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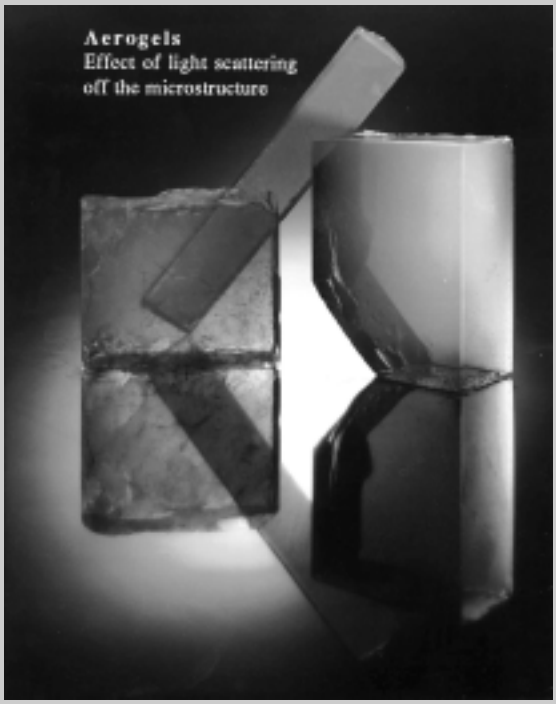
Concept for spacecraft 'solid smoke' tiles can be used on Earth



A new concept for spacecraft tiles can be used on Earth to make efficient, vacuum-like insulation for refrigerators, furnaces and automobile catalytic converters.

The new material is similar to that used for the tiles on the Space Shuttle to protect the vehicle from the heat generated during reentry into Earth's atmosphere. However, the new tiles have a layer of aerogel, or 'solid smoke,' mixed into the tile's air spaces.

"Solid smoke, or aerogel, works like a vacuum layer because it's a great insulator," said aerogel tile co-inventor Ames' Dr. Susan White. "The new aerogel tiles can insulate spacecraft from 10 to 100 times better than today's tiles."

Aerogel is made of silica, alumina and carbon, as well as other materials, and weighs very little. "The aerogel used to fill the air spaces inside the tiles is like strings of nanosized pearls all tangled up," White said. A nanometer is a billionth of a meter.

The fibers that form the tiles are mostly a mixture of silica and alumina oxides, according to co-inventor Dr. Daniel Rasky, also of Ames.

The spaces inside the untreated spacecraft tiles are less than a millimeter wide.

"The reason the aerogel-tile composite will act as a great insulator for keeping freezers cold, or automobile catalytic converters hot, is that air flow through the tile is almost completely blocked by aerogel," White said. "It is like having a chunk of solid vacuum where you need it."

"Aerogel is very brittle and can't be machined, but spacecraft insulation tiles filled with a layer of aerogel can be cut, machined, drilled and attached to a surface," White said. "Aerogel-tile insulation can be made into different shapes for many uses here on Earth."

The aerogel space-tile material could be used in commercial products that require mechanically tough super-insulation, such as catalytic converters for cars or specialty refrigeration units. In addition, the new material potentially could be used for furnaces, for liquefied gas transport trucks, or for liquid carbon dioxide, nitrogen or oxygen containers.

The new aerogel tiles could also be used to insulate future spacecraft from the heat of reentry into the atmosphere. "Not only will the aerogel tiles protect future spacecraft from very high reentry temperatures, the materials will also better protect spacecraft from ice that may be formed on the extremely cold fuel tanks when the vehicle is waiting on the pad for launch," White said.

High temperature and environmental testing of aerogel space tiles was conducted at Ames for seven years. A patent is pending for the new material.

BY JOHN BLUCK

State of the Center Address

Center Director Henry McDonald delighted the Ames community with his upbeat, good-news State of the Center briefing on April 29. He summarized the many Ames accomplishments of the past 12 months, and highlighted the Ames' activities that are "extremely relevant" to NASA's strategic plan in each of its four

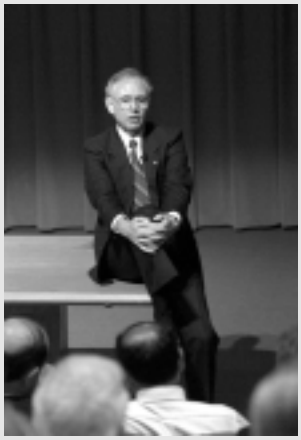


photo by Tom Trower

Dr. Henry McDonald

Enterprises: Aeronautics and Space Transportation Technology, Space Science, Human Exploration and Development of Space, and Earth Sciences. McDonald praised researcher's work in support of Ames' role as the NASA Center of Excellence for Information Technology, and the "lead center" for aviation operations systems, rotocraft technology, and the new Astrobiology Institute. He assured employees that, from his perspective, the future looks very bright for Ames and its research programs.

See related ISO photo on page 5.

Ames ISO Web-site address: http://nasarc1.arc.nasa.gov/iso9000/index1.html

President William Jefferson Clinton lands at Moffett Field

photos by Maria Garcia

Greeting President Clinton upon his arrival. Photo to right: From left to right: Commander Carl Mayabb, Pacific Command; Col. James Dill, Onizuka Air Station; Capt. John P. Hazelrig, Naval Air Research, and representing Ames, Dr. Robert (Jack) Hansen, Deputy Director for Research at the Center.

Ames employee has possible bone marrow match

photo by Sue Bowling

Ames Health Center nurse Jackie Nielsen, R.N., and Sonja Koyama share a light moment during Koyama's recent blood test. Sonja's blood samples indicated she may be a bone marrow match for someone in need.

