

# Astrogram

Communication for the Information Technology Age

## Hubbard extols president's space vision, exploration program -- tells Commonwealth Club of bright future ahead

Emboldened by President Bush's newly announced vision for space exploration, NASA is poised to embark on

we will take measured risk, but we will not gamble with robots or humans," Hubbard declared.

Speaking before an audience of about 150 people, Hubbard said NASA would use all its capabilities to explore space and that the ratio of robots to humans would change over time. "At some point, the human being will become the dominant tool for exploration, first as a test-bed on the moon and then

plained Hubbard, with key missions already in progress, such as Mars exploration, visits to other solar system targets and both space and airborne telescopes.

"Exploration of the solar system will be guided by compelling questions of scientific and societal importance," Hubbard observed. "Consistent with the NASA vision and mission, NASA exploration programs will seek profound answers to questions of our origins, whether life exists beyond Earth and how we could live on other worlds."

Hubbard noted that the NASA Astrobiology Institute at Ames, a partnership between NASA and 16 other organizations nationwide, is currently conducting research to answer those very questions. "Consistent with recent discoveries, NASA will focus on likely habitable environments at the planet Mars, the moons of Jupiter and in other solar systems," Hubbard said.

He said NASA would first send human and robotic explorers as partners. "Robotic explorers will visit new worlds first, to obtain scientific data, demonstrate breakthrough technologies, identify space resources and send tantalizing imagery back to Earth," Hubbard said. Next will be human explorers, who will conduct in-depth research and build upon the knowledge gained from their robotic exploration partners. "Humans and robots will go hand in hand searching for data and input," he said.

In order to make the exploration program sustainable, Hubbard said

*continued on page 10*

NASA photo by Victoria Steiner



NASA Ames Center Director G. Scott Hubbard addresses the Commonwealth Club of California in San Francisco recently telling them of the president's new space vision.

*"The quest for the future is to join the threads of human and robotic in a common goal."*

*...Ames Center Director  
G. Scott Hubbard*

exploring Mars," Hubbard said.

During the president's Jan. 14 announcement of the new vision for NASA, the president pledged to extend human presence across the solar system, starting with a human mission to the moon by the year 2020.

While many people, particularly the news media, have focused on returning humans to the moon, Hubbard pointed out that the new vision is much more than that. "Robotic exploration of other worlds is a critical element," he said. Implementation of the new space exploration program will begin now, ex-

a new quest to explore the solar system and beyond by robots and humans, according to Ames Research Center Director G. Scott Hubbard.

Addressing the Commonwealth Club of California in San Francisco Feb. 9, Hubbard said the time has come to organize NASA's exploration efforts to answer some of the "grand challenges of science: Are we alone? Where did we come from? Where are we going?" He noted that NASA already has "many of the tools and can develop the new ones we need" to implement the president's vision of exploration and discovery.

Hubbard vowed that the focus of NASA's quest will be "coordinated and strategic, committed and long term and that it would provide a return on investment for everyone," including scientists and students, average citizens, traditional business people and Silicon Valley entrepreneurs.

"We will take a realistic approach to cost, based on technological availability and without the pressure of an Apollo-type schedule," Hubbard said. He also pledged to take a realistic approach to risk by identifying, managing and mitigating it.

"There is risk and there is gambling;

## Ames establishes Exploration Office

In response to the president's articulation of a new space vision and space exploration program for NASA and the nation, NASA Headquarters has established a new Exploration Systems enterprise under the direction of Admiral Craig E. Steidle.

In keeping with this new thrust, NASA Ames recently announced formation of an Exploration Systems Office to coordinate the center's efforts to help infuse mission-critical technology into NASA programs, thereby enabling and enhancing the wide range of future robotic and human space missions.

The new Ames office will act much like a 'tiger team' -- officially it will be

constituted as an Integrated Product Team (IPT) -- that will draw upon resources from across NASA Ames and will work directly with the center's research and engineering directorates, including aerospace, information sciences and technology, astrobiology and space research and project management and engineering.

The new office, within the office of the Ames center director, will be the main point of contact for the new Exploration Systems Enterprise, Code T, at NASA Headquarters.

"I have asked Dr. Daniel J. Clancy to lead the Ames Exploration Systems Of-

*continued on page 2*

# Mars Center opens for MER rover landing broadcast

The Mars Center at NASA Ames opened on Saturday, Jan. 24 from 7:30

The center's normal hours of operation are weekdays from 10 a.m. to 6 p.m.

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

Here are a few of the comments visitors to the Mars Center made in the visitor's log:

- "Makes me proud!"
- "This is awesome!"
- "Fantastic! This is the best!"
- "Great learning activity center"
- "Go NASA! We thank you!"
- "Fascinating!"
- "Great interactive exhibit for kids of all ages"
- "Impressive and exciting!"
- "Marvelous!"
- "We will remember this forever!"
- "Exciting times!"
- "Awesome! Well spent tax dollars!"
- "Loved doing the lego robots"
- "NASA Ames has a lot to be proud of"
- "I want to be an astronaut"
- "Teaches kids new things"
- "Wonderful exhibits and docents"
- "Great place to learn about Mars"
- "Good variety. We learned a lot"
- "Impressionante!"
- "Excellent docents!"



NASA photos by Tom Trower

NASA Ames Mars Center visitors applaud and cheer as they hear the news that the Mars rover 'Opportunity' has landed on the red planet on Jan. 24.

p.m. to 11 p.m. so that Bay area news media representatives and the general public could view live televised coverage and commentary of the landing of

and on Saturday and Sunday from 12 p.m. to 4 p.m.



Ames staff and visitors show their joy at hearing the news that 'Opportunity' has successfully landed on the red planet.

the Mars Exploration Rover 'Opportunity.' The rover landed on the red planet at 9:05 p.m.

The new Mars Center is located in the large white tent that formerly housed Space Camp California at the main gate to Moffett Field. The Mars Center opened to the public Dec. 29 and will remain open through June 2004. So far, more than 30,000 visitors have come to the Mars Center, which features a dynamic array of interactive displays, exhibits and demonstrations designed to excite, inform and educate the public about the mysteries of the red planet.

## Ames establishes Exploration Office

*continued from front page*

office," said G. Scott Hubbard, center director, in a memorandum to staff. Clancy was serving as director of Code I when he was appointed to head the new office. "In his role as leader of the Ames Exploration Office, Dan will report directly to me and will focus full time on the Exploration Office."

A glance at this center's funding profiles demonstrates the diversity of research and technology development at NASA Ames. While still fully committed to aviation systems, safety and air traffic management and research, NASA Ames is not an 'aeronautics' center in the classical sense, and has not been so for a long period of time. Indeed, Ames funding and work are split almost uniformly amongst the new Exploration Systems enterprise, the Space Science enterprise (Code S), and the Office of Biological and Physical Research (Code U), with a substantially smaller portion in support of the Earth Science (Code Y) and Education (Code N) enterprises. Funding from, and support for, the Office of Aeronautics (Code R) constitutes something less than 20 percent

of Ames' current budget and focus.

"Approximately 80 percent of the on-going work at NASA Ames is lined up very well with the new exploration vision," observed Hubbard. "Our scientific focus is squarely in the middle of the new presidential focus," he added when speaking to news media reporters recently.

