

NASA taps astronomy community to help search for lunar water

by Jonas Dino

News media were invited to attend a briefing Feb. 29 at Ames about the Lunar Crater Observing and Sensing Satellite, known as LCROSS, and the mission's participatory emphasis.

The briefing was part of the LCROSS Astronomer Workshop, which focused on collaboration among NASA experts and professional astronomers on techniques for observing the debris plume that will be created when LCROSS hits the surface of the moon in early 2009. The objective of the mission is to detect possible water on the moon. Future mission activities engaged the amateur astronomy community, students and the public using ground-based and space-based telescopes.

LCROSS is scheduled to launch with the Lunar Reconnaissance Orbiter, known as LRO, aboard an

Atlas V rocket from Cape Canaveral, Fla., in late 2008.

After launch, the LCROSS shepherding spacecraft and the Atlas V's Centaur upper stage rocket will fly by the moon and enter an elongated Earth orbit to position themselves for a rapid descent into a permanently shadowed crater near the moon's south pole.

On final approach, the instrument-laden spacecraft and the upper stage will separate. They will hit the lunar surface about four minutes apart. The spacecraft will fly through the Centaur debris plume and collect data before its own impact. The LCROSS impacts are expected to be visible from Earth using 10-to-12 inch and larger telescopes.



Artist's depiction of the Lunar Crater Observing and Sensing Satellite (LCROSS) enroute to the moon. The LCROSS Astronomer workshop was held recently at Ames to discuss techniques for observing the debris plume that will be created as a result of LCROSS hitting the surface of the moon in early 2009.

NASA's Ames scientist selected for return to moon team

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taking measurements to identify future robotic and human landing sites. In addition, it will study lunar resources and how the moon's environment will affect humans. The mission also will involve a spacecraft called the Lunar Crater Observation and Sensing Satellite (LCROSS), which will impact the lunar south pole to search for evidence of frozen polar water.

Instrument teams will define the science goals for the second year or what is deemed the extended science phase of the mission during its second year. In addition to achieving its exploration objectives, the LRO spacecraft is expected to return high quality scientific data, such as day-night temperature maps, a global mapping system, high resolution color imaging and detailed global topography that will greatly expand our understanding of the moon.

NASA received a total of 55 proposals in response to a NASA Research Announcement released in 2007. A peer review panel and NASA

Planetary Science Division Research and Analysis Program scientists evaluated the proposals. Selection criteria included intrinsic merit, relevance, responsiveness to planetary science goals and objectives, as well as cost.

Scientists will be fully or partially funded, depending on their research work and scope of activities. NASA will provide funding to U.S. scientists for up to three years depending on satisfactory progress, continued relevance to the NASA objectives and availability of funds.

The LRO spacecraft is being built and tested at NASA's Goddard Space Flight Center in Greenbelt, Md., and includes six instruments and a technology demonstration.

LCROSS will take several months to reach the moon. That mission will search for water astronauts could use at a future lunar outpost. The sensing spacecraft will impact the moon near its south pole early in 2009. Ames manages the mission.

The orbiter and sensing satellite will launch together aboard an Atlas V

rocket in late 2008. The orbiter's trip to the moon will take approximately four days. Once in its final orbit, a circular polar orbit approximately 31 miles above the moon, spacecraft instruments will map the moon's surface at high resolution, study its radiation field and map its gravity field.

In a study published in 2007, the National Academy of Sciences concluded that the science conducted on the moon is of high value. NASA's Science Directorate will help coordinate and expand a number of in-depth research efforts in lunar science and other fields that can benefit from human and robotic missions to the moon. The lunar orbiter's science mission phase is one of many of the science directorate's activities that support moon exploration.

Meyya Meyyappan receives 2008 IEEE Judith A. Resnik award

The Institute of Electrical and Electronics Engineers, Inc. (IEEE) has named Meyya Meyyappan, director of the Center for Nanotechnology at Ames, as the recipient of its 2008 Judith A. Resnik Award, recognizing his contributions and leadership in the emerging field of nanotechnology, particularly carbon nanotubes and their applications in sensors, instrumentation and nanodevices in both aerospace and industrial applications.

The IEEE is the world's leading professional association for the advancement of technology. Sponsored by the IEEE Aerospace and Electronic Systems, IEEE Control Systems and IEEE Engineering in

Medicine and Biology Societies, the award recognizes Meyyappan for the development of nanoscience and technology in aerospace applications and leadership in nanotechnology. The award was presented to Meyyappan in March at the 2008 IEEE Aerospace Conference in Big Sky, Mont.

Meyyappan helped found the Center for Nanotechnology in 1991. The center is considered the strongest nanotechnology research laboratory of any of the federal laboratories, and through his efforts, has become one for the largest and most creative in U.S. government.



NASA photo by Tom Trower

Meyya Meyyappan, director of the Center for Nanotechnology at Ames, is the recent recipient of the 2008 Institute of Electrical and Electronics, Inc. award for his contributions and leadership in the field of nanotechnology.

