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Hubbard sees bright future for NASA, Ames

While acknowledging a series of major challenges facing both NASA and Ames Research Center Director G. Scott Hubbard nonetheless provided a very positive and upbeat assessment of what the future holds for each organization in his recent 'State of the Center' address.

NASA photo by Dominic Hart

Ames Center Director G. Scott Hubbard shares a light moment with the audience during the question-and-answer portion of his recent 'State of the Center' address.

Speaking to a capacity crowd gathered in the main Ames auditorium and watching live on the center's closed circuit television system, Hubbard acknowledged that much work remains to be done. He focused his remarks around the theme of 'Visibility, Excellence and Impact,' and stressed the importance of everyone stepping up to the challenges ahead and being an active participant in getting the word out about NASA and Ames accomplishments.

"I'm concerned that Ames is a secret jewel that is largely unnoticed throughout the nation and even the region," Hubbard observed. Not nearly enough people are familiar with our critical work and important contributions, he added. Given our location in the technology-rich Silicon Valley, "it's hard to stand out in the Bay Area" for a research organization such as NASA Ames, Hubbard observed. So it is imperative that all of us become "Ames ambassadors," explaining the center's missions and major projects at every opportunity whenever we meet outside people, he challenged.

To assist in this regard, employees attending the address were given a one-page summary outlining the center's key research projects, major facilities and key facts to help them deliver the message to those people who may be unfamiliar with NASA Ames. The materials also will be available soon on the new Ames homepage at: http://www.arc.nasa.gov

"Visibility is one important key to success and institutional longevity," Hubbard offered. "We need to be more visible, so that people know what we do and the value of our contributions," he concluded. It's a joint responsibility that we must all take on, he said.

As a second important step in the process of telling the Ames story, Hubbard announced that the former Space Camp facility located near the main gate is being converted into the new Ames Visitor Center. The first major event -- to be hosted there from January through June 2004 -- will celebrate the landing of the Mars Exploration Rovers. Hubbard said that, during the missions with the cooperation of the Jet Propulsion Lab in Pasadena, Calif., NASA Ames would receive live data feeds from Mars that will be shown in the new visitor center in near-real time. "This is going to be a big hit with local communities," Hubbard predicted.

In other efforts aimed at enhancing NASA Ames' visibility, Hubbard indicated that his office has initiated talks with the officials of the California State Department of Transportation to install 17 new directional signs along Highway 101 informing motorists of how to get to 'NASA Ames Research Center,' not just Moffett Field.

Hubbard, who spent most of the early part of 2003 away from the center as the only NASA representative on the Columbia Accident Investigation Board, appeared relaxed and was clearly delighted to be back at Ames. "It was a pleasure serving on the CAIB," he said, "but there's no place like home," he quipped.

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'OneNASA' gets warm Ames reception

On Nov. 4, it was Ames' turn to host the launch of a bold new NASA concept for the future, signaling a new way of doing business for all of us.

During an all-day 'OneNASA' town hall meeting and leader-led workshop rollout at Ames, top managers from the center and visiting dignitaries and executives from NASA Headquarters and NASA's Jet Propulsion Laboratory shared their joint vision and commitment to the agency's ambitious OneNASA effort.

"OneNASA moves the entire agency in a new direction," said Ames Center Director G. Scott Hubbard, in remarks delivered at a well-attended town hall meeting in the main auditorium. "With this new initiative, we are breaking down traditional barriers within the agency in areas such as collaborating on joint research opportunities between field centers. This effort will make NASA more cutting-edge and competitive in the days ahead."

Other speakers at the town hall meeting included Mary Kicza, associate administrator for Biological and Physical Research (OBPR) at NASA Headquarters; Charles Elachi, director, Jet Propulsion Laboratory; and Johnny Stephenson, OneNASA lead for the agency.

According to Stephenson, the core OneNASA message focuses on five key concepts -- strategic collaborations between centers; linking projects and programs to NASA's strategic plan; using agency (instead of outside) resources; creating a more open, information-sharing culture; and leveraging individual center strengths for the common good. "OneNASA is not the end--but it's the means to get there," he said.

During the session, Kicza gave a top-down outline of the OBPR enterprise she heads and touted the benefits of human spaceflight, which, she said "provides an eyewitness to discovery." She also noted the important role Ames had played in her enterprise by providing ongoing fundamental space biology research over the years.

In their remarks, Hubbard and Elachi both highlighted Ames'and JPL's contrasting, yet complementary, roles in several upcoming missions, which, they said, illustrates that the OneNASA concept already has momentum (traction). In the 2007 Kepler mission, for example,

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NASA adapts miniature biological labs for use in space

A team led by a NASA Ames scientist is adapting tiny laboratories embedded in compact discs (CDs) to conduct biological tests aboard the International Space Station and to eventually look for life on other planets.

The CDs, with imbedded biological tests, are under evaluation by NASA scientists, and several academic and industrial partners. The miniature laboratories were adapted to detect life forms and chemicals derived from life. NASA's partners are Stanford University, Stanford, Calif.; Nanogen, Inc., La Jolla, Calif.; and the University of California, Irvine, Calif.

"This type of technology will enhance the International Space Station capability as a biological laboratory with greatly increased throughput and state-of-the-art techniques," said Ames Center Director G. Scott Hubbard. "Some day, this technology could allow astronauts or robots to search for life on other planets or moons," Hubbard added.

To process the CDs, the researchers adapted a suitcase-sized prototype instrument undergoing laboratory trials at NASA Ames. There are two versions of the CDs, which are about the same size as music CDs. One is plastic, similar to a standard CD, and is disposable. The other is made of glass and is reusable.

"These tiny labs on CDs allow you to do thousands of tests of biological samples quickly and in the field," said Ames scientist Michael Flynn. "On the space station, the types of tests you would do are DNA analyses," Flynn explained.

To begin a test, a scientist places a liquid sample into a small opening near the center of the CD. The researcher puts the disc in the prototype machine that spins the CD. Centrifugal force spreads the sample fluid from the center of the CD through tiny, capillary-like pipes and valves toward the outer edges of the disc and several clear observation areas.

During the journey, special dyes in the CD combine with the sample. The dyes glow when exposed to specific proteins and other chemicals, including particular portions of DNA. The instrument shines a specific color light on the specimen. If it glows in another specific color, this indicates that the specimen contains the substance the dye was designed to detect. The CD system can even sample water, and the instrument's software has image analysis capability that can discriminate between cells and debris. A microscope and digital camera built into the prototype instrument take images of the glowing test sample in the clear observation area after the disc stops spinning.

"There are already thousands of fluorescent test solutions available for conducting biological tests on bacteria, proteins, viruses and other life-related chemicals," Flynn said. "The lab-on-a-CD system allows us to automate a process that traditionally was very time-consuming and expensive."

The next step in evaluation of the prototype is to develop more tests to determine how well the device works. Eventually, researchers want to add a multi-disk changer to the instrument, so it can test several CDs.

"We have worked with many different commercial vendors and individuals to combine a variety of commercially available technologies into an integrated microgravity-compatible instrument," Flynn said. Potential spin-offs could be clinical uses in hospitals, physicians' offices and laboratories.

NASA's Fundamental Space Biology Division, Office of Biological and Physical Research (OBPR), Washington, funds this research. Images are available at: http://amesnews.arc.nasa.gov/releases/2003/03images/biolabs/biolabs.html

BY JOHN BLUCK

Rep. Lofgren addresses Ames workforce

Congresswoman Zoe Lofgren, Democratic representative for California's 16th district, San José, was the featured guest at a recent talk hosted by the Ames Federal Employee's Union (AFEU, IFPTE Local 30, representing all Ames civil servants holding non-supervisor positions).

