National Aeronautics and Space Administration

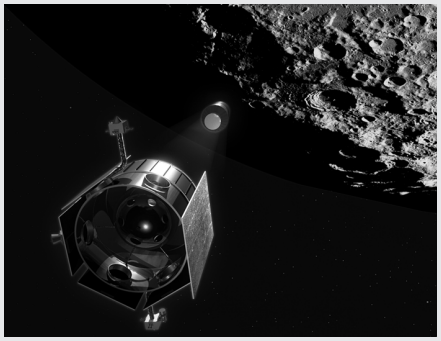
ASTROGRAM

Newsletter of NASA Ames Research Center, Moffett Field, California

April 2006

NASA Ames spacecraft to look for ice at lunar south pole

NASA announced April 10 that a small, 'secondary payload' spacecraft, to be developed by a team at NASA Ames, has been selected for launch in October 2008 to begin a trip to the moon to look for precious water ice. Prior to impacting the moon, the spacecraft will orbit Earth twice for about 80 days, and then will strike the lunar south pole in January 2009.



Artist's concept of the LCROSS upper stage (appears smaller) followed by the 'sheparding satellite,' before they both impact the moon in January 2009.

The smaller secondary payload spacecraft will begin its trip to the moon with the Lunar Reconnaissance Orbiter (LRO) satellite on the same rocket, the Evolved Expendable Launch Vehicle (EELV), to be launched from Kennedy Space Center, Florida. The secondary payload mission spacecraft is called the Lunar CRater Observation and Sensing Satellite (LCROSS).

"The LCROSS mission gives the agency an excellent opportunity to answer the question about water ice on the moon," said Daniel Andrews of NASA Ames, whose team proposed the LCROSS mission. "We think we have assembled a very creative, highly innovative mission, turning the upper stage of the rocket that brought us to the moon into a substantial impactor on the moon."

After launch, the secondary payload LCROSS spacecraft will arrive in the lunar vicinity independent of the LRO satellite. On the way to the moon, the LCROSS spacecraft's two main parts, the Shepherding Spacecraft (S-S / C) and the Earth Departure Upper Stage (EDUS), will remain coupled.

As the spacecraft approaches the moon's south pole, the upper stage will separate, and then will impact a crater in the south pole area. A plume from the upper stage crash will develop as the Shepherding Spacecraft heads in toward the moon. The Shepherding Spacecraft will fly through the plume, and instruments on the spacecraft will analyze the cloud to look for signs of water and other compounds. Additional space and Earth-based instruments also will study the 2.2-million-pound (1000-metric-ton) plume.

Then, the Shepherding Spacecraft itself will become an impactor, creating a second plume visible to lunar-orbiting

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Worden named Ames center director

NASA Administrator Michael Griffin announced on April 21 that Simon P. "Pete" Worden will be the next director of NASA's Ames Research Center.

Photo courtesy US Air Force

Simon P. "Pete" Worden was recently appointed the tenth director of NASA Ames by NASA's tenth administrator Michael Griffin.

Worden, a retired U.S. Air Force brigadier general, is a research professor of astronomy at the University of Arizona, Tucson. Worden is expected to assume his new duties at Ames in May.

During his Air Force service, Worden held director and deputy director level positions with the Air Force Space Command, where he was responsible for developing new programs, including next generation launch concepts. He was commander of the 50th Space Wing, U.S. Air Force Space Command. He also served as 2nd deputy for technology with the Strategic Defense Initiative Organization, where he received the NASA Outstanding Leadership Medal for directing the 1994 Clementine lunar probe mission.

Worden holds a bachelor's degree in astronomy from the University of Michigan, Ann Arbor, and a doctorate in astronomy from the University of Arizona. He authored or co-authored more than 150 scientific technical papers in astrophysics, space sciences and strategic studies and was a co-investigator for two NASA space science missions.

BY MICHAEL MEWHINNEY

On the Inside . . .

NASA Ames spacecraft to look for ice at lunar south pole

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spacecraft and Earth-based observatories.

"The LCROSS mission will help us determine if there is water hidden in the permanently dark craters of the moon's south pole," said Marvin (Chris) Christensen, Robotic Lunar Exploration Program (RLEP) manager, and acting director of NASA Ames. "If we find substantial amounts of water ice there, it could be used by astronauts who later visit the moon to make rocket fuel," Christensen added.

"We'll be able distinguish between water vapor, water ice and hydrated minerals like salts or clays that contain molecularly-bound water," said Tony Colaprete, LCROSS principal investigator, and a planetary scientist at NASA Ames. "We'll be able to compare the moon dirt from the permanently shadowed regions of craters at the lunar south pole with moon soil samples collected during the Apollo mission at much lower latitudes, near the equator. The stuff inside the dark craters of the south pole may well be different from what we found during Apollo," Colaprete observed.

NASA photo by Renee Bouchard

During the NASA news conference on April 10, agency officials unveiled the Lunar CRater Observation and Sensing Satellite (LCROSS) which will launch piggyback with the Lunar Reconnaissance Orbiter spacecraft in October 2008. On the panel during the conference were (left to right) Scott Horowitz, associate administrator, Exploration Systems Mission Directorate, NASA HQ; Daniel Andrews of Ames, the LCROSS-project manager; and Butler Hine of Ames, deputy program manager, Robotic Lunar Exploration Program (RLEP).

Earlier, NASA had requested proposals internally from its NASA field centers for existing or reasonably matured concepts for secondary payloads that would offer cost-effective contributions to RLEP.

To prepare for the return of astronauts to the moon, NASA will conduct various RLEP robotic missions from 2008 to potentially 2016 to study, to map and to learn about the lunar surface. These early missions will help determine lunar landing sites and whether resources, such as oxygen, hydrogen and metals, are available for use in NASA's long-term lunar exploration objectives.

"Establishing research stations on the moon will give us the experience and capabilities to extend to Mars and beyond," noted robotics deputy program manager Butler Hine of Ames.

"An exploration science program with a sustained human presence on the moon gives us the opportunity to conduct fundamental science in lunar geology, history of the solar system, physics and the biological response to partial (Earth) gravity," said Christopher McKay, lunar exploration program scientist at Ames.

The space agency specified that the winning proposal must demonstrate an affordable concept beneficial to RLEP, according to the document that asked NASA centers to submit suggestions for the secondary payload. NASA specified that the secondary payload mission should cost no more than $80 million. NASA also required that the payload mass not exceed 2,205 pounds (1,000 kilograms).

