

Astrogram

Communication for the Information Technology Age

Loston sees education "in a whole new light"

On April 18, NASA's Associate Administrator for Education Dr. Adena Loston made her first visit to Ames Research Center. While here, she signed



Greg Dorais of Code I demonstrates the Personal Satellite Assistant to Adena Loston, NASA's AA for education, during her recent visit to Ames.

an agreement to facilitate the development of an academic center in NASA Research Park for first-generation college students interested in pursuing careers in science, technology, engineering and education.

"This partnership advances the goal of the new NASA Education Enterprise, to inspire more students to study science, technology, engineering and mathematics, with the ultimate goal of having them choose careers in aeronautics and space at NASA," said Loston.

The signing strengthens a strong working relationship with the Foothill-De Anza community college district and addresses NASA's needs for a new generation of scientists and engineers.

"We are delighted to sign this agreement and look forward to working with the Foothill-De Anza community college district as it embarks on this exciting project," said G. Scott Hubbard, director of NASA Ames. "The new center is an excellent way for us to work collaboratively to accomplish these important goals," he said.

The signing capped a long but very informative day for NASA's newest associate administrator. Loston's day began with a one-on-one and center over-

view with Associate Director Estelle Condon to discuss how Ames contributes to the agency mission and vision.

After the meeting, Loston visited several unique facilities at Ames. The facilities included FutureFlight Central, the Ames Aerospace Encounter and the 80-foot-by-120-foot wind tunnel.

To reinforce her knowledge of the work performed here at

NASA Ames Research Center, she was briefed on NASA Research Park, astrobiology, nanotechnology, information

technology and robotics and the multitude of educational programs targeted

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NASA photos by Tom Trower

Left to right: Estelle Condon, Ames associate director; Adena Loston, NASA AA for education; Dr. Bernadine Chuck-Fong, president, Foothill College; Dr. Martha Kantor, president, DeAnza College; and Donald James, director, Ames Education Office, sign an agreement to facilitate the development of a collaborative academic center in NASA Research Park.

O'Keefe unveils assistance fund

NASA Administrator Sean O'Keefe has announced the formation of the

merous requests of agency employees to support the families of STS-107 and

other NASA families during their times of need.

Formed in cooperation with the Federal Employee Education and Assistance Fund (FEEA), the NASA Family Assistance Fund will provide need-based financial assistance and educational assistance to the families of the seven Columbia astronauts, as

continued on page 8



NASA Family Assistance Fund. The fund was created in response to the nu-

Is it broken?

NASA contest explores designs for future colonies in space

According to students from around the world, the prospects are bright for people someday living in space.

The annual Space Settlement Con-

and has earned a permanent place on the NASA advanced supercomputing Web site along with grand prizes winners from the past 10 years.

For the contest, the Fundamental Space Biology Program created a Web site that provided students access to a wealth of electronic resources to help develop their designs. The Web site contains presentations, articles, images, Web links and research on colonizing space from NASA and other space settlement experts.

"Students and teachers use this site as a resource in preparing designs that later will be submitted for evaluation by NASA scientists. The site includes a comprehensive eight-week course on preparing an orbital settlement design, complete with objectives aligned with the U.S. National Science

Standards, as well as an online quiz," said Bryan Yager, coordinator of the Space Settlement Contest.

The grand prize winners, along with the first-, second- and third-place winners in the individual and small group categories, will be invited to visit NASA Ames in June. The students will present their designs, talk to NASA scientists and tour the fundamental space biology laboratories. All students participating in the contest received an official Space Settlement Contest certificate.

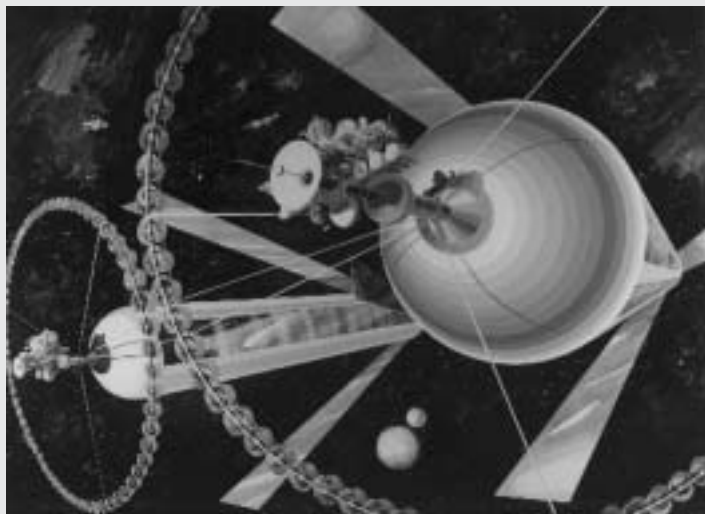
The Fundamental Space Biology Program, funded by NASA's Office of Biological and Physical Research, investigates fundamental biological processes through space flight and ground-based research. The program brings together state-of-the-art science and technology and seeks to answer the most basic questions regarding the evolution, development and function of living systems.

To view the winning submissions and for more information about the Space Settlement Contest, visit the Web at: <http://www.nas.nasa.gov/NAS/SpaceSettlement/>

For information about the Fundamental Space Biology Program, you can visit the Web at: <http://fundamentalbiology.arc.nasa.gov/>

For information about NASA's Office of Biological and Physical Research visit the Internet at: <http://spaceresearch.nasa.gov/>

BY JONAS DIÑO ▲



A sample of one of the artistic renderings of a cylindrical space colony.

test, sponsored by the Fundamental Space Biology Program at NASA Ames, builds upon students' natural fascination with space and space exploration. The contest challenges students in grades six through 12 to investigate and then develop designs for a permanent, orbital space colony. The founders of the contest envision that these students will one day make orbital colonies a reality.

"The Space Settlement Contest is a part of NASA's educational effort to inspire the next generation of explorers," said Al Globus, NASA Ames scientist and one of the founding members of the competition. "The contest is designed to spark a student's interest in math and science and to develop the ideas and skills that will make orbital colonies a possibility. It is all about training the people who will one day colonize the solar system."

Recently announced, the 2003 grand prize winners were two middle school students from Iasi, Romania. Horia Mihail Teodorescu and Lucian Gabriel Bahrin submitted the design for an orbital colony called Teba 1. The design was chosen as the winner by a panel of NASA scientists from a field of 89 designs submitted by 307 students from the United States, Austria, India, Japan and Romania. Entries were judged on how well the students addressed the fundamental issues involved with building and maintaining an orbital colony, such as gravity generation, life support, food production and resource management. Teba 1 best addressed these issues

this site as a resource in preparing designs that later will be submitted for evaluation by NASA scientists. The site includes a comprehensive eight-week course on preparing an orbital settlement design, complete with objectives aligned with the U.S. National Science

Noted astronomer lectures at Ames



Left to right: Creon Levit of Code IN; noted astronomer Dr. Halton Arp of the Max-Planck-Institut fur Astrophysik, in Garching, Germany; and Jeffrey Scargle of Code SST at a recent lecture given by Arp on April 28. The lecture was entitled 'New Large-Scale Surveys and the Nature of Redshifts.'

