

THE AMES

Astrogram

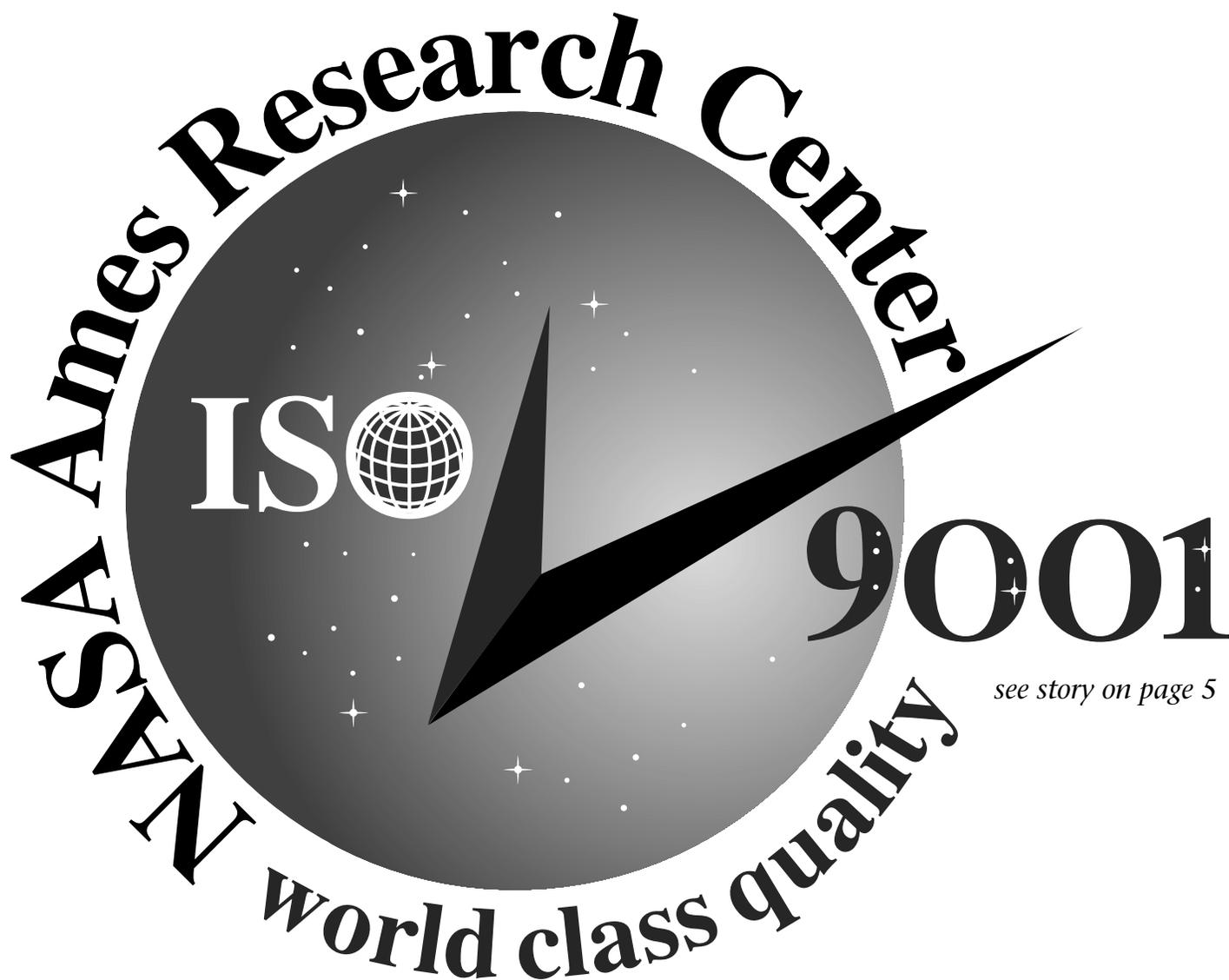
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

AMES RESEARCH CENTER, MOFFETT FIELD

May 7, 1999

online at: <http://ccf.arc.nasa.gov/dx/>

Ames Achieves ISO Perfection!



Ames ISO Web-site address:
<http://dqa.arc.nasa.gov/iso9000>

Ames pre-tax eve Astrobiology event draws large crowd to Foothill College

Six hundred and fifty people decided they'd had enough of taxes and turned out in force on April 14 at Foothill College's Smithwick Auditorium to hear Astrobiology researchers discuss a more cosmic topic--the search for life in the universe.

A panel of experts, including Ames' Dr. David Morrison, Director of Space, Lynn Harper, Co-Lead for Astrobiology Advanced Missions and Technologies, and Dr. Chris Chyba, holder of the Carl Sagan Chair for the Study of Life in the Universe at the SETI Institute, discussed a variety of astrobiology topics. Andrew Fraknoi, astronomy professor at Foothill College, moderated the panel.

Morrison gave the crowd an overview of NASA's new multidisciplinary science of astrobiology -- the study of the origin, evolution, distribution and destiny of life in the universe. NASA has earmarked approximately \$20 million for astrobiology in FY '99, which includes funding for the Ames-based and managed Astrobiology Institute, as well as for the Astrobiology program.

