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President Bush lays out bold new space vision

-- foresees robotic, human missions to moon, Mars and beyond

President George W. Bush delivers remarks on U.S. space policy at NASA Headquarters in Washington, D.C., on Jan. 14. The president committed the United States to a long-term human and robotic program to explore the solar system, starting with a return to the moon that will ultimately enable future exploration of Mars and other destinations.

White House photo by Eric Draper

During an historic announcement delivered Jan.14, 2004 from NASA Headquarters in Washington, D.C., President George W. Bush unveiled a sweeping new vision for the nation's space exploration program and outlined the key roles NASA will play to turn his vision into reality.

Bush, whose remarks were broadcast live on NASA television, was joined by NASA Administrator Sean O'Keefe as he committed the nation to a long-term human and robotic program to explore space, starting with the moon and later Mars and other destinations in the solar system.

"Inspired by all that has come before, and guided by clear objectives, today we set a new course for America's space program," Bush declared. "We will give NASA a new focus and vision for future exploration. We will build new ships to carry man forward into the universe, to gain a new foothold on the moon, and to prepare for new journeys to worlds beyond our own."

Pledging to make "steady progress, one mission, one voyage, one landing at a time," the president vowed to complete the International Space Station by 2010 to fulfill the United States' commitment to its 15 partner countries. To accomplish this goal, the president said the aging space shuttle will be returned to flight "consistent with safety concerns and the recommendations" of the Columbia Accident Investigation Board. "The shuttle's chief purpose over the next several years will be to help finish assembly of the International Space Station," Bush said. The president added that in 2010, after nearly 30 years of service, the space shuttle will be retired.

Bush, whose remarks were punctuated by applause from the capacity audience gathered in an auditorium at NASA Headquarters, said his second goal will be to begin developing a new manned exploration vehicle – the first of its kind since the Apollo command module – to explore other worlds.

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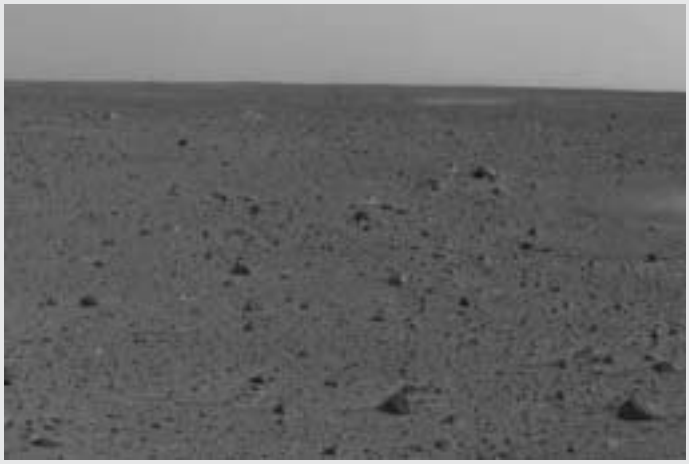
NASA's 'Spirit' soars with successful Mars rover landing

Scientists cheered, danced and hugged each other on what would prove to be an historic Saturday night Jan. 3 when NASA's plucky Mars Exploration Rover (MER) 'Spirit' successfully landed on Mars.



NASA photo by JPL/Cornell

The first color image of Mars taken by the panoramic camera on the Mars Exploration Rover Spirit. It is the highest resolution image ever taken on the surface of another planet.

After plunging through the martian atmosphere and bouncing across the brown, rock-strewn surface of the red planet, Spirit sent a radio signal that was received by NASA's Deep Space Network at 8:35 p.m. PST. Members of the mission flight team at NASA's Jet Propulsion Laboratory (JPL) reacted with whoops of joy and applause as they heard the exciting news.

"This is a big night for NASA," said an ecstatic NASA Administrator Sean O'Keefe. "We're back. I am very, very proud of this team and we're on Mars," O'Keefe said.

"I feel great," said Ames Director G. Scott Hubbard, who was also present at JPL for the MER landing. "It's

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"The new spacecraft, the Crew Exploration Vehicle, will be developed and tested by 2008 and will conduct its first manned mission no later than 2014," Bush said. The president said the CEV would also be capable of transporting astronauts and scientists to the International Space Station after the space shuttle is retired.

White House photo by Eric Draper

President George W. Bush greets shuttle astronauts from right to left, Peggy Whitson, Stephanie Wilson, John Grunsfeld and Ellen Ochoa at NASA Headquarters in Washington, D.C. on Jan. 14. The President committed the United States to a long-term human and robotic program to explore the solar system, starting with a return to the moon that will ultimately enable future exploration of Mars and other destinations.

As his third goal, Bush said America will return to the moon within the next decade and use the moon as a launching point for future space missions. "Beginning no later than 2008, we will send a series of robotic missions to the lunar surface to research and prepare for future human exploration," Bush said. "Using the Crew Exploration Vehicle, we will undertake extended human missions to the moon as early as 2015, with the goal of living and working there for increasingly extended periods," he added.

"Returning to the moon is an important step for our space program," declared Bush. He predicted that establishing an extended human presence on the moon could "vastly reduce the costs of further space exploration," and make more ambitious missions possible. "

With the experience and knowledge gained on the moon, we will then be ready to take the next steps of space exploration: human missions to Mars and to worlds beyond," Bush said.

To help NASA accomplish his goals, the president said he will ask Congress to increase NASA's current five-year budget of $86 billion by approximately $1 billion over the next five years. "This increase, along with refocusing of our space agency, is a solid beginning to meet the challenges and the goals we set today," Bush said. However, he stressed that "it's only a beginning," and "future funding decisions will be guided by the progress we make in achieving our goals," he cautioned.

"This will be a great and unifying mission for NASA, and we know that you'll achieve it," Bush observed. "We begin this venture knowing that space travel brings great risks. The loss of the space shuttle Columbia was less than one year ago. As one family member said, 'The legacy of Columbia must carry on – for the benefit of our children and yours.' The Columbia's crew did not turn away from the challenge, and neither will we," Bush said.

"Mankind is drawn to the heavens for the same reason we were once drawn into unknown lands and across the open sea, " Bush concluded. "We choose to explore space because doing so improves our lives, and lifts our national spirit. So let us continue the journey."

"We have a clear mandate," said NASA Administrator Sean O'Keefe in a news conference following the president's announcement. And NASA has the full confidence of the president in our ability to achieve this vision, he added.

Looking back on the historic ac-

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White House photo by Eric Draper

President George W. Bush and NASA Administrator Sean O'Keefe watch as Michael Foale, right, commander of the International Space Station, welcomes the president during a live television link from space at NASA Headquarters in Washington, D.C. on Jan. 14.

NASA's 'Spirit' soars with successful Mars rover landing

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a great day to go to Mars."

About three hours later, the jubilant scientists cheered again as Spirit began transmitting its first images of Mars to Earth, relaying them through the agency's Mars Odyssey orbiter.

"We're back …and we're on Mars," -- Sean O'Keefe, NASA Administrator

"When that first image started coming back from Mars, Edmond and I looked at each other and we had a meltdown," recalled an emotional Ames planetary scientist Nathalie Cabrol, whose husband, Edmond Grin, traveled with her to JPL to conduct science operations for the MER mission.