NASA photo by Roger Brimmer

Kennedy engineer supports 'OneNASA' principles

Well before NASA Administrator Sean O'Keefe focused NASA on the concept, Cheryl Malloy, KSC mission integration manager for the launch services



NASA photo

Cheryl Malloy, KSC mission integration manager for the Launch Services program.

program--formerly expendable launch vehicles program (ELV)--was actually putting the OneNASA principles into practice. Malloy, a 15-year veteran with NASA, has had several first-hand experiences in working with other NASA centers on projects at KSC.

"I've been lucky in that all of the launch services program missions we work on require integration with other centers," said Malloy. For example, as mission integration manager on the Kodiak Star mission in 2001, she coordinated launch-site activation, mission integration and launch activities with Wallops Flight Facility, the U.S. Air Force and Coast Guard and Lockheed Martin, bringing together one Kodiak launch team to ensure a smooth mission flow and successful first launch in Alaska. The launch coordination was a prime example of NASA's core values and KSC's guiding principles. It emphasized the importance of building reliance and teamwork everywhere, which has been a KSC guiding principle for more than five years and demonstrates OneNASA, which is all about teamwork.

Malloy started at KSC as a summer appointment in 1987 and then worked full time in shuttle payloads starting in 1990. Among the missions in shuttle payloads she worked on were Spacelab-Japan, microgravity life sciences and space life sciences payloads. She especially enjoyed working in shuttle payloads because, in addition to her electrical engineering degree, she first earned a degree in lab technology. Working on these payloads utilized both degrees and provided her the opportunity to meet and work with many scientists and ex-

perimenters inside and outside of NASA.

It was during her time in shuttle upgrades, from 1996 to 1998, that Malloy's work required her to become involved in projects rather than missions with other NASA centers. She transferred to ELV in 1998 and has remained there ever since. "I like the synergy that exists when you work with the NASA centers and others outside of KSC," said Malloy.

She so strongly believes in drawing on all resources in order to complete a project successfully that she took it one step further and participated in NASA's industry exchange program. This program temporarily places personnel from commercial business into NASA and vice versa.

Malloy recently completed her industry exchange with Science Applications International, Inc. (SAIC) in Cape Canaveral while still maintaining some of her responsibilities with the launch services program. About her exchange Malloy said, "I wanted to benchmark their project management and compare the private sector with government." She will be able to bring back project management practices from the private sector in the same way she shared

NASA's perspectives with them. She was not surprised to find that, since SAIC is a global company, it had practices in place that were similar to OneNASA.

Returning from her industry exchange to KSC, Malloy is working on the Marshall Space Flight Center-managed X-37 flight demonstration project comprised of a team including Dryden Flight Research Center, Langley Research Center, Johnson Space Center, Ames Research Center and the Fairmont Independent Verification and Validation Facility. As the KSC mission integration manager, she and the KSC team will provide launch service and launch service integration. "This is a perfect example of the OneNASA concept -- where we draw from other centers for their experience and expertise," she said.

With any new concept there are always hurdles to overcome. Malloy said. "It's so much better to work under the 'agency hat' than just the 'KSC hat'. One NASA is predominantly a culture change and it's the perfect opportunity for our leadership to set the stage for guidance and support."

BY KENNEDY SPACE CENTER ▲

Science Fair winners tour Ames



NASA photo by Tom Trower

The Synosys Silicon Valley Science and Technology Championship science fair winners are seen here in the visitor center during a recent visit to Ames. The science fair was held at the San José Convention Center. A team of NASA Ames employees served as judges, helping to select the top 15 projects to receive NASA awards.

Ames' Edel lends support to Columbia recovery effort

In the days following the Feb. 1 loss of seven astronauts aboard the space shuttle Columbia, NASA and the nation shared a common grief as they sought to come to grips with the disaster. But for

McCool only briefly, it was immediately and clearly apparent to me that he was a man of incredible sincerity, kindness and thoughtfulness," Edel added.

On launch day, Jan. 16, Edel was at

KSC to observe the countdown and launch. "I do not mind admitting that my eyes were full of tears as I watched Columbia climb into the heavens on that beautiful day -- never imagining that this mission and the lives of these very special astronauts would end in tragedy," he noted. After the launch, Edel returned to NASA Ames, where he frequently mentioned to his fellow employees

heavens, Edel faced a very different and very difficult assignment -- to return to KSC to escort recovered debris from Columbia back home to Florida. He twice provided armed security escort service for STS-107 debris as it was moved via long-haul transport from Texas to a hangar at KSC. Edel was responsible for the safekeeping of the personal effects of the STS-107 astronauts during their transport to Florida. He also worked the recovery of suspected STS-107 debris in northern California, coordinating with local law enforcement and Federal Emergency Management Agency representatives.

"Thomas Edel brought safety and security to the astronauts and their families in the days leading up to the launch, and he supported the agency and the nation in efforts to recover STS-107 debris across the country," said Ames Center Director G. Scott Hubbard. "We are extremely proud of Tom and his contributions to our nation's space program."

Because of his close personal relationship with the astronauts and their families, Edel was devastated by the loss of the Columbia crew. Still, he remained committed to the recovery effort and to doing everything he could to help provide answers to the question of what caused the tragedy.

"Tom was so proud to be selected as part of the team that provided security to the STS-107 crew and their families prior to launch," said Tom Moyles, chief of the Center Operations Directorate. "I know he developed a special bond with Willie McCool and his family. The center is very proud that he was called upon to escort the astronauts' personal effects from the crash site back to the Cape."

BY ANN SULLIVAN ▲



Tom Edel (center) poses with STS-107 pilot William McCool (right) and McCool's wife, Lani (left), shortly before the launch of STS-107.

one NASA Ames employee, the loss of the Columbia crew was particularly personal and painful.

At the request of Kennedy Space Center officials, Special Agent Thomas Edel of the NASA Ames Protective Services Office helped provide protection for the families of the STS-107 crew in Florida prior to launch. Because of concern about additional terrorist strikes following the Sept. 11, 2001 attacks, and because the crew included the world's first Israeli astronaut, Col. Ilan Ramon, pre-launch security for STS-107 was at a level unprecedented in NASA history.

Edel was one of two special agents assigned primarily to the family of STS-107 pilot William (Willie) McCool. During the week leading up to launch, in early January, Edel provided continuous escort to McCool's wife Lani and their three sons during their daily activities.

