National Aeronautics and Space Administration

ASTROGRAM

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Ames' FACET receives NASA's Software of Year 2006 award

Before 5:00 a.m. on the East Coast, the skies across the United States are fairly quiet with a few hundred cargo and 'red-eye' flights. However, a storm is brewing. As the day begins, there is a flurry of activity which starts in the east and slowly moves west as people and cargo travel to their destinations.

The Future Air traffic management concepts Evaluation Tool (FACET) team, from left to right, Daniel Mulfinger, Karl Bilimoria ,Gano Chatterji, Banavar Sridhar, Kapil Sheth and Shon Grabbe. FACET was selected as NASA's Software of the Year winner for 2006. FACET can enable efficient planning of traffic flows and holds the promise of more frequent on-time departures and arrivals.

To help keep track of these aircraft and maintain safety and efficiency through the inevitable weather-related delays and system overloads, the Federal Aviation Administration (FAA) and airlines use technology developed at NASA Ames. The technology is called the Future Air traffic management Concepts Evaluation Tool, better known as FACET.

In recognition for its innovation and contributions to science and technology, FACET was selected as NASA's Software of the Year winner for 2006. The FACET team, led by Banavar Sridhar, is composed of Karl Bilimoria and Shon Grabbe (NASA); and, Kapil Sheth, Gano Chatterji and Daniel Mulfinger (University of California-Santa Cruz). The team will travel to Washington for the official awards ceremony in early September.

FACET is a flexible software tool that provides powerful simulation capabilities and can rapidly generate thousands of aircraft trajectories to enable efficient planning of traffic flows at the national level. FACET uses air traffic data from the FAA and weather information provided by the National Oceanic and Atmospheric Administration (NOAA) to analyze the flight plan route and predict trajectories for the climb, cruise and descent phases of flight for each aircraft type. For the commercial airline passenger, this holds the promise of more frequent on-time departures and

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AIAA conference explores the business case for space

As a kick off to the American Institute of Aeronautics and Astronautics (AIAA) Space 2006 Conference and Exposition scheduled for Sept. 19 to 21 at the McEnery Convention Center in San Jose, the AIAA held a luncheon in August at the Computer History Museum located on Shoreline Avenue in Mountain View. The luncheon's theme was 'Exploring the Business Case for Space' and featured a panel discussion. Left to right are: Andrea Seastrand, executive director, California Space Authority; Len Kwiatkowski, vice president, military space, Lockheed Martin Space Systems Company; Peter Engel, vice chairman, Investment Banking, J.P. Morgan; Paul Lencioni, director, Global Defense and Space Group, Cisco Systems; and Dan Rasky, senior staff scientist, Space Technology Division at NASA Ames.

NASA photo by Tom Trower

On the Inside . . .

Scientists discover methane drizzles on Saturn's moon, Titan

Liquid methane drizzles on the surface of Titan, a moon of Saturn, according to a paper by NASA and university scientists that appeared in the July 27 issue of the journal, Nature.

Artist's concept of the Huygens probe at Titan. The probe has recently sent back data that indicates that there are liquid methane-nitrogen clouds that rain on Titan's surface.

Data from the European Space Agency's Huygens probe indicates there is a lower, barely visible, liquid methane-nitrogen cloud that drops rain to the surface of Titan, reported a team of scientists from universities, an observatory and NASA. The probe collected the data on Jan. 14, 2005, when it approached and landed on Titan.

"The rain on Titan is just a slight drizzle, but it rains all the time, day in, day out. It makes the ground wet and muddy with liquid methane. This is why the Huygens probe landed with a splat. It landed in methane mud," said Christopher McKay, a scientist at Ames and second author of the study. The principle author is Tetsuya Tokano from the University of Cologne, Germany.

On Titan, the clouds and rain are formed of liquid methane. On Earth, methane is a flammable gas, but Titan has no oxygen in its atmosphere that could support combustion. Also, the temperatures on Titan are so cold -- minus 300 degrees Fahrenheit (minus 149 degrees Celsius) -- that the methane can form liquid. Titan's landscape includes fluvial, river-like features that may well be formed by methane rain, scientists noted.

A gap separates the liquid methane cloud -- the source of the rain -- from a higher, upper methane ice cloud, according to the scientific study. Scientists say the downward flow of methane due to the rain is balanced by upward transport of methane gas by large-scale atmospheric circulation.

According to scientists, the rain comes from thin clouds of methane. The upper clouds are methane ice, and the lower clouds are liquid and composed of a combination of methane and nitrogen. Computer models indicate these thin liquid methane clouds cover about half of Titan, even though methane abundance on the moon decreases with latitude, the team reported.

"We determined that the rain on Titan is equal to about two inches (about 5 centimeters) a year," McKay said. "This is about as much rain as Death Valley (receives). The difference is (that) on Titan, this rain is spread out evenly over the entire year."

The scientists reported that erosion potential from the very light methane drizzle may be quite limited, but at least would be sufficient to wet the surface material, and may explain its generally wet character.

In addition to McKay the other co-authors of the scientific paper include Fritz Neubauer, of the University of Cologne; Sushil Atreya, University of Michigan, Ann Arbor; Francesca Ferri, University of Padova, Italy; Marcello Fulchignoni, of both the Paris Observatory and the University of Denis Diderot, Paris; and Hasso Niemann, NASA Goddard Space Flight Center, Greenbelt, Md.

