

February 2008

NASA Ames conducts tests of Kepler mission image detectors

by Michael Mewhinney

Sensitive detectors that may help find habitable planets orbiting distant stars as part of NASA's Kepler Mission are undergoing tests at Ames.

Scheduled to launch in February 2009, the Kepler Mission will measure tiny variations in the brightness of stars to find planets that pass in front of them during their orbits. During these passes, or "transits," the planets will slightly decrease the star's brightness. The detectors are similar to the image detectors found in a digital camera, but much more sensitive.

"This is a major milestone for the Kepler mission," said David Koch, deputy principal investigator for the Kepler Mission. "We will use hardware identical to what we will be flying on Kepler in the test bed at *continued on page 2*



Tests were conducted at Ames on the Kepler image detectors. The Kepler mission is scheduled to launch in February 2009 and will measure the variations in the brightness of stars in order to locate planets that pass in front of them during their orbits.

NASA appoints interim Lunar Science Institute director

by Michael Mewhinney

David Morrison has been appointed interim director of the NASA Lunar Science Institute, based at Ames. A nationwide search for a permanent director is under way.

A world-renowned planetary scientist, Morrison currently serves as senior scientist at the Ames-based NASA Astrobiology Institute. The Lunar Science Institute will be modeled after the Astrobiology Institute with teams across the nation working together to help lead the agency's research activities related to NASA's exploration goals.

The Lunar Science Institute will fund interdisciplinary science and exploration research teams to conduct basic lunar science, as well as astronomical, solar and Earth science investigations that can be performed from the moon. Institute teams also will provide a quick-response capability in support of NASA's Exploration initiative. The new institute is scheduled to begin operations by March 1.

"I am delighted that David Morrison has agreed to take on this challenge and responsibility. The Science Mission Directorate is looking forward to working with him in the coming months," said Alan Stern, associate administrator of NASA's Science Mission Directorate, at NASA Headquarters.

Morrison, who obtained his Ph.D. in astronomy from Harvard University, has written more than 155 technical papers and published a dozen books. He has worked at Ames since 1988, as chief of the space science division and director of the space directorate at the center.

Previously, Morrison was on the faculty of the University of Hawaii. He is the recipient of the Dryden Medal for Research of the American Institute of Aeronautics and Astronautics, the Sagan Medal of the American Astronomical Society for public communication, and the Klumpke-Roberts award of the Astronomical Society of the Pacific for contributions to science education. He also has received two NASA Outstanding Leadership medals and the Presidential Meritorious Rank.

Morrison is an Ames institution and a pillar of the planetary research



David Morrison, recently appointed interim director of the NASA Lunar Science Institute at Ames.

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Space enthusiasts toss around innovative ideas at Ames thinkfest

by Rachel Prucey

Before the buzz from their morning coffee had fully taken effect, they blinked their bleary eyes at laptop screens and tapped out e-mails and

internet searches with sluggish fingers. As tea and coffee warmed their blood and upped their spirits, Ames Center Director S. Pete Worden and his senior advisor Jack Boyd stirred their minds with thoughts of space exploration and the settlement of the solar system while they swirled cream and sugar into their coffee.

Worden helped kick off the second Next Generation Exploration Conference, held at NASA's Ames Research Center, Feb. 12 through Feb. 15 by emphasizing that affordable space missions are happening around the world and that the key to their success is involving and exciting the private



A hundred or so young space exploration innovators and explorers attended the recent second Next Generation Exploration Conference held at Ames.

sector. The conference's estimated

100 attendees were young, up-and-

coming space exploration innovators

and entrepreneurs who hailed from a variety of backgrounds. They filled the conference center, over flowing onto patios and spilling into the lobby in enthusiastic round table discussions

about groundbreaking approaches to designing the future of space exploration.

The conference sandwiched presentations by officials from NASA Headquarters, including Gale Allen of the Strategic Integration and Management Office, and Doug Comstock of the Innovative Partnerships Program Office, between representatives of companies such as Odys-

sey Moon Limited and the Paragon Space Development Corporation. For *continued on page 4*

NASA Ames conducts tests of Kepler mission image detectors

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Ames. We will have the ability to create transits of a star so that we can see the change in the star's brightness. By simulating transits, we will be able to demonstrate that the flight hardware will work," Koch explained.

