National Aeronautics and Space Administration
NASA Marshall Star: Jan. 31, 2008: Vol. 48/No. 18

MARSHALL STAR

Serving the Marshall Space Flight Center Community **Jan. 31, 2008**

Day of Remembrance . . . Message from the Center Director

David King

Jan. 31 has been designated as a Day of Remembrance for NASA and the nation as we pay tribute to the crews of Apollo 1, Challenger and Columbia.

We set aside this day each year to honor those who have given their lives in the selfless pursuit of knowledge, discovery and exploration.

NASA belongs to the American people, for we are their space program. We share with America a sense of high esteem for our astronauts. They are brilliant and daring, a special breed of people all their own. They are our friends, our families, our heroes.

And the nation mourns with us when one of them falls.

What we do at NASA embodies the best of the American spirit — the unquenchable desire to explore, to bravely unlock the doors of discovery, to pursue the betterment of all. It is not an easy task. Nor is it without risk.

I hope you will make time to remember the ultimate sacrifice given by our astronauts:

Apollo I
Virgil "Gus" Grissom
Ed White
Roger Chaffee

Challenger
Michael J. Smith
Dick Scobee
Ron McNair
Ellison S. Onizuka
Sharon Christa McAuliffe
Greg Jarvis
Judy Resnik

Message from NASA Administrator Michael Griffin on page 4.

Columbia
Rick D. Husband
William C. McCool
Michael P. Anderson
Ilan Raman
Kalpana Chawla
David M. Brown
Laurel Clark

It is in their memory, and for their honor, that we heal our hearts, learn from the mistakes of the past, and continue our journey with determination and vigor.

David King
Director, Marshall Space Flight Center

Space shuttle hardware testing at Marshall complete

Tests verify redesigned connector is ready to fly

By Sanda Martel

Space shuttle program managers met Jan. 25 in an agency-wide video teleconference to review space shuttle Atlantis' readiness to launch Feb. 7 for its STS-122 mission to the International Space Station. The session was a precursor to the executive-level flight readiness review held Jan. 30, when a formal launch date was set for the mission.

"We're on track for a Feb. 7 launch," said Steve Cash, deputy Shuttle Program Manager and manager of Marshall's Shuttle Propulsion Office.

"We have a high degree of confidence in the troubleshooting and the testing we've done here at Marshall," said Cash. It's been an agency-wide effort to solve the engine cutoff sensor connector problem that surfaced last month, he added.

Two launch attempts in December were postponed after an electrical connector in an engine cutoff sensor system prompted false readings. The connector was removed and replaced with a modified connector that was soldered to make a firm connection.

The removed external plug and feed through connector were

See STS-122 on page 5

Moving toward NASA's 50th anniversary

Army team launched Explorer I 50 years ago

Fifty years ago today, Jan. 31, 1958, an Army team from Huntsville launched America's first scientific satellite.

Wernher von Braun and his German rocket team in Huntsville did the job. In fact, the idea for such a launch had been on von Braun's mind for years and in 1950 when he came to work for the U.S. Army in Huntsville, he knew what he wanted to do.

Von Braun and his team launched the first Redstone missile from Cape Canaveral, Fla. Then the team proposed to launch a small man-made satellite using a modified version of the Redstone missile, known as Jupiter-C. Unfortunately, the proposal was turned down.

"[President] Eisenhower was worried about rattling the saber" against the Soviets, Marshall retiree Bob Schwinghamer recalled. "He didn't want to let the Army do it." On July 29, 1955, Eisenhower endorsed using a Naval Research Lab proposal called "Project Vanguard" for the satellite launch.

Despite their disappointment, von Braun and his Army team continued work on plans for a rocket that could launch America's first satellite. "In those early days, we knew we had a satellite and could put it up," said Marshall retiree Alex McCool.

But, as Schwinghamer recalled, the Huntsville group was under orders from Washington to make sure that the top stage of the Jupiter-C was a dummy and not a satellite. "They had somebody in the control room from Washington so the fourth stage would not be ignited," he said.

In addition, Secretary of Defense Charlie Wilson had decided to give the Air Force jurisdiction over long-range missiles and the Army responsibility for missiles with up to a 200-mile range. The editor of the Huntsville Times spoke for many in the area when he wrote: "Charlie Wilson has put his foot in his mouth again — and this time I hope he chokes on it."

