



MARSHALL STAR

Serving the Marshall Space Flight Center Community

Jan. 25, 2007

We make rockets!

Shuttle to Ares ... Marshall's Spacecraft and Vehicle Systems Department is the 'body' of space travel

By Lori Meggs

Want to know how to make a rocket? Then look no further than the Spacecraft and Vehicle Systems Department in the Marshall Center's Engineering Directorate. This department has been doing it for years and is reinvigorated by the opportunity to send a crewed spacecraft to the moon.

With nearly 350 civil service and about as many contractor employees, this is the largest department in the Engineering Directorate. Led by Jack Bullman, the department is a leader in developing launch vehicle systems for the space shuttle as well as the Ares launch vehicles that will transport the Orion crew exploration vehicle and cargo to space. In fact, most of the content in the recent Ares Systems Requirements Review was produced in this department.

The department is responsible for the technical
See Space travel on page 4



Doug Staffer/MSFC

Marshall Center engineers use the Collaborative Engineering Design and Analysis Room, or CEDAR, in Bldg. 4600 to demonstrate and study on-screen design simulations of future exploration projects.



Doug Staffer/MSFC

Space Shuttle Program Manager Wayne Hale visits Marshall

Wayne Hale, manager of the Space Shuttle Program at the Johnson Space Center in Houston, speaks to Shuttle Propulsion Office employees Jan. 17 during an all-hands meeting and New Year's celebration. More than 200 Marshall Center employees attended the event at the Activities Building 4316, where Hale presented a shuttle program overview. The shuttle holiday party was postponed from December because of launch preparations and support of the STS-116 mission, from Dec. 9-22.

Bruce Anderson, Barry Musick reappointed center ombudsman

Bruce Anderson, chief operating officer of the National Space Science and Technology Center and supervisor of the NSSTC Executive Staff in Marshall's Science & Mission Systems Office, has been reappointed center ombudsman. Barry Musick, assistant to the director of the Engineering Directorate, has been



Bruce Anderson

reappointed to alternate center ombudsman. Anderson previously served as center ombudsman from 2004-05, and Musick was initially appointed alternate center ombudsman in early 2006.

The NASA Ombuds Program serves all NASA civil servants and on-site contractors. It provides an informal, independent, confidential and neutral means of communicating and facilitating the resolution

of safety, organizational performance and mission-related issues without fear of retribution.

An ombuds can also act as a link, when appropriate, between an employee and management to facilitate issue resolution. At the discretion of the ombuds and in keeping with the confidentiality

principle, an issue can be elevated to the center director.

"I am pleased to once again serve as the center's ombudsman along with Barry," said Anderson. "When I served as the center ombuds during 2004-05, I saw time and again that people at Marshall genuinely care about the well-being of our civil service workforce and on-site contractors and how well we interact with one another in a supportive manner."

The preferred method of contacting an ombuds is a personal visit or by phone. Sending an e-mail message could potentially compromise confidentiality.

To contact Anderson, call 961-7002. Musick can be reached at 544-1002. Additional information about the program can be found in NPD 2025.1A, NASA Ombuds Program, April 25, 2006.

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



Barry Musick

Marshall Association Scholarships awarded

The Marshall Association recently awarded 2006 scholarships to Amy Frees and Kelsey Ware.

The technical scholarship was presented to Frees, daughter of Jim and Pam Frees. Jim is the deputy chief counsel in the Office of the Chief Counsel. A graduate of Grissom High School, Frees is now attending the University of Alabama in Tuscaloosa with a major in chemical/biological engineering.

"Amy was so excited to learn that she was being awarded the Marshall Association scholarship," said her father. "In addition to the financial help, I think it meant a lot to her to be recognized for her efforts and accomplishments. We're very grateful to the leadership and members of the association for supporting the scholarship program."

The nontechnical scholarship was awarded to Ware, daughter of Alan and Terry Ware. Terry is a program analyst in the Engineering Directorate. A graduate of Huntsville High School, Ware is majoring in communication disorders and speech pathology at Auburn University in Auburn, Ala.