Harper delved into the tenacity of life in her talk "Evolution Beyond the Planet of Origin." She discussed the natural processes that can spread life beyond its home planet,

and the likelihood that living organisms were transported to Earth from Mars (or vice-versa!). She also touched on future astrobiology payloads likely to fly on the International Space Station.

Chyba discussed the possibilities for life elsewhere in the solar system, focusing on Jupiter's moons.

A lively Q&A session followed the formal presentation with attendees posing such provocative questions as: "How does one define life?" and "What is the likelihood of parallel universes?"

The public astrobiology event was co-sponsored by Foothill College, SETI, the Astronomical Society of the Pacific and The Planetary Society. A videotape of the event will be shown on NASA-TV in the near future.

The event launched the Silicon Valley Astronomy Lecture Series co-sponsored by Ames, Foothill College, SETI and the Astronomical Society of the Pacific. In this series of six lectures, (to be held on Wednesday evenings starting in the Fall, 1999), noted astronomers will discuss recent discoveries and new ideas about the exploration of the



universe. College credit will be available to those who attend all six programs and write a short paper.

The Astrogram will provide more details of the lecture series and the date of the NASA-TV astrobiology broadcast.

BY KATHLEEN BURTON

Landsat 7 Educators' conference--a hit with California teachers and administrators

Approximately 140 enthusiastic California educators and administrators attended the Landsat 7 Educators' Conference April 14 and 15 and applauded a picture-perfect launch of the Delta-II Landsat 7 satellite at Vandenberg Air Force Base (VAFB).

The conference, coordinated by the DX division at Ames, provided teachers information on new applications for Landsat technology and classroom applications for earth science and remote sensing.

The conference was jointly sponsored by the Endeavour Center, NASA's Regional Educator Resource Center at VAFB, Kennedy Space Flight Center, Goddard Space Flight Center, Jet Propulsion Laboratory, Ames Research Center and the United States Geological Survey.

Ames-based speakers included Dr. Jay Skiles, principal investigator at the SETI Institute and educational consultant for Code SG, and Brian Hawkins, Minot Parker and Don Scott, three aerospace education specialists assigned to Code DX.

Other speakers briefed teachers on cutting-edge Landsat applications, such as enabling precision farming and land management and forecasting volcanic eruptions. Dr. Luke Flynn, a professor at the Hawaii Institute of Geophysics and Planetology, described how he is using Landsat data to predict when an active volcano in Guate-

mala will erupt--which could allow, in some cases, a 10-day advance warning to evacuate people. Dr. Susan Moran, a research scientist at the US Dept. of Agriculture, said Landsat data is being used to determine the amount of moisture in soil to more precisely determine the proper amount of irrigation for farmers.

NASA plans to launch six spacecraft over the course of the year dedicated to advancing our understanding of global change. Landsat 7's role in this effort will be to make global, high-resolution measurements of Earth's land surface and surrounding coastal regions. It will provide continual, comprehensive, high-resolution coverage of Earth and monitor such seasonal global processes as vegetation growth and deforestation.

"The (Landsat 7) launch was flawless; there wasn't a cloud in the sky," said Garth Hull, group lead, Ames educational programs, of the on-schedule Delta II lift-off at 11:32 a.m. The Landsat 7 satellite will orbit the Earth at an altitude of 438 miles and map the Earth's surface at high-resolution rates exceeding 30 meters.

Landsat stands for land satellite. The program, based at Goddard and managed by NASA's Earth Science Enterprise, is designed to monitor the health of the Earth and to understand the complex interactions that drive global change. Ames'



photo by Marissa Travers

Landsat 7 as it ascends after liftoff on April 15 from Vandenberg.

Landsat effort is managed through Code SGE.

Landsat images have a diverse range of applications. They have been used to monitor and measure the ebb and flow of glaciers, population changes in metropolitan areas, strip mining reclamation and water quality in lakes.

BY KATHLEEN BURTON

News Briefs

Four aerospace firms win NASA's highest award for quality

Four U.S. companies committed to innovative management, quality and customer service have received NASA's George M. Low Award, the Agency's highest honor for quality and technical performance and the oldest award for organizational quality. NASA Administrator Daniel S. Goldin presented the award to the following winners: Barrios Technology, Inc., Houston, TX, for small-business products; Kay and Associates, Edwards, CA, for small-business services; Raytheon Support Services Company, Annapolis Junction, MD, for large-business services; and Thiokol Space Operations, Brigham City, UT, for large-business products.

Cloudsat to revolutionize study of clouds and climate

NASA will take a revolutionary, global look at clouds with a new spaceborne radar capable of peering deep into their interiors to study their structure, composition and effects on climate.

Cloudsat, which will fly in the year 2003, will use an advanced radar to "slice" through clouds to see their vertical structure, providing a completely new observational capability from space. Current weather satellites can only image the uppermost layers of clouds. Cloudsat will be the first satellite to study clouds on a global basis.

Rover testing in the Mojave Desert, CA

Field Integrated Design and Operation (FIDO), the next generation Mars rover, is helping engineers figure out how to use the kinds of instruments the next Mars rovers will need to fetch and retrieve rocks.

