



# MARSHALL STAR

Serving the Marshall Space Flight Center Community

May 20, 2004



Photo by Doug Stoffler, NASA/Marshall Center

## NASA officials: 'Culture Change' important for Return to Flight

by Patricia Dedrick Lloyd

Changing NASA's culture is one of the "most important things" the Agency can do as it prepares to return the Space Shuttle to flight, NASA officials told Marshall team members Friday.

"NASA is at a crossroads," said James L. Jennings, NASA assistant deputy administrator for Institutions and Asset Management. "We can continue to do things the way we have for the past 45 years, or we can make some changes in order to get better and become an even better organization. That's what we are committed to doing."

Jennings, a former Marshall employee, and other NASA officials visited Marshall Friday as part of a "Cultural Change Roadshow" – the fifth Center stop to discuss findings of the

*See Culture on page 2*

### Discussing NASA culture during 'Roadshow'

Marshall Center Director David King, center, answers questions during the "Cultural Change Roadshow" at Marshall on Friday. Also participating were, from left, James L. Jennings, NASA assistant deputy administrator for Institutions and Asset Management, and right, Lynn F. Cline, NASA deputy associate administrator for the Office of Space Flight. The "Roadshow" is visiting each NASA Center for officials to explain results of the Mission Safety Climate and Culture Survey taken by Agency employees earlier this year.

## Education forum seeks to improve learning through partnerships

by Sanda Martel

The growing shortage of skilled workers emerging from the U.S. education system was the focus of a recent Marshall Center event, as officials explored ways to build partnerships to improve education, provide leadership in the aerospace industry, and leverage existing resources.

The "Forum on Benchmarking Educational Partnerships," sponsored by the Education Programs Department at the Marshall Center was held May 11 at the Huntsville Marriott.

Marshall Center Director David King welcomed industry representatives, education officials, and community and civic leaders to the day-long event. Dr.

*See Education on page 2*

## NASA collaboration produces technology that allows on-the-spot chemical analysis

By Sanda Martel

Collaboration between the Marshall Center and an industry partner has resulted in development of a portable vacuum X-ray fluorescent analyzer that performs on-the-spot chemical analyses - a task previously only possible in a chemical laboratory.

Marshall engineers teamed with KeyMaster Technologies of Kennewick, Wash., to develop a "chemistry lab in your hand" that weighs about 4 pounds and is capable of detailed material analysis, even under field conditions. This capability promises to be a boon to the aerospace community because of unique requirements — for instance, the need to analyze Space Shuttle propulsion systems on the launch pad. Those systems provide the

rocket power that propels the Space Shuttle from Earth into orbit in mere minutes.

The newly developed vacuum X-ray fluorescent analyzer can identify and characterize a wide range of elements, and is capable of detecting chemical elements with low atomic numbers - such as sodium, aluminum and silicon. It is the only hand-held product on the market with that capability. Aluminum alloy verification is of particular interest to NASA because vast amounts of high-strength aluminum alloys are used in the Space Shuttle propulsion system - the External Tank, Main Engine and Solid Rocket Boosters.

"Being able to bring a full analytical chemical laboratory to something as large

*See Collaboration on page 6*

## Culture

*Continued from page 1*

Mission Safety Climate and Culture Survey. Also speaking at the event were Marshall Center Director David King; Lynn F. Cline, deputy associate administrator for the Office of Space Flight at NASA Headquarters; Capt. James D. Wetherbee, technical assistant to the Director of Safety and Mission Assurance at Johnson Space Center; and Marshall retiree Robert E. Lindstrom.

In February, NASA team members across the Agency received a Mission Safety Climate and Culture Survey. Respondents were asked to rate the Agency's procedures, teamwork, safety climate, and upward communication, among other factors.

Jennings and Cline discussed overall results of the surveys, and King talked specifically about how Marshall team members rated the Agency. Fifty percent

of Marshall employees responded to the survey.

Some survey recommendations have been implemented, officials said, and NASA will implement and address many other recommendations.

"We want to make sure we follow through on them and make sure we make those changes," Jennings said.

King promised more open, free-flowing discussions. "This is an opportunity for folks outside this Center to come share their views and to be able to comment on the questions we might have as a Center," he said. "We are working also to try to get more venues to have dialog and discussion."

Cline said she and her boss, Associate Administrator for Space Flight William Readdy, want fresh, new ideas. "Bill Readdy and I are committed to culture change, but we can't do this alone," Cline

said.