"My thanks to all the members of the Marshall Association who make it possible for these scholarships to even be offered," said her mother. "The financial assistance they provided is greatly appreciated! Kelsey is very honored and thanks you all for assisting her as she begins her college career."

The Marshall Association scholarships are funded from the dues paid by the membership each year. The dollar amount and number of scholarships are directly dependent on how many members join each year. All civil servants, contractor employees and retirees are eligible to join the association. Scholarships are available only to dependents of members. The Marshall Association meets monthly and is open to Marshall employees. Contact George Schmidt at george.schmidt@nasa.gov or call 544-7240 for more information.



Amy Frees, second from right, accepts the award from Sharal Huegele, center, and George Schmidt, right. From left are Jim Frees, Amy's father; Katie Frees, Amy's sister; and Pam Frees, Amy's mother.



Terry Ware, center, mother of scholarship winner Kelsey Ware, accepts the award from Sharal Huegele, left, and George Schmidt, right.

The face of mission success is:

Chad Bryant, propulsion systems and electrical lead for the External Tank Project Office in Marshall's Shuttle Propulsion Office

A lot of work goes into launching a shuttle. Chad Bryant, propulsion and electrical systems lead for the External Tank Project Office in Marshall's Shuttle Propulsion Office, is one of many NASA engineers who begins the launch countdown months before the orbiter lifts off from Kennedy Space Center, Fla.

Bryant takes his technical experience home, where he enjoys being challenged with projects such as designing and building his home media room, or restoring the 1978 Corvette he drove as a teenager.

What is your education background?

I graduated from Auburn University in Auburn, Ala., in 1998 with a bachelor's degree in mechanical engineering.

How long have you been at the Marshall Center?

I came to Marshall in June 2000.

What are the key responsibilities of your job?

I am responsible for making sure propulsion hardware, such as valves, plumbing and tanks that house propellants, are built properly and are safe to fly. If any issues arise, I am responsible for working through those problems and getting the vehicle to meet the proper operational and safety requirements. I also monitor the shuttle external tank's liquid oxygen, liquid hydrogen and electrical systems during vehicle propellant loading, terminal count, liftoff and ascent.

What services does your job provide in support of the center's mission?

My job is to ensure that the external tank's electrical and propulsion systems are safe to fly the space shuttle so we can continue to meet our international obligations to complete the International Space Station.

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

I aim to continue the support that my team has been providing to meet the manifest goals for flying the shuttle, as well as transferring technology from the Shuttle Project Office over to Ares I and V, the next generation vehicles that will take us to the moon and then on to Mars.

What is the biggest challenge you face?

Time management. It's an issue. At work, I have a lot of meetings to support. In between all the meetings, I have to interface with the external tank prime contractor, Lockheed Martin Corporation, at the Michoud Assembly Facility in New Orleans. My team and I have to make sure that all of the requirements flow like they should and that our hardware is the best that we can put out there.

The other side of time management is balancing work with home life. This job requires a lot of travel, dedication and hours. I can't let that affect my personal life with my family. I constantly strive to balance both.

On the personal side, how do you like to spend your leisure time?

When I'm not here, there's no other place in the world that I'd rather be than at home with my family. I've been married 13 years to my wife, Laura, and we have a 5-year-old son, Chandler. There's always something that he's involved in. He's very athletic and enjoys playing soccer and baseball. I like to be his personal trainer and teach him what teamwork is about.

I love to be challenged with technical projects. I just recently designed and built a new house. I also enjoy working on anything mechanical including cars at my father's garage.

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



Chad Bryant monitors the external tank's data to assess system performance in the Huntsville Operations Support Center.

Space travel

Continued from page 1

design, analysis, evaluation, verification and integration in the development of spacecraft and systems supporting NASA's mission.

