how NASA's research and technology benefit people on Earth every day. Exhibits included information about local environmental monitoring, technology spin-offs and NASA's work in aeronautics.

In the 'Living and Working in Space' section, exhibits showed how people will live and work in future space craft and on other planets. Information about Ames' Space Station Biological Research Project was featured and a space suit was on display.

Exhibits in the 'Exploring the Universe' section showcased the role that Ames has played in space exploration missions and plans for future space exploration activities. Exhibits included information about Lunar Prospector, the Stratospheric Observatory for Infrared Astronomy (SOFIA) and a 'rover rink' with models of robotic rovers designed to explore other planets. There also were exhibits about astrobiology, the study of the origin, evolution, distribution and future of life in the universe.

Other displays featured in the NASA space exploration exhibit included a cockpit display of traffic information that provides pilots with a detailed, 3-D display of the weather and air traffic in their vicinity; a display of an autogenic feedback training exercise that teaches people how to monitor and control physiological responses in high-stress environments; 3-D audio that helps pilots hear better over their headsets; and fatigue countermeasures that help pilots and others deal with the effects of sleep loss and jet lag.

This year, the Air and Space Show featured the U.S. Air Force Thunderbirds precision jet team, the first time this elite group has performed at Moffett Field in 16 years. Established in 1953, the Thunderbirds are comprised of six red, white and blue F-16 aircraft and are renowned for their precision aerial maneuvers.

In addition to the Thunderbirds' performance, spectators this year also were able to see some of the top military jet teams and civilian stunt pilots in the country, including:

- F-15 Eagle demonstration of the world's most superior air-to-air fighter;
- Air Force 'heritage flight' featuring the F-15 alongside a P-51 Mustang;
- World-renowned wing walker Theresa Stokes and pilot Gene Soucy;
- Learjet aerobatics by Bobby Younkin;
- Steve Coan in the world's fastest self-launching sailplane;
- Dazzling aerial rolls and spins by Sean DeRosier; and
- High-speed jet aerobatics by the Patriots L-39 jet team.

Besides the aviation action in the sky, spectators also were able to view more than 20 military and civilian aircraft on display, including a walk inside NASA's 747 space shuttle transport. Modern fighters like the F-15 also were on display, along with various support aircraft, including the KC-135 air-to-air refueler.

NASA photo by Tom Trower

A variety of static aircraft displays drew enthusiastic crowds.

NASA photo by Steve Arimura

The Air Force's Thunderbirds soar during one of their performances in the skies over NASA Ames.

BY MICHAEL MEWHINNEY

Ames Safety Awards Program (ASAP) II

-- First trimester awards presented

Under the Ames Safety Awards Program (ASAP) II, the center recognized 75 employees for their outstanding accomplishments in improving health and safety. ASAP II was established to recognize employee actions, behavior and / or job performance that result in improved health and safety conditions at the center.

There are four levels of awards, tier four being the highest level of achievement. The ASAP II board evaluates each nomination and selects the tier level that most represents the actions and accomplishments of that nomination.

A team of nine individuals received the highest team award. The team was recognized for its proactive effort to investigate and review the initial engineering assumptions and the evolution of programmatic requirements during the design and fabrication of the SOFIA cavity door.

Tier Level 3 – Team awards
SOFIA Cavity Door Independent Assessment Team:
Dan Bufton, Stephen Smith, Joseph Saco, Mike Snow, Kuo-Chuan Shih, Mike Ernst Clifton Horne, Michael Frank and Donald Mendoza

Tier Level 2 – Individual awards
Julie Nottage

Tier Level 2 – Team awards
Guard on the Air Handler in N239:
Gerald Baldwin, Jesse Ugto and Jaime Ugto

Visibility for vehicles leaving the 9 X 7
Dan Bufton, Mike Weiss and John Steen

SOFIA Upper Rigid Door:
Fred Martwick and Dave Ackard

Tier Level 1 – Individual awards
Danny Garo, Dora Herrera, Tom Spalding, Ruth Mariner and Tom Bilikas

Tier Level 1 – Team awards
SOFIA Cavity Door Systems:
Douglas Krause, Gary Buob, Garret Nakashiki, Gary Parola, Jim Lesko, John Torres, Marty Galinski, Ron Hovland, Fred Martwick, Terry Bland, Tom Gilbertson, Gary Hallock, Felipe Ugale, Jim Govorko, Bob Lockyer, Ed Anstey, Michael Henschke and Steve Spitzer

