

Ames-based "Wings Over Moffett" airshow flies high Draws 100,000 enthusiastic supporters

So you think the days of the airshow are over, gone the way of the covered wagon, the national aeronautics program, and Ames' own fleet of research and platform aircraft? Well, you couldn't be more wrong!

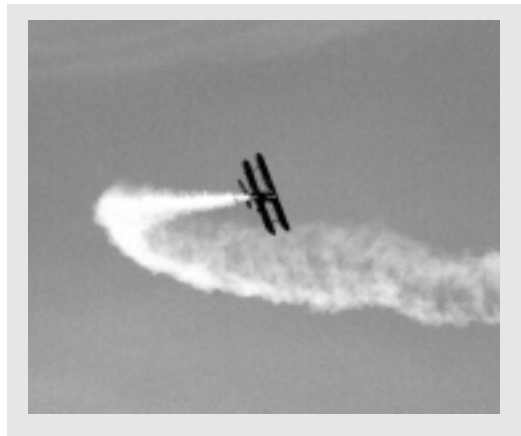
On the weekend of June 19 and 20, a good, old-fashioned airshow took off, back at its Moffett base after an absence of seven years. And despite returning to its roots, this was an airshow like none we'd ever seen before. No longer supported by the military, with its organization, contacts and cheap labor. No longer featuring a superstar act like the Blue Angels. And no longer free to all who might wish to attend. How would this go over?

Would the public accept the new concept? Would they be indifferent about

The show enjoyed substantial corporate sponsorship from organizations like eBay, America-On-Line, Oracle and the San Jose Mercury News, but would the new concept be accepted and supported by the public?

It turned out the organizers need not have worried. While advance ticket sales were slow, come Saturday morning, the public responded in droves. By 7 a.m., there were already long lines at the on-site ticket booths, the freeway was backing up, and parking spots within walking distance of the field were more scarce than NASA employees not working on ISO 9001.

It was an auspicious beginning to



photos by Astrid Terlep

airshows after a 7-year hiatus? Would they be willing to pay the basic \$12 entry fee? And would they stay away without a world-famous aerobatics team to draw them in? This was a risky undertaking, indeed!

The show was hosted by NASA Ames and put on by the Moffett Field Historical Society and the Wings of History Museum. Officially the first "Wings Over Moffett Airshow and Fly-in," the show was transplanted from Watsonville after a 34-year run in order to reach a larger audience. The idea was to bring an airshow back to Ames for local communities, while using any proceeds to benefit the Historical Society, the San Martin Wings of History Air Museum and the California Air and Space Center.

the second most successful event in the history of Ames-hosted community outreach. By the time it was over, an estimated 100,000 people had viewed the exhibits, watched the aerobatics, consumed their fill of food and beverages, loaded up with souvenirs and taken their families happily home. In short, it was a stunning success!

What did attendees get for their \$12 entry fee? A whole lot! There were over 500 aircraft on display, spanning the range from civilian antique and hobby-shop planes, to experimental aircraft and large military vehicles. People had the opportunity to board several of the static display aircraft, take a close-up look at the NASA 747 Shuttle carrier aircraft, and spend the day soaking in the sights of what, for most,

is becoming a bygone era.

Visitors could take a virtual ride with the Blue Angels, even getting the opportunity to "land" back at Moffett Field. But, unquestionably, the biggest hit of the entire two-day show was the incredible aerobatics feats of some amazingly talented stunt pilots, combined with the courage and talents of the wing-walking daredevils.

"We are extremely gratified by the public's response," said Carl Honaker, volunteer executive director for the event. "We hoped for a great turn-out, but with so many entertainment options in the Bay Area, it's hard to know how people will respond. They certainly seemed to enjoy themselves. The entire airshow team is extremely grateful to the hundreds of volunteers, Ames staff and the local communities for their guidance and tireless support in 'Bringing History back to Moffett Field.'"

Did the airshow go off without any
continued on back page



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Ames strides towards Y2K compliance

In an effort to ensure that the Center's desktop personal computers and workstations are Y2K compliant, nearly 80 Ames computer system administrators recently attended desktop readiness workshops conducted by the Ames Y2K Project Office.

The workshops' objective was to ensure that all of the Center's desktop computers and workstations will be Y2K compliant for their intended purpose and will be able to operate normally in the Year 2000. System administrators learned how to assess their group's computer hardware, operating systems, Microsoft Office software, group-ware (collaborative applications used by a group), common software clients, web browsers, and email for Year 2000 compliance. Workshop attendees also were told about selected compliance checking tools and given web addresses for the Center and Agency data bases that list the compliance status of commercial software products.