The Collaborative Engineering and Design Analysis Room, or CEDAR, integrates multidiscipline computer-aided design into the Marshall Center engineering design and analysis process for components and systems of NASA launch vehicles and spacecraft. Another facility, the Flight Robotics Laboratory, enable objects to float on a thin layer of air atop the world's flattest floor. Operations in this facility allow controllers to test techniques for spacecraft docking or remote-controlled robotics.

The sharp eyes of the photo analysis team have been an integral part of shuttle return to flight efforts, determining where debris falls during launch and how fast it's moving, and then making recommendations to the Space Shuttle Program. This department also is capable of monitoring the health of the space shuttle main engines — from an avionics and software perspective — during launch.

"We have so many exciting projects underway, and we are such an exciting place to be," said Bullman. "Our expertise has helped us fly every shuttle flight without a main engine controller anomaly and is now being used to build the rocket that will 'historically' stand next to the Saturn V on I-565 in the future."

The department has five divisions: Systems Design and Analysis; Avionics Systems; Structural Design and Analysis; Flight Mechanics and Analysis; and Systems Engineering.

To explain their roles it may be easier to think of this department as medical specialties, focusing on different parts of the human body.

Systems Design and Analysis

Systems Design would specialize in all of the senses — making sure they work together, without interfering with each other.

Jim Lomas is the Engineering Directorate's lead systems engineer for the Ares I Upper Stage in the Systems Design and Analysis Division. His team is laying out the plans

to integrate all of the designs on the upper stage, a completely new element being developed by the Marshall Center, which will be propelled by a J-2X main engine fueled with liquid oxygen and liquid hydrogen. "We have to ensure it all comes together and operates like it's supposed to," said Lomas.

As the vehicle develops, changes are bound to occur in different subsystems. When that happens, Lomas' team looks at how the changes in the designs will affect other systems. "Our work doesn't end until we fly," added Lomas. Their role is to act as communicators and coordinators. "It's fun because we get to see everything that's going on here at the center and all of our amazing capabilities and help decide the best things to use," said Lomas.

