



# MARSHALL STAR

Serving the Marshall Space Flight Center Community

Oct. 11, 2007

## NASA conducts first test of main parachute for Ares I rocket

By Sherrie Super

NASA and industry engineers successfully completed the first drop test of the main parachute that will help recover the first stage of the Ares I crew launch vehicle. Ares I will carry NASA's Orion crew exploration vehicle to space.

The test, conducted on Sept. 25 at the U.S. Army's Yuma Proving Ground near Yuma, Ariz., is part of an ongoing series of tests to support the design and development of the Ares I parachute recovery system, which is derived from the system NASA uses to recover the space shuttle's solid rocket boosters after launch.

Tests for the pilot, drogue and three main parachutes will continue through 2010. The next test is scheduled for November 2007.

The main parachute was dropped from a U.S. Air Force C-17



The main parachute, shown over the U.S. Army's Yuma Proving Ground, will help recover the first stage of the Ares I crew launch vehicle.

aircraft with a 40,600-pound load at an altitude of 17,500 feet. The parachute and all test hardware functioned properly and landed safely on the Yuma Proving Ground test range.

The Marshall Center manages the Ares Project and leads the design and development of the solid rocket booster recovery system. ATK Launch Systems near Brigham City, Utah, is the prime contractor for the first stage booster. ATK's subcontractor, United Space Alliance of Houston, is designing, developing and testing the parachutes at its facilities at the Kennedy Space Center in Florida. The Johnson Space Center in Houston hosts the Constellation Program and Orion Project Office and provides test instrumentation and support personnel.

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

### Focusing on the products

## Marshall's Engineering Directorate realigns two departments

By Lori Meggs

The Marshall Center's Engineering Directorate has developed a plan to improve communications, operations and its commitments to customers. Its Spacecraft and Vehicle Systems Department and Space Systems Department have realigned to become more product-focused departments to better serve the many programs and projects under way at Marshall.

"We asked the departments to come up with a restructuring plan to further the 2004 reorganization of our directorate," said Dan Dumbacher, director of the Engineering Directorate. "I'm very proud of our team and the work our folks have done to create what we

believe is the best structure for this organization."

The Spacecraft and Vehicle Systems Department now has four divisions, including a new Spacecraft and Vehicle Systems Engineering and Integration Division and a new Stages Systems Engineering and Integration Division. The remaining two divisions — Flight Mechanics, and Structural Design and Analysis — remain largely unchanged.

Department responsibilities include in-house design, analysis and assembly, along with technical authority support for projects with prime contractors such as the space shuttle. The department's

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# Volunteers sought for 2007 CFC Community Service Days

## Activities scheduled Oct. 9 to Nov. 16

"Community Service Days," a major component of the annual Combined Federal Campaign, will take place Oct. 9 through Nov. 16. Six key volunteer efforts are seeking participants from the Marshall Center team.

- Christmas Charities Year Round: Volunteers sought to take Christmas giving applications, wrap gifts and stock clothing Oct. 9-11, Oct. 15-18, Oct. 22-25 and Oct. 29-Nov. 1.
- Downtown Rescue Mission: Volunteers needed to help clean the chapel Oct. 19, Nov. 2 and Nov. 16; to provide lunch to the homeless Oct. 15-17, Oct. 19 and Oct. 29-Nov. 1; and to accept and sort thrift store donations at the Governor's Drive location Oct. 17, Oct. 24, Nov. 2, Nov. 8 and Nov. 15, and at the Meridianville location Oct. 17, Oct. 24 and Oct. 26.
- Huntsville Hospital: Volunteers sought Oct. 31-Nov. 2 to support a variety of needs: organize and

### Amy George to speak at CFC rally Oct. 25



Amy George

The Marshall Center will hold its annual Combined Federal Campaign rally Oct. 25 to inspire participants to give generously for the 2007 effort.

The "Give Today, Change Tomorrow" rally will begin at 10 a.m. in Morris Auditorium in Building 4200. Former WHNT-TV anchor

Amy George, now a spokesperson for the Huntsville Hospital Foundation, will be the guest speaker for the rally.

Door prizes will be given away during the event, and refreshments will follow in the 4200 lobby.