First row, from left, are Explorer project leaders Dr. Eberhard Rees, Maj. Gen. Bruce Medaris, Wernher von Braun and Dr. Ernst Stuhlinger. Looking on in background are, from left, William Mrazek and Walter Haeussermann.

Wernher von Braun is presented with the front page of the Huntsville Times announcing the launch of Explorer I.

Despite the inter-service rivalry and the policy directives from Washington, Huntsville continued to mark milestones in the missile and space race, but it wasn't until after Oct. 4, 1957, that the nation really turned its attention to Huntsville. That was the day the Russians launched Sputnik, the world's first man-made orbiting satellite.

Just over a month later, however, on Nov. 8, 1957, spirits rose in Huntsville when the Secretary of the Army directed Huntsville to launch a scientific satellite on board a Jupiter-C. It was the chance von Braun and his team had dreamed of. Even after the Nov. 8 announcement, the Navy's Vanguard was still in the running to launch the first satellite. But that changed, too, after Dec. 6, when the Vanguard erupted in a ball of fire on the launch pad.

The nation now turned to Huntsville, and on Jan. 31, 1958, the Army, in cooperation with the Jet Propulsion Laboratory in California, launched a modified Jupiter-C rocket from Cape Canaveral. The rocket carried Explorer I, the nation's first Earth-orbiting satellite, developed jointly by the Jet Propulsion Laboratory and the U.S. Army. Equipped with small Geiger counters to register cosmic rays, the payload was built by Dr. James Van Allen of the State University of Iowa.

Huntsville celebrates

Huntsville celebrated the Explorer I launch with fireworks in the streets. "There was pandemonium that night," said Marshall retiree Bob Schwinghamer. Huntsville got a place on the map, and "Missileman von Braun" soon appeared on the cover of Time magazine. Newsweek also featured Huntsville and reported that Secretary of Defense Charlie Wilson did not understand why he had been hung in effigy on the courthouse square in Huntsville.

The Explorer I launch marked the eighth year since the von Braun rocket team had moved to Huntsville. Much had changed in town. The cotton traders, the mule-drawn wagons and other signs of rural life that had been so much in evidence in the first half of the century were gone, as were the most visible signs of grinding poverty. And the town was bigger, having grown from 16,000 in 1950 to 48,000 by 1956.

Saturn rocket historian Roger Bilstein noted that in 1950, the Huntsville city limits only extended about a mile from the courthouse. Because there was no sewage treatment plant, sewer lines pumped effluent to a creek outside the city limits and then on to the Tennessee River. Huntsville in the 1950s, said Dave Christensen, close associate of von Braun, was a town of contrasts. "The downtown had the beautiful old courthouse and all the stores. But if you went very far out … there were some of the worst conditions I have ever seen in my life … One of the big impacts of the rocket program coming to Huntsville was enough money to clean up all these horrible places."

Soon, the word "rocket" was plastered everywhere — the Rocket City Café, Rocket City Motorcycle Shop and Rocket City Upholstery, to name a few examples — and more and more space experts were coming to town. The journal Astronautics reported that the Army Ballistic Missile Agency was recruiting an additional 400 civilian engineers, physicists, mathematicians and others. The city "draws top talented physicists from New England, machine workers from the East Coast, electrical engineers from the Midwest and promising young chemists from Georgia Tech and California," said U.S. News and World Report.

Army Ballistic Missile Agency Commander Gen. John B. Medaris, proud of his Army team in Huntsville, found it ironic that the city's growth and Redstone's acclaim resulted from America's wake-up call from Sputnik. "If I could find the damned thing, I would kiss it on both cheeks," he told Newsweek.

From left, William Pickering of the Jet Propulsion Laboratory, James Van Allen of the State University of Iowa, and Wernher von Braun proclaiming the launch of Explorer I.

NASA created

Following the launch of Jupiter-C, the nation's leaders debated whether the country's space program should be directed by a military or civilian agency. Eventually, the role was assigned to a civilian agency, the National Aeronautics and Space Administration, which was created on Oct. 1, 1958. NASA would include experts in aeronautics as well as scientists and engineers who could develop space-launch vehicles. In 1958, however, launch-vehicle expertise existed primarily at one site in the United States — Huntsville.