Dust concerns in N239:
Karen Bunn, Jefferson Johnson, Stanton Hardy and David Lesberg

Safety Training for new employees/students
Karen Bunn, Christopher McKay, Jeffrey Cuzzi and David Summers

SOFIA Cavity Door Work Product Team:
Bill Caldwell, Jeff Brown, Paul Fusco, Jeff Blair, Mike Ospring, Adel Belous, John Perry, Ken Hamm, Owen Nishioka, Cliff Sicht, Ian Fernanadez, Carl Kruger, Glen Sasaki, Phil Ford, Dave Jordan, Dave Howe, Gary French, Ted Price, Larry Bisbee, Mike Henschke, James Baltz, Greg Williams, Dick Daily, Bruce Marshall, Ron Kruger and John Luu.

Each of these employees and teams was nominated by their colleagues for their outstanding actions and accomplishments in improving health and safety conditions at Ames.

Utah school visit inspires young

continued from front page

State Senator Leonard Blackham (Utah District 24), front row far right, joins Lee Forsgren and astronaut Sandy Magnus in applauding Utah Governor Olene Walker's recent address to high school students in Wendover while, in the second row, Jared Perry, special assistant to U.S. Senator Robert Bennett, and John Tanner, staffer to U.S. Congressman Rob Bishop, look on.

much work it took for her to reach her dreams. I think that if anyone wants to join NASA, they have to work real hard to get what they want. I think that NASA is a very interesting program. If I could be an astronaut like her, I would be proud of myself."

"When I was like in sixth grade, I thought that NASA was just a program that only the rich people could be in. But now I realize that it could benefit anyone who wants to be in NASA. If you really get to know NASA very well like me, you'll be more curious about astronauts and space," she observed

Bushman continued, "my students' faces light up when I mention NASA's visit and the astronaut. This week when we heard about the chance to join in on the JASON project, I was concerned about the cost, but my district was willing to support us. I know that is because of the NASA Explorer School grant. I thank NASA for allowing my school to have this opportunity -- to change my students lives, as well as my own," she said.

"I think the NASA program was cool because it taught me an important lesson -- always stay in school and try your best at everything," said student Mario Munoz. "I never did care about school until Sandra Magnus told me you can accomplish everything you want if you stay in school. I don't want to be an astronaut, but they gave me a vision of space and how they study planets. The NASA program was the best out of all of them. That's my opinion."

"The astronaut assembly was very interesting, especially when the astronaut, Sandra Magnus, started talking about the space shuttle launch off and her experiences in space. This made me wonder about what a wonderful adventure it would be to be an astronaut, to be in space, to see the Earth, the stars, and especially to go explore and learn new things," said student Jose Trujillo. "It's all up to this generation to make this dream of exploring the mysterious space possible. This gave you a sense of pride to try hard in school, to make this dream possible."

For information about the NASA Explorer Schools Program, visit: http://explorerschools.nasa.gov

For more information about the Vision for Space Exploration, visit: http://www.nasa.gov/missions/solarsystem/bush_vision.html

BY DAVID MORSE

Sunnyvale festival draws crowds to NASA exhibit

NASA photos by Astrid Terlep

NASA photo by Terry Pagaduan

Thousands flocked to the NASA tent and its exhibits on display at the recent Sunnyvale Art and Wine Festival.

Ames hosts town hall meeting on cultural change at NASA

James L. Jennings, associate deputy administrator for institutions and asset management, joined with several other agency leaders recently to present information and discuss the objectives of the NASA culture change efforts. There was also a question-and-answer session at the end of the town hall meeting.

As a result of the CAIB and related activities, NASA established the objective of completely transforming its organizational and safety culture. In February of this year, a safety climate and culture survey was conducted to assist NASA in the development and implementation of a plan for changing the safety climate and culture agency-wide. The results of that survey are serving as the basis for the development and deployment of an organizational culture change initiative within NASA, with an emphasis on safety climate and culture.

The culture change effort serves as an integration point to ensure that the agency's ongoing efforts related to culture change are aligned in a manner conducive to a comprehensive culture change. NASA and Ames senior leaders are fully committed to driving this effort and to communicating with the entire workforce throughout the duration of this effort.