After a brief introduction by Lee Stone, NASA Ames' AFEU vice president for legislative affairs, Lofgren addressed recent safety and credibility issues facing NASA -- in the Congress and the media -- in the wake of the Columbia tragedy and its aftermath. Despite the challenges ahead, she said that members of the House Science Committee continue to support NASA and its space exploration mission. She also said that Ames is very well regarded by the Congress, describing Ames as a "jewel of the Bay area" that is often overlooked and misunderstood, but vital to the local economy and community. She assured those in the audience that she is fully committed to Ames and its mission and will continue to work closely with colleagues from both parties to ensure continued bipartisan recognition and support of Ames' vital research work.

NASA photo by Dominic Hart

Representative Zoe Lofgren makes a point while addressing questions raised in her presentation to employees during her recent visit to NASA Ames

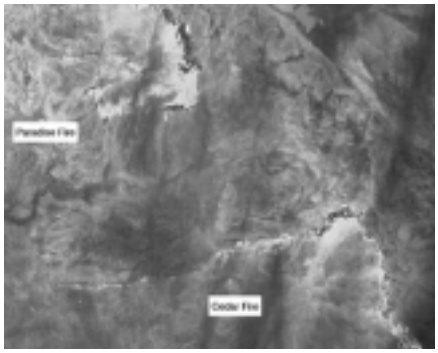
NASA ER-2 images California wildfires

A NASA ER-2 high-altitude aircraft@based at Dryden Flight Research Center acquired imagery on Oct. 28 of the extensive wildfires burning throughout southern California.

Nighttime thermal infrared data were acquired with the MASTER 50-channel multispectral scanner and processed at the Ames Airborne Sensor Facility.

The sensor facility image analysts worked through the night to create images of the numezous fires to include the massive cedar fire in San Diego County.

MASTER is capable of imaging the thermal characteristics of the fires and provides imagery of the active fire fronts. Images of the active fires can be viewed on the Ames Public Affairs Office Web site at: /amesnews.arc.nasa.gov/releases/2003/03images/wildfire/wildfire.html



Ames simulators networked to make virtual reality more real

Ames' FutureFlight Central (FFC) and Vertical Motion Simulator (VMS)facilities just made virtual reality a little more 'real' for the Kennedy Space Center. FFC is NASA's 360-degree-field-of-view airport tower simulator. The VMS is a high-fidelity motion flight simulator. Ames SimLabs' engineers have successfully networked FFC and VMS to make a truly interactive, full-immersion simulation environment. The VMS crew can now fly a vehicle and land it within the simulated environment of FFC.

A VMS orbiter lands at FFC's simulated version of the Shuttle Landing Facility at NASA Kennedy.

During a recent demonstration, the VMS flew an orbiter approach and landing at the simulated Shuttle Landing Facility at KSC. The orbiter was accurately positioned in the out-the-windows-scene of the FFC tower. An ethernet link provided voice communications between the two simulators.

This new networking ability significantly expands simulation of landing operations for both the orbiter crew and the numerous ground personnel involved in the recovery. NASA may eventually model the other orbiter landing sites so that both ground crews and controllers may train prior to a real mission.

Virtual training for landing anomalies, such as hazardous gas leakage or a medical emergency, will enhance safety at the recovery end of the mission through better preparedness.

This is a new approach that supports the agency's return-to-flight initiative. In addition, it could provide insight to future SpacePort operations at KSC or at other sites worldwide.

BY KEN CHRISTENSEN

CMU celebrates West Coast expansion

Carnegie Mellon University (CMU) celebrated the expansion of its West Coast Campus at Moffett Field with a ribbon-cutting ceremony and tour of its new headquarters in Building 23 on the historic Shenandoah Plaza on Oct. 31. The Shenandoah Plaza is adjacent to NASA Ames and is part of the 213-acre NASA Research Park the agency is developing.

"We are delighted to celebrate this ribbon cutting ceremony with Carnegie Mellon University that signals a strengthening of our collaborative relationship with this prestigious academic institution," said Center Director G. Scott Hubbard. "We congratulate our colleagues on the opening of this new Carnegie Mellon West Coast Campus at historic Shenandoa Plaza and look forward to working closely with them in the future," Hubbard added.

Ames Center Director G. Scott Hubbard speaks at the recent CMU ceremony.

Ames guests listen attentively at the recent Carnegie Mellon University ribbon-cutting ceremony.

Hubbard sees bright future for NASA, Ames

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Turning to his second theme, excellence, Hubbard said that he has established a Strategic Research Council to offer advice on strategic investment opportunities and new initiatives. Included on the six-member team are Skip Fletcher, Guenter Riegler, Estelle Condon, Dan Clancy, Peter Friedland and Steve Zornetzer. He also announced that Condon is now serving in a new capacity as associate director for space programs and projects.

On an issue of institutional concern to many, Hubbard vowed to do everything in his power to make the center's transition to full-cost accounting as painless as possible. "I know many of you are struggling" with these matters, he said, promising to offer whatever leadership he could in facilitating and easing the process.

Concluding his remarks with his third theme, impact, Hubbard pointed out that there are many exciting projects looming on the horizon for Ames, including the acquisition of a new supercomputer (the Altix 256 processor to be used in climate modeling); the Kepler project that is gearing up for an August 2007 launch; and the Strategic Observatory for Infrared Astronomy (SOFIA) that is scheduled to conduct its first test flight in the summer of 2004.

He also noted that a flight hardware glove box developed by the Space Station Biological Research Project at Ames has recently been accepted for space flight and that important progress continues to be made by the nanotechnology group at Ames, the largest of its kind in the federal government. Hubbard also acknowledged the critical research Ames is conducting in air traffic management to improve the safety and enhance the capacity of the national airspace system.

At the outset of his remarks, Hubbard welcomed former center director Clarence 'Sy' Syvertson and introduced his new executive assistant, Ingrid Desilvestre. He noted that Jack Boyd, his former executive assistant, has taken on a new position as the NASA Ames historian, charged with pulling together all the somewhat-scattered bits and pieces of Ames history into a coherent and organized format for future generations.

BY MIKE MEWHINNEY AND DAVID MORSE

NASA on-line children's book takes flight in Spanish

NASA recently updated its on-line, interactive children's book, 'Robin Whirlybird on her Rotorcraft Adventures' for the Spanish-speaking community.

Children in kindergarten through fourth grade now will be able to learn, in Spanish, about how helicopters and other rotor-powered aircraft fly. Launched in 2002, 'Robin Whirlybird' builds upon the fascination of children with things that fly, like dragonflies or hummingbirds, to introduce students to concepts in aeronautics and rotorcraft.

"NASA's mission to 'inspire the next generation of explorers' is not just limited to those whose native language is English," said Donald James, education director at NASA Ames. "NASA wants its educational products to inspire as many students as it can, leaving no child behind. 'Robin Whirlybird' also is available in Mandarin."

Designed to have the look and feel of a children's book, the story revolves around a young girl named Robin who visits a NASA research center where her mother works as an engineer. During her visit, Robin explores the concepts behind aeronautical design, the physics of flight and the practical application of rotorcraft, like helicopters and other runway-independent aircraft (RIA). RIAs are aircraft that can take off and land in smaller areas of an airport away from the primary runways.

"The site is designed to engage and capture the interest of young children, not only through the story itself, but also through the interactive elements found on every page. Users are invited to explore, using the buttons within the menu bar to listen to the story being read aloud and to explore interesting science concepts about rotorcraft," explained Susanne Ashby, the site's conceptual designer and co-author. "It is a tremendous resource for learning about aeronautics and NASA's research in runway-independent aircraft."

To aid teachers, eight lessons and educator guides were recently added to 'Robin Whirlybird' for teachers to download. These lessons feature hands-on science activities that correlate to national education standards for science and are designed to help students understand how changes in a rotorcraft's design affect how it flies. 'Robin Whirlybird' is designed for easy incorporation into an integrated elementary school curriculum.

"'Robin Whirlybird' not only explores the science of aeronautics, but it also focuses on reading vocabulary and comprehension skills that are an important part of K-4 instruction," said Christina O'Guinn, lead for the NASA Ames educational technology team. "Each page includes interactive activities such as a simulated noise experiment, rotorcraft sounds and fact sheets as well as puzzles and coloring pages."