Sonja Koyama, an Ames contractor, recently "stepped up to the plate" to help an unknown individual in his fight for life. A LAN administrator with Wang Laboratories, Sonja did not hesitate to undergo a blood-compatibility test which will help determine if her human leukocyte antigen (HLA) type is a close enough match to allow her to donate bone marrow to a critically ill patient.

Sonja's blood was initially typed at a Ames blood drive. At that time, a small vial of blood was siphoned off the pint of blood she donated to the Red Cross. The blood was typed and placed on a national registry. Sonja was subsequently re-contacted when a recipient's HLA type appeared to match hers. Another vial was drawn by the staff of the Ames Health unit on April 7 under special procedures to further assess her compatibility. There is a 6-to 12-week wait to determine if the match is close enough to continue with the process. If it is, Sonja will be flown to Washington D.C. twice - the first time to undergo a physical work-up and the second time to actually undergo the marrow extraction procedure. The organization coordinating the effort is the C.W. Bill Young marrow donor recruitment and research program in Kensington, MD. They provide assistance to individuals both nationally and internationally, via reciprocal agreement.

There are approximately 30,000 adults and children who desparately need to find donor matches each year due to conditions such as aplastic anemia, lukemia and other fatal blood diseases. Seventy percent of them cannot find suitably matched donors in their family unit and depend on volunteers throughout the country. An individual's closest match is usually within their ethnic and/or racial group. At present, there is a critical need for the typing of minority volunteer donors.

If you are interested in assisting another individual, please contact the author at ext. 4-6942 for more information and to sign up for the bone marrow typing program. The next opportunity to do so will be at the next blood drive on Monday, June 22 in Bldg. 3, the Moffett Training and Conference Center, between 7:30 a.m. and 3:30 p.m.

By Chaz Czaplicki

Wright Flyer arrives at Ames

A full-scale replica of the historic 1903 Wright Flyer arrived on April 28 at Ames in preparation for public display this summer and wind tunnel tests next January.

The replica is scheduled for a two-week test in Ames' 80-foot x 120-foot wind tunnel — the world's largest. During the test, project engineers will study the replica's stability, control and handling at speeds up to 30 mph in the wind tunnel. Test results will be used to compile an historically accurate aerodynamic database of the Wright Flyer.

photo by Roger Brimmer

A press briefing was held on April 28 in Hangar One to celebrate the arrival of a full-scale replica of the historic 1903 Wright Flyer. Attendees included news media representatives from CNN-TV, KRON-TV CH 4, KPIX-TV CH 5, KGO-TV CH 7, the San Francisco Chronicle, San Jose Mercury News, Bay City News Service, US News & World Report and the World Journal. The replica was constructed by a team of volunteers from the Los Angeles section of the American Institute of Aeronautics and Astronautics (AIAA) and will be tested in Ames' 80-foot by 120-foot wind tunnel in January.

Constructed by a team of volunteers from the Los Angeles section of the American Institute of Aeronautics and Astronautics (AIAA) using plans provided by the Smithsonian, the replica features a 40-foot-4-inch wingspan reinforced with piano wire, cotton wing coverings, spruce propellers and a double rudder.

"I can't think of anything as exciting as using modern technology to test a replica of the biplane that Orville and Wilbur Wright flew for the first time ever in 1903 at Kitty Hawk," said Pete Zell, Ames' wind tunnel test manager. "NASA is here as a resource for the public and to inspire young people. This project seeks to educate and inspire youth; it's much more than dollars and cents."

Although it will replicate the 1903 Wright Flyer in design, size, appearance and aerodynamics, some changes have been made to strengthen the plane when it is mounted in the wind tunnel.

The full-scale replica was built with precise data using Smithsonian drawings from the original airplane. Data obtained from testing on this full-scale replica will provide a sound technical basis for improving the flying qualities and safety for the second full-scale airplane — yet to be constructed. In the wind tunnel, the replica will be powered by a NASA electric motor.

"The work of the Wright Brothers founded the science and technology of aeronautics, and their accomplishments form one of the grandest chapters in history," said Jack Cherne, TRW engineer and chairman of the Wright Flyer project.

In contrast to the Wright brothers who took less than a year to build their biplane, AIAA volunteers have spent their Saturdays for the past 18 years planning and assembling the replica.

It also has undergone special testing as a prerequisite for entering the NASA wind tunnel. One stipulation was static testing, in which more than three times the flight load (or more than 3,000 pounds) was applied successfully. Another NASA requirement was propeller system testing, recently completed at Able Corp. in Yorba Linda, CA.

The replica has about $100,000 worth of donated materials from companies such as Northrop Corp./Aircraft Division, Torrance, CA, which also provided the project a home base for 15 years; International Die Casting, Gardena, CA; McDonnell Douglas, Long Beach, CA; Rockwell International, Downey, CA; and TRW Redondo Beach, CA.

Upon completion of the wind tunnel tests, the replica will be transported to Los Angeles, where it will be put on permanent display in the lobby of the Federal Aviation Administration (FAA) Western Pacific Regional Office in Hawthorne, CA, to provide a valuable resource for the community and surrounding schools. The lobby will soon be renamed the "FAA Flight Deck" Museum and include a variety of other exhibits depicting the history of aviation.

Using the wind tunnel test data, a second Wright Flyer will be built by the AIAA volunteers and flown on Dec. 17, 2003, commemorating the 100th anniversary of the flight of Orville and Wilbur Wright at Kitty Hawk, NC. During a recreation of the Wright brothers' first flight, the replica will fly low and travel at only 30 mph, the same speed flown by the Wright brothers. The original vehicle traveled only 120 feet during its 12 seconds in the air.