The Ames Exploration Office will work in four main areas to enable the president's space exploration vision: definition of science drivers for space missions, advanced architecture studies, project management for advanced development work and technology development.

"Ames will also play a key role in developing technology to enable this new vision," Hubbard added. "Critical technology areas include thermal protection systems, intelligent systems, high-end computing, bio-sensors, advanced life-support, space-human factors, nanotechnology and many others."

BY JOHN BLUCK ▲

# Bay Area families learn, have fun on Mars

Thousands of families could be seen lining up outside the Mars Center waiting for their turn to 'roam the red planet.' During the month of January, families



Kids maneuver the mini rovers in the Mars Center at NASA Ames during family night.



NASA photos by Daniel Wentz

Tom Clausen of Ames' Education Office (Code DP), right, speaks about Mars to students visiting the Mars Center on family night recently.

were invited to participate in one of the three 'family nights' held at the new Mars venue.

On a typical 'Mars day,' one can manipulate the interactive rover looking for water, immerse themselves in NASA TV with updated photos from 'Spirit' and 'Opportunity,' or view the many informational exhibits lining the walls. Family nights are geared toward parents and their children, so along with the everyday exhibits, family activities were added to encourage children and their parents to learn about NASA and the Mars mission.

If you were to visit during one of these family nights, you would see children racing around the center trying to locate the answers to their Mars scavenger hunt (answers to the questions were embedded in the different exhibits.) They also completed different activities that incorporated fun with learning. Among these activities were building a rover out of marshmallows and graham crackers; plenty of children were eager to eat their accomplishments; making a crater by dropping a marble into a flour substance (people are able to imitate a meteor impact on Mars); hit the landing site, using a felt map of Mars and Velcro darts; and other types of fun learning activities. After the children were fin-

ished they looked to a local girl scout to help correct their answers. If they had a wrong answer, then one of the scouts would direct them to the correct exhibit and for an excellent paper, children received a NASA sticker.

Lynn Harper, from the Astrobiology Office, and Tom Gates, an aerospace education specialist, were speakers at the family nights. They were available to answer questions about Mars and the mission. Also, Brian Day of Ames' Education Office set up his telescope outside to give visitors a chance to view Mars, as well as Venus and Saturn. "Saturn's opposition is clos-

est to Earth which makes it great for viewing," stated Day. And viewing the planets is what they did, with many people returning three or four times to look through the telescope.

People are excited to learn about our current venture and the young and old seemed to enjoy themselves, making the family nights a huge success. So if you missed these family nights, you might get another chance to join the adventure. No dates have been set for future family night missions to the red planet.

BY JENNIFER KREMER ▲

## Ask the export expert!

What is a 'CER'? A 'CER' is a center export representative, someone who has undergone basic export control training and has been designated by the center export administrator as their code's 'go-to' person for export control review and approval on NASA Form 1676 and ARC Form 1676A.

To find out who your CER is, check the list on the Web at <http://jp.arc.nasa.gov/EC/CER.html>.

Do you have a question for the export expert? Send it care of [kwall@mail.arc.nasa.gov](mailto:kwall@mail.arc.nasa.gov). And, visit us on the Web at <http://jp.arc.nasa.gov/EC/EC.html>.

## Space vision offers 'extraordinary opportunity' for NASA Ames

NASA Ames Research Center is well positioned to implement the new space vision and space exploration program launched in January by President George W. Bush, according to Center Director G. Scott Hubbard.

"We have an extraordinary opportunity to participate," declared Hubbard during an all-hands meeting with employees Jan. 22 in the main auditorium and broadcast throughout the center on closed circuit television. "We live in very, very interesting times. This may be the most dramatic shift in the agency since the Apollo era ... I have never seen anything like this before. I'm very excited about it."

Hubbard, who sat 'dead center' in the fifth row in the NASA Headquarters auditorium during the president's announcement, said he believes it is the first time a sitting president has made a major policy announcement from NASA Headquarters.

Although he cautioned that funding for the president's vision has to be approved by Congress, Hubbard noted that Senator Barbara Boxer supports the president's space exploration program and that although there are many changes the president could have made in the fiscal year 2005 budget request, he chose to ask for additional funding for NASA.

"Without this compelling new vision, we would have been flat and then we would have had problems," Hubbard said. "It's an extraordinary commitment on his part. He believes in us."

In his announcement, the president called for NASA to extend joint robotic and human presence across the solar system, starting with robotic missions, and then humans returning to the moon by 2020 in preparation for the human exploration of Mars and beyond.

Key elements of the president's vision include returning the space shuttle to flight to complete its role in construction of the International Space Station and then retiring it by the end of the decade; developing a crew exploration vehicle (CEV) to travel beyond low Earth orbit; beginning robotic missions to the moon by 2008; and conducting robotic exploration across the solar system, including exploring Jupiter's moons, asteroids and other bodies, to seek evidence of life and conduct telescope searches for Earth-like planets and habitable environments around other stars.

"It's not just about sending humans back to the moon," Hubbard explained. "This is about grand challenges. It's

about exploring multiple worlds, with humans and robots together."

Noting that some of the best Mars scientists in the world work at Ames, Hubbard pointed out that the research that has been ongoing at Ames for the past seven or eight years, such as astrophysics, solar system exploration, including the Kepler and SOFIA (Stratospheric Observatory for Infrared Astronomy) missions and Jupiter's moons, "fits squarely" with the president's vision.

Turning to the president's budget request for NASA, Hubbard pointed out that the president had asked for a 5 percent per year increase in NASA's budget over the next three years. He said that even with the increase, NASA's annual budget is still only 0.7 percent of the federal budget, costing taxpayers the equivalent of only one monthly cable bill on an annual basis.

He said the new vision differs from the space exploration policies of the Apollo era, which ended when funding dried up. He said the president's new

goals are sustainable.

"We have a vision about what the priority is for NASA and the focus here is to make this sustainable. It's not a one-time event, it's something that is going to go on into the future," Hubbard said.

Hubbard said that NASA Headquarters would undergo a reorganization to implement the new space exploration policy and that a new enterprise, the Office of Exploration Systems, will be responsible for research and technology and development of human systems for exploration. The renamed Office of Aeronautics will focus on aeronautical research.

All in all, Hubbard said the new vision and goals outlined by the president are extremely gratifying, both personally and professionally.

"This is the most exciting opportunity I've had in my 30-year career," Hubbard said. "I feel very, very honored and it should make each of you feel very good about working for NASA."

BY MICHAEL MEWHINNEY ▲

## Pendleton named California Academy of Sciences Fellow

NASA Ames astrophysicist Yvonne Pendleton was recently elected a fellow of the California Academy of Sciences for her contributions to the study of organic material in the interstellar medium in the Milky Way and other galaxies.

Pendleton is an infrared observational astronomer in the Planetary Systems Branch, who pursues the origin and evolution of interstellar organic matter, from star-forming regions to the incorporation of this material into primitive solar system bodies.

Recruited in her senior year from Georgia Institute of Technology, she has been a research scientist at Ames since 1979. She earned her master's degree in aerospace engineering from Stanford in 1981 and her Ph.D. in astrophysics from the University of California, Santa Cruz in 1987. Since that time, her research into star-forming regions and interstellar dust has resulted in over 70 publications in scientific journals, the editorship of two conference proceedings books and many invitations to present her results at national and international conferences.