Kepler mission scientists will determine the frequency of Earthsize and larger planets in or near the habitable zone around other stars. Although hundreds of larger, Jupiter-like planets composed of gas already have been detected, Kepler mission scientists are seeking smaller planets where water, and perhaps, life, could exist.

"We expect to find dozens of planets in the habitable zone of solar-like stars that are terrestrial size, rocky planets, similar to Earth," said William Borucki, Kepler's science principal investigator. "We will learn whether Earths are common or rare in our galaxy."

There will be 42 charge coupled devices (CCDs) used in the focal plane of the telescope during the actual mission. Together, the 42 CCDs make up a large array measuring about a foot square in Kepler's telescope. This is the largest array of CCD detectors ever flown in space, Koch said.

In this month's single string transit verification test at Ames, scientists

will be testing only one CCD, measuring approximately one inch by two inches. Scientists will use a Kepler technology demonstration test bed to generate a star field, a pattern of stars, to represent that part of the sky where mission scientists will search for transits. The tests will verify the detectors' ability to measure the tiny light intensity variations.

In space, the array of detectors will be covered with sapphire field-flattener lenses and use a telescope, which Borucki said will search a region of sky 30,000 times larger than the Hubble Space Telescope is able to observe.

Kepler is a NASA Discovery mission. NASA Ames is the home organization of the science principal investigator and is responsible for the ground system development, mission operations and science data analysis. Kepler mission development is managed by NASA's Jet Propulsion Laboratory, Pasadena, Calif. Ball Aerospace & Technologies Corp., Boulder, Colo., is responsible for developing the Kepler flight system.

For more information about the Kepler mission, visit: http://kepler. nasa.gov/

Shana Dale visits Silicon Valley

NASA Deputy Administrator Shana Dale visited the Bay Area on Feb. 19 to give the keynote speech at the Engage!2008 Procurement and Commerce Expo., held at the Fairmont Plaza, in San Jose, Calif. The event honored Ceil McCloy of ISSi Research, recipient of the National Association of Women Business Owners - Silicon Valley's, "Public Policy Advocate of the Year Award 2008."



NASA's Ames enables commercial weightless aircraft flights

by Michael Mewhinney

Commercial, weightless flights were recently offered at Moffett Field, under the terms of an agreement with the Zero Gravity Corp, Las Vegas. Additional flights will be scheduled later this year.

"We're delighted to have signed this historic agreement with ZERO-G," said Ames Center Director S. Pete Worden. "This will further NASA's goal of pursuing mutually beneficial partnerships with the emerging commercial space sector."

A Reimbursable Space Act Agreement between NASA's Ames and the corporation, known as ZERO-G, allows the corporation to park its aircraft on the airfield while flight operations are being conducted and during scheduled flights. The agreement also calls for NASA and ZERO-G to develop research collaborations starting this fall.

During its flight operations at NASA's Ames, ZERO-G will use a modified Boeing 727-200 aircraft, called G-Force One, and fly from the Moffett Field runway. Passengers aboard the aircraft will experience brief periods of the same weightlessness that astronauts encounter while orbiting the Earth, as well as the same gravity conditions they would experience on the moon and on Mars.

"We are honored to be able to fly from Moffett Field and allow our passenger the opportunity to fly like superman and float in midair just like NASA astronauts from an actual NASA center," said Peter H. Diamandis, chairman of ZERO-G. ZERO-G was recently awarded a contract from NASA to conduct research and astronaut training.

While new to NASA's Ames, this is not the first time that these weightless flights have taken place at a NASA center. In 2006, ZERO-G reached an agreement with NASA's Kennedy Space Center, Fla., to use the space shuttle runway for similar weightless flights for the public. ZERO-G began operating weightless flights for the public at Kennedy June 24, 2006, flying up to seven flights per week, up to a maximum of 280 flights a year.