Fred Culick, 63, of Altadena, CA, a private pilot and an aeronautics professor at the California Institute of Technology, Pasadena, CA, will be the first to fly the airplane. He will control it while lying on his stomach.

Orville and Wilbur Wright were responsible for a host of aviation inventions, including wing warping, which provides lateral control and allows an airplane to bank left or right. They also invented the forward stabilizer, which controls the airplane's up and down movement, and the moveable rear rudder, which enables the pilot to counteract unwanted turns.

Further information about the Wright Flyer is available on the AIAA Wright Flyer homepage at: http://www.alumni.caltech.edu/~johnlatz/1903.html.

Group and public tours of the Wright Flyer replica and Hangar One will be available beginning June 1. All groups and individuals must contact the Ames Tour Office at ext. 4-6497 to schedule a tour.

BY MICHAEL MEWHINNEY

Briefs

NASA remote sensing aids highway planning

The Commercial Remote Sensing Program at NASA's Stennis Space Center, MS, recently applied its comprehensive capabilities to highway routing plans for the Mississippi Department of Transportation (MDOT).

The technology was applied to connecting a route between Hernando, MS, and Collierville, TN. While the specific route is still being planned, by using remote sensing, the planning time may be significantly reduced while the quality of the route is enhanced.

Remote sensing -- the observation of the surface of the Earth from distant vantage points, usually from sensors mounted on aircraft or satellites -- provides images to make detailed maps of selected study areas.

"Urban forests" study to be conducted

Three U.S. cities will partner with NASA and the Environmental Protection Agency to study how strategically placed "urban forests" and the use of reflective surfaces may help cool cities, reduce pollution, lower energy bills, modify growth plans and help mitigate further deterioration of air quality.

Researchers from NASA's Marshall Space Flight Center, Huntsville, AL, will study bubble-like accumulations of hot air, called urban heat islands, and how these change between day and night. To better understand which surfaces contribute or drive the development of heat islands, an aircraft equipped with thermal-imaging equipment will fly over selected cities to take high resolution thermal measurements.

The study will contribute to NASA's Earth Science enterprise which is responsible for a long-term, coordinated research effort to study the total Earth system and the effects of natural and human-induced changes on the global environment.

NASA Temper Foam - a Spinoff success

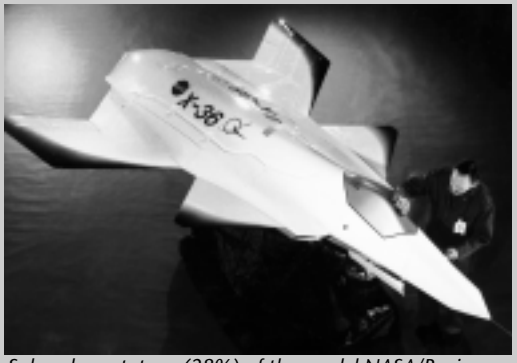
On May 6, NASA Administrator Daniel S. Goldin received in the NASA Headquarters Auditorium the one millionth pillow produced by Temper-Pedic Inc.

The pillow, made from a foam material, was first developed by Ames for use in Space Shuttle seating and to protect airline passengers in crashes. The Lexington, KY, company's pillows, mattresses and other products are used to treat disorders ranging from sleeplessness to pressure ulcers, commonly known as bedsores.

Temper Foam is a visco-elastic, body-temperature reactive material, which returns to its original form even after compression. The material was recently inducted into the United States Space Foundation's Space Technology Hall of Fame, Colorado Springs, CO.

X-36 team wins 1998 AIAA award

The American Institute of Aeronautics and Astronautics (AIAA) recently presented the 1998 AIAA Design Engineering Award to the NASA/Boeing X-36 Tailless Fighter Agility Research Aircraft Team.



Subscale prototype (28%) of the model NASA/Boeing X-36 Tailless Fighter Agility Research Aircraft

The award recognizes design engineers who have made outstanding technical, educational or creative achievements that exemplify the quality and element of engineering design. Mark Sumich, an Ames aerospace engineer who served as the X-36 project manager, and Bruno Lohmueller of The Boeing Company accepted the award on behalf of the team during an Awards Luncheon at the 39th AIAA Structures, Structural Dynamics and Material Conference held April 21 at the Westin Long Beach Hotel, Long Beach, CA.

"The NASA team is very gratified to be recognized for the success of the X-36 flight test program," Sumich said. "We completed 31 flights in 25 weeks without any incidents, and exceeded our project goals by a significant margin. The aircraft demonstrated exceptional fighter agility," Sumich added. "The development process used for the X-36 is an excellent example of a 'faster, better, cheaper' way to design, build and fly prototype aircraft."

The X-36 is a remotely piloted, advanced-research vehicle that represents a true breakthrough in aircraft design and manufacturing processes. The Boeing Company applied advanced design technology and new Integrated Production Definition (IPD) design processes to make the X-36 an extremely successful program. The aircraft was designed and built in just 28 months, and was rolled out on March 19, 1996 in St. Louis, MO. After an extensive ground test program, the aircraft first flew on May 17, 1997. The complete design and flight test program cost only $20 million, a fraction of the typical cost for a full-scale piloted aircraft to obtain the same flight test data.

In addition to Sumich, X-36 team members from Ames included Gary Cosentino, deputy project manager; Lloyd Corliss, flight controls specialist; and Dwight Balough, stability margin expert. Rod Bailey served as the X-36 program manager. The Boeing team was led by Gary Jennings.