The 'Robin Whirlybird on her Rotorcraft Adventures' Web site recently received a Golden Web Award from the International Association of Web Masters and Designers.

NASA Ames is a leader in the research and development of runway-independent aircraft technology to help improve the efficiency of the National Airspace System.

To access the 'Robin Whirlybird' Internet Web site, visit: http://rotored.arc.nasa.gov For other NASA Web sites in Spanish, visit: http://www.nasa.gov/about/highlights/En_Espanol.html For information about other NASA education programs on the Internet, visit: http://education.nasa.gov

BY JONAS DINO

Ames implements new quality management system

Ames is the first NASA organization to step up to the challenge of designing a quality management system that has been adapted to the needs and circumstances of an R&D organization. Soon, the new Ames Management System (AMS) will replace the ISO 9000:1994 Quality System formerly used by the center. The AMS was approved in September as a pilot project by NASA Deputy Administrator Fred Gregory. The center has one year to prove that it can effectively manage with the new Ames-developed system.

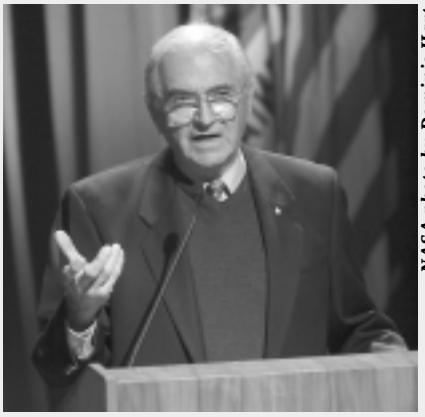
"We're the first in the agency to be permitted to opt out of ISO. In its place, what we have promised is that where necessary, like in our wind tunnel work, we will still have the same level of rigor that we've had in the past. But in other areas, in our more research, advanced concept areas, we won't impose the same kinds of procedures," stated Ames Center Director G. Scott Hubbard during his State of the Center address on Oct. 22. "Let's make this fit our R&D center and we'll all be happier in the end."

The AMS will encompass all center operations, including those not in the ISO scope such as protective services and logistics. Another difference between this system and ISO is the emphasis of the AMS on center management. Both internal and external assessments, required for the pilot system, will emphasize interviewing center managers on their organization's current procedures and their knowledge of center policies and procedures.

Training for managers will occur in the next few weeks. The initial internal gap assessment, led by Mark Washington of Code Q, will take place in January. An externally conducted 'gap assessment' is scheduled for February.

BY MARY WALSH

Chana presents



NASA photo by Dominic Hart

William Chana, an AIAA Fellow and distinguished lecturer, presented a Director's Colloquium entitled 'Understanding and Appreciating the Wright Brothers' on Oct. 21 at Ames.

Ames' SSBRP achieves NASA-first maturity rating

In October, the Space Station Biological Research Project (SSBRP) at Ames became the first NASA project to be appraised at maturity level-2 of the Capability Maturity Model Integration (CMMI). SSBRP's accomplishment is the culmination of almost two years of collaboration between the SSBRP, its subcontractor, Intrinsyx Technologies, the Ames Engineering Process Group (EPG) and the Ames Management Steering Group (MSG).

NASA photo by Eric James

Steven Zornetzer receives congratulations from CMMI lead appraiser Ray Kile of the Center for Systems Management.

SSBRP's achievement is a major milestone in MSG and EPG work to continually improve Ames software practices, and is already being leveraged to help other Ames projects improve their processes and performance.

This accomplishment also is a significant milestone for the agency in implementing the goals and objectives of the NASA Software Engineering Initiative (NSEI). This initiative strives to achieve the following through advancing software engineering practices:

- Improved cost and schedule predictability. Accurate schedules and budgets help to ensure that software engineers are provided with adequate resources and realistic schedules required to develop and maintain NASA products.
- Improved software reliability
- Improved software quality
- Reduced software cost

Earlier this year, Ames was the first organization in NASA to undergo a formal appraisal against the CMMI, and the first to achieve Capability Level 3 in three key organizational process areas that established the center-wide software process improvement infrastructure upon which SSBRP's achievement was based.

The appraisal looked at 55 specific practices and 70 generic practices in examining how SSBRP performs its work in the following seven process areas: project planning; project monitoring and control; requirements management; configuration management; supplier agreement management; measurement and analysis; and process / product quality assurance.

When a project achieves maturity level 2, its requirements, processes, work products and services are managed. The status of the work products and the delivery of services are visible to management at defined points (for example, at major milestones and at the completion of major tasks). Commitments are established among relevant stakeholders and are revised as needed. Work products are reviewed with stakeholders and are controlled. The work products and services satisfy their specified requirements, standards and objectives. To be appraised at maturity level 2, a project must show evidence that it has all these characteristics in accordance with an objective, formal and rigorous appraisal methodology.

The CMMI is recognized worldwide as the benchmark for robust practices in systems and software engineering, integrated product and process development and supplier sourcing. Both the NASA Software Working Group (SWG) and the NASA Systems Engineering Working Group (SEWG) have selected the CMMI as the reference against which we will evaluate the abilities of our projects. Ames has chosen to utilize the continuous representation of the CMMI, which allows the center to target improvements to its most critical process areas first.

The CMMI embodies the 'corporate knowledge' of software and systems engineering gained from industry (both U. S. and international) as well as numerous government agencies, including the DoD and FAA. The SSBRP appraisal, like the center's appraisal earlier this year, was conducted using the rigorous Standard CMMI Appraisal Method for Process Improvement (SCAMPI). The Software Engineering Institute (SEI) at Carnegie-Mellon University developed the CMMI and SCAMPI under the sponsorship of the U. S. Department of Defense.

The Office of the Chief Engineer at NASA Headquarters manages the NSEI, with essential training / consulting support provided by NASA Headquarters / Code FT. The Ames EPG and MSG are chartered by center management to implement the NSEI at Ames. The EPG has members from each directorate, as well as associate members from interested organizations. The MSG similarly has representation from each directorate (the deputy directors) and from the major Ames programs (deputy program managers), as well as key managers such as the chief scientist, chief engineer and chief information officer. More information about the EPG and MSG, including their charters and the center plan, can be found on the Web at: software.arc.nasa.gov.

Steven Zornetzer, deputy director for research, was the Ames sponsor for this appraisal and has been a guiding force in the implementation of the NSEI at our center. The Ames appraisal team consisted of three CMMI lead appraisers from the Center for Systems Management and seven Ames personnel trained in the use of the CMMI model and SCAMPI appraisal methodology. The Ames team members included our representatives to the NASA SWG and SEWG, and represented five different directorates on the center. This was therefore a truly 'center-wide' response to the NSEI goal to assist current and future projects achieve consistently high performance with respect to quality, functionality, schedule and cost.

BY MICHAEL FREEMAN

Japanese deliver life sciences glovebox ground unit

The first delivery of hardware from the National Aerospace Development Agency of Japan (NASDA) to NASA for the Space Station Biological Research Project Office took place in September. NASA accepted the Life Sciences Glovebox (LSG) Payload Development Unit (PDU) as part of an offset barter agreement between the two agencies. The LSG PDU is a ground unit that will be used by the Life Sciences Division (Code SL) to develop science experiment procedures that will be executed on board the International Space Station (ISS). The flight unit of the glovebox currently is scheduled for launch to the space station in 2006.

The LSG PDU system set up and ready for ISS science and engineering evaluations.

NASA photos by Tom Trower

Three NASDA operators demonstrating the LSG PDU function in Building N-240's high bay.