The 2007 Combined Federal Campaign runs through Dec. 7. For more information about Marshall's CFC effort, call Irene Taylor at 544-2051.

stock the gift shop storeroom; deliver magazines, pillows and "warm fuzzies" to patients; read and conduct craft activities with pediatric patients; assemble gift packets for new parents; and answer phones and greet visitors to the Neonatal Intensive Care Unit at the Huntsville Hospital for Women & Children.

- Care Assurance System for the Aging and Homebound of Madison County: Volunteers sought to build wheelchair ramps Oct. 16, Oct. 18, Oct. 24, Oct. 26, Oct. 30, Nov. 1, Nov. 6 and Nov. 9; to paint ramps Oct. 15, Oct. 17-19, Oct. 22, Oct. 24-26, Oct. 29-Nov. 2; to clean up the CASA gardens Oct. 17; and to mow lawns Oct. 16-18.

- Huntsville Botanical Garden: Volunteers needed to work in the greenhouse Oct. 11, Oct. 18, Oct. 25, Nov. 1, Nov. 8 and Nov. 15.
- WAY-FM Share-A-Thon: Volunteers sought to collect food drive donations Nov. 13-16.

For a complete listing of volunteer shifts and hours at each charitable organization, or to sign up to participate, visit <http://oscar.msfc.nasa.gov/co/cfc2007.nsf/csd>.

Special information for volunteers is included with each event, including waivers, clothing suggestions and other requirements.

Please note: Employees who participate in Community Service Days efforts during regular Marshall work hours are allowed to charge up to four hours of excused leave. Contractors should consult with their program managers or business leads about participation and leave. For more information, call Patricia Benson at 544-3780.



David Higginbotham/MSFC

Christopher Bowden, left, a teacher at Sparkman High School in Harvest, Ala., and NASA astronaut Butch Wilmore, right, escort Sparkman High student LeForest Goggans, center, to light the cauldron during the Special Olympics opening ceremonies Oct. 2 at Milton Frank Stadium in Huntsville. Goggans' parents, Eugenia and Kenneth Goggans, are both engineers at the Marshall Center. The annual Special Olympics event is one of numerous volunteer activities supported by Marshall Center team members during the 2007 Combined Federal Campaign's Community Service Days.

## Combined Federal Campaign bus tours start Oct. 16

The 2007 Combined Federal Campaign bus tours of local charitable organizations participating in this year's fundraising effort begin Oct. 16. All interested Marshall Center team

members are invited to attend.

To sign up, visit <http://oscar.msfc.nasa.gov/co/cfc2007.nsf/bus>. For more information, call Steve Spearman at 544-0587.

# Marshall's Engineering Directorate celebrates a NASA first

By Lori Meggs

Ten years of work has paid off for the Marshall Center's Engineering Directorate. The flight software branches in its Space Systems Department and Spacecraft and Vehicle Systems Department are the first organizations among NASA centers to achieve a Software Engineering Institute Capability Maturity Model Integration level 3 rating.

Capability Maturity Model Integration is a best practices model that provides organizations guidance and a common-sense approach to improve software processes. Marshall's achievement is part of a NASA-wide initiative to improve quality, safety and overall customer satisfaction.

"We have used the model to improve our software development culture at Marshall, and we have succeeded in advancing our software engineering capabilities," said Tim Crumbley, chief for Marshall's Avionics Systems Division. "Our accomplishment puts us in a great position to continue our development of mission-critical software for the next generation launch vehicles and space systems products."

Over a two-week period, an appraisal team reviewed more than a thousand practices in three flight software projects — Ares I upper stage, Orbital Express and the Materials Science Research Rack. To earn the level 3 rating, the team evaluated processes and resulting products relative to the goals of the model.

Among the benefits that NASA will receive from this achievement



Members of Marshall's analysis team.

are higher quality software, increased quality of products and services and the ability to meet schedule and budget objectives more effectively.

"We could not have reached this level without the participation and working relationship between the Engineering Directorate and the Safety & Mission Assurance Directorate," added Crumbley. "We're all on the same team working to position Marshall as a leader for the agency."