"It takes teamwork. From the survey data you've seen, the Agency is good at local, horizontal teamwork. Bill and I are ready to work on the broader, more vertical teamwork."

Marshall team members concurred with many of the overall NASA survey findings. Teamwork and approaching others about safety issues at Marshall rated high on the survey. Credibility of managers also was high. But respondents gave low marks for upward communication and organizational support.

King said those were Marshall's two target areas. "We are trying to get a better understanding of what those scores really mean to us and what is the root of those scores," he said. More introspection is needed, he added.

*The writer, an employee of ASRI, supports the Internal Relations and Communications Department.*

## Education

*Continued from page 1*

Adena Loston, NASA associate administrator for Education, presented the objectives of NASA's Education Enterprise and the Enterprise's role in The Vision for Space Exploration.

Dr. Joe Morton, Alabama's interim state Superintendent of Education, reported on the dramatic success of Alabama's partnership with NASA through the Alabama Math, Science and Technology Initiative, which provides classroom teachers with the materials, equipment, technology, and supplies needed to deliver high-quality, activity-based instruction. Such resources enable students to learn math, science, and technology through actual hands-on activities and real-life experiences.

Boeing Senior Vice President Rick Stephens described a systems architecture approach to workforce development, calling on community leaders, parents, industry and the media to take part in an integrated stakeholder approach to changing the culture of science and math education in this country.

"Everyone has a role to play in improving education," said Jim Pruitt, manager of the Marshall Education Programs Department. "A future beneficiary of improved education will be the aerospace industry, and we at NASA welcome ideas from companies on how to approach education, and thus, develop our future workforce."

John Stallworth, president and chief executive officer of Madison Research Corp. and Foster Perry, training and educational assistance manager for Teledyne Brown Engineering, showcased their educational outreach programs, and attendees



Photo by Doug Stoffer, NASA/Marshall Center

**Dr. Adena Loston, left, NASA associate administrator for education, talks with Marshall's Education Programs Manager Jim Pruitt, center, and Vince Huegele, an optical physicist at the Marshall Center and chair of the National Association of Rocketry during the Benchmarking Educational Partnership Forum on May 11.**

participated in the Marshall Center's hands-on Engineering Design Challenge in which teams designed, built and tested propellers.

For more information about forum follow-up activities, contact Lucia Cape at 961-7893 or e-mail [lucia.cape@msfc.nasa.gov](mailto:lucia.cape@msfc.nasa.gov).

*The writer, an employee of ASRI, supports the Media Relations Department.*

# Teresa Vanhooser named deputy director of Flight Projects Directorate at Marshall Center

by Lori Johnston

**N**ASA veteran Teresa Vanhooser has been appointed deputy director of the Flight Projects Directorate at the Marshall Center.

Vanhooser will help lead an organization responsible for managing the operation of scientific research aboard the International Space Station; developing, integrating and maintaining space systems and life-support equipment, developing and operating ground systems, managing NASA's Chandra X-ray Observatory; and pursuing advanced concepts.

"Flight Projects is a great place to be, with such a talented workforce, and I'm looking forward to stepping into my new role as deputy," Vanhooser said. "There are many exciting developments in the nation's Space Program on the horizon, and I want to do my part in seeing us attain even greater achievements in every aspect of our work."

Vanhooser most recently served as manager of the Payload Operations and Integration Department, which manages all International Space Station science research experiment operations, payload training and safety programs for the Station crew and ground support personnel.



Vanhooser

federal government.

During her 24 years at NASA, she has held a variety of progressively responsible positions, including mission manager of the second ATLAS mission - the Space Shuttle-borne remote-sensing laboratory that studied the Earth's atmosphere and the Sun's influence on it and our climate system; mission manager of the Microgravity Science Laboratory-1 - where 29 experiments were performed in a pressurized Spacelab module onboard the Space Shuttle in 1997; and manager of the Space Station Utilization Office.

As deputy director of Flight Projects, Vanhooser will share responsibility with Director Tony Lavoie for several major

In 2000, Vanhooser was selected as a member of the Senior Executive Service — an elite corps of men and women who administer public programs at top levels of the

NASA programs. The Flight Projects Directorate manages the Chandra Observatory, the world's largest and most powerful X-ray telescope.