Each Ames employee and each contractor employee with government-furnished equipment (GFE) is responsible for identifying, assessing, and performing (or requesting) any necessary upgrades of important desktop hardware and software products that will not be addressed by their system administrator. Employees should discuss their important products with their system administrator to determine if they have been assessed for Y2K compliance. If they have not, employees should arrange to have the assessment performed or perform

it themselves. Only after a proper compliance assessment has been performed can a decision be made regarding the need to replace or upgrade a product.

"Simply assuming your desktop hardware and software products are compliant, without doing the checking, may lead to some unpleasant surprises come January 1, 2000," explained Ray O'Brien, Ames' Year 2000 Project Manager. According to Cyndi Carbon, a member of the Year 2000 Project team, this could easily be avoided by taking advantage of the wealth of compliance information currently available from product manufacturers.

The Center's Year 2000 website: <http://george.arc.nasa.gov/year2000/> can be used to help assess the compliance status of particular desktop products. Click on the "SW & HW Information Links" button to access the Center and Agency product compliance databases. However, be aware that this information may not be the most current, due to its dynamic nature and limited resources for updating it. As such, the product manufacturer's website should always be visited last before making a final compliance determination regarding a product.

A July 30 target milestone has been set for all organizations to complete the upgrades and repairs necessary to make their desktops Y2K compliant. Upon completion, a signed statement of desktop readiness will be requested from each organization at the branch and office levels. This will

allow enough time before the end of the year to address any unresolved desktop readiness problems. The Year 2000 Project Office is coordinating this readiness effort with each directorate's assigned Y2K manager. Questions about this effort should be directed to Ray O'Brien at ext. 4-6875.

Earlier this year, Ames achieved a major goal towards full Y2K compliance when the Center's supercomputers, business applications (e.g. finance, supply, and property system), wind tunnels, simulators, and critical infrastructure (e.g., electrical power distribution, telephones, and data networks) were formally certified as Y2K compliant.

BY MICHAEL MEWHINNEY 

R U Y2K OK?

Want to find if your computers are Y2K compliant? Check out the Y2K Project Office website: <http://george.arc.nasa.gov/year2000/>

- Provides valuable compliance databases and links
- Answers questions for home and office compliance
- Bookmark the site for future reference

Still have questions. If so, email robrien@mail.arc.nasa.gov

Four Ames projects featured in award-winning film

Four Ames projects were featured in a documentary film about robotics and artificial intelligence that recently won five awards. The documentary team filmed Dr. Robert Mah's Neurosurgical Robotic Testbed, and the Intelligent Mechanisms Group, both of Code IC; and Al Globus and his nanotechnology project, as well as the Numerical Aerospace Simulation (NAS) facility computer room, both of code IN in 1997.

Arcwelder Films, Los Angeles, CA, producer of the documentary, announced that "Robots Rising," a two-hour special that premiered on the Discovery Channel last March, won a bronze medal at the Houston International Film Festival, a Gold Apple from the National Educational Media Network, a gold and silver medal at the U.S. International Film and Video Festival and received honors at the Washington Film and Video Council Peer Awards.

The special was produced by Kurt Sayenga and Martha Adams, written and directed by Kurt Sayenga, and Gaynelle

Evans, executive producer of the Discovery Channel. The film explores the fascinating and sometimes frightening world of robotics.

The National Educational Media Network (NEMN) awarded "Robots Rising" their highest level of recognition, a Gold Apple. The NEMN is the largest national competition for educational titles, ranging from television programs to CD-ROMs. The NEMN's medals recognize outstanding achievement in educational media and have evolved into seals of approval for distributors and educators.

At the Houston International Film Festival, "Robots Rising" won the Bronze Award in the "Documentary Research and Writing" category. The film was selected from a competitive field of more than 4,100 films from 26 countries.

At the U.S. International Film and Video Festival, "Robots Rising" won a gold medal in the "Science/Research" category and a silver medal in the "Current Affairs" category. The medals were awarded after

judges screened 1,600 entries from 33 countries.

Members of the Washington Film and Video Council also recognized "Robots Rising" for "Best Scriptwriting" in the documentary division of their competition. The council, made up of peers in the production community, honors films and videos produced in the Washington D.C. metropolitan area.