More information about the Huygens mission to Titan can be found on the Internet at http://saturn.jpl.nasa.gov/operations/huygens-mission.cfm

BY JOHN BLUCK

Global space leaders meet to discuss space exploration

NASA photo by Dominic Hart

The Next Generation Exploration Conference, a gathering of emerging global space leaders, gathered at Ames in August for a three-day session to discuss the future of space exploration. The conference featured discussions focused on establishing a framework for developing strategies for human space exploration in the 21st century as the United States and other nations prepare to return to the moon and destinations beyond. Ames Research Center Director S. Pete Worden was a featured speaker. For more information, visit http://ngec.arc.nasa.gov

Ames' FACET receives NASA's Software of Year 2006 award

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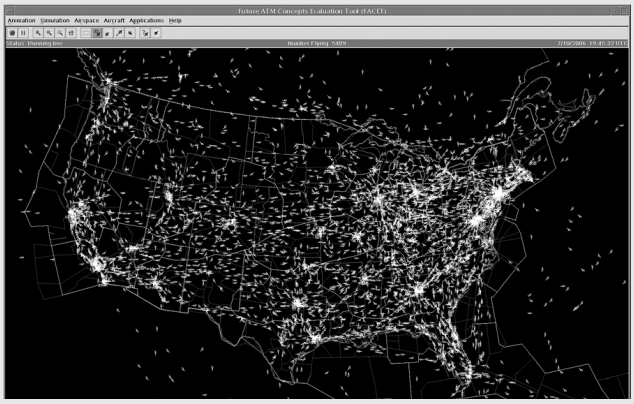

NASA's Future ATM Concepts Evaluation Tool (FACET) display of air traffic over the continental United States during peak hours. FACET is a flexible software tool that provides powerful simulation capabilities and can rapidly generate thousands of aircraft trajectories to enable efficient planning of traffic flows at the national level.

arrivals.

According to engineers, the analyses of these trajectories drive the various air traffic management applications. This innovative feature enables FACET to model airspace operations at the U.S. national level, and process more than 15,000 aircraft on a single desktop or laptop computer.

"FACET started out as a simulation tool for NASA research and has evolved into an operations planning tool for the FAA and airlines," said Sridhar. "I would like to thank our colleagues for supporting and contributing to this successful endeavor."

The Software of the Year Award developed by the NASA Inventions and Contributions Board recognizes outstanding contributions in software development. Selection is based on a rigorous set of criteria including the software's significance to science and technology, its impact on NASA's mission, quality, usability, extent of potential use and innovation. All software must be licensed and commercially available.

"Making NASA mission technologies applicable and available to meet the needs of the American public, industry and academia increases the value added from the tax payer's investments in the U.S. space program," said Robin Orans of the Technology Partnerships Office at Ames. "The licensing of FACET is helping make air travel safer and more efficient by saving fuel for airlines and time for passengers from gate to gate."

FACET has transitioned successfully from NASA laboratory theoretical use to national operational use. Technologies derived from FACET have been incorporated into the FAA's traffic management system, which is used currently by more than 500 air traffic managers at about 100 sites across nationwide. NASA has commercially licensed the FACET software to Flight Explorer®, Washington, a leading vendor of flight operations management tools that are used by nearly 5,000 dispatchers at more than 600 customer sites including 80 percent of major United States airlines. FACET is a component of a growing suite of air traffic management tools developed at NASA Ames as part of the NASA Airspace Systems Program, at NASA Headquarters in Washington.

"I'm absolutely thrilled that the Ames team has been honored with this prestigious award," said Ames Center Director S. Pete Worden. "As a center, we have enjoyed great success in previous NASA Software of the Year competitions; this award adds to our proud legacy and is a harbinger of great things to come for our center."

Previous NASA Ames software to receive the Software of the Year award include: Cart3D, Remote Agent, Center TRACON Automation System Software (CTAS) and Flow Analysis Software Toolkit (FAST).

For more information about FACET, visit http://as.nasa.gov/aatt/facet.html and also http://technology.arc.nasa.gov/SOY2006/SOY_FACET/index.cfm

To view a short FACET animation, visit http://aeronautics.nasa.gov/videos/day_in_the_life.htm

BY JONAS DINO

Ames announces change in astrobiology management

Dr. Carl Pilcher, senior scientist for astrobiology at NASA Headquarters, Washington, has been appointed director of the NASA Astrobiology Institute (NAI) at NASA's Ames . The appointment is effective Sept. 18, 2006.

Pilcher succeeds Dr. Bruce Runnegar, who served as the third director of the NAI from 2003-2006. Runnegar is returning to his home institution, the University of California at Los Angeles in September.

Prior to coming to NASA, Pilcher served on the faculty of the Institute for Astronomy at the University of Hawaii. He has received numerous awards, including the NASA Exceptional Achievement Medal.

Founded in 1997, NAI is a partnership between NASA, 12 major U.S. teams and six international consortia. NAI's goal is to promote, conduct and lead integrated multidisciplinary astrobiology research and to train a new generation of astrobiology researchers.

NASA photo

Dr. Carl Pilcher, newly appointed director of the NASA Astrobiology Institute at Ames.

Astrobiology is the study of the origin, evolution, distribution and future of life in the universe.

Microscopic passengers to hitch ride on space shuttle

When space shuttle Atlantis rockets into space on its next mission, it will take three kinds of microbes so scientists can study how their genetic responses and their ability to cause disease change.

NASA photo by Tom Trower

Scientist Hami Teal of Ames holds the microscopic organisms that will travel on the STS-115 mission. Scientists will study how the microbes' genetic responses and their ability to cause disease change.

The 'Microbe' experiment, part of the STS-115 space shuttle mission, will study three common microorganisms -- Salmonella typhimurium, Pseudomonas aeruginosa and Candida albicans -- that have been identified as potential threats to crew health. Sending these microbes into space will allow scientists to investigate the microbes' genetic adaptation and ability to cause infectious disease in microgravity, and to better understand the astronauts' space environment.

“Spaceflight holds tremendous potential for the development of novel therapeutics, vaccines and diagnostics to treat, prevent and control infectious diseases,” said Cheryl A. Nickerson, Ph.D., the experiment's principal investigator and a researcher at the Biodesign Institute at Arizona State University, Tempe. “Our Microbe experiment will be the first to investigate the effects of spaceflight on the disease-causing potential and gene expression profiles of disease-causing microbes.” NASA Ames developed the Microbe payload for flight.