NASA encouraged its field centers to team with industry to develop proposals. On Jan. 10, NASA issued a request for information to industry to allow businesses to provide secondary payload concepts to NASA. Each NASA center reviewed ideas from industry as well as secondary payload concepts developed internally. The LCROSS prime contractor for the spacecraft and the spacecraft integration is Northrop Grumman.

NASA asked that the concepts advance the Vision for Space Exploration to include missions that evolve lunar science, characterize the lunar environment and support identification sites for future human missions as well as the utility of those sites.

The space agency said that it was looking for missions that demonstrate technology that could enhance future exploration, that show operational schemes to support exploration, that develop or emplace infrastructure in support of exploration, that advance commercial opportunities and those missions that would collect engineering data to support the Constellation program. That program is developing NASA's new spaceship, the Crew Exploration Vehicle.

BY JOHN BLUCK

Christensen upbeat about Ames' future

-- Provides frank assessment; lays out blueprint for success

"The one constant in life is change," began Marvin 'Chris' Christensen in his April 20 all-hands address to a standing-room only crowd in the main Ames auditorium. In fact, 'change, challenge and opportunity' were the recurring themes of his candid, but upbeat, assessment of the status and future of Ames.

NASA photo by Tom Trower

Ames' acting director, Marvin "Chris" Christensen, gave a frank but upbeat talk at a recent 'all-hands' meeting.

"Ames is in a major transition," Christensen observed, "and change is still coming." While the changes we have undergone have been challenging and those remaining are "going to be dramatic," he noted, "if we embrace them, they can be positive and improve the center. We have a great opportunity," he concluded.

NASA is more fortunate than most government agencies, Christensen pointed out. The president's budget for NASA is $16.8 billion in FY '07, a 3.2 percent increase over the previous year. "It's not that there's not support for NASA," he said, the issue is "how will the pie be divvied up?" Ames is facing its third year of budget challenges, he noted. In FY '06, Ames' budget is down $65 million to $657 million, and over 250 civil servants remain without programmatic funding. Ames' budget projection for FY 07 is $533 million, he said, a further major reduction.

Exploration is where most of the funding currently is, and exploration is "where we're going to go" to increase Ames' budget, Christensen added, noting that Ames must establish a role in core NASA programs. Given all of the changes in the agency, Ames' Exploration Technology directorate was "unraveling" in 2005, Christensen said. But, by finding a way back into the "mainstream of NASA . . . in '06, this organization has done a yeoman's job of getting back on track."

Next, Christensen addressed the budget cuts facing Ames' science programs, the fundamental changes ongoing in aeronautics, and the status of several key Ames projects, including Kepler, the Robotic Lunar Exploration Program (RLEP), and the Stratospheric Observatory for Infrared Astronomy (SOFIA).

Funding for SOFIA was zeroed out for '07 and was reduced by 30 percent for '06, he said. However, Joel Kearns, Carol Carroll and their team did an outstanding job during the independent assessment, he reported. "Reviewers were impressed with the team," he said, and SOFIA has a chance to come back and be whole. Similarly, Christensen observed that RLEP passed a December '05 review of their readiness and preparation to serve as a program office "with flying colors."

And the program offices were not the only groups Christensen singled out for praise. He also cited the center's mission support organizations, all of which are pitching in to help the program office save SOFIA and prepare Ames for future mission management responsibilities. However, there's still a lot of work to be done, he said. We must ensure that Ames' existing processes are streamlined to ensure timely completion of mission tasks or "we'll just have to get other processes," he observed to enthusiastic applause. Indeed, at Christensen's urging, NASA headquarters recently ran a pilot workshop at Ames designed to perform a joint 'institutional readiness review' of Ames' mission support organizations. The objective is to determine ways to strengthen Ames' support organizations to enhance the center's capabilities in project and mission management.

> *"The future is ours to shape and to capture."*

Christensen laid out a strategy for Ames' recovery and future strength that includes developing a 'skunk works' to build satellites, attracting more work packages, winning more competitive proposals, and restoring our reputation for project management and job completion.

With regard to the skunk works concept, Christensen said Ames will construct a 'satellite center' in building N240 to develop small satellites that cost less than $250 million. He reported that NASA Administrator Michael Griffin not only expressed approval of the skunk works concept, but also opened the door to the prospect of Ames taking on even larger projects.

"But we are going to have to do things differently, or we'll go out of business," Christensen declared. "I think everybody's getting that message." Center Operations Director Lewis Braxton and his group have done a great job, reducing institutional costs by 14 percent, he said. The sale of Camp Parks provides potentially $6 million to fund

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Christensen upbeat about Ames' future

-- Provides frank assessment; lays out blueprint for success

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other facilities, he added. The lease of the National Full-scale Aerodynamics Complex (NFAC) to the Department of Defense will also reduce institutional costs while maintaining capabilities, he noted.

Administrator Griffin has repeatedly stated his commitment to NASA having "ten healthy centers," Christensen said. One way that this is being addressed is through a concept called 'shared capabilities.' This means that NASA headquarters will support facilities that have 'national-level capabilities,' he said, noting that high-end computing at Ames is already funded through this mechanism. The Ames arc jets, 20-G centrifuge, Vertical Motion Simulator and other facilities are currently under consideration for funding by Headquarters through this avenue, he added.

With regards to new work packages and projects at Ames, Christensen said that it is not only important to get new work for the center, it is also vitally important that we meet our commitments and deliver. "If we get new work and we don't get the job done, we'll be in trouble," he said. Ames is not perceived as having "very strong project and program management . . . we've got to change that," he added.

Christensen noted that the workforce level is still a major concern for 2007, with 280 to 300 uncovered people projected for that year. We're not going to survive if we don't find productive, funded work for these people, Christensen said. It is imperative that "healthy centers . . . re-delegate work to Glenn, Langley and Ames." There are preliminary work packages under discussion that could bring about 150 'new-work' positions to Ames from Kennedy, Marshall, and Johnson, Christensen noted. Headquarters is also evaluating a number of other Ames proposals for new work, he said.

In addition, Ames' New Business Council is helping the center to strategize its marketing efforts with respect to proposals and other areas. This includes actively seeking out reimbursable opportunities with other agencies that bring both near-term funding and could result in future contributions to the NASA mission. Christensen also said that Ames' new Space Portal activity will create innovative opportunities in NASA commercialization, and foster relationships with industry, particularly the entrepreneurial space industry, that will contribute to our small satellite work.