Cabrol, along with David Des Marais and Michael Sims, is one of three NASA Ames researchers who are co-investigators for the MER mission. As members of the MER mission's Science Operations Working Group, the three scientists are participating in directing the rover's day-to-day operations during the mission.

Des Marais is serving as the lead of the MER working group's long-term planning group; Cabrol is working in the MER geology group and as a documentarian for the long-term planning group; Sims is providing robotics and intelligent software expertise for the mission.

Sims, who is keeping a journal of the mission scientists' daily activities at JPL, talks of the high excitement and the high stress scientists are experiencing as they adjust to working on a Mars day cycle, away from their families and friends.

"At the very least, you can think of all of this as breaking up the old 9 to 5 routine," Sims writes. "Don't get me wrong – there's nothing else I'd rather be doing. We all think of this as a great privilege to have this chance to work with these scientific tools on Mars."

NASA Ames scientists have made numerous contributions to help make Spirit's landing so successful. Ames developed a set of collaborative software tools called 'Marsoweb' (http://marsoweb.nasa.gov.gov) that are used by planetary scientists to review Mars data and determine the best and safest sites for the rover landings.

NASA Ames also contributed to the MER mission by conducting a series of parachute tests in the 80-by-120-foot wind tunnel from September 2002 through January 2003 that helped scientists select the optimum parachute design for the rover. Ames also supported the design, manufacture and test of the thermal protection system used in the rover's aeroshell structure.

In addition, the Ames Information Sciences and Technology Directorate played a significant role by developing software technologies and tools, including a suite of mission support software for the ground control and operation of the twin rovers. Ames scientists also developed the MERboard, a computing platform that provides an immersive and interactive computing environment for team members to view, analyze and share data from Mars.

Ames scientists also are supporting the MER mission by providing 'human-centered computing' and developing fatigue countermeasures to help mission scientists cope with having to work around the clock on a Mars day (or 'sol') schedule that is 24 hours and 39 minutes long.

NASA's MER mission has attracted attention among millions of people around the world. NASA's Web portal, which includes the agency's home page, the Mars program Web and the Spaceflight Web, received 916 million hits and users downloaded 154 million Web pages between 12 midnight PST Jan. 3 and 6:30 a.m. PST Jan. 6. The site was expected to exceed one billion hits later in the day on Jan. 6. By comparison, the NASA Web portal received a total of 2.8 billion hits for all of 2003.

Hundreds of news reporters covered the story at JPL, and their articles and images were printed and broadcast throughout the world. Among the news organizations represented at JPL were the major television networks, BBC, CNN, Discovery Channel, New York Times, Washington Post, Los Angeles Times, Associated Press, Reuters, San Francisco Chronicle, US News & World Report, the Boston Globe, Irish Television, Orlando Sentinel, Florida Today, Space News, Houston Chronicle, Newsday, Astronomy magazine, Orange County Register, Scientific American, Astronomy Now and the Chronicle of Higher Education, among others.

To reach Mars, Spirit traveled 302.6 million miles (487 million kilometers) after being launched from Cape Canaveral in Florida on June 10, 2003.

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Ames opens interactive Mars center

A raging winter storm with driving rain and gusting winds did not dampen spirits at NASA Ames' gala ribbon-cutting ceremony commemorating the opening of the new Mars Center.

Ames Center Director G. Scott Hubbard and Mars Exploration Rover scientists David Des Marais and Nathalie Cabrol, co-investigators on the Mars Exploration Rover mission, took the podium at 10 a.m. and addressed an attentive throng of media members and Ames staffers. "We are proud to announce the opening of our Mars Center, which will give the community an opportunity to share in the wonder and excitement of exploring Mars," said Hubbard. "The center also will serve as a dynamic educational resource about Mars for the entire Bay area."

Following Hubbard's remarks, high school student Mark Sheldon of Irvington High School in Fremont gave the signal to a pre-programmed autonomous rover that he helped design and build at Carnegie Mellon University's (CMU) summer 'robocamp,' to cut the ceremonial ribbon.

NASA photo by Tom Trower

The new Mars Center opened on Dec. 29, 2003 at NASA Ames to a warm public reception. Over 12,000 visitors toured the center in its first 10 days of operation.

The media, who were able to interview presenters after the ceremony,

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Ames forum explores nanotechnology and homeland security

Nanotechnology's potential to help with homeland security was the subject of a forum that hundreds of experts from industry, academia and government attended on Dec. 15 at the NASA Research Park at NASA Ames.

NASA photo by Roger Brimmer

At the recent nanotechnology conference held at Ames, left to right, Center Director G. Scott Hubbard poses with venture capitalist Vinod Khosla and U.S. Representative Mike Honda.

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, roughly 10,000 times smaller than the width of a human hair. Scientists predicted that nanotechnology could lead to changes in almost everything from computers and medicine to automobiles and spacecraft.

"NASA is using nanotechnology to reduce the weight and increase the capability of spacecraft. One of the strongest of the nation's lines of defense could include microscopic sensors and machines derived from our NASA work," said Ames Center Director G. Scott Hubbard. "This revolutionary, new technology could provide a vital component of the nation's ongoing efforts to defend against terrorist threats," Hubbard stated.

NASA and U.S. Reprentatives Anna G. Eshoo, Zoe Lofgren and Mike Honda co-hosted the Nanotechnology and Homeland Security Forum. Honda is co-sponsor of the Boehlert-Honda Nanotechnology Bill, H.R. 766. After emerging from a bipartisan committee, the bill resulted in S 189 that President Bush signed into law on Dec. 3. It authorizes $3.7 billion for research over the next four years for the National Nanotechnology Initiative.

"This will be a big shot in the arm for Silicon Valley and for the country's economy," Honda said. "Nanotechnology has the potential to create entirely new industries and radically transform the basis of competition in other fields," Honda added. The National Science Foundation has projected a $1 trillion global nanotechnology market within the next decade.

The forum included four panel discussions: homeland security technology needs, homeland security nanotechnology R&D, venture capital and government funding, and business role and market.

"I'm proud to welcome the Nanotechnology and Homeland Security Forum to the heart of Silicon Valley," said Eshoo. "Our region has for decades led the world in developing innovative solutions to our most pressing technological challenges. As we address the critical question of how to strengthen homeland security, I have no doubt that many of the answers will be found right here," Eshoo added.

The meeting included key participants from NASA Ames, other Bay area federal laboratories (including Lawrence Livermore National Laboratory), universities, and such companies as Hewlett-Packard, Genencor Boeing and representatives from the venture capital community and the federal government.

"It is essential that we bring leading thinkers and innovators together to understand the tremendous potential of nanotechnology and what needs to be done to further encourage its development," said Lofgren. "I always look forward to learning more about the exciting work that is being done at NASA Ames in the area of nanotechnology," Lofgren continued.

"This forum will provide participants with an excellent opportunity to see and hear first hand much of the work and research that is being done in the areas of homeland security and nanotechnology, learn of funding opportunities and share ideas on the future of the Bay area economy," said Michael Marlaire, NASA Ames' director for external relations and development.