As part of the agreement, the corporation will reimburse NASA for the use of the runway and support costs.

The scheduling of ZERO-G flights at Moffett Field will not interfere with NASA missions, other resident federal agencies, or with airfield operations or

Junior engineers think big at Future City competition

BY RACHEL PRUCEY

Like giants in the lands of the Lilliputians, people wandered past miniature cities with thumb-wide streets, 18-inch-tall sky-scrapers, broccoli-sized trees and sipping-strawsized pipes.

A menagerie of more than 300 teachers, mentors, parents, grandparents, siblings, city planners, NASA sciother activities. All flights will be conducted during daylight hours, according to ZERO-G officials. The Boeing 727-200 is a Stage 3 aircraft, which is one of the quietest aircraft in service.

For more information about ZERO-G, call 800-937-6480 or visit: http://www.GoZeroG.com

skirts, slacks, suits and sometimes matching hair ribbons. Like actors before for a live performance: some giggled nervously, some wiped damp palms on their pant legs and some mouthed their parts as they studied the lines of their presentation.

Teams composed of two to three middle school students, accompanied by a teacher and engineer mentor,



Numerous visitors attended the Northern California Regional National Engineers Week Future City Competition recently held at the center. Student participants in the competition created futuristic cities built out of recycled materials.

entists and curious locals attended the Northern California Regional National Engineers Week Future City Competition at NASA's Ames on Jan. 26.

Students arrived early before the competition was scheduled to begin dressed to impress in school uniforms,

defended table-top models of what they believe a future city should look like to a panel of judges. In crowded tents, rooms and the Exploration Center, teams took their turn rotating their dream cities to center stage. The audience either listened intently to the *continued on page 4*

Junior engineers think big at Future City competition

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competition's presentation or brimming with energy, wiggled and tapped their feet.

In addition to the main competition, teams were eligible for "Special Awards," such as the "Best Futuristic Transportation System," the "Most Innovative Power Generation System," and the NASA Special Award, which was presented to the Milpitas Christian School for their imaginary city, Taikai.

One of many constraints students were given was to build their highly intricate models within a \$100 budget. As a result, their creativity ran rampant and they built styrofoam buildings, water bottle reservoirs, CD case towers, windows made out of staples, egg carton farming centers and found many uses for toilet paper rolls.

After every team had a chance to present their designs, survey the competition up-close and queue for pizza and pasta, the mood of the event became more lighthearted and gregarious. At that time, spirits were high and no one had yet been disqualified from being finalists at the National Future City Competition, to take place three weeks later in Washington, D.C.

Will Wright, inventor of Sim-City3000, the software game students used to stoke their imaginative fires before actually building their cities, briefly spoke to the crowd of wideeyed aspiring engineers, designers and city planners.

Åfter a full day at work, minds young and old, left the competition overflowing with bright ideas and inspiration. To view images of the competition and its award winners, please visit: http://www.nasa.gov/centers/ames/ multimedia/images/2008/Future_ City_Competition.html

Ames broadcasts STS-122 launch



The STS-122 launch of space shuttle Atlantis was broadcast live on Feb. 7, 2008, in the Exploration Center. Approximately 100 people attended the viewing. Bo Bobko and John Allmen of Ames were interviewed by KGO-TV (ABC) and KTVU (FOX). Both stations aired segments about the launch on their 5 o'clock news casts and posted videos on their web sites. Atlantis landed safely on Feb. 20.

NASA photo by Eric James

Lunar Science Institute director appointed

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community, having served as a scientist on NASA's Mariner, Voyager and Galileo missions," said Ames Center Director S. Pete Worden. "His experience at the NASA Astrobiology Institute and his communication and management skills are just the talents we need to ensure early success for the NASA Lunar Science Institute."

Before the arrival of a permanent director, Morrison will be responsible for completing the first call for institute proposals through a cooperative agreement announcement later this spring.

"Creating a new and innovative program in lunar science is an exiting prospect, which I am thrilled to take on," said Morrison. "I am confident that the formation of the NASA Lunar Science Institute will galvanize interdisciplinary research on the moon as the NASA Astrobiology Institute has done for the field of astrobiology, including developing international partnerships and training a new generation of lunar scientists."