One of his most memorable experiences, Edel recalled, was when he was invited to accompany McCool, his wife and the other 'Blue Team' crew members on the 'spouse tour' of Columbia's launch pad.

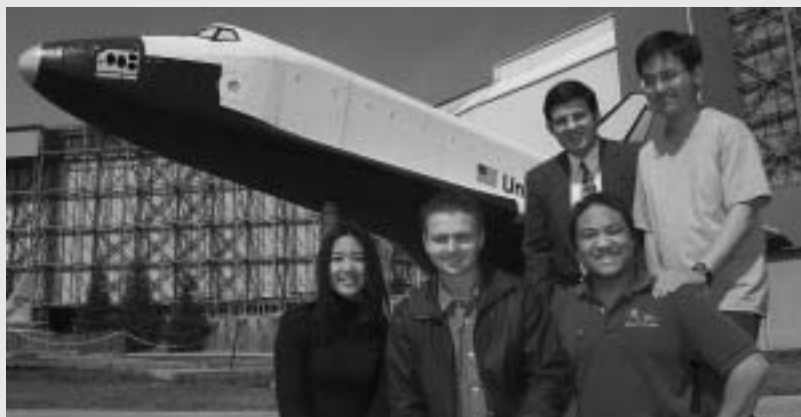
"Throughout the tour, Willie graciously went out of his way to show and tell me all about the space shuttle, including arranging for me to take a special peak into the crew hatch of the orbiter Columbia," Edel recalled. "More than once, Willie took me aside to personally thank me for taking care of his family. Although I got to know Willie

that, without a doubt, the launch of the space shuttle Columbia was the proudest day of his 16-year NASA career.

Prior to Columbia's scheduled landing at KSC, Edel was redeployed to Dryden Flight Research Center in support of security requirements at the shuttle's back-up landing site. Then, in the early morning hours of Feb. 1, the unimaginable happened. Columbia and her crew were lost over Texas, just a few minutes before their planned landing and joyous homecoming at KSC.

A few days later, just three weeks after watching Columbia soar into the

Galileo scholarship finalists tour Ames



NASA photo by Tom Trower

Five high school seniors, who are finalists for the AIAA and NASA Ames Galileo Memorial scholarship, visited Ames on May 5 for a tour of the center.



Core Financial Travel Manager goes live

The new Travel Manager and Core Financial systems went live at Ames with all users on May 5. Patrick Ciganer, IFMP program executive, arrived on site to help Ames celebrate this achievement. During his speech, Ciganer shared his thoughts on what this day means, "Many people have waited as long as 15 years for this day. With the addition of Ames, more than 50 percent of NASA is now

using the same system."

The IFMP Web site offers valuable information about both systems. Below is an outline of information available to end users. Tips and updated information designed to help users learn more are posted on the Web regularly.

Direct all functional and technical questions to the Help Desk at ext. 4-2000 or e-mail: help@mail.arc.nasa.gov.

Travel Manager	Core Financial
<p>As of May 5, all new travel orders (authorizations) must be entered and approved through the Travel Manager system. If you have vouchers to submit that correspond with paper orders submitted prior to Travel Manager, submit those vouchers on paper to the Travel Office as usual.</p> <p>Travel Manager Web site offers:</p> <ul style="list-style-type: none"> • Access to Travel Manager and system requirements for Mac and PC users • Training courses and registration information • Training materials • FAQs • Related links for weather, driving directions, currency exchange and travel regulations • Feedback 	<p>All purchase requests must now be entered and routed for approval using SAP/R3. Users will now have visibility to see where their documents are in the approval process. All bankcard purchases must now be tracked using the P Card system, which should streamline month-end reconciliation processes.</p> <p>The Core Financial Web site offers:</p> <ul style="list-style-type: none"> • Current information 'Hot Topics' • Access to Core Financial system requirements for Mac and PC users • Super-user contacts and resources • Training materials • FAQs • Contact information • Feedback 

Administrative Professionals Week celebrated



NASA photo by Dominic Hart

Guest speaker Dr. Susanne Gaddis, the 'communication doctor,' (left), at the recent administrative professionals workshop held at NASA Ames.

The week of April 20-26 was officially designated Administrative Professionals Week.

An Administrative Professionals Day workshop was held on April 23 at the Moffett Training and Conference Center.

This year's program was entitled 'All Stressed Up and No Place to Go.' It addressed the many aspects of work-related stress and provided attendees with solid strategies for recognizing, re-framing and reducing stress related to the workplace. Dr. Susanne Gaddis was the guest speaker at the event.

The Human Resources Division, Professional Admin Council and the NASA Exchange Council sponsored the event for all secretaries, administrative assistants and clerical support personnel.

Special recognition was paid to the recipients of the NASA and Ames Honor Awards and a training and development update was also provided.

IFMP ribbon-cutting ceremony held



NASA photo by Dominic Hart

At the April 21 ribbon-cutting ceremony, left to right, front row: Skip Fletcher, director Code A; Patrick Ciganer, IFMP program executive officer; Kevin Werner, Core Financial project manager; Christine Musselman, Accenture; Cliff Imprescia, executive sponsor; and Lynda Haines, Code D. Top row: Mike Foresman, Quantum Services; Greg Josselyn, Ames IFMP program manager; Brad Kurtis, Accenture; Victor Chin, Code CF; Melissa Doolittle, Accenture; Ely Cooper, change management; Ron Liang, Code CF; and Steve Meier, Accenture.

Need fixing fast?

Earth Day at Ames is huge success!

At this year's Earth Day, there were over 40 exhibitors, two bird hikes with Ames' wildlife biologist Chris



Exhibitors who participated this year included the United States Geological Survey; Weiss Associates; the Society for Mining; Metallurgy Exploration Inc.; Save the Bay; Acterra; McSolar; Toyota,

Alderete, a photo contest and a presentation about 'Historical Ecosystems on South San Francisco Bay' by the San Francisco Estuary Institute.



Toyota Material Handling; NuGo; EPA; Silicon Valley Bicycle Coalition; BAAQMD; ABAG: Bay Trail; City of Sunnyvale Water Pollution Control Plant; Shoreline at Mountain View; Don Edwards SF Bay National Wildlife Refuge; Regional Water Quality Control Plan; Electric Water Association; Ames Native American Advisory Committee; the Ames Child Care Center; Ames Mega Bites café; Code QH -- ChemWatch, environmental training; Code QE -- HMIS, compliance, restoration, hazardous waste, environmental management systems, conservation and pollution prevention; Code JFS -- store stock, recycling, ACAP and motor pool; and Code JFP -- energy conservation.