There also were breakout sessions for roundtable discussions on the northern California nanotechnology and convergence roadmap, presentations of early stage companies and technologies and various funding opportunities in this field.

"Nanotechnology provides an enormous opportunity to increase the sensitivity of sensors for detecting chemical, biological and nuclear threats," said Meyya Meyyappan, director of the Center for Nanotechnology at NASA Ames. "The bonus is that the product can come in ultra-small size, requiring only low power levels," Meyyappan added.

NASA photo by Tom Trower

Congresswoman Anna Eshoo (CA, 14th District) was a co-host of the recent nanotechnology and homeland security forum at NASA Ames and a featured speaker during the day-long event.

The forum was co-sponsored by: Technet, the Bay Area Science and Innovation Consortium (BASIC), Joint Venture Silicon Valley Network, Silicon Valley Manufacturing Group, the Bay area Economic Forum, Northern California Nanotechnology Initiative, NOVA (North Valley Workforce Board) and the cities of Palo Alto, Mountain View and Sunnyvale, Calif.

More information about NASA nanotechnology can be found on the Web at http://www.ipt.arc.nasa.gov

BY JOHN BLUCK

House staffer visits NASA Ames

On Jan. 6, Deputy Associate Administrator for Legislative Affairs at NASA Headquarters Mary D. Kerwin and minority staffer for the House Appropriations Committee, Subcommittee on VA HUD and Independent Agencies Michelle Burkett visited NASA Ames.

They received briefings on Ames' nanotechnology and information technology programs and activities, air traffic management and NASA Research Park. They took a small amount of time at the end of the day to visit Ames' new visitor center in its present configuration as the Mars Center.

Kerwin and Burkett stopped over at Ames on their way back to Washington, D.C., following their visit to JPL for the landing of the 'Spirit' rover on Jan. 3 as part of NASA's very successful Mars Exploration Rover mission.

NASA photos by Dominic Hart

Estelle Condon (right) NASA Ames' associate director for space programs and projects, provides an overview of Ames missions and capabilities to Michelle Burkett (left) and Mary D. Kerwin (center).

David Morse, Ames' public affairs director, points out the MER landing sites and other martian features on a Mars topographic globe to Kerwin and Burkett during their recent visit to the new Ames Mars Center.

NASA's 'Spirit' soars

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Spirit's twin, Mars Exploration Rover Opportunity, was launched July 7, 2003 and is scheduled to land on Mars at 9:05 p.m. PDT on Jan. 24.

On Jan. 6, O'Keefe announced plans to name Spirit's landing site in Gusev Crater as the Columbia Memorial Station in honor of the astronauts who died in the tragic accident of the space shuttle Columbia Feb. 1, 2003. A memorial plaque to Columbia's seven astronauts and the STS-107 mission is located on the back of Spirit's high-gain antenna. The aluminum plaque, which measures approximately six inches in diameter, was attached to the spacecraft in March 2003 at NASA's Kennedy Space Center.

Additional information about the Mars Exploration Rover mission is available at: http://marsrovers.jpl.nasa.gov

BY MICHAEL MEWHINNEY

Editor's Note: Because of the massive amount of publicity the MER story generated, NASA Ames public affairs officer Mike Mewhinney, along with public affairs officers from NASA Headquarters and other field centers, provided media relations support to the JPL newsroom staff. He said it was an exciting experience and one that he won't soon forget. Although he said there were many memorable moments during the four-day trip, perhaps one that stands out occurred on Saturday, Jan. 3, after Spirit touched down on Mars. "One of the jubilant JPL scientists began dancing with his wife around the newsroom in celebration of the remarkable achievement," he recalled. " It was pure joy. People were cheering and hugging each other and applauding the historic moment. Wow – what a night that was!"

Bush lays out bold new space vision

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complishments of the space program, Bush cited a number of major accomplishments. "Telescopes -- including those in space -- have revealed more than 100 planets in the last decade alone. Probes have shown us stunning images of the rings of Saturn and the outer planets of our solar system. Robotic explorers have found evidence of water -- a key ingredient for life -- on Mars and on the moons of Jupiter. At this very hour, the Mars Exploration Rover Spirit is searching for evidence of life beyond the Earth.

Yet for all these successes, much remains for us to explore and to learn. In the past 30 years, no human being has set foot on another world, or ventured farther upward into space than 386 miles -- roughly the distance from Washington, D.C. to Boston, Massachusetts. America has not developed a new vehicle to advance human exploration in space in nearly a quarter century. It is time for America to take the next steps."

NASA Ames Research Center Director G. Scott Hubbard welcomed the president's new vision, vowing that NASA Ames will play a key role in helping meet the president's goals.

"NASA Ames Research Center is extremely excited about the president's new national space vision and associated space exploration objectives for our agency. At NASA Ames, we conduct world-class research and technology development in support of all NASA exploration missions. So we will be studying the president's program very carefully to determine how best we can help in achieving the president's goals," Hubbard said.

"NASA Ames conducts vital R&D on the convergence of biotechnology, nanotechnology and information technology; pursues astrobiology research on the origins and evolution of life in the solar system; and is home to critical testing facilities like the arc jets for developing advanced thermal protection materials. Our hope and expectation is that NASA Ames will play a significant role in pursuing the vision and space exploration program that the president has articulated today," Hubbard concluded.

BY MIICHAEL MEWHINNEY

Aero Expo IV inspires young visitors to NASA Ames

'Aero Expo IV: A Morning with the Wright Brothers at NASA Ames' was held in December as part of the 'Centennial of Flight' celebration. The NASA Ames Education Office hosted Aero Expo IV. This year's event brought in over 4,000 5th-8th grade students, teachers and escorts to Ames for three days, as part of this final centennial celebration at the center.

A reenactment of the Wright Brother's conversations was performed during the Aero Expo IV event held in December.

Students began their adventure in the Ames auditorium to experience a reenactment of Orville and Wilbur Wright's conversations leading to the first successfully powered heavier-than-air flying machine. Running concurrently was the Aero Village on the aircraft ramp between Hangar 1 and Building 158. Aero Village encompassed over 10,000 square feet of tented exhibit space featuring a 1903 Wright Flyer replica and numerous student activities. Adjacent to the village were more than 20 aircraft on static display, including aircraft from general aviation, the military and NASA.

Some of the 4,000 school children who visited Ames during the recent Aero Expo enjoy a range of interactive exhibits and experiences.

NASA photos by Tom Trower

Ames' aircraft on static display attract youthful visitors.

Students view a replica of the Wright Flyer at Aero Expo IV.

A visiting student experiences the virtual hang glider at the recent Aero Expo IV. Over 4,000 fifth through eighth graders enjoyed the centenial of flight celebration hosted by NASA Ames.

NASA, Carnegie Mellon make personal robots possible

As NASA's twin robot geologists 'Spirit' and 'Opportunity' were preparing to land on Mars this month, a cadre of 20 smart rovers was deployed at some of the nation's most prestigious science museums to let visitors experience the thrill of exploring the red planet.