The 1998 AIAA Design Engineering Award presented to the X-36 NASA/Boeing Team is inscribed: "For the implementation of new, integrated product definition design processes and advanced design technology that made the X-36 an extremely successful, low-cost program."

BY MICHAEL MEWHINNEY

May JUG meeting: data visualization using web-based Java

The May JUG meeting will be held on Thursday, May 28 from 2:00 to 3:30 p.m. in the NAS Auditorium Bldg. N-258. Glenn Deardorff from Ames will present his experiences using Java and JavaScript for data visualization on the Lunar Prospector web site.

Lunar Prospector was co-developed by Ames and Lockheed Martin, and was launched from Cape Canaveral last January. Its mission is to search for water ice and various elements in the moon's surface, map its magnetic and gravity fields, and detect tectonic activity.

Java is being used to graphically display near-real-time data from a planetary exploration mission to the global public. This has enabled tens of millions of people around the globe to monitor the spacecraft and view its datastream at the same time as mission scientists.

The presentation by Glenn Deardorff will describe these Java and JavaScript tools, and address the successes and pitfalls in using these technologies as media for sharing real-time mission data with the public.

Check out the Lunar Prospector data visualization web site at: http://lunar.arc.nasa.gov/dataviz. The May meeting will also include a demo of the Sun 'knuckle-top' Java ring and ring reader (first seen at JavaOne) by Pete Paluzzi.

BY SHARON MARCACCI

Armstrong named AA for Aeronautics and Space Transportation Technology

Lt. Gen. Spence M. (Sam) Armstrong (USAF, Ret.) has been named to head NASA's Aeronautics and Space Transportation Technology Enterprise in Washington, DC, effective May 11.

Armstrong has served as NASA's Associate Administrator for Human Resources and Education since Sept. 1991. His extensive career resume includes experience in flight testing and astronautical engineering, as well as command at five different levels within the U.S. Air Force. Prior to his most recent NASA assignment, Armstrong served as director of program architecture for the Synthesis Group, an organization charged with developing long-range program architectures for the U.S. human space flight program.

As Associate Administrator, Armstrong will be responsible for strategic planning, requirements definition and budgetary formulation of NASA's aeronautics research and space transportation technology activities. Armstrong's duties will include overall responsibility for NASA's four aeronautical research centers -- Ames, Moffett Field, CA; Dryden, Edwards Air Force Base, CA; Langley, Hampton, VA; and Lewis, Cleveland, OH.

"We are at a crucial time for NASA, the Nation and the world in aerospace technology," said NASA Administrator Daniel S. Goldin. "We have the traditional aeronautics research, and we have the technologies that are emerging from the efforts in space transportation. NASA needs to fully integrate the two to get the leverage and synergy needed if we are to be the future aerospace leader. I've chosen Sam Armstrong because he has the technical background and proven track record as a leader. He has my complete backing to make this happen through organizational changes within the enterprise and through cooperation with other government agencies, the aerospace industry and the international community."

With Gen. Armstrong's ascension, Stanley S. Kask, Jr., will serve as acting Associate Administrator for Human Resources and Education.

photo by Roger Brimmer

Editor's Note: The Columbia flag featured on the front page of the May 1 issue of the Astrogram was incorrectly identified as an ISO 9001 flag. We sincerely apologize to the Ames Neurolab team for this unfortunate error, and regret any misunderstanding that may have arisen.

The Ames Neurolab team played a major role in this unique science mission. The displayed flag bears the signatures of Ames staff who supported the mission. Congratulations, Neurolab Team -- well done!

Ames Team is ISO elated!

Photo by Tom Reddy

Rick Serrano, Ames' ISO Program Manager, updates the new sign in front of Bldg. 200 as senior managers and team members look on. Present in picture are: From left to right: C. Imprescia, B. Berry, J. Reed, P. Callahan, R. Serrano, P. Cheng, H. McDonald, G. Miyahara, G. Wermig, D. McDaniel, R. Navarro, T. Moyles, B. Smith, D. Brown and D. Walker.

Team members not present included: L. Braxton, J. Cavolowsky, J. Comstock, K. Flynn, A Grady, W. Henry, M. Hines, S. Hubbard, L. Manning, and M. Smith

Summer field trips scheduled at AAE

Applications are now available for groups of fourth, fifth and sixth grade students to schedule a summer field trip to the Ames Aerospace Encounter (AAE).

The Encounter is a unique, interactive program designed to stir young people's imaginations and fuel their enthusiasm for science, mathematics, and technology.

A group must consist of at least 18 fourth, fifth, or sixth graders (no more than 36) and have at least four adult chaperones (no more than 10). There is no cost to attend, but an application is required. If you or someone you know is interested in bringing a group, please contact the Encounter at ext. 4-1110 for an application or more information. You may also learn more about the Encounter by visiting its homepage at: http://ccf.arc.nasa.gov/dx/encounter.html

Parents wishing to bring individual children to the Encounter may do so during one of our two "Ames Employee Days" this summer. This year the Ames Employee Days are scheduled for June 24 and August 27. A centerwide email detailing them will be sent out in June.

Five Ames researchers tapped for Mars Deep-Space 2 mission

Five Ames researchers were among nine NASA scientists selected as members of the Science Team for the Mars Microprobes mission, a technology validation program that will hitchhike to the red planet aboard NASA's '98 Mars Polar Lander mission.

Two identical probes will be carried as a secondary payload on the lander, due for launch in January 1999. Following an 11-month cruise, the probes will slam into the Martian soil at about 680 km per hour, penetrate 2 meters below the surface, search for the presence of water and measure soil chemistry.