Christensen warned, however, that the notion of what constitutes a "healthy center" has never been precisely defined, observing that, depending upon who you talk to, "healthy" for Ames might mean a total complement of as few as 1,200 people. In that case, retraining would be the best available option, he said, but we may have to accept the fact that, no matter what we do, some people might not fit.

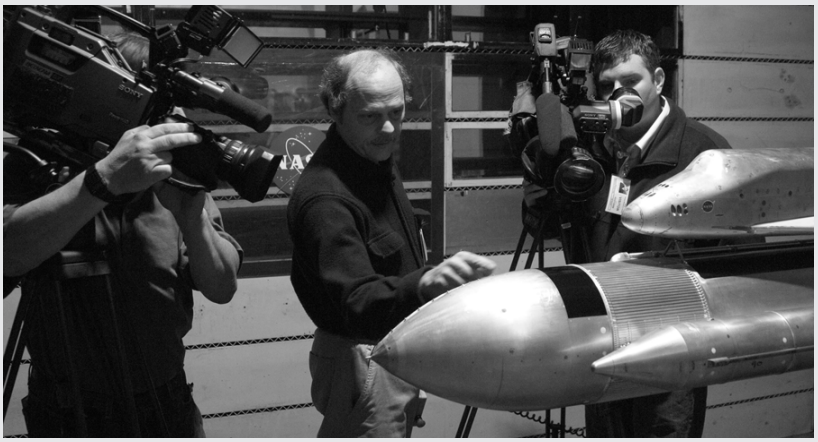
In closing, Christensen observed that Ames has made a lot of progress. "We have managed our way through an extremely difficult period. We have a strong approach to solve our unfunded problems going into FY '07," he concluded.

The take-away messages, he said, are that "we see light at the end of the tunnel and that we are fundamentally sound. Institutionally, we will be smaller, but Ames will be more NASA mainstream. Once we have stabilized, growth will follow. We will earn our way into program and project management. We will become a satellite builder for NASA, as we did with Pioneer and Lunar Prospector."

"The future is ours to shape and to capture," he concluded, to strong applause.

BY JOHN BLUCK AND DAVID MORSE

Local media visit 11-foot wind tunnel



NASA photo by Dominic Hart

Ames' James Strong of Code AOO shows local television cameramen where the Protuberance Air Load (PAL) ramps were located on a 3 percent scale model of the space shuttle that was tested in the center's Unitary Wind Tunnel Complex. Reporters viewed and photographed the model in the 11-foot-by-11-foot transonic wind tunnel on March 27.

Wind tunnel tests of the model completed at NASA Ames will help the agency decide if the PAL ramps may be removed from the space shuttle's external tank before the next launch, now scheduled for July. At Ames, wind tunnel tests of the model were conducted with and without the PAL ramps. Tests of modified ice frost ramps on the model also were completed Friday, March 24.

NASA will not draw immediate conclusions from the Ames PAL ramp testing on the model. The agency plans to analyze Ames' wind tunnel data together with results from tests at NASA Glenn Research Center, Cleveland; and data from wind tunnel tests completed earlier at Arnold Engineering Development Center in Telahoma, Tenn.

BY JOHN BLUCK

Ames' Mark Leon receives prestigious Hispanic award

The editors of Hispanic Engineer & Information Technology magazine (www.hispanicengineer.com) recently released their list of the '100 Most Important Hispanics in Technology and Business for 2006.' Ames' Mark Leon, acting chief of the Education Divison, has been selected as one of the recipients for this honor.

This year's honorees represent the nation's highest-achieving Hispanic executives, managers and researchers in industry, government and academia. They were chosen for their outstanding work in the field of technology and demonstrated leadership, both at the workplace and in their communities. The honorees will be featured in the spring 2006 edition of Hispanic Engineer & IT magazine. During the year that the list is publicized, its members are presented to young people as role models, and the honorees' accomplishments are upheld as examples of the important, often unrecognized contributions made on a daily basis by the thousands of Hispanics in technology-related jobs.

NASA photo by Pamela Sheets

NASA Ames' Mark Leon, recent recipient of the '100 Most Important Hispanics in Technology and Business for 2006' honor.

The 100 Most Important Exemplars will gather this year for a colloquium and awards dinner where increasing minority entrepreneurship, executive development, and educational readiness for the 'digital economy' will be discussed. The 100 Most Important Hispanics in Technology and Business recognition dinner will be held on Sept. 15, 2006 at the Baltimore Convention Center, highlighting the Minorities in Research Sciences Conference, the premier career development and employee recognition event for minorities in the ar-

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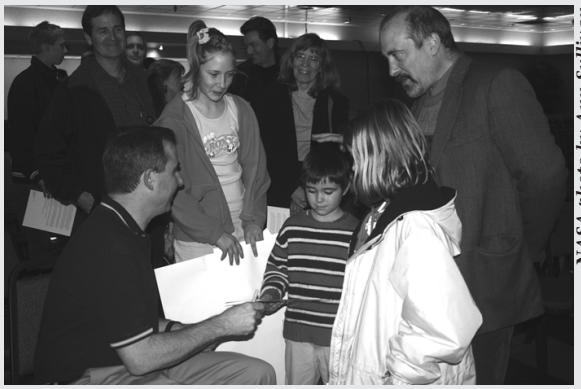
Ames celebrates STS-1 anniversary

Ames hosted a variety of events on April 12 for students, media, employees and the public to help celebrate the 25th anniversary of the STS-1 mission, the first flight of the space shuttle and the boldest test flight in history.

The events included a visit to Edenvale Elementary School in San Jose, an address to Ames employees and a public lecture by former Ames employee and current astronaut Stephen Robinson. In his talks, Robinson shared his experiences during his mission last summer, STS-114 the 'Return to Flight' mission, and described some of his work as a scientist at Ames prior to and during the STS-1 mission.

In addition, news media toured research facilities at Ames that have supported the space shuttle program and continue to support development of the Crew Exploration Vehicle. Special exhibits and videos were added to the NASA Exploration Center.



NASA photo by Ann Sullivan

Members of the public lined up for the chance to get an autograph from Astronaut Stephen Robinson (seated) following his public lecture on April 12.

NASA photo by Tom Trower

Employees enjoyed the chance to chat with Robinson (second from right) during the reception that followed his talk at Ames.

Students at Edenvale Elementary School took full advantage of Robinson's visit by asking dozens of questions following his talk describing what it is like to live and work in space.