"We couldn't be happier," said producer Martha Adams. "Robots Rising involved more than a year of intensive research and, in the end, we worked very hard to bring a vast amount of complex information to the screen in a dramatic and entertaining way," explained Adams. The documentary made use of popular movie clips, such as those from Star Wars and Terminator 2, and employed actress Linda Hamilton to narrate the script.

BY JOHN BLUCK 

NASA projects chosen as "Discover Award" finalists

Three NASA projects were among 27 finalists for the 10th annual Discover Awards held recently at Epcot Center, FL. Finalists were chosen in each of nine categories from an international field of thousands of entrants.

NASA's Deep Space 1 spacecraft's ion engine, managed by the Jet Propulsion Laboratory, Pasadena, CA, and called the "Revolutionary Rocket," was the winner in the Exploration category. The Lunar Prospector spacecraft that discovered water on the Moon, developed by Ames, was a runner-up in that category, and another Ames project, experimental "smart airplane" software, was a finalist in the Transportation category.

The smart plane software, which can help pilots safely land aircraft that have suffered major failures, was flight tested on a modified F-15 aircraft.

Each sixth of a second, a damaged aircraft's computer can "relearn" to fly the aircraft using special neural network "controller" software. Without the smart software, severe problems such as partially

destroyed wings, major fuselage tears or sensor failures can greatly alter how an airplane handles, and the aircraft might respond oddly or pilots' controls may not work properly.

"We were fascinated when we saw each others' inventions during the Awards events," said Dr. Chuck Jorgensen, a Ames scientist who leads the smart plane software effort. "I felt very honored when I saw how many amazing inventions competed."

In the Exploration category, "To the Moon, Cheaply," the Lunar Prospector spacecraft project, was runner-up to the Revolutionary Rocket. Lunar Prospector exemplifies NASA's new way of doing business, having set new standards in cost containment and scheduling for a NASA exploration mission.

Developed in less than three years at a total cost of \$63 million, Lunar Prospector provided evidence that water ice exists in the permanently shadowed craters of the lunar polar regions. Prospector also yielded data that have led to the development of complete gravity maps of the Moon, maps

of location and extent of key minerals and other elements, and evidence concerning tectonic and volcanic activity.

"I want to add my congratulations to all those who are working tirelessly to develop new innovations and technologies to meet the needs of people worldwide in the next century," Vice President Al Gore wrote in a letter to awards ceremony attendees. "Your work is critical to the success of our country."

Jorgensen noted that neural network software being developed in the "smart plane" project could have a bearing on other aspects of contemporary life.

"Once we prove neural net software can rapidly learn to fly a crippled aircraft and help pilots land it safely, engineers will be more likely to use the intelligent neural network software in power plants, automobiles and other less-complicated systems to avoid potential disasters after equipment failures," he said.

The first flight tests of Jorgensen's Intelligent Flight Controller took place at NASA Dryden Flight Research Center, Edwards, CA, using early versions of the new software installed in a modified F-15 jet fighter. The Boeing Company's Phantom Works division, St. Louis, MO, integrated the NASA Ames neural network software into the F-15 test aircraft. Jorgensen is the investigator for the four-year Intelligent Flight Controller Program at Ames.

"Neural net software learns by observing 'patterns' in the real world and learning to take new actions in response to different patterns," Jorgensen said.

The software gets speed, direction and force data from sensors on the aircraft. The aircraft's computer compares the pattern of what is actually happening to the aircraft with a pattern showing how the airplane should fly. If there is a mismatch, the computer software, which contains a dozen basic aeronautical equations, or "behavior patterns" that define how airplanes fly, makes the system work with a "new pattern," if it is feasible.

"If sensor data show that a pattern is not being followed, and the airplane is turning too abruptly, the airplane's neural network can rapidly learn to assist the pilot. It does this by helping the pilot to use the stick, flaps, rudders and other control surfaces in ways that may be very unconventional, but possibly successful," said Jorgensen.

BY JOHN BLUCK 

Seminar Series Set

NASA colleagues and co-workers are welcome to attend the 1999 NASA-ASEE-Stanford Summer Faculty program seminars on "Current Research in the Aerospace Sciences." These lectures will be held at Ames on Tuesdays at 12:00 noon - 1:00 p.m., in the N-245 auditorium.

The guest speaker schedule is as follows:

- July 6 - William Borucki, "Search for Extra-Solar Planets"
- July 13 - Dr. John Zuk, "Advanced Tiltrotor Technology"
- July 20 - Dr. Paul Kutler, "Information Science and Technology at Ames"
- July 27 - Dr. David Korsmeyer, "NASA's Distributed Aerospace Data Management"

NASA colleagues and co-workers are also welcome to attend the "Special Seminars on New Science and Technology in the Aerospace Age", Terman Auditorium, Stanford University on Thursdays at 8:00 p.m. These lectures are open to the public, and family members are welcome to attend.