"I am thrilled about the selection of this excellent group of investigators, said Dr. David Morrison, Director of Space at Ames. "The Mars Microprobe will give us a look at the subsurface of Mars, which is a virtual window into the planet's history."

The five Ames scientists are: David Catling, Julio Magalhaes, Jeffrey Moersch, James Murphy and Aaron Zent of the Center's Space Science Technology group. Other researchers on the mission include Ralph Lorenz, University of Arizona, Tucson, Paul Morgan, Northern Arizona Univ., Flagstaff, Bruce Murray, California Institute of Technology, Pasadena, and Marsha Presley, Arizona State Univ., Phoenix.

The Mars Microprobes mission, also known as Deep Space-2, is scheduled to be the second launch in NASA's New Millennium Program of technology validation flights, designed to advance science missions in the 21st century. The Program is managed by JPL.

The region of Mars the mission will explore is similar to Earth's polar regions because both have collected ice and dust over many millions of years. By studying the history and climate of Mars, scientists hope to better understand Earth.

In addition to the miniaturized science instruments capable of surviving high velocity impact, technologies to be tested on the mission include a lightweight atmospheric entry system, called an aeroshell; power microelectronics with mixed digital/analog advanced integrated circuits; an ultra-low temperature lithium battery; an advanced three-dimensional microcontroller; and flexible interconnects for system cabling.

Further information on DS-2 is available on the Internet at: http://nmp.jpl.nasa.gov/ds2/.

BY KATHLEEN BURTON

DART Annual Awards celebration held

The Disaster Assistance and Rescue Team held its Annual Awards Party on April 24 at the DART Training Site. Approximately 60 people attended to celebrate the announcement of Reexquiteritist (Rescue Specialist) of the Year, Rookie of the Year and those who have earned their DART Certification. Center Director, Dr. Harry McDonald, Deputy Director, Bill Berry and Director of Center Operations, Jana Coleman were on hand to help celebrate this 12th annual awards celebration.

Dr. McDonald, Bill Berry and Randy Land watch as DART chefs Carlos, Jerry and Dennis prepare to carve the roast pig.

The Team traditionally provides the main course and this year it was a magnificent 70 pound roast pig masterfully prepared by our own DART Chefs, Jerry OíConnell, Dennis Ray and Carlos Brown. Our multinational families provided the delicious side dishes, salads and desserts that were to die for!

DART Certification is earned by completing the requirements to become a rescue specialist and be considered a deployable resource. These requirements include: emergency medical training, CPR for the Professional Rescuer, Rescue Systems 1, HazMat First Responder Operations, rope rescue training and an average of 8 hours per month of scheduled training. This year Greg Cleven was the only rookie to receive his certification.

Rookie of the Year was also awarded to Greg Cleven for dedication and work over and above that required for team members to maintain currency. Greg was usually one of the first to volunteer for demonstrations such as the NASA Ames Open House last year and has put in hundreds of hours of his own time helping to prepare DARTís rescue boats for the water rescue squad. Gregís qualifications include: Emergency Medical Technician, Rescue Specialist, Swift Water Tech 1 & 2 and others.

Reexquitiritist of the Year for 1997 was awarded to Doug Pargett. Doug has been a DART member since 1994. To receive this award is to have been an exemplary member of the rescue team, dedicating many hours to the benefit of his fellow team members and being a true leader. Dougís qualifications include: Emergency Medical Technician, Swift Water Tech 1 & 2, Collapsed Structure Rescue, Rescue Specialist, CA Urban Search & Rescue Task Force member. Doug too has hundreds of hours of personal time invested in DART. He is a mentor to newer members just learning the skills required to become DART certified. Doug has been an adjunct instructor for the Light Search and Rescue class presented to the San Jose Prepared neighborhood groups and is usually in line to help out with community preparedness demonstrations.

BY LYNNE ENGELBERT

The Reexquitiritist of the Year award is presented to Doug Pargett (right) by former award winner John Preston (left).

Keri O'Connell is a true blue junior DART member w/the team's logo painted on her cheek. Yayoi Land was our volunteer facepanter, turning out fantastic, child-pleasing designs.

Two-year old Caroline Tangney found the pinata just too fascinating for words and preferred to play with the tassels.

Aircraft moved to Historic Hangar One for public display

The California Air and Space Center began its journey to reality when several of the resident agencies at Moffett Federal Airfield joined with Ames to move three aircraft from their storage in Hangar Two to Hangar One for display.

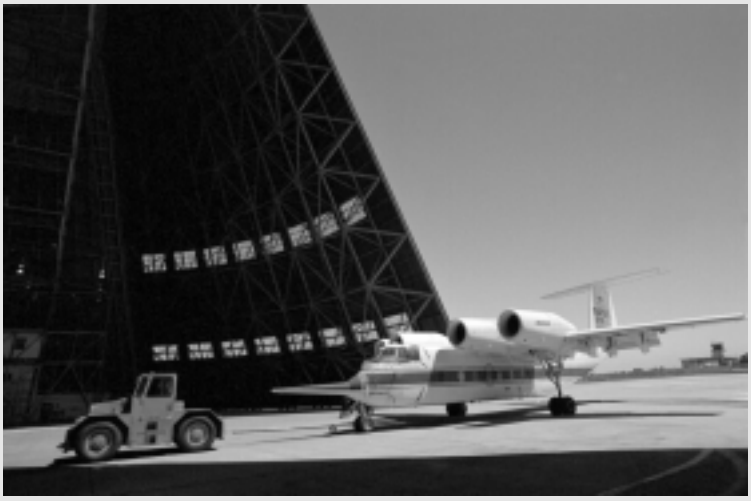
On April 17, the Naval Air Reserve and the Moffett Field Fire Department joined Ames in getting the QSRA, F/A-18, and T-39 aircraft cleaned and towed into position in Hangar One. Code AOW lent their expertise and equipment in the move, along with Codes DQ and JF.