H. Julian Allen Award presented at Ames for best technical paper

BY STEPHANIE LANGHOFF

The 2007 H. Julian Allen Award for best technical paper was awarded to Max Bernstein, Scott Sandford, Louis Allamandola, Seb Gillette, Simon Clemett and Richard Zare for their paper entitled, "UV Irradiation of Polycyclic Aromatic Hydrocarbons in Ices: Production of Alcohols, Quinones, and Ethers."

The paper describes the first study of the irradiation chemistry of polycyclic aromatic hydrocarbons (PAHs) in realistic interstellar ice analogs, showing that such processing drives both oxidation and reduction reactions that create a diversity of functionalized PAHs of astrochemical and astrobiological significance.

The research was enabled by combining the unique capabilities of the Astrochemistry Lab at Ames with the world-class laser laboratory at Stanford University. Since this paper was published in *Science* in 1999, it has received over 120 citations. This paper was selected from

a group of six excellent scientific articles. The winning authors share a \$10,000 honorarium.

The H. Julian Allen Award presentation was given on Jan. 10 by Max Bernstein, Scott Sandford, and Louis Allamandola of the Ames Space Sciences Division, and Profes-

sor Richard Zare of Stanford University. In the spirit of promoting technical excellence at the center, the center intends to award this prize on an annual basis. The 2008 call for nominations will go out soon via centerwide announcement.



photo by Jennifer Healdmann

Shown from left to right for the recent H. Julian Allen Award presentations are: Ames Center Director S. Pete Worden; Scott Sandford, Space Sciences Division; Richard Zare, Stanford University; Max Bernstein, NASA Headquarters; and Louis Allamandola, Space Sciences Division.

Huge crowds expected to turn out for Yuri's Night 2008

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In addition to interactive demonstrations from 20 NASA projects, 10 NASA Research Park partners and other technology companies, there will be more than 30 art installations and 20 musical acts. Featured will be music ranging from the electronic sounds of Amon Tobin, to Telstar, featuring Phil Lesh of the Grateful Dead. Also, live aerialists, dancers, stilters, media artists, and aerobatic aircraft are scheduled to perform throughout the day and night.

Participants also will hear discussions on topics such as space exploration, sustainability and the future of humanity for the Festival of Ideas. The integration and alternation of inspiring technical speakers with musical acts will fill four stages throughout the celebration. Will Wright, creator of SimCity, SimEarth, The Sims, and many other games, will discuss SPORE, his new game involving life, evolution and exploration.

Astrobiologist Jonathan Trent, leader of the NASA GREEN team conducting green technology research, and Saul Griffith, founder of Makani Power, will discuss technology needed for a sustainable future. Astronauts and representatives from the Long Now Foundation also will participate in the celebration.

Tickets are on sale at a discounted price of \$20 each by the NASA Ames Exchange for NASA employees. Tickets also are available online at full price on www.yurisnightbayarea.net for the general public. Limited VIP tickets are available online for \$200.

As a federal facility, controlled drugs and weapons are prohibited. Anyone caught with a prohibited item will be subject to applicable federal laws and penalties.

Yuri's Night was founded in 2001 by members of the Space Generation Advisory Council, in support of the United Nations Programme on Space Application. The council is a non-governmental organization representing youth, students and young space professionals.



NASA photo by Eric James

Ames hosted Yuri's Night in Hanger 211 in April 2007. Thousands attended the unique celebration of space exploration in a unique gathering of artists, scientists, astronauts, performers and musicians, held in commemoration of humankind's first venture into space by Russian cosmonaut Yuri Gagarin.

The council was conceived at the Third United Nations Conference on the Exploration and Peaceful Uses of Space in Vienna in 1999, and has permanent observer status in the United Nations Committee on the Peaceful Uses of Outer Space.

Yuri's Night is one of the council's largest projects, with synchronized

celebrations happening in dozens of countries each year since 2001. Yuri's Night attracts considerable media attention.

Information and tickets are available on-line at <http://bayarea.yurisnight.net/> For more information on YNBA, contact info@yurisnightbayarea.net.

NASA statement following death of famed writer Arthur C. Clarke

Editor's Note: Arthur C. Clark passed away on March 19, 2008.

The following is a statement from Alan Stern, NASA associate administrator for the Science Mission Directorate at Headquarters in Washington, regarding the death of Arthur C. Clarke:

"Arthur Clarke was a gifted writer of science and science fiction, and an unparalleled visionary of the future, inspiring countless young

people throughout the middle and later 20th century with his hopeful vision of how spaceflight would transform societies, economies, and humankind itself.

"Although his personal odyssey here on Earth is now over, his vision lives on through his writing; he will be sorely missed."

Stanford professor discusses race and post civil rights



NASA photo by Eric James

Michelle Elam, director, African and African American Studies at Stanford University, spoke recently at Ames about "Race and the Post Civil Rights Era."

Michelle Elam, director, African and African American Studies at Stanford University, spoke recently at Ames about "Race and the Post Civil Rights Era."