The LSG PDU is a ground unit that functions almost identically to the flight unit of the LSG. With crew time on-orbit being an extremely limited resource, the LSG PDU will allow Ames personnel to optimize the procedures that the crew will execute in the microgravity environment of space. The flight unit of the glovebox will allow the astronauts to perform science experiments within an enclosed and isolated 'work volume.' This work volume will function, in the space station, similarly to the hooded workspaces used in many ground-based laboratories. This work volume will prevent exchange of biological material between the crew's habitable environment and the LSG work volume interior where a variety of science data can be obtained. The LSG will allow one or two crew members to execute a multitude of science procedures--everything from simple measurements to complex surgical procedures utilizing high-powered microscopes. The LSG PDU gives Ames personnel the opportunity to fully understand the capabilities of the LSG in order to maximize utilization of the flight unit when it is delivered to the ISS.

The NASA/NASDA team pose in the N-240 high bay. The NASA team members are Bob Barber, Jason Otoshi, Dan Rozewicz, Jeff Inami, Jeff LaBerge, Dave Leskovsky, Kristina Lovio-Taskov, Guille Del Carmen and Carol Elland. NASDA team members are Dai Asoh, Mitsuru Watando, Keisuke Suzuki, Fujino Hiroshi, Kenichi Kawazoe, Tatsuya Arai, Toshiaki Ogawa, Yoshinobu Asai, Akihiro Wakimura, Yasuyuki Hisashi, Hisayoshi Kashima, Takashi Ogawa, Satoru Yuzawa, Kazuya Nakano, Yoshimi Takeuchi, Masaharu Taguchi and Shinji Sakamoto.

Delivery of the PDU marks a key milestone in the cooperative venture between NASDA and NASA. The initial agreement in principle for NASDA to build NASA's life sciences hardware (in accordance with NASA requirements) was signed in 1997. In the agreement, NASDA committed to providing the glovebox, a centrifuge rotor and a centrifuge accommodation module in exchange for NASA's launch of the NASDA space station equipment (Japanese experiment module, exposed facility and other hardware) within the space shuttle.

NASDA is managing the development of the LSG and LSG PDU through a contract with IHI Aerospace Corporation (IA). The NASA team has worked closely with NASDA and IA since the agreement was reached and the joint team is planning for a critical design review in early 2004.

This is the first of many pieces of equipment that will be delivered to NASA by NASDA. It is a small but significant event that will eventually lead to a suite of world-class life sciences equipment on board the International Space Station.

BY VICTORIA CALLOR

Are you ordering 'the right stuff'?

This is the first article in a series on purchasing recycled products that meet federal requirements listed in the comprehensive procurement guidelines.

Did you know that if you order office supplies, your purchases are probably regulated? The federal government requires that if you purchase certain products with federal funds, or while providing contract services to a federal agency, those products must meet minimum standards for recycled content. The U.S. Environmental Protection Agency has identified these products in a publication called the comprehensive procurement guideline (CPG). By law, if you purchase a product listed in the CPG, you have to order 'the right stuff.'

What is the right stuff?

The CPG contains eight categories of products, the most commonly ordered of which are paper products and non-paper office supplies. These two categories contain over 16 specific products. Each product has a minimum recycled content requirement. For example, copier paper must contain at least 30 percent post-consumer recycled fiber. One hundred percent is preferred and available from Ames' Store Stock. Plastic-covered binders must contain 25-50 percent recycled plastic and plastic report folders must be 90 percent post-consumer plastic. The complete CPG list is available on-line at: http://www.epa.gov/cpg/products.htm.

This seems complicated. How do I order the right stuff?

It's easy! Paper and office supplies that meet or exceed the recycled content

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'OneNASA' gets warm Ames reception at center rollout

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the principle investigator is based at Ames while the mission is managed at JPL. During the Kepler mission, scientists will use a unique method called 'transit photometry' to search for Earth-sized extra-solar planets around other stars. Another example they cited was the Mars Exploration Rovers (MER) project, due to land on Mars in January. Though the mission is managed from JPL, Ames has played critical roles in its success in landing site selection, parachute testing in Ames' wind tunnels, TPS design and creating a powerful suite of mission management software. Two MER science team members are also from Ames, and will take part at JPL in the rover's day-to-day operations during the mission's 90 Mars sols (days).

NASA photo by Dominic Hart

Ames Center Director G. Scott Hubbard makes a point at the 'One NASA' town hall meeting on Nov. 4.

"I make the analogy that NASA's success is like a game of soccer," said Elachi. "Winning the game is a team effort. You can't do it without the offense, the defense and the goalie. Under OneNASA, we'll see even more of this team effort."

Illustrating the point, Hubbard showed a slide of Ames' and JPL's contrasting yet complementary roles, saying there was strong synergy between Ames' technical and basic research expertise and JPL's mission manager status. "Ames technology doesn't make missions, but it makes missions better," he noted proudly.

Hubbard also noted Ames' critical role in the work of the Columbia Accident Investigation Board (CAIB). Ames provided high-end computing software that tracked the precise trajectory of the debris that impacted the Columbia's left wing, which was "a critically important data point," he said. "This is a good example of the OneNASA concept in action, using individual centers' contributions for the good of the entire agency," he said.

The lunchtime keynote address, held at the NASA Ames Conference Center, was delivered by Ames Deputy Director Allen Flynt, who came to Ames in May from the NASA Johnson Space Center in Houston, where he served as manager of the Extra-Vehicular Activity (EVA) project office. He was also a senior NASA official helping to direct debris recovery efforts for the space shuttle Columbia in Lufkin, Texas. Flynt outlined the gargantuan teamwork effort involved in the Columbia recovery, "which was why the recovery succeeded in recovering 38 percent of the Columbia debris, approximately 84,900 pounds over a 240-mile-long debris path that covered 680 acres." Flynt touched often on the themes of "treating people right," "taking care of people" and "building morale" during the recovery effort. But,"it shouldn't take an accident for this behavior," he said. Flynt noted that, with his varied background, he offers Ames "a different perspective" and he invited all Ames employees to "come to me with your ideas, issues and problems."

In the afternoon at the Ames Conference Center, about 200 invited Ames employees attended a series of breakout sessions on topics such as: full cost; OneNASA; the future of program and project management; CAIB; culture and return to flight; technical and scientific collaboration; aligning the agency: integrated planning and center implementation planning. The purpose of these sessions was to increase employee understanding of specific agencywide OneNASA initiatives.

John Casper of NASA Headquarters moderated a spirited give-and-take discussion during the 'CAIB, Culture and Return to Flight' breakout session. He discussed implementing 29 CAIB technical recommendations for return to flight, but he said "the hardest part of this whole thing will not be technical, it will be to change NASA's culture." He posed two important questions for the future: "How do we identify what we want to be known for?" and "What values do we aspire to?" Casper pointed out that the issue of how NASA's culture applies beyond the shuttle will be the subject of an agency-wide dialogue and that a team headed by Al Diaz at NASA Goddard is studying how to implement the wider 'NASA culture' issues. He also noted that a new NASA engineering and safety center has been created at NASA Langley.

Hubbard perhaps summed up the day best, as he closed the 'science collaboration session,' which he co-chaired with Elachi. "In the end, OneNASA is the right thing to do and we at Ames are committed to it."

For more information about One NASA, visit: www.onenasa.nasa.gov and www.onenasa.nasa.gov/one/updates/Recommendations/Index.htm

BY KATHLEEN BURTON

The right stuff?

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requirements are available through Ames' Stores Stock, including 100 percent post-consumer recycled paper (Boise Cascade Aspen 100, NSN 7530-00-A00-9731). Look in the GSA catalog for items with the orange colored 'CPG' notation, look for the green-colored symbols or look on the Internet at: https://www.gsaadvantage.gov.

You can call the Code JFS cataloging department, ext. 4-3809, for CPG items that are available from GSA and commercial vendors.

Does it really matter what I buy?

Purchasing the CPG-compliant items is required by federal law. If you purchase an item on the CPG list that does not meet the minimum recycled content levels, you must submit a waiver to Code QE, mail stop 218-1. This waiver form is available on the Code QE Web site at: http://q/qe/forms/recycle_waiver_req.pdf. All of Ames' purchases of these items are tracked and reported to NASA Headquarters. By ordering the right stuff, you not only comply with the law, you help Ames to meet our goals. See separate article entitled 'Ames Purchasing Goals.'