Developed by researchers at Carnegie Mellon University (CMU) with support from NASA and Intel Corp., the Personal Exploration Rovers (PERs) will reside in a 'Mars yard,' specially designed to mimic martian terrain at the new visitor center at NASA Ames.

NASA and Carnegie Mellon's 'Personal Exploration Rover.'

The new rovers also will be deployed in Mars yards at the San Francisco Exploratorium; the Smithsonian's Air and Space Museum in Washington and its new Udvar-Hazy Center at Dulles International Airport; and the National Science Center in Augusta, Ga. The first exhibit opened at NASA Ames in December; the others later this month.

"With the Personal Exploration Rover, students can learn how robots interact with the world and see for themselves how the future might look as we have more and more robots helping us in our everyday life," said Ames Center Director G. Scott Hubbard.

"Our goal is to excite and inspire kids about science and technology and educate people about the role of rovers and rover autonomy in doing space science," said project director Illah Nourbakhsh, associate professor of robotics at Carnegie Mellon's School of Computer Science. "We want people to understand why it's important for the rovers to be smart."

"The Personal Exploration Rover is part of a larger project to develop low-cost robotic devices that can be used in education, science museums and the home," said Daniel Clancy, director of information sciences and technology at NASA Ames. "In future holiday seasons, you will be able to bring one of these home for your kids. The robot will be able to move around your house, take pictures, interact with your dog and do other tasks. It's really about the whole creative process and exploring how you can program a device to do interesting tasks," he added.

The Mars Exploration Rover (MER) mission is part of NASA's Mars Exploration Program, a long-term effort of robotic exploration of the red planet. The current mission is to search for clues to past water activity on Mars. The spacecraft are targeted to appropriate sites on opposite sides of the planet. The rovers they carry will drive to promising locations to perform on-site geological investigations over the course of their 90-day missions.

While Spirit and Opportunity are looking for water history, museum visitors interacting with the PERs will be able to search the Mars yards' rocky landscapes for organo-fluorescent evidence of life.

While each museum's exhibit is unique, they all contain one or more Mars yards populated by rovers. The identical rovers are 1.2 feet tall, weigh 10 pounds and can move 1.6 inches per second. They have mobility systems similar to those of Spirit and Opportunity.

Visiting 'mission scientists' will access the PERs through a kiosk, and then partner with a rover as it moves through the yard, scanning rocks and soil to find signs of life. The rovers are equipped with cameras mounted on a custom-designed head that can create a panoramic or 360-degree image. It also can detect obstacles using an optical rangefinder.

Carnegie Mellon and NASA researchers have designed educational materials and ongoing support for the six-month-long exhibits that feature the rovers. "The gender gap closes when you use robots," Nourbakhsh said.

The PER project is funded as part of a four-year grant from NASA to develop educational robots. It is supported through the NASA Ames Intelligent Systems Program and Intel. The PERs are powered by Intel® Xscale® technology using the Intel ® PXA255 processors, which provide high system performance and low power consumption. The rovers run the Linux operating system and are programmed in Java.

For more information about CMU's personal rover project, see http://www-2.cs.cmu.edu/~personalrover/PER/

For more information about NASA's Mars Exploration project, see http://mars.jpl.nasa.gov/mer

BY MICHAEL MEWHINNEY

Acquisition deputy La Follette retires

After 36 years of government service, Carolyn S. La Follette, (acting) deputy chief of the acquisition division and deputy procurement officer, is retiring.

A reception will be held in her honor on Jan. 22 at the NASA Ames Conference Center ballroom, from 2:00 p.m. to 4:00 p.m. Cost per person is $15, which will include beverages, hors d'oeuvres and a gift.

If you wish to attend, contact Grace Ann Weiler at ext. 4-5800 or Mary Valdez at ext. 4-5819.

Hubbard addresses progress, changes at NASA Ames

During an upbeat, wide-ranging all-hands meeting, NASA Ames Director G. Scott Hubbard recently brought employees up to date on the status of recent strategic management and strategic planning initiatives. He also discussed feedback from November's Safety and Mission Success Week, and announced several changes in the center's organizational structure.

NASA photo by Tom Trower

Ames Center Director G. Scott Hubbard responds to questions from the audience during the recent all-hands meeting at NASA Ames.

Hubbard began by noting that in a summer 2002 survey of federal employees, Ames received high marks except in the areas of pay and compensation, and strategic management and strategic planning. He then explained the five elements of the agency's strategic planning process, beginning with the President's Management Agenda, which outlines the Bush administration's strategy for improving the management and performance of the federal government. Next, the NASA strategic plan expands on the agency's vision and mission statements, and lays out on a high level how the missions will be carried out.

Below the agency's strategic plan are the strategies for each of the seven NASA enterprises (Earth science, space flight, aerospace technology, space science, education, safety and mission assurance, biological and physical research). At the field center level, the Ames implementation plan reflects what this center plans to do during the next three years. This document, which will be updated annually, will be distributed to Ames employees later this month. The Ames implementation plan ties the center's research and projects back to the NASA mission and strategic plan. It "describes our capabilities and talks about everything we are doing, from nanoscience to supercomputing," Hubbard said. "I urge you all to read" the Ames implementation plan. Finally, these elements are included in each employee's performance plans for the fiscal year.

Hubbard then discussed Ames employee input resulting from November's Safety and Mission Success Week, during which all employees were encouraged to read the report from the Columbia Accident Investigation Board and determine how to apply the report's messages to their own areas of work. Among the items submitted by Ames employees were:

- Employees feel the CAIB report does apply to everyone.
- There is too little emphasis on developing current and future leaders. Failure should be an option as we try new things.
- We don't think strategically.
- Do we have sufficient resources to do the job?
- Do we emphasize process over content?
- We lack a formal and effective way to facilitate the flow of information up and down the management chain.
- The contractor/civil servant relationship exacerbates the communication problems.
- The agency should devote greater resources to facilitate learning, and place more value on questioning decisions.
- In the field of safety, people feel that although we say safety is our top priority, the safety programs are scattered, and management sends mixed messages.

"We will take action on these suggestions right away," Hubbard assured employees. "This is what you have told us," he added. Now the question is, "Can senior management deliver?" The next step is already under way – the creation of a Strategic Research Council, led by Steve Zornetzer, and providing strategic management training for middle managers. Hubbard noted that the top priority is working on areas where improvements can be accomplished quickly. Management plans to clarify by early January those concerns not yet fully understood, then establish appropriate action teams to address solutions.

The third and final topic Hubbard addressed was his reorganization of the center's management structure. He began by outlining the broad responsibilities of the center's top management officials. Allen Flynt, deputy director, has an "exceptional ability to grasp what's going on" and serves as the center's chief operating officer. Zornetzer chairs the Strategic Research Council and oversees the center's research programs. Estelle Condon is responsible for reviewing projects and the SOFIA program. Peter Friedland was recently appointed assistant director for technology.

As part of the reorganization, Hubbard reduced the number of staff offices from 21 to five. Staff offices now include the Ames Legal Office, Equal Opportunity Programs Office, SOFIA, the NASA Astrobiology Institute, and the Nanotechnology Center. The goal, he explained, is "to get the work, coordination and management done at the lowest level possible."