The directorate also develops and integrates space station components such as Nodes 2/3, and the Multi-Purpose Logistics Module, which carries supplies aboard the Space Shuttle to and from the Space Station.

In addition, the directorate provides technical support to the current Station life support system and is developing advanced regenerative life support systems for future use onboard the orbiting outpost. Flight Projects also develops and operates ground systems, payload racks, and payload support systems for accommodating payloads onboard Station.

Vanhooser earned a bachelor's degree in industrial engineering from Tennessee Technological University in Cookeville in 1980. She earned a Master's in Administrative Science and Project Management from the University of Alabama in Huntsville in 1986, and she has completed numerous executive and management-level training courses.

*The writer, an employee of ASRI, supports the Media Relations Department.*

## Shuttle Discovery processing continuing at Kennedy for Return to Flight

Kennedy news release

**P**rocessing continues in the Orbiter Processing Facility in preparation for Discovery's Return to Flight mission, STS-114, to the International Space Station. Vehicle power-up work, along with Orbital Maneuvering System pod continuity checks and verification testing are ongoing.

Following installation on Discovery of four new Rudder Speed Brake (RSB) actuators, technicians continue to re-hang the four panels. Workers completed installation of Discovery's external airlock and hung the first Reinforced Carbon-Carbon (RCC) panel on the right-hand leading edge of the wing last week.

Work on the Shuttles Atlantis and Endeavour also is continuing.

For complete Space Shuttle processing status reports, go to <http://www-pao.ksc.nasa.gov/kscpao/status/status.htm>.



Photo by Dennis Olive, NASA/Marshall Center

### Jim Franco receives X-37 award

X-37 Project Manager Dan Dumbacher, left, presents an award for "Extraordinary Diligence" to Jacobs Sverdrup employee Jim Franco, center, for resolving significant issues that impact the X-37 Flight Termination System. Lon Miller, right, Sverdrup group manager, also attended the presentation. The X-37 is used to test new technologies for developing future space transportation systems.

# Engineer's journey takes him from New Delhi to Marshall Center

by Patricia Dedrick Lloyd

During an afternoon visit in 1969 to New Delhi, India, Pravin Aggarwal saw a full-size mock-up of a Lunar Module, a Moon rock, and a film showing the first man on the Moon.

His interest in space travel was piqued. He had read about the contributions Indian-American engineers and scientists made to NASA's Apollo program, but had no idea he would one day join their team.

As a child, Aggarwal was "fascinated" by articles about space travel and he remembers creating a personal scrapbook, he said.

"Yet at that time, I never had the slightest glimmer, even in my dreams, that some 20 years later destiny would take me to the United States of America and I would eventually be given a lifetime opportunity to join the Marshall Space Flight Center team as the structural analyst."

Aggarwal and others will be among those who mark Asian Pacific American Heritage Month on May 26 at the Marshall Center. The event will be from 11 a.m.-noon in Center Activities Bldg. 4316. Samuel Mok, chief financial officer for the Department of Labor, will speak. All Marshall team members are invited.

Aggarwal began his journey to Marshall in 1977, when he migrated to the United States to attend college and work. He earned his master's degree in structural engineering from the University of Illinois in Chicago and later moved to the Tennes-



Aggarwal

Photo by Doug Stoffer, NASA/Marshall Center

see Valley to work in the nuclear power industry. He began working at Marshall in 1989.

As an engineer in the Structures, Mechanics and Thermal Department, Aggarwal is responsible for ensuring the structural integrity of the Space Shuttle propulsion elements. In addition, he has been involved in developing technologies and advancing state-of-the-art rocket propulsion systems.

He credits much of his success to those who have come before him. "I have a strong belief that my successful career was not possible without the many achievements of the Indian-Americans whose footsteps I followed."

During his years at Marshall, Aggarwal has earned the Silver Snoopy award, NASA Exceptional Service Medal and Space Flight Awareness award.

His future roles include assuring a successful return to flight of the Space Shuttle and to help lay the groundwork for the next generation's journey to the Moon and Mars.

"If I have learned one thing from my experience working at NASA, it is that we all need to be part of the solution," Aggarwal said. "I am reminded of the quote: 'Great achievements are not born from a single vision but from a combination of many distinctive viewpoints. Diversity challenges assumptions, opens minds and unlocks our potential to solve any problems we have.'" *The writer, an employee of ASRI, supports the Internal Relations and Communications Department.*

## NASA celebrates Asian American Pacific Islander Heritage Month

### *A message from NASA Administrator Sean O'Keefe*

This month, NASA joins other federal agencies and organizations to honor our nation's Asian American and Pacific Islander communities as we celebrate Asian Pacific American Heritage Month.