Here is a highlight of the events:

- Approximately 112 pounds of batteries were recycled through Code QE's hazardous waste program;



NASA photos by Tom Trower

- Over 80 people attended bird hikes at Ames;
- Over 80 people attended the presentation about 'Historical Ecosystems on South San Francisco Bay' by San Francisco Estuary Institute. If you missed it, you still can view it on the Web at: <http://q.arc.nasa.gov/qe/events/ED/ED2003/>
- a wonderful and well-attended performance by the Ames Jazz Band;
- an impressive electric vehicle display of both external and internal exhibitors; and
- an Earth Day photo contest displayed some creative photography work by Ames employees.

The contest winners included:

- 'Gaia' category:
 1st place: 'To Live' by Dunnyou Wang
 2nd place: 'Sunflower with Windmill' by Astrid Terlep
 3rd: 'Cloudscape' by Serdar Uckun

'Great Outdoors' category:

- 1st: 'Point Lobos: Deer' by Deborah Walton
 2nd: 'Hard Day at the Office' by Serdar Uckun
 3rd: 'Reflections' by Tammy Helminski

Visit the Earth Day Web site to see more at: <http://q.arc.nasa.gov/qe/events/ED/ED2003/index.php>.

For more information, contact the author at: ext. 4-6810 or send an e-mail to: jmorsellino@mail.arc.nasa.gov

BY JULIE MORSELLINO

Former Ames manager Susan Mead passes away

Susan Collins Mead, a manager for 30 years at Ames, died peacefully at the Palo Alto Veteran's Hospice on April 17 after a long battle with ovarian cancer. She was a youthful 61.

Born in Knoxville, Iowa, Mead could read before she entered kindergarten at the age of 4. Her parents lied about her age. She thus embarked on a lifelong career of overachievement, graduating first in her high school class in Williams, Ariz., as valedictorian and with a full scholarship to Arizona State University. She graduated from Arizona State in 1964, again as class valedictorian and again with a full scholarship for further study. Under a Woodrow Wilson Fellowship, Mead worked on an advanced degree in humanities at Stanford University. Upon leaving Stanford in 1965, Mead moved from the humanities to the sciences, with a position at Palo Alto Medical Research Foundation. There, she assisted bio-engineers in cardiac research and was trained as a surgical assistant. Mead passed her rite of initiation as a surgical assistant with (literally) flying colors, enduring a direct squirt in the face by an errant blood vessel without flinching or letting go of her instruments. Despite its many attractions, Mead left the medical research

sible for all managerial and administrative functions including funding, procurement, facilities and human re-



Susan Mead

sources. In 1989, she moved into the Space Sciences Division, again as assistant division chief, where she served until her retirement in 1999. Though her educational background was in the arts, in the course of her career, Mead learned the science so well that she was eventually responsible for preparing and presenting technical briefings to senior NASA scientists.



A United States flag was presented to Susan Mead's parents (center) during a memorial ceremony on April 21 at NASA Ames. Jack Boyd, assistant to the center director (left), attended the ceremony.

field in 1969 after being persistently recruited by NASA. With only one day's notice to prepare for the requisite civil service professionals exam, for which several months study is the norm, Mead passed with the highest score in the state, very auspiciously beginning her career in aerospace research.

Mead started at NASA as a budget assistant in the Life Sciences Division, where she worked for many years in positions of ever-increasing responsibility. In 1986, she was named assistant division chief in life sciences, respon-

able for all managerial and administrative functions including funding, procurement, facilities and human resources. In 1989, she moved into the Space Sciences Division, again as assistant division chief, where she served until her retirement in 1999. Though her educational background was in the arts, in the course of her career, Mead learned the science so well that she was eventually responsible for preparing and presenting technical briefings to senior NASA scientists.

Mead nurtured a lifelong passion for classical music and opera. For many years, she was a supernumerary with the San Francisco Opera, appearing on stage with such operatic luminaries as Placido Domingo and Rene Fleming.

Mead felt that her professional highlight was performing in 'La Boheme,' but her deepest joy was in the many enduring friendships she made among the 'supers.'

Two Ames staffers who worked with Mead share their remembrances: "Susan was very active in Ames women's associations in the 1970s, at a time when women were a rarity," said Bonnie Dalton, deputy director for as-

trobiology and space research, who worked with Mead from the 1960s.

According to Dalton, in the early 1960s, about 16 percent of the Ames workforce was female, compared with over 40 percent now. "Susan worked tirelessly to encourage and bring women together--through mentoring and counseling," said Dalton. "She was an excellent role model."

During her 30-year career, Mead worked closely with Dr. Don DeVincenzi, who recently retired as deputy chief of the Space Science Division. "Among her many strengths was her ability to understand and explain technical aspects of science. She could discuss NASA's science programs with great authority even though she was not formally trained as a scientist," said DeVincenzi. He noted that among her accomplishments, two standouts were her roles as chairman of the Galileo Scholarship program, an annual high school science competition, and as chairman of the Source Evaluation Board, both in 1983 and 1988. "She took great pride in these," said DeVincenzi.

Mead is also remembered by colleagues as someone who, above all, had a cool, rational mind. "The thing I always noticed about Susan is what I call the 'oh gosh' moment," said Dalton. "We'd be sitting in a meeting and she would hone in on a troubling problem immediately," said Dalton. She would say: "but wait, have you thought about this?"

Mead was preceded in death by the love of her life and husband of 27 years, Bill Mead. She is survived by her parents, Jim and Roberta Collins of Sunnyvale, and her stepdaughters, Ann Mead of San Francisco and Melinda Padgett of Santa Cruz.

A memorial service was held on May 5 at the Stanford Memorial Chapel. Donations may be made in Mead's memory to the San Francisco Opera's Merola program and to the Sunnyvale Treatment Center of the Palo Alto Medical Foundation and Camino Medical Group.

Ames emergency announcements

To hear the centerwide status recording, call (650) 604-9999 for information announcements and emergency instructions for Ames employees. You can also listen to 1700 KHz AM radio for the same information.

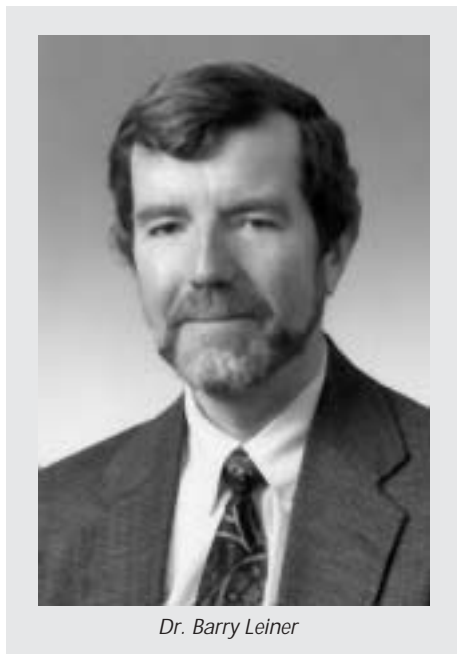
Submit your ideas

Former RIACS director Barry Leiner passes on

Dr. Barry M. Leiner, former director of the Research Institute for Advanced Computer Science (RIACS), passed away at his home on April 2. Leiner had a long tenure with RIACS at NASA Ames, serving as assistant director from 1985 to 1990; as director from 1999 until 2003 and as chief scientist since January 2003.