According to scientists, understanding human biological changes and microbial responses while living in enclosed quarters in space is important to the health, safety and performance of crew members and requires further study. The flight microorganisms, which may be carried to spacecraft on the human body and in water or food, have been identified as potential threats to astronaut health based on previous spaceflight missions. The micro organisms also are major causes of human illness on Earth, according to Nickerson.

Prior studies indicate that spaceflight weakens the human immune system, and that some microbes become more virulent when grown under conditions that simulate spaceflight, thus increasing the risk of astronauts becoming sick during flight. Whatever the mission or its duration, microbes are present where there are human beings.

This experiment will focus on investigating the effects of spaceflight on three microorganisms commonly found where human beings live. The results will be used in the risk assessment of crew environmental conditions, including drinking water and breathable atmosphere, to help prevent contamination and contagious infection while in space. Scientists also believe this research some day may benefit people on Earth by leading to new therapies for infection.

"This experiment requires only the minimum of space shuttle resources, but it has the potential to greatly advance infectious disease research in space and on the ground,” said Steven Hing, the experiment's project manager at NASA Ames.

With these 'bugs' already present or with the potential to be present in human-occupied spacecraft, this research is applicable to both current and future long-duration flights, Hing noted. Because the microbes will be contained in Group Activation Pack (GAP) hardware that provides three levels of containment, they will pose no threat of exposure to the astronauts. A total of 12 GAPs will fly on the upcoming mission.

“Spaceflight has been shown to induce key changes in both human and microbial cells that are directly relevant to infectious disease, including changes in immune system function, microbial growth rates, antibiotic resistance and cell surface properties,” explained Nickerson. “It is exciting to think of the potential benefit that research in space holds for translation to the clinical bedside by providing a better understanding of how pathogens cause disease that will lead to new ways to treat, prevent and diagnose infectious disease."

BY RUTH DASSO MARLAIRE

NASA study shows how delicate organics can survive in space

When scientists look up at the night sky with powerful infrared telescopes, they detect organics in every nook and cranny of our galaxy and in other galaxies.

photo by T.A.Rector (NOAO/AURA/NSF) and Hubble Heritage Team (STScI/AURA/NASA)

The Horsehead Nebula consists of a cloud of ionized gas lit from within by young, hot stars; a dark cloud containing interstellar dust lies immediately in front. The dust absorbs the light form part of the ionized cloud. Scientists at Ames theorize that organics form inside the tiny mineral grains of such interstellar dust.

In the vast, dust-filled regions between the stars, astronomers see free-floating, sturdy organic molecules called polycyclic aromatic hydrocarbons (PAHs). Scientists also see organics of a more delicate type - like fatty acids and even gasoline. How can such fragile carbon-hydrogen bonds survive the radiation and high-energy particles that shoot through interstellar space?

The question of the survival of organics in space is of broad interest. Experts believe that about 3 to 4 percent of all available carbon in the universe is found in organics. More than 4 billion years ago, when our solar system was born from a large collapsing dust cloud, early Earth was bombarded by meteors and comets, which carried organics that formed between the stars. Scientists theorize that a fraction of these organics may have survived the cataclysmic impacts on Earth and may have played a role in the origin of life.

Two NASA scientists, the father-son team of Friedemann and Minoru Freund of NASA Ames reported in a

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NAI and APS Lewis and Clark field scholars selected

Just over 200 years ago the Lewis and Clark's Corps of Discovery embarked on a journey of exploration across North America that forever changed the landscape of this continent. This spirit of exploration continues today, and nowhere is it more pronounced than in the vision and efforts of the National Aeronautics and Space Administration (NASA) and the NASA Astrobiology Institute (NAI).

The NAI and the American Philosophical Society (APS), the oldest learned society in North America and the sponsor of Lewis and Clark's Corps of Discovery in 1804 have partnered to promote the continued exploration of the world around us through a new program of research grants in support of astrobiological field studies undertaken by graduate students, post-doctoral students and junior and senior scientists and scholars.

The NAI and APS recently announced the names of six young researchers who will receive full support for their proposed field expeditions and be named as Lewis and Clark astrobiology field scholars. They are:

Mercedes Lopez-Morales (Carnegie Institution of Washington), 'Searching for transits of extrasolar planets around their host stars using the Swope telescope at Las Campanas Observatory in Chile.'

Clara Fuchsman (University of Washington), 'Expedition to the mid-proterozoic: understanding the nitrogen cycle in the Black Sea suboxic zone.

NicholasSwanson-Hysell (Princeton University), 'Testing the limits of global change: integrated magnetic and chemical stratigraphy of the Bitter Spring Stage, Australia.'

Damhnait Gleeson (University of Colorado), 'Sampling at the unique sulfur-rich, icy ecosystems at Borup Fiord Pass on Ellesmere Island in the Canadian High Arctic.'

Penny Morrill (Carnegie Institution of Washington), 'Identification of gaseous hydrocarbon formation from Ultrabasic Springs at a site of active serpentinization in Sonoma County, Calif.'

Brian Hynek (University of Colorado), 'Mars' Astrobiology potential from Cerro Negro Volcano, Nicaragua.'

Astrobiology is the study of the origin, evolution, distribution and future of life on Earth and in the universe. This year's selections will take these young scholars to sites around the world, and beyond, as they seek answers to some of humankind's oldest and most fundamental questions.

This new program is encouraging the best of the best in young scientists to enter and continue supporting the exploration vision of NASA. Speaking of one of the selected applicants, a referee notes "In performing this combined remote sensing and geomicrobiological study, Damhnait will be one of the first graduate students ever to be trained as a true Europa astrobiologist." Another referee comments, "By the time Nick arrives at Princeton University in the fall, he will have the geological field experience unheard of for a first year graduate student and rare even among professors."