The Federal Aviation Administration's liaison office is now part of the Aerospace Directorate (Code A). A new directorate, Code E, includes all the groups that deal with external audiences: Public Affairs (DX), Development (DT), Technology Partnerships (DK) and the History Office (DH). Michael Marlaire will lead the new External Relations and Development Office. The goal in establishing this new directorate is to "achieve greater coordination and a unified message," Hubbard said.

Another new directorate, the Project

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Ames opens interactive Mars center

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turned out in force at the morning event. All major local television and print media attended, including television channels 2,4, 5,7 and 11. All ran stories on the evening news.

Prior to the opening, Scott Hubbard did preview interviews on KCBS and

Center Director G. Scott Hubbard is interviewed by Channel 7 news during the opening ceremony of the new Ames Mars center on Dec. 29, 2003.

KGO 'commute' radio. Feature stories about the Mars Center opening also appeared in the San Francisco Chronicle and San Jose Mercury News , on Dec. 29 and Dec. 30, respectively.

The morning ceremony was followed by the public's first chance to visit. Approximately 300 enthusiastic adults, excited children and interested teachers 'oohed and aahed' over interactive exhibits featuring Mars, the Mars Exploration Rover missions and NASA Ames' scientific and engineering support roles in missions to the red planet.

In the evening, undeterred by the rain, about 300 VIPs attended an hors d'oeuvres reception.

The goal of the Mars Center, located in the large white tent that formerly housed Space Camp California, is to familiarize adults and children with current information about Mars, provide live coverage transmitted from NASA's Jet Propulsion Laboratory (JPL), Pasadena, Calif., about the Mars Exploration Rovers' missions, and share ongoing research about future Mars missions.

Since the opening, over 12,000 people have visited the Mars Center in its first 10 days of operation.

Exhibits include a Mars immersive theater, where visitors can see live transmissions of the Mars Exploration Rover landings from mission control at JPL, a Mars meteorite sample a piece of the Ames-developed thermal protection system, and a children's room where children as young as three can take part in exploring Mars.

A young visitor checks out the video screen display in the kids' interactive learning room at the Ames Mars Center.

The Personal Exploration Rover (PER), developed at Carnegie Mellon University, with support from NASA and Intel Corp., resides in an interactive "Mars yard", which mimics martian ter-

David Des Marais speaks during the recent Ames Mars Center opening ceremony.

rain. Visitors can 'drive' the 1.2 foot-tall rover, which can move at 1.6 inches per second, on a simulated Mars mision. Its mobility systems are similar to those of rovers Spirit and Opportunity.

The Mars Center will feature a series of family nights and star-gazing parties. The first family night, which was held on Jan. 7 attracted about 350 people. A series of lectures with NASA Ames Mars experts will begin in February.

Shortly after the opening, Mars scientists Cabrol Des Marais and Michael Sims, left for JPL to join the mission and science operations teams.

Des Marais is lead of the MER working group's long-term planning team, coordinating the rover's day-to-day operations with mission objectives. Cabrol serves in the rover's geology group, in-

The Personal Exploration Rover at the Ames Mars Center is drawing plenty of interest.

terpreting data from the rover's panoramic camera and Microscopic Imager, which takes high-resolution close-ups of Mars rocks and soils. Sims provides robotics and intelligent software expertise for the mission.

For more information about the Mars Center, visit http://www.arc.nasa.gov. For information about the Mars Exploration Rovers, visit http://mars.jpl.nasa.gov/mer

BY KATHLEEN BURTON

Over $13,000 awarded to Ames software team

The Space Act Award program, which is coordinated through the Ames Technology Partnerships Office (Code EP) is designed to provide official recognition of those inventions and other scientific and technical contributions that have helped to achieve NASA's aeronautical, commercialization and space goals and to encourage the creation and reporting of future innovations. The Inventions and Contributions Board (ICB) funded by NASA Headquarters is authorized to recommend the granting of these monetary awards to civil servants, contractors and other partners.

The SemanticOrganizer team recently received recognition in the form of a Space Act award for its work. SemanticOrganizer is a Web-based, collaborative knowledge-management and information-structuring tool that supports the collaborative work processes of distributed project teams. It combines the functionality of a database, a document-sharing system, a hypermedia information space, and a semantic network into a system that can be easily customized to match the specific information storage and retrieval needs of different user communities. For more information, visit the Web at: http://sciencedesk.arc.nasa.gov/scidesk/

NASA photo by Dominic Hart

The SemanticOrganizer team members, above, recently received Space Act Award recognition. Seated from left to right: Robert Carvalho, Shawn Wolfe, Rich Keller, Ian Sturken and Dan Berrios. Standing from left to right: Eva Chen (representing James Chen), Deepak Kulkarni, David Nishikawa, Kim Hubbard, James Williams, Sergey Yentus, Michael Compton, Dennis Heher, David Hall, Linda Timucin and Ames Deputy Center Director Allen Flynt. Members of the team not available for the photo: Brad Bebout, Ling-Jen Chiang, Satyam Dave, Yuri Gawdiak, Jon Guice Hagstrom, Larry Kiser, Tina Panontin, Stephen Rich and Keith Swanson.

Contractor council awards given

NASA photo by Dominic Hart

Contract awards were presented recently to Intrinsyx Technologies SSBRP SW and Delta Systems Team. Deputy Center Director Allen Flynt (far left) presented the awards.

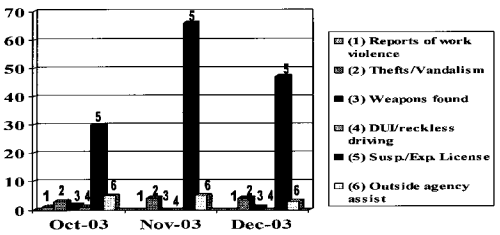
In December, the Ames Contractor Council (ACC) held its 14th annual Contractor Excellence Awards ceremony. The council's NASA co-chair, Deputy Center Director Allen Flynt, joined contractor co-chair Anita Fogtman in honoring both individuals and teams for their outstanding contributions to the center's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

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.

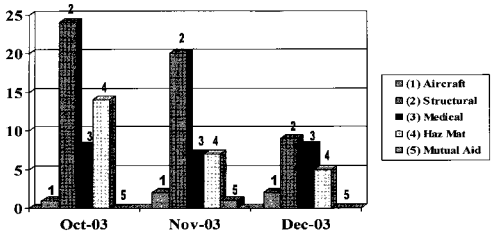
Protective Service's monthly activity

A statistical summary of activities of the Protective Services Division's Security/Law Enforcement and Fire Protection Services units for the month of December 2003 is shown below.

Security/Law Enforcement Activity



Fire Protection Activity



Ames celebrates 100 years of powered flight

On Dec. 17, 2003, the anniversary of the first powered flight, the president, aviation dignitaries from around the world and the public gathered at a rain-soaked Kill Devil Hills, N.C., to witness a reenactment of the Wright Brothers' famous flight. Unfortunately, the replica flyer never made it off the ground.