Her visit was sponsored by the African American Advisory Group as part of the 2008 African American History events at Ames.

Elam serves as the director of Undergraduate Studies and associate professor in English at Stanford University. She was a Hewlett Fellow at Stanford's Research Institute of Comparative Studies in Race and Ethnicity in 2002-03, and twice the recipient of the St. Clair Drake Outstanding Teaching Award at Stanford (2004, 2006).

She is a recent recipient of the 2007 Ford Foundation Research

Grant. Her courses and research interests span the 19th - 21st centuries. Elam is well-known in her field of study both locally and abroad for her work in African American literary history and culture, mixed race literary and theory, multiculturalism and civil rights.

Elam's publications include numerous books, articles, and review essays, which include "Race, Work, and Desire in American Literature" and "Identities in Education-Reprinted."

Elam has given presentations through the Public Broadcasting Station (PBS) and radio live talk shows. This month, she was a guest panelist at the Harvard Law School and the Kennedy School of Government.

Despite no landing gear, small airplane lands safely at Moffett

BY MICHAEL MEWHINNEY

Thanks to the skill of its experienced pilot, good weather conditions and no doubt a dash of good luck, a small, privately-owned aircraft landed safely at Moffett Federal Airfield earlier this month without the use of any of its landing gear.

The drama began about 4 p.m. on Tuesday, March 4, when the pilot of a single-engine Beechcraft Bonanza enroute from Hayward, Calif., to San Carlos Airport where the aircraft is based, notified air traffic controllers that the left landing gear was stuck.

Unable to lower the left wheel for a normal landing, the pilot requested emergency assistance. Air traffic controllers diverted the aircraft to Moffett Field, where the two runways are longer and less congested than the single runway at San Carlos Airport, and alerted airfield personnel to prepare for an emergency landing.

To lessen the chance of a fire, air traffic controllers ordered the pilot to continue circling the airfield to burn off excess fuel from its 74-gallon capacity tank. Meanwhile, on the

ground below an extensive contingent of emergency personnel and vehicles were quickly assembled to deal with the emergency landing.

Under the command of Battalion Chief Robert Wilson, Moffett Fire Department dispatched two aircraft fire fighting vehicles containing approximately 4,000 gallons of fire retardant, and one rescue fire engine to the runway. Two American Medical Response ambulances were also standing by to transport any injured occupants of the airplane to a nearby hospital if necessary. Also on hand were also several security and airfield ground support personnel to provide assistance if needed.

After about an hour of circling the airfield, Moffett Field Fire Chief Steve Kelly decided it was time to bring the aircraft down for an emergency landing while it was still daylight. At approximately 5:15 p.m., the pilot cautiously began his descent towards the runway.

As the crippled aircraft slowly approached the runway, the pilot, who had used up all but about 30 gallons

of his remaining fuel, throttled back to slow the plane down as much as possible without stalling. A few anxious minutes later, the small plane gently touched down on the concrete runway, and skidded along the concrete for several hundred feet before coming to a stop.

Neither the pilot, a 57-year-old resident of nearby Atherton, nor his passenger, a friend who works at United Airlines, were injured. Both immediately jumped out of the aircraft and signaled that they were both okay, prompting a huge sigh of relief from worried onlookers.

"It's the safest way to land this aircraft in a situation like this," said Ames Fire Chief Steve Kelly, who had recommended the belly-landing.

A large crane also was summoned to lift the crippled aircraft aboard a flatbed truck to be towed away for repairs following the successful landing.

All in all, a fitting conclusion to what could have been a much more serious accident.

The star spangled adventures of Ames astromer Peter Jenniskens

BY RACHEL PRUCEY

Over the years, NASA's Ames Research Center's Peter Jenniskens has enthusiastically raised his hand to point out meteors streaking across a starry sky. In February, he raised his right hand to the stars and stripes of the American flag and proudly became a U.S. citizen.

"It feels like the natural progression of a long journey," Jenniskens said about becoming an American. "I found a home, my wife and my identity as a researcher here."

Only a few years ago, Jenniskens' wings were clipped and he was grounded from flying in a mission to observe a meteor shower due to his status as a permanent resident.

"My line of work is impacted by global and national events," Jenniskens explained. "After the 2001 World Trade Center attacks, new rules required that I have permission to fly aboard an Air Force aircraft because I was a foreign national. Mission management could not make my arrangements in time. Instead, I observed the November 2001 Leonid shower from the ground, while Ames Astrobiology Academy students operated my cameras on the aircraft. Fortunately, the mission was a great success, and Astronomy magazine recognized it as the 'astronomy news story of the year.'"

Jenniskens was born in a small countryside town in a southern province of the Netherlands. As a young man, he took a nervous leap and left his home to study astronomy in a large city at Leiden University in the Netherlands. While there, he formed friendships with amateur astronomers in the newly founded Dutch Meteor Society and completed his Ph.D. in 1992.