NASA announced its intent to establish a new lunar science institute in October 2007. The Lunar Science Institute will augment other, previously established, but smaller, focused lunar science investigations funded by NASA. Work performed by the institute will be conducted at a variety of NASA centers, universities and nonprofit organizations across the nation. Institute funding will be allocated based on competitive selection following scientific peer review.

Space enthusiasts toss around innovative ideas at Ames thinkfest

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those interested in joining remotely, there was an opportunity to listen in by using the software "SecondLife," where NASA's CoLAB had created a virtual reality conference room with live streaming video projected onto screens. Using "SecondLife," those off site were able to participate in discussions by sending questions and answers over instant messages.

The highlight of the conference occurred when the crowd of participants were treated to special guest appearances by STS-120 crewmembers, commander Pamela Melroy and flight mission specialist Scott Parazynski, in their blue flight suits decorated with mission patches, as well as former NASA astronaut Buzz Aldrin. Collaborative group project presentations focused on entrepreneurial opportunities in lunar development to NASA's senior management, wrapped up the successful conference.

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NASA Astronaut Buzz Aldrin, a special guest at the second Next Generation Exploration Conference, held at NASA's Ames Research Center, Feb. 12 through Feb. 15.



NASA photo by Eric James

STS-120 crew members present Silver Snoopy Awards

Recently, the STS-120 astronaut crew shared a presentation of the STS-120 Post Flight Debrief before the Silver Snoopy and Space Flight Awareness (SFA) Team Award presentations were given.

The honorees were as follows:

2007 Silver Snoopy Awards

- David M. Driver
- Chun Tang

2007 SFA Team Awards

- Ames Research Center CFD Aerothermal Team
- Columbia User Service Support Team
- Space Shuttle Debris Transport Team
- Thermophysics Facilities Group



First lunar outpost on Earth: renowned architect speaks at Ames

BY DEBORAH 'ROBIN' CROFT

On Feb. 5, employees at NASA's Ames attended en-masse, a directors colloquium co-sponsored by the GREEN team, featuring a talk entitled, "Cradle to Cradle: A Celebration of as "A Hero of the Planet") and has been asked by NASA to present his ideas at all the major NASA centers.

In his introduction, Ames Associate Center Director for Institutions and Research Steven Zornetzer pointed

out that, as a winner of three presidential awards, "William McDonough is a leader in thinking and feeling about sustainability."

McDonough characterized our way of thinking about the environment and our relationship to it as being pessimistic and limited. Instead of minimizing damage by recycling, an attitude that he refers to as "eco-efficiency," he advocates an exuberantly positive approach, in which "growth is good," and in which the strategy becomes "eco-effectiveness." We will be able to

design for abundance when we design buildings like trees and cities like forests. Trees: the more abundantly they extend, the more effectively they provide shade, habitat, nutrients (oxygen) and beauty for their companion organisms.

Through his firm, McDonough Braungart Design Chemistry, he is working with manufacturing companies to resolve the problem of waste generated by technology. He notes that the Chinese subtitle of his book Cradle to Cradle is "Design of the Circular Economy."

Ames is underway in building the first substantial new facility on the campus in over 18 years, the Collaborative Support Facility, a 75,000 square foot office and conference center on the site of a 1939 Wind Tunnel, which is currently being demolished. The project is required by Federal directives to attain a LEED Silver rating.

McDonough, who was given a tour of the site after the lecture, has graciously offered to contribute his thinking to the project, which is being designed by NASA's On-Site A-E firm, DMJM H&N. In recognition that our future presence on the moon will require a sustainable, closed, biomechanical system, McDonough suggested that NASA consider this building the First Lunar Outpost on Earth.

NASA photo by Dominic Hart Renowned arthitect and recipient of three presidential awards William McDonough, recently spoke at the center.

Abundance," by the renowned architect William McDonough, FAIA.