NASA photo by Tom Trower

James Jennings, associate deputy administrator for institutions and asset management, is seen here (second from right) at the recent town hall meeting at NASA Ames. Ames Center Director G. Scott Hubbard is on the far right.

Events Calendar

Ames Amateur Radio Club, third Thursday of each month, 12 noon, N-T28 (across from N-255). POC: Michael Wright, KG6BFK, at ext. 4-6262.

Ames Ballroom Dance Club. Classes on Tuesdays. Beginning classes meet at 6:15 p.m. Higher-level class meets at 5:15 p.m. Held in Bldg. 944, the Rec. Center. POC: Helen Hwang, hwang@dm1.arc.nasa.gov, 4-1368.

Ames Bowling League, Palo Alto Bowl on Tuesday nights. Seeking full-time bowlers and substitutes. Questions to sign up: Mike Liu at ext. 4-1132.

Ames Child Care Center Board of Directors Mtg, every other Thursday (check Web site for meeting dates: http://accc.arc.nasa.gov), 12 noon to 1:30 p.m., N-210, Rm. 205. POC: Cheryl Quinn, ext 4-5793.

Ames Contractor Council Mtg, first Wednesday each month, 11 a.m., N-200, Comm. Rm. POC: Anita Fogtman, ext. 4-4432.

Ames Diabetics (AAD), 1st & 3rd Weds, 12 noon to 1 p.m., at Ames Mega Bites, Sun room. Support group discusses news affecting diabetics. POC: Bob Mohlenhoff, ext. 4-2523/e-mail at: bmohlenhoff@mail.arc.nasa.gov.

Ames Federal Employees Union (AFEU) Mtg, third Wednesday of ea. month, 12 p.m. to 1 p.m., Bldg. 221, Rm 104. Guests welcome. Info at: http://www.afeu.org. POC: Marianne Mosher, ext. 4-4055.

Ames Mac Support Group Mtg, third Tuesday of ea. month, 11:30 a.m.to 1 p.m., Bldg. N262, Rm 180. POC: Julie ext. 4-4694 or Tony ext. 4-0340.

Ames Model Aircraft Club, flying radio-controlled aircraft at the north end of Parsons Ave. on weekend mornings. POC: Mark Sumich, ext. 4-6193.

Ames Sailing Club Mtg, second Thursday of ea. month (Feb through Nov), from 11.30 a.m. -1 p.m. in the special events room in the Ames Visitor Center in N-223. All are welcome. POC: Jeff Smith, ext. 4-2586.

Environmental, Health and Safety Information Forum, first Thursday of each month, 8:30 a.m. to 9:30 a.m., Bldg. 221/Rm 155. URL: http://q.arc.nasa.gov/qe/events/EHSseries/ POC: Stacy St. Louis at ext. 4-6810.

The Hispanic Advisory Committee for Excellence HACE Mtg, first Thurs of month in N255 room 101C from 11:45 a.m. to 12:45 p.m. POC: Eric Kristich at ext. 4-5137 and Mark Leon at ext. 4-6498.

Jetstream Toastmasters, Mondays, 12 p.m. to 1 p.m., N-269/Rm.179. POC: Becky Brondos at ext. 4-1959, bbrondos@mail.arc.nasa.gov or Bob Hilton at ext. 4-1783, bhilton@mail.arc.nasa.gov.

Nat'l Association of Retired Federal Employees, (NARFE). Former and current federal employees. Your only contact with Congress. Join to protect your federal retirement. Chptr #50 meets the first Fri. of each month at HomeTown Buffet, 2670 El Camino (at Kiely), S. Clara, 11 a.m. lunch. POC Earl Keener (408) 241-4459 or NARFE 1-800-627-3394.

Native American Advisory Committee Mtg, fourth Tues each month, 12 noon to 1 p.m., Bldg. 19, Rm 1096. POC: Mike Liu at ext. 4-1132.

Astronaut Voss visits Bay area

Astronaut Janice Voss visited NASA Ames and Saratoga Elementary School in May and provided

NASA photo by Dominic Hart

Astronaut Janice Voss during a recent visit to Saratoga Elementary School.

interviews while visiting the Space Station Imagination exhibit that was open to the public from May 18 to June 8.