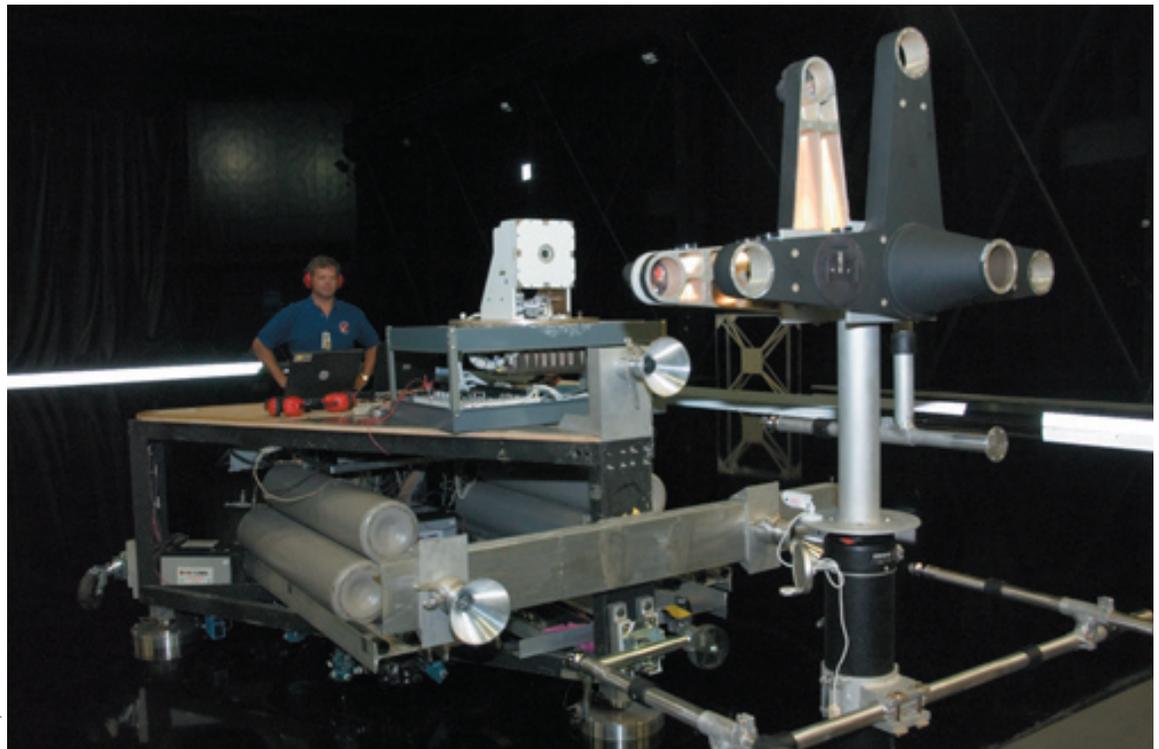
Avionics Systems

Think of the Avionics Division as experts in the brains of the spacecraft — all electrical systems computer hardware and software.

Todd Freestone is an electrical engineer in the Avionics Systems' Communications and Data Branch. Freestone studies the electrical parts of the vehicle, such as navigation receivers and communications transponders that send signals back and forth to the vehicle.

Another responsibility of Freestone's branch is Range Safety, which involves terminating an errant vehicle's flight to prevent harm to human life in case there is a problem during launch. Signals

See Space travel on page 5



NASA/MSC

Nick Johnston, a Marshall Center engineer, monitors the automated rendezvous and docking system at Marshall's Flat Floor Facility. The small air sled floats across the flat floor on a cushion of air and is propelled by compressed air.

Space travel

Continued from page 4

can be sent to prevent continued flight of the launch vehicle if everything doesn't go as planned.

"We make sure the range safety systems and signals on the vehicle do what we need them to in case we have a bad day," said Freestone. "We build it in hopes it never has to be used."

Structural Design and Analysis

The Structural Design and Analysis Division could be thought of as experts on the body, or skeleton, of a spacecraft. One of its primary functions for the Ares vehicle is the design of the upper stage structures, including the propellant tanks.

In designing the tanks, the team has to know the quantity of propellant required, along with the pressure and temperature at which the fuel must be maintained. Division team members perform structural analysis and combine that analysis with pressure requirements from the Main Propulsion System product team to determine the appropriate thickness and grid structure for the tank wall. A computer-aided design model, including the tank information and the specifications for the various brackets and sensors, is used to generate drawings to manufacture the components.

"Part of my job function is to ensure that information is communicated from the other integrated product teams to our design leads," said Stephen Richardson, an engineer in the Structural and Mechanical Design Branch and the deputy for the Upper Stage Structures and Thermal Integrated Product Team.

The division is designing the system tunnel and separation system between the first and second stages of Ares I, including the pyrotechnics and the testing and manufacturing fixtures. Division personnel also are generating integrated vehicle loads and aerothermal environments, and performing thermal analysis for use in the design of the Ares I launch vehicle. "I appreciate the opportunity to work on this project. It is broadening the experience base of the team, and I don't think we could have a better group of people in place to accomplish our goals," added Richardson.

Flight Mechanics and Analysis

Flight Mechanics and Analysis would be experts on the mouth — defining the path and telling all of the other parts of the spacecraft what to do and where to go.

"Launch vehicles have to be guided to their required orbit, and that's where we come in," said Charles Hall, the lead engineer for control system design for Ares I in the Flight Mechanics and Analysis Division.

Hall's team provides mission analysis and Guidance, Navigation and Control system design for flight vehicles — supplying the navigation systems that tell you where you are, guidance systems

that tell you where you need to be and the steering commands to get you there.

But since there's no vehicle yet, there's no physical way to predict how each command will work, so for now Hall lives in an abstract world where everything is on paper or in a computer.

All of the items such as the aerodynamics, propulsion systems, mass properties, guidance commands and structural properties are programmed into a computer to simulate the timeline from launch to engine cut-off to determine if the steering can be done efficiently and safely with all of those factors. The team also looks at the stability of the vehicle to help design the entire Guidance, Navigation and Control system.