Established in 1977, the theme for this year's observance is "Freedom for All: A Nation We Call Our Own."

Beginning with their early immigration, Asian American and Pacific Islanders have made major contributions to our nation's growth and prosperity. Throughout their history, generations of Asian American and Pacific Islanders have proudly served in wars and conflicts to uphold our personal freedoms. Today, the Asian American Pacific Islander community continues to follow a set of values

that enrich education, family and our Nation's entrepreneurial spirit.

NASA is extremely proud of the wonderful contributions made by our own Asian American and Pacific Islander scientists, engineers and administrators, including Sharon Wong, diversity manager at Goddard Space Flight Center and former president of the Federal Asian Pacific American Council (FAPAC); and Dr. Danny Hwang of Glenn Research Center, this year's NASA nominee for the FAPAC Excellence in Individual Achievement Award. We also remember this month the enduring legacy of two of the finest members of the NASA family, Challenger astronaut Ellison Onizuka and Columbia astronaut Kalpana Chawla. We

will never forget their contribution to the exploration of space.

Later this month, NASA will take part in the FAPAC's 19th Annual National Leadership Training. Our goal is to recognize Asian American and Pacific Islanders' talents, skills and expertise by opening the doors of communication between our agency and the greater Asian American Pacific Islander community.

I encourage each of you to participate in programs and activities at your Center celebrating Asian Pacific American Heritage Month. By learning more about diverse cultures and embracing our differences, we will fulfill NASA's commitment to celebrate diversity.

—Sean O'Keefe  
NASA Administrator

# 'Military Appreciation Month' honors servicemen, women and families

*Editor's Note: Roy Malone, deputy director of Marshall's Safety and Mission Assurance Directorate, shares his experiences and thoughts regarding Military Appreciation Month in May.*

Congress has designated May as "Military Appreciation Month." It is a time to honor current and former members of the Armed Forces — active duty National Guard and Reserves and those who died in the pursuit of freedom and peace, and all their families.

This encompasses well over 80 million Americans and more than 227 years of our nation's history.

In Huntsville, the U.S. military is ever present. These individuals are friends, family members, co-workers, and neighbors who occupy a prominent place in the community. Often these servicemen and women blend so easily into their daily routines, the public can easily forget the dedication and commitment they have made and continue to make 24 hours a day, and 365 days a year.

Many members of the Marshall family are counted among the 80 million that have served the United States. These team members who are also reservists and guardsmen have served through years of regularly scheduled assignments. They have been called to serve for extended periods of time overseas. Some of them are away at this moment. At the Marshall Center, veterans and retirees bring a wealth of experience and knowledge to the workplace. Active duty individuals, including astronauts, bring a perspective that is priceless.

Like those in this community, men and women from around the country are making incredible sacrifices to maintain freedom. The country is currently engaged in a global war against terrorism and many of America's military personnel are deployed overseas in Iraq and Afghanistan to help secure freedom for the United States and freedom for those countries. Although the fighting may be oceans away, the benefits and freedoms they are defending are right here each day.

When I was on active duty with the U.S. Navy, I was proud to be a part of that effort. I served during Operation Desert Storm as the combat systems officer on a U.S. naval destroyer. My ship deployed for the Gulf two days after Christmas, leaving my wife who was pregnant with our first child.

I was separated from my family for six months with little or no communication during much of that time. It was a tremendous sacrifice for my family, and me, but I believed that sacrifice was a necessary part of keeping America free.

I ask that when you read or hear stories in the news about the current military involvement in Iraq and Afghanistan, think about the individuals fighting for the United States. Think about the people who are guarding America's borders and waterways. And if you happen to see one of them or a member of their family, please extend a hand and take the opportunity to say, "thank you."

— Roy Malone

## 'Marshall's American Idol' will entertain at annual Retirement Dinner

*From the Human Resources Department*

The 2004 annual Marshall Center Retirement Dinner will be June 3 at the Von Braun Center in Huntsville.

The event begins with a social at 5:30 p.m. in the West Exhibit Hall followed by dinner at 7 p.m. and entertainment at 8 p.m. This year's theme is "Marshall's American Idol," featuring a reprise of favorite skits from past retirement dinners.