Leiner devoted his career to the advancement of packet-switched networking technologies and he is renowned for his contributions to the emerging Internet community while at ARPA in the early 1980s.

He started his distinguished career as senior research engineer with GTE Sylvania from 1967 to 1973; assistant professor at Georgia Institute of Technology from 1973 to 1976; senior engineering specialist at Probe Systems from 1976 to 1980; assistant director of the ARPA Information Processing Techniques Office from 1980 to 1985; director of research with Advanced Decision Systems from 1990 to 1992; senior scientist with USRA from 1992 to 1994; assistant director of the Information Technology Office at DARPA from 1994 to 1996; vice president of Microelectronics and Com-



Dr. Barry Leiner

puter Technology Corporation (MCC) from 1996 to 1997; and special assistant to the president at the Corporation for National Research Initiatives from 1998 to 1999.

Leiner was a graduate of Rensselaer Polytechnic Institute (B.E.E. 1967) and Stanford University (M.S.E.E. 1969, Ph.D. 1973). He was a member of Eta Kappa Nu, Tau Beta Pi, ACM and the Internet Society and a senior member of the IEEE.

A memorial service for Dr. Leiner was held on May 7 at Ames. The memorial service was followed by the inaugural lecture of the Leiner Lecture Series. The lecture was presented by Dr. Vinton G. Cerf, one of the 'fathers of the Internet' and a long-time friend and colleague of Leiner.

BY SERDAR UCKUN ▲

Editor's Note:

We apologize that the photo in the April issue of the Astrogram was not Dr. Barry Leiner, but rather Vinton Cerf, the speaker at the Leiner lecture held on May 7. The obituary on Dr. Leiner is reprinted in its entirety in this issue.

O'Keefe unveils assistance fund

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well as to other families of NASA personnel who die as the result of injuries suffered in the performance of their official duties. The money collected will be used to satisfy current expenses, with the primary goal of guaranteeing the education needs of the Columbia crew's 12 children, as well as the children of other NASA personnel who die as the result of personal injuries suffered in the performance of their official duties. NASA employees, if they choose, may designate their contribution for all the Columbia families, for a particular Columbia family or family member, for some other NASA family or family member.

Employees interested in contributing to the NASA Family Assistance Fund may do so in several ways:

- Contributing on-line by visiting http://www.nasa.gov/about/overview/AN_FAF.html
- Write a check to:
FEEA NASA FUND
8441 W. Bowles Avenue,
Suite 200, Littleton, CO 80123-9501
- Make a donation by telephone.
Call the FEEA at (303) 933-7580 or (800) 338-0755.

Colloquium features Albert Jonsen



NASA photo by Roger Brimmer

NASA Ames' Chief Scientist Dr. Stephanie Langhoff with Dr. Albert Jonsen at the recent colloquium held at Ames, where Jonsen discussed 'Fetuses and Farmers: A Brief History of the Belmont Report and its Implications.'

President Bush and Prime Minister John Howard visit Bay area

President George W. Bush and the prime minister of Australia both flew in to Moffett Field on May 2 to attend meetings in the Bay area. The visiting dignitaries were greeted by Ames Associate Director Estelle Condon, Colonel James T. (Tommy) Williams, commander, 129th Air Rescue Wing and Lt. Colonel Stuart Wahlers, deputy commander, 7th Psychological Operations Group.

NASA photo by Dominic Hart



Estelle Condon (center) greets President Bush (right) during his recent trip to the Bay area.



NASA photo by Dominic Hart

President Bush strides across the tarmac from Air Force One to greet local reporters.



NASA photo by Tom Trower

Australian Prime Minister John Howard smiles at a group of U.S. and Australian guests gathered to welcome him.

Loston sees education "in a whole new light"

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for students K-12 through college.

At the day's luncheon, Loston presented an overview of NASA's Education Enterprise. She presented to Ames managers NASA's educational endeavors, such as the educator astronaut program and the Explorer schools initiative and reinforced the need to focus on the next generation.

The Ames education division took the lead for Loston's successful visit and provided her with mementos of her visit, a CD of photos and information about Ames.

"Dr. Loston's visit was a great opportunity for her to see Ames, the world-class work that is performed here, the unique physical assets we have, to see

the kinds of engaging education programs we produce and the valuable partnerships we have with academia," said Donald James, director of Ames education division.

Loston's visit was part of a three-center California tour of NASA field centers.

BY JONAS DIÑO ▲

Ames Safety Awards Program (ASAP) II -- First quarter awards presented

Under the Ames Safety Awards Program (ASAP) II, Ames recognized 58 employees for their outstanding accomplishments in improving health and safety. ASAP II was established to recognize employee actions, behavior and/or job performance that result in improved health and safety conditions at the center.

There are four tier-levels of awards, tier four being the highest level of achievement. The ASAP II board evaluates each nomination and selects the tier level that most represents the actions and accomplishments of that nomination.

Twenty individual employees and eight teams were recognized in the first quarter of ASAP II. Each of these employees and teams was nominated by their colleagues for their outstanding actions and accomplishments in improving health and safety conditions at Ames. The names of the awardees are listed below.

Tier Level 4 – Individual awards

None

Tier Level 4 – Team awards

Building N239, Code S safety committee: David Blake, Joseph Hanzel, Mark Kliss, Michael New, Julie Nottage, Joseph Skiles and Mary Walsh.

An excerpt from the nomination: "The nomination recognizes the unique scope and complexity of issues facing the committee and the effort required to respond to those issues. Intense concerns about air quality and subsequent analysis spawned legionella concerns. Further water analysis led to legionella investigation and mitigations center wide. Similarly, air quality concerns have resulted in a planned C of F for FY04. Doing any sort of whole-building construction effort in N239 -- plumbing or hvac or electrical -- is an order of magnitude greater effort than even the super-chlorination, which has now been completed twice. Building N239 is very likely the most difficult building with which the center has contended in this regard."

Tier Level 3 – Individual awards

None

Tier Level 3 – Team awards

JFP maintenance team: Mike Basiley, Tony Calvo, Matt Clapp, Steve

Frankel, Danny Garo, Al Lyon, Carmen Morey, Efrén Parado, Paul Pinala, George Sabolish and John West.