The systems are virtually automatic, just like auto-pilot systems on airplanes. "Whenever you can design a vehicle or system that doesn't require human interaction to fly, or where you can make decisions much faster than humans can make them in a flight situation, then that's pretty fascinating," added Hall.

Systems Engineering

Systems Engineering would be the conscience — identifying the technical requirements and laying out plans to comply. "Without us, system integrity is compromised," said Shelia Nash-Stevenson in the Systems Management Branch of the Systems Engineering Division. "We are responsible for the technical planning to develop integrated launch systems."

Three teams in this branch, Configuration & Data Management, Risk Management, and Engineering Planning manage all of the data generated for a Marshall program or project and come up with a plan. They keep a formal record of each vehicle or system's design changes from start to finish.

Nash-Stevenson is part of the Engineering Planning Team that develops and documents all of the processes and procedures to provide clearly defined methods of communication between programs and projects.

Nash-Stevenson is heading an effort to develop a Web tool to help systems engineers easily find the processes and procedures they need. The Systems Engineering Guide is a Web site that is a one-stop-shop for Marshall engineers.

"As documents become base-lined, this will give engineers real examples to go by," said Nash-Stevenson. "Young engineers can use it to learn about systems engineering, and seasoned engineers can use it as a reference."

The Web tool is expected to go online by spring 2007.

"We are privileged to have this 'body' of work, leading the way in exploring space and partnering with other organizations at Marshall," added Bullman. "I can't think of a place I'd rather be."

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

Marshall Center microbiologist Monsi Román profiled in federal recruiting ad

By Rick Smith

In December, Monserrate "Monsi" Román, formerly the Marshall Center's chief microbiologist for NASA's Environmental Control and Life Support Systems project, or ECLSS, became the latest participant in an advertising campaign designed to bolster federal employee recruitment.

The "What Did You Do At Your Job Today?" video series, launched last May by the U.S. Office of Personnel Management, spotlights individuals working in unique posts across the federal government. The ads highlight the breadth of government job opportunities available around the nation.

Román, who was tapped in late 2006 to manage the Exploration Life Support project at Marshall, is the fifth government employee featured in the ad series, and the first Hispanic American.

Jerry Porter, the Washington-based creative director for the Office of Personnel Management, surfed the Internet to find news stories about high-profile NASA scientists with unique, engaging jobs. Román — often in the spotlight for her role in developing water and oxygen recycling systems for the International Space Station — stood out. Linda M. Springer, director of the Office of Personnel Management, personally tapped her for the ad.

In August 2006, Porter brought a film crew to Marshall to document Román working in Marshall's ECLSS labs, where she and the Exploration Life Support project team are developing and testing advanced technologies to provide clean water and air for future space exploration vehicles and even long-term settlements on the moon.

"When I was studying in school," Román says in the ad, referring to her childhood in her native Puerto Rico, "who would have thought that a space station or habitat on the moon would ever be more than science fiction? Now, every day at my job as a microbiologist, I help take us one small step closer."

In person, Román is quick to deflect the personal glory; she sees the advertisement as a team victory. "I'm part of a group of people at Marshall who have a unique and vital expertise," she said. "Together, we're a great team. That makes it a real honor to be chosen to talk about our work, and to represent the agency."

The 30-second television spot is airing nationwide in selected markets, including cities in California, Michigan, Mississippi, Ohio and Pennsylvania, and also can be seen on the Internet. Previous recruitment spots profiled government workers in the U.S. Army Corps of Engineers, the National Highway Traffic Safety Administration and the National Oceanic and Atmospheric Administration.

"This campaign is raising awareness about the exciting and



NASA/NSFC

Monsi Román, profiled in a new Office of Personnel Management advertisement, is manager of the Exploration Life Support project at Marshall.

rewarding careers people can find in the federal government," Springer said. Her organization ensures that the federal government has an effective civilian workforce. The office supports government agencies around the nation with personnel services, policy leadership and programs to improve workforce performance.