McDonough has caught the attention of NASA administrator Michael Griffin (reportedly intrigued by Time Magazine's recognition of him in 1999

SBIR hosts appreciation reception for staff and partners

Recently, the NASA Ames Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs hosted an appreciation reception. The reception was held to honor all of the people whose hard work and dedication to the program make it a such a success each year at the Ames Exploration Center. Attendees included reviewers, COTRs, center management and Ames SBIR/STTR Program management and staff.

The SBIR/STTR Program benefits many small businesses, including some that are local to the Ames area. One such local company is inXitu, Inc., based in Mountain View. The company has developed new X-Ray Diffraction (XRD) technology with over \$640,000 awarded through NASA's SBIR Program. The company's Automated Sample Handling (ASH) system for planetary XRD instruments enables direct analysis of materials obtained from drills or rock crushers, eliminating the need for extensive sample preparation. Some features of the ASH system have already been implemented in the CheMin instrument developed at Ames for the Mars Science Laboratory mission scheduled for 2009.

Combined, the SBIR and STTR programs fund approximately \$15 million worth of contracts managed by Ames. Research across all mission directorates is supported with 72 Phase I, 56 Phase II and 7 Phase III contracts with Ames.

From the subtopic managers who develop solicitations, to the reviewers who spend hours pouring over the details of the proposals, the SBIR/STTR Program thanks you.

To learn more about the SBIR/ STTR Program and how it can help develop technology in your area at NASA, visit www.sbir.nasa.gov.



NASA photo by Dominic Hart

David Blake of Ames (front, center) and Philippe Sarrazin of inXitu, Inc., (standing, right) explain to Rich Pisarski (standing, left) and Richard Sanchez (standing, center) of the NASA Ames SBIR/STTR Program what the SBIR Program funding has done for the development of inXitu's X-Ray Diffraction Analysis Device.

NASA Ames fire department adds engine number four

by Steven Kelly

In early February, the NASA Ames Fire Department placed in service a new fire engine. Engine 4 is the newest addition to the emergency response fleet, which has been in the planning stages for over four years.

This rescue engine is a "state-ofthe-art" fire fighting vehicle and is very capable of supporting the emergency rescue and firefighting needs of this department and the NASA Ames community, according to fire department officials.

Engine 4 will respond to rescue emergencies, structural emergencies, as well as supporting aircraft rescue emergencies. It was built by Pierce Manufacturing Corporation in 2006 and is equipped with a 400 horsepower Detroit Diesel engine, a 1,250 gallon per minute water pump and a 750 gallon water tank. Other features are a compressed air foam system, night scan telescoping light unit, and an on board hydraulic pump to power rescue tools such as the "Jaws of Life."

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This state-of-the-art piece of equipment, coupled with the professional firefighting team, will be able to provide outstanding service to the community for years to come.



Fire Chief Steven Kelly (left, front) when he recently spoke at Moffett during the in-service ceremony about the capabilities and service the new fire Engine 4 will bring to the NASA Ames community.

ASTROBIOLOGY • NEXT GENERATION COMPUTING • INTELLIGENT/ADAPTIVE SYSTEMS • ENTRY SYSTEMS • NANOTECHNOLOGY • AIR TRAFFIC MANAGEMENT

In Memory of . . . Charles Shepard, holder of supersonic constricted Arc jet co-patent

Chuck Shepard was born Sept 1, 1923, in Lincoln, Neb., and died Feb. 13, 2008. He was an aerial photographer in the Pacific during WWII. He married Ione Knox in 1945 and they had five children. They later divorced.

Shepard received his bachelor's degree at University of Wisconsin Madison and masters degree from Case Western Reserve University, working at NACA Cleveland before transferring in 1961 to NASA Ames.

He retired from NASA the first time in 1972 and worked briefly in the private aerospace industry. He returned to Ames as a contractor through the early 1990s.

Shepard celebrated the 40th anniversary of his Supersonic ConstrictedArc Jet co-patent in 2004.

He married Mary Frederick in 1979. They enjoyed tennis at the Saratoga Country Club, backpacking, skiing and hot tubbing. He will be remembered for his warmth, generosity and sense of humor.