FIDO is designed to test the advanced technology of the Athena Flight Rover and science payload that will be launched as part of NASA's Mars Sample Return Missions in 2003 and 2005.

Magnetic stripes preserve record of ancient Mars

NASA's Mars Global Surveyor has discovered surprising evidence of past movement of the Martian crust, further evidence that ancient Mars was a more dynamic, Earth-like planet than it is today.

Scientists using the spacecraft's magnetometer have discovered banded patterns of magnetic fields on the Martian surface. If the bands on Mars are an imprint of crustal spreading, they are a relic of an early era of plate tectonics on Mars, according to NASA scientists.

Earth Day '99: A big success

Earth Day was celebrated around the planet on April 22. The Ames Environmental Services Office organized "Transportation for the New Millennium." In recognition of this special occasion, the event focused on environmentally friendly vehicles, from electric and hybrid cars to vans powered by vegetable oil, alternative forms of commuting (i.e. mass transit, biking, and carpooling), and displays of electric bikes and scooters.

One of the main attractions was the chance to test-drive GM's Electric Vehicle-1. Over 225 people lined up to sample the EV1, which included not only the opportunity to drive around the block, but also the chance to put the pedal to the metal. And these cars move, clocking in at 0 to 60 m.p.h. in less than 9 seconds! Other highlights included the Toyota Prius, which is a hybrid automobile comprised of an electric and an internal combustion engine. The

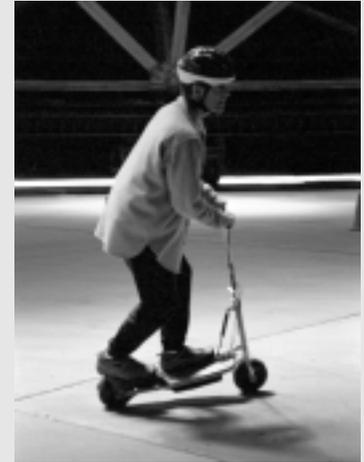


photo by Kelly Trower

Kelly Trower took this photo of her Dad, Tom Trower, testing the motor scooter. Kelly was here with Dad as part of "Take Your Daughters to Work Day," also on April 22.



Father and daughter at the "Take Your Daughters to Work Day" event held April 22.

Toyota gets about 80 miles per gallon and 680 miles per tank of gasoline. Other exhibits included a "do-it-yourself" converted VW Bug that has been running on

electricity for 18 years, charging stations, and representatives from VTA, Bay Trails, Rides for Bay Area Commuters, Caltrain, and ACE rail.

The event culminated with the raffle of various prizes including a 21-speed bike donated by Ames/Exchange, which was won by 12 year-old Natasha Baker, gift certificates to local bike shops, BART tickets, and books.

The expo marked the first of its kind at Ames and was a huge success, drawing approximately 2,000 people and 27 exhibitors. Linda Vrabel, chief coordinator of the event, remarked, "We hope this event has increased people's awareness of leading edge technologies available to help alleviate the environmental issues facing our society today."

BY MICHELLE PERRY

Volunteers needed for the Air Show, June 19 and 20

Join the NASA Exchange volunteers and help make money for your employee association. Here's your chance to participate and have some fun! We need individuals and teams of volunteers to work! The more teams we have, the more money we make. Profits will be used to support the Softball Club, Scuba Diving, Ballroom Dancing, Ames Child Care Center, Volleyball Intramural, Bowling League, Golf Club, Radio Controlled Airplane Club, Toastmasters, the Union activities, Ames Café and Chase Park!

It's Father's Day--so bring Dad along! All family members and friends are encouraged to participate. Bring along outside

groups to help (i.e., Boy Scouts, bowling club, church groups).

Here's how it works: The Exchange will make money (15% of gross sales) based on the number of positions filled by volunteers. We need volunteers for setup, cleanup, beverage sales, parking and traffic control. Work on Saturday (8 hours) and/or Sunday (8 hours). Leads are also needed to work both days and required to attend training and planning meetings in advance.

Everyone is encouraged to wear team shirts or hats to identify your group's unique contribution! For more information, call Deborah Renick at ext. 4-0290 or Janine Ciffone at ext. 4-4948.

Shih recognized for contributions to NTSB accident investigation

Kuo-Chuan ("K. C.") Shih of the Ames Army/NASA rotorcraft division's flight control and cockpit integration branch was recently commended for his "significant contributions" to a major accident investigation conducted by the National Transportation Safety Board (NTSB).

Shih served as the sole NASA member on an independent panel advising the NTSB during the investigation of the accident involving USAir Flight 427 near Pittsburgh, PA, on September 8, 1994, as well as of other related Boeing 737 accidents. This investigation marked the first time that the NTSB has relied on such a panel for its deliberations.

"Through Mr. Shih's efforts, NASA has made a significant contribution to the improvement of aviation safety," noted Ed Aiken, chief of the Army/NASA rotorcraft division. "His participation on the independent panel re-emphasizes the importance of the NASA role as an unbiased participant in such investigations. Mr. Shih's contributions also provide evidence of the continuing need within NASA to cultivate experts in flight systems who possess significant practical, hands-on experience."