The guest speaker schedule is as follows:

- July 15 - Dr. Geoffrey Briggs, "The NASA Mars Sample Return Mission: Landing Site Selection"
- July 22 - Dr. Emily Holton, "Gravity: A Weighty Topic"
- July 29 - John Givens, "The International Space Station and its U.S. Gravitational Biology Research Laboratory"
- August 5 - Dr. Dean Wilkening, Director of the Science Program, Center for International Security and Cooperation, Stanford University, "Airborne Boost-Phase Theater Missile Defense"

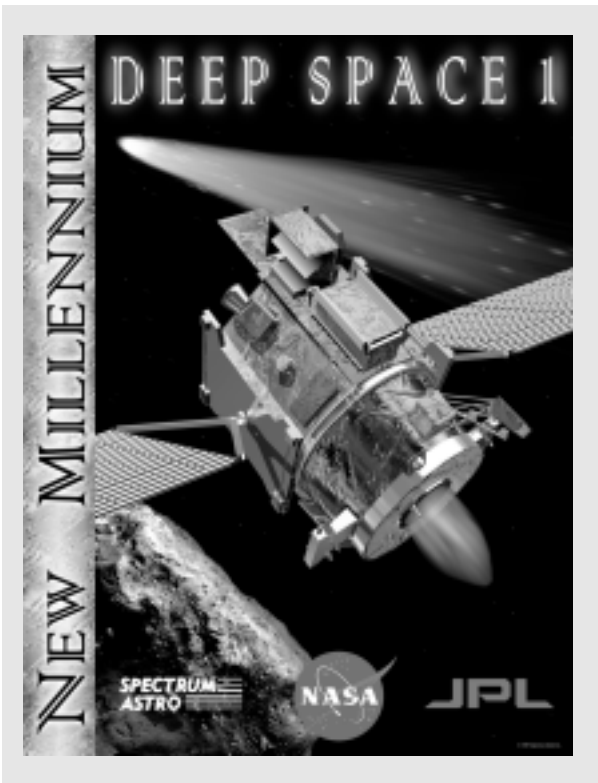
If you have any questions, please call Rochelle Roberts at ext. 4-6937 or Melinda Gratteau at (650) 723-3328.

Remote Agent experiment meets all objectives

As scientists and science fiction buffs alike have long suspected, artificial intelligence software can indeed operate a spacecraft millions of miles from Earth.

During the week of May 17, experts from NASA's Ames Research Center and Jet Propulsion Laboratory (JPL) pooled their expertise to conduct Remote Agent, an

experiment designed to push the limits of spacecraft autonomy. Their efforts, involving commanding of NASA's Deep Space 1 spacecraft, proved that this sophisticated artificial intelligence software is capable of achieving high-level goals by issuing spacecraft commands. Perhaps more importantly, however, they demonstrated that Remote Agent can also play doctor, diagnosing its own problems and developing effective action plans to regain its own good health.



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The latter attribute proved unexpectedly handy less than 24 hours into the experiment, when the synthetic intelligence succeeded in firing Deep Space 1's ion engine on but failed to turn it back off. With 70 percent of objectives met, the experiment paused starting the afternoon of May 18, it was clear that some type of computer bug had settled in and caused this glitch--but what, exactly, was the problem?

In an impressive show of its own strength, Remote Agent itself provided all the clues for scientists to diagnose and resolve the situation precisely.

Scientists found that the bug was related to a timing error when two parts of the program were exchanging information--easy to fix permanently during coming months, and safe for completing tests the week of May 17 without immediate modifications. "After defining the bug, our experiment team was confident we could complete the flight test. We asked Remote Agent to develop a new plan and then to fly Deep Space 1 solo for six more hours," said Ames computer scientist Nicola Muscettola. Ames computer scientists wrote much of the Remote Agent code.

The happy end result: In 29 hours starting at 11 a.m. PDT on Monday, May 17, and in six hours on Friday, May 21, the Remote Agent team met 100 percent of their experiment objectives.

"We ran the program thousands of times on Earth before the space test, and this bug never appeared," Muscettola said. "The sudden occurrence of this bug is an example of why we tested the software during space flight instead of only on the ground."