The NAI, founded in 1997, is a partnership between NASA, 16 major U.S. teams and six international consortia. NAI's goal is to promote, conduct and lead integrated multidisciplinary astrobiology research, influence NASA's missions and train a new generation of astrobiology researchers.

For more information about the NAI on the Internet, visit http://nai.arc.nasa.gov. To learn more about the American Philosophical Society, see http://www.amphilsoc.org.

BY ED GOOLISH

Walker named NASA liaison to NSSI

Dr. Stephen Walker of NASA Ames was recently selected as the NASA liaison to the National Security Space Institute (NSSI). His appointment as the agency's first liaison to NSSI is an honor for both Walker and Ames, because competition for this position was conducted across the entire NASA agency.

Walker began serving as a liaison to the NSSI at the beginning of April this year. His responsibilities include teaching NSSI courses and aiding in the development of curriculum, as well as facilitating information between NASA and NSSI toward the furthering of the educational needs and goals for space security training. Prior to his assignment to the NSSI, Walker, who joined NASA in 1997, was a member of the Experimental Aero-Physics Branch.

Located in Colorado Springs, Colo., the National Security Space Institute (NSSI) serves as the DoD center of excellence for space education throughout the National Security Space community. The Institute develops and provides world-class instruction on space system technologies, capabilities, operational concepts, acquisitions and tactics. By interfacing with DoD research laboratories, industry experts and space tactics experts, the NSSI influences the development of new space technologies and how they fit into future space campaign plans.

In his role as liaison, Walker is working to increase awareness of and participation in the NSSI programs among NASA personnel. This strengthens NASA's value in the estimation of the DoD and increases NASA engagement in the dialog about the future of space security technologies. Walker stresses that the association between NSSI and NASA provides many excellent educational opportunities for NASA personnel in the area of leadership development and space security.

Dr. Stephen Walker, selected as the NASA's liaison to the National Security Space Institute. The institute develops and provides world-class instruction on space system technologies, capabilities, operational concepts, acquisitions and tactics.

Additional information about NSSI course descriptions, dates, registration or other training support can be found at the National Security Space Institute Web site: https://www.peterson.af.mil/nssi.

Worden meets with ACC for special session

NASA Ames Center Director S. Pete Worden visited the Ames contractor Council during one of their recent meetings as a guest to share information about the direction of the center and his ideas on how the contractor community can best support the center. He statedthat it has been his past practice to work with the contractor community as in a partnership, and that he expects to do that here at Ames. He is specifically looking for ideas and contacts from contractors that will result in collaborative efforts at Ames and across NASA.

Worden expressed his optimism about the future of Ames and mentined several projects that he sees coming here soon, including work supporting the Crew Exploration Vehicle (Orion).

Accompanying Worden was Deputy Center Director Chris Christensen, who serves as the NASA liaison to the Ames Contractor Council.

For further information on the Ames Contractor Council, visit the West site at www.contractorcouncil.arc.nasa.gov or contact Doreen Cohen (Planners Collaborative project manager), ACC president at dcohen@mail.arc.nasa.gov

NASA photo by Tom Trower

NASA Ames Center Director S. Pete Worden (second from right, top row) met with the Ames Contractor Council (ACC) recently to talk about future partnerships with the ACC. Doreen Cohen, ACC president is seated, front left.

Ames authors publish aeronautical engineering book

Above is the book cover from the recently published book 'Aircraft and Rotorcraft System Identification: Engineering Methods With Flight Test Examples,' AIAA, Aug 2006. The book was written by Mark Tischler, an Army civil servant, Code YH and Robert Remple, UARC, Code AFC. System identification is a highly versatile procedure for rapidly and efficiently extracting accurate dynamic models of an aircraft from the measured response to specific control inputs. Although many books have been written on the theory of system identification, few are available that provide a complete engineering treatment of system identification and how to successfully apply it to flight vehicles. This book provides the unique perspective of over 20 years of flight-test applications to both aircraft and rotorcraft and is a valuable resource for students, working engineers and others interested in atmospheric flight mechanics, modeling and simulation, and test and evaluation.

A tribute to Lucy, a special Ames' DART team member

Lucy was a 15-1/2-year-old border collie who was a FEMA and California Office of Emergency Services (CA OES) certified Type 1 disaster search dog and a CA OES certified human remains detection (HRD) dog. She was a member of Ames' Disaster Assistance and Rescue Team since 1996. Lucy died on Aug. 4. Her last minutes were spent where she loved best, the rubble pile at N267

Lucy, a border collie and FEMA and California Office of Emergency Services certified Type 1 disaster search dog and human remains detection dog and Ames' DART team member, died recently.

When I got Lucy she was a hardened professional with years of wilderness and disaster search experience. She had already survived two near-death experiences, one of which was a rattlesnake bite. She had worked the Oklahoma City bombing with our urban search and rescue team, California Task Force 3. In the morning, she would run over to my cot, give me kisses and then race back for her breakfast. We were buddies from the beginning. When I bought her from her former handler, Caroline, and started to work Lucy, it took me six weeks to earn her respect. It wasn't easy. Those of us who witnessed her acceptance of me as her new handler could tell the moment it happened.

At age 8, Lucy injured her back leg and couldn't work on rubble for six months. In that six months, she became a California certified human remains detection dog. Within a few months, she had found a murder victim buried 6 feet to 8 feet deep in a landfill. Finding that lady's body put the bad guy away forever. That winter she found another murder victim, and the next spring she found the victim of a drowning accident.

Lucy with Lynn Englebert of Ames at the World Trade Center in New York City in September 2001, searching the 10th story roof of the Merrill Lynch building.