During the NTSB's recently-concluded investigation of the USAir Flight 427 accident, the board sought NASA expert technical assistance on hydraulic system controls, "to ensure that the depth and scope of the systems investigation is adequate to bring forth all of the evidence, that all appropriate tests and research are accomplished, that the analysis is logical and thorough, and that the conclusions are adequately supported."

Based on his lengthy experience with aircraft electro-hydraulic servo systems and control design with both NASA and Boeing, Shih was proposed as a participant. Shih was selected by the NTSB in January 1996 to join a panel of experts investigating the accident. He was the only NASA member of the panel.

Over the ensuing three years, Shih attended several meetings of the panel, recommended analyses and system tests, participated in these tests, and conducted further independent analyses of the performance of the rudder hydraulic servo system. Shih's findings were detailed in several memoranda to the NTSB.

In their final report released on March 24, 1999, the NTSB investigators concluded "the (rudder hydraulic) valve malfunctioned and reversed - a jam or misalignment that made the rudder move in a direction opposite to what the pilots intended when they pressed on the rudder pedals."

Along with the USAir 427 investigation, Shih also considered related incidents of B737 rudder control malfunctions, including the East Wind Flight 517 roll upset. Most recently, he has been involved in the analysis of data from the Metro Jet upset and recovery.

The NTSB has been particularly appreciative of Shih's contributions to this lengthy investigation. When the panel of experts was disbanded on July 17, 1997, NTSB Investigator in Charge Thomas Haueter wrote to the Ames director of aeronautics expressing his appreciation for Shih's membership on the panel. Haueter also requested Shih's continued participation as a technical advisor to the investigation team as needed. Shih continues in this advisory role.

Stan Harke, SDTF inspiration, passes away

Stan Harke, project manager of Ames' Surface Development and Test Facility (SDTF), passed away on April 25 after an 18 month battle with cancer. He was 58. A memorial service was held on May 1 at the Moffett chapel.

Harke came to Ames in February 1990, working initially at the Unitary Plan wind tunnel. He served as a supervisor in the Computer Systems and Research division before joining SDTF. He received numerous performance, special act and service awards during his relatively short tenure at Ames.

I met Stan only 15 months ago, when he was already well into his fight with the aggressive disease that would ultimately claim his life. Based on what I had heard, I wasn't sure if I'd like him. I was told, "He's demanding, he won't take 'no' for an answer, he's persistent." And, to a degree, it was true! But, the trait that described him best was 'passion.' And nobody could deny that he was both kind and upbeat. For he had a mission to get the SDTF built and running, and he wouldn't let anything derail that dream. Though death will prevent him from being at the official opening of his

facility, ultimately nothing could stop him. And nothing did!

Nancy Dorigi, Harke's deputy at the SDTF, remembers him as cheerful and upbeat, an attitude that rubbed off on those around him. "He took an hour to make it down the hall because he would stop and talk to everyone on the way. He had a way of making everyone on the team feel important and involved," she said.

In the words of Bob McMahon, "Stan was the kind of guy you never forget. If he was in the building you could hear him laughing or talking. I never met anyone with more enthusiasm and I knew the first time we met, I wanted to come work for him." McMahon also recalls how

Harke fought vehemently to keep an elevator in the SDTF design, an elevator that allows the wheelchair-bound McMahon to work there with full access to the facility.

Speaking at Harke's memorial service, Soheila Jahromi, a DMJM architect on the SDTF project, said that she was struggling to understand the depth of her sorrow at Harke's passing. She found the answer while visiting his home. "If you stand in Stan's backyard, you can see through his

fence the open space on the other side that belongs to the city. What makes this unique is that Stan landscaped **both** sides of the fence. That, to me, captures the essence of his spirit - with boundaries intact, you did not have to be on his side of the fence to be treated with care and dignity," she said.

According to co-workers, Harke was an inspiration during his cancer battle. Again, in the words of McMahon, "he maintained a positive attitude and never lost his love for life. I wish I could muster one tenth of what he had," he said. Few people who knew Harke would disagree. Even during some of his most difficult times, coworkers recall, he defended his project and kept it alive. Without Harke, the SDTF would almost certainly not be at Ames today.

It is likely that the SDTF will be given a more recognizable name soon - like NASA's Virtual Tower or Airport Simulator. Regardless, when the facility is officially opened later this year, it will have Harke's fingerprints all over it. On that occasion, there won't be a dry eye in the house, particularly when they unveil the plaque in the lobby celebrating Harke's memory and dedicating the facility in his honor.

Harke is survived by his wife, Josie, son, Steve and daughter, Hillary. The family has requested that Harke's friends and colleagues consider donations in his name to the American Cancer Society at 1-800-227-2345.



photo by Eric James

Stan Harke



Oh happy day . . . ! Ames pitches perfect game in ISO audit

No run-ins! No audit hits!
No errors! No one caught off base!

This one sent them scurrying for the records book. And for the first time that anybody could remember in the history of ISO auditing of comparably sized business organizations, one facility passed the entire certification process on its first attempt without a single 'finding.'

That organization was NASA Ames Research Center.

On April 30, Walt Culbertson, lead auditor for Det Norske Veritas (DNV), delivered his report card on the initial certification audit for Ames to a packed house of more than 370 people in the main auditorium. It was straight A's all the way!