For more information, contact Christel VanArsdale at ext. 4-1175 or Mark Lacy at ext. 4-1406.

Russell Robinson, NASA and Ames pioneer, passes away

Flags at Ames were at half-staff one day in late October to mark the passing of a man who helped found the center more than 60 years ago. Russell Robinson, 96, died Oct. 23 in nearby Los Altos.

Russell Robinson, far right, during the NACA groundbreaking ceremony at Ames on Dec. 20, 1939.

In the early 1930s, he began his career with the National Advisory Committee for Aeronautics (NACA), NASA's predecessor agency. Robinson is a prominent figure in the history of the agency.

"Russ was a scholar, a gentleman and a superb writer," said Ames historian Jack Boyd. "He spanned a time in the history of flight that was remarkable and contributed to aeronautical technology, both at NACA and NASA, as a researcher and as a manager. He not only remembered the past, but knew how to put it in perspective," Boyd continued.

Robinson served on the Lindbergh Committee that selected the site of NACA's second laboratory, later known as the Ames Aeronautical Laboratory. Robinson also supervised the groundbreaking ceremony, Dec. 20, 1939, when NACA construction began at Moffett Field. In a historic picture of the ceremony, Robinson is on the far right wearing a fedora, looking at the camera while a man in overalls turns over a spade of soil.

Following Germany's World War II defeat, Robinson traveled there as a member of a committee to review aeronautical data. He served as Ames' assistant director of aeronautics beginning in 1950, and retired as the director of aero-

Russell Robinson

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Halloween costume contest

Ames held its annual Halloween contest on Oct. 31, sponsored by the Ames Exchange and held in the Mega Bites café. Many Ames employees participated by wearing colorful and imaginative costumes.

Above: Jay Feldman, the butterfly catcher, and Jolene Bischoff, the butterfly, won first prize at the recent Ames Halloween costume contest.

NASA photos by Dominic Hart

Halloween-decorated windows at the rotunda door of Ames' building N243.

Ames tests K9 rover in granite quarry to simulate Mars' surface

On a chilly November morning recently, a group of local television and newspaper reporters got a chance to observe Ames scientists and engineers as they tested new technologies using NASA's K9 rover in a granite quarry near Watsonville, Calif., in preparation for future missions to Mars.

Braving low temperatures and winds that caused the scientists to bundle up in warm jackets, scarves, gloves and even ear muffs, reporters from two television stations and four newspapers visited the barren site to interview the scientists and watch as the little blue K9 rover moved slowly across the barren dirt. Stories featuring the six-wheeled rover as it slowly maneuvered through a maze of good-sized rocks were broadcast that evening and published the following day.

NASA photo by Tom Trower

The K9 rover team puts the robotic vehicle through its paces in a local granite quarry to assess its operational robustness.

The field tests were conducted at Graniterock's A.R. Wilson Quarry Site in Aromas, Calif. Scientists chose the quarry site for the field experiment and to test its autonomous operational capabilities in a remote, non-vegetated location. Graniterock offered its 100-year-old quarry operation to NASA after the company learned that the space agency was looking for a site to test the rover. The field test was held Oct. 27 through Nov. 7.

"We need to take the rover into the field, away from our own backyard, in order to test how robust our technologies are," said Maria Bualat, a computer engineer at NASA Ames, who is also the K9 rover project lead. "However, the Bay area is a lush tropical paradise compared to Mars, so we needed to find a place that wasn't covered in vegetation. Graniterock was kind enough to volunteer a portion of its quarry," she added.

"The goal of the K9 project is to integrate and demonstrate new robotic technologies that will enable NASA to meet the science goals of future Mars missions," said Bualat. Scientists hope to utilize new robotic technologies during NASA's Mars Science Laboratory (MSL) mission anticipated in 2009.

"The whole purpose of this research project is to ensure that this rover is as autonomous and reliable as possible. Autonomous instrument placement capability is essential for future Mars exploration," said Dr. Liam Pedersen, principle investigator for the K9 rover instrument placement project. "This is necessary to acquire samples, determine mineralogy, obtain microscopic images and other operations needed to understand the planet's geology and search for evidence of past life."

"The United States has gained so much from the space program over the years and the plan to explore Mars by the end of the decade is another significant step in advancing America's lead in developing and applying advanced technologies," said Bruce W. Woolpert, Graniterock's president and CEO.

Developed jointly at NASA Ames and NASA's Jet Propulsion Laboratory (JPL), Pasadena, Calif., the K9 rover is a six-wheeled, solar-powered rover weighing 145 pounds (65 kg) that measures 63 inches (1.6 m) high. The K9 rover is modeled after a rover named Field Integrated Design and Operations ('FIDO') developed at JPL about five years ago.

Due to the limited intelligence of current planetary rovers, it takes three martian days to complete the process of directing a rover to a targeted rock and placing an instrument on the rock to begin scientific analysis of it. Scientists at NASA Ames hope to be able to accomplish that objective in a single day, thereby increasing the efficiency of obtaining science data in future missions.

David Smith, a computer scientist at NASA Ames, leads the research group that is responsible for developing the rover's automated planning and scheduling software. In previous missions, there has been very little automation of the planning and scheduling process for planetary rovers, according to Smith.

"What's unique about this software that is being developed at NASA Ames is that it generates contingency plans to provide an alternative that can be executed when things go wrong," Smith said. "There is a great deal of uncertainty in operating a robotic system on Mars, so you need to be able to consider alternatives. By having options available, you increase the science return."

"NASA's near-term Mars missions have very ambitious science goals that will require high levels of autonomy onboard the robot," said Bualat. "Our goal is to have a 'smart robot' that we can send off to Mars in 2009 that will take care of itself."

The K9 rover project's annual cost of approximately $1 million is funded jointly by the Intelligent Systems project under the Computing, Information and Communications Technology (CICT) program administered by NASA's Office of Aerospace Technology, and by the Mars Technology Program, administered by the Office of Space Science, NASA Headquarters.

Graniterock was founded on Valentine's Day, Feb. 14, 1900. The company has operations in Watsonville, Santa Cruz, Seaside, Salinas, Gilroy, Hollister, Aromas, Felton, Oakland, San Jose, Redwood City and South San Francisco. Graniterock Pavex Construction Division is a significant heavy engineering contractor building roadways, airport and private commercial and residential projects. Graniterock also has been the recipient of the Malcolm Baldrige National Quality Award and the Governor's Golden State Quality Award.

Reproduction quality images of the K9 rover are available at: http://amesnews.arc.nasa.gov/releases/2002/02images/k9/k9.html

BY MIKE MEWHINNEY

Ames' seventh annual chili cookoff is crowd pleaser

A great time was had by all of those who attended this year's seventh annual Ames Exchange chili cook-off in October.

This year's theme was Carnival Midway. Free snocones and cotton candy were available for all. The band 'Eddie and the Boppers' provided music that everyone enjoyed. Free face painting and a balloon artist were on hand along with a variety of games that included ring toss, milk cans and fat cat, as well as a dunk tank.

Fourteen teams vied for the top prize of the 'Peoples' Choice Award.' This year's winners were:

Peoples' Choice 1st place
Hog Wild

Peoples' Choice 2nd place
Budget Formulation

Peoples' Choice 3rd place
Sofia

Judges' Choice 1st place
Maggie Moos

Judges' Choice 2nd place
Hog Wild

Judges' Choice 3rd place
Budget Formulation

5-Alarm Chili
Hog Wild

Best Presentation
Maggie Moo's Chili

NASA photos by Roger Brimmer

NASA purchasing goals for Ames employees

Ames has committed to the following goals for purchasing. Civil servants and contractors alike are expected to make purchases that meet these goals.

First goal: At least 10 percent of all Ames copier paper purchases will be 10 percent recycled content paper by 2005 (this includes contractors). Last year, 25 Ames organizations participated in a four-month pilot project by using Boise Cascade Aspen 100 paper. As a result, less than one percent of Ames's paper purchases were 100 percent recycled content paper. Next time you place an order for copier paper, request Boise Cascade Aspen 100, NSN 7530-00-A00-9731.