We trained and honed our skills as a team for years until we were called upon to work the World Trade Center in September 2001 with California Task Force 4. Lucy was incredible, finding her first human remains within five minutes of setting foot on the WTC site. In addition to her work locating the victims of this tragedy, she would go up to firefighters, police officers and construction workers, offer little kisses of condolence and absorb their tears into her coat.

Following the crash of the space shuttle Columbia in 2003, NASA headquarters asked that Lucy fly to Texas to help locate the remains of our astronauts. She worked there for nine days as part of a massive team that eventually brought our astronauts home to their families.

Lucy worked with local police departments and sheriffs' offices on crime scenes, went to grade schools and colleges to show what a disaster search dog can do and attended safety fairs. No matter what I asked her to do, she was more than willing to try and usually accomplished the task after only a few repetitions. It did take a while to convince her that 'dead' dogs don't bark and roll their eyes, however.

I'm going to miss working with Lucy. She was truly my partner in addition to being my best friend, accepting anything I did and loving me no matter what.

BY LYNNE ENGELBERT

Cars and air pollution - how you can help to reduce it

The majority of the Bay Area's summertime air pollution is caused by motor vehicles. The good news is that ozone is a preventable pollutant. The most effective way to prevent unhealthy ozone levels is to leave your car at home. In fact, you can eliminate up to a pound of pollution per day just by not driving! Try other ways of getting around instead.

Take transit, the bus, train, BART or ferry to work. Call 511 for information about all local transit carriers. You may also call Amanda Dunham at ext. 4-6896 for Ames-specific information.

Join a carpool or vanpool and get to work faster in the HOV lane. Visit 511.org or call Solano Commuter Information at 1-800-53KMUTE to learn more.

Walk or bike to your destination. At work, walk or bike to and from buildings rather than turning on the car. Check out the RIDES web site for helpful bicycle tips at www.rides.org.

Telecommute. Work from home, if your organization allows it, and spend those extra commute hours doing something fun!

Trip Link - Only one quarter of all automobile trips are commute trips, and many of the remainder are taken for nonessential reasons. Because a cold engine (one that's been sitting for an hour or more) pollutes five times as much as a warm engine, a short trip to the corner store can cause half as much pollution as a ten-mile trip. If you must use your car, "trip-link" your errands to avoid multiple cold starts.

BY AMES ENVIRONMENTAL SERVICES DIVISION

Ames Education Associates complete a successful year

The nineth annual Ames Education Associates Program (EAP) summer picnic (this year a fiesta) was held recently at Chase Park. The yearly event recognizes current participants and sponsors as well as celebrates the contributions by so many to Ames over the years. There are more than 150 students and faculty on site who are working primarily on aeronautics, exploration and science projects. More than 850 students from 155 universities and colleges have participated in the program since its inception in 1998.

The nineth annual Educational Associates program picnic (both photos) held recently at Ames in Chase Park. The event celebrates the the contributions made by students and faculty on site who are working on aeronautics, exploration and science projects.

The EAP program is a cooperative Space Grant education program sponsored by NASA Ames and administered by the National Space Grant Foundation to link students and faculty members with projects at the center.

EA program participants can be given variable appointments from two to 12 months. The appointment may be full- or part-time, and can start or end at any time during the fiscal year.

Ames sponsors may pre-select students or select qualified EA candidates from program's Web site.

An important feature of the program is the flexibility it provides for both the associates and Ames sponsors. Associate candidates represent a wide range of educational levels (undergraduates to faculty) and a broad spectrum of fields of study.

photos by Teresa Scherbing

Candidates must be U.S. citizens and be enrolled or teaching at an accredited college or university.

The program gives Ames scientists and engineers the same advantage as university researchers -- high-quality, low-cost student research assistants.

Additional information, as well as forms, can be accessed on the Web at http://edassoc.arc.nasa.gov or contact Dale Stansbury at ext. 4-2470.

BY ASTRID OLSON

Students tour world's largest wind tunnel, located at Ames

More than 150 students recently toured Ames' 80-foot-by-120-foot wind tunnel and were treated to the "wit and wisdom" of Bill Warmbrodt. He has been with NASA since 1978 and has been the Aeromechanics branch chief at Ames since 1985.

He is well known for his enthusiasm. His guided tour of the 'world's largest wind tunnel' has become a very popular annual event that the Education Associates Program organizes for all students at Ames.

The students learned about the various Ames wind tunnels and the wide variety of aeronautical questions that they can address. Warmbrodt discussed the capacity of the wind tunnels to help answer many questions beyond the normal aeronautical uses such as the design of racecars and '18-wheelers.'

Warmbrodt's enthusiasm for his work is matched by his dedication to students and education. He noted that his branch relies heavily on student programs for a variety of tasks in support of research and development. He added that the 'jobs' allow a future generation of engineers/scientists to share in the excitement of NASA.

Education Associates students recently took a tour of Ames' 80-foot-by-120-foot wind tunnel, the world's largest. Bill Warmbrodt. branch chief of the Aeromechanics branch at Ames, gave the annual tour to the students.

photo by Dale Stansbury

"For me, this is personally very rewarding," Warmbrodt stated. The number of students that participated in the tour and their reluctance to have it end attest to the fact that they also find the chance to experience NASA very rewarding.

BY DALE STANSBURY

Top teachers train at ASEC Summer Institute at Ames

Twenty award-winning teachers from the nation's K-12 classrooms were selected recently by NASA to join a network of teacher-mentors to help inspire the next generation of explorers.

Chosen for the Airspace Systems Cohort (ASEC) program, the teachers received special hands-on training at the ASEC Summer Institute at Ames in July.

The program, now in its second year, uses a train-the-trainer model of professional development to engage participants in scientific inquiry at the leading edge of education and technology.

After their training at the ASEC, the teachers returned to their educational communities and will train others in the use of NASA-developed classroom materials.