"Ames--you said it, you did it, you proved it," Culbertson proclaimed. "In my 17 years of auditing experience, I have never before been able to recommend certification without any findings or observations. This is a first!" Culbertson went on to praise Ames' use of flowcharting and text to document procedures, complimented the specificity of training records, and spoke highly of the corrective action system verification process.

To put the accomplishment in perspective, only 30% of all organizations even pass the certification assessment on their first try. And nobody could come up with the statistics on how many pass without a single finding or nonconformance, as Ames did. Pressed to come up with a number, DNV headquarters in Houston put it at less than 1% for all organizations.

"The center certainly came a long way from its pre-assessment audit in July 1998," said Ames ISO program director Rick Serrano. "We've come from embarrassment to being the best in the Agency. We showed what teamwork can do. Now, we must get ready to do it again in November."

It was all smiles from Administrator Daniel Goldin, Center Director Harry McDonald, Deputy Center Director William Berry and Serrano. Not to mention the enthusiastic applause from the eager, somewhat nervous crowd.

"Ames is NASA's Center of Excellence for Information Technology," Goldin proclaimed. "I never had any doubt that you would pass the ISO audit. Flawlessly! You didn't disappoint me."

Goldin went on to stress the importance



photo by Tom Trower

ISO banner in front of Building 200 proclaims the center's grand accomplishment -- the first of its kind!

of safety, saying that it is his number one priority for NASA, for our astronauts and pilots, for our employees and for our contractors. He then cited Ames' record of going over a whole year without any lost work days due to on-the-job injury.

"This is more impressive than anything," Goldin said. NASA runs a factor of 30 behind the best in private industry in terms of lost work time, he observed. "I respect them, but we are going to beat them," Goldin said. "And now Ames has accomplished something that even private industry has not achieved." Goldin said that he is delighted by this achievement by a center that "is one of my very favorite places."

A happy and relieved McDonald quipped that he had been at Dryden for the X-34 rollout that morning and had chatted with Dryden Center Director Kevin Peterson. Peterson asked what the Administrator would be doing while Ames received its ISO audit report card. "I've invited the Administrator to the presentation," McDonald replied. "Living dangerously, Harry!" was Peterson's tongue-in-cheek response.

Naturally, there were kudos aplenty to be handed down. In fact, Deputy Director Berry was eager to single out the contributions of the many individuals who supported the establishment of the Ames qual-

ity system and made the audit such a remarkable success. But, he simply couldn't. "I decided not to as I looked around the auditorium and saw so many people who had contributed," he said. "I was astounded and pleased with the realization of how much this really was a team effort across the entire Center," he concluded.

Besides, as ISO personnel pointed out, great as this accomplishment is for Ames, the next audit is in November, only six months away. But, for a few days at least, Ames has earned the right to enjoy this well-earned triumph.

BY DAVID MORSE



Ames Activities and Happenings

NASA astronaut Steve Robinson gives briefing at Ames

Astronaut Steve Robinson of Sacramento, the payload commander for last October's STS-95 space shuttle mission, discussed highlights of the flight on April 19, during a press briefing in the morning at Ames. Later that same day, he spoke at a Director's Colloquium.

The STS-95 mission aboard Shuttle Discovery, which featured the return to flight of Senator John Glenn, launched on October 2 and landed on November 7, 1998, at the Kennedy Space Center. During the mission, astronauts completed numerous experiments to further understand the human body and increase our knowledge of the sun.

An Ames team, led by Debra Reiss-Bubenheim, managed the development of two of the life sciences experiments. One experiment examined how spaceflight affected cartilage cell cultures flown in the

cell culture module; the other monitored how the vestibular system of the Oyster toadfish adapted to microgravity, and then readapted to normal gravity upon return to Earth.

In addition, Dr. David Neri of Ames served as a co-investigator on the "sleep study" to examine the effects of spaceflight on astronaut sleeping patterns. The sleep study used a technology called "PI-in-a-Box" from the Computation Sciences Division at Ames.

Robinson joined NASA in 1975 as a student co-op at Ames. After graduation from the University of California at Davis, he joined Ames as a research scientist in the fields of fluid dynamics, aerodynamics, experimental instrumentation and computational scientific visualization. He was selected as an astronaut in December 1994.



photo by Tom Trower

Astronaut Steve Robinson speaking at the Director's Colloquium on April 19.

National Employee health and fitness week, May 17-20

The Ames center, health unit and life sciences library staff have organized a great week for everyone to reaffirm the commitment to staying healthy and fit for the next millennium. Mark your calendar and come celebrate the health and fitness week.

Watch for the posters that will give details of the programs, which include free blood pressure screening, fun run, demo of library products and services, chair exercises, and a special speaker, Joyce Hanna. Hanna is assistant director of the health improvement program of Stanford Center for Research in Disease Prevention and will speak on: "Aging: Don't Take it Sitting Down," May 19, at 12 noon, in the N201 auditorium. She is a fitness advocate and an active participant in many health programs. After the presentation, there will be drawings for free subscriptions to journals for several lucky attendees. Contact the fitness center for details. Call Nancy Dunagan at ext. 4-5804 or email her at: ndunagan@mail.arc.nasa.gov or contact Esther Johnson at ext. 4-5387 or

email at: ejohnson@mail.arc.nasa.gov Following is the list of events to be held:

May 17: Free Blood Pressure Screening at the Life Sciences Library from 11 a.m. to 12 noon. Demo of library products and services from 11 a.m. to 1 p.m.