The ad campaign is drawing public attention to the government's premier employment Web site, www.usajobs.gov. Updated daily, the site allows applicants to view and apply for available positions. More than 20,000 government job openings were listed on the site in December, Springer said.

Born in San Juan, Puerto Rico, Román earned a bachelor's degree in biology in 1984 from the University of Puerto Rico at Río Piedras, and a master's in microbiology in 1989 from the University of Alabama in Huntsville. She joined the Marshall Center as a microbiologist in 1989.

The recruitment video featuring Román is available online at http://www.opm.gov/Video_Library/RecruitmentShowcase.

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



Robert Nadey/MSCF

Kennedy workers prepare Node 2 for flight to space station

Workers in the Space Station Processing Facility at Kennedy Space Center, Fla., are continuing closeout activities on Node 2 — the second of three connectors for International Space Station modules that will provide power, heating and cooling to its attached elements. The work is part of the final preparations to ensure that all hardware and systems are in order for a September 2007 launch to the station. The Marshall Center provides the technical management of Node 2. International contractor Alenia Spazio, based in Rome, Italy, built Node 2 at its facility in Torino, Italy, under an agreement between NASA and the European Space Agency. Once on orbit, Node 2 will make the station roomier, permitting attachment of the Japanese and European laboratories.

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 is 4:30 p.m. Thursday.

Miscellaneous

Schwinn Moab, I MTB, Rock Shox Judy ST, Avia parallel brakes, Shimano LX components, \$750. 457-0206
 AKC lab puppies, 3 chocolate females, 3 yellow males, 3 light yellow females, \$250. 256-498-0923
 Office desk, 82" long, wood-grain Formica, six drawers, include one file drawer, \$75. 837-6776
 Trailer, 4x8, lights, removable tailgate, 7/8" ball, \$200. 534-8414
 Sauder computer desk w/hutch, \$125. 233-5620
 AKC Lab puppies, one black and 5 chocolates, \$250. 256-508-8495
 Two tickets to John Mayer concert, Feb. 5, box seats, \$100 for pair. 513-1551
 Four tickets to Bill Cosby at VBC, Sunday, Feb. 11, 6 p.m., \$200. 651-9550
 Digitech RP-50 guitar effects, \$40; Boss TU-2 stomp guitar tuner, \$80. 655-6293
 Garden tub, 4'x6', simulated marble acrylic, \$99. 656-4211
 PS2 games: RE4, MGS3 Subsistence, DMC3, \$15 each; \$35 for all. 961-9526
 Playstation 3, 60GB, never opened, \$650. 256-361-3943
 Audiovox Electronics video-in-a-bag, 2-5.6", colored monitors that can strap to headrests, remote. 479-4751
 Tropical fresh water fish, 18" and 10" iridescent sharks, 18" and 12" plecós. 468-8177
 Golf clubs, Ben Hogan Hybrids, 2 & 3 Graphite, \$110 for both. 536-8692
 Large 44" DLP HDTV, \$1200. 828-6117
 Matthews Q2 Realtree Hardwoods Camo, 28" draw, new string, arrow rest, stabilizer, \$350. 426-1468
 Jet 10" contractor table saw w/30" fence, mobile base and other items, \$350. 828-4448
 Quarter horse mares, 3 years and 18 months old, \$1,200 and \$800. 256-734-7200
 MIG welder, \$25; welding gas cylinders, \$55 each; 8' fluorescent light fixtures, \$2 each. 683-9364
 Pug, AKC, 1M, fawn w/black mask, shots/dewormed, ready now, \$350. 256-882-2037/David