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

## Dr. Paul Spudis to speak at Marshall Association luncheon Oct. 18

The Marshall Association will hold its next luncheon meeting at 11 a.m. Oct. 18 in Building 4316.

Dr. Paul Spudis, planetary scientist at the Johns Hopkins University Applied Physics Laboratory, and Lunar Precursor Robotic Program science lead, will present "The Moon: A New Destination for Humanity."

The discussion will be centered around how people can learn to live, explore and work productively on other planetary surfaces and how the energy and material resources of the moon have the potential to revolutionize our paradigm of spaceflight.

The elections for new Marshall Association officers will also be conducted. A list of nominees is below, but nominations from the floor will be solicited for each position at the meeting. Ballots will be e-mailed to Marshall Association members who are unable to attend the lunch. The ballots must be marked and e-mailed back to Corky Clinton at raymond.g.clinton@nasa.gov and copied to Beth Shelton at elizabeth.c.shelton@nasa.gov by close of business Oct. 22.

Tickets are \$11 for Marshall Association members and \$13 for non-members. The cost is payable at the door, but interested parties should contact Beth Shelton at 544-9212 or

### Candidates for Marshall Association Officers for 2008

**President:**

Bob Devlin, *Office of Center Operations*  
Herb Shivers, *Safety & Mission Assurance Directorate*

**Vice President for Programs:**

Jose Matienzo, *Engineering Directorate*  
Debbie Underwood, *Engineering Directorate*

**Vice President for Communications:**

Wendell Colberg, *Engineering Directorate*  
Angelia Walker, *Engineering Directorate*

**Treasurer:**

Bennie Jacks, *Safety & Mission Assurance Directorate*  
Jennifer McCaghren, *Office of Procurement*

elizabeth.c.shelton@nasa.gov no later than noon Oct. 16 to reserve seats.

Membership dues are \$12.50 until Dec. 31.

# NASA Exchange nut sale pre-orders underway

The NASA Exchange is offering Marshall team members and retirees the opportunity to purchase nuts through pre-orders. Orders will be accepted through Oct. 25. Expected delivery date is Nov. 15.

For the history of Marshall's nut sale, go to "Inside Marshall." The order form should be completed and mailed or delivered, along with payment, to the NASA Exchange Space Shop, Attn: Sherry, HS01XX, Bldg. 4203, Huntsville, AL 35812.



## "NASA EXCHANGE ANNUAL NUT SALE"

### Order Form

NAME: \_\_\_\_\_ Office Symbol: \_\_\_\_\_

Office Phone: \_\_\_\_\_ Email Address: \_\_\_\_\_

#### SPECIFY QUANTITY AND TOTAL PRICE

Product (16 oz. Unless noted):	QUANTITY	TOTAL PRICE
Pecan Halves @ \$7.00.....	_____	\$ _____
Raw Peanuts @ \$2.00.....	_____	\$ _____
Chocolate Covered Pecans @ \$7.25.....	_____	\$ _____
White Chocolate Pecans @ \$7.25.....	_____	\$ _____
Roasted & Salted Pecans @ \$7.25.....	_____	\$ _____
Crunchy Praline Pecans @ \$7.25.....	_____	\$ _____
Natural Almonds (12 oz.) @ \$3.50.....	_____	\$ _____
Slivered Almonds (11 oz.) @ \$3.50.....	_____	\$ _____
Pistachios @ \$5.00.....	_____	\$ _____
Cashews @ \$5.25.....	_____	\$ _____
English Walnuts @ \$5.50.....	_____	\$ _____
<b>Totals</b>		<b>\$ _____</b>

\*\*\*\*PAYMENT MUST ACCOMPANY ORDER\*\*\*\*

Make Checks Payable to: NASA Exchange - MSFC

DEADLINE FOR ORDERING IS: October 25, 2007 to ensure delivery before Thanksgiving.

PLEASE MAIL CHECK & ORDER TO: NASA EXCHANGE SPACE SHOP, ATTN: Sherry, HS01XX BLDG. 4203, Huntsville, AL 35812. Payment may be made by Cash, VISA, MasterCard, Discover, or American Express by taking your order form to the NASA Exchange Space Shop located in Building 4203.