Asteroid 7165 Pendleton was named in her honor by the International Astronomical Union specifically for her contribution to the study of organic materials and the role these basic building

blocks may have played in the origin of life on Earth.

She is a gifted teacher and mentor, and was recognized with the NASA



Yvonne Pendleton

NASA photo by Roger Brimmer

Ames Mentor of the Year Award in 1996. Her most recent outreach effort is an integrated science curriculum for ninth grade students called 'Voyages Through

continued on page 8

# Service commemorates the seven Columbia astronauts

NASA Ames held a program of remembrance on the morning of Feb. 2. The legacy of the seven Columbia astro-

nauts is far reaching. The agency was profoundly shaken by their loss and was moved to reinvent itself so that such

a tragedy will not occur again. We understand that space exploration entails risk. We accept that risk. And we are firmly committed to facing that risk openly and squarely. We will take each and every measured step required to reduce and mitigate that risk in all possible ways to ensure that the safety of human life remains paramount.

The Columbia Accident Investigation Board spent seven exhausting months delving into every aspect of NASA's human spaceflight program and made 29 separate recommendations to improve the agency. NASA has embraced every one of those recommendations and the agency will be the better for it. We can thank the crew of the Columbia for this.

On Jan. 14, President George W. Bush offered NASA an exciting new opportunity as he outlined a bold national vision for space exploration that is both compelling and long term. We are in space to stay. There is no greater tribute to the Columbia crew than to recognize their role in our renewed commitment to exploration. The new space exploration program will send robots and humans back to the moon, to Mars, and to the far reaches of the solar system, methodically building on the foundation built by the crews of Apollo I, Challenger, Columbia and others who have made the ultimate sacrifice in opening the space frontier.



NASA Ames DART search dog teams (from left) Eva Cecil and Nessie; Bev Peabody and Legend; Kristine Crawford and Dakota and Lynne Engelbert and Lucy with astronaut Joe Tanner. Not present were Adela Morris and Riley, Dick Taylor and Hooper and Patricia Grant, DVM.

# JASON XV draws over 10,000 enthusiastic kids

The Earth balloon portable classroom was a featured activity in 'the big top' at JASON city. The balloon is 19 feet in diameter and can hold a classroom of 30 students at a time. The Earth balloon was made out of thousands of actual NASA satellite photographs with each construction seam representing one time zone. This event was sponsored by San Jose Beautiful.



NASA photos by Dominic Hart



Sponsored by Ames Education Office and Science Applications International Corp, JASON students studied the wide-spread prevalence of tropical deforestation using large 4-by-6-foot puzzles made from NASA satellite photos of Panama.



A typical scene at the N201 auditorium, where over 10,000 visitors enjoyed the JASON XV live satellite broadcast of this year's scientific expedition to the rainforests of Panama. The broadcasts were Jan. 26-30 and Feb. 2-6.

## DART and UAV team up to locate victims in salt marsh

Playing the roles of water mishap victims, volunteers distributed themselves in the evaporation pond at Ames, while a small autonomous airplane circled above with its heat sensor looking for human body heat.

The thermal infrared imager aboard

ogy Branch (Code SGE), conceived of the idea of joining the UAV Applications Center with the DART team to conduct rescues. "The demonstration is a perfect example of Ames transferring technology to increase the capabilities of search and rescue capabilities," said

Berthold, who is functioning as project manager.

The initial test took place with a UAV that has a wingspan of about 8 feet. A second demonstration will take place in the near future using a UAV having a 12-foot wingspan.

"After the first tests, we are planning to conduct a demonstration with the Stanislaus County Search and Rescue Team for a rescue in snowy conditions later this

winter," Berthold said. "We are planning the same kind of coordination with a person playing the part of a lost skier. Infrared sensor technology is not new, but we are integrating it with the UAV, which is a mobile, aerial platform," said Berthold.

"The goal is to demonstrate the potential of the use of UAV technology for larger rescue operations and homeland security," Herwitz added.

The new rescue system uses a combination of commercial and NASA-developed technology. The Coast Guard, military and others already use thermal sensors to help detect missing persons, but the sensors are mounted in piloted aircraft such as rescue helicopters.



The UAV communications equipment positioned outside the Ames Disaster Assistance and Rescue Team (DART) mobile van served as the command post for evaluating the rescue technology.

"It costs thousands of dollars to fly rescue missions with these piloted aircraft," Berthold said. The demonstration team members believe that cost-effective and convenient UAV rescue technology ultimately will spin-off to private industry for wider use.

The UAV Applications Center, as part of the NASA Research Park, is leading this UAV rescue-demonstration effort, linking academia, private industry and Ames. "We are intent on building the general public's confidence in UAVs," said Herwitz.

More information about the UAV Applications Center can be found on the World Wide Web at <http://www.uav-applications.org>

For more information about NASA Research Park, visit: <http://researchpark.arc.nasa.gov/>

Details about DART are on the Internet at <http://dart.arc.nasa.gov>.

BY JOHN BLUCK ▲



The UAV Bat (MLB, Co.) used for the Feb. 5 airborne thermal sensor test over the evaporation pond was launched from this car roof at the NASA Ames airfield.

the unpiloted aerial vehicle (UAV) readily detected and pinpointed the volunteers, displaying their locations on a computer screen along with coordinates during the recent demonstration. The UAV communications equipment was inside the Ames Disaster Assistance and Rescue Team (DART) mobile command post -- a converted mobile van -- where water rescue team members evaluated the rescue technology.

"This system has the potential for greatly reducing the response time to locate victims in water emergencies," said John Preston, an Army employee who is in charge of the DART water-rescue team. Though the demonstration test took place during the day, the prototype system also is intended to assist in nighttime water rescues as well as in any winter or wilderness rescue.

"We are demonstrating the value of operating UAVs in the national airspace system," said Stanley Herwitz, director of the UAV Applications Center located in NASA Research Park and professor of Earth science from Clark University, Worcester, Mass. The national airspace is the general area where private and commercial planes operate. "We are showing that UAVs have many uses for civilians during emergencies such as rescues of injured or lost people in water, snow or wilderness."

Randy Berthold, who works in Ames' Ecosystem Science and Technol-

## DDF poster session scheduled

The Director's Discretionary Fund (DDF) poster session is scheduled for Thursday, Feb. 26. The poster session will be held at the NASA Ames Conference Center (NACC, Building 3, in the patio/Mezzanine/showroom/fireside area from 3:00 p.m. to 5:00 p.m.)

All Ames staff members are cordially invited to attend. This is an opportunity to view some of the most innovative research being carried out at Ames.

This event has proven to be an excellent forum for scientific interchange and an excellent opportunity to look for collaborative research ideas. Ames Center Director G. Scott Hubbard is planning to say a few words about the future direction of the center's DDF and internal research and development funding. Refreshments will be served compliments of the NASA Ames Exchange.

# NASA, San Jose State University open technology centers

San José State University opened two new technology centers in the NASA Research Park in February.