Survivors include his devoted wife Mary, his children (Ann Lanfri, Paul, Joan Rickard, Mark and Steven) and his step-children (Katherine Galarza, David Frederick, Jennifer Jourdain and Jonathan Frederick). He was beloved Poppo to 19 grandchildren.

A memorial service will be held at 4 p.m., Friday, Feb. 29, 2008, in St. Jude's Episcopal Church in Cupertino. Remembrances to the Alzheimer's Association.



Charles Ernest Shepard

Albert Clarke, NACA/NASA pioneer model maker

Albert Clarke, a pioneer in experimental research and development model making, passed away on Dec. 28, 2007, at the age of 92. Clarke was hired at NACA, (now NASA Ames) in 1940 and worked for 27 years, retiring



Albert Clarke

from NASA in 1966. When Clarke first began his career with NACA, Ames was in its infancy and Clarke was one of the original four employees chosen to establish the first model shop.

Clarke established his credentials as a first-class craftsman on a series of P-51 Mustang wind tunnel models (see photo on right). When the "space age" began, new technical challenges arose. To try to stay ahead of some of these technical demands, Clarke established a precision casting department in the model shop.

Clarke developed a process for making low-cost molds for centrifugally casting ultra thin metal and plastic shapes. Because of the excessive heating of model nose cones during testing at high mach numbers, the nose cones were seldom able to be reused. Clarke wrote an article in 'Product Engineering,' a weekly trade publication for design engineers at the time, to share this new advanced process with outside industry.

As a boy, he would spend hours making elaborate model airplanes and gliders, foregoing all other activities, even school work. After high school in Pittsburgh, Pa., Clarke got a job with

Hearst Newspapers writing a syndicated column called 'Junior Birdmen' for model airplane enthusiasts.

In 1937, he pulled up roots and traveled cross country with his older brother on their Indian motorcycle to Santa Monica, Calif. He attended Fletcher's Aircraft School and landed a job with Lockheed at their Burbank plant building 'real' airplanes.

After retiring, Clarke purchased an abandoned school house in the northern California town of Marshall. It opened on Lincoln's birthday in 1876 until it was closed in 1965. Clarke artfully restored it, incorporating all the original items that survived, including the chalk boards, preserved as they were on the last day of school. He developed a passion for woodturning.

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Many of his designs were strongly influenced by the beautiful ceramic pots of South West America Indians.

His unique artworks have been purchased by collectors. One such collector, Irving Lipton in southern California, owns 10 of Clarke's creations as part of his \$3 million collection. One of Clarke's woodturnings was picked as an ornament for the White House Christmas tree collection in 1994. His ebony sculpture called "Black Hole," has been promised to the Oakland



Albert Clarke working on the P51 Mustang fighter aircraft model at Ames.

Museum's collection. His unique style was featured in seven issues of 'Wood-turning Magazine'.

Clarke will be missed by his loving daughter, Carol and son-in-law John Bergs, and the townspeople of Marshall, Calif.

Ames Ongoing Monthly Events Calendar

Ames Amateur Radio Club, third Thurs., of ea. 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 third Wednesday of each month, 12 noon - 1 p.m., Bldg. N-245 Auditorium. POC: Julie Nottage at jnottage@ mail.arc.nasa.gov, ext. 4-3711.

Ames Bowling League, Homestead Lanes on Thursday nights at 6:20 p.m. Seeking substitute bowlers. Questions to sign up: Mike Liu at ext. 4-1132.

Ames Child Care Center Board of Directors Mtg., every other Monday, 1 - 2:30 p.m., Bldg. N-262/Rm 180. POC: Sally Miller, ext. 4-5411.

Ames Contractor Council Mtg., first Wednesday of ea. month, 11 a.m., Bldg. N-200, Committee Room. POC: Kathleen Starmer, ext. 4-6959 **Environmental Forum**, first Thursday every other month, 9 a.m. - 10 a.m., T20-G conference Rm. 129. URL: http://q/qe/events/EHSseries/ POC: Stacy St. Louis, ext. 4-6810.