The Quiet Shorthaul Research Aircraft, flight tested at Ames for more than 20 years, was retired in the early 90s. It was a proof-of-concept vehicle for using engine exhaust flow to increase the lift capability of wings at slow speeds. The resulting capability was short takeoff and landing as demonstrated by operations from an aircraft carrier deck. The position of the engines above the wing also resulted in much reduced noise.

The F/A-18 Hornet is a former Blue Angel aircraft that was tested in the 80-120 wind tunnel in support of the high angle of attack study. The results of this study, which included flight test results from Dryden Research Center, and Computational Fluid Dynamics (CFD) modeling at Ames resulted in improved understanding of the mechanisms needed to allow high performance aircraft to maintain controlled flight at low speeds and very high angles of attack.

The T-39 was used in a series of tests in the 40-80-120 wind tunnel looking at high lift devices and airfoils.

BY JEFF CROSS



The "Phoenix" is moved into Hangar One.

photos by Sue Bowling

Tug driver Sergio Morales of AIMD waits in line with a T-39 as the "Phoenix," a NASA Quiet, Shorthaul Research Aircraft (QSRA), is moved towards a new home in Hangar One. The aircraft, along with a F/A-18, are two of the exhibits to be featured in the upcoming California Air and Space Center.

NATO Visitors

The first of many meetings of the Information Systems Technology (1ST) panel to be hosted by NASA on behalf of NATO was held at Ames Research Center on April 23-25. The countries that participated included: Italy, Belgium, Canada, France, Spain, Denmark, Germany, Holland, Norway, UK, Turkey, and the United States.

Further meetings will be scheduled at periodic intervals at sites in participating countries.

Asian/Pacific American heritage celebrations set

The month of May has been designated "Asian/Pacific American Heritage Month" by Center Director Henry McDonald. This period provides an opportunity for Center employees to reflect upon, learn about, and honor the service and accomplishments of representatives of this proud ethnic group/culture, both at the Center and elsewhere.

Highlighting activities for the month will be a buffet luncheon on Friday May 29 featuring special guest speaker, the Honorable Congressman Robert A. Underwood of Guam. Underwood will address his experiences growing up in the islands, and his role and unique responsibility representing his constituents in the House of Representatives.

Underwood is a force for educational advancement in Guam, and has been a leader in the fight to defend, promote and advance the language, culture, history and rights of the native Chamorro people. He is a former educator and school administrator, and an outspoken proponent for

Congressman Underwood

Guamanian rights and issues relating to minority peoples.

The Moffett Training and Conference Center will be the site of this year's celebratory luncheon. The event will be held on May 29 between 11:30 a.m. and 1:00 p.m. Tickets are $14.00 and must be purchased in advance. Flyers identifying ticket sellers and locations have been posted throughout the Center.

Please join Center Director McDonald, senior management and your fellow Ames employees by participating in and supporting this event honoring an important minority group within our diverse Ames community.

BY DAVID MORSE

NASA Ames' Speakers Bureau program recruiting speakers

Did you know that every month, Ames receives dozens of requests for guest speakers from schools, agencies and companies? Yes, it's true! There is a strong demand for NASA speakers, both nationwide and in the local region. Speakers make presentations on a variety of topics: earth science, life science, space science, aeronautics, etc... The Speakers Bureau Program consists of an eclectic group of NASA employees and retirees who volunteer their time and effort. Ames' speakers address children and people from all walks of life.

Unfortunately, the Speakers Bureau Program is often unable to accommodate all requests that are received. The Center gets an overabundance of requests, and not enough speakers are available to fill all of them! Therefore, we are recruiting your help and asking if you would like to join our team! You don't have to have any prior experience in talking in front of groups. The only qualifications needed are your basic NASA knowledge and experience plus a strong desire to educate and inform the community about some of NASA's unique and on-going projects. If this criteria fits you, then the Speakers Program could definitely use you on our speaker panel!

There are many resources available for speakers who help with the program. We have props and handouts readily available to take out on speaking engagements. The benefits and rewards of the Speakers Bureau Program are high. Speakers excite and educate the public about NASA Ames.

The Speakers Bureau Program would like to thank all the speakers who have participated and devoted their time and effort. Without you, the Speakers Bureau Program would not exist.

If you have any questions or if you are interested in becoming a speaker for the NASA Ames Speakers Bureau Program, please contact Sheila Johnson at ext. 4-5054 or the author at ext. 4-2922.

BY CANDICE MEI

Possible CSRS to FERS retirement

During the last half of this year, 725 Ames employees currently covered under the Civil Service Retirement System (CSRS or CSRS Offset), **may** be given an opportunity to switch to the newer Federal Employees Retirement System (FERS).

The open enrollment period begins July 1 and ends December 31. The open season is in question because the President has included in his budget for Fiscal Year 1999 a supplemental appropriations request for 1998 that repeals the FERS Open Enrollment Act. If Congress approves the President's request for repeal, there will be no open season. However, if Congress does not act, the open enrollment will proceed as scheduled.

The FERS Transfer Handbook (RI 90-3) is the primary guidance provided by OPM for employees faced with a FERS election opportunity. It outlines and compares the features of both systems. Those interested may download the handbook from the OPM website at http://www.opm.gov/asd/htm/pub.htm. A limited number of copies are available in the Benefits Office Bldg. 241, Rm. 141.