Voss holds a master of science degree in electrical engineering and a doctorate in aeronautics / astronautics from the Massachusetts Institute of Technology. Voss became an astronaut in 1991 and is qualified for flight assignment as a mission specialist. She served aboard STS-57 in 1993, STS-63 in 1995, STS-83 and STS-94 in 1997 and STS-99 in 2000. Voss is a veteran of five space flights and has logged more than 49 days in space, traveling 18.8 million miles in 779 Earth orbits.

Osheroff presents colloquium

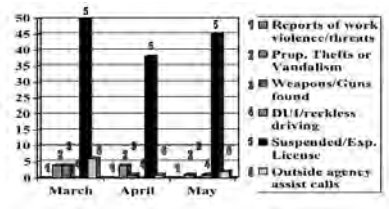
NASA photo by Tom Trower

Professor Douglas Osheroff from Stanford presented a Director's colloquium in June. The title of his colloquium was 'The Discovery of Superfluidity in Helium-3 as Seen Through the Eyes of a Graduate Student.' This was his Nobel lecture, which described the serendipitous discovery of superfluidity in helium-3, which he made during his 5th year of graduate study at Cornell University. Osheroff also served recently as a member of the Columbia Accident Investigation Board.

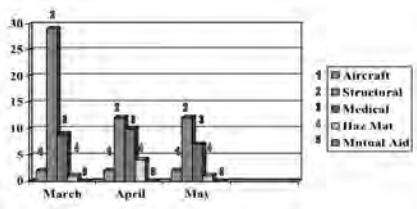
Protective Services monthly activity

A statistical summary of activities of the Protective Services Division's Security / Law Enforcement and Fire Protection Services units for the month of May 2004 is shown below.

Security/Law Enforcement Activity



Fire Protection Activity



Ames Classifieds

Ads for the next issue should be sent to *astrogram@mail.arc.nasa.gov* and must be resubmitted for each issue. Ads must involve personal needs or items; (no commercial/third-party ads) and will run on a space-available basis only. First-time ads are given priority. Ads must include home phone numbers; Ames extensions and email addresses will be accepted for carpool and lost and found ads only. Due to the volume of material received, we are unable to verify the accuracy of the statements made in the ads. Caveat emptor!

Housing

2bd/1ba house w/one car garage for rent in Sunnyvale (355 N. Murphy Avenue). Large, bright kitchen, fridge, stove, dishwash., W/D. All new bathrm, partial hardwd floors. Beautiful, peaceful yard w/a generous gazebo, extra storage, includes gardner service. Close to highways. N/S. Pets negot. Dep. $1,500, rent $1,450 mo. Photos: http://f2.pg.photos.yahoo.com/ph/mollywumolloy/slideshow?&.dir=/df55&.src=ph.Molly (408) 736-2690.

New hire at Ames seeking rental housing in the Mtn View area for small family, preferably 2 bdrm, small yard, dog friendly. Excellent tenants, refs available. Lease or month-to-month. Call (626) 379-9176 or e-mail shuping@astro.ucla.edu.

Room for rent in quiet Los Altos close to Ames. Share w/prof'l males/females. Large house and yard w/gardener. W/D, N/S/pets. Available now. $575/mo plus dep. and 1/4 utils. Call (650) 964-2913.

Renovated 3 bd/2 ba home for rent, San Jose/Campbell border. Bright home w/open floor plan. Newly finished hardwd floors, new wood blinds, large backyard w/new lawn, covered patio, gardener, W/D, all appliances 2-years new, one-car garage plus one parking space, water paid. 3-5 miles from Hwys. 280 and 880, ValleyFair, Santana Row, downtown Campbell and the Pruneyard. $1,800/mo. Avail. Aug. 1. Call (408) 515-8134.

Room for rent in 2bd/2full-ba house located in the Los Gatos Hills. Very nice neighborhd, 8 blocks from downtown Los Gatos. Two story house w/huge yard, deck, laundry room, new carpet. Commute is about 20 min to Ames. $825/mo plus utils. Call (408) 656-8924.

Room in 4 bd/2 ba home. Excellent, quiet Mtn View area close to Ames. W/D, microwave, wired for cable modem. Tidy person and N/S. Easy access to Ames, 85, 237 and 101. $445 plus dep. plus share utils. Avail. July 1. Call (650) 964-1900.