Ames Federal Employees Union (AFEU) Mtg, First Wednesday of November (7th), noon. First Wednesday of December (5th), noon. Bldg. N-247, Rm. 109. Beginning 2008, third Wednesday each month, same location. Guests welcome. Info at: http://www.afeu.org. POC: Paul K. Davis, ext. 4-5916.

The Hispanic Advisory Committee for Excellence (HACE) Mtg., first Thursday of each month, 11:45 a.m. - 12:45 p.m., Bldg. N-255, Rm. 101C. POC: Eric Kristich, ext. 4-5137 and Mark Leon, ext. 4-6498.

Jetstream Toastmasters, Mondays, 12 p.m. - 1 p.m., Bldg. N-269/Rm.179. POC: Miwa Hayashi, ext. 4-1397, mhayashi@mail.arc.nasa. gov. Web: http://jetstream.freetoasthost.com

Ames Mac Support Group Mtg., third Tuesday of each month, 11:30 a.m.to 1 p.m., Bldg. N-262, Rm 180. POC: Tony ext. 4-0340.

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

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

Ames Nimble Knitters Club, every Tuesday at 11:30 a.m., Bldg. N-241/Rm 237. POC: Rosalyn Jung, knitfan2@yahoo.com or Diane Alexander at ext. 4-3140. URL: http://knit.arc. nasa.gov

Ames Safety Committee, third Thursday of each month, 10 a.m. - 11 a.m., Bldg. N-237, Rm. 201. POC: John Livacich, jlivacich@mail. arc.nasa.gov, ext. 4-3243 or Terry Reichert, treichert@mail.arc.nasa.gov, ext.-4-0375.

Ames Sailing Club Mtg., second Thursday of each month (March through Nov), from 12 p.m. - 1 p.m., Bldg. N-262, Rm. 100. URL: http://sail.arc.nasa.gov/. POC: Becky Hooey, ext. 4-2399.

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.

Safety Data

NASA-Ames Occupational Illness-Injury Data for Calendar Year-to-Date 2008 Jan. 1, 2008 - Jan. 31, 2008

| Civil Contractor Servants | | |
|------------------------------|---|---|
| id cases | 3 | 0 |
| Vorkday cases | 0 | 0 |
| lable cases | 0 | 1 |

1

Restricted duty days 0

Above data are as of Jan. 31, 2008. May be subject to slight adjustment in the event of a new case or new information regarding an existing case.

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 January 2008 is shown below.





First a

Lost W

Record

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 spaceavailable 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!

Transportation

'95 Toyota Camry, emerald green exterior, 4 dr, 5-speed manual transmission. 187,500 miles, great condition, runs smoothly, gives 26mpg, has recent smog certificate and complete maintenance records since 1995! \$3,000. Anupa (650) 862-2869.

'06 Lincoln Towncar, light French silk clear coat, 4 dr, back-up sensors, 6 cd changer, 5,900 miles. Orig. \$45,000. Like new. Asking \$31,000. John (408) 245-6926.

Miscellaneous

Wooden desk and chair sets (2) like new. For children (ages 3 - 11). \$30 each. Call (408) 425-8081.

Ames Cat Network

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.





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 Gift Shop N-235 in the cafeteria, 8 a.m. to 2 p.m., ext. 4-6873

Don't forget to purchase your baby shower, birthday, holiday gifts at Ames' two gift shops!

Visitor Center Gift Shop N-943 M-F, 10 a.m. to 4 p.m., ext. 4-5412

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

Tickets, etc... N-943 outside the main gate, 10 a.m. to 3:30 p.m., ext. 4-5412 and Beyond Galileo, 8 a.m. to 1:30 p.m. ext. 4-6873

Mega Bites Cafeteria N-235, 6 a.m. to 2 p.m., ext. 4-5969/Catering ext. 4-2161

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

Moffett Field Golf Club with 'Tee minus 1' Grill and Sports Bar. Call (650) 603-8026.

RV Lots Available Call to reserve a space at (650) 603-7100/01.