Second goal: 100 percent of all purchases will meet the recycled content standards in the comprehensive procurement guideline (CPG), unless a waiver is approved. CPG products are described in a separate article entitled 'Are You Ordering the Right Stuff?'

What's a Waiver?

Federal regulations allow for four exceptions to buying supplies and products containing the minimum recycled content. These are:

1. Price is unreasonable
2. Inadequate supply sources
3. Unreasonable delays in ordering
4. Inferior quality (does not meet reasonable performance requirements)

To claim an exception, the purchaser must submit a waiver form to Code QE at the time of ordering. This form is available on the QE Web site at: http://q/qe/forms/recycle_waiver_req.pdf.

For further information, contact Christel VanArsdale at ext. 4-1175 or Mark Lacy at ext. 4-1406.

Ames' Morrisons explore mysteries of the Far East

The Silk Road is the caravan route first opened by Chinese traders more than two millennia ago, in part to provide silk to the markets of imperial Rome. It was also the route by which western influences, including the Buddhist and Muslim religions, reached China. The road was used sporadically until the time of Marco Polo. It consisted of several interconnected routes, starting at the Chinese capital of Xi'an and either terminating in the Indian subcontinent or continuing to Europe via Uzbekistan and Persia. Today, travelers can explore nearly the entire route, although a visit to Baghdad is perhaps best deferred.

We have already intersected the Silk Road on holiday trips to Uzbekistan, Persia and Syria. Our recent trip was to the most geographically isolated part of the Silk Road in Western China (sometimes called Chinese Turkistan).

We picked up the Silk Road at the Jiayuguan Fort at the western terminus of the Great Wall. From there, we traveled more than 1,500 km west by planes, trains and automobiles, skirting the Gobi Desert, the Taklamakan Desert, and the Tian Shan (Heavenly Mountains). Most memorable was Kashgar -- the crossroads and emporium of central Asia, with roads radiating to China, Tibet, Pakistan, Afghanistan and Russia (via Kyrgystan and Kazakhstan). It is city of Turkic-speaking Uygurs, one of the few places where the Chinese have not yet overwhelmed the local Muslim culture. But wide boulevards lined with modern buildings have already been thrown across the city, and the 18-m statue of Mao in the central park is one of the largest in Asia. Only when you look down the alleys do you see the traditional adobe houses and tiny mini-mosques hidden behind. Within less than five years the old Kashgar will likely be gone forever.

Highlights of Kashgar include the seventeenth-century Abakh Khoja Tomb with its colorful tiles, and the Id Ka Mosque, which can accommodate 10,000 worshipers. The big square in front of the mosque, together with part of the adjacent residential area, is now a construction site constantly going strong . The mosque, with its dusty trees and faded wooden columns, is an oasis of calm amid all the hubbub. Its two short wooden minarets are the only place in town that a call to prayer is permitted, and then only on Friday.

A tomb in Kashgar.

The high peaks of the Pamirs.

We enjoyed the open street markets and were pleased to visit traditional Uygur homes, built around a courtyard with carved wooden balconies. We were gratified also by the friendliness of the people and their willingness to pose for photos.

In spite of the on-going 'urban renewal,' much of the old city remains, its dusty streets lined with craftsmen and small businesses, food stalls and on-the-street bakers. Public transport here is by horse-drawn cart, not buses. The women wear a wide variety of head coverings: scarf, cowl, a sort of face mask worn under a scarf, even heavy brown cloths that completely cover the head -- or, at the other extreme, young women like our Uygur guide who went bare-headed and wore jeans, tee-shirts and sunglasses.

photos by David Morrison

Native Kashgar man in traditional garments.

Most of the older men wear square-cut embroidered hats, and many had full beards. Kashgar is famous for its huge Sunday market, especially the livestock market where thousands of cattle, sheep, goats, donkeys and horses were on sale -- plus three two-humped Bactrian camels.

For our farthest penetration west, up onto the 'roof of the world,' we followed the dramatic Karakorum Highway from Kashgar toward the Pakistan border. As soon as we left Kashgar, we could see the great white ramparts of the Pamirs, rising more than 7,000 m. Much of the road follows the broad valley of the glacier-fed Gezh River, surrounded by jagged mountains barren of vegetation.

The scene looked very much like Tibet, as we had seen it in 1990, with stunning vistas of naked rock and sand dunes and a few animals (sheep, cattle and camels) near the river. We ascended to the Pamir Plateau where herds of yak grazed beneath the Kongar Shan and Muztagata Shan, both huge mountains (over 7,500 m) draped with glaciers. Extending ahead were the Karakorums, and beyond that Afghanistan, Pakistan and India. We spent the night at Tashkurgan (3,200 m), the 'capital' of the little Tajik Autonomous County, before turning back toward Kashgar and eventually home again to California.

BY DAVID MORRISON

Acquisition division presents Kaufhardt Peer awards

Errol Ridgway and Lynn Thomas of Ames' Acquisition division were recently presented with the annual Leslie A. Kaufhardt Peer award in recognition of their achievements and accomplishments during FY 2002 / 2003.

Lynn Thomas and Errol Ridgway are shown here with their recently presented Leslie A. Kaufhardt peer awards.

The peer awards recognize non-supervisory personnel "who made special or outstanding contributions" to the Acquisition division and are named in honor of its late colleague, Leslie Kaufhardt--a consummate professional who embodied the enthusiasm and willingness to go the extra mile ("step up to the plate") that these awards seek to recognize. Nominations are made by division personnel, excluding managers and peer award committee members. Selections are made by the committee, which consists of non-supervisory personnel.

Ridgway is a contract specialist in the Acquisition branch for information systems. He was recognized for his efforts to assist the division in meeting its mission of procurement support. Ridgway manages the on-site 'Federal Information Processing Services (FIPS)' contract with Raytheon STX Corp., one of the first CPIF awards at the center. This contract--which provides wide-ranging services from software development and maintenance to management and administrative support--has required him to issue and manage over 600 contract task orders. He has taken on administration of additional contracts to assist other branches with personnel shortages. Ridgway also assumed the responsibility of COTR for the agency-wide close-out contract. He has worked hard to identify the requirements under the task orders for each center and to assist the contracting officer in the administration of this highly-visible contract. Ridgway goes about his job without braggadocio, so many are not aware of the support he has provided to the division. He will take on any challenge. All of his actions have supported the division in a positive manner, kept customers satisfied and contracts fully operational.

Thomas is a procurement analyst in the Acquisition branch for business and policy. She was recognized for her contribution to the division throughout the IFMP rollout implementation and training. Thomas made division training sessions more productive and provided support to Acquisition division personnel who were learning how to operate within this new environment. She has a positive outlook regarding implementation of the IFMP financial system and is friendly, approachable and willing to help where needed. Thomas is also a participant in the IFMP bankcard team support, helping to fill a void when another division employee resigned. Bankcard team members have needed to tackle a significant workload head-on to maintain the program for the user community and allow the Acquisition division to provide continued support. This activity required coming up to speed in a very fast paced environment, providing training and assistance to the bankcard community, as well as learning as you go by the individual JA bankcard team member. Thomas met this challenge head on and is continuing her participation in this activity. Her participation in the IFMP roll out and continued implementation has been a great asset to the division and a job well done.

The award winners have contributed to improved performance, efficiency and morale, which has strengthened relationships within the Acquisition division and with other directorates across Ames.

Hangar One gets a facelift

NASA photo by Dominic Hart

Hangar One at Ames is currently being covered with a heavy-duty sealant to prevent toxics found on the hangar from washing off in the rain.

Russell Robinson passes away

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nautics and flight mechanics in 1970.

"What stands out in my mind is that he went to work at Langley in 1930 as a junior engineer, primarily designing wind tunnels," said Bruce Robinson, one of Robinson's three sons. "He designed the eight-foot, high-speed wind tunnel at Langley, which was the fastest, most efficient and cleanest design of the time."