An excerpt from the nomination: "They demonstrated a willingness to go beyond what was expected."

Tier Level 2 – Individual awards

Lynn Bala
Beverly Girten
Linda Jahnke
Suzanne Meyer
John Reed

Tier Level 2 – Team awards

Code SF safety committee: Ron Fong, Andy Gonzales, Benita Hibbard, Robert Hogan, Roy Johnson, Larry Kellogg and Arlene Pineo.

Code A safety committee: Lynn Bala, Jay Nuez, Joan Salute, Linda Vollenweider and Deborah Walton.

Tier Level 1 – Individual awards

David Blake
Dan Bufton
Karen Bunn
Herb Finger
Mike Graham
Douglas Hudgins
Sonnie Lau
David Lesberg
Shelley Marshall
Scott Nikodym
Julie Nottage
Gary Palmer
Guy Power
Tony Purcell
David Scimeca

Tier Level 1 – Team awards

Chemical clean-up team: Daniel Kojiro, David Lesberg, Julie Nottage, Norishige Takeuchi and Dan Winningham.

N239 Evacuation Team: Karen Bunn, Jefferson Johnson and Julie Nottage.

N243 Rotunda Occupancy Health and Safety Improvement team: Ed Aiken, Barry Lakinsmith and Linda Vollenweider.

Exemplary Laboratories: Warren Belisle, Arthur Weber and Esther Weber.

For more information about ASAP II and how you can nominate a deserving colleague, visit the ASAP II Web site at: <http://q/gh/ASAP2/index.php>.

Ames employee John Newman dies

On April 5, John W. Newman passed away. The entire staff of the Logistics Branch has been left to mourn the loss of a civil servant who truly lived a life of service.

Newman was known to his friends and co-workers as someone of great integrity and dedication who would always tell you the truth as he saw it. He thought of his friends before himself -- this wasn't just one of his principles, it was one of his habits.

Newman was born in Reno, Nev., on Jan. 27, 1949. His father's work moved the family around, but they settled in Mountain View.

He worked for many years at the Palo Alto Times before starting his NASA career at Ames on July 21, 1986, as a shipping and receiving attendant. In January 1999, Newman was assigned to the motor pool as the Ames' vehicular transportation officer. He served on the GSA Federal Fleet Policy Council as Ames' representative and also was a member of the Ames Logistics Transportation Council. He worked very hard toward compliance with E.O. 13149 ('Greening the Government') and spent many hours focused on current and future fuel infrastructure and cutting fuel consumption by Ames' vehicles. He was crucial in the process for Logistics ISO 9000 and VPP Star certification.

Newman was an Army man, but didn't talk much about his tours of duty in Vietnam. At his vigil service, his Purple Heart, Bronze Star with combat 'V' and Silver Star medals spoke for him.

Newman married Cecille Vera Cruz Newman on June 17, 1998. He is also survived by his father, Eugene; his children John Jr., and Marina; his stepchildren Katrina, Mark and Dino; and several grandchildren. Following the funeral Mass on April 10, Newman was laid to rest in the veteran's section of the Gate of Heaven Cemetery.

Stanford Sloan Program Fellows tour Ames



NASA photos by Dominic Hart

Sloan Fellows tour the centrifuge accommodation module (upper left); the 747 simulator (right); and the 80-foot-by-120-foot wind tunnel (lower right).

On April 16, 65 Stanford Sloan Program Fellows, including NASA Ames' own Joan Salute of Code A, received a center overview and a tour of Ames facilities.

The tour included the CTAS labs,

the Space Station mock-up, the life science payload lab, the 80-foot-by-120-foot wind tunnel, the Vertical Motion Simulator, FutureFlight Central and the Crew Vehicle Simulation Research Facility.

The Sloan program is a full-time, 10-month academic program for managers leading to a master of science in management degree. The program is administered by the Stanford University Graduate School of Business.

NASA studying Hangar One options

NASA officials announced on May 2 that they are taking immediate steps to remedy a potential health and environ-

mental hazard recently discovered in Hangar One at Moffett Field. Hangar One was included in the transfer of Moffett Field from the Navy to NASA in 1994. staff indicated that Hangar One contained polychlorinated biphenyls (PCBs). PCBs are a suspected carcinogen with other potential health impacts. NASA environmental and engineering staffs have been conducting more extensive tests since the discovery of the situation. Within the past few weeks, they have determined PCBs to be more pervasive than previously thought.

"We are now aware that many of the building materials used to construct and maintain Hangar One prior to NASA stewardship contained PCBs," said Sandy Olliges, chief of environmental services at Ames. "NASA has notified the Navy and has begun discussions with the Environmental Protection Agency (EPA) to address this situation.

While our storm drainage system is designed to trap sediments containing heavy metals and PCBs, NASA is committed to taking immediate and specific further action to remedy this condition."

"NASA is currently evaluating a range of options to prevent additional release of PCBs from Hangar One," Olliges further explained. Although NASA engineers are still studying the cost of the various options, estimates range from \$10 million to \$50 million.

One option is encapsulation of the PCBs with a protective sealant and monitoring the condition by both NASA and the EPA. This option is estimated to cost \$10 million to \$15 million.

A second option is to remove the hangar's structural materials containing PCBs and replace them with new materials. This option is estimated to cost \$30 million to \$50 million. In addition to the high cost, NASA officials say that, due to the age of the hangar, its structural integrity could be adversely impacted.

A third option would be to demolish Hangar One. NASA would also be required to dispose safely of all hazardous materials contained in the structure. This option is estimated to cost from \$25 million to \$50 million.

Each option would require an envi-

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NASA photo by Dominic Hart

Hangar One is a familiar sight at NASA Ames Research Center, Moffett Field.

mental hazard recently discovered in Hangar One at Moffett Field. Hangar One was included in the transfer of Moffett Field from the Navy to NASA in 1994.

Late last summer, a preliminary sampling by NASA's environmental

Event Calendar

Ames Amateur Radio Club, third Thursday of each month, 12 noon, N-T28 (across from N-255). POC: Michael Wright, KG6BFK, at ext. 4-6262.

Ames Ballroom Dance Club. Classes on Tuesdays. Begin classes at 6:15 p.m. Higher-level class meets at 5:15 p.m. Held in Bldg. 944, the Rec. Center. POC: Helen Hwang, hwang@dm1.arc.nasa.gov.

Ames Bowling League, Palo Alto Bowl on Tuesday nights. Seeking full-time bowlers and substitutes. Questions to sign up: Mike Liu at ext. 4-1132.

Ames Child Care Center Board of Directors Mtg, every other Thursday (check Web site for meeting dates: <http://accn.arc.nasa.gov>), 12 noon to 1:30 p.m., N-215, Rm. 212. POC: Tom Maier, ext 4-3643.