"All the smarts were down here, all the engineering. There weren't many other places to turn to at the time," recalled Marshall retiree Jay Foster. As a result, President Dwight Eisenhower signed an executive order saying that personnel from the Development Operations Division of the ABMA in Huntsville would be transferred to NASA.

Foster and about 4,000 other Army civilian employees went to a transfer ceremony on July 1, 1960. They returned the same day to the same laboratories and offices as NASA employees. The new NASA center was dedicated by Eisenhower on Sept. 8, 1960, and named in honor of Gen. George C. Marshall, Eisenhower's World War II military colleague and author of the famous Marshall Plan for postwar European recovery.

Obituaries

Lou Kennamer Holland, 79, of Huntsville died Jan. 11. She retired from the Marshall Center in 1978 as a clerical assistant. She is survived by her husband, Bill Holland.

Ernest Rosser Lawson, 87, of Huntsville died Jan. 13. He retired from the Marshall Center in 1974 as an aerospace engineer technician.

Message from the administrator


Michael Griffin

The last week of January brings, every year, a confluence of sobering anniversaries that we honor this Thursday with our Day of Remembrance. On Jan. 27, we marked 41 years since the loss of the crew of Apollo 1, and with it NASA's loss of innocence. The Apollo fire made it clear that we bring to spaceflight the same human flaws as our forebears who first sailed the ocean or went aloft in stick-and-wire contraptions. Successive generations have known the same harsh truth; the crew of Challenger was lost to us on Jan. 28, 22 years ago, and on Feb. 1 we mark five years since the loss of Columbia.

These losses carry an inevitable and awful guilt for those of us who have spent our professional lives on the edge of the possible in aviation and space. We know that what we do carries risk to ourselves or those who depend upon us, risk beyond what is customary in most other walks of life. This risk is endemic to flight in all its forms; it cannot be set aside. And yet, anyone who has ever sat on a failure board or read its report knows that there are no smart accidents. Every one is the result of human frailty, of things done or not done that are, in retrospect, obviously wrong. When this is seen in the harsh light of yet another accident report, it eats at us in a way that leaves no escape and never goes away. How could we have been so blind? Yet we were, and there is no going back, there is only forward, forward with the knowledge that we missed something crucial, forward with the resolve not to make the same mistake again.

When it comes to engineering and operations, we don't. We won't again put a crew in a cabin with high-pressure oxygen and no escape route. We won't again accept a joint design that is somehow "OK" because, even though its primary o-ring fails routinely, its secondary o-ring remains mostly intact. And we will never again believe that foam moving at high speed is, after all, just foam.

But as tempting as it is for us who are engineers and managers to take comfort in finding and fixing the root causes of these accidents and other near misses, I think we do ourselves a disservice thereby. For when we investigate, we always find that there were people who did see the flaw, who had concerns which, had they been heard and heeded, could have averted tragedy. But in each case the necessary communication — hearing and heeding — failed to take place. It is this failure of communication, and maybe the failure of trust that open communication requires, that are the true root causes we seek. These are the real reasons we have a Day of Remembrance, and need one.

I was reminded of this the other day when an old NASA friend sent me a congratulatory e-mail on the success, so far, of the Messenger mission to Mercury, and acknowledging my (small) role in it from an earlier professional incarnation. My friend started his note by saying that because his message was in connection with my prior role, he felt that he was not violating "protocol" or jumping the chain of command. And of course he was not.

But I worry whenever someone brings up a concern about communicating between different levels in the "chain of command." Whenever it arises, my own worry is that the free and necessary flow of information is inhibited.

We employ the organizational hierarchy and its accompanying flow of authority and responsibility to serve us, not to tie our hands. A healthy organization allows information to move up, down, and sideways, and pushes decisions, and trust in those decisions, down to the place where they can best be made. An unhealthy organization prevents needed information from flowing to those who must determine where that place is.

But no amorphous "organization" does these things. For good or ill, it is the people in NASA who do, or do not do, what is needed. So, if you find yourself with a concern that you are reluctant to speak about to your supervisor, or to have a conversation about outside your "chain of command," think about what that can cost. If you're the one hearing a concern, think about whether you're really listening, or just waiting politely until the speaker is done talking, and think about what that can cost.

In either case, think about whether you're working in the right kind of organization to meet the exacting demands of what it is that we do. Don't leave for a better organization — that's not the right answer. Help us make NASA what it needs to be.