"If had not been for Remote Agent's ability to do onboard planning, we would not have been able to complete the tests so quickly. It would have taken days for the ground team to come up with a new plan," said Dr. Pandu Nayak, deputy manager of Remote Agent develop-

ment at Ames.

To demonstrate Remote Agent's versatility, the tests threw unique challenges in the software's path: scientists created four simulated failures designed to test Remote Agent's mettle to the max.

On May 17, the spacecraft's camera appeared to be stuck in the "on" position. Remote Agent craftily responded by formulating and executing a new plan that accounted for the fact that the camera could not be turned off, thus impacting total spacecraft power availability.

Then, on May 21, "when the artificial intelligence detected that an electronics unit had 'failed,' the software fixed the unit by reactivating it, not unlike rebooting a personal computer after the screen freezes," said Dr. Marc Rayman, Deep Space 1 deputy mission manager and chief mission engineer at JPL, Pasadena, CA. "Next, a sensor 'failed,' and Remote Agent correctly recognized the sensor was the problem, not the device it was sensing. This pair of problems is akin to finding that the engine warning

light has come on in your car. The light can mean one of two things: either the engine has a problem, or the sensor that triggers the light has a problem. In each case, Remote Agent correctly distinguished which situation it was in."

The final simulated failure was a thruster stuck in the "off" position, which Remote Agent detected and for which it compensated by switching to a different set of thrusters.

"This technology will allow us to pursue Solar System exploration missions that only a few years ago would have been considered too elaborate, too costly or too dependent on teams of Earth-bound controllers," said Dr. Doug Bernard, Remote Agent manager at JPL.

An Internet web page contains a log of events on Deep Space 1 during the ambitious artificial intelligence test: <http://rax.arc.nasa.gov>

Launched October 24, 1998, Deep Space 1 is validating 12 new technologies, including Remote Agent, so scientists can confidently use them during science missions of the 21st century. The spacecraft team expects testing of all technologies will be complete in June, except for one final navigation system test scheduled to take place in late July.

BY JOHN BLUCK

'99 ACCC Golf Tournament set for July 23

The Ames Child Care Center Charity Golf Tournament will be held on Friday, July 23 at the Moffett Field Golf Course.

The cost to enter the tournament is \$45 for an individual and \$170 for a team of four. The cost includes a round of golf, lunch, and entry in the post-tournament raffle.

Employees are invited to come out and support the Child Care Center and have a good afternoon of golf in the bargain. A text-only version of the entry form can be accessed at the ACCC website at <http://acc.arc.nasa.gov/home.html>

For more information, email Grant Palmer at gpalmer@mail.arc.nasa.gov. For information on the Ames Child Care Center or other fundraising activities, call Gabrielle Babin at ext. 4-4184 or contact her via email at gbabin@mail.arc.nasa.gov.

Steen Passes Away



Bev Steen poses on the Ames flightline back in her Code O days.

On June 10, Beverly Steen, former secretary to Marty Knudsen in the Ames Flight Operations Directorate, passed away after a 15-month battle with lung cancer. She was 65.

Steen was born in San Francisco and spent her childhood years on her grandparents' farm in Indiana before returning to Modesto, CA as a teen. She raised her only daughter Laura until she reached college age, returning to the work force in 1982. She came to NASA Ames in 1984.

Steen loved NASA almost as much as she loved sewing, costume making and public television. She was especially proud of her grandson Noah who was born in 1994.

Steen took the buyout from NASA on January 2, 1998 and, before falling ill, planned to relocate to southern California to be closer to her daughter's family.

A service for Steen was held at the Chapel of the Gardens in Altadena, CA on June 26. In addition to her daughter Laura, son-in-law Eric, and grandson Noah, Steen is survived by her sister Margaret Mahoney and her mother Anna Hendricks Huston.

Peer Achievement awards presented



photo by Dominic Hart

The 13th annual Peer Achievement Award ceremony was held on June 3. Recipients were nominated and selected by Code FM's civil servant non-supervisory staff. The winners of Code FM's Peer Achievement award pictured above, from left to right, were: Larry Whiteside, Danny Rendon, Mark Washington, Damon Reid, Dave Andrews and Jim Lesko.

EO Counselor's Certification Training Course held June 18



photo by Tom Trower

The EO Office held a 4.5 day, "EO Counselor's Certification" training course June 14 to 18, designed for collateral duty Equal Opportunity Programs Office counselors. A review of the fundamentals of the EO counseling process and a critique of current EO developments were provided. Trainers Oliver Allen from the Corporation for National Service, Washington, D.C. and Chrystal Rivera from the Department of the Navy, Arlington, Virginia, provided a customized training session to participants and selected staff.