Safety Data

	Civil Servants	Contractors
Not recordable first aid cases	3	1
Recordable no lost time cases	2	1
Lost time cases*	0	0
Restricted duty days	0	0
Lost work days	0	0

Data above is as of 5/26/04. May be subject to slight adjustment in the event of a new case or new information regarding an existing case.

Note: Under new OSHA rules, lost time is defined as lost work days, restricted duty or job transfer.

Miscellaneous

Ames Cat Network needs help finding homes for cats trapped on Moffet Field. They range from feral to abandoned/lost pets. They've been tested, altered and inoculated. Call Iris at ext. 4-5824 if you or someone you know are interested in fostering or adopting a cat.

Ready-to-fly, 2 (XE2) gas model airplane. Flown twice; never wrecked! Airplane, all equipment needed to fly: 5 channel multi-data computer controller; manual fuel pump; 1.2v NiCad glow plug battery w/AC adapter; 12v pwr starter; 12v battery, charger; field box for equipment/tool storage. B/O. Call (408) 422-1572.

Free: One nearly new white wire bird cage for small birds. E-mail Richard at rchrdm@earthlink.net

Lanier RC model plane 1/4 Scale Kit. $25. Call (408) 847-9106 after 6:00 p.m.

Two matching glass top green tinted wrought iron end tables $50 both. Two ceramic base table lamps, not matching $25 both. Call (408) 847-9106 after 6:00 p.m.

Stepladder, 6 foot, aluminum. Used little. Call (650) 960-6827.

Moving sale at 6478 Edgemoor Way, San Jose. June 26 and 27, 10 am to 4 pm. Plants, tools, fishing stuff, and more. In the Cupertino - San Jose area. Call (408) 252-5802, machine in use.

Cab-over camper for 1/2 ton or larger pickup truck. Has tove, sink, cabinets w/wood paneling, skylight. Large bed in cab over section pulls out to king size. Lots of storage for weekend getaways. Sturdy wood construction w/alum. sheet exterior. $450 for B/O. Carol or Larry (408) 353-3478.

iBook laptop computer. 500 MHz PowerPC G3, 384 MB RAM, 256k Level 2 cache, 24x CD ROM, 15 gig drive with OSX 10.2.8. $595. Mike (408) 365-1159.

Used moving boxes, 50 or so, no charge. Donna (408) 238-6681.

Workbench, Lervad with accessories. Paid $400. Sell $275. Call (650) 960-6827.

Transportation

'82 Buick Lesabre, V8, automatic, AC, gd cond., 120K mls, orig. owner, $1,800. Fred (650) 968-5442.

'98 Dodge Diesel, quad cab pick up, loaded, tow pkg, exc. cond., 2500 slt, leather, wood grain, premium sound, sprayed in bed liner, lots of extras, 20+ mpg, 145K mls. $16,500. Call (650) 369-0578.

Astrogram deadlines

Deadline:	*Publication:*
June 28	*July 2004*
July 26	*Aug 2004*

All Ames employees are invited to submit articles relating to Ames projects and activities for publication in the *Astrogram*. When submitting stories or ads for publication, submit your material, along with any questions, in MS word by e-mail to: astrogram@mail.arc.nasa.gov on or before the deadline.

Ames emergency announcements

To hear the centerwide status recording, call (650) 604-9999 for information announcements and emergency instructions for Ames employees. You can also listen to 1700 KHz AM radio for the same information.

Exchange Information

Information about products, services and opportunities provided to the employee and contractor community by the Ames Exchange Council. Visit the web site at: http://exchange.arc.nasa.gov

Beyond Galileo N-235 (8 a.m. to 2 p.m.) ext. 4-6873

Ask about NASA customized gifts for special occasions. Make your reservations for Chase Park

Mega Bites N-235 (6 a.m. to 2 p.m.) ext. 4-5969

See daily menu at: http://exchange.arc.nasa.gov

Visitor Center Gift Shop N-943 (10 a.m. to 4:00 p.m.) ext. 4-5412

NASA logo merchandise, souvenirs, toys, gifts and educational items.

Tickets, etc...(N-235, 8 a.m. to 2 p.m.) ext. 4-6873

Check web site for discounts to local attractions, http://exchange.arc.nasa.gov and click on tickets.