The authority to provide direction lies in the chain of command, and belongs there. But to require the "chain of command" to be coincident with the "chain of communication" produces only dysfunction. The information that provides the situational awareness to allow good leadership, and good followership, belongs to us all.

Remember that the next time you are reluctant to speak, or impatient with listening, and remember the real reasons that we have a Day of Remembrance.

The more we remember those real reasons, the longer it will be before we have another cause for mourning.

Thank you.

Michael D. Griffin
Administrator, National Aeronautics and Space Administration

STS-122

Continued from page 1

shipped to the Marshall Center to determine if the failure could be recreated in a high-fidelity test facility in Test Area 300 using focused and limited nondestructive and destructive physical tests.

All circuit anomalies experienced during testing were representative of those seen during the launch attempts and tanking test last month, said Chad Bryant, External Tank Project engineer, who led the Marshall testing for External Tank.

"The tests concluded that the open circuits occurred on the external side of the feed through connector, and identified the assembly as the problematic hardware leading to the false readings during two launch attempts and a tanking test in December at the Kennedy Space Center," said Bryant.

The feed through assembly allows wires on the interior of the tank to connect with external wires that lead to a computer on the orbiter Atlantis. The tests were configured to replicate tank chill down temperatures, loading pressures and environmental conditions during the two launch attempts.

Flight rationale testing and qualification testing began Jan. 19 and continued through Jan. 24 on hardware that was removed from ET-125 on the launch pad and on redesigned connectors that will fly on STS-122. Both configurations were subjected to external tank temperature, pressure, and vibration environments identical to those experienced during launch. The tests verified the adequacy of the new configuration and provided flight rationale to proceed with Atlantis' launch.

In the Jan. 25 review, managers decided to keep the previous confirmed launch criteria of three of four engine cutoff sensors working, as long as the single failure is of a known type.

Since 2005, signals from sensors have been intermittent. An intermittent signal would be considered a known failure. High voltage, for example, would be considered unknown or new.

The Marshall Center Engineering Directorate's unique test facilities, including teams at Test Stand 300 in the East Test Area and the Vibration Test Area located in Building 4619 are helping ready the shuttle for flight by performing tests that prove changes to shuttle hardware are safe to fly. The test facilities also are helping NASA's development of the Ares I spacecraft.

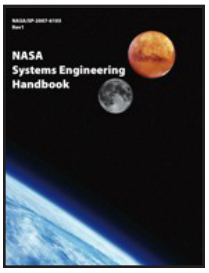
For more information about the STS-122 mission, go to http://www.nasa.gov/mission_pages/shuttle/main/index.html.

For more information about the Marshall Center's unique test facilities, go to http://ed.msfc.nasa.gov/.

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.

Marshall engineer leads agency team

Revised NASA Systems Engineering Handbook now available



A revision of the NASA Systems Engineering Handbook, SP-6105, is now available.

The revision was completed and approved by NASA's Office of the Chief Engineer in December. Neil Rainwater, an engineer in the Marshall Center's Engineering Directorate, led the agency team of representatives from all NASA centers, mission directorates, and Headquarters offices, plus more than 150 subject-matter experts from across NASA. This revision culminates the 18-month effort of the team.

The handbook was originally published in 1995 to bring the fundamental concepts and techniques of systems engineering to NASA personnel in a way that recognizes the nature of NASA systems and the NASA environment. This latest revision maintains that original philosophy while updating NASA's systems engineering body of knowledge, providing insight into current best agency practices and aligning the handbook with the new agency systems engineering policy.

Published bound copies of the revised handbook can be obtained from Marshall's Systems Engineering Working Group representatives, Phillip Hall or Neil Rainwater.

2008 Earth Day logo contest entries now being accepted

The Environmental Excellence Team committee is accepting entries for the 2008 Earth Day logo contest until Feb. 6. Entries should reflect this year's slogan of "One Green Step for Man, One Green Planet for Mankind."

The winning logo will be used in promotional materials such as this year's Earth Day T-shirt. Only hand-drawn sketches will be accepted. The contest is open to civil service and contractor employees as well as their children. For more information on the new rules for this year and directions on how to submit, go to "Inside Marshall."