NASA photo by Tom Trower

UCSC launches Technology and Information Management Program at Silicon Valley Campus

University of California, Santa Cruz (UCSC), a long-time planning partner at NASA Research Park (NRP), has recently expanded, moving from Building 555 to Building 19 in the NRP historic district and virtually doubling its leased space.

NASA photo by Dominic Hart

The new space in building 19 (pictured above) will allow the UCSC Silicon Valley Center to offer more classes at the NRP.

After several years in Bldg. 555, the move provides more space to accommodate the faculty, students and administrative staff of UC's Technology and Information Management ('TIM') program. TIM is a UCSC School of Engineering program, with classes held at UC's main campus and the Silicon Valley Center location. TIM integrates computer science, engineering, business and economics and prepares students for careers in technology and management.

The Silicon Valley Center classes, which started on April 3, include a mixture of undergraduate and graduate course work, with more class offerings and faculty hires planned for fall.

"UC Santa Cruz is excited to be expanding its physical presence in the NASA Research Park by occupying office and classroom space in Building 19," said UCSC Provost Carl Walsh. "Our new facilities will provide increased office space for faculty from our Baskin School of Engineering's Technology and Information Management program, as well as for other UCSC faculty who are interested in developing research and academic programs in Silicon Valley."

The additional space in Building 19, according to Walsh, "will allow UCSC to offer TIM courses at the NRP and we plan to expand the set of courses offered at the NRP during the 2006-2007 academic year. The School of Engineering is looking to expand both its research and teaching activities in Silicon Valley, and they see the NRP has an ideal location for building on UCSC's existing partnership with NASA and potential expansion and development in the NRP."

Ames staff who are interested in enrolling in a TIM class under UCSC's non-degree-granting concurrent enrollment program should visit UCSC's Web site located on the Internet at http://www.ucsc-extension.edu/ucsc/publicViewHome.do?method=load and view the fall course offerings catalog under 'concurrent enrollment/extension courses.' To enroll in the TIM degree program, prospective students need to apply directly to UCSC for admission.

To showcase its new program, UCSC plans to host a TIM open house in Bldg. 19. The date will be announced in the Astrogram. Longer term, UCSC and NRP are plannning for construction of a BIN (Bio-Info-Nano) lab, with Foothill De Anza Community College.

BY KATHLEEN BURTON

VPP annual report submitted to OSHA

On Feb. 13, G. Scott Hubbard, then Ames center director, and Paul Davis, the Ames Federal Employee Union president for safety, approved the center's annual Voluntary Protection Program (VPP) report. The annual report was submitted to OSHA in Feb.

This report, which all VPP participants are required to submit, includes the goals and accomplishments for the continuous improvement of the safety and health program, injury and illness numbers and rates and results of the safety and health management system evaluation. It was prepared using input from each directorate, the chairperson of each center-wide safety committee, the Ames Federal Employee Union, and the Safety, Health and Medical Services Division.

The Ames VPP annual report highlights the center's continuous improvement in all areas of the health and safety program. It describes many of the programs that promote employee participation as well as the program that was developed and implemented to recognize contractors for exemplary health and safety performance. It examines the accomplishments of the center-wide safety committees during the past year. The Ames Annual Safety and Health Program evaluation report can be viewed on the VPP Web page at http://q.arc.nasa.gov/qh/vpp/activitiesnew.html.

BY SHELLEEN LOMAS

From the South Pacific Ocean to Space Station
-- Changene, a 'pearl' of a company, NRP partner of the month

"I went to Tahiti for adventure," reminisces Frank Chang, CEO of Changene, Inc., a NASA Research Park partner since 2003.

"I chose a remote atoll and landed on an 800-yard runway, at an airport with a bungalow terminal. On this tiny atoll in the middle of nowhere in the South Pacific Ocean, I saw, for the first time, a pearl farm and the Milky Way galaxy with my naked eyes."

"Trained in biomedicine, I realized the oyster must have molecule(s) able to regulate calcium crystals, like bricks, the way we build a wall. This mechanism is similar to bone formation, so I wondered - could this molecular process act as a possible countermeasure for bone mass loss in microgravity?"

In 2002, Changene officials filed a patent for a proprietary molecule supposedly responsible for pearl formation -- in short, a pearl gene.

Bone mass loss is a major challenge for NASA's planned lunar and Mars exploration. Long-duration flights on the Russian Mir and the International Space Station have produced much data about the impact of prolonged exposure to microgravity, but no solution exists. NASA is still seeking effective countermeasures for bone mass loss.

Frank Chang, CEO of Changene, presented the Pincta product rollout at a conference in March 2006.

Changene collaborated with the NASA Advanced Supercomputing division on molecular dynamic simulations. "Biotech research takes many years," Chang said. "It is a great advantage using supercomputers to speed up the processes; gratefully, Ames Research Center has the best supercomputer among NASA centers."

"With R&D moving forward, we have scheduled a clinical trial on this PinctaÆ product in FY07", Chang said. "It could be of great benefit to astronauts in microgravity and to 50 percent of the world's senior population with osteoporosis."

For more information, contact Frank Chang at (650) 641-3181 or e-mail him at ftchang@changene.com Changene is located in Bldg. 566, Room 106B, NASAResearch Park

BY DIANE FARRAR AND BOB LOPEZ

Prehistoric Native American remains discovered at Ames

A construction crew working on an Army project on Berry Court, just inside the Ames main gate, has unearthed the skeletal remains of a prehistoric Native American.

NASA photo by Lynne Engelbert

Nessie, a human remains detection dog, sits, indicating that there is human scent in the excavation where prehistoric Native American remains were found by an Army construction crew.

The crew discovered the skeletal remains on April 4 while excavating a site in an area of military housing. They were buried approximately 43 inches deep. The construction crew immediately stopped digging and notified Ames Dispatch, which contacted the Santa Clara County Sheriff's Office. Officers from Ames' Protective Services and from the Sheriff's Office responded.

Human remains detection dog teams were brought in to verify that the bones are human. All three dogs, which have been trained to detect human remains even thousands of years old, positively identified the bones as human. The dogs and their handlers are part of Ames' Disaster Assistance and Rescue Team. After examining the remains, a forensic anthropologist concluded that the remains are most likely those of a prehistoric Native American. The remains were respectfully returned to their burial site, which was secured until a Native American representative could be notified.

A few days after the initial discovery, two archeologists, one of whom works for the Army and the other a Native American representative, finished excavating the remains and removed them from the site. They estimated the remains to be between 4,000 and 5,000 years old. The Army has submitted a proposal for continuing the construction. A decision is pending.