Designed to facilitate educational and research collaborations between NASA and university scientists, the Metropolitan Technology Center and the Space Technology Center are both located in Building 583C where they share classroom, laboratory and office space. A reception was held the morning of the opening to celebrate the signing of a Space Act Agreement establishing the

Under the terms of the agreement, consortium participants will work closely with the university's Metropolitan Technology Center to develop new science and engineering technologies designed to enhance educational programs for NASA and the consortium.

"The Metropolitan Technology Center will provide exciting new research and education opportunities," said San José State University Provost Marshall Goodman. "A closer association with NASA scientists will allow for the development of new research projects in fields like Earth science, biotechnology, human factors and information technology. The co-location of other universities within NASA Research Park will also enable our faculty to work cooperatively with colleagues from the University of California at Santa Cruz, Stanford University, Santa Clara University, Carnegie Mellon West and the community colleges."



Ames Center Director G. Scott Hubbard addresses the crowd at the recent opening of the technology centers at Ames.



Among the exhibits featured at the recent dedication ceremony was a display of aircraft.

two technology centers and setting forth the goals of the partnership.

"With the signing of this agreement, we are taking major strides in developing the NASA Research Park into a world-class, shared-use research and development campus in association with academia, industry and non-profit organizations," said Ames Center Director G. Scott Hubbard.

"By working together, the Metropolitan Technology Center and the Space Technology Center will enhance NASA's educational programs and foster future collaboration with our friends in the academic community. We look forward to working with San José State University in the development of both of these exciting ventures," he added.

The Space Technology Center is comprised of a consortium of universities, aerospace, industry and government partners led by San José State University. The consortium also includes Stanford University, Santa Clara University and the Aerospace Corp., Los Angeles.

*A flavor of the month it is not*

Working with the Metropolitan Technology Center and the university's newly formed Collaborative for Higher Education and the Institute for Teaching in Science, Technology, Engineering and Mathematics, the new consortium offers programs focused on education and workforce development, research and technology transfer of fields such as biotechnology, energy, sensors and wireless communication, disaster mitigation, human factors research and information technology.

Among the first educational programs to be offered by the new Space Technology Center is Stanford University's renowned graduate engineering course series 'Spacecraft Design.' Students in the course develop a

space mission using a small satellite, followed by hands-on laboratories where teams design, build, test and launch a real satellite.



Nancy Bussani, executive director of the Metropolitan Tech Center, shown during the recent dedication ceremony held at Ames.

"Since its inception 45 years ago, NASA has pushed the boundaries of exploration and science, a philosophy Stanford shares in its academic pursuits. We're looking forward to playing a role in NASA's storied tradition by providing world-class engineering programs to the Space Technology Center," said Jim Plummer, School of Engineering dean, Stanford University.

Consortium partners hope the new collaborations will result in the development of new technologies for future space missions. The consortium also will develop a new Web-based design center, called the Integrated Design Network. Utah State University (USU) has recently joined the Space Technology Center and plans are being developed for USU to be the first remote user of the Integrated Design Network.

For more information about NASA Research Park on the Internet, visit: <http://researchpark.arc.nasa.gov>

BY MICHAEL MEWHINNEY ▲

## Ames commemorates anniversary of 1964 Civil Rights Act

Ames will be commemorating the 40th anniversary of the passage of the Civil Rights Act of 1964. On July 2, 1964, President Lyndon B. Johnson spoke the following words before signing the bill that was to forever change the nation:

"We believe that all men are created equal--yet many are denied equal treatment.

We believe that all men have certain unalienable rights--yet many Americans do not enjoy those rights.

We believe that all men are entitled to the blessings of liberty--yet millions are being deprived of those blessings--not because of their own failures, but because of the color of their skin.

The reasons are deeply imbedded in history and tradition and the nature of man. We can understand--without rancor or hatred--how this all happened.

But it cannot continue. Our constitution, the foundation of our republic forbids it. The principles of our freedom forbid it. Morality forbids it. And the law I will sign tonight forbids it..."

The law that President Johnson spoke of was the Civil Rights Act of 1964. The climate of the country prior to the passage of this law was tense. Ten years earlier, the landmark Supreme Court case, *Brown v. Board of Education*, had been decided as an end to segregation of public schools. The decision was one of the most important supreme court decisions that initiated federal action to protect civil rights. However, the *Brown* decision did not settle the controversy surrounding the treatment of minorities in the United States. African Americans, Asians, Hispanics and Native Americans continued to face discrimination in employment practices, education opportunities and use of public facilities. President John F. Kennedy began the process of gaining support for the civil rights legislation in a nationally televised address on June 11, 1963. Approximately one year later, despite protests and much debate against its passage, the bill was signed into law.

The Civil Rights Act of 1964 covers a variety of issues including the outlawing of arbitrary discrimination in voter registration and expedited voting rights suits. It bars discrimination in public accommodations such as hotels and restaurants, authorizes the national government to bring suits to desegregate public facilities and schools, extends the life and expands the power of the Civil Rights Commission, provides for federal financial assistance to be terminated or withheld from educational institutions and programs that practice racial

discrimination and prohibits employers from refusing to hire or from firing or discriminating against any person because of race, color, sex, religion or national origin. The U.S. Equal Employment Opportunity Commission (EEOC) enforces this last clause referred to as Title VII. EEOC also provides oversight and coordination of all federal equal employment opportunity regulations, practices, and policies including NASA's Office of Equal Opportunity Programs.

To commemorate the 40th-year anniversary of the passage of the Civil Rights Act of 1964, NASA Ames Re-

search Center's Equal Opportunity Programs Office will host a series of activities throughout the year. Activities will include panels and speakers addressing topics on civil rights, photo exhibits and more. Activities will be advertised through centerwide e-mail, Astrogram articles and flyers. All Ames employees and contractors are encouraged to attend. For questions, contact the NASA Ames Equal Opportunity Programs Office at ext. 4-1065.

BY THE EQUAL OPPORTUNITY  
PROGRAMS OFFICE

## UC Chancellor visits NASA Ames



NASA photo by Tom Trower

The Chancellor of University of California, Santa Cruz MRC Greenwood, fourth from top left, meets with University of California President Robert Dynes and Ames Center Director, several Ames scientists and UC system officials on Jan. 26 in the Boyd Committee Room. The meeting was part of Dynes' inaugural tour of University of California sites and partners. The meeting was followed by a University of California alumni reception to meet the new president in Ames' Mars Center.

## Pendleton named CAS fellow

continued from page 4

Time.' She was a co-principal investigator on this NSF and NASA sponsored project and worked closely with the principal investigator, Jill Tarter of the SETI Institute, and other co-PIs to deliver the year-long CD-rom- based course on astrobology.

She has also served as a Project ASTRO volunteer for the past decade, working with the Astronomical Society of the Pacific to bring NASA science and astronomy into local classrooms. She has given many public outreach presentations, and will be a featured speaker in

the Foothill College Silicon Valley Astronomy series this spring.

The California Academy of Sciences is governed by a distinguished group of eminent scientists who have been appointed in recognition of their notable contributions to the natural sciences. Nominated by their colleagues and appointed by a board of trustees, the fellows remain members of the academy for life. Pendleton is preceded in election to the academy by two other NASA Ames scientists, David Morrison and Dale Cruikshank.