Ames Contractor Council Mtg, first Wednesday each month, 11 a.m., N-200, Comm. Rm. POC: Anita Fogtman, ext. 4-4432.

Ames Diabetics (AAD), 1st & 3rd Weds, 12 noon to 1 p.m., at Ames Mega Bites, Sun room. Support group discusses news affecting diabetics. POC: Bob Mohlenhoff, ext. 4-2523/e-mail at: bmohlenhoff@mail.arc.nasa.gov.

Ames Federal Employees Union (AFEU) Mtg, third Wednesday of ea. month, 12 p.m. to 1 p.m., Bldg. 19, Rm 1042. Info: <http://www.afeu.org>. POC: Marianne, ext. 4-4055.

Ames Mac Support Group Mtg, third Tuesday of ea. month, 11:30 a.m. to 1 p.m., Bldg. N262, Rm 180. POC: Julie ext. 4-4694 or Tony ext. 4-0340.

Ames Model Aircraft Club, flying radio-controlled aircraft at the north end of Parsons Ave. on weekend mornings. POC: Mark Sumich, ext. 4-6193.

Ames Sailing Club Mtg, 2nd Thurs of ea. month (Feb through Nov), 11.30 a.m. - 1 p.m. Bldg. 223, Ames Visitor Center & Gift Shop, special events room. All are welcome. POC: Jeff Smith, ext. 4-2586.

Environmental, Health and Safety Information Forum, first Thursday of each month, 8:30 a.m. to 9:30 a.m., Bldg. 221/Rm 155. URL: <http://q.arc.nasa.gov/qe/events/EHSseries/> POC: Julie Morsellino at ext. 4-6810.

The Hispanic Advisory Committee for Excellence HACE Mtg, first Thurs of month in N255 room 101C from 11:45 a.m. to 12:45 p.m. POC: Eric Kristich at ext. 4-5137 and Mark Leon at ext. 4-6498.

Jetstream Toastmasters, Mondays, 12 p.m. to 1 p.m., N-269/Rm. 179. POC: Cathy Payne at ext. 4-0003.

Model HO/HOn3 Railroad Train Club, Bldg. 126, across from south end of Hangar One. Work nights: usually Fridays, 7:30 p.m. to 9:30 p.m. Play time: Sundays, 2 p.m. - 4 p.m. John (408) 735-4954 (W) or (408) 281-2899 (H).

Nat'l Association of Retired Federal Employees, (NARFE), Former and current federal employees. Your only contact with Congress. Join to protect your federal retirement. Chptr #50 meets the first Fri. of each month at HomeTown Buffet, 2670 El Camino (at Kiely), S. Clara, 11 a.m., lunch \$6.70, Spkr. 12 noon Spkr. April 4: Visit by CA State President of NARFE. POC Earl Keener (408) 241-4459 or NARFE 1-800-627-3394.

Native American Advisory Committee Mtg, fourth Tues each month, 12 noon to 1 p.m., Bldg. 19, Rm 1096. POC: Mike Liu at ext. 4-1132.

Computer security issues a warning about e-mail scams

Maybe you received one or you know someone who did: an e-mail from a foreign country offering an opportunity to participate in a money-making scheme. Do not respond to the e-mail. This is a scam designed to separate you from your money.

Here's how it works. E-mail originating from a foreign nation is sent to addresses taken from an available public source. The writer promises rich rewards for helping a government, bank, or family out of an embarrassing situation or legal problem. Typically, the pitch includes mention of millions of dollars with the promise that you will be permitted to keep a percentage of the money if you help.

Should you participate in this scam, it's guaranteed that something will go wrong, requiring more of your money to get things back on track. The con artist may say that the necessary paperwork will be delayed or that officials need to be bribed. The amount they request may seem small in light of the windfall you are promised. If you pay, you will wait for the transfer of the reward money and wait and wait. All you will get in return are more excuses about why the money is being held up and assurances that everything can be straightened out, if you send more cash to help the process along. Once you start making threats, you will never hear from the writer again. As for the money you paid, it's gone forever.

Do people fall for this scam? Unfortunately, the answer is yes. A 1997 report from the Financial Crimes Division of the U.S. Secret Service confirmed

losses of over \$100 million in the United States during the previous 15 months.

This is not a new scam. Early versions can be traced back to the 1920s, when it was referred to as 'The Spanish Prisoner' con. And there are numerous variations of this scheme. For instance, if you advertise an automobile or another item for sale on the Internet, you may receive offers from foreigners in-

volving some 'creative' exchange of funds. Of course, these creative funding ideas are designed to take your money.

Unfortunately, as long as your address is publicly available there is nothing a government agency can do to prevent you from receiving these offers. So when you receive such an e-mail, just hit 'DELETE.'

Sandford speaks at Foothill College



NASA photo by Dominic Hart

Dr. Scott Sandford spoke at the Silicon Valley Astronomy Lecture Series at Foothill College in April on the topic of the Stardust comet sample-return mission. Sandford is holding a sample of aerogel, the lightest known solid, so much akin to air that it's sometimes called 'frozen smoke.'

Ames Classifieds

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

Housing

Family with 2 kids (age 12 and 14) is looking for fully furnished house or apartment for rent or house-sitting during sabbatical leave from Germany (July 2003 to August 2004). 3 bedrooms required, location near Ames preferred. Call ((+49 34293 34689) or e-mail: wendisch@tropos.de

For rent: Room in 4bd/2ba house, Mtn View, dog ok, \$750 near Central expwy and Rengstorff, Caltrain, stores and several parks. DSL, W/D, BBQ, phone jack. Storage shed in yard. Call (650) 968-7557 or e-mail dqh_nguyen@hotmail.com

North Los Altos ranch style home for lease or rent. 3 bd/2.5 ba, office, 1,800 sq. ft., 2 car garage, 2 fireplaces, easy commute to Ames. Prefer 12+ month lease, no pets or smokers, \$ 3,000 per month includes gardener. Call (650) 941-0958 evenings.

Room available in 3 bdrm duplex in Willow Glen, San José. Shared house w/two prof'l males; share common bathrm. Quiet, safe neighborhood close to major highways and public transportation. Share living room, kitchen, etc. W/D included, as is water and garbage. Street parking. Rent is \$475/mo. plus \$250 cleaning deposit + 1/3 utils. Available June 1st. Inquiries, call Kevin at (408) 723-2115 or e-mail khoward@myway.com

Transportation

'94 Ford Explorer, Limited, 4x4, at, 4.0L V6, 4 whl ABS, loaded w/options, ac, ps, pw, pdl, tint, cc, mnrf, roof rack, lthr, lumbar, cass. w/sub woofer, \$5,800 or B/O. Call (408) 267-6635.