Jenniskens first came to the United States in 1993 at the invitation of David Blake of NASA's Ames Exobiology Branch. For the next two years, Jenniskens worked as Blake's research associate studying the structural properties of ice with an electron microscope. Working together, they discovered the frost on interstellar grains has a frothy "high-density" form, while the ice in comets is usually in a very viscous liquid form.

Jenniskens continued his pursuit of understanding the dynamics of meteoroid streams and the physics of meteors at the SETI Institute, where he

enjoys working as part of a team, finding that observation campaigns with fellow astronomers lend the best results.

In 2006, Jenniskens wrote a book on meteor showers, *Meteor Showers and their Parent Comets* (Cambridge University Press). He currently serves as chair of the International Astronomical Union Task Group on Meteor Shower Nomenclature, where he works to organize the naming of meteor showers and establish which showers are authentic astronomical events.

Now that he is a U.S. citizen, Jenniskens expects to be able to participate freely in airborne meteor observation campaigns around the world, such the Quadrantid meteor shower earlier this year, where Jenniskens and a team of scientists and meteor astronomers had an unobstructed view to observe nearly 1,000 meteors from the comfy, warm environment of a Gulfstream V jet flying high above the winter clouds and storms.

Jenniskens often travels to be at the right place at the right time to observe unique meteor outbursts or spacecraft re-entries, such as the recent Stardust Sample Return Capsule entry, which resulted in significant scientific



NASA photo by Eric James
NASA's Ames astronomer and researcher Peter Jenniskens recently became a U.S. citizen, enabling him to participate freely in airborne meteor observations.

data, unique videos and his second nomination for Astronomy magazine's "astronomy news story of the year."

Jenniskens will continue to take to the skies and to witness and observe Nature's own fireworks.

"I finally accepted what my friends in the Netherlands were already thinking: that I had turned into an American with a bad Dutch accent," he said with a chuckle.

Former CIA director discusses, "Energy, Security and the Long War of the 21st Century"



Former CIA director Jim Woolsey spoke at Ames about using alternative energy and fuel use.

Recently, employees at Ames sat in the aisles of the Space Sciences auditorium in order to hear former CIA Director Jim Woolsey espouse his theory that U.S. dependence on foreign oil is financially supporting Al Qaeda terrorist training camps in Pakistan. Woolsey addressed the Ames audience at the director's colloquium and stated his position that if the U.S. develops alternative energy and fuels, it will stop its indirect support of states that are known to sponsor terrorism. Woolsey mentioned that innovations in batteries, and by using fuels such as ethanol, could enable the nation to wean itself from relying heavily on petroleum. Woolsey has a long history of public service. He was the director of the CIA from 1993 to 1995 and served as the Under Secretary of the Navy from 1977 to 1979. Woolsey currently is a vice president of Booz Allen Hamilton and serves on the National Commission on Energy Safety. The Directors Colloquium is co-sponsored by the GREEN team. The next monthly forum will be held in April.

New tracking system will provide streamlined processing

BY ERIC KRISTICH

NASA is replacing its legacy systems for equipment management and property disposal management with the new Integrated Asset Management (IAM) Property, Plant and Equipment (PP&E) system in May 2008.

In an effort to facilitate increased awareness and understanding of the new system, the center's IAM project manager and the Business Readiness Team are currently conducting one-on-one briefings with center management in preparation for the upcoming IAM implementation.

The new system is focused on the accountability, valuation and tracking of assets, and personal property that is either NASA-owned, NASA-held or NASA-owned/contractor-held. The new system provides an integrated capability that enables greater tracking and visibility of assets for logistics and bridges the gap between finance and logistics.

The new system also will provide streamlined accounting processes and enable easier cost management for the agency. Most importantly, it will help NASA achieve greater financial reporting.



From left to right: Herman Santos, Eric Kristich (Ames IAM Project Manager), and John Reiss discuss the agency's new IAM Property, Plant & Equipment Project which is scheduled to go live in May 2008.

The system will be integrated with the existing SAP Core Financial System for full accounting integration and will include three primary components: asset management for tracking capital assets; equipment management for tracking property and equipment; and disposal management for disposition of excess property.

The system will include a user-friendly, web-based interface called N-

PROP for the general NASA community's use in managing their property and equipment. The agency will soon be releasing web-based training for N-PROP on SATERN.

For more information, visit the Ames IAM PP&E web site at <http://iamppe.arc.nasa.gov/>.

Aeronautical technical seminars help disseminate knowledge

BY CHERYL QUINN AND LESLYE MOGFORD

Aeronautics research at Ames supports 10 projects within three Aeronautics Research Mission Directorate

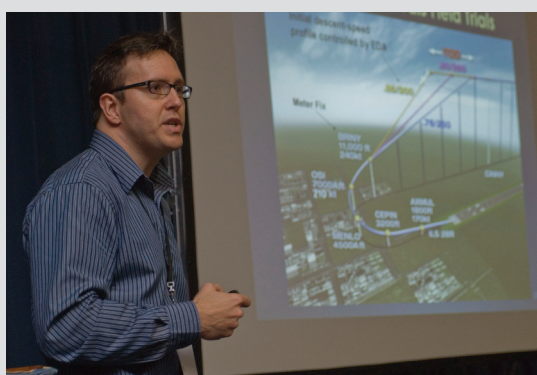
NASA's rich base of in-house technical knowledge and expertise is shared across disciplines, Ames Director of Aeronautics Tom Edwards created the

Aeronautics Technical Seminar (ATS) series. "I wanted to develop a platform for the exchange of relevant technical information and data within the directorate," he said, following a recent seminar.