Marshall's Customer Employee Relations Department is sponsoring the event. Marshall team member Edwina Bressette is chairperson, while Rhonda Stricklin is serving as entertainment director.

Tickets are \$16 and can be purchased from administrative officers. To reserve tables or for more information, call Joe Drieling at 544-7538.



Marshall Director David King, center, rehearses a musical number with, from left, Jan Davis, director of the Mission and Safety Assurance Directorate; Susan Foster, chief financial officer; Sheila Cloud, director of the Center Operations Directorate; and Teresa Vanhooser, deputy director of the Flight Projects Directorate.

Photos by Doug Stoffer, NASA/Marshall Center



Marshall Deputy Director Rex Geveden, second from left, performs a 'hot tub' skit during rehearsals for the upcoming annual retirement dinner. From left are Marshall team members Renee Reynolds, Geveden, Annie Matisak and Kimberly Robinson.

# Collaboration

Continued from page 1

as a Solid Rocket Booster and determine alloy constituents to an accuracy of four decimal places is a major breakthrough,” said Fred Schramm, technology utilization manager in Marshall’s Technology Transfer Department. Schramm worked closely with KeyMaster to develop the hand-held scanner.

The scanner also detects difficult-to-identify contaminants such as silicon, which can be detrimental to welding operations, but which now can be identified and removed before the welding process begins. Also, paint and other coatings won’t adhere to surfaces if silicon is present. The scanner will provide on-the-spot identification to allow silicon removal before applying primer coating to hardware such as the Shuttle’s Solid Rocket Boosters.

The scanner development also marks a major improvement in the quality assurance field, because screws, nuts, bolts, fasteners and other items can now be evaluated upon receipt and rejected if found to be substandard. The same holds true for aluminum weld rods.

“On-the-spot analysis to identify possible counterfeiting or otherwise unacceptable parts at the distributor or process entry level will revolutionize the capability of NASA quality assurance and production operations to detect material problems at receiving inspection points, on the shop floor and in the field,” said Schramm.

Three vacuum X-ray fluorescent hand-held scanners are already being used in the Space Shuttle Program. The External Tank Project Office is using one for aluminum alloy analysis, while a Marshall contractor is evaluating alloys with another unit purchased for the Space Shuttle Main Engine Office. The Reusable Solid Rocket Motor Project Office has obtained a scanner that is being used to test hardware and analyze materials.



Photo by David Higginbotham, NASA/Marshall Center

**Marshall team member Richard Boothe, left, and Wanda Hudson of ATK Thiokol Propulsion demonstrate a portable vacuum X-ray fluorescent analyzer that performs on-the-spot chemical analyses -- a task previously only possible in a chemical laboratory. The portable analyzer, or scanner, identifies unacceptable parts and greatly improves quality assurance.**

The product has potential for a broad application in other industries, especially those that depend heavily on materials analysis - such as the automotive and pharmaceutical industries. Materials can be scanned as they come in the door and faulty products rejected. Corrosion can even be detected through paint. And with the extended detection range of the scanner, many chemical-blending processes can be evaluated in real time with high accuracy.

“The ability to validate the integrity of raw materials and partially finished products before adding value to them in the manufacturing process will be of benefit not only to businesses, but also to the consumer, who will have access to a higher value product at a cheaper price,” Schramm said.

KeyMaster’s work in developing the scanner technology with NASA was enabled by the agency’s Technology Transfer Program resulting in an exclusive license.

*The writer, an employee of ASRI, supports the Media Relations Department.*

## Job Announcements

**MS04C0123**, AST, Environmental Engineer. GS-0819-14, Center Operations Directorate, Environmental Engineering Department. Competitive Placement Plant. Closes May 27. Contact: Dana Blaine at 544-7514.

**MS04C0133**, Industrial Property Management Specialist (IPO). GS-1103-12 (promotion potential to GS-13), Center Operations Directorate, Logistics

Services Department, Property Management Group. Competitive Placement Plan. Closes May 21. Contact: Dana Blaine at 544-7514.

**MS04D0137**, AST, Technical Management. GS-0801-15, Office of the Director. Delegated Examining Unit. Closes May 21. Contact: Kevin Plan at 961-0157.