That Langley wind tunnel was a key asset that helped in the design of America's World War II air fleet. "It had a number of features that influenced wind tunnel design thereafter," the younger Robinson continued. "He also developed the unitary wind tunnel concept. And in 1947, he was named chairman of the NACA subcommittee on high-speed aerodynamics."

Robinson liked the outdoors as well as traveling and volunteering for good causes. "He was very devoted to the outdoors, making many hikes in the Sierra Nevada and elsewhere. He loved to travel, and he didn't let time weigh on his hands in retirement. He volunteered his time and organizational expertise to such groups as the Red Cross, Recording for the Blind as well as other organizations," his son, Bruce, said.

Robinson read many technical textbooks for the blind, according to the younger Robinson. In addition to his son, Bruce, Robinson is survived by two other sons, Doug and Charles, and by his wife, Helen.

BY JOHN BLUCK

Reflections of a NASA Ames intern

Being born as an American citizen is a privilege; becoming an American is a journey. I was born in Los Angeles, but was sent to the Philippines to live with my mother and stepfather, in a country very foreign to me. I grew up fast enough and through my experiences became the person I am today. Presently, I see myself as an American with a Filipino heritage, chasing the American dream.

There's nothing extraordinary about me, I get fairly decent grades and I am a hard worker. My strongest traits are my desire to comprehend the minds of others and to better understand myself. Another distinct characteristic of mine is my ability to chatter away. I have always enjoyed conversing with others, be they strangers or friends. I believe communication is the most important aspect of human existence. For all these reasons, I chose psychology as my major in college, which is why I was so thankful for my internship at the Public Affairs Office at NASA Ames. Through this internship, I have learned more about the power of communication and my own strengths.

My internship at NASA Ames began in April 2001. I had originally applied for an accounting position, but fortunately landed in the Public Affairs Office's FOIA program. I believe that was one of the most important things that could have happened to me, for the internship not only enhanced my communications skills, but it also strengthened my confidence. My colleagues treat me as an equal, not as an intern. They expect my abilities to exceed their expectations.

When I first arrived at NASA, I was taught my duties, but was soon given considerable freedom to carry out my responsibilities. Often, I was interacting with new individuals, and I was constantly being introduced and introducing people. Before the internship, I never thought that talking to people could be so exhausting, but it was. In communicating with colleagues or strangers, I was always learning new things. I was unaware that all of this practice in my communication skills would allow me to accompany my colleagues to an experience of a lifetime.

In August 2002, NASA Ames employees supported the Reno Airshow in Nevada. Public Affairs sought to reach out to the community to educate the people about NASA' current research projects. I had never expected to go to an air show; but that was just one of the many rewarding experiences I have received from my internship. In the hot, dusty plains, otherwise known as Nevada, the public affairs personnel set up a booth to entice and educate those who attended the air show. Before then, I never knew the full meaning of being claustrophobic. A variety of people with all sorts of questions went in and out of the tent that we had deliberately adorned to attract attention. I was answering questions I never knew I had the answers to, impressing even myself.

I was 19, and already I felt like I was a professional. People wanted to talk to me, and I wanted to teach them all about NASA. Although the experience was tiring, it also was extremely rewarding. A surge of confidence entered my exhausted body that week. I was up at 6:30 a.m. and returned to the hotel around 7:00 p.m. With each passing day, I gained information and a wonderful sense of satisfaction. However, the exhaustion soon set in and I was ready to go back home.

NASA photo by Dominic Hart

Kristine Navarro, former FCCD intern, in the Ames Visitor Center.

Later, I took on a new responsibility at work when I became the Speakers Bureau liaison. With the coming fall quarter and applying to colleges, the responsibility weighed heavily on my shoulders. However, while I found myself having the energy to both work and continue my classes; with this new duty I had the opportunity to communicate even more than I had previously. Colleges and organizations contacted me with the hope that I could provide them with a NASA speaker. My new duties require me to be in contact with different departments within NASA and with outside organizations. This was probably one of the more challenging responsibilities assigned to me, for it took a lot of time and patience for me to increase cooperation between the organizations. The reward is the thanks I receive when a presentation goes well, making my efforts worthwhile. It was a joy to bring groups together and see them interact.

The knowledge I acquired from my internship has expanded my understanding of human relations. As an intern in the Ames Public Affairs Office, human interaction was fundamental to the duties I perform at NASA. The internship has greatly increased my levels of self-confidence and it has educated me about the demands of my future major.

My internship at NASA has helped me to improve my qualities and to acknowledge my strengths, one of which is asking for support when I need it most. The internship has meant a great deal to me. I would recommend this program to anyone interested in participating in it in the future.

If you are interested in sponsoring a Foothill-De Anza Community College District NASA / Ames intern, call ext. 4-5560 or visit the Web site at: http://nasa.fhda.edu

BY KRISTINE NAVARRO

Hispanic heritage golf tournament

NASA Ames celebrated Hispanic Heritage Month by hosting a second annual Hispanic Heritage Golf Tournament. The event was held on Oct. 17 at the Moffett golf course. Many attended and had an excellent time.

The tournament was hosted by the center's Hispanic Advisory Committee for Employees (HACE). HACE is focused on supporting Hispanic youth in education and community. The winners of the tournament were Ruben and Art Renteria, Bob Ford and Rick Hosea.

Assorted golfers anxiously await play.

Ongoing Event 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. Begin classes 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.

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-215, Rm. 212. POC: Tom Maier, ext 4-3643.

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: Julie Morsellino 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. Nov meeting at HomeTown Buffet, 2670 El Camino (at Kiely), S. Clara, 11 a.m. lunch. December meeting Christmas party at Hofbrau, San José, 11a.m. lunch. Christmas music. 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.

Young speaks on ethical issues in science fields

NASA photo by Dominic Hart

Ernle W.D. Young, Ph.D., recently appointed chief of the Office for the Protection of Research Participants at Ames, is seen here during the recently held Biothics workshop at Ames.

The half-day workshop was hosted by NASA Ames and the Girvan Institute of Technology and focused on ethical issues in investigative medicine and the life sciences.

Mega Bites turkey feast set

Come to the Mega Bites Cafe for the annual Holiday turkey feast
Date: Nov. 20
Time: 11:00 a.m. to 1:30 p.m.

Turkey Feast includes the following for only $5.25:

Turkey
Cranberry sauce
Stuffing
Mashed potatoes
Veggies
Dinner roll
Pumpkin pie

For more information, contact Karen McIntyre at ext. 4-5969 or e-mail at kmcintyre@mail.arc.nasa.gov

Computer History Museum Presents

Donald Knuth speaking on
'A Dozen Precursors of Fortran'

Date: Wednesday, Dec. 3
Time: 7:00 p.m.
Place: Computer History Museum
Hahn Auditorium
1401 N Shoreline Boulevard
Mountain View

Registration is free. RSVP by Nov. 26. Visit the Web at: www.computerhistory.org or call (650) 810- 1019.

Contractor awards to be held

On Dec. 9, the Ames Contractor Council (ACC) will hold its 14th annual Contractor Excellence Awards ceremony. The council's NASA co-chair, Deputy Center Director Allen Flynt, will join contractor co-chair Anita Fogtman in honoring both individuals and teams for their outstanding contributions to the center's mission during fiscal year 2003.

All are invited to the ceremony, which will be held in the NASA Ames Conference Center ballroom, building 3, at 1:30 p.m.

The council was established in 1987 as a contractor-government forum to address common problems and increase contractors' ability to respond to the center's changing needs. For more information, call ext. 4-4432.

BY ANITA FOGTMAN, CONTRACTOR CO-CHAIR

NASA Ames gift shop moving

The NASA Ames gift shop, currently in Bldg. N223, will be relocating on Dec. 1. The shop will be opening it's doors in it's new location, in building 943 (the old space camp location). Join in, in celebrating the move and save 15 percent off everything in the store.