The value of Edwards' approach is illustrated by Richard Coppenbarger's February seminar, "Accommodating Efficient Arrival Operations in Constrained Airspace." Coppenbarger's research supports the Airspace Systems Program, which is developing technologies critical to the operation of the air transportation system of 2025. Coppenbarger's team developed a system to enable "tailored arrivals," which minimize fuel burn and reduce aircraft noise and emis-

sions. Using the combined capabilities of NASA-developed tools, the Traffic Management Advisor and the En Route Decent Advisor, this research is an example of how existing and new technologies can be combined to develop innovative solutions for difficult problems.

Since its inception in 2007, the ATS series has become a recognized forum for a diverse range of speakers and topics, and has hosted presentations from other Ames directorates and the Federal Aviation Administration. The seminars also provide speakers drawn from industry and academia for the center director's colloquia. Recent speakers have included Paul Bevilaqua, Douglas Shane and George Donohue. After one year, the seminars continue to provide valuable opportunities for aeronautics researchers to share their work.



NASA photo by Eric James

Richard Coppenbarger speaking recently at the center during an aeronautical technical seminar series talk. His research addresses one of the key challenges for the Next Generation Air Transportation System: to allow aircraft to fly efficient descents under all traffic conditions.

programs and spans a broad range of technical disciplines. To insure that

arrivals," which minimize fuel burn and reduce aircraft noise and emis-

In memory of . . .

Christine Naomi Gong -- artist and friend

Much-loved Ames friend and colleague Chris Gong passed away on Feb. 18, 2008. She will always be remembered for her kindness, generosity, terrific sense of humor and courageous spirit. Her bright smile, sense of adventure, and positive outlook, which shone even throughout her six-year ordeal with breast cancer, inspired everyone who knew her.

Joining Ames as an intern in 1986, Chris' programming skills and artistic talent fit well with the scientific visualization field. Her abilities and teamwork soon earned a full-time job with the Flow Analysis Toolkit (FAST) team, which won NASA's 1996 Software of the Year award.

As a FAST expert, Chris worked with scientists to create awe-inspiring images and videos to communicate the results of their research, and explained the importance of agency work to many VIPs and visitors to the NASA Advanced Supercomputing (NAS) facility.

Later, as NAS Publications and Media team lead, she worked with her group to create stellar multimedia products, infusing a sense of fun and adventure into everything she touched. Chris earned many awards during 20-plus years with NASA, including a 2004 Ames Honor Award



Christine Naomi Gong

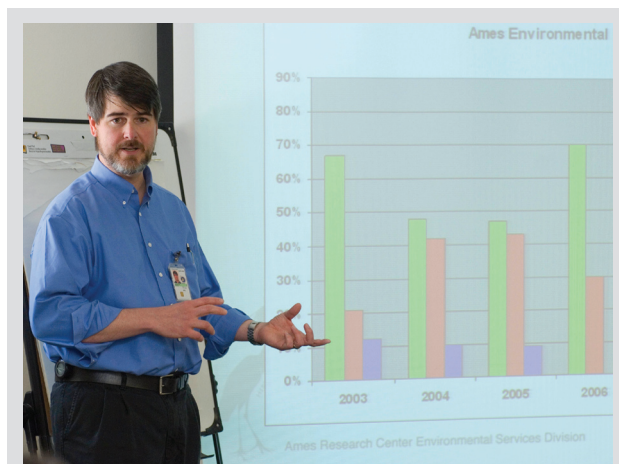
and a 2005 Exceptional Service Medal. She had a remarkable ability to connect with all kinds of people, and hosted numerous morale-boosting events for division staff.

Born in Honolulu on Feb. 23, 1949, Chris moved with her mother Molly, and father, artist Jerry Okimoto, to Manhattan at age six. She graduated from Queens College with a Master of Fine Arts degree, and met her beloved husband Bill on the tennis court; they

were devoted to each other for 33 years. Chris' pride in their son Matt was evident through her many stories about him and photos in her beautiful scrapbooks.

Her family requests that donations made in Chris' name go to a cancer organization of choice. A memorial service will be held on March 29 at 10 a.m., at the Alameda Family Funeral and Cremation, in Saratoga.

Scarboro describes benefits of Environmental Management System



NASA photo by Dominic Hart
John Scarboro, ISSi senior engineer, shown during his presentation at the center, describing the Environmental Management System.