Kristi Stavros, aeronautical engineering student at Cal Poly, works on a 1903 Wright Flyer model in the 2-foot-by-2-foot slow-speed wind tunnel.

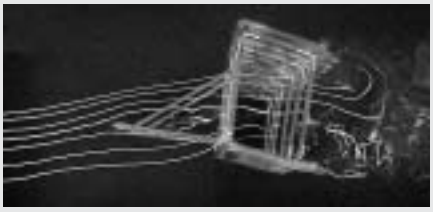
Fortunately, 'every cloud has a silver lining.' The failure to fly only heightened the respect that modern aerospace engineers and the public have for the skill and ingenuity of the Wrights.

At NASA Ames' Fluid Mechanics Laboratory (FML), as part of the Wright Again project, the culminating tests were being performed to recreate the methods the Wrights used to engineer the 1903 Flyer.

"Wright Again is a recreation of the Wright Brothers' activities between 1899 and 1903, and this also includes recreating some of their wind tunnel tests conducted in 1901," said Dr. Jani Pallis, principal investigator for the Wright Again project.

The project seeks to help students understand the engineering principles used by the Wrights and modern engineers by using special activities including entries from the Wrights' engineering journals and testing of the actual airfoils used by the Wrights to design their 1903 Flyer.

In step with the project's mission, conducting the test was Kristi Stavros, a junior aeronautical major at California Polytechnic, San Luis Obispo. Stavros spent part of her winter break from school to perform the tests.



Fluorescent dye flows over a 1901 Wright Flyer glider model in the NASA Ames Fluid Mechanics Lab's water channel.

'It was an amazing opportunity for me to learn about engineering in the real world using the ideas and concepts I've learned about in school," said Stavros. "The staff and engineers of the Fluid Mechanics Lab were great; they were always ready to help if I had any questions," she added.

Stavros conducted tests in the lab's 2-foot by 2-foot low-speed wind tunnel to collect lift and drag measurement on a 1903 Wright Flyer model. The results will be compared to data gathered by the Wrights and added to the Wright Again project's Web site.

Stavros hopes to return to Ames in the summer to continue the 'real world' engineering experience.

The Wright Again project and engineers at the FML hope that positive experiences like this will inspire her and others to become the aerospace innovators for the next century of powered flight.

"Having Kristi here to perform the culminating test for the Wright Again project is one effort to fulfill NASA's mission of inspiring the next generation," said Dr Rabi Mehta of the Fluid Mechanics Lab.

The Wright Again project is a partnership between Cislunar Aerospace, San Francisco, and The Franklin Institute Science Museum, Philadelphia, and is sponsored by the Natinal Business Aviation Association, Washington, DC, with generous support by NASA Ames' Fluid Mechanics Laboratory.

For more information about the Wright Again project, visit: http://www.wrightagain.com

For images and a related news release about the Wright Again project, visit: http://amesnews.arc.nasa.gov/releases/2002/02_120AR.html

BY JONAS DINO

NASA photo by Tom Trower

The Ames Exchange provided cake for Ames employees in celebration of the 100th Anniversary of Flight and the first day of the second hundred years of flight on Dec. 18 in the Ames Mega Bytes café. Ames historian Jack Boyd, front center, is seen here with the Ames Mega Bytes café staff.

Art of Leadership Mastery program draws wide interest

The Art of Leadership Mastery program is an eight-month pilot program developed exclusively for NASA Ames and is a lynchpin to LIFE@Ames - 'Leaders Investing for Excellence' – Ames' integrated approach to leadership development and management training. The underlying principle of the 'Mastery' program (which began in September with its cohort program) is that leaders bring the future into being through people. The Art of Leadership Mastery program provides both the hard and soft skills required to enable a program participant to achieve the next level in his or her leadership development. The coursework for 'Mastery' includes experiential and action learning, individual exercises, and group learning.

'Art of Leadership Mastery' facilitator Scott Coady and Kanu Kogod, his collaborator, pose with the program logo.

There are two concurrent and complementary aspects of the Mastery program that distinguish it from past Ames' leadership programs. One aspect is the cohort program, which is targeted for high performing leaders and those with strong leadership potential who are GS level 13 through 15. Applicants to this program have also committed themselves to all course work (10 days over 8 months – the dates previously secured), obtained the commitment of their immediate supervisor to attend all the courses and demonstrated personal commitment to grow as leaders. In addition, applicants were asked by the representative of the Ames training group to articulate their personal reasons for participating as well as their expected personal outcomes. Twenty-two cohort participants meet each month for eight months in course work – and also keep in contact between sessions in outside group work and support. Cohort participants have recommended reading as well as the option to complete four learning guides created specifically for the Ames program. These reflection guides can be turned in at specific times for feedback from the program facilitator. The participants have the consistency of the same facilitator each month.

The other distinguishing aspect of 'Mastery' is the 'open program' - designed with the remaining civil servant population in mind. It is 'open' in that an employee is not required (although certainly encouraged) to take more than one course in the program. Although the initial two-day foundations course is prerequisite for taking other courses in the program, any civil servant may sign-up for a particular course during the year. The 'open' program also serves as a way for those in the cohort program to make up absences due to unexpected events (travel, illness, etc).

It should be noted that although skill building is one aspect of the 'Mastery' program, its main focus is developing people as leaders. The cohort program courses are organized into three levels and include sequential cascading prerequisites. Following a two-day foundational course, level two courses focus on self, team, and vision and include skill building in the areas of basic communication, envisioning and moving powerfully toward the future, effective teaming, and leadership and emotional intelligence. Level three courses focus on 'taking it to others' and include coursework in the areas of collaboration, giving and receiving feedback, coaching, leading and managing change, dealing with difficult people, mobilizing others to action, and improving performance coaching.

The 'Mastery' program, conceived and designed before the CAIB issued its recommendations with regard to leadership development and management training, speaks directly to the CAIB's concerns of preparing managers for increased roles of responsibility within an integrated approach to career development. 'Mastery' was created with the intention of developing a more intentional and integrated development process for Ames' current and future leaders. Program courses were designed with the intent to achieve leader readiness, enable participants to build long-term partnerships with colleagues, provide a curriculum that allows for flexibility and just-in-time training – all the while complementing and being in concert with other NASA development programs, including the NASA Leadership Development Program. 'Mastery' is in alignment with NASA's current initiative to increase the agency's internal coaching capacity -- strengthening the ability of managers to coach their employees as well as providing executive coaching for executive management. Ames is utilizing the same resources in the 'Mastery' program as NASA is using in rolling out its initiative. Currently, the Newfield Group is training Jane Babicz and the author of the Human Resources group (as well as others across the agency) for certification as business coaches. The two eventually hope to be certified by the International Coaching Federation.

Scott Coady with the cohort group at one of their sessions this fall.

continued on next page

Good neighbor, safety training and teamwork save toddler

A sense of community, teamwork and the importance of safety training at NASA Ames all came to the front when Lou Hammett, an administrative support assistant in Code JH, helped to save life of a 2-year-old baby who was choking on a piece of hot dog.