## Call for 11th annual Software of the Year award nominations

Ames is announcing the annual call for nominations to the NASA Software of the Year Award competition. Nominations are due April 14 by 5:00 p.m. They can be submitted electronically to Betsy Robinson at e-mail Elizabeth.T.Robinson@nasa.gov

The NASA Software of the Year Award competition is designed to recognize outstanding software. NASA's Office of Safety and Mission Assurance Associate Administrator Bryan O'Connor; Chief Information Officer Patricia L. Dunnington and NASA's Chief Engineer Theron M. Bradley Jr. are co-sponsors. This very prestigious award includes a monetary Space Act Award of up to \$100,000, a certificate of recognition and the NASA Software Medal.

NASA Ames has won or placed in the NASA Software of the Year several years including the following software packages. Approximately \$230,000 in total was distributed to the members of these six teams:

2002

- Cart3D (co-winner)

2000

- Surface Movement Advisor (second place)

1999

- Remote Agent (winner)
- Ross 3D Virtual Clinic (runner-up)

1998

- Center TRACON Automation System Software (winner)
- Overset Tools for CFD Analysis (runner-up)

The eligible software must have:

- (1) been officially released by the project after all experimental phases have been successfully completed to the satisfaction of the customer within the last three years;
- (2) a NASA intellectual property interest;
- (3) been supported, adopted, sponsored or used by NASA;

- (4) made a significant scientific or technical contribution to the NASA mission.

An Ames evaluation panel will be formed to review and determine the Ames final nomination. The nomination will be forwarded in May to the NASA software advisory panel. Entries will be judged by a NASA software award review panel comprised of a software development expert from each NASA center, a NASA facility and JPL. After review, this panel will make a recommendation to the NASA Inventions and Contributions Board (ICB) for final processing.

Please note that all software submitted to the Ames competition that is not forwarded for the NASA Software of the Year award will be sent to the ICB to be considered for a Space Act Award. In the past several years, Ames software packages not selected for the Ames nomination have received significant Space Act Awards amounting in some cases to over \$20,000 per team.

### Documentation Required for Submitting a Nomination

- 1) NASA Form 1329 (ICB Space Act Award application) in its current and standard format. This form can be obtained on the Web at <http://icb.nasa.gov/> This form must be submitted electronically with the exception of Part II of NASA Form 1329, which must be submitted in hard copy.
- 2) Letters of endorsement from the software users.
- 3) Copies of the software, sample applications and data and descriptive

documentation of the package should be included. The entry must be supplemented by evidence demonstrating the software's impact, degree of innovation,



and suitability. This information will be the primary data used in recommending awards.

In addition, the following forms must be on file in the Ames Technology Partnerships Division:

- NF 1679 (Invention Disclosure)
- CTO-6 (Software Release Request)

Contact Ames software release authority Robin Orans at e-mail: [Robin.M.Orans@nasa.gov](mailto:Robin.M.Orans@nasa.gov) for guidance.

Entries and supporting materials should be submitted electronically to Betsy Robinson at e-mail [Elizabeth.T.Robinson@nasa.gov](mailto:Elizabeth.T.Robinson@nasa.gov) in the Ames Commercial Technology Office, by April 14. For forms and additional questions, contact Betsy Robinson at ext. 4-3360 or via e-mail.

## Ombuds Office established at Ames

Are you caught in a tough spot? Do you need assistance with a significant issue or concern that you perceive could impact safety, organizational performance or mission success?

The agency-wide action team chaired by Al Diaz recommended that each center establish an Ombuds's role that provides the work force (e.g., employees, contractors and students) with a supplemental and confidential channel of communication to raise significant issues and concerns that they perceive could impact safety, organizational performance and mission success. The Ames Ombuds will operate under the authority of the Ames center director. John (Jack) Boyd will serve as the Ames Ombuds. In addition to Boyd's role as the Ames Ombuds, he is the center's senior advisor for history.

The Ombuds's role provides employees, contractors and students with a supplemental channel of communication to raise significant issues and concerns. The Ombuds office provides services that can help you resolve and cope effectively with tough situations that arise that relate to safety, organizational performance and mission success.

The Ombuds will redirect matters not under his realm to the appropriate office or organization with an existing administrative system (e.g. personnel and labor relations matters, union grievances, procurement claims and protests, litigation and other legal matters, IG investigations and audits, accident investigation boards and other matters handled by established processes).

The Ombuds office strives for fair and equitable resolution to questions, concerns and complaints. This could include concerns with management practices, policies or procedures or sensitive issues where confidentiality is important.

The Ombuds is neutral and impartial and strives to begin each situation free from initial bias, and to consider all sides of a situation without favoring or advocating for one person over another. The office may develop recommendations for resolution of problems and advocate for fair processes and for adherence to policy.

It is a confidential resource and to the extent permitted by law, the Ombuds will not disclose your visit or call to our office without your permission. The Ombuds also has the discretion to carry information forward if there is an imminent risk of serious harm.

The office is independent and is apart from the usual administrative structures and decision-making bodies at the center. It is answerable to the center director and is authorized to talk



NASA photo by Dominic Hart

Jack Boyd, Ames' newly assigned Ombuds, as well as Ames' senior advisor for history.

to all persons at the agency in order to resolve problems.

The Ombuds office helps resolve

## Hubbard extols president's space vision, exploration program

*continued from front page*

NASA will pursue breakthrough technologies, investigate planetary resources and align ongoing programs to develop sustainable, affordable and flexible solar system exploration strategies. "The vision is not about one-time events and thus, costs will be reduced to maintain the affordability of the vision," Hubbard observed.

Among the key elements of the new space program will be to return the space shuttle to flight and retire it by the end of the decade, following completion of the International Space Station, develop a crew exploration vehicle to travel beyond low Earth orbit, begin robotic missions to the moon by 2008 and human missions to the moon by 2020; conduct robotic exploration of Mars to search for evidence of life, to understand the history of the solar system and to prepare for future human exploration.

"Timing of human missions to Mars will be based on available budgetary resources, experience and knowledge gained from lunar exploration, discoveries by robotic spacecraft at Mars and other solar system locations and development of required technologies and know-how," Hubbard ventured.

He noted that several Ames-led missions will also play a key role in implementing the new vision, including the Stratospheric Observatory for Infrared Astronomy (SOFIA) and the Kepler mis-

sion to search for habitable planets. Nanotechnology, advanced nuclear propulsion technologies and advanced information technologies such as autonomous operations and human-machine interfaces will also play an important role in future space exploration, according to Hubbard.

The Ombuds office location and contact information are as follows:

Ombuds Office  
Bldg. 207, Room 107;  
Mailstop 207-1  
Moffett Field, CA 94035-1000  
Phone: ext. 4-6688  
Facsimile: ext. 4-6673  
Email: ombuds@mail.arc.nasa.gov

The Ombuds's power rests on its reputation for fairness, objectivity, tact, and respectful concern for the welfare of all individuals of the NASA community and for the well-being of the agency.

Concluding his remarks, Hubbard cautioned that the new space exploration policy will have to be accomplished in a tight budgetary environment. However, he voiced optimism that with the support of the president and an additional \$12 billion in new funding, NASA will be able to carry out a robust exploration program.