These interactive, ASEC multimedia programs, developed by the Ames educational technology team, can be found on the Web at http://quest.nasa.gov

Nearly 70 applicants competed for the opportunity to join the ASEC, enduring a rigorous and competitive selection process, including a review by a committee of NASA researchers, educators and program mentors.

The ASEC was created at Ames under the sponsorship of Airspace Systems Program as part of its commitment to NASA's mission to 'inspire the next generation of explorers to pursue careers in science, technology, engineering and math.

BY MICHAEL MEWHINNEY

Summer students present poster session at Ames

The Tenth Annual Ames Summer Science Day was held at Ames in August. Fifty student posters were presented, and students and summer faculty shared the results of their summer's work at the center. The purpose of this event was to provide an opportunity for individuals at Ames to meet in a casual setting where they could view and discuss posters describing summer projects conducted by students and faculty fellows. This year, posters were presented in diverse fields including life sciences, nanotechnology, Earth/space/astrobiological sciences, aeronautics and information technology.

NASA photos by Dominic Hart

In Memory of . . .

Bernard G. "Dino" Ponseggi passed away on July 2 at the age of 80. He was born on Sept. 5, 1925.

Ponseggi grew up in New Jersey, enlisted in the Navy after high school and later attended college after WWII at Bergen County Junior College and Brooks Institute of Photography in Santa Barbara. He married his high school sweetheart, Norma, in 1951. He then brought his family to the Bay Area where he started working in the photo technology branch at Ames in 1956.

During his 32 years with NASA, Ponseggi worked on a variety of programs including Viking and Pioneer, the Earth Resource Aircraft Project (ERAP), Mercury, Gemini and Apollo programs, as well as early space shuttle work. He became active in the International Society for Optical Engineering (SPIE) and held numerous local and national positions in the society, including that of president 1970 to 1972. He was made a fellow of the society in 1977 and received the SPIE President's Award in 1982. Ponseggi retired to San Diego in 1988 to be closer to his son and his family. He is survived by his wife Norma, son Larry (Marilyn) and his grandchildren Heather and Marc.

Bernard G. "Dino" Ponseggi

Upcoming special events . . .

Environmental forum on life support set for Sept. 7

John A. Hogan, Ph.D., National Space Grant Foundation, Ames Exploration Life Support program (code SLB) will present 'Parallels between Life Support in Space to Life Support Systems on Earth'

Date: Sept. 7

Time: 9 a.m. to 10:00 a.m.

Location: Building 218, 2nd floor training room

Hogan will discuss how advanced life support in space vehicles is analogous to the complex array of life support systems on Earth. The presentation will reveal the critical life support functions of the seemingly mundane sights and experiences that we encounter on a daily basis on Earth, and provide us with a different way to view the world, our work and our individual importance to the global life support network.

Commute alternatives fair scheduled on Sept.12 at Ames

Learn about commute alternatives at the Ames transportation fair on Sept. 12.

The Ames Environmental Services Division and Ames Commute Alternatives Program invite you to attend the upcoming transportation fair. Single-occupancy vehicles are one of the greatest contributors to air pollution in the Bay Area. At this event, you will learn more about the transportation alternatives available for your daily commute to / from Ames.

Representatives from local bicycling organizations, mass transit bureaus and hybrid car dealerships will be onsite to share information and discounts.

Date: Sept. 12

Time: 11 a.m. to 1 p.m.

Location: outside in front of Mega Bites Café's King Road entrance

For additional information, contact Stacy St. Louis at ext. 4-6810.

Fourth annual Hispanic Heritage golf tournament set for Sept. 15

The Hispanic Advisory Committee for Employees (HACE) is one of several employee advisory groups aligned with the mission of the Diversity and Equal Opportunity Office at NASA Ames. The objectives of HACE are to assist Ames management in promoting any and all diversity endeavors, provide community support for Hispanics on and off the center and to promote activities that will educate and demonstrate Hispanic culture that enhances diversity.

As one of HACE's events, HACE will be hosting its 4th Annual Hispanic Heritage Golf Tournament on Sept. 15 at the Moffett Golf Course at 9 a.m. Registration is $75 and pays for a round of golf, golf cart use, tee prizes, breakfast, BBQ lunch, range balls and more.

Everyone is welcome to come out and enjoy a round of golf. For registration, contact Salena Japlit at ext. 4-6811.

Free electronic waste recycling at Ames, Sept 19 - 20

Has yet another one of your electronic gadgets become obsolete? Don't throw it out! Recycle it at Ames free electronic waste recycling event in September.

Hundreds of thousands of computers, televisions and other electronic items are replaced in California every year. This 'e-waste' contains materials such as lead, mercury, arsenic and cadmium that can be hazardous if not disposed of properly. They also contain valuable materials that can be recovered for recycling. In celebration of national Pollution Prevention week, NASA Ames Environmental Services Division has invited Earth Care Recycling to collect and recycle your personal electronic equipment. Earth Care is a state-authorized collector of electronic devices.

This event will be open to NASA Ames employees and contractors, NASA Research Park tenants and residents in the local communities. Please note that NASA-owned equipment absolutely can not be accepted for recycling at this event. To recycle government-owned equipment, contact Frank Custer in the Logistics branch at ext. 4-4058.

Date: Sept. 19-20

Time: 9 a.m. to 5 p.m.

Location: in the parking lot behind the Exploration Center at the Moffett Blvd. gate

Following is a list of items that can and cannot be accepted for recycling at this event:

Acceptable: Computer monitors, computer hard drives, laptops, printers, televisions, stereos, VCRs, cell phones, calculators and PDAs

Not acceptable: Large appliances (e.g., refrigerators, freezers, washing machines), fluorescent bulbs, batteries and appliances containing Freon, oil or any fuel (e.g., air conditioners, lawn mowers).