On Dec. 1 through Dec. 5, all Ames employees and contractors can save at both the new NASA gift shop and at the Beyond Galileo store. Look for additional savings during the month of December in both stores.

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

For rent: Room in 3 bdrm duplex (house shared w/ two others) in safe Willow Glen area. Shared bathrm, living space, kitchen, etc. Rent $450/mo. plus 1/3 utils and shared satellite service (if desired); $250 dep. Close to freeways, cal train, (25 min. to Ames). Call (408) 723-2115.

For rent: 2 bd/1bath in Sunnyvale, upstairs unit, 3 miles from Ames, near Bernardo and El Camino, $1,075/mo. Call (650) 570-5244, Margaret.

For rent: Room w/large closet in 4 bd/2 ba home, exc., quiet Mtn View area close to Ames. W/D, microwave, fireplace, wired for cable modem. Tidy person, N/S. Easy access to Ames, H85, 237, & 101. $475 plus dep. plus share utils. Avail. Dec. 1. Call (650) 964-1900.

For rent: Large, unfurnished room (12 x 13) to share in 2 bd/2ba luxury condo in San José. Priv. bath w/priv. parking. $625/mo., plus $850 sec. dep. N/S, no pets or kids. A/C, cable, dishwasher, fireplc, microwv, W/D, sep. phone lines. Share w/prof. female and Beagle (dog). Water/garb./cable pd. You pay half PG&E and own phone. References and credit check required. Email ckapell@earthlink.net or call (408) 219-5030.

For rent: Large 2 bdrm/1-1/2 bath apt. in 4-plex with wireless Internet access included. Sunnyvale, close to Ames. $1,150/mo. No smoking. Call (408) 739-3303. For details, visit http://www.peacham.homeip.net/rental.htm

For rent: 3 bd/1 ba house in Fremont. New carpets and paint. Gardening service included. Approx. 25 mins to Ames. $1,395/mo. Roger or Glena (510) 226-2425.

Duplex with one and one half bathrooms, two bedrooms and ten minutes from Ames. Rent is $1,800 per month. Complete w/ W/D, refrigerator, AC, cable connection access. Helen (650) 625-1225.

Transportation

'90 Honda VFR 750 Always garaged, Immaculate condition, $3,800 . Gavin (408) 270-1471.

'91 BMW 325i convertible, 96K mls, leather interior, 6cd changer, auto windows, heated seats, brand new convertible top, A/C, exc. cond. $8,600. Tim (408) 406-8242.

'99 Mazda Protege LX Sedan 4D, 75K mls, exc. cond. $6,500, 4-Cyl. 1.6 liter, automatic, frnt whl drive, A/C, pwr steering, windows and door locks. AM/FM stereo, sgl compact disk, dual front air bags. Call (650) 364-1001 or e-mail dbwilliams@stanford.edu

Miscellaneous

Wood toddler bed frame and crib mattress, exc. condition. 3-drawer dresser/changing table combination, exc. condition. $30 for both. Call (408) 225-7410.

Graco 2-speed electric baby swing. White enamel finish w/blue trim. Great condition. $20. Call (408) 295-2160.

Carters rocking bassinet with retractable wheels; white w/ blue pattern; has overhead canopy, and ample storage underneath. Great condition. $25. Call (408) 295-2160.

Looking for reasonably priced and working lawn mower, yard tiller, freezer and also a girl's bedroom set: bed w/dresser, mirror. (Yes...just moved into our first house). E-mail: falcon7777@earthlink.net

Trek 1100 aluminum frame road bicycle. Large frame. Look pedals. Fair shape. $75 Nite Rider 15W light w/two water bottle batteries. $25 Performance handlebar pack. $15 (408) 945-3917 or nengim@yahoo.com

Dahon folding bicycle, only ridden a few times. $100/offer. 1968 Raleigh ladies 3-speed bicycle. Very good condition. $80 or B/O. Call (408) 244-5892

Rossignol 4M downhill skis, 190cm, Marker bindings, poles, ski bag, Salomon SX-50 boots and bag, men's size 10. Hardly used. $100 for all. (408) 945-3917 or e-mail: nengim@yahoo.com

Safety Data

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

Data above is for October 2003.
*(Under new OSHA rules, lost time is defined as lost work days, restricted duty of work transfer.)

Looking for used books...

Got a bunch of old books cluttering up your office, living room or garage? Have CDs you don't listen to or movies you'll never watch again? Then donate them to the Ames Child Care Center (ACCC) fundraiser and receive a tax donation receipt at the same time!

The ACCC accepts all books, CDs, VHS tapes, DVDs and software for adults and for kids. Items can either be dropped off at the ACCC across from Gate 17 or pick-up can be arranged by e-mailing Maya Popovic maja@sbcglobal.net or calling her at (650) 988-6993.

Astrogram deadlines

Deadline:	*Publication:*
Nov. 24	*Dec. 2003*

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.

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-223 (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. View of slopes, close to lifts. Per night: $250, two night minimum. Includes linens, cleaning, propane fireplace, fully equipped. 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.

Incline Village: Forest pines, Lake Tahoe condo, 3 bd/2 ba, sleeps 8. Fireplc, TV/VCR, MW, W/D, jacuzzi, sauna, pool. $120/night low season; $155/night high season. $90 cleaning fee and 12% Nevada room tax. Charlie (650) 366-1873.

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.

Spacious 2 bdrm Maui suite available (can accommodate up to 6 people) for 1 week. Cooking facilities, color TV, swimming pools, access to beach and much more. Located nearby shopping centers, golf courses, and all water activities. $1,200 a week or B/O. Call (408) 446-4416 for more information.

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.

Help shape the future--sign up to be a mentor

The NASA Center for Distance Learning in cooperation with Christopher Newport University and the Institute of Electrical and Electronic Engineers (IEEE) announce the VINNY™ award.

Named in honor of Leonard da Vinci, a man famous for the creative use of science, technology, engineering and mathematics to solve human problems, designed to help heighten and increase awareness of science, technology, engineering and mathematics (STEM). VINNY is a global video competition.

Teams made up of one teacher and three students will identify and research a global problem and discover ways that STEM can help solve it. Teams will combine skills in research, writing and creativity.

It's what you do for a living. Be a mentor and share the wealth of your experience with young learners. You can mentor your team online. The final product to be submitted for judging is a one-minute video explaining the global problem and a possible STEM solution.

- Grade Levels: Elementary grades 3-5, middle grades 6-8, and high grades 9-12
- Two languages: English and Spanish
- Winning one-minute videos will be exhibited on the NASA's Kids Science News Network™ (NASA's KSNN™) Web site located at: http://ksnn.larc.nasa.gov

Register to be a mentor as soon as possible. Register on-line at: http://vinny.pcs.cnu.edu. Help shape the future and sign up to be a mentor.

Holiday food and toy drive

Consider supporting the Sacred Heart Community Services Dec. 1 thru Dec. 12

All non-perishable food items and unwrapped toys may be dropped off in the Ames Mega Bites Café.Your support is sincerely appreciated
For more information, contact Angela Ortega, ext 4-1733.

Happy Holidays!

Let Mega Bites do the cooking

The holidays are coming upon us quick. That means a lot of shopping to do and a lot of last-minute planning. Let the Mega Bites Café cater your holiday meal.

Whether it is a pot luck lunch or your holiday dinner, Mega Bites can do it all, from turkey with all the trimmings to your holiday pies. We will be taking orders for your holiday meals through Dec. 19. Give at least a 72-hour notice. Holiday dinner includes the following:

Whole turkey or sliced ham
Cranberry sauce
Mashed potatoes and gravy
Stuffing
Buttered corn or green beans
Dinner rolls
Assorted sodas
Coffee
Pie (apple, pumpkin, pecan or cherry)
All for $6.95 per person.

For more information, call Manuel Bravo at ext. 4-2161 or e-mail her at: café@mail.arc.nasa.gov or contact Karen McIntyre ext. 4-5969 or email kmcintyre@mail.arc.nasa.gov

Astrogram

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