"I cannot think of a better legacy for the Columbia crew than this new space vision," Hubbard ventured. "Such exploration was the reason they risked their lives. This is the stuff that dreams are made of."

BY MICHAEL MEWHINNEY ▲

*Some time it will  
take, but not a lot*

## Former aerospace engineer, Emmett Fry, passes away

Emmett Fry passed away on Nov. 7, 2003, in Tulsa, Okla. at the age of 75 following a brave struggle with Lewy Body disease.



NASA photo by Janice Dong

Emmett Fry

Born in Oklahoma City on May 1, 1928, Fry attended the University of Oklahoma. He interrupted his schooling to serve in the army air corp where he survived an airplane crash that cost him his right arm up to the shoulder. He had a prosthetic device to replace his missing arm, which he named 'Oscar,' but only used Oscar for flying or shooting snooker or pool.

Fry completed his schooling and graduated as an aeronautical engineer, later to be known as an aerospace engineer. After several job changes, Fry settled at NASA Ames where he spent the next 33 years as an aerospace engineer in flight controls. He trained all of the Apollo astronauts on how to fly their capsule and was involved in the research of winglets-airplane wingtips turned up. His testing included an around-the-world flight as a co-pilot in a Beechcraft Bonanza to commemorate the single

engine flight of Wily Post.

He was also project manager of the certification team that wrote the specifications and protocols for the Concorde airliner to land and take off from U.S. airports. While doing so, he mastered flying the Concorde via the flight simulator. Fry provided free air transportation to many evangelists, preachers and teachers up and down the California coast.

One of Fry's favorite missions was to spend vacation time in the Philippine Islands working as a bush pilot. He helped the homeless with shelter and food, and set up a telephone answering system in his home in San Jose as a call center for child evangelism fellowship for children to hear of the love of Jesus. He was highlighted in the 'Do-ers Pro-

file' of the San Jose Mercury News in May of 1994 as someone who is devoted to helping others.

He raced sports cars and handled all the maintenance. He could swim and snow ski, play tennis and is probably the only one-armed person ever to earn the FAA, Airframe and Powerplant License certification to inspect and repair airplanes and 'sign off' on their airworthiness.

Fry is survived by a daughter, four grandchildren and one great-grandchild, two brothers and many other relatives and friends to whom he was a very special man.

Memorial gifts may be made to Crossroads Bible Church and Child Evangelism Fellowship.

## Clancey--'One of Irish America's Top 100'

Bill Clancey, chief scientist, human-centered computing in the Computational Sciences Division, has been named as 'one of Irish America's Top 100' by Irish America magazine.

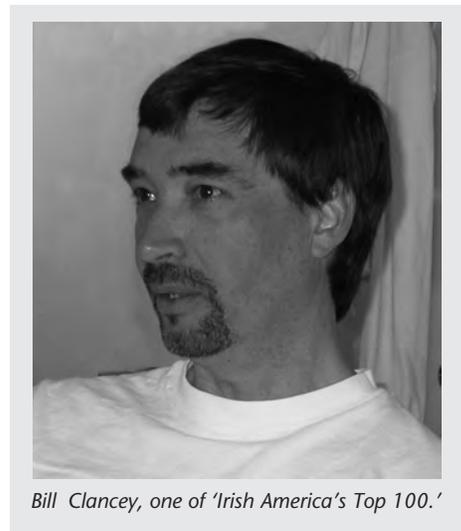
Clancey, who will be featured in the magazine's April/May issue, was selected for his "impressive contributions to the exploration of Mars and his accomplishments in his field" by the magazine's editorial staff. Each year, the staff honors the top 100 Irish Americans of the year in politics, entertainment, the arts and other fields who "have made a difference." Clancey will be honored at a gala awards presentation hosted by the magazine March 16 at the New York Plaza Hotel.

In the same issue, the magazine will also recognize its annual 'Irish American of the Year.' Previous honorees of this special recognition include President Bill Clinton, Senator George Mitchell and Frank McCourt, among other notables. This year, Senator Hillary Clinton will present the award to John Sweeney, president of the AFL-CIO.

"I am delighted to receive this award and happy especially for Irish America to highlight our work at NASA," Clancey said upon learning of his selection for the honor.

In the forthcoming article, author Michele Barber-Perry notes that Clancey "heads a team of explorers at the pri-

vately funded Mars Society, who simulate what life will be like for human explorers on Mars." She writes that in his Mars Analog Research Station



Bill Clancey, one of 'Irish America's Top 100.'

(MARS) project, Clancey's team of computer scientists, geologists and explorers has constructed habitats in the Canadian Arctic, the American southwest, the Australian outback and Iceland that are similar to the conditions on the surface of Mars.

Clancey, who is described as a "computer scientist specializing in artificial intelligence," also holds several research

*continued on page 12*

*Your neat ideas can  
be used at Ames*

## Technology secretary visits Ames



*Phillip J. Bond, the undersecretary for technology of the Department of Commerce, during a recent visit to Ames.*

In January, Phillip Bond, the undersecretary for technology of the Department of Commerce (DOC), visited Ames. Bond is the highest ranking technology official in the Department of Commerce, supervising such agencies as the National Institute of Standards and Technology, the Office of Technology Policy and the National Technical Information Service.

While at NASA Ames, Bond discussed collaboration between the DOC and Ames on such topics as information technology, nanotechnology and homeland security. He also was briefed on the innovative mechanisms being developed at Ames to create and build the NASA Research Park.

Finally, Bond toured the collapsed structure test facility of the Ames DART team.

## Astronomy lecture presents

The Silicon Valley Astronomy Lecture Series will present a talk in March. The speaker will be Dr. James Kaler of the University of Illinois, who will give a non-technical, illustrated talk entitled: 'Extreme Stars: The Strangest Critters in the Stellar Zoo.'

Date: March 3

Time: 7 p.m.

Place: Smithwick Theater  
Foothill College,  
El Monte Road and  
Freeway 280, in  
Los Altos Hills

The event is free and open to the public. Parking on campus costs \$2.

For more information, call the series hot-line at (650) 949-7888.

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

Kaler, the author of a dozen popular books and introductory texts, will discuss the strangest stars astronomers have discovered. These include stars as big as the orbit of Jupiter or so small they have "gone down the drain," stars with lethal magnetism and stars that whirl so fast they would be a blur. Strangest of all are double star systems, where stars hurl hot material at each other or one star can eventually kick its neighbor out of the system entirely.

Learn about the mysteries of star birth and death during this rare northern California appearance by one of the best astronomy popularizers in the country. Kaler is the author of such books as 'The Greatest Hundred Stars,' 'The Little Book of Stars' and 'Extreme Stars' and appears frequently on Illinois television and radio.

## Clancey--'One of Irish American's Top 100'

*continued from page 11*

positions with various universities and agencies, including as senior research scientist at the Institute for Human and Machine Cognition at the University of West Florida. Clancey says his research goal is to develop practical applications based on the differences between people and computer programs called "human-centered computing."

Established in October 1985, Irish America magazine publishes articles on a range of political, economic, social and cultural themes important to Irish Americans living in the United States. Each year, the magazine hosts several major events, including the Top 100 Awards, the Top Irish American Business Leaders, and the Wall Street 50.