THE FACE OF MISSION SUCCESS IS:

Dr. Clay Moquin

Medical director in the Environmental Engineering & Occupational Health Office

Everyone has heard the old saying "an apple a day keeps the doctor away." Whether this is true or not, Dr. Clay Moquin makes sure that he and his staff in Marshall's Medical Center provide the best advice to Marshall employees in order to keep them in great working condition while carrying out their job duties. As the Medical Center director in the Environmental Engineering & Occupational Health Office in the Office of Center Operations, Moquin serves as a senior aviation medical examiner and certified medical review officer, and works alongside the Medical Center's staff, who see approximately 11,000 patients and performing around 4,400 physical exams each year.

What is your education background?

I graduated from Birmingham-Southern College in Alabama with a bachelor's degree in biology in 1974 and the University of Alabama at Birmingham School of Medicine in 1978. I finished my residency in family medicine at the University of Alabama / Huntsville Hospital Family Practice in 1981 and became board certified.

What are the key responsibilities of your position?

As Marshall's medical director, I am responsible for all the medical services while overseeing a staff of four administrative personnel, two paramedics, three registered nurses, one nurse practitioner and my colleague, Dr. Joe Musick. Our clinic offers a comprehensive occupational medical program, which includes a full physical examination, along with a comprehensive blood work and an explanation of those findings to all Marshall employees eligible for this service. This blood work includes measuring blood sugar, kidney and liver functions, cholesterol levels, etc. We also perform electrocardiogram, hearing, pulmonary functions and vision testing. Exams are provided to contractor employees who have particular job exposures, such as noise, asbestos, lead and various chemicals.

We provide evaluation and treatment for most occupational injuries and illnesses for civil service or contractor personnel. In addition, we provide evaluation and treatment of minor illnesses for NASA employees and are able to respond to cardiac emergencies. Our staff also examines patients before international travel to ensure they are healthy and are up to date on any needed vaccinations.

What services does your job provide in support of the center's mission and NASA's goal of exploration?

Doug Stoffer/MSFC

Dr. Clay Moquin

Our goal is to provide accessible and routine medical care to our workforce onsite, minimizing the time needed away from the job. However, we also have strong feelings about preventive medicine and we teach and motivate employees in achieving better health so they can carry on their job duties in support of the center's mission. We try to coordinate this effort with the patient's primary physician. We also participate in and promote Marshall's annual Health Expo to support mission success and a healthy workforce.

What do you hope to accomplish in your role this year?

This year, I am working on updating and modifying our lab profile to be more specific for confirmatory testing. We want to be better at screening for inflammation in arteries that can be an early indicator of vascular disease. I also hope to improve our evaluations on diabetic employees, screen for hypothyroidism and liver disease.

Away from work, how do you like to spend your personal time?

At home, I garden and enjoy woodworking. I also like spending time with my 16-year-old son, Cole. On the weekends, you might see us in the car on the arsenal — with me in the passenger seat — as he practices driving.

Jessica Wallace, an ASRI employee and Marshall Star editor in the Office of Strategic Analysis and Communications, contributed to this article.

NASA college scholarship applications now available

The NASA College Scholarship Fund Inc. is now accepting applications from dependants of NASA employees or retirees who are pursuing college degrees in science or engineering. The application deadline is March 20, 2008. For more information and an application, go to http://nasapeople.nasa.gov/nasascholarship/index.htm or contact Bill Mayo at 544-7220.

Jay Onken appointed to SES position of manager of the Engineering Directorate's Mission Operations Laboratory

Jay F. Onken has been appointed to the Senior Executive Service position of manager of the Mission Operations Laboratory in Marshall's Engineering Directorate. He has served as the lab's deputy manager since September 2004 and acting manager since August 2006.

The Senior Executive Service is the personnel system covering top managerial positions in approximately 75 federal agencies.

With almost 20 years of NASA experience, Onken has a technical background and extensive experience in mission operations. After earning a bachelor's degree in aerospace, aeronautical and astronautical engineering from the University of Illinois at Urbana-Champaign in 1988, he joined Marshall in 1989 as an orbital analysis engineer, supporting six Spacelab missions. In September 1995, Onken was assigned to the Chandra X-ray Observatory as lead mission planner where he led the planning and execution of the first end-to-end test between Chandra and the Operations Control Center and served as flight director for the observatory's activation and checkout period.