Ashley Durapela, sage, dual-recliner sofa, less than 2 years old, \$300. 829-9590
 Camelot pool membership, must live in Camelot to be member, \$600 negotiable. 348-8350
 Antique dining room chairs, pedestal table, couch; rugs, side-by-side refrigerator, book case. 551-0276
 Italian marble dining room table w/six chairs and side table, \$800; wooden hutch, \$600. 468-3803
 Bakers rack, \$60; coffee table, end tables, \$125; table and 4 roller chairs, \$100; L-shaped desk, \$130. 233-5033
 Pilates Performer bench w/stand, \$175. 828-9099
 Vintage RCA Pro-Wonder video camcorder, VHS CC310, w/pro edit features, all original attachments, best offer. 683-6469
 Various karate items/gear. 971-1712
 Three Paintball Marker guns, \$50 each, includes CO2 tank. 679-3856/Trace
 Lowes Pontoon Suncruiser and trailer, one owner, 70HP, \$9,100. 572-9652
 Danelectro lavender electric guitar w/bag, \$300; Amp, \$40; flute w/carrying case, \$150. 541-0425
 Queen bedroom suite, 4 pieces, w/mattress and box springs, \$1,250. 256-325-3568
 Loveseat, taupe leather, \$175; three Etagere, lighted, pecan w/glass shelves, \$90 each; 10-speed bike, \$30. 683-7015
 Corner computer armoire, oak finish, must pick up, \$175. 829-0285
 Maple toddler bed, \$30; white crib and changing table, portable swing, vibrating seat, all \$100. 256-431-7755
 Whirlpool extra large capacity dryer, includes 220 plug, \$50. 683-9683
 Chandelier for dining room, gold, double tier, \$100. 881-2131
 Prom dress, full length, light green, size 0-2, worn once, \$100. 256-431-1556
 Circular dinette table w/4 swivel chairs, Chromcraft, \$225. 881-1249
 Digitech RP-50 guitar effects, \$40; Boss TU-2 stomp guitar tuner, \$80. 655-6293
 Older beanie babies and buddies. 479-4751
 Fender BG-32 Acoustic/electric bass guitar, 3 months old, plays, \$350. 534-5175 after 5 p.m.
 Custom design twin bed w/mattress & box springs, black w/flame design, chrome toe hitches, \$100. 852-5693
 Kenmore washer and dryer, \$250; table, 4 chairs, \$50; Gazelle, \$75. 337-7943
 Sofa w/attached chaise and loveseat, tan cloth, 15 months old, \$500. 256-457-5173/Billy
 Trash compactor, black & chrome, works well, make offer. 881-8849
 Cordovan/gold wing-back chair, \$25. 351-1754
 Brass and glass kitchen table w/six blue fabric brass trim chairs, \$45. 851-7406
 Clarinet, Leblanc Noblet, w/case, for intermediate to advanced student, pads/corks serviced, \$400. 256-895-9876

Vehicles

1998 XR400 motorcycle, \$1,700. 461-9404
 2000 Ford Expedition, 5.4L, white/gray, leather, towing package, loaded, 118K miles, \$8,000. 682-0840
 1999 Ford E150 van, tan w/tinted windows, \$4,995. 256-755-7772
 1991 Ford Bronco, 4x4, new engine, many new parts, \$3,800. 256-723-5170
 2003 Ford Ranger Edge, black, 4 door, Super cab, V6, loaded, 62K miles, \$12,300. 256-931-0077
 2006 Chevy Cobalt LT, silver, automatic, all power, 6K miles. 256-859-7946
 2003 BMW Z 4, silver w/gray top, many options, auto transmission, \$21,900. 883-6894
 2002 Volvo V40, 1.9 Turbo, loaded, 58K miles, \$12,100. 256-534-5421
 Off road motorcycle, 110cc, 4 stroke, 4 speed, semi-auto, \$400. 256-858-5552
 1994 Chevrolet S10 pickup, blue, clean, a/c, 123K miles, \$1,500. 880-7381
 2001 Harley Davidson Fatboy, maroon, garage kept, 193K miles, chrome accessories, one owner, \$16,900. 256-858-3096
 2004 VW GTI, 47K miles, black/gray, leather, \$14,500. 256-457-5173
 2005 Honda Competition dirt bike, CR85R, some extras, \$2,450. 961-9313
 2003 Ford Ranger Super Cab, 4 door, V6/4.9L, 4WD, fully loaded, 34K miles, \$15,900. 714-4575
 2004 Yamaha V-Star 1100, classic black, low miles, windshield, saddlebags, many extras, \$6,300. 256-306-9882
 2002 Dakota Quad Cab, white, fully loaded, \$13,000. 256-617-1089
 1993 Lowe pontoon boat, 20', w/50HP motor and trailer, \$3,000. 777-7228
 1997 Jeep Grand Cherokee Laredo, red, leather, 6-cyl., 4.0L, 189K highway miles, 23mpg, \$3,700. 256-599-3094
 Victory scooter, never used, \$1,600. 755-4000