## Retirement events

A retirement party for Joe Stiles, transportation manager with EG&G Logistics Service, will be from 11 a.m.-1:30 p.m. Monday in Center Activities Bldg. 4316.

There will be a covered dish luncheon and all Marshall team members are invited.

Stiles will retire from the Marshall Center on May 28 -- after more than 42 years of service.

# Announcements

## **'I Am Set' mentors needed**

**M**entors are needed to work with high school students during a high-tech summer internship for the Individuals with Disabilities in Math, Science, Engineering & Technology (I Am Set) program scheduled for June 7-July 16. For more information, including location and times, call Dr. Barbara Cady, project director, at (256) 372-4041 or Madeline Hereford in the Marshall Center's Equal Opportunity Office at 544-7420.

## **UAH Engineering Summer Camp set for June, July**

**T**he University of Alabama in Huntsville will host its third annual Engineering Summer Camp for incoming high school juniors and seniors June 14-18 and July 12-16. Cost is \$350. Scholarships are available. For applications or more information, go to [www.eb.uah.edu/camp](http://www.eb.uah.edu/camp) or call Veronica Molina at (256) 824-3590.

## **Blood pressure screenings emphasized during May**

**M**ay is High Blood Pressure Month and the Marshall Center is participating by offering blood pressure screenings for employees on work days from noon-3 p.m. at the Bldg. 4249 Medical Center. HEMSIs paramedics also will stop by various Marshall buildings to offer screenings during the month. For more information, see "Inside Marshall."

## **Management Operations Office retirees to meet May 27**

**R**etirees of the Management Operations Office will meet for brunch at 10 a.m. May 27 at the Cracker Barrel Restaurant in Madison. For details, call 539-0042.

## **Nominations open for NASA leadership programs**

**N**ominations are open for the NASA Leadership Development Program, NASA Fellowship Program, and the Federal Executive Institute's Leadership for a Democratic Society Program. Nominations are due May 28 to CD20,

though individual organizations may have earlier submission dates. For more information, including Web sites containing complete program details, call Vanessa Suggs at 544-7527.

## **Shuttle Buddies to meet Monday**

**T**he Shuttle Buddies will meet at 9 a.m. Monday at Mullins Restaurant on Andrew Jackson Way in Huntsville. For more information, call Deemer Self at 881-7757.

## **E-mail spam filter testing ongoing through May 28**

**T**esting of an enhanced e-mail Spam Prevention Service is ongoing at the Marshall Center through May 28. Suspect e-mails will have "SPAM" written in the subject line. Because of the nature of these messages, some error is unavoidable. If Marshall team members receive a message incorrectly tagged as "SPAM," or a message that should be tagged, they should send the entire message to [abuse@msfc.nasa.gov](mailto:abuse@msfc.nasa.gov). An "Anti-Spam Test FAQ" is at <http://email.msfc.nasa.gov>, which provides details on spam filtering and reporting procedures.

## **New procedures for Facilities Work Request in effect**

**I**n accordance with MPG 8812.1B, the Facilities Engineering Department will only accept a Facilities Work Request (Form 199) when authorized in writing at a group lead level or above. For more information, call Nell Clemmons at 544-7845 or see "Inside Marshall."

## **Red Cross Blood Drive will be Friday**

**T**he American Red Cross will hold a blood drive from 8 a.m.-1:30 p.m. Friday at Center Activities Bldg. 4316. For more information, call Rick Wallace at 544-8885.

## **New snack bar in Bldg. 4666 now open**

**T**he Malibu Cajun Grill snack bar, in Bldg. 4666, Room 234-D, is now

serving breakfast and lunch. Call 544-5386 for the daily menu.

## **Traffic lights at Morris, Neal roads temporarily on timers**

**T**raffic lights at Morris and Neal roads have been set on timers instead of traffic-sensing mode because of paving work. The lights will be reset to traffic-sensing mode once new relays are installed. The work is expected to take about two weeks.

## **Leadership, change seminar set for Tuesday**

**A**live satellite on "leadership and change," will be from 10 a.m. to noon Tuesday at the Marshall Self-Study Learning Center in Bldg. 4200, Room G13-C. Management expert Tom Peters will present effective leadership and management techniques, how to instill integrity and commitment in the workplace and how the business environment sustains change. For more information, call 544-8291.