The Executive Order 13423 "Strengthening Federal Environmental, Energy and Transportation Management" requires federal agencies to lead by example in advancing the nation's energy, security and environmental performance by achieving goals related to vehicles, petroleum conservation, alternative fuel use, energy efficiency, greenhouse gases, renewable power, building performance, water conservation, procurement and pollution prevention. The order requires an Environmental Management

System (EMS) approach to meet these goals.

EMS is a tool that allows Ames to manage environmental risks. By implementing the EMS, Ames is able to sustain its operations more cost effectively and more efficiently in support of NASA's overall mission. Thus, research efforts can run more smoothly with fewer interruptions due to regulatory issues.

John Scarboro, senior engineer, ISSi, spoke at the center in February during a seminar about the elements of the EMS program and explained how Ames employees can benefit from the EMS.

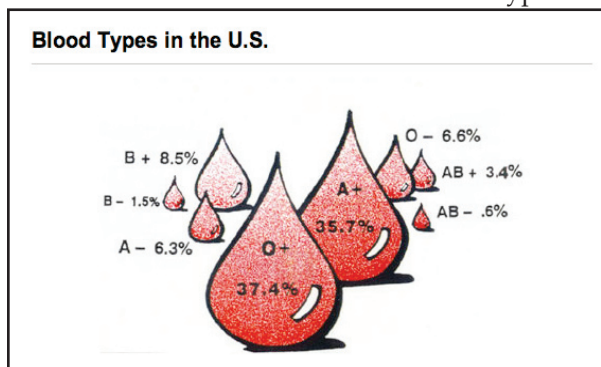
Giving the gift of life, only takes an hour or less at Ames

BY ASTRID OLSON

Donating blood couldn't be easier for Ames employees, especially as we can simply swing by the Moffett Training and Conference Center, Building 3, when Stanford Blood Center holds its quarterly blood drive. We're able to go during work hours and then get right back to our desk in less than an hour.

As so many of Ames employees do every three months, I decided to give back to the community and beyond in this way at the latest blood drive held here on March 7. Knowing that a single blood donation can save as many as four patients makes it worthwhile.

To start the process, I began by scheduling an appointment online (<http://bloodcenter.stanford.edu> using NASA Ames code, NAS1245.) This takes about two minutes to do. You



can also just walk in without making an appointment. I received a confirmation e-mail with the appointment date and time. One can also view their donation history online and get results from blood donations, including their cholesterol levels.

On the day of the blood drive, I went to Building 3, signed in and filled in a short questionnaire. A health technician then took me to a private booth to go over the answers. This short interview determines whether or not a person will be able to give blood. Only 39 percent of the general population are eligible to donate. Because blood is a living tissue that is "transplanted" into other humans, the FDA imposed restrictions on those who may donate. One such restriction is that you can't donate if you've spent a cumulative total of three months or more in the United Kingdom from 1980 through 1996, or a cumulative total of five years from 1980 to present in Europe. Since I moved to the

United States from England in 1979, I wouldn't be able to donate blood.

Once the technician determined I was eligible to donate my blood, she proceeded to take my blood pressure, temperature, pulse and perform a hemoglobin test, which is a simple pin prick to a finger of one's choice. This is done to determine that the hemoglobin levels are within a pre-determined normal range. The pin prick just stings for a second. Actually, it's quite nice to have all of this done, just for one's own personal information, especially the blood pressure reading. After all of this is done, (it only takes about 10 minutes), I was whisked away to a lawn chair-type of seat and sat down to relax as

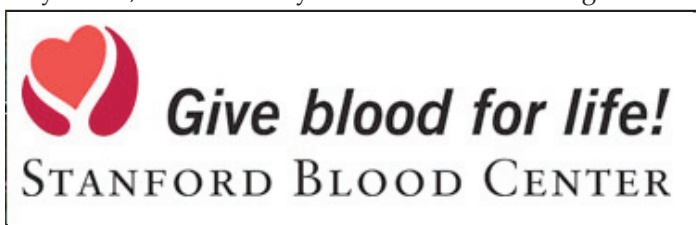
as nurse started to take my blood donation. It was sort of like a mini vacation, with the nurses checking on me to make sure I was still relaxed and doing fine. I hadn't even noticed when she inserted the needle, and I don't like needles! I met many others from Ames and my division who were there as well, so that makes it more pleasant. This part of the actual donating process took about 15 minutes.

Once I gave my pint of blood, I was asked to hold up your arm for a few minutes. They put on an armband bandage and then I was off to the "canteen." This is in the same room, but consists of a long table where I sat for 15 minutes (they write the time you can be dismissed on your juice cup that they give you along with juice and cookies.) You're given these things to help rejuvenate your system. That's basically the process in a nutshell! And pretty much painless.

Once you've donated the blood, your system immediately replaces the donated volume. As an interesting side note, an average-sized man has about 12 pints of blood and an average-sized woman about nine pints. One can safely donate up to six times in a year.

So, if you've been contemplating donating, then please consider it. Blood supplies are in constant shortage and the need for blood does

continue to climb. Again, I don't like needles, but it is hardly noticeable and the benefits that others receive who really need the blood outweigh the



minimal amount of discomfort that is experienced.