Wanted

Manual transmission and seats for 1987 Mustang 5.0. 858-9655/leave message
 Used Playstation 2 gaming system, may be interested in games with E rating. 256-784-5299

Free

To good home, female Guinea Pig, 6 months, everything except cage included. 464-9700
 To good home, two white kittens, healthy, litter box trained, would like a home together. 256-244-4296

Found

Heart necklace, gold/silver/black, Bldg. 4203 North parking lot. 544-2454 to identify/claim

Lost

Silver turquoise ring in Bldg. 4200. Call 544-6571 if found.

A new frontier for security: Homeland Security Presidential Directive-12

Original version by Catherine E. Borsché for the Johnson Space Center newsletter – adapted for Marshall by Roslin Hicks

NASA as an agency is getting futuristic — and not just in the realm of space and exploration.

In the coming months, Marshall Center team members will notice changes in security measures being implemented on site, all because of Homeland Security Presidential Directive-12. The directive mandates that all government agencies will implement security controls and measures under the direction of the National Institute of Standards and Technology.

The advent of the smartcard, a badge equipped with a computer chip to store information, will ensure greater controls for both the physical and information technology environment at Marshall.

“We will have identities that are thoroughly vetted and validated for every individual that accesses a NASA system, facility or information,” said Roslin Hicks, Marshall’s HSPD-12 implementation manager. “We’re required to make sure that each individual has the proper investigation or background check.”

With a common identity system across all government agencies, access to other centers or government institutions will be easier. Marshall employees visiting other centers can use the same badge to access buildings and will not have to undergo additional background checks. Employees moving between centers will have less interruption when accessing the new center’s facility and IT systems and data.

Prior to HSPD-12, NASA already was embarking on several initiatives to improve the agency’s overall security posture and capabilities. HSPD-12 is emphasizing the need for NASA to create an integrated agency architecture, which will create spinoffs such as an agencywide system to manage all computer accounts.

“The other element employees will see is they will now use a smartcard to gain access to systems normally reached today with an ID and password,” said Hicks. “Plugging their smartcard into the computer will be required before getting on the system and accessing NASA data.” This will improve security of access while providing users a simpler method of gaining admittance to systems.

The smartcards will also contain security data specific to each employee.

“The agency’s getting ready to conduct a ‘Create an Identity’ process — meaning that to get someone a credential right now, their identity has to be created first,” said Mike Wilson, supervisor of Marshall’s Protective Services Office. “Once a person’s identity is created, it’s then pushed over into the badging system. That person must appear before one of our badge clerks and present two forms of identification. A smartcard will capture two of their fingerprints, and the other biometric for the card is the facial image.”

Once the individual’s background check is complete, fingerprints will be matched to the person before their smartcard is activated.

“There is a layer of security that was not there before,” said Wilson. “You can rest assured knowing that the person coming through the gate or getting access to your systems has been cleared or properly vetted.”

HSPD-12 is being introduced in phases. The very recent re-badging effort for civil servants and contractors is just the first step in obtaining the proper background checks and verification of two forms of identification. Issue of smartcards to all permanent employees and contractors is expected to be completed by October.

For more information on NASA’s HSPD-12 initiative, visit <http://insidenasa.nasa.gov/ocio/home/HSPD-12.html>.

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