"NASA is committed to cooperating fully with Native American leaders and treating these remains with the utmost respect," said Bob Dolci, director of Protective Services at Ames.

BY ANN SULLIVAN

Ames' HACE group remembers the legacy of Cesar Chavez

Once again, the NASA Ames Hispanic Advisory Committee for Employees (HACE) supported a commemorative breakfast honoring Cesar Chavez on March 31, 2006. The Mexican Heritage Corporation and Honorary Council members hosted the 'Breakfast for Cesar Chavez' in honor of recognizing his life and work. Also, on March 25, HACE joined the annual Cesar Chavez March Festival, which was sponsored by the Chavez Family Vision and held in downtown San Jose.

Born on March 31, 1927, the second child of six and oldest son, Chavez became noted by Robert F. Kennedy as 'one of the heroic figures of our time' in 1968. Chavez grew up in the Arizona desert near the town of Yuma. At an early age, Chavez joined thousands of migrant farmers to work in the fields in California. He returned home from the military and settled in the East Side Barrio of 'Sal Si Puedes,' ('Get out if you can'); the name of the neighborhood was later changed to 'Si Se Puede' ('It can be done').

The annual Cesar Chavez March Festival parade held on March 25 in San Jose, in which Ames HACE members took part.

In the spring of 1966, growers negotiated an agreement with the NFWA. This agreement was the first genuine union contract between a grower and farm workers in U.S. History. Chavez also fasted three separate times (totaling 86 days between 1968 and 1988) to dedicate his movement of nonviolence, to protest a law that denied farm workers the right to strike / boycott and to call attention to farm workers and their children stricken by pesticides.

In 1952, a man named Fred Ross from the Community Service Organization (CSO) asked Chavez to join the organization to help inform migrant farm workers of their rights. Chavez was uneasy about the idea but decided to join. He picked apricots during the day and organized workers in the evening to register to vote.

After working full time at the CSO for 10 years, Chavez founded the National Farm Workers Association (NFWA), which later became known as the United Farm Workers of America (UFW). Between the years of 1962 and 1993, Chavez organized many boycotts and strikes against farm owners.

On April 23, 1993, Chavez died peacefully while sleeping at the home of a retired San Luis, Ariz. farm worker. Six days after his death, thousands of mourners attended and marched behind his casket during his funeral services in Delano.

Later in 1993, Chavez's family and friends established the Cesar E. Chavez Foundation. Thirteen years after his passing, Chavez's service to others still lives. March 31 is now known as Cesar Chavez Day of Service and Learning and considered a holiday in seven states and dozens of cities and counties throughout the nation.

BY ERIC KRISTICH

Leon receives prestigious award

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eas of research science and technology.

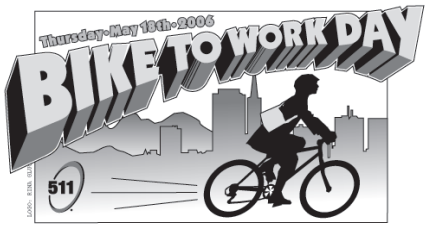
Hispanic Engineer and Information Technology magazine is distributed to engineering colleges and universities with high Hispanic enrollments; Hispanic engineering; IT and science professionals; and high-level government and industry policy makers and executives across the country.

Published by Career Communications Group, Inc. (CCG), a minority-owned media services and career development company, Hispanic Engineer & Information Technology magazine, along with CCG's US Black Engineer & Information Technology magazine, Science Spectrum, and Women of Color Conference magazine, recognizes significant minority achievement, while promoting career and educational opportunities for minority professionals and students in engineering, technology and science.

Upcoming events . . .

Ames Bicycle Club to hold bike safety clinic in May

May is National Bike Month. To celebrate National Bike Month the Ames Bicycle Club is hosting a free Bike Safety Clinic on May 11, from



11:45 a.m. to 1 p.m. It will be at the parking lot of the old Moffett Recreation center on Edquiba road across from the Navy Exchange Garden Center. Biking to work or just around the center is a great way to fit an exercise workout into your schedule, save money on car maintenance and gas, and have fun!

This bike safety clinic is for all levels of cyclists. The clinic will cover bike fit, rules of the road, how to avoid typical hazards, correct lane position and emergency maneuvers. This will be about a half hour lecture and a half hour on your bike. If you have a bike, bring it for a safety check, plus helmet, eye protection and gloves.

The instructor is Herman Wadler, who is a League of American Bicyclists instructor, the dean of instructors of the Almaden Cycle Touring Club Academy, board member of the Silicon Valley Bicycle Coalition, vice chair of the Bicycle and Pedestrian Advisory Committee of Santa Clara Valley Transportation Authority (VTA) and on the city of Campbell Bicycle Advisory Committee.

Jerri-Ann Meyer, the chair of the Mountain View Bicycle / Pedestrian Advisory Committee, will be at the clinic to provide local Mountain View cycling information, and also to gather any feedback folks may have about cycling in Mountain View.

Contact Julie Nottage at e-mail jnottage@mail.arc.nasa if you plan to attend so we will have enough hand-outs, etc. If you do not have a bike, there will be a few for you to use and extra helmets.

Join more than 100,000 Californians by riding your bike to work during the 12th annual California Bike to Work Day, May 18. Stop by the Ames 'energizer station' (above) in the small picnic area by building 25 located along McCord Avenue between South Akron and Wascoat Road between 6:30 a.m. and 8:30 a.m. to refuel on food and beverages and pick up local city bike maps and other bike information.

BY JULIE NOTTAGE

SVALS presents

The Silicon Valley Astronomy Lecture Series presents:

Topic: Gamma-Ray Bursts: Nature's Biggest Booms
Speaker: Astronomer Dr. Josh Bloom of UC Berkeley will give a non-technical, illustrated talk

Date: Wednesday, May 17, 2006
Time: 7 p.m.
Place: Smithwick Theater
Foothill College
El Monte Road and
Freeway 280,
in Los Altos Hills

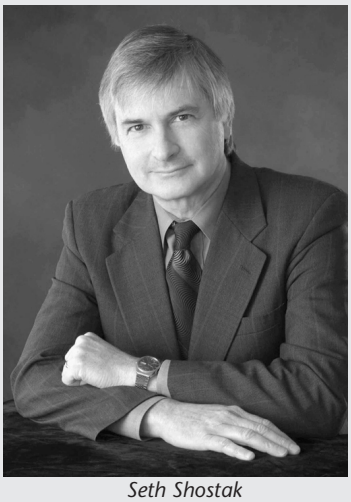
Cost: Free and open to the public. Parking on campus costs $2.