Blood donations are priceless to the recipients and so important to their well-being and recovery. Besides the benefits to the recipients of the blood donations, there are several for the donor as well. I've also donated platelets, which is a type of donation called apheresis. Apheresis takes a little longer than a regular blood donation, but allows donors to give specific components needed by patients. Patients undergoing cancer therapy and those with leukemia, do not have enough platelets, because their bone marrow has been damaged by disease or rigorous cancer treatment. Essentially, it is truly about helping those whose lives are depending on it and is very much so the gift that keeps on giving. So, consider giving along with so many that already donate here at Ames. It is truly a good feeling to help those whose lives are literally depending on the donations.

Stanford Blood Center is a private, nonprofit community agency that was established in 1978. It has been serving the Bay Area for more than 23 years. The center supplies more than 35,000 pints of blood and blood components a year to five hospitals to help an estimated 105,000 patients. It also must collect 400 pints of blood a day to meet the need of area patients.

For more information about donating blood, call Stanford Blood Center at 1-888-723-7831 or go to <http://bloodcenter.stanford.edu>. The next blood drive at the center is June 17, from 7:30 a.m. to 3:30 p.m. The last two dates this year are Sept. 9 and Dec. 17. Each of these are currently scheduled to be held in building 3. For questions about your eligibility, you can contact the Stanford Blood Center Resource Nurse at (650) 725-9968.

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, KG6BFBK, 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/EHS-series/> 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.

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 November), from 12 p.m. - 1 p.m., Bldg. N-260, Rm. 113. URL: <http://sail.arc.nasa.gov/>. POC: Clif Horne, ext. 4-4571.

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 - Feb. 29, 2008

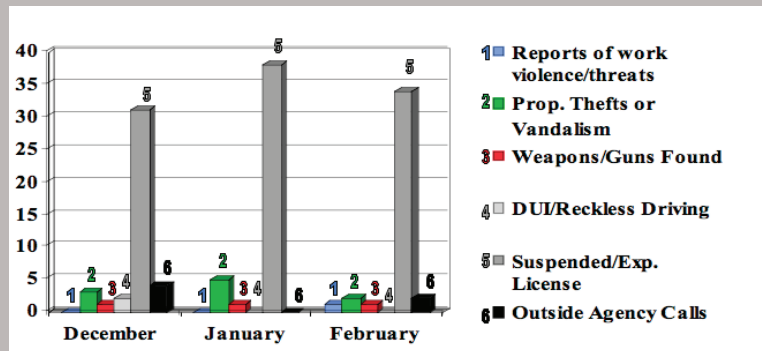
	Civil Servants	Contractors
First aid cases	4	0
Lost Workday cases	0	0
Recordable cases	0	2
Restricted duty days	0	2

Above data are as of Feb. 29, 2008. May be subject to slight adjustment in the event of a new case or new information regarding an existing case.

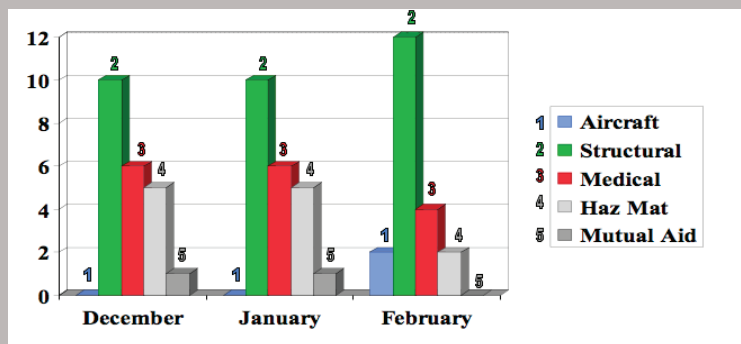
Protective Services monthly activity

A statistical summary of activities of the Protective Services Division's Security/Law Enforcement and Fire Protection Services units for the month of February 2008 is shown below.

Security/Law Enforcement Activity



Fire Protection Activity



Ames Classifieds

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

Transportation

'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.

Car Pool

Looking for car pool from Newman (or Los Banos) 2 - 3 days a week. Call (408) 394-5606 (cell) or ext. 4-4773 (work).

Housing

Room for rent w/priv. bath with large tub and shower (in 2 bd/2 ba condo). Month to month, \$750 per month. Deposit \$750. 12-foot-by-12-foot room, closet organizer, built in shelves, cable and phone jack in room. Laundry and kitchen use. 15 min from NASA. Quiet neighborhood. Close to 680/880/101 hwy's. Pool/hot tub/weight room on site. I have parakeets. Would like a mature renter. No pets, no drugs, non smoker. No couples. Please provide credit report. If interested please call (650) 255-1977.