Ames plans to schedule briefings for CSRS-covered employees and provide information needed to make an informed decision about switching retirement systems. As more information becomes available, it will be passed on to Ames staff.

Calendar

Jetstream Toastmasters, Mondays, 12 noon to 1 p.m., N-269/Rm. 179. Guests welcome. POC: Jenny Kahn at ext. 4-6987 or Pam Walatka at ext. 4-4461.

Ames Child Care Center Board of Directors Meeting, Tuesdays, 12 noon to 1 p.m., N-213/Rm. 220. POC: Lisa Reid at ext. 4-2260.

Nat'l Association of Retired Federal Employees, S.J. Chapter #50, Meeting. First Friday of ea. month at the Elk's Club, 44 W. Alma Avenue, San Jose. Social hour: 10:30 a.m. Program & business mtg. follow lunch at 11:30 a.m. POCs: Mrs. Leona Peery, President, (650) 967-9418 or Earl Keener, Public Relations, (408) 241-4459.

Ames Multicultural Leadership Council Meeting, May 20, 11:30 a.m. to 1 p.m., Galileo Rm./Ames Café. POC: David Morse at ext. 4-4724 or Sheila Johnson at ext. 4-5054.

NFFE local 997 Union General Meeting, May 20, 11:30 a.m. to 12:30 p.m., Bldg. 19/Rm. 1040. POC: Marianne Mosher at ext. 4-4055.

Space Day, May 21, 7:30 a.m. to 4:00 p.m., Hanger One. POC: Lori Burkart at ext. 4-0494.

Ames Amateur Radio Club, May 21, 12 noon, N-260/conf. rm. POC: Walt Miller, AJ6T at ext. 4-4558.

Ames Asian American Pacific Islander Advisory Group Meeting, May 21, 11:30 a.m. to 1 p.m., N-213/Rm. 261. POC: Daryl Wong at ext. 4-6889 or Brett Vu at ext. 4-0911.

Native American Advisory Committee Meeting, May 26, 12 noon to 1 p.m., Ames Café. POC: Mike Liu at ext. 4-1132.

JAVA Users Group Meeting, May 28, 2:00 p.m. to 3:30 p.m., N-258 Auditorium. POC: Sharon Marcacci, at ext. 4-1059.

Ames Contractor Council Meeting June 3, 11 a.m., N-200/Comm. Rm. POC: Greg Marshall at ext. 4-4673.

Hispanic Advisory Committee for Employees, June 4, 11:45 a.m. to 12:30 p.m., N-239/Rm. 177. POC: Carlos Torrez at ext. 4-5797.

Environmental, Health & Safety Monthly Information Forum, June 4, 8:30 a.m. to 9:30 a.m., Bldg. 19/Rm. 1078. POC: Linda Vrabel at ext. 4-0924.

Ames African American Advisory Group Meeting, June 4, 11:30 a.m. to 12:30 p.m., N-241/Rm. 237. POC: Antoinette Price, at ext. 4-4270 and Mary Buford Howard at ext. 4-5095.

Professional Administrative Council (PAC) Meeting, June 11, 10:30 a.m. to 11:30 a.m., N-244/Rm. 103. POC: Janette Rocha, ext. 4-3371.

Ames Sailing Club Meeting, June 11, 11:30 a.m. to 1 p.m., N-262/Rm. 100. POC: Greg Sherwood at ext. 4-0429.

Ames Classifieds

Ads for the next issue should be sent to *astrogram@mail.arc.nasa.gov* by the Monday following publication of the present issue.

Ads must involve personal needs or items; no commercial/third-party ads. Ads will run on space-available basis only. First-time ads are given priority. Ads must include home phone numbers. Ames extensions will be accepted for carpool and lost and found ads only. Ads must be resubmitted for each issue.

Housing

Two bdrm unit in triplex, Hamilton Ave, San Jose. Private yard, enclosed garage, laundry room, no pets. $1,150/mo. Call (650) 369-0578 eves.

Temporary housing available: Family home w/bdrm and bath available to female for summer at $450/mo. rent. Located in No. Milpitas w/close access to H880, H237 and H680. Call (408) 946-3758.

For sale: Maui time-share, ocean view, 1 bdrm sleeps four. Available two weeks: April and December. Asking $6K for each or $10K for both. Call (408) 531-1383.

Transportation

'87 Ford Escort wagon, AC, tilt, ps, pb, am/fm cass., 130k mi. Asking $1,700 or B/O. Bob (408) 736-4039.

'90 Mustang GT Convertable, garaged, 95k mi., exc. cond., its a beauty, $7,500. Mo (510) 262-9434.

'91 Mazda, 626-DX, 23k mi., 4-dr. Sedan, orig. owner, exc. cond., cruise control, AC/AT. Looks like new. $8,500. Call (415) 857-0492.

'92 Honda Accord, DX, Auto, AC, 70k mi., exc. cond., $10,000. Call (408) 733-1906.

Miscellaneous

Complete white bedroom set, including queen bed, mirror, dresser, two night stands, very gd cond. ,$600; 3-drawer chest, white, $35; white bookcase, $45. Call (408) 733-1906.

'95, '96, '97 Holiday Barbies, Peppermint Princess, Jewel Princess, and Winter Fantasy Barbies. Sold together for $290. Call (408) 979-9107.

Pair of 49er tickets, sec. 53; 8/23 Miami, $40 ea.; 9/6 N.Y. Jets, $55 ea.; 11/22 New Orleans, $55 ea.; Call (510) 656-7654.

Free! Kingsize waterbed; handsome walnut pedestal frame w/bookcase for headboard; heater essentially new. Sara (650) 948-2150.