If you have any questions about whether or not a specific item can be recycled, contact EarthCare at 408-573-8573. NASA does not endorse any commercial products or services. For more information about Earth Care, visit www.earthcarerecycling.com.

Silicon Valley Astronomy Lecture series presents

The lecture series presents a non-technical, illustrated talk, 'Dark Energy and Runaway Universe,' by Alex Filippenko, professor of Astronomy at U.C. Berkeley.

Date: Oct. 4
Time: 7 p.m.
Place: Smithwick Theater, Foothill College, El Monte Road and Freeway 280, in Los Altos Hills

The event is free and open to the public. Parking on campus costs $2. For more information and driving directions, call the series hot-line at 650-949-7888.

In 1998, observations of very distant exploding stars provided intriguing evidence that the expansion of the entire universe is speeding up with time, rather than slowing down due to gravity.

Today, new and completely independent observations strongly support this amazing conclusion. Over the largest scales of space, our universe seems to be dominated by a repulsive 'dark energy' stretching the very fabric of space itself.

Filippenko, who is a leader in the group that has made some of these remarkable observations, will give a progress report on the 'runaway universe.'

He also has written about 500 papers in astronomical publications, and has been voted the 'best professor' on campus five times. He has been featured in three astronomy video courses published by The Teaching Company, and won the 2004 Carl Sagan Prize for Science Popularization.

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

Ames hosts 10th annual chili cook-off Oct. 5

The Ames Exchange is pleased to announce the 10th annual chili cook-off to be held on Thursday, Oct. 5 from 11 a.m. until 1p.m.

This year's theme is 'Renaissance, Medieval.' The chili cook-off has proven to be very popular and successful in the past. We expect it to be no different this year. At this event, chili sampling is free for all NASA employees, contractors and other on-site personnel and visitors.

Each taster will be given the chance to cast his or her vote for the 'Peoples Choice' award. A select panel of judges will choose the other categories. Trophies will be presented to the winning team in each category. Prizes are in the form of trophies only. There are no cash prizes for this event.

NASA study shows how delicate organics can survive in space

continued from page 4

recent scientific paper that delicate organics form inside tiny mineral grains, not on the surface of these specks of dust as most astronomers currently believe.

"In the outflow of dying stars, very small grains condense, only one to 10 nanometers in size, less than a millionth of an inch," said Minoru Freund, who is principal author of the paper. He recently joined NASA Ames as the director of the Center for Nanotechnology. (A nanometer is a billionth of a meter or about a billionth of a yard in size.)

"Under these conditions, gas molecules containing carbon, hydrogen and oxygen - the major life-forming elements - dissolve inside the minerals somewhat like salt dissolves in water," he said. The two scientists used gem-quality crystals of the same minerals that make up most interstellar dust to conduct laboratory observations of how carbon and hydrogen combine to form organics.

"We extended these findings to tiny dust grains. We concluded that, protected by the mineral matrix, these carbon-hydrogen bonds survive in the hostile environment of interstellar space much better than if they were exposed on the surfaces of the dust grains as a thin veneer," the younger Freund explained.

"Our theory represents a departure from all previous theories discussed in scientific literature," Freund said. "Our theory is revolutionary in the sense that it accounts for most, if not all, observations made by astronomers who have studied the organics associated with interstellar dust for many years."

The Freund article, 'Solid Solution Model for Interstellar Dust Grains and their Organics,' appears in the March 1, 2006, issue of The Astrophysical Journal. Friedemann Freund, the co-author, is with the SETI Institute, Mountain View, and is an adjunct professor of physics at San Jose State University, San Jose. He recently returned to Ames after two and a half years of research at NASA Goddard Space Flight Center, Greenbelt, Md.

BY JOHN BLUCK

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. The meeting location is Building 19, Conference Room 1083 and the meeting time is 12 noon - 1 p.m. Contact Julie Nottage at jnottage@mail.arc.nasa.gov, ext. 4-3711. By-laws of Ames Bicycling Club can be found at http://zen.arc.nasa.gov; the link is right 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: Doreen Cohen, ext. 4-5203.

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, 9:00 a.m. to 10:00 a.m., Bldg. 218/2nd floor training room. 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: Miwa Hayashi at ext. 4-1397, mhayashi@mail.arc.nasa.gov, Web: http://jetstream.freetoasthost.com

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.

ARCAPPS Web application receives face lift

In response to customer comments and privacy concerns, the ARCAPPS Web interface has been given a face-lift. In August, the Application Development and Services Branch (Code JTA) made improvements to ARCAPPS' logon, registration and password reset features. ARCAPPS (located on the Web at: https://arcapps.arc.nasa.gov) is available to all Ames employees and provides access to a suite of Web applications, including visitor request and directory services.

If you're a current ARCAPPS user, you'll immediately notice that you no longer need to enter your official first name and last name when you log on. Instead, you identify yourself by entering your User ID, which is your eight-character unique identifier. Every employee has a unique identifier, which is also referred to as AR number because it begins with 'AR.' If you don't know your unique identifier, you can look it up in the X.500 directory at http://x500.arc.nasa.gov. The switch to using unique identifier does not affect your existing password.

Current users who have forgotten their passwords and first-time users will find that it's no longer necessary to enter your social security number (SSN) in order to reset a password or register. ARCAPPS still provides self-service password reset and registration features. However, these features rely on your unique identifier and e-mail address rather than SSN.

Once you've chosen to reset your password or to register, ARCAPPS requires you to enter your unique identifier.

Using this piece of information, ARCAPPS obtains your e-mail address from the X.500 directory and sends you an e-mail with a link to a personalized Web page for resetting or creating your password. Since resetting passwords and registering relies on e-mail, be sure your e-mail address is listed in the X.500 directory.