Received by: \_\_\_\_\_ Date \_\_\_\_\_

MSFC One-Time Form ()

# Engineering

## Continued from page 1

primary products include the overall vehicle design engineering and system integration for Ares I, Ares V and possibly future lunar landing spacecraft.

"The advantage of this realignment is that it visibly identifies the directorate divisions and branches that lead the launch vehicle and stage design and integration," said Preston Jones, manager of the Spacecraft and Vehicle Systems Department.

For in-house projects, the department will replace engineering integration managers with lead systems engineers for large products such as the Ares I first stage, upper stage and the entire integrated vehicle. These lead systems engineers will focus on the technical aspects, while existing work package managers will provide engineering planning and metrics to the project offices.

"This realignment provides a simpler interface for product delivery from engineering to the projects as we head toward the preliminary design reviews for Ares I," added Jones. "It's a huge milestone for us, and we are grateful to all of those who helped make it happen."

As for the Space Systems Department, it not only has a new organization symbol — ES — but also a new mission, absorbing all avionics and software engineering responsibilities. The "new" Space Systems Department is focusing on leadership at all levels to ensure the entire workforce delivers on the challenging commitments required to support its customers.

"Our people are ready to step forward, and this organizational

change will make our directorate more efficient in supporting the Ares Project Office, while retaining a 'design through fabrication' capability for non-launch vehicle projects," said Steve Pearson, manager of the Space Systems Department. "Several realignments in the divisions and branches have enhanced our ability to deliver integrated products."

The new structure of the department consists of a resource management office, six divisions and 18 branches. "The dedicated people in this department design, develop, integrate and test products for human spaceflight programs, science investigations and exploration initiatives," added Pearson.

The department also provides expertise in systems engineering and integration; mechanical design, analysis and fabrication; avionics and electrical design, analysis and fabrication; software development and testing; and systems integration and testing for space systems used throughout NASA.

"While focusing to better support Ares, we proudly continue to support the Space Shuttle Program and the myriad of small and large customers within the Science and Mission Systems Office, such as the Materials Science Research Rack, the Environmental Control and Life Support System, the Launch Abort System and future lunar needs still being defined," said Pearson. "Today brings new challenges, and the Engineering Directorate is making changes to meet these challenges."

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

## 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, Oct. 18, is 4:30 p.m. Thursday, Oct. 11.*

### Miscellaneous

- 1910 Mahoney Chicago upright piano, must pick up, \$299. 830-8089
- Leather sectional sofa, green, two end recliners, center recliner, \$350; plaid sofa, pastel, \$200. 723-2700
- Large Petmate dog crate, plastic, metal door, \$80. 325-5646
- 42-inch LG plasma HDMI TV, silver, remote, \$850 obo. 604-0455
- GE dishwasher, black, \$40. 895-9348
- Ryobi 790r 18-inch weed trimmer, 31cc, attachable straight shaft, automatic line dispenser, \$55. 880-9025
- Call of Duty 3 Wii game, \$35. 527-8116
- Step2 fire engine bed, nightlight, mattress, \$75; bunk bed, twin, full, no mattresses, \$20. 325-1126
- 1950s men's bicycle, restored, \$175; solid cherry 1860s Victorian server, \$425. 852-1726

- Sofa, loveseat, chair, two end tables, French provincial carved maple, mocha upholstery, \$750 obo. 783-6595
- Maytag Neptune Washer, gas, one year old, \$200. 602-4337
- Formal bridesmaid dress, size 10, burgundy, \$80. 658-0638 or 858-0272
- Huntsville Memory Garden, garden of devotion, six adult spaces, \$2,195 each obo. 859-4002
- Science Diet dog food, two bags, large breed, lamb meal, rice, \$30. 655-3065
- Wooden futon, mattress, blue mattress cover, \$50. (334) 750-1116
- Engine stand, \$40; Barbie Power Wheels Jeep, \$25; Craftsman dumping lawn trailer, \$55. 325-2919
- Whirlpool washer, extra-large capacity, \$75; Whirlpool dryer, \$75; chain-link dog kennel, \$100. 520-3436 or 489-0523
- Two-year-old, side-by-side fridge, white, ice maker, filtered water in door, \$900. 783-1466
- NutriSystem food, 27 lunches, 21 dinners, four breakfasts, one snack, one dessert, \$160. 837-0656
- Solid black german shepherd, around 2.5 years old, \$200. 229-6989