America's SpacePoll survey reveals surprising results

Three out of four Americans say the space program should play an important role in key areas of public life—including education, health research and the environment—according to a survey conducted by the Space Awareness Alliance. Titled "America's SpacePoll," the survey of 1,000 Americans produced some eye-opening results.

For example, Americans resoundingly support the development and deployment of a national missile defense system. Most people believe the nation already has an integrated National Missile Defense system in place. Many people expressed 'shock' and 'anger' when told that the nation does not already have this system developed and implemented.

Space is a great source of national pride; more than three-quarters of voters surveyed rated NASA's job approval as excellent or good. But the poll revealed that this support may be broad, but is not very deep. Many voters were unable to associate the space industry with any specific program other than the space shuttle. Using space to further education, medicine and the environment is critical to enhancing public support for space. Repetition in reaching the public with facts and figures about what the space industry is doing in these areas is essential.

In other SpacePoll results, almost half of

those surveyed believe that communications satellites should not be classified as weapons for export purposes by the U.S. Government. Only one fourth believe that they should be classified as weapons and the rest have no opinion on the issue. Almost half believe the space industry is a major part of our national economy. Further, nearly half have "never heard of" or have "no opinion" about the global positioning system (GPS).

The Space Awareness Alliance, "America's Voice for Space" is a bold initiative to increase awareness, understanding and support among our nation's opinion leaders and the general public for the important role space plays in the lives of Americans. The Alliance is composed of more than 30 corporate and non-profit partners, each leveraging and capitalizing on the Alliance's public awareness campaign. The mission is simple, to "build a broad mandate for space."

Results of America's SpacePoll provide the basis for a considerable amount of 1999 Space Awareness Alliance activities. To attempt to impress upon opinion leaders the importance of rational and favorable space policies, the results of the SpacePoll were the subject of a series of Washington, DC media and legislator briefings. Appropriate NASA, military, and corporate officials were also educated on the SpacePoll.

While outreach continues on America's SpacePoll, the Alliance plans to begin additional economic and anecdotal research on space, or "American Spacconomics Research." The purpose of this effort is to identify and quantify the true economic and societal impact of all space programs.

The information gathered will be used to support the Alliance's premise of "space as the economic engine of the 21st Century." The Space Awareness Alliance believes that space is the critical force in securing America's economic competitive advantage for the next century.

The Space Awareness Alliance is involved in educational endeavors as well. In March 1999, the Space Awareness Alliance, in conjunction with Spaceweek, tested the nation's knowledge of space with the National Space Test™. During the week of the contest the web-based activity received nearly 400,000 hits. The National Space Test featured an online contest, links and a special children's version of the test. The Space Test will remain active on the website through 1999 (<http://ussf2.iex.net/poll/>)

In efforts to reach consumers, the Space Awareness Alliance continues to work on media programs through its SpaceTalk column and the Space Certification program.

Syndicated by Knight-Ridder and distributed monthly to more than 300 newspapers, Jim Lovell's SpaceTalk reached 10 million readers over the past three years. The column features compelling dialogue on timely space topics. Whether it's weather forecasting, education or economic impact, Lovell's unique perspective is popular across the country.

The Space Certified Technology program features a distinctive seal to demonstrate to consumers the importance of space to current and future economic prosperity and quality of life. The seal is granted to a wide variety of consumer products.

For additional information about the activities of the Space Awareness Alliance, visit <http://www.spaceconnection.com/>

AAE hosts employee day

On Wednesday, June 23, 14 docents and 2 staff members of the Ames Aerospace Encounter, hosted the 9th Ames Employee Day.

Over 100 adults and children, representing over 25 codes and departments from NASA and Moffett Field attended.

The next Ames Employee Day at the AAE will be held on Wednesday, August 18, from 10 a.m. until 2 p.m.

GALA event held June 24



Wiggys Sivertsen, Professor of Counseling Services in the Department of Sociology, San Jose State University, was the keynote speaker at the Center's annual GALA Advisory Group, "Gay Pride" month celebration held on June 24.

Events & Classifieds

Calendar

Ames Bowling League will be starting the 99/00 season at Palo Alto Bowl every Tuesday at 6pm on Sept. 7. The season is 33 weeks long and ends April 25 with a banquet the week after. The league is in need of bowlers to join teams, as well as substitutes. POC: Mina Cappuccio, mcappuccio@mail.arc.nasa.gov, at ext. 4-1313 or Mike Liu, mliu@mail.arc.nasa.gov, at ext. 4-4357.