## **Nursing Mothers Quarterly Meeting will be Wednesday**

**T**he Spring Quarterly Meeting of the Marshall Nursing Mothers program will be at 9 a.m. in Bldg. 4200, Room 732. The program is sponsored the Equal Opportunity Office. For more information, call Billie Swinford at 544-0087.

## **New form, address for NASA Safety Reporting System**

**N**ASA Headquarters has released a new form and mailing address for use with the NASA Safety Reporting System. The system is a way for Marshall and other Agency team members to report unsafe acts or concerns. New forms are available in various Marshall buildings. The new mailing address is NSRS, P.O. Box 5826, Bethesda, MD 20824. An electronic form is available at <http://www.hq.nasa.gov/nsrs>. For more information, call Prince Kalia at 544-6871.

# Classified Ads

## Miscellaneous

- ★ Oak desk, \$100; Mahogany secretary, \$850; Walnut hall tree, \$1,250. 489-0797
- ★ Lifestyler SX aerobic stepper, adjustable tension, \$25. 751-3766 after 4:30 p.m.
- ★ GM truck bed liner, \$55; antique school desk, refinished, \$85. 837-1774
- ★ Childcraft Cherry crib/toddler bed, mattress, pad, sheet, bumper pads, comforter, changing table, \$350. 883-1874
- ★ Church pew, \$150; hutch w/windows, \$180; double oven, \$125; other furniture. 778-9149/Dave
- ★ Intex Easy Set pool, 15' x42", chemicals, pump, cover, cleaner, filters, used one summer, \$125. 828-9099
- ★ Yamaha baby grand piano, \$7,500. 256-882-2323
- ★ RCA 27" stereo TV w/remote, cable ready, audio/video in/out plugs, \$50. 828-3653
- ★ Queen-size pillow top mattress, box springs and frame, \$100. 830-0851
- ★ Baby crib w/mattress and dresser. 828-3834
- ★ Scoop Away cat litter, 33 lb- bucket, \$9. 533-5942
- ★ Large wood doghouse w/shingle roof, \$25. 656-9087
- ★ Jenn-Air downdraft grill, \$125; Almond cooktop, \$75; black desk/chair, \$50; sofa table, \$35. 883-5168
- ★ 1977 Avion travel trailer, 27', reduced \$3,800. 931-427-2059
- ★ Aluminum semi-V boat, 15', Johnson 18HP, carpeted, bass seats, trolling motor, tilt trailer, \$1,400. 256-351-6996
- ★ Frigidaire built-in dishwasher, less than 2 yrs. old, white, \$75. 509-4355
- ★ Dining set, 42" diameter, Cherry, single pedestal, 4 chairs w/seat cushions, \$300. 337-2534
- ★ Single maple bunk bed w/mattress, box springs, and side rails, \$150. 883-7661
- ★ Zenith direct TV, high definition receiver, HDTV tuner, Model HD-SAT520, \$325. 256-828-7013
- ★ Blue metal full-size bunk bed set, \$75; white metal futon twin bunk bed, \$75. 503-1230
- ★ Sectional couch, 3-piece, w/built in recliner on both ends, \$350. 256-351-2009
- ★ Large triple dresser & nightstand, \$150; triple dresser, mirror & two nightstands, \$150. 652-8140

- ★ Solid Cherry hardwood desk, \$350. 961-9355/Chris
- ★ Cream color queen comforter w/blue leaf pattern, shams/bed skirt, decorator pillow, \$100. 256-498-6580
- ★ Professional picture mat cutter, mat storage, prints, framing board. 256-852-7180
- ★ Tickets, Indy 500, May 30, outside 3rd<sub>rd</sub> turn, high row, \$85 each. 881-1249
- ★ Aluminum diamond plate tool box for step-side pickup truck, \$100. 852-2438
- ★ Boy's twin comforter, sheets, blanket, valance, rug, lamp, wall border, shower curtain, \$70. 316-2902
- ★ Lifestyle SX aerobic stepper, adjustable tension, \$25. 751-3766 after 4:30 p.m.
- ★ Little Tykes white toddler bed with mattress, \$75. 461-8284
- ★ Fisher Price Power Wheels Jeep Wrangler, 4x4, \$100. 205-981-9769
- ★ Pfaltzgraff "Remembrance" pattern: 4-piece canister set, \$25; cookie jar, \$10; pitcher, \$10. 536-6228
- ★ German Shepherd pups, 2-males, female, AKC, champion line, dewormed, shots, vet checked, \$500. 256-694-5912
- ★ Singer sewing machine, \$100. 797-5829
- ★ Complete set of American Heritage board games, all four, from early 1960s. \$125. 306-0700 Decatur