In July 1999, Onken was assigned as a Payload Operations director for the International Space Station, where he directed ISS increments 3 and 4. He moved to Johnson Space Center in August 2001 to establish a resident office to facilitate daily coordination between Johnson's Mission Operations Directorate and Marshall's Mission Operations Laboratory. Onken returned to Marshall in September 2002 when he assumed the position of deputy project manager for the ISS Payload Operations and Integration Function. In October 2004, he was selected to serve in his current position of deputy manager of the Mission Operations Laboratory.

Jay Onken

Onken has received numerous awards throughout his career, including two NASA Medals for Exceptional Service, three NASA Certificates of Appreciation, a Johnson Flight Director's Award and several group achievement awards. He has authored and co-authored numerous American Institute of Aeronautics and Astronautics papers and served as the keynote speaker for two AIAA regional events.

Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Employee Ads — Submit Ad." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue, Feb. 7, is 4:30 p.m. Thursday, Jan. 31.

Miscellaneous

Jugs two-wheel curveball pitching machine, batting cage frame, net, $1,200. 651-1911

Large oak roll-top desk, $550; Nordic Track treadmill, $450. (931) 425-0205

Antique oak armoire $350; antique drop desk with side shelves, $250. 348-7146

Antique oak dresser, early 1900s, beveled mirror, four drawers, needs work, $250. 684-3824

Women's Justin boots, size 6b, $60; Stetson hat, $40; leather vest, size 40, $25. 828-1441

6-month-old mini Schnauzer, male, CKC registered, shots, house/crate trained, $200. 520-4930

King-size mattress set, $200; king oak four-post bed frame, $200, $350 both. 508-1381

Ladies' square dance clothes, size medium to large. 714-6769

Used GE kitchen appliances. 653-5799

2-year-old Lutino cockatiel, large cage, accessories, $50. 723-8877

Whirlpool bathtub, 72 by 42 inches, almond, six jets, working pump, $150. 655-6701

Four plots, together, old section, Maple Hill Cemetery. 552-0998

Sears air compressor, 220 volt, 2HP, 20-gallon capacity, $45. 881-6572

Diamond/sapphire ring, $125; sapphire earrings, bracelet, $40, $25; diamond anniversary band, $275, $400 all. 426-7862

Contemporary dining room set, 72-inch glass table, six upholstered chairs, two China cabinets, $950. 603-1273

8-foot Brunswick pool table, oak, cover, play accessories, $3,000. 412-3406

Three kid's play tables, 16.5 inches, solid construction, best offer. 880-1442

Galina wedding dress, ivory, size 8, best offer. 508-5042

King sleigh bed, dresser, mirror, chest of drawers, two nightstands, $1,000 obo. 426-1822

Chromcraft circular dinette table, four swivel chairs, $75. 881-1249

Clayton-Marcus couch, $250; sofa chair, hassock, $250, $400 for set. 426-4903

Wicker seven-drawer dresser, white, $100 obo. 509-2536 or 379-3398

Compaq 7550 CRT monitor, 16-inch viewable area, flat face. 655-7444

Firewood, $80 per truckload. 755-0050

Vehicles

2007 Chrysler Pacifica Limited, black, all power, leather, DVD, 2,400 miles, $24,000. 394-1054

2007 Chrysler 300, 25k miles, $17,000; 2004 Monte Carlo, $6,300 obo; 2003 Galant, $5,500. 520-2802

2007 Suzuki 450 ATV, black/maroon, 6 months old, $5,300. 457-9709

2007 Toyota Corolla S, silver/black, automatic, all power, 24k miles, $14,900. 830-9507

2006 Starcraft 21SB trailer, extras, $19,500 obo. (317) 294-2766

2006 Harley Davidson Fatboy, black pearl, aftermarket pipes, $15,000. 233-8505

2005 Honda VTX1300R motorcycle, many accessories, 9k miles, $6,150. 564-7499

2004 VW Jetta 1.8T, manual, 42k miles, leather, heated seats, sunroof, $11,700. 426-7862

2003 Ford Ranger Edge, four door, super cab, new tires, 77k miles, $9,200. 931-0077

2003 Tahoe, leather, third-row seats, rear air, XM, CD, 59k miles, $17,000. 468-0854

2002 Lexus ES-300, black, 69,500 miles, 539-0994 or 682-4651

2001 Mazda Miata LX, tan leather, power windows, black, 61k miles, $10,900. 883-6894 or 468-6894

2000 Lexus RX300, black, tan interior, new tires, 102k miles, $13,000. 603-3368

1999 Lexus ES 300, loaded, 21,100 miles, $14,900. 890-0499

1999 Toyota 4-Runner Limited Edition, white, brown interior, sunroof, CD, A/C, $7,000. 694-1260

1998 Dodge Ram pickup, loaded, silver, 4x4, quad cab, tow package, bed liner, $6,800. 653-8311

VW Jetta, green, auto, 2.0L, air, alloys, cloth, power windows, locks, AM/FM, 119k, $5,500. 509-3559