On a recent Thursday evening, while watching TV, Hammett's 6-year-old daughter Franshya heard their neighbor crying and calling for Hammett's husband, who was still at work at the time. The neighbor was running to Hammett's house with a 2-year-old girl in her arms. Franshya ran to get Hammett, who was in the laundry room. Hammett stopped what she was doing and rushed to help her neighbor. The two houses are linked and separated by a small fence. The neighbor handed Hammett the child over the fence.

In the midst of panic and worry, which Hammett tried not to show to her neighbor, she performed the Heimlich maneuver on the baby, but it didn't work. Hammett then got her older daughter Felice, 14, who was talking on the phone, to help. She tilted the baby, while Felice patted the the baby on the back. Hammett told her neighbor to call 911, if this last attempt didn't work, because the baby was starting to turn blue and was foaming at the mouth. Fortunately, Hammett and Felice were able to remove the piece of hot dog that was obstructing the baby's throat and the baby was able to breathe freely again.

"I was so happy that I was there at the time and was able to help the baby to breathe on her own," said Hammett. "This has never happened to me before, and I was very worried. But I didn't want to show it to Sonia [the neighbor], who was panicking and losing herself. I was truly happy when the baby was ok."

Hammett said that this situation shows the importance of having basic safety training and safety skills. Hammett emphasized that the safety training she received at NASA Ames supported her. At work she learned CPR, first aid skills, and how to stay calm and not panic. Thus, she was able to act quickly and help the baby.

"You never know when your skills might be useful. I didn't expect this to happen that evening. I believe everybody should have some safety training," said Hammett.

There is a wide variety of safety training courses available to each employee at Ames. There are approximately 50 courses available, either online through SOLAR (NASA Site for Online Learning and Resources) or through classroom attendance. The courses meet the requirements of OSHA (Occupational Safety and Health Administration). Every NASA civil servant and most support contractor staff participate in at least 2 required classes every year. The two classes required by the Ames Safety Accountability Program are Building Emergency Action Plans and Hazard Communication. Many employees also choose to take CPR/AED, first aid, fire extinguisher training and many other classes every year.

"The student can gain important knowledge from participation in these safety and health classes, which will help the student avoid accidents or untoward health exposures," said Michael Hulet, who manages the CPR/first aid training at Ames. "Since each person has a responsibility for his/her own health and safety, these courses help us to take care of ourselves, both on and off the job. We all live and work in a "more or less" hazardous environment. Driving our cars to work is a hazardous environment. Working with computers can cause injuries so it is in our best interest to learn how to avoid hazards. The knowledge gained by employees also helps NASA to be in compliance with Federal regulations."

Hammett's husband, a Vietnam veteran who has saved the lives of many people before, considers Hammett and his daughters to be his true heroes for saving the life of a baby. For this courageous deed, the Council of Milpitas presented Hammett with a certificate of commendation in December.

BY VERONIKA SOUKHOVITSKAYA

Art of Leadership Mastery program draws wide interest

continued from previous page

In September 2002, the Ames program manager for leadership development and management training, the author, contacted Howard Tokunaga, professor of industrial/organizational psychology at San Jose State University, regarding the possibility of working together to conduct a needs assessment to identify and prioritize the training needs and desires of managers and supervisors at Ames. Working in collaboration with the author, Dr. Tokunaga and graduate students in the SJSU Master of Science Program in I/O Psychology conducted eleven focus groups across the different codes at Ames. Those attending these voluntary focus groups generated desired training topics, described perceived barriers and obstacles to receiving training, and provided suggestions on how the training function at Ames may be improved. The information received provided much helpful input for the concept and design of a development program that could meet the needs of Ames' managers and supervisors in particular, and the Ames population in general.

Cod JH Division Chief Dennis Cunningham's concern had always been for an integrated approach to development. After reviewing many vendors during the fall of 2002, Ames' Training officer Gail James and the author invited Scott Coady to work with the author to customize a program that best fit Ames' needs. From that meeting, 'Mastery' was born.

Designer and facilitator of 'Mastery' is Scott Coady. Coady is also the co-designer and co-leader of the groundbreaking and award-winning Leadership Alchemy Program currently in its third year at NASA's Goddard Space Flight Center. The Newfield Network certified Coady as an executive coach in 1992 and he was certified as a 'Master Somatic' coach by the Strozzi Institute in 2002. He obtained an MBA from Pepperdine University.

The 'Mastery' cohort program currently enjoys full participation and is closed to additional participants. However, the 'Mastery' open program is open to interested participants. There is, however, a limit of 24 enrollees per class and as of this writing, our January courses are full. Fill in and sign a training form, ARC 301 course application, and mail it to Janice Shook at M/S: 241-3.

For more information about other program aspects of LIFE@Ames, feel free to contact the author at phone ext. 4-4684 or e-mail at lhayward@mail.arc.nasa.gov

BY LEE HAYWARD

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. 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.

Mancini retires from Ames

Ronald Mancini has retired from NASA after over 30 years of service. Mancini was the acting division chief of Systems Engineering (Code FE), a position he had held since March 2002. He was involved with a variety of research projects at Ames, including the SOFIA project, the Vertical Motion Simulator, responsibility for the development of the first Ames life science hardware that flew on the shuttle in 1982 on STS-3 and the Plant Growth Unit. He was the chief of the Mechanical Systems and Controls Engineering branch from 1994-97 and a deputy division chief from 1997 to 2002.

A catered reception will be held on Jan. 21, 2004, from 3:00 p.m. to 5:00 p.m., at the NASA Ames Conference Center ballroom. A wide variety of hors d'oeuvres and refreshments will be served. Cost per person is $15, which includes food, beverages and a gift.

If you would like to attend this event, contact Merle Simbe, Building N-200, Room 111 or at ext. 4-6315.

Former operations specialist dies

Johnnie Owen Coleman passed away on Nov. 30, 2003 at his home in Carlsbad, Calif.

Coleman served as a corpsman in the U.S. Navy during the Korean War. In 1990, after an additional 32 years of U.S. government service, he retired from the position of facilities operations specialist for the Space Research Directorate at Ames.

He is survived by his wife of 50 years, Joyce, his five children, seven grandchildren and one great grandchild.

Ames Retirements

Name:	Code:	Date:
Daniel P. Bencze	AP	10-31-03
Kenneth L. Warsh	DL	12-30-03
K. C. Shih	ARH	1-02-04
Marianne Silva	CR	1-02-04
Ronald E. Mancini	FE	1-02-04
Jose Rustia	FM	1-02-04
Carolyn S. Lafollette	JA	1-02-04
Barbara J. Young	JAC	1-02-04
Scott Maa	SFD	1-02-04
K. C. Tsui	FEE	1-31-04

Astronomy lecture series presents

Dr. Eugene Chiang of the University of California at Berkeley will give a non-technical illustrated talk about 'The Search for Planet X: Exploring the Solar System Beyond Neptune.'

Date: Feb. 11
Time: 7 p.m.
Place: The Smithwick Theater, at Foothill College, El Monte Road and Freeway 280, Los Altos Hills

The event is free and open to the public. Parking on campus costs $2. Call the series hotline at (650) 949-7888 for more information.