'98 VW new Beetle. Bright blue. 27,000 mls. automatic, A/C, power steering, windows, locks. \$9,300. Gary or Beth (408) 253-8473 or e-mail at gangelici@yahoo.com.

Safety Data

	Civil Servants	Contractors
Not recordable first aid cases	1	4
Recordable no lost time cases	4	0
Lost time cases (Under new OSHA rules, lost time is defined as restricted duty and or days away from work (lost work days)	0	1
Restricted duty days	0	0
Lost work days	0	5

Data above is for April 2003.

Miscellaneous

Sony DSC-85 CyberShot 4.1 Mega Pixels in good condition. Less than 2 years old. Comes with 32M & 64M memory cards, factory-supplied accessories, lens adaptor, filter lens kit and carrying bag. \$450. Sandy (408) 578-0590.

For sale: Marineland 25 gallon tall (24"w x 20"h x 12"d) glass aquarium with black Eclipse2 hood. Requires Eclipse2 filter media and BioWheel. (http://www.marineland.com/products/consumer/con_eclipse.asp) \$40. Joan (650) 493-0729 or e-mail jcdifferding@earthlink.net.

For sale: Three radio-control airplanes. A trainer, glider and bottom wing (flown twice). New 6 chnl. radio and everything else. \$500 or B/O. Call (415) 254-9592.

Fancy desk, mint condition, mahogany and leather top and six small drawers, one large drawer, \$250. Hall bench, hardwood, stained white and black seat, 3 feet long, good condition, \$70. Trundle bed, white enamel, one new unused mattress, good condition, \$100. Call (650) 948-4678.

Macromedia Web Design Studio (Mac) includes: Dreamweaver 3, Fireworks 3, Flash 4 and Freehand 9. New in never-opened shrink wrapped box. \$175. Memory card-256K for Mac iBook. Free. Call or email Bill: (408)203-3132/whender1@pacbell.net.

Old books needed

Got a bunch of old books cluttering up your office, living room or garage? Have CDs you don't listen to or movies you'll never watch again? Then, donate them to the Ames Child Care Center fundraiser.

You will receive a donations receipt for your taxes at the same time! All books, CDs, VHS tapes and DVDs (not just for kids) are accepted.

Items can either be dropped off at the ACCC across from Gate 17 or pickup can be arranged by contacting Maja at e-mail maja@sbcglobal.net or call (650) 988-6993 or Sally at (650) 224-9268.

Ames Public Radio & Phone

1700 KHz AM radio -- information announcements and emergency instructions, when appropriate, for Ames employees. The emergency information phone number for Ames is (650) 604-9999.

VPP STAR Tip

Interviewed employees who have received physicals and/or any medical testing report that the tests and results were explained to them and their questions, if any, answered.

...Margaret Richardson, in Preparing for the Voluntary Protection Programs, Copyright © 1999 by John Wiley & Sons

Exchange Information

Information about products, services and opportunities provided to the employee and contractor community by the Ames Exchange Council. Visit the web site at: <http://exchange.arc.nasa.gov>

Beyond Galileo N-235 (8 a.m. to 2 p.m.)
ext. 4-6873

Ask about NASA customized gifts for special occasions. Make your reservations for Chase Park

Mega Bites N-235 (6 a.m. to 2 p.m.)
ext. 4-5969

See daily menu at: <http://exchange.arc.nasa.gov>

Visitor Center Gift Shop N-223
(10 a.m. to 4:00 p.m.) ext. 4-5412

NASA logo merchandise, souvenirs, toys, gifts and educational items.

Tickets, etc...(N-235, 8 a.m. to 2 p.m.)
ext. 4-6873

Check web site for discounts to local attractions, <http://exchange.arc.nasa.gov> and click on tickets.

NASA Lodge (N-19) 603-7100

Open 7 days a week, 7:00 a.m. to 10 p.m. Rates from \$40 - \$50.

Vacation Opportunities

Lake Tahoe-Squaw Valley townhse, 3bd/2ba. View of slopes, close to lifts. Per night \$250, two night min. Includes linens, cleaning, propane fireplace, fully equipped. Call (650) 968-4155, DBMcKellar@aol.com

South Lake Tahoe Cottage w/wood fireplace and hot tub. Rates from \$50 to \$130 per night. Call (650) 967-7659 or (650) 704-7732.

Vacation rental, Bass Lake CA 14 mls south of Yosemite. 3bd/1.5 ba, TV, VCR, MW, frplc, BBQ, priv. boat dock. Sleeps 8. \$1,050/wk. Call (559) 642-3600 or (650) 390-9668.

Big Sur vacation rental, secluded 4bd/2ba house in lovely canyon setting. Fully eqpd kitchen. Access to priv. beach. Tub in patio gdn. Halfway between Carmel & Big Sur. \$175/night for 2; \$225 for 4 and \$250 for more, plus \$150 cleaning dep. Call (650) 328-4427.

Incline Village: Forest Pines, Lake Tahoe condo, 3 bd/2 ba, sleeps 8. Fireplc, TV/VCR, MW, W/D, jacuzzi, sauna, pool. \$120/night low season; \$155/night high season. \$90 cleaning fee and 12% Nevada room tax. Charlie (650) 366-1873.

Tahoe Donner vacation home, 2 bd/2ba. trees, deck, sun, fun. Access to pools, spa, golf, horseback riding, \$280 wkend, \$650 week. Call (408) 739-9134.

Pine Mountain Lake vacation home. Access to golf, tennis, lake, swimming, horseback riding, walk to beach. Three bedrooms/sleeps 10. \$100/night. Call (408)799-4052 or (831) 623-4054.

Our solutions last!
af2m.arc.nasa.gov

NASA studying Hangar One options

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ronmental review by state and federal agencies and public hearings in accordance with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act. Hangar One

One additional action for NASA is to find a temporary alternative location for the Moffett Field Historical Society, the only current intended tenant in Hangar One. The Historical Society previously operated the Moffett Historical Museum inside the hangar until last spring.

Constructed in 1933 as the central component of the historic U.S. Naval Air Station, Sunnyvale, Hangar One comprises eight acres of floor space and is a highly visible Bay area landmark. Constructed at a cost of \$2.5 million, it was originally built to house the U.S.S. Macon naval airship. The

Navy operated and maintained the hangar until its transfer to NASA in 1994.

BY MICHAEL MEWHINNEY ▲



Older image of Hangar One with the dirigible U.S.S. Macon.

is listed on the national register of historic buildings and is part of the Shenandoah Plaza National Historic District.

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:
May 26	June 2003
June 24	July 2003
July 28	Aug 2003
Aug 26	Sep 2003
Sep 24	Oct 2003
Oct 28	Nov 2003



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