Ames Ballroom Dance Club. Tuesdays: Rumba 7/13, 7/20, Salsa 7/27, 7/3, 8/10. 3 levels of classes, from Beg. to Int., 5:15 - 6:45pm. 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/HO3 Railroad Train Club at Moffett Field invites train buffs to visit and join the club in Bldg. 126, across from the south end of Hangar One. The club is in particular need of low voltage electricians and scenery builders and 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).

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 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.

Ames Contractor Council Meeting, Jul 7, 11 a.m., N-200 Comm. Rm. POC: Jack Stanley at ext. 4-2345.

Professional Administrative Council (PAC) Meeting, Jul 8, 10:30 a.m. to 11:30 a.m. Location TBD. POC: Janette Rocha, ext. 4-3371.

Ames Sailing Club Meeting, Jul 8, 11:30 a.m. to 1 p.m., N-262/Rm. 100. POC: Greg Sherwood, ext. 4-0429.

Ames Asian American Pacific Islander Advisory Group Meeting, Jul 15, 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, Jul 15, 12 noon, N-260/ Conf. Rm. POC: Mike Herrick, K6EAA at ext. 4-5477.

Ames Multicultural Leadership Council Meeting, Jul 21, 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, Jul 21, noon to 1 p.m., Bldg. 19/Rm. 2017. Guests welcome. POC: Marianne Mosher at ext. 4-4055.

Native American Advisory Committee Mtg, Jul 27, 12 noon to 1 p.m., Ames Café. POC: Mike Liu at ext. 4-1132.

Environmental, Health and Safety Monthly Information Forum, Aug 5, 8:30 a.m. to 9:30 a.m., Bldg. 19/Rm 1078. POC: Linda Vrabel at ext. 4-0924.

Hispanic Advisory Committee for Employees, Aug 5, 11:45 a.m. to 12:30 p.m., N-241/Rm 237. POC: Mary R. Valdez, at ext. 4-5819.

Ames African American Advisory Group Meeting, Aug 5, 11:30 a.m. to 12:30 p.m. POC: Robert Finnie at ext. 4-5230. Contact Robert for meeting place.

Nat'l Association of Retired Federal Employees, San Jose Chapter #50, Meeting, no July meeting; next meeting is Aug 6, 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; 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 bdrm available in Mt. View. Large 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.

English post-doc at Ames needs room to rent, must be near transportation. Dates needed: Sept 6 to Nov 23 (possibly longer). Email: oliver.de_peyer@virgin.net Fax: 01144 118 9316671.

San Juan, Puerto Rico, 3 bdrm ocean side apartment. School headmaster wishes to trade for a 3-4 bedroom home/apartment in the Menlo Park/Palo Alto area for Dec 21, '99 -Jan 7, 2000 inclusive. Joe (650) 696-6119 or Russ (787) 726-5745 or email rbeeher@caribe.net

Room for rent in house in Campbell, Los Gatos border. Spacious house w/friendly roommates and two dogs. \$600 a month and first and deposit. Close to H85 and San Thomas Expressway. Close to shopping and bus stops. Call (408) 374-1312.

Transportation

'51 Mercury, a classic. Very good condition - all original. Must see! Extra accessories included. \$10,500 or B/O. Call 1-877-730-2208.

'87 Nissan Sentra XE, sporty car, 5 speed manual. 93k miles, black. Fun and dependable. \$2500. Call Bob at (408) 253-0740.

'88 Mazda RX-7 convertible. 95K mls, one owner, complete service records. 5 speed, BBS alloy wheels. White with blue leather. Cruise, CD, premium sound, AC, PW, PS, alarm. Excellent condition. \$6,900. Call (650) 966-1206 nights or (650) 604-0700 days.

'88 Plymouth Colt, 2dr/hatchback, 4-speed manual, CD (with remote), blue metallic, 109K, one owner, great shape, very clean, smogged. \$1,750. Call (408) 985-5428 or e-mail: lavahopper@aol.com

'88 Honda Accord, LXI Coupe, green, 5 speed, 133K mls. Loaded: all power windows, brakes and steering, a/c, Cassette w/10 disc CD changer, 15" MOMO Quasar rims, Well maintained, excellent condition - inside and out. Original owner. \$5,100 or B/O. Call (408) 756-0077.

'89 Honda Accord LXI Coupe, tinted windows, leather seats, clean, great running car. 147K mls, \$4,950. Diana (650) 378-2188.