In addition to these changes, ARCAPPS now has an enhanced screen design that looks similar to other Ames Web pages, such as InsideAmes and Phonebook.

If you have questions about ARCAPPS, call the ITSC help desk at ext. 4-2000.

NASA PM Challenge 2007 set

The call-for-speakers is now open for PM Challenge 2007, NASA's 4th annual project management conference. Visit the internet at http://pmchallenge.gsfc.nasa.gov/ for more details.

The conference is Feb. 6 to 7, 2007 in Galveston, Texas. The contact person for this notice is Niloo Naderi at (301) 286-5694.

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!

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.

Wanted: 40-foot aluminum extension ladder. Call (408) 281-7011.

Ames retiree - estate items. Master bedroom furniture, queen size Serta Perfect Sleeper mattress and box springs, tall chest of drawers, full size dresser. Exc. condition. All $500 or B/O. Call (408) 252-0386 or e-mail billduke777@yahoo.com

16ft ski/fishing boat w'trailer, 4 cyl Volvo inboard, Marine, CB radios, fish/depth finder, lots of spare parts. My 92-year-old dad has kept it in grt condition and no longer can use it. B/O over $2,500. Sal Rositano (408) 238-5310.

Skylane C182A, $48,000. New paint and recent annual. New fuel bladders. Good condition. Basic IFR panel. Will also consider 1/2 share partnership to base at LVK, 4Q5, or TCY. Key Dismukes. Call (408) 938-0455.

Day bed with trundle bed below. White enamel frame. Paid $1,000 less than 2 years ago; asking $750 or B/O. Call (408) 248-1985 or (408) 373-8919.

Automotive

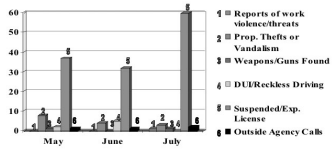
'99 Toyota Solara SLE, pearl white/beige leather, all power, ABS, sun roof, spoiler 73,500 mls. Looks good, runs great, asking $8,900. Call (781) 608-9639.

'99 VW Passat station wagon, silver, sunroof, pwr windows, 4cyl, 63K mls, new tires and brakes. 8 CD changer stereo, clean, very good condition. $8,500. Rachel (408) 847-8293.

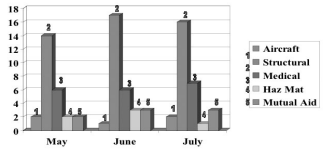
Protective Services monthly activity

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

Security/Law Enforcement Activity



Fire Protection Activity



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-equipped, balcony view, horseback riding, hiking, biking, golf, river rafting, tennis, ice skating and more. Summer rates $100 per night, 2 night minimum. Call (650) 968-4155, e-mail DBMcKellar@aol.com

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.

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.

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).

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

Maui luxury oceanfront resort one-bedroom condo available one week. Rents for $345/night now, $495/night in the summer. We will rent to an Ames family for $1,750 for the week. See the condo at http://www.starwoodvo.com/resorts/villafeatures.jsp?resortID=12 Call (650) 572-8877 for availabilty and questions.

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.

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.

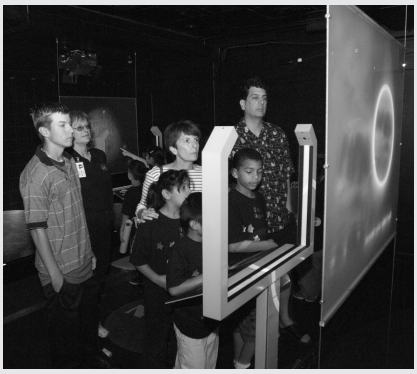
For Astrogram questions, contact Astrid Olson at the aforementioned e-mail address or ext. 4-3347.

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.

Thousands visit Vision for Space Exploration Trailer

The Vision for Space Exploration trailer exhibit was at Ames for four days in July. A special Ames employee and family-only tour also was held during that time period.



NASA photo by Dominic Hart

Visitors inside the Vision for Space Exploration trailer interacting with the holographic control panels. The trailer was at Ames during a state-wide tour.

There were more than 2,500 visitors to the trailer during the four-day event. It was an unqualified success. Lines to the trailer at times included more than 100 persons on the weekend. Unfortunately, many had to be turned away at the end of the day. Comments people made upon exiting the trailer included "awesome,""cool,""magical"and"NASA does far-out stuff."

Housed on a 53-foot-long trailer, the traveling exhibit inspired space enthusiasts as they embarked on their simulated journey to the farthest reaches of the solar system. From interactive holographic control panels to 3D imagery, visitors discovered what it might be like to live and work on the surface of the moon or Mars and to travel to Saturn's moon, Titan.

BY LARRY LASHER

New SATERN course for purchasers

Congress has mandated through several laws, and the president has mandated through executive order, that federal agencies use their spending power to create markets for products and services that are energy-efficient and that do not deplete natural resources, harm human health or the environment. These products and services often are called 'green' or 'environmentally preferred.'

As a result of these laws and executive orders, federal agencies that use appropriated funds are required to change their purchasing practices to increase their purchase of 'green' products. Ames Environmental Services Division has created an online training module through SATERN that will outline the information purchasers need in order to comply.

Civil servants and contractors who specify or request the purchase of supplies, equipment or services are required to take this 'green purchasing' training. It must be completed at least once every three years, pursuant to Executive Order 13101 and NASA's Affirmative Procurement Program NPR 8530.1A.

To take the classroom training, please complete the green purchasing course on-line at https://satern.nasa.gov/elms/learner/login.jsp. Environmental Services Division, Code QE, requests that all purchasers complete this training by Aug. 30, 2006.

If you have any questions about this training, call Mark Lacy at ext. 4-1406 or Christel Van Arsdale at ext. 4-1175.

BY MARK LACY

Astrogram

National Aeronautics and Space Administration

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