1953 MG TD parts car, $500. 880-5287

Wanted

Electric keyboard, headphones. 665-3422

Used wood cutting band saw, preferably Delta brand. 572-7396

Carpool from southeast Huntsville, 8 a.m.-4:30-5 p.m., Monday through Friday, e-mail janel.c.kasper-wolfe@nasa.gov.

Fish tank, 10 gallon or larger. 753-2459

Fuser for HP LaserJet 5 printer, or entire printer for parts. 883-2757

Free

Shop manuals, Triumph TR7, Official, Haynes; 1984-1986 300ZX, Haynes. 509-9351

Found

In Building 4487: rosary in black pouch; flash drive; small gold earring; in Building 4200: Weiser brass house key; pair of women's gloves; gold bracelet. 544-4680

Camera in black Zenit bag, in Marshall taxi. 544-4566

New 'Employee Exchange' meeting set for Feb. 4

Dear Marshall Team:

Next Monday, Feb. 4 at 2:45 p.m. CT, you are invited to attend "Employee Exchange, a Chat with Marshall Leaders" in Morris Auditorium, directly following the agency's FY09 budget briefing.

Replacing our traditional all-hands meetings, this new format is designed to be more informal and interactive. Marshall leaders will be on hand to discuss NASA's FY09 budget implications for Marshall, and other topics of interest to you.

"Employee Exchange" is all about furthering your understanding of particular topics that impact Marshall's business. Most importantly, it's an opportunity for you to speak, ask questions and be heard. You may bring your questions to the chat, or you can submit them in advance online at the following Web site: http://inside.msfc.nasa.gov/questions/. To ensure your questions are part of this conversation, please submit them by noon on Friday, Feb. 1.

We are genuinely interested in hearing what's on your minds and providing you with the information and understanding you need to do your jobs effectively. Your success is our success.

I hope to see you on Monday.

David King

Director, Marshall Space Flight Center

On this month's Focus on Marshall

By Lori Meggs

Ever wondered how often meteoroids hit the moon?

As NASA prepares to return to the lunar surface, it's a question vital to the design of spacecraft, vehicles, habitats and astronaut suits. On this month's "Focus on Marshall," we'll visit a site at the Marshall Center where "moonlighting" takes on a whole new meaning.

You'll hear from Rob Suggs and Bill Cooke of the Engineering Directorate's Space Environments Team who spend many nights in their moon-monitoring observatory at Marshall studying meteor strikes, which appear as flashes of light on the dark side of the moon.

This episode also explores a NASA video-enhancement method for a space telescope, and how it's now used to help catch criminals.

David Hathaway, a solar scientist at the National Space Science and Technology Center, tells us about the origins of VISAR — Video Image Registration and Stabilization — and how its applications continue to be an asset, not only to NASA, but to law enforcement across the country.

"Focus on Marshall" is broadcast on Marshall TV the first and third Tuesday and Thursday of each month at 11 a.m., noon and 1 p.m. It also is available on NASA TV, Inside Marshall and on the NASA Portal.

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.

MARSHALL STAR
Vol. 48/No. 18

Marshall Space Flight Center, Alabama 35812
(256) 544–0030
http://www.nasa.gov/centers/marshall

The Marshall Star is published every Thursday by the Public and Employee Communications Office at the George C. Marshall Space Flight Center, National Aeronautics and Space Administration. Classified ads must be submitted by 4:30 p.m. Thursday, and other submissions no later than 5 p.m. Friday to the Marshall Public and Employee Communications Office (CS20), Building 4200, Room 102. Submissions should be written legibly and include the originator's name. Send e-mail submissions to: intercom@msfc.nasa.gov. The Star does not publish commercial advertising of any kind.

Manager of Public and Employee Communications — Dom Amatore
Editor — Jessica Wallace

U.S. Government Printing Office 2008-723-022-20134

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