1920's claw foot tub original faucet $30. Call (408) 295-2160.

Queen size waterbed mattress w/heater, like new. $45 or B/0. Call (510) 657-4561.

29-foot sailboat. Standing head room. Good bay and ocean boat with many custom features. $6,500 or B/O. Must sell. Louis the XVI headboard w/conventional mattress type waterbed from Drexel. Beautifully made. $200. Call (408) 641-0590.

Vacation rental

So. Lake Tahoe, Stardust Penthouse, 2bd/2ba, sleeps eight. Private beach, deck and jacuzzi - 1 blk to Harrah's - Labor Day week (9/4-11/98) $1,200/wk; Presidents Day week (2/12-19/99) $1,300/wk. Call (408)738-1447.

Lake Tahoe-Squaw Valley Townhse, 3bd/2ba, View of slopes, close to lifts. Wkend $400; midwk $150/night. Includes linens, firewd, cleaning service. Call (650) 968-4155, or email at: DBMcKellar@aol.com

Multicultural Leadership Council (MLC) Street Fair

The MLC is sponsoring a Street Fair on Wednesday, July 15, between 11:00 a.m. and 1:30 p.m. in the vicinity of Bldg. 200. There will be ethnic food booths, entertainment, and vendors with arts and crafts. Another announcement will be sent out later with information on where and when tickets may be purchased.

Everyone is welcome to attend. The last Street Fair was held in 1992. It was a great success. In order to achieve the same level of success, the teamwork and help of many volunteers on various committees is essential.

Please consider lending a helpful hand in the following areas:

Committees	POCs:
Set Up/ Clean Up	Mary Buford Howard, 4-5095 Mary Bravo, 4-5622 JoeShields, 4-0394
Food/Tickets	Sheila Johnson, 4-5054
Entertainment	Darrell Williams, 4-5649
Program & Publicity	Daryl Wong, 4-6889

Astrogram deadlines

All Ames employees are invited to submit articles relating to Ames projects and activities for publication in the *Astrogram*. When you submit stories or ads for publication, make sure to check the publication deadline and submit your material by e-mail to astrogram@mail.arc.nasa.gov on or before the deadline. Stories should be sent as enclosures in MS Word.

If you have questions about items for publication, contact the editor at the above email address.

Deadline	*Publication*
Mon., May 18	*Fri., May 29*
Mon., Jun 1	*Fri., Jun 12*
Mon., Jun 15	*Fri., Jun 26*
Mon., Jun 29	*Fri., Jul 10*
Mon, Jul 13	*Fri, Jul 24*
Mon, Jul 27	*Fri, Aug 7*
Mon, Aug 10	*Fri, Aug 21*
Mon, Aug 24	*Fri, Sep 4*
Mon, Sep 7	*Fri, Sep 18*
Mon, Sep 21	*Fri, Oct 2*

Miscellaneous News

Blood pressure screening during May

May is National Hypertension month. During this month, many organizations are involved in educating the public on the nature of hypertension and its treatment. The Ames medical staff will be available in the Health Unit, N-215, to conduct blood pressure checks on Tuesdays and Thursdays from 2:30 p.m. to 3:30 p.m. from May 5 to 28. All resident staff is welcome and educational information will be distributed.

Early treatment for high blood pressure, often called "the silent killer" because it usually has no symptoms, can greatly reduce the incidence of illness and early death.

For your family, friends, and most importantly, for yourself, stop by and get your blood pressure checked. For more information, call the Health Unit at ext. 4-5287.

Expedited (Express) articles delivery

FedEx, UPS, Airborne, DHL, and other expedited/express ("overnight") deliveries will be delivered sooner if the addressee's building and room number are provided to the sender. This enables the express courier to deliver directly to the recipient, instead of being delayed by additional routing through Ames Receiving and the Mail Center.

All billing addresses, as well as all other mail, must include the correct mail stop, since that mail is sorted at the Mail Center prior to delivery.

Internship program - work positions needed

In cooperation with the President's Welfare-To-Work Initiative and California's CalWorks Project, the Foothill-DeAnza Internship Program has identified a number of CalWorks participants who are seeking intern opportunities. These students are interested in positions in administrative and business office support, information technology and research.

The cost for a Foothill-DeAnza intern is typically $11,650 per year. However, to encourage the placement of these students, these internships are being offered to Ames for 25% of the normal cost, or $2,912 per year. The Foothill-DeAnza College District CalWorks Project will pay the remaining 75% of the cost to support an intern. This is an excellent opportunity for Ames to obtain additional support at a significant saving.

The Internships start on July 1. Interns work full-time during the summer and 20 hours during the school year.

If you are interested in providing a work opportunity for one or more students, please contact the Foothill-DeAnza Internship Program office at ext 4-5560 or e-mail Mary Conway at: mconway@mail.arc.nasa.gov

SPACE DAY IS COMING! MAY 21

The Professional Development Program (PDP) homepage is now on-line

Created by the 1997-1998 PDP class, this site provides all NASA employees with up-to-date, useful information on all aspects of travel between centers. Information on housing, moving, travel reimbursement and center operations are relevant to any NASA employee on long-term travel. The web site can be reached at: http://www.hq.nasa.gov/office/codef/codeft/pdp/

Career assessment workshop planned

"Achieving career resiliency at any time in your career," is the topic of a workshop to be held on June 16, 17 and 19. See current training announcement for details. Sign up via ARC Form 301. For more information call Sal Rositano at ext. 4-5480 or Terry Teplitz at ext. 4-0425.

THE AMES Astrogram

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Managing Editor.....David Morse
Editor.....Astrid Terlep

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