Call the series hot-line at (650) 949-7888 for more information and driving directions.

NRP announces May Exploration lecture

The NASA Research Park Exploration Lecture Series presents 'Life Out There: What Happens If We Find It?' This is a lecture and panel discussion featuring a team from the SETI Institute including Dr. Seth Shostak, senior astronomer, Dr. Cynthia Phillips, principal investigator and Dr. Douglas Vakoch, director, Interstellar Message Composition.

Date: May 24, 2006
Time: 7 p.m.-9 p.m.
Place: Bldg. 943 / Eagle Room
Cost: Free admission
Open to the public



Seth Shostak

The SETI team will discuss the cultural, societal, technological and other issues that might arise if life is found elsewhere in the universe.

The lecture is presented by Planners Collaborative and co-sponsored by the SETI Institute.

For more information about the event, visit the Internet at www.researchpark.arc.nasa.gov

NASA scientists study health benefits of exercise for astronauts

NASA has teamed up with two universities to study ways to reduce the adverse effects of space travel on astronauts' physical heath.

NASA photos by Tom Trower

Shown in the 20-G centrifuge control room are Fritz Moore (sitting) medical monitor and Jeffrey Smith (standing) operations manager.

Scientists are conducting a pilot study at NASA Ames on the 20-G centrifuge, a machine that creates artificial gravity forces by spinning and that can simulate up to 20 times the normal forces of gravity we experience on Earth.

"The 20-G centrifuge is our largest facility certified for use by humans," said Jeff Smith, a manager in the Life Sciences Division at Ames. "Its capabilities make it a unique NASA resource and a very versatile research tool that is ideal for developing health-maintenance activities for astronauts."

Research conducted using the 20-G centrifuge helps scientists understand how astronauts cope with long-term exposure to the low gravity of space or other planets and readjust to Earth's gravity when they return home. Scientists at NASA, the University of Kentucky in Lexington and Vanderbilt University in Nashville, Tenn., will study the effects of exercise and artificial gravity on cardiovascular responses and fluid shifts within the body.

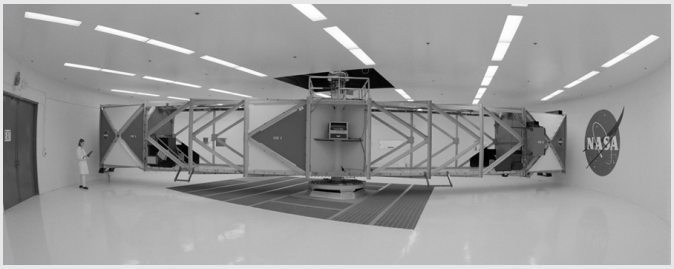
"At Ames Research Center, the existing facilities we use to learn how space affects humans have a long history of productivity that includes work done from Mercury to space station and space shuttle programs," said Dr. Yvonne Cagle, NASA astronaut-scientist liaison, and project study scientist. "Researchers and collaborating investigators continue to produce a wealth of knowledge concerning astronaut and civilian health issues," she added.

The research is expected to help determine what combinations of exercise and exposure to increased gravity effectively counter the changes that occur during space travel.

"While in space, astronauts experience heart and blood vessel changes, decreased bone strength, loss of muscle mass, and shifts in fluids within their bodies," said Ames' exercise physiologist and study scientist, Fritz Moore. "This does not immediately harm the astronauts, but it may complicate longer space travel and make the return to Earth difficult."

Scientists will examine the effects of exercise on the test subjects while spinning on the centrifuge. Helping astronauts counter the changes to their bodies also may further the development of health benefits for the general public.

"The knowledge we gain here helps us understand everyday health issues such as high or low blood pressure." Moore said. "The changes that astronauts experience are very similar to those seen in people who are less active or frequently confined to bed rest, such as individuals in our rapidly growing senior population. It is very likely that space medicine and geriatric medicine will interact and help us understand the best ways to arrive home from space, as well as the best ways to grow old."



The 20-G centrifuge at NASA Ames is a machine that creates artificial gravity forces by spinning and that can simulate up to 20 times the normal forces of gravity we experience on Earth.

Additional research is needed to understand the health effects of transitioning between different gravitational environments. This type of research benefits current and future astronauts supporting the Vision for Space Exploration to return to the moon and continue on to Mars.

For more information about Ames' centrifuge facilities, visit: http://cgbr.arc.nasa.gov

BY MICHAEL MEWHINNEY

Pop-rock group visits Ames

NASA photo by Pauline Navarro

The Oklahoma-based, pop-rock group 'All American Rejects,' who were recently on tour in San Jose, visited Ames' Exploration Center while they were in the Bay Area.

Spring finally arrives at Ames

NASA photo by Tom Trower

New NASA training form replaces former version

The ARC 301 training application form is being replaced with NASA Form 1735 (NF-1735). In the past, a variety of forms and procedures has been used to support the request and approval process for external training. The SATERN (System for Administration, Training and Educational Resources for NASA) learning management system requires that one standard form and process be used across the agency. With the implementation of SATERN, NASA Form 1735 will be the standard form that all NASA employees will use for offsite training requests.

Implementation of the NF1735 is an important transformation effort. Because the NF1735 form is an essential part of the offsite training process in SATERN, we must replace the current form with the new form as soon as possible in order to familiarize employees with the new form prior to the SATERN implementation. Employees should begin using the NF1735 for their next training request. After April 28, the NF1735 will be the only training request form accepted. Employees must use the NF1735 form and complete it manually until it is available in June 2006 as an automated form in the SATERN system

The NF1735 is now available in PDF and Informed Filler. Both versions can be found on the Internet at: https://pollux.hq.nasa.gov/nef/user/form_details.cfm?chart_id=823 It will be the PDF document found at: ftp://ftp.hq.nasa.gov/forms/pdf/nf1735.pdf For Informed Filler, the location is http://server-mpo.arc.nasa.gov/Services/AEFS/ARC_DCData/NF1735.IFM

The SATERN Web site and SATERN Web-based tutorial (WBT) is now available. You can access the Web site and WBT at https://saterninfo.nasa.gov/.