*To eliminate work  
that is lame  
[af2m.arc.nasa.gov](http://af2m.arc.nasa.gov)*

## Purchasers -- remember to buy 'the right stuff'

This is the third article in a series on purchasing recycled products that meet federal requirements listed in the Comprehensive Procurement Guideline (CPG).

Chances are good that if you order office supplies from Stores Stock, the Environmental Services office, Code QE, will visit you. Through an on-going



outreach effort to help employees comply with green purchasing requirements, Code QE has targeted over 120 employees to give unannounced one-on-one instruction and ordering references for buying recycled content products. This training is designed to help employees to remember to buy the 'right stuff.'

### The CPG list

The U.S. Environmental Protection Agency created a list of all products that must contain recycled materials when purchased by federal agencies. The CPG lists recycled content ranges for commercially available products. These are the minimum requirements. Ames Stores Stock has a two-page list with stock numbers for CPG items. The GSA supply catalog identifies these products with a CPG logo, a small orange colored box next to the item stock number. Code QE will give you a copy of the CPG list during the one-on-one training. Or you can get it now on the Web at <http://www.epa.gov/cpg/products.htm>.

### NASA's waiver form

In addition to knowing how to order recycled products, purchasers need to know that purchasing recycled content items in the U.S. EPA's CPG is mandatory. Purchasers must fill out a waiver if they wish to purchase products that are not of the required recycled content. Visit the U.S. EPA's Web site at <http://www.epa.gov/cpg/products.htm> for the list of products. The waiver is available on the Web at <http://q/qe/forms/>

[recycle\\_waiver\\_req.pdf](#). Keep copies of the waiver with your other forms as this

tion system on the Web at <http://nodis3.gsfc.nasa.gov>. Chapter 3 de-

REQUEST FOR WAIVER ("Buy-Recycled" Report) NASA Ames Research Center			
<i>To be completed by Request Originator. Send completed forms to 218-1.</i>			
Item purchased from: Store Stock <input type="checkbox"/>		Other: _____ <small>(Name supply source)</small>	
Project Name: _____ <small>(Name project if purchase was required for a specific project, otherwise write "N/A")</small>			
List CPG <sup>1</sup> Item(s) Purchased <small>(e.g. file folders, envelopes, insulation, concrete, motor oil, printer cartridges)</small>	Quantity Purchased	Cost	RC <sup>2</sup> (y/n)

is a mandatory requirement. Submitting the waiver (see photo) only takes a few minutes. Buying green is the law

Any NASA or contract employee who makes purchases needs to read NASA Procedural Requirements NPR 8830.1. The NPR is located on the Code QE Web site at <http://q/qe/p2/> and on the NASA on-line directives informa-

scribes the waiver. Federal law and executive order requires NASA to have a green purchasing program and a waiver process.

For further information, contact Christel VanArsdale at ext. 4-1175 or the author at ext. 4-1406.

BY MARK LACY ▲

## Dedicated runners of 2003



NASA Ames photo by Tom Trower

Above are the runners who completed all of the Fitness Center races in 2003. The running events include 10 monthly 5K runs, fall and spring 10K races, plus fall and spring 2 mile fun runs. Dedicated runners from left to right who were recognized in January with certificates were: Rick McIlmoil, Mike Rogers, fitness coordinator

Nancy Dunagan, Chris Buchanan, Harold Reimer, Shirley Burek and Dennis Jespersen. T. Kevin McDevitt completed all the fitness center races in 2003 but is not pictured.

Make a goal to complete all 14 races in 2004. Monthly runs are the third Tuesday of every month.

## Ongoing Event Calendar

**Ames Amateur Radio Club**, third Thursday of each month, 12 noon, N-T28 (across from N-255). POC: Michael Wright, KG6BFB, 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://accrc.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 Fогtman, 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. January meeting is on Jan. 9. 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.

## Call for 2003 Ames Associate Fellow nominations

It is important that exceptional engineering and scientific research by Ames staff members be recognized and rewarded. One of the more meaningful forms of recognition is to be selected as an Ames Associate Fellow. Nominations of individuals for this special honorary designation are now being requested and are due March 19.

Appointments as Ames Associate Fellows are for two-year terms and carry a personal honorarium of \$2,000, a research stipend of \$20,000 available upon award of the associate fellowship and a programmatic grant not to exceed \$2,500 for travel to technical meetings of personal choice over the two-year period of the award.

Any Ames civil servant researcher or engineer with five or more years of service with NASA is eligible for nomination. Army personnel and IPAs working within the NASA organization are also eligible. Since the award is not for management-related work, division chiefs and above are not eligible for this award.

Nominations of eligible staff members may be made by any Ames staff member and should be in the form of a memorandum (not to exceed two pages) addressed to the chairperson of the Ames Science and Technology Council (ASTC) Stephanie Langhoff, Mail Stop 230-3. Include a curriculum vitae, publication list, list of contributed and invited talks and other supporting material. In addition, a minimum of two (maximum of three) letters of recommendation is required, with at least one of these coming from persons outside of Ames. Nomina-

tions need not have the concurrence of Ames line management. Selection of associate fellows will be made by the ASTC. Nominating memoranda should address each of the three basic criteria that will be used in selecting individuals for this honor.

Those criteria are:

- Sustained innovative and creative contributions to progress in the nominee's field of activity;
- recognition by a nominee's peers of the quality and significance of his/her work; and
- Reasonable expectation of continued high quality work by the nominee

The emphasis for the nomination is on current work, such as work performed within three to five years prior to nomination. Nominating memoranda should indicate the basis for believing that the nominee meets the above criteria. Since this is a very special recognition, we generally select no more than two Ames Associate Fellows per year.

A list of previous Ames Associate Fellow winners is on the ASTC Web site at [http://abrc.arc.nasa.gov/11\\_assoc.html](http://abrc.arc.nasa.gov/11_assoc.html)

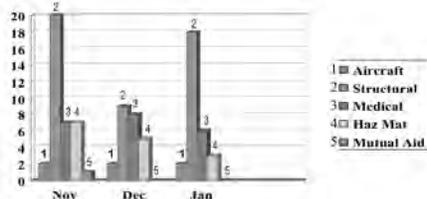
For more information or questions regarding these nominations, contact Ames' Chief Scientist Stephanie Langhoff, ASTC chairperson, at ext. 4-6213.

## Protective Service's monthly activity

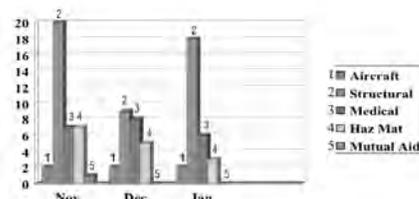
A statistical summary of activities of the Protective Services Division's Security/Law Enforcement and Fire

Protection Services units for the month of January 2004 is shown below.

Security/Law Enforcement Activity



Fire Protection Activity



# Ames Classifieds

Ads for the next issue should be sent to [astrogram@mail.arc.nasa.gov](mailto: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: Large 2 bd/1-1/2 ba apt. in 4-plex, includes high-speed wireless Internet access. Sunnyvale, close to Ames. \$1,150/mo. N/S. Call (408) 739-3303. For details see <http://www.peacham.homeip.net/rental.htm>

For rent: 2 bd/2 ba condo. 2 car garage, W/D, refrigerator, central A/C, pool and spa, 3 miles from Ames. \$1,600/mo. Call (408) 507-0906.