May 18: 2 Mile Fun Run and Walk - Meet on DeFrance by Warner before the 12 noon start. Cost \$2. Results will be entered into a NASA inter-center competition.

May 19: Speaker: Joyce Hanna (Asst. Director of the Stanford Center for Research in Disease Prevention) Aging: Don't Take it Sitting Down, at 12 noon in the main auditorium of Bldg. N201.

May 20: Chair Exercise, taught by Nancy Dunagan (M.A. Exercise Physiology) from 12 noon to 12:45 p.m. in Bldg. 239 conference room. No fee.

May 25: Spring 10 K Fun Run (6.2 miles). Meet in Hanger 1 before the 11:30 a.m. start. No fee. Results will be entered into a NASA inter-center competition.

Lautenschlager wins 1998 NASA QASAR award

Jon Lautenschlager of the U.S. Army Aeroflight Dynamics Directorate (AFDD) at Ames has been awarded winner of a prestigious NASA 1998 QASAR (Quality and Safety Achievement Recognition) award.

The award was presented to Lautenschlager by NASA Administrator Daniel S. Goldin during the 14th Annual NASA Continual Improvement and Reinvention conference on Quality Management held April 22 at the Hilton Alexandria Hotel in Alexandria, Virginia.

Lautenschlager won the Agency-wide award for the best safety contributions at a NASA center by a government employee who is non-NASA (Category III). Lautenschlager leads the experimental support team in the Aeroflight-dynamics Directorate (AFDD). He directs the Army staff responsible for operation of the 7- by 10-foot wind tunnel and the Army AFDD hover test chamber. The wind tunnel supports both U.S. Army and NASA programs in rotary wing and fixed wing subsonic aerodynamics.

Under the Army/NASA joint agreement, the U.S. AFDD at Ames operates the 7- by 10-Foot wind tunnel and is responsible for all test safety requirements. Lautenschlager has made numerous contributions to several major Army/NASA joint programs, including the development of a non-freon based cooling system for the Tilt Rotor Aeroacoustic Model (TRAM) that enabled a successful test program in the Netherlands last year.

Events & Classifieds

Calendar

Jetstream Toastmasters, Mondays, 12 noon to 1 p.m., N-269/Rm. 179. Guests welcome. POC: Jenny Kahn at ext. 4-6987 or Karen Matsuoka at ext. 4-6184.

Ames Bowling League meets at Palo Alto Bowl every Tuesday at 6 p.m. The league is in need of substitute bowlers. POC: Mina Cappuccio at ext. 4-1313.

Ames Ballroom Dance Club. Ames Ballroom Dance Club. Tuesdays: Samba 5/11. Tango 5/18, 5/25, 6/1. 3 levels of classes, from Beg. to Int. 5:15 p.m. to 6:45 p.m. Moffett Training and Conference Center, Bldg. 3/ Showroom. Women dancers are especially encouraged to join. POC: Helen Hwang, hwang@dm1.arc.nasa.gov
ABDC Website: <http://abdc.arc.nasa.gov/>

Model HO/HO_n3 Railroad Train Club at Moffett Field invites train buffs to visit and join the club in Bldg. 126, across from the south end of Hanger One. The club is in particular need of low voltage electricians and scenery builders & maintainers. Work nights are usually on Friday nights from 7:30 p.m. to 9:30 p.m. Play time is Sunday from 2 p.m. to 4 p.m. For more info, call John Donovan at (408) 735-4954 (work) or (408) 281-2899 (home).

Southbay FEW Chapter Mtg, May 11, 11:30 a.m. to 1 p.m., N-241/Rm B1. POC: Christine Munroe, ext. 4-4695.

Ames Child Care Center Board of Directors Meeting, Wednesdays, 12 noon to 1 p.m., N-213/Rm. 204. POC: Debbie Wood at ext. 4-0256. **Professional Administrative Council (PAC) Meeting**, May 13, 10:30 a.m. to 11:30 a.m. Location TBD. POC: Janette Rocha, ext. 4-3371.

Ames Sailing Club Meeting, May 13, 11:30 a.m. to 1 p.m., N-262/Rm. 100. POC: Greg Sherwood, ext. 4-0429.

Ames Multicultural Leadership Council Meeting, May 19, 11:30 a.m. to 1 p.m., Galileo Rm/Ames Café. POC: David Morse, ext. 4-4724 or Sheila Johnson, ext. 4-5054.

NFFE Local 997 Union General Meeting, May 19, 11:30 a.m. to 12:30 p.m., Bldg. 19/Rm. 2017. Guests welcome. POC: Marianne Mosher at ext. 4-4055.

Ames Asian American Pacific Islander Advisory Group Meeting, May 20, 11:30 a.m. to 1 p.m., N-241/Rm. B2. POC: Daryl Wong at ext. 4-6889 or Brett Vu at ext. 4-0911.