Looking for a professional female roommate to share beautiful, spacious, 2bd/2ba condominium in downtown Mountain View. Located a block from Castro, close to all restaurants and shops, library, Caltrain station, Stevens Creek Trail, and HWY 101, 85 and 237. Bedroom for rent is bright, airy, w/2 large bay windows and bathrm. In-unit W/D. Garage parking. Avail. April 1. I am a professional female, easy-going, considerate and responsible. N/S or drugs. \$1,100 per month. E-mail jingmei.liang@gmail.com

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.

For All Your Supply Needs On Installation

NASA Ames Supply Store • Building N255 • DeFrance Ave. (North Side)

Huge In-Store Selection
50,000 Catalog Items
FREE on Installation Delivery



- Office Products
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- Paper Products
- Janitorial & Cleaning Supplies
- Computer Accessories
- Furniture & Tools



Retail Store
650-604-8801 • Fax 650-604-8802
On-Line
www.aibexpress.com

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, 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 apt. in 24 hour security fblgd. 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.

The NASA Lodge

Rooms starting at \$45 a night.



Having a B-I-G family reunion and just run out of bedrooms and inflatable beds? Reserve rooms at the NASA Lodge

Ames employees and contractors can "host" their friends or relatives at the Lodge, and it doesn't have to be government or NASA related.

Let Us Welcome You!

Call (650) 603-7101



<http://naccenter.arc.nasa.gov/lojding.html>

Panel discusses Unmanned Aircraft System Access to national airspace

The Silicon Valley Chapter of the Association for Unmanned Vehicle Systems International along with the IEEE-Robotics and Automation Society, American Institute of Aeronautics and Astronautics and the Association of Old Crows, recently sponsored a panel discussion at Ames recently about Unmanned Aircraft System Access to the National Airspace.

Some of the key discussed were that the potential market for Unmanned Aircraft Systems (UAS) is considerable. According to the panelists, the number of applications involving the national air space is large, and the lack of response for helping companies get UAS access to the air space is hindering considerable economic opportunity for United States companies.

Panelists also noted that foreign companies are working more with UASs and that the United States is falling behind. Panelists also noted that many businesses are frustrated with the slow response to regulations, some of which are driving companies out of the market.

Panelists suggested that local companies combine money and resources in order to make a concerted response to the lack of unmanned aircraft systems.

Approximately 80 people attended the discussion with presentations



The UAV panel, left to right, Laurence Newcome, Rori Marston, Glenn Witt and Jeff Bauer answer questions at the end of the event.

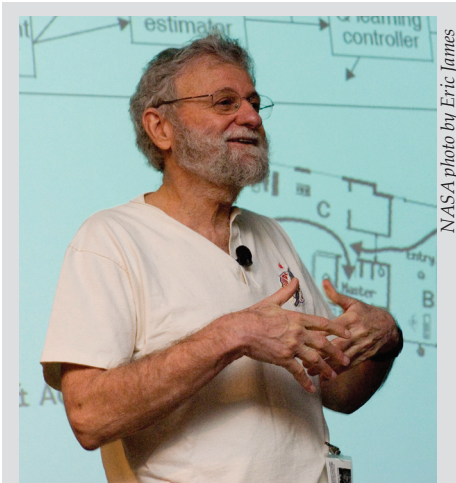
NASA photo by Dominic Hart

that are available on the chapter Yahoo group: aувsilsiliconvalley.com.

Those interested in affiliating with the chapter should look to join this group and visit the web site at <http://www.aувsilsiliconvalley.org>.

Automation plays increasing role in everyday life

Don Norman of Northwestern University and well-known author and long-term aviation safety research collaborator with NASA's Ames, re-



NASA photo by Eric James

Don Norman, author and long-term aviation safety researcher, spoke at Ames about his book, "The Design of Future Things: Cautious Cars and Cantankerous Kitchens."

cently spoke at the center on the topic of his published book, "The Design of Future Things: Cautious Cars and Cantankerous Kitchens."

The book discusses the increasing role that automation plays in such everyday places as the home, and automobile. According to Norman, "Everyday products are getting more intelligent and more demanding. Not only do they tell us what routes to take when we drive, but also how to

drive. If they don't like our driving, they are starting to take control. These well-intended devices fail the test of proper social interaction, sometimes amusingly, but possibly tragically.

There is a way to build systems to maximize utility and pleasure while minimizing the dangers and frustrations." Norman is co-founder of the

Nielsen Norman Group, and is a former vice president of the Advanced Technology Group at Apple Computer. He is well known for his books including "The Design of Everyday Things" and "Emotional Design." The Human Systems Integration Division sponsored the presentation.

What's on InsideNASA . . .

NASA Deputy Administrator's, Shana Dale's corner on InsideNASA this month features an article entitled, "The Water Security Corporation."

The feature describes how the Microbial Check Valve, originally developed by NASA's Marshall Space Flight Center, Huntsville, Ala., used to convert water into potable water for astronauts on the space shuttle

and the International Space Station, is now being used in rural areas of the United States and in developing countries around the world to produce drinkable water.

For more information visit: <http://insidenasa.nasa.gov/portal/binary/gov.nasa.insidenasa.StoriesRSSFeedServlet>

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.

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