For sale: Lake Shasta 2 bd/1 ba. houseboat, 42' with necessary permit. Two four cycle engines -- for clean environment -- outboards. Fero-concrete hulls, for no maintenance or rust. Vinyl siding, \$55,000. Call (650) 968-4155 or e-mail [DBMcKellar@aol.com](mailto:DBMcKellar@aol.com)

For rent: 3bd/2 ba townhouse, in Cupertino (Park Villa Circle) near De Anza College; one mile from freeways 280/85. 2-car garage, new carpet and interior paint, central A/C. \$1,850 per month plus security dep. Month-to-month after initial 90-day lease. No pets. Call (408) 255-6501 or e-mail [windstar@anset.com](mailto:windstar@anset.com).

38ft Teton 5th wheel trailer set up in a Mountain View park 5 minutes from Ames. Lots of extras including private laundry room. Must see. John (650) 938-9922.

Share brand new 2 bdrm luxury apartment (1,100 sq.ft) located in shopping center w/supermarket, Starbucks, cleaners and fast food, in Foster City. Easy access to 101, 92 and 280. (20 mins from Moffett). Sunny master suite w/ walk-in closet, priv. bathrm, fully furnished, including T.V./cable/VCR., indoor swimming pool, sauna, jacuzzi, gym and kitchen privileges. Seeking prof'l female, \$800/utills included, available April 1. Call (650) 349-0238.

## Transportation

'88 MAZDA RX-7. 88K orig. miles. Automatic transmission. Good condition. Red. Lots of fun. \$3,500. Charlotte Linde at [charlinde@aol.com](mailto:charlinde@aol.com) or (650) 367-6278.

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

## Safety Data

	Civil Servants	Contractors
Not recordable first aid cases	1	3
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 as of 1/26/04.  
\*(Under new OSHA rules, lost time is defined as lost work days, restricted duty or job transfer.)

'96 (15) passenger van.105K miles, \$6,775. Call (408) 835-6783.

'02 Honda Odyssey, 28K mls, leather, DVD, granite green, exc cond, all service records, nd smaller car due to health issue, \$25,500. Call (408) 241-5189 or e-mail [yvonne\\_pendleton@comcast.net](mailto:yvonne_pendleton@comcast.net).

## Miscellaneous

Moving sale -- Miscellaneous furniture, matching love seats, bookcases, desks, maple drop-leaf table, oak bar stools (2), antique love seat, antique calendar clock, file cabinets, folding chairs, stacking chairs, folding table, and much more. Annette (650) 964-2656.

Moving? Need packing peanuts? Have four one-cubic-foot bags of packing peanuts. \$3 each. Wendy (650) 969-7876 (eves).

Carters rocking bassinnet with retractable wheels; white w/ blue pattern; has overhead canopy and ample storage underneath. Great condition. \$15. Call (408) 295-2160.

For sale: computer hutch, good shape, \$50. Excel exercise bike, \$40. Call: (408) 945-3917 or e-mail [nengim@yahoo.com](mailto:nengim@yahoo.com)

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

Kid's computer desk and two chairs, winner of the Juvenile Products Manufacturer Assoc. 2000 Best in Show New Product. To view the product, visit the Web at: [www.kidstation.com](http://www.kidstation.com) and click on furniture. \$95. Azi (650) 740-3671.

Double bed mattress (firm), platform and rolling bed frame, excellent condition. \$100. Sunrise alarm clock, awoken naturally to a simulated sunrise. Has a back-up audible alarm. \$100. Wendy (650) 969-7876 (eve).

Medela pump-in-style breast pump. Good condition. \$100. Call (650) 367-0579.

Credenza/hutch, 20in x 30in x 46in, beautiful honey-laqueer finish, excellent condition, \$350. Call (650) 473-6044.

## Looking for used books . . .

Got books, CDs, VHS, DVDs or CD-ROMs that you no longer need? Then donate them for the benefit of NASA's daycare and PSF preschool. For pickup or drop off arrangements, contact Maya at e-mail [maja@sbcglobal.net](mailto:maja@sbcglobal.net) or call (650) 988-6993.

## Astrogram deadlines

Deadline:	Publication:
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](mailto: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-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](mailto: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.

## New supply store opens at Ames

The Logistics Management Branch (in the warehouse building N-255) will be enhancing their stores stock and just-

plies, tool and repair items and many other supplies to meet the daily needs of people at Moffett Field. Customers will

ping carts to the checkout counter where retail store staff will complete the check-out.

The supply store has an extensive special order program for all common, non-stock supplies, which can usually be delivered in one to two days. Additionally, the store can source most other items from a broad range of commercial, industrial and government supply sources. The store will also accept phone orders at ext. 4-6801, fax orders at 4-6802 and electronic orders at e-mail [nasaames@aibshop.com](mailto:nasaames@aibshop.com) beginning in February.

The NASA supply store is designed to provide convenient, one-stop shopping for a full line of commercial, brand-name and mandatory source products, including JWOD, at competitive prices with free delivery at NASA Ames. The store accepts all government credit cards or other authorized transactions from government activities or contractors. Store hours will be daily Monday through Friday from 8:00 a.m. to 4:00 p.m.

The store will be operated by Associated Industries for the Blind (AIB) under a no-fee service agreement with NASA Ames. AIB operates supply stores for the Army, Navy, Air Force, Coast Guard and the Veterans Administration (VA), including at Coast Guard Island Alameda and San Francisco VA Medical Center.

You are invited to the grand opening of the NASA supply store on Thursday Feb. 26, 2004 from 11:00 a.m. to 1:30 p.m. Use the store entrance on the north side of Building N-255.



The newly opened government supply store at NASA Ames located in bulidng N-255 is shown above.

in-time supply system with a new self-service store.

Mark your calendars for the Feb. 26 grand opening of the new retail NASA supply store in building N-255. The new store will carry a full line of office products, paper products, computer accessories, janitorial and cleaning sup-

plies, tool and repair items and many other supplies to meet the daily needs of people at Moffett Field. Customers will be able to browse the nearly 10,000 sq. ft. of first class retail shopping space for a wide variety of products displayed on commercial shelving for ease of selection.

Friendly store staff will be available to assist shoppers. After customers complete their selections, they take the shop-



National Aeronautics and Space Administration

**Ames Research Center  
Moffett Field, CA 94035-1000**

Official Business  
Penalty for Private Use



FIRST CLASS MAIL  
POSTAGE & FEES PAID  
NASA  
Permit No. G-27



The Ames Astrogram is an official publication of Ames Research Center, National Aeronautics and Space Administration.

Editor-in-Chief.....David Morse  
Managing Editor.....Ann Sullivan  
Editor, Layout and Design.....Astrid Terlep

You can reach the Astrogram Office at:  
[astrogram@mail.arc.nasa.gov](mailto:astrogram@mail.arc.nasa.gov) or by phone at  
(650) 604-3347.



PLEASE RECYCLE  
Printed on recycled and recyclable paper with vegetable-based ink.