Ames Amateur Radio Club, May 20, 12 noon, N-260/ Conf. Rm. POC: Mike Herrick, K6EAA at ext. 4-5477.

Native American Advisory Committee Mtg, May 25, 12 noon to 1 p.m., Ames Café. POC: Mike Liu at ext. 4-1132.

Ames Contractor Council Meeting, June 2, 11 a.m., N-200 Comm. Rm. POC: Greg Marshall at ext. 4-4675.

Hispanic Advisory Committee for Employees, June 3, 11:45 a.m. to 12:30 p.m., N-241/Rm 237. POC: Mary R. Valdez, at ext. 4-5819.

Environmental, Health & Safety Monthly Information Forum, June 3, 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 3, 11:30 a.m. to 12:30 p.m., N-241/Rm 237. POC: Mary Buford Howard at ext. 4-5095.

Nat'l Association of Retired Federal Employees, S.J. Chapter #50, Meeting, Jun 11, at the Elk's Club, 44 W. Alma Avenue, San Jose. Social hour: 10:30 a.m. Prog. & bus. mtg. follow lunch at 11:30 a.m. POCs: Mr. Rod Peery, Pres., (650) 967-9418 or NARFE 1-800-627-3394.

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

Housing

Furnished room. Share bath/kitchen/garden/laundry. Easy transport: bus/train + El Camino + H101/237/85 + Central Expressway. Rent: \$560/mo. Call (650) 969-3932 or email at: solemate@best.com

Available immediately: For commuter and/or intern; a semi-private temporary space in the same location as above. Weekly \$100 (+ one month). Call (650) 969-3932 or email at: solemate@best.com

Master bedroom now available in Mountain View. Large, tastefully decorated apartment of professional lady - El Camino & Rengstorff. Gated bldg w/pool - convenient to bus 20 mins to downtown Palo Alto. Safe \$750. Fontella (650) 962-8411.

Italian postdoc at Ames needs room to rent from April-Oct. Call ext. 4-0312.

Grad student/Univ of Aachen seeks furnished room near ARC for 6 mos starting June 14. Call (650) 969-0737 or email: turan@lufmech.rwth-aachen.de

House for rent one mile from Ames. 2bd/1ba attached garage, extra parking and small yard. Completely redone inside and out. \$1,250 a mo. plus Sec. Dep. . Call (650) 965-0775.

Grad student from McGill University, Montreal Canada needs furnished summer housing from June through mid-August. Point of Contact at Ames is Jane Cordell, Sensors 2000! program Email jcordell@mail.arc.nasa.gov

Grad student/Ames intern needs furnished summer housing from June to mid-August. Must be located near public transportation. E-mail Linda Hays at hays@hanover.edu or Dr. April Ronca at (650)364-2664.

Prof. female, w/cat, seeks same to share townhouse in Mt. View. Must be clean, responsible, nonsmoker. Townhouse offers master bdrm/bath w/priv. patio; W/D; space for add'l. furniture; storage; rose garden; safe. \$650 + 1/2 util. Call (650) 969-7009.

For rent - Available Jun 1. N/S person to share 3bd/2ba with 2 of same. San Jose near H101/280. Incl. BR and LR w/fireplace. Kitchen and W/D access. Cable TV. Phone not incl. No Pets. \$600 + 1/3 util. First/last month, plus \$350 deposit. Call (408) 297-8959.

Transportation

'85 Oldsmobile Cutlas Salon, V8, T-Top, automatic floor console, electric drivers' side, electric windows, electric door locks, Clifford Alarm System, 64K original miles. White w/wire hubs, burgundy interior. Very good condition. Have all maintenance records. One owner car. Very few Salons were made. It's the sporty looking version of the Supreme. Asking \$4500.00, but will consider any reasonable offer. Call Hank or Barbara at (408) 923-2231.

Wanted: '85 through '89 Toyota MR-2, '88/'89 supercharged version preferred. Brian at (650) 940-1673 or brian@landusrfing.com

'91 Alfa Romeo 164S, rare luxury sedan, white, 4 door, sunroof, manual transmission, new clutch, new brakes, black leather interior, great condition, \$8,700. Call (408) 765-5374

Miscellaneous

Dog needs a home; really sweet, named Coyote. Neutered male, young adult mix. Good w/children and other dogs. Surrendered by owner since he is too big (approx. 50 lbs). Has all shots. Call (831) 475-6454.

Omega Speed Master professional moon watch, Excellent condition. \$900; Canon Rebel "G" with 50mm lens and 75mm to 300mm zoom lens. Excellent condition. Total cost new \$550, will sacrifice for \$350. Doug (408) 927-5648.

EvenFlow stroller; 2 yrs old, very clean, dark blue/white, \$40. Call (408) 295-2160.

Moving sale: diningroom set (table, 6 chairs, buffet, hutch) \$500; push mower, bunkbed, 3-in-1 game table (FisherPrice) and more! Margie (408) 230-4212.

Water softener: Sears Kenmore Model 70, high capacity, 8 yrs old, v gd cond, \$50 (orig \$450). Call (408) 356-2156.