The event is co-sponsored by NASA Ames, the Foothill College astronomy program, the SETI Institute and the Astronomical Society of the Pacific.

Chiang will discuss how new discoveries are revealing an array of interesting new objects -- including several mini-planets -- at the outskirts of our planetary system.

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: 3bd/2ba house. $1,900/mo includes, refrigerator, gardener, wooddeck w/ picnic tabl, vaulted ceilings w/ skylghts, fruit trees and planter boxes, electrc washr/dry hookups (w/d not included), Moreland schools. Two car garage w/auto. dr opnr, great neighbors, quiet neighbrhd and convenient to malls. Utilities not included. No pets, non-smoker preferred. Keith or Veronica (408) 445-8437 for information.

For rent: Large 2 bd/1-1/2 ba apt. in 4-plex with wireless Internet access included. Sunnyvale, close to Ames. $1,150/mo. N/S. Call (408) 739-3303. For details see http://www.peacham.homeip.net/rental.html

For rent: 5 min. from Ames. 1 bd condo, 840 sqft. Fireplace, view, tile floors, free laundry. $975/mo. Available 2/15/04. Mike (650) 961-8162.

House for rent in San José,11 miles from Ames. 3bd/2ba, not furnished. Huge back yard, pets ok, $1,600/mo plus dep. Paul (408) 294-9958.

Santa Clara house for rent, 12 miles from Ames. 3bd/1ba, 2 car garage, central heat and A/C, W/D hook ups. Near Santa Clara Univ. $1,400/mo. Call (408) 246-5295.

Nice 3 bd/1.5 ba twnhouse in Mtn. View. Quiet and very close to Ames. Patio and balcony, fire place, W/D, no pet , N/S. Has detached one car garage and an assigned parking lot. $1,700/mo and dep. Call (408) 761-7554.

For rent: 3 bdrm immaculate house in great Sunnyvale area. 1,800 sq. ft. w/ living room, formal dining room, family room w/fireplace, inside laundry, gardener. No pets. N/S. $2,600/mo. Call (408) 865-1968 or (408) 316-9742.

House for rent in Cupertino, 3/2, available Feb 1, short-term, month-to-month, $1,400/month. E-mail: jeannedunfee@earthlink.net.

Duplex with 1.5 ba/2bd, only ten minutes from NASA. Helen (650) 625-1225.

Transportation

'74 Mercedes 450SL, good condition, two tops. $5,900. Call (650) 325-4725.

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

'92 Toyota Corolla DX 4-door automatic, one owner, all records. 92K mls, super clean. Garaged all times. Check cars.com for photo and details. $3,200. Call (408) 732-6180 before 8 p.m.

'94 Oldsmobile Bravada, SUV, 4 wheel drive, 4D, 110k mls, automatic. Power steering & windows. Tan leather, green exterior. Dual front air bags. ABS brakes. Good condition. $4,400 or B/O. Jenny (415) 407-5017.

'99 Acura TL, excellent condition, 58K mls, $15,700. Rey Salcido (650) 704-5061 (H).

'00 Volvo S40, 4 door sedan, 42K mls., red, AT, A/C, PS, PW, PL (rmt), AM/FM w/ CD, MNRF, LTHR, $12,000. Hank (408) 262-4974.

Miscellaneous

Carters rocking basinet w/retractable wheels; white w/ blue pattern; has overhead canopy and ample storage underneath. Great condition. $20. Call (408) 295-2160.

Graco 2-speed electric baby swing. White enamel finish with blue trim. Great condition. $15. Call (408) 295-2160.

For sale: Lake Shasta houseboat, 42' with necessary permit. Two bedroom one bath. Two four cycle engines -- for clean environment -- outboards. Fero-concrete hulls, for no maintenance or rust. Vinyl siding. Call (650) 968-4155 or e-mail DBMcKellar@aol.com

Baby items, all very good-excellent condition: Emmaljunga stroller/pram/bassinet, blue/white, $150; Pali crib, $95; Simmons crib mattress, $20; Dutalier glider/rocker, $225; footrest, $15; Peg Perego Prima Papa high chair, white/blue, $60; Right Start baby jogger, $50; Graco baby jumper, $15; Exersaucer, $20. Call (408) 356-2156.

Looking for lawn mower and tiller. Email: falcon7777_2000@yahoo.com

Lost and Found

Wedding ring in the N202/N233 parking lot in November/December 2003 time frame. Contact Betsy Robinson ext. 4-3360 or e-mail her at: Elizabeth.T.Robinson@nasa.gov to claim.

Safety Data

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

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

Astrogram deadlines

Deadline:	*Publication:*
Jan. 23	*Feb. 2004*
Feb. 20	*Mar. 2004*
Mar 26	*Apr. 2004*
Apr 23	*May 2004*
May 25	*June 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.

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

Mars 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. 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.

Hubbard addresses progress, changes at NASA Ames

continued from page 6

Engineering and Management Directorate (Code P), will focus on research and technology development. Headed by Cliff Imprescia, it will include elements of codes A, F, J and S, and will emphasize flight hardware and project management. The new directorate also will assume management responsibilities for the development phase of Kepler, SOFIA and the SSBRP.

Tom Moyles and Lewis Braxton will swap jobs, with Moyles heading the Financial Management Office (Code C) and Braxton taking the reins of the Center Operations Directorate (Code J). Hubbard explained that he asked Braxton and Moyles to make the switch "to take a fresh look" at the functions of these two large directorates.

Code Q, the Safety, Environmental and Mission Assurance Directorate, will assume responsibility for NASA housing at Ames, as well as for the NASA chief veterinary officer located at Ames. It also will have responsibility for working with the new NASA Engineering Safety Center at NASA Langley Research Center in Virginia.

Finally, the new Code H, the Human Capital Directorate, will include NASA Ames' education and human resources offices. The new directorate was created, Hubbard explained, to elevate these two important functions to a "more visible position."

BY ANN SULLIVAN

Former Ames aerospace engineer included in 'Who's Who'

The National Register's Who's Who in Executives and Professionals includes James Carson Howard, retired aerospace engineer of Lockheed Martin and NASA, in its 2004-2005 edition.

Howard grew up in the United Kingdom where he practised aeronautical engineering and naval architecture.

In response to an invitation from the Lockheed Aircraft Corporation, he moved to the U.S. where he explored the use of symbolic mathematical computation. This is a technique whereby a computer can be used to formulate mathematical models.

One of the many papers that were published with Dr. D. R. Young under the auspices of the Ames Life Sciences Division, was titled 'A Simplified Control System for Predicting the Growth Hormone Response of Human Subjects to Various Physical Activities.

Acting on a suggestion by NASA Headquarters and in order to demonstrate the wide range of applicability of this technique, the results were published in book form. The book assumed the form of a special publication and was entitled 'Mathematical Modeling of Diverse Phenomena.' Howard was listed in 'Who's Who' in September 2003.

This year's edition will be registered at the Library of Congress in Washington, D.C. It is only available to those professionals who are included.

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