BY BARBARA CHENIER

NASA Automated Awards System to 'go live' in June

Soon every NASA supervisor will have the ability to nominate their high-performing employees, check the status of their award submissions and obtain reliable awards data -- all online and all in one system. The new NASA Automated Awards System (NAAS) will streamline the awards nomination process and provide critical data to NASA managers regarding the incentive awards program.

Key features and benefits of NAAS include the following:

- a standard process across the agency for nomination, approval and processing of awards;
- easy, Web-based access for making awards nominations;
- ability to review the status of award nominations;
- protection of confidential employee data;
- streamlined and standardized awards processes across the agency; and
- user guide and user training

This new system is scheduled to 'go live' June 26. Training for supervisors and the awards contacts within each directorate will begin in late May.

For more information, contact project lead Christiana Woodward at ext. 4-1599 or deputy project lead Lynette Forsman at ext. 4-5267. Or you can visit the Web at http://ameshr.arc.nasa.gov/awards/NAAS.html.

Updates on supervisory and employee training information will be provided for NAAS via Astrogram articles, human resources and training Web sites and centerwide announcements.

BY BARBARA CHENIER

Bush, Schwarzenegger in Bay Area

NASA photo by Tom Trower

Ames Acting Center Director "Chris" Christensen shakes hands with President George W. Bush shortly after the president landed April 21 at Moffett Field for a brief visit to Silicon Valley. At far right, is California Governor Arnold Schwarzenegger and former Congressman Norm Minetta (second from right).

Ames Ongoing Monthly Events Calendar

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

Ames Ballroom Dance Club. Classes on Tuesdays. Beginning classes meet at 5:15 p.m. Higher-level class meets at 5:50 p.m. Held in Bldg. 944, the Rec. Center. POC: Helen Hwang at helen.hwang@nasa.gov, ext. 4-1368.

Ames Bicycling Club Every 3rd Wednesday of the month 11:00 a.m. to12:00 p.m. in Building 245 auditorium. POC: Julie Nottage at jnottage@mail.arc.nasa.gov or ext. 4-3711. By-laws of Ames Bicycling Club can be found at: http://zen.arc.nasa.gov, the link is under the picture.

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: Linda McCahon, ext. 4-1891.

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: 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 12:00 p.m. -1:00 p.m. in Bldg. N-262, Rm 100. URL: http://sail.arc.nasa.gov/. POC: Becky Hooey, ext. 4-2399.

Environmental 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: Bob Hilton at ext. 4-2909, bhilton@mail.arc.nasa.gov.

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.

NASA's DC-8 to help study transport of pollutants

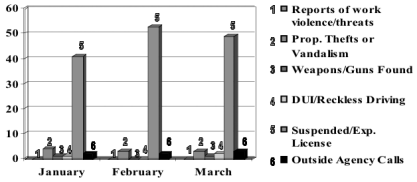
NASA photo by Dominic Hart

NASA's DC-8 aircraft took off from Ames on April 17 to fly to the Hawaiian Islands to take part in the Intercontinental Chemical Transport Experiment (INTEX). Project scientist Dr. Hanwant Singh of the Ames Earth Science Division designed INTEX to study the transport of pollutants from Asia as they cross the Pacific and impact air quality in North America. The Ames Earth Science Project Office is managing the campaign under project manager Mike Gaunce. Several Ames Earth scientists also are participating. For more information, visit the Web at http://www.espo.nasa.gov/intex-b)

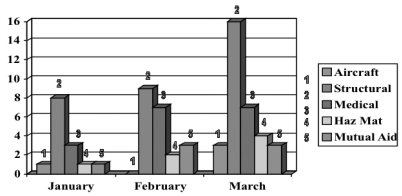
Protective Services monthly activity

A statistical summary of activities of the Protective Services Division's Security/Law Enforcement and Fire Protection Services units for the month of March 2006 is shown below.

Security/Law Enforcement Activity



Fire Protection Activity



Ames Classifieds

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

Housing

Room available for rent in house in mid town Palo Alto, with kitchen, laundry and pool. $500 plus $50 toward utils, for a quiet, neat, stable and conscientious person or couple. E-mail jims@eos.arc.nasa.gov; ham call wb6yoy.

Seeking midweek renter, beautiful room available Monday-Friday. Perfect for commuter. Near Hwy 880/101/87 Rent $500/month incl. utilities. If interested contact Patricia (408) 483-1111.

Miscellaneous

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

19" Likom color monitor and Canon Bubble Jet color printer $60 or B/O. Both items in excellent condition. Jon (408) 448-6118.

Great looking futon, unfolds into queen bed with very good mattress. Cover and pillows included. Can e-mail photos. $150. Call (831) 419-6043.

Solid oak coffee table. Very well maintained. Can email photos. $80. Call (831) 419-6043.

Desk, L-shaped, walnut finish, 5 drawers, 60" L x 30" deep x 29" H with extension 46" L x 24" deep x 26" H. Good condition. $100 or B/O. Helen (650) 948-1407.

Wood entertainment center - $10 - make an offer, I might just give it to you. Barry Cunningham (510) 793-4457, EZrdrdad@msn.com

Automotive

'96 Chevy Blazer LT - 4WD, all pwr, very good condition, 103K miles. Asking $4000 or B/O. Call (408) 448-6118.

'98 Suzuki GSXR 750cc SRAD Very Clean, Garage Kept, Runs Strong, Red/Black, Yoshimura Slip-on, Factory manual, LOW Miles 19,500 Miles, $4800 OBO Call or email Damon Flansburg 831-630-0716.

'97 FORD MUSTANG SVT Cobra, LOW miles 56K, air bag, abs, ac, lthr, p/seats, p/windows, tint, Bose am/fm/CD stereo, p/mirrors, $9,500 OBO Call or email Damon Flansburg 831-630-0716.

'92 Harley Davidson Softail Custom - $8500, OBO - Barry Cunningham (510) 793-4457, EZrdrdad@msn.com

1/2 share in Skylane C182A, $24,000. New paint and recent annual. New fuel bladders. Good condition. Basic IFR panel. Can base at LVK, 4Q5, TCY, possibly elsewhere. Key Dismukes. Call (408) 938-0455.

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.

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.