NASA Lodge (N-19) 603-7100

Open 7 days a week, 7:00 a.m. to 10 p.m. Rates from $40 - $50.

Vacation Opportunities

Lake Tahoe-Squaw Valley Townhse, 3bd/2ba, balcony view, horseback riding, hiking, biking, golf, river rafting, tennis, ice skating, Equipped and more. Summer rates. Call (650) 968-4155, DBMcKellar@aol.com

South Lake Tahoe cottage w/wood fireplace, hot tub. Rates $50 to $130 per night. Call (650) 967-7659 or (650) 704-7732.

Vacation rental, Bass Lake, 4 mls south of Yosemite. 3bd/1.5 ba, TV, VCR, MW, frplc, BBQ, priv. boat dock. Sleeps 8. $1,050/wk. Call (559) 642-3600 or (650) 390-9668.

Big Sur vacation rental, secluded 4bd/2ba house in canyon setting. Fully eqpd kitchen. Access to priv. beach. Tub in patio gdn. Halfway between Carmel and Big Sur. $175/night for 2; $225 for 4 and $250 for more, plus $150 cleaning dep. Call (650) 328-4427.

Tahoe Donner vacation home, 2 bd/2ba. trees, deck, sun, fun. Access to pools, spa, golf, horseback riding, $280 wkend, $650 week. Call (408) 739-9134.

Pine Mountain Lake vacation home. Access to golf, tennis, lake, swimming, horseback riding, walk to beach. Three bedrooms/sleeps 10. $100/night. Call (408) 799-4052 or (831) 623-4054.

Incline Village: Forest Pines, Lake Tahoe condo, 3 bd/2ba, sleeps 8. Fireplace, TV/VCR/DVD, MW, W/D, jacuzzi, sauna, pool. Walk to Lake, close to ski areas. Visit Web page for pictures: http://www.ACruiseStore.com. $120/night low season, $155/night high season (holidays higher) plus $156 cleaning fee and 12% Nevada room tax. Charlie (650) 355-1873.

Disneyland area vacation rental home, 2 bd/1ba. Nearing completion completely remodeled w/new furniture. Sleeps 6 (queen bed, bunk beds, sleeper sofa). Air hockey and football tables. Introductory rate $600/wk, once completed rate will be $1000/wk. Security deposit and $100 cleaning fee required. Call (925) 846-2781.

Ski Park City Utah, NASA Ski Week XIV, Feb 5 - 12, 2005. Space is limited. For more info, e-mail Steve at e-mail exnasa@sbcglobal.net or call (408) 432-0135.

Need help with Employee Express?

Employee Express is an online service that allows NASA employees to make certain changes to their benefits and payroll information 24 hours a day, seven days a week. For example, you can use Employee Express to make changes to:

- Direct deposit amount
- Federal or State tax withholding
- Health plan
- Home address
- Savings bonds
- Thrift Savings Plan (TSP) contributions

You also can use Employee Express to view your biweekly leave and earnings statement.

NASA Headquarters has expressed the intention of making the use of Employee Express mandatory except in cases of hardship or difficulty. Ames strongly recommends that all employees use Employee Express as part of the agency's move away from paper forms.

You can learn more by attending a lunchtime demonstration of Employee Express at the Mega Bites Café (Ames cafeteria). Demonstrations are scheduled from 11 a.m. to 1:30 p.m. the third Wednesday of each month from June through November. The dates are July 21, Aug. 18, Sept. 15, Oct. 20 and Nov. 17.

Printed information about Employee Express will be available at the demonstrations, and employees will be able to sign up for PINs.

Employees also can access a new Employee Express tutorial on the Center's Human Resources Web site at http://ameshr.arc.nasa.gov/index.html. The tutorial tells you how to get a PIN, log on and use Employee Express.

Detailed information about Employee Express is available on the NASA People Web site at http://nasapeople.nasa.gov/employeebenefits/ee/

ISS visits and 'docks' at Ames

NASA photo by Tom Trower

The Space Station Imagination exhibit was at Ames and open to the public from May 18 to June 8 as part of the agency's nationwide community outreach program. The exhibit provided a glimpse of what it is like to live and work aboard this international orbiting laboratory. For more information about the Space Station Imagination exhibit, visit: http://www.jsc.nasa.gov/programs/exhibits/trailers/

Astrogram

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