Business desk, all wood, dove tail construction, executive size @ 60"x32", Good condition. \$100. Call John (408) 737-8209.

Dolby ProLogic surround sound decoder w/ powered rear channels. \$35 Call (408) 295-2160.

Pair of 49er tickets, sec. 53. 8/12 San Diego and 8/19 Seattle, \$40/ticket. 9/19 New Orleans and 11/21 St. Louis, \$55/ticket. Call (510) 656-7654.

Dependable, mature, NASA Ames intern available for House/Pet/Plant sitting. Very flexible, price negotiable, references avail. Katie (408) 316-9765.

Logitech 400 dpi color scanman for Windows w/ manuals and software, \$20. Call (408) 295-2160.

Glass top dinette set with 4 chairs. Good condition. \$200. Call (408) 226-0430.

Lighted hutch, buffet and matching server, made from walnut and rosewood. Very good condition. \$700. Call (408) 226-0430.

Moffett Field hair salon, Open Tues-Fri from 8:30 a.m. to 5 p.m., and Sat 9 a.m. to 3 p.m. Custom coloring and cutting, perms, conditioning treatments. Convenient "lunchtime" appointments. Women & men Call (650) 603-9916 for appointment.

Ladies 17" Trek 820 mountain track bike. Green with cromoly frame. Excellent condition, rarely used. \$125. Call (408) 249-7612.

Sears Kenmore gas slide in range excellent condition. \$199. Call (408) 733-1906.

Vacation rental

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

Olympic Village Inn condo at Squaw Valley, North Tahoe area. 1br with living room/kitchen, 1ba, sleeps 4. Pool and spas on grounds; hiking, bike trails, golf, horseback riding nearby. Aug 1-5 (Sun-Thurs) for \$250; Aug 5-8 (Thurs-Sun) for \$250. Juliet at 650-321-9008, fax 650-325-3944, LiuHsinMei@aol.com

Lost & Found

Moffett Field lost and found may be reached via ext. 4-5416 at any time. Residents and employees at Ames may also use Internet Browser at: <http://ccf.arc.nasa.gov/codejp/pages/lostFound.html> to view a list of found property and obtain specific instructions for reporting lost or found property and how to recover found property. Call Moffett Field Security Police Investigations Section at ext.4 1359 or email at: mfine@mail.arc.nasa.gov.

Astrogram deadlines

All Ames employees are invited to submit articles relating to Ames projects and activities for publication in the *Astrogram*. When submitting stories or ads for publication, submit your material, along with any questions, in MS word by e-mail to astrogram@mail.arc.nasa.gov on or before the deadline.

DEADLINE	PUBLICATION
MON, MAY 10	FRI, MAY 21
MON, MAY 24	FRI, JUN 4
MON, JUN 7	FRI, JUN 18

Water in the solar system educator conference held at Ames April 16

Sixty Bay Area educators attended an all-day symposium at the N-201 Auditorium on "Water in the Solar System."

Teachers heard a variety of speakers. Ames' G. Scott Hubbard, deputy chief of the space directorate, discussed water on the Moon. Jim Klemaszewski, senior researcher and Galileo team affiliate at Arizona State University, covered water on the Earth. Mike Carr, a geologist at the USGS in Menlo Park, concentrated on water on Mars. In addition, Ames' Dr. Jeffrey Moore, a principal investigator at SETI, focused on water on Europa and Callisto, two of Jupiter's moons.

"The goal of the symposium is to let teachers integrate new knowledge and emerging concepts into their science courses," said Garth Hull, group lead, Ames educational programs, Code DX.

This was the first Ames educator event broadcast live over the web. A moderator fielded questions from over 100 web-based viewers from across the nation.

Afterward, Clayton Bratton, Larry Kellogg and Virginia Zeitman, all of Ames, led teachers on tours of the Mars wind tunnel, Lunar Prospector control center and educator resource center.

This was the first symposium of the 1999 school year, and is sponsored annually by Code DX.

The next teacher event in the series, "Life In the Solar System" will be held on May 14.

The archived "Water in the Solar System" symposium can be viewed on the web at: <http://quest.arc.nasa.gov/ltc/special/galileo/index.html>

BY KATHLEEN BURTON

Special Librarian's Day

The research information resources branch librarians celebrated International Special Librarians Day on April 15 at the Ames Cafeteria. This year's theme was "Exercise Your Resources" with a display that included informational handouts. Passers by were able to discuss new library products and services, including the inauguration of the "New Book Shuttle."



photo by Dominic Hart

Bellarmino offers scholarships

Economically disadvantaged minority male students who have completed fifth, sixth and seventh grades are invited to apply for one of 40 scholarships available through the diversity scholarship program at Bellarmine Preparatory College. The goal of the six-week academically oriented summer school series which begins June 15 is to encourage junior high students to expand their skills, improve performance, and succeed during their high school years in a college preparatory curriculum.

The application deadline is May 14. For more information or to receive an application, call Bellarmine diversity coordinator Steve Pinkston, (408) 294-9224, ext. 269.

Logo winner



Tom Esposito, a contractor with Quantum Services supporting the Documentation Technology Branch, was selected as the winner of the Exchange Council's 60th Anniversary logo contest with the above submission.

THE AMES Astrogram

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