Ames Swim Center (N-109) 603-8025

Ames Swim Center, 25 meter swimming pool open and heated year round. (80-82 degrees) Lap swim: Mon, Weds, Fri, 10 a.m. to 1 p.m. and 3-6 Tues to Thurs 10 a.m. to 1 p.m. and 4 p.m. to 7 p.m. Seasonal recreation swim; swim lessons. Locker rooms w/sauna and shower facility. Open to all civil servants and contractors. Location: Bldg. 109 across the street from the tennis courts. Fees vary depending on activity. POC: Tana Windhorst, ext. 3-8025; e-mail: tw4lsb@aol.com

Vacation Opportunities

Lake Tahoe-Squaw Valley Townhouse, 3bd/2ba. View of slopes, close to lifts. Per night: $250, plus $145 cleaning fee. Two night minimum. Includes linens, 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.

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

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

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

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

Incline Village, Forest Pines, Lake Tahoe condo, 3 bdrms/2 ba, sleeps 8, fireplace, TVs/VCR/DVD, stereo w/CD player, microwv, W/D, jacuzzi, sauna, outdoor pool. Walk to lake. Close to ski areas. Visit web site for pictures: http://www.ACruiseStore.com $135/night spring and fall, $173/night summer and winter (holidays higher) plus $125 cleaning fee and 12 percent Nevada room tax. Charlie (650) 743-8990.

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

New York, 5th Ave. One fully furnished bedroom in 24 hour security bldg. overlooking Washington Square Park, $1,000/wk or $3,000/mo. negotiable. Call (650) 349-0238.

Paris/France: Fully furnished studio, 5th Arr, Latin Quarter, Notre Dame and Lie-St. Louis., $1,400/wk. negotiable. Call (650) 349-0238.

Santa Cruz townhouse, 2 bedrooms plus study, 2 baths, decks, totally furnished, 3 blocks from beach, available July, August, September; $1,600 per month. Call (831) 423-5777 (H) or (831) 277-8476 (C).

Vacation rental. Ferndale - The Victorian Village. Victorian home on Main Street a short stroll to the Village which has been designated as a state historical landmark. Enjoy the many holiday activities which include a Christmas parade and lighting of America's tallest living Christmas tree. Four bedrooms (sleeps approx. six), two full baths, large kitchen, dining room, parlor w/fireplace, enclosed desk w/hot tub. For info call (707) 983-9514.

Monterey Bay vacation rental at Pajaro Dunes, 20 miles south of Santa Cruz, 3bd/2ba beach house with distinctive architecture. Beautiful ocean and valley views, only 150 ft from the beach, first-class tennis courts. $500/wkend, $200/addl night, including cleaning by the maid service when you depart. Call (408) 252-7260.

Lake Tahoe cabin rental in Agate Bay, North Shore. 4bd/3ba tri-level, AEK, cable TVs, fireplace, BBQ, deck, sleeps 10. Closest skiing is Northstar, Alpine and Squaw. Rates are $375 a weekend, $1,000 a week. Call (408) 867-4656.

Florida west coast vacation in St. Petersburg, beautiful 2bd/2ba condo, fully equipped kitchen and furnished, sunset views, 1/4 mile from St. Pete Beach, monthly or 2 week minimum rentals only. Call (703) 299-8889 or e-mail: jdgoehler@aol.com

West Maui vacation condo at Kahana Falls, across street from beach. One week, 7/30 - 8/6, for $700. 2 bd/2 ba, W/D, fk. Call (650) 962-1314.

Astrogram deadlines

Please submit articles, calendar and classified advertisements to astrogram@mail.arc.nasa.gov no later than the 10th of each month. If this falls on the weekend or holiday, then the following business day becomes the deadline.

For Astrogram questions, contact Astrid Terlep at the aforementioned e-mail address or ext. 4-3347.

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.

Ames employees receive prestigious Silver Snoopy Award

Three Ames employees recently received the prestigious Silver Snoopy award for their professionalism, dedication and outstanding support that greatly enhanced space flight safety and mission success.

James Reuther, an aerospace engineer in code TSA and Dinesh Prabhu, a senior research scientist with Eloret Corporation, were honored for their outstanding work in NASA's Return to Flight efforts. Terry Sandke, a system safety and mission assurance / safety engineer with Hernandez Engineering, was honored for his work on the Space Station Biological Research Project (SSBRP).

"We are very pleased that these three outstanding employees have been recognized by NASA with the Silver Snoopy award," said Marvin (Chris) Christensen, acting center director. "This distinguished award is only presented to a few employees and is given in recognition of their exemplary work. Congratulations to each of the three recipients for their well-deserved honor."

Reuther, the technical lead for computational modeling in the inter-center aerothermodynamics Return to Flight team, was cited as the "driving force in developing methodologies, processes and standard for applying modern computational fluid dynamic methods to characterize nominal and damaged orbiter heating environments. He established the vision and challenged the community to develop a 24-hour process for delivering high-fidelity simulation of damaged orbiter re-entry heating environments."

Prabhu was honored for his outstanding support of NASA's space programs and for his "extraordinary commitment to the Return to Flight effort as a member off the inter-center aerothermodynamics team performing analysis and developing methodologies to characterize the heating environment of nominal and damaged tile.

NASA photo by Dominic Hart

Left to right: Astronaut Megan McArthur after presenting Dinesh Prabhu and James Reuther with their Silver Snoopy awards. Not shown is Terry Sandke, who also received a Silver Snoopy award.

Sandke was recognized for his commitment and contributions to safety, particularly during flight safety reviews of the SSBRP payloads. Sandke was honored for his "dedication to safety, attention to detail and perseverance that led to the discovery and resolution of this previously unidentified risk, resulting in a safer ISS."

The Silver Snoopy award is only rarely presented; less than 1 percent of NASA employees have received it. Astronaut Megan McArthur presented the Silver Snoopy award April 17 to the three Ames employees.

The award, also known as the 'astronauts' personal award for professional excellence,' is awarded to individuals for outstanding efforts that contribute to the success of human space flight missions. This recognition focuses on efforts that enhance the probability of mission success, such as improvements in design, administration, technology, production techniques, business systems, flight and / or system safety, or error identification, correction or prevention. All job classifications and task assignments are eligible for this honor.

This coveted award is a sterling silver pin, which has flown aboard the space shuttle, in the form of Snoopy wearing a space helmet and space suit. Recipients are also given a certificate and a letter of commendation, personally signed by an astronaut, citing the astronauts' appreciation of their outstanding performance.

To meet the criteria for this award, the individual's work must relate to flight safety or mission success. Job performance must be outstanding to distinguish the individual in his or her particular area of responsibility and it must make a meaningful contribution to flight safety or mission success.

BY KELLY GARCIA

Astrogram

National Aeronautics and Space Administration

Ames Research Center
Moffett Field, CA 94035-1000

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Astrogram

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