## Vehicles

- ★ 1994 Pace Arrow, 34', new Michelins/brakes, 2 TVs, 7kw generator, 31k miles, \$25,000. 256-830-1008
- ★ 2001 Honda Odyssey EX, 79K miles, gold, \$17,900. 880-9385
- ★ 2001 Dodge RAM 1500 Sport, quad-cab, 4x4, all-power, step/bed rails, bedliner, towing pkg., \$15,000. 859-0729
- ★ 2003 Toyota Tundra SR5 Access cab, 4.7L, auto, 2wd, 33k miles, loaded, \$22,765. 256-520-6353
- ★ 1994 Chevy conversion van, one-owner, all extras w/TV/vcp, rear a/c, \$8,750 firm. 534-2368
- ★ 1001 Polaris 500 Sportsman 4-wheeler, 4x4, dark green, automatic, low hours/miles, \$3,500. 389-8818
- ★ 1994 Chevy S10 Tahoe Blazer, 6-cyl., Vortec engine, auto, ps/pw, abs brakes, cd changer,

- \$2,000. 256-656-9466
- ★ 2002 Mazda B2300 truck, a/c, bedliner, rear sliding window, 30k miles, red, \$7,300. 256-830-8934
- ★ 2003 Ford Expedition. 233-6197
- ★ 1995 Camero convertible, white w/black top, 88k miles, one-owner, \$6,700. 797-2439
- ★ 1998 Toyota Tacoma SR5, 4x4, white, extended cab, loaded, 114k miles, new tires, \$8,500. 256-572-3574
- ★ Giant Perigee 56cm road bike; Shimano components, clip-less pedals, computer, aero bars, \$275. 797-2668
- ★ Suzuki JR50 dirt bike, \$600. 527-8116
- ★ 1997 Gulfstream, 36', 24k miles, generator, hydraulic jacks, tv/vcr, camera, awning, heat/ac, \$45,000. 256-931-0177
- ★ 2000 Winnebago Adventurer, 35', A-Class RV Ford V10, 2 slide-outs, warranty, 85K miles, \$85,000. 256-520-0816
- ★ Travel trailer, RV, 22', 2000 model, stove, microwave, bath w/shower, ac/heat, sleeps 6, \$7,500. 881-8674
- ★ 2000 Jeep Cherokee Limited, 4.7L/V8, burgundy, 56k miles, Infinity sound system, towing pkg. \$18,500. 256-751-9131

## Wanted

- ★ Ride to work, near Huntsville Hospital, 7 a.m.-3:30 p.m., \$7 per day. 533-6980
- ★ Used riding mowers for parts. 256-586-3939
- ★ Saxophone for beginning student, school requires Yamaha YAS-23 Model. 256-337-4321
- ★ Set of 4 aluminum wheel caps for 1994 Camry XLE. 256-881-4748
- ★ Plastic silver Honda hub caps for Honda Accord, 14" wheels. 883-2757

## Free

- ★ Kittens, 8-wks. old, litter box trained, calico, white, & tabby; 2-yr.-old, calico cat. 882-0002
- ★ IEEE Spectrum magazines dated from 1998 to present, Engineering Technology. 426-8700

## Found

- ★ Bracelet, Bldg. 4200. Call 544-3623 to identify/claim

# MARSHALL STAR

Vol. 44/No. 34

Marshall Space Flight Center, Alabama 35812  
(256) 544-0030  
<http://www1.msfc.nasa.gov>

The Marshall Star is published every Thursday by the Internal Relations and Communications Department at the George C. Marshall Space Flight Center, National Aeronautics and Space Administration. Contributions should be submitted no later than Monday noon to the Marshall Internal Relations and Communications Department (CD40), Bldg. 4200, room 101. Submissions should be written legibly and include the originator's name. Send electronic mail submissions to: [intercom@msfc.nasa.gov](mailto:intercom@msfc.nasa.gov) The Marshall Star does not publish commercial advertising of any kind.

Manager of Internal Relations  
and Communications — Steven Durham  
Editor — Jonathan Baggs

U.S. Government Printing Office 2004-633-065-60104

Permit No. G-27  
NASA  
Postage & Fees PAID  
PRE-SORT STANDARD