Civilian/Contractors, \$50/mo; military \$25/mo

NASA Lodge (N-19) 603-7100

Where to stay when you're too tired to drive home? What about the lodge?! Two types of rooms: Bldg. 19 (43 rooms), rate: \$55/night (\$5 ea add'l adult); Bldg. 583 (150 rooms), rate: \$45/night (\$5 ea. add'l adult)

Ames Swim Center (N-109) 603-8025

The pool is heated year round! The pool is currently available for lap swim, pool parties and special events. POC -Chana Langley, Pool Manager (650) 603-8025. Memberships: single memberships: \$40/yr. Family memberships: \$60/yr. After purchasing a membership, there is an entrance fee: daily entrance fee - \$3/day or lap pass fee - \$40 for 20 uses. Platinum membership - \$360/yr. (no daily fee). Special events: include military training, swim team events, kayak role practice, etc. The cost for special events is \$50/hr.

Ongoing Vacation Opportunities

Lake Tahoe-Squaw Valley Townhse, 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.

Bass Lake vacation rental, 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. 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, microwy, 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) 743-8890.

New York, 5th Ave., one fully furnished bedroom apt. in 24 hour security fbldg. overlooking Washington Square Park, \$1,000/week or 3,000/month, negotiable. Call (650) 430-6977.

Paris/France: Fully furnished studio. 5th arr, Latin Quarter, Notre Dame and Lie-St. Louis, \$1,400/ week, negotiable. Call (650) 430-6977.

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).

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

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. \$700/wkend, \$2,100/wk including cleaning by the maid service when you depart. Call (408) 252-7260.

South Lake Tahoe large cabin surrounded by protected forest, 8 miles from Stateline Sleeps 12 comfortably, 4 bd/3ba. Hot tub/pool table/65" TV Matt (408) 482-5286

South Lake Tahoe cozy home backs up to large open meadow, 1 mile from Heavenly Valley. Sleeps 11, 3 bd/2.5 ba. Large deck with hot tub. Matt (408) 482-5286.

NASA Spinoff 2007 is hot off the press

The 2007 issue of NASA Spinoff is hot off the press and available for Ames employees. This annual publication documents the outcome of successful commercial partnerships from the NASA Innovative Partnerships Program.

Spinoff 2007 highlights new products on the market in the areas of health and medicine; transportation; public safety; consumer goods, homes and recreation; environmental and agricultural resources; computer technology; and industrial productivity.

As stated by NASA Deputy Administrator Shana Dale, "NASA's science, aeronautics and space exploration drives inspiration, innovation and discovery, which in turn keep this nation at the forefront of technology advancements at a global level."

This edition contains 39 highlights of NASA derived technologies applied to commercial products, nine of the success



The front cover of the NASA Spinoff 2007 issue. The cover photograph is of the International Space Station taken from the Space Shuttle Atlantis on June 19, 2007, at the end of STS-117 mission.

stories originated from Ames! To request a free copy of Spinoff 2007, contact Dina Salazar at e-mail Dina.A.Salazar@nasa.gov or call ext. 4-5238. The full text is available for download at www.sti.nasa.gov/tto.

Haughton Crater tests discussed



Terry Fong (above) and Matthew Deans of the Intelligent Robotics Group at Ames together recently held a director's colloquium at the center entitled, "Robotic Site Survey at Haughton Crater." They described the recently conducted field test at Haughton Crater in the Canadian Arctic. During July 2007, two NASA Ames K10 rovers performed detailed surveys of several simulated lunar outpost sites. The rovers carried ground-penetrating radar to map subsurface structure and a 3D scanning laser to map terrain topography. Fong is the lead and Deans the deputy lead of the NASA Ames Intelligent Robotics Group.

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 a weekend or holiday, then the following business day becomes the deadline. For Astrogram questions, contact Astrid Olson at the aforementioned e-mail address or ext. 4-3347.



You can reach the Astrogram Office at: astrogram@ mail.arc.nasa.gov or by phone at (650) 604-3347. Astrogram Web site: http://www.nasa.gov/ ames/astrogram.