'90 Pontiac Grand Prix. \$2,850/negotiable. Excellent condition, 102,900K mls. V-6, automatic. New front and rear brakes, new alternator and water pump, newish tires. Shahab (408) 248-3680.

'91 Ford Probe, 6 cylinder, 89,000 miles, white w/gray cloth interior, AC, tape deck. Great for high school student, new tires, maintenance records, asking \$4,200. M. Moore after 6 p.m. (408) 739-5373.

Miscellaneous

Two dogs need a home. One dog is a spayed female, 3 yr. old rottweiler named Maya. The 2nd dog is a neutered male, 4 yr. old lab named Simba. Please call (831) 461-9223.

US Robotics Sportster 56K Fax/modem. Plug and play model 1787/PC. Never used. Original cost \$150. Make offer. Frank (408) 248-7164.

Oak armoire \$150 and matching oak nightstand \$75, exc cond; Power Rider \$50. Jane (408) 249-0299.

2 single Ortho beds in gd condition w/bed frame & headboard, \$200 or B/O. Frances (650) 969-6552.

1984, 18' Seaswirl. Very good condition. \$4,800 or B/O. Call 1-877-730-2208.

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

Beaver RX-550 two place ultralight trainer. Strobes, helmets, intercom, full assembly manual included. Subaru four stroke engine. One spare engine. New three bladed adjustable prop. Airframe rebuilt. Needs about 20 hours of work and new nosewheel. Invested over \$8,000 will sell for \$4,200 as is. Ron (408) 943-1576 or email ron.b@cheerful.com.

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

Neville Brothers/Little Feat Concert Tickets! 7 Gen Adm. tickets available for this sold out show at the Mountain Winery in Saratoga (Montalvo Concert Series). Aug. 13. \$35 ea or \$200 for all. Mark (408) 773-9606.

Heathkit test equipment: oscilloscope, sweep generator, stereo generator, RF signal generator, audio generator, vectorscope, signal tracer, tube tester, voltmeters, etc.; 12 items in all with cables & manuals. Hardly used. \$999. Call (408) 257-0583.

Ames Retirements

Name	Code	Date
Tony Ogden	FOI	7/2/99

Vacation rental

Lake Tahoe-Squaw Valley Townhse, 3bd/2ba, balcony view, horseback riding, hiking, biking, golf, river rafting, tennis, ice skating, and more. Summer rates. Call (650) 968-4155, DBMcKellar@aol.com

Lake Tahoe - Squaw Valley condo. Suite sleeps 4; pool, spa, BBQ, biking, hiking. 1/2 price for week of 8/1/99-8/8/99; may also be rented for half week. Juliet (650) 321-9008, LiuHsinMei@aol.com

New luxury vacation rental in Tahoe Donner. Custom 3,000 sq ft, 4 bedroom, 4.5 bathroom house with contemporary amenities, cathedral ceilings, and spectacular panoramic views. Ideal for group vacations and business retreats (multiple dual-phone jacks installed for phone and computer connectivity). Contact Truckee Mountain Vacation Rentals at (800) 805-8199, [tmvrvs@telis.org](http://www.tmvrv.com/), <http://www.tmvrv.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
TUES, JUL 6	MON, JUL 19
TUES, JUL 20	MON, AUG 2
TUES, AUG 3	MON, AUG 16
TUES, AUG 17	MON, AUG 30
TUES, AUG 31	MON, SEP 13

Moffett Ames-based airshow flies high

continued from front page



hitches? Of course not! But, there were no major problems despite a few logistical rough spots. Organizers will determine what lessons can be learned, and will evaluate what can be done better to make future events even more successful.

That having been said, there is no question that residents in local and regional communities were overwhelmingly pleased with the event. They reached out and embraced the airshow like an old friend returning home. Times change and we all have to move on. Ames aircraft may be gone forever, and the nation's aeronautics program may be a while in recovery. But, things tend to go through cycles and history does repeat itself. Indeed, despite popular wisdom, in some rare instances it may even be possible to return home after all. One guesses the airshow is back at Moffett to stay.

BY DAVID MORSE 

Ames hosts flag day celebration

On Saturday, June 12, in celebration of Flag Day, the public was invited to attend several activities sponsored, in part, by the NASA Ames Exchange, at Moffett Federal Airfield. Activities included unfurling the

world's largest American flag, a chance to pull a commercial jet 12 feet and free airplane rides for children. The huge flag measured nearly 265 feet by 575 feet.



photos by Margie Stathes



Flag day participants help unfurl the world's largest American flag.

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