### Vehicles

- 2007 Chrysler 300, warranty, silver, 21k miles, \$18,500; 2003 Escalade, black, 76k miles, \$22,500. 520-2802
- 2006 Toyota Camry, maroon/tan, 28k miles, \$17,000 obo. 683-6435
- 2005 Toyota Corolla LE, white, new tires, six-disc CD changer, 37k miles, \$12,500. 498-3816
- 2004 Chevy Suburban Z71, white/tan, 69k miles, \$25,000 obo. 683-6433

- 2003 Honda Accord EX, V6, leather, sunroof, power, heated seats, 82.5k miles, \$14,500. 426-1822
- 2003 Jeep Wrangler, four cylinder, five speed, white, 44k miles, \$12,000. 990-9206
- 2000 Ford Contour, V6, auto, 135k miles, \$3,250. 577-4002
- 2000 GMC custom-designed work truck, 4x4, V6, automatic, skid plates, 92k miles, \$4,500. (931) 967-7307
- 1999 F-150 Ford, extended cab, V8, auto, tool box, 93k miles, \$6,800. 859-1188
- 1998 Black Honda Accord EX, four cylinder, 143k miles, \$4,800. 679-2300 or 379-3546
- 1997 Toyota Camry, new tires, \$3,950. 534-6831 or 797-7204
- 1995 LeBaron convertible, red, 3.0L V6, new top, tires, 122k miles, \$3,500. 655-9416
- 1985 BMW K100RT motorcycle; 1991 Nissan Pathfinder, four-wheel drive. 302-6783
- Honda XR250 dirt bike, 280 kit, extra spare parts, \$900. 325-3556

### Wanted

- Suspended ceiling parts, 24-inch cross-tees, older style for 25- to 40-year-old grid system. 233-0705
- Chess table, Chess set, large pieces; gaming table, Roulette, Black Jack, Craps, bar, combo. 337-2450

### Free

- Siamese female cat, male Tabby cat, both fixed, separate homes. 882-9831

'Adapt and overcome'

# Motivational speaker Glenn McIntyre helps Marshall observe Disability Employment Awareness Month

Motivational speaker and consultant Glenn McIntyre, right, meets Oct. 4 with Marshall Center Director David King, left, and Audrey Robinson, manager of the center's Office of Diversity and Equal Opportunity. Accompanied by his faithful service dog Boylan, McIntyre visited the Marshall Center on Oct. 2-4 to lead a series of training seminars for managers and supervisors, and to help the Marshall team launch National Disability Employment Awareness Month in October.

Speaking to a crowd of Marshall personnel in Morris Auditorium on Oct. 4, McIntyre drove home the importance of recognizing abilities, not disabilities, among persons with handicaps.

"We all have to overcome obstacles in our lives," he said. "You can't avoid them, and you don't always have control over the events that shape or change your life. But you can control how you face your challenges. You can adapt and overcome, and lead your life."

McIntyre was a 23-year-old California police officer when a drunk driver struck his motorcycle and severed his spine in 17 places. He served another 13 years on the police force before retiring to pursue a career as a trainer, speaker and advocate for people with disabilities. The founder of his own consulting company, McIntyre & Associates of Camarillo, Calif., McIntyre now travels across the country with his black Labrador service dog Boylan, sharing his informative message with NASA, the U.S. military, other government



David Higginbotham/MSFC

agencies and leading industry firms.

An estimated 54 million Americans — one in six — have a permanent physical disability. National Disability Employment Awareness Month dates back to a week-long event begun in 1945 to encourage employment of Americans with physical handicaps. In 1962, the emphasis was broadened to persons with a range of disabilities. In 1988, Congress expanded the week to a month and gave it its current name.

## Obituaries

**Dorrance L. Anderson**, 85, of Bessemer died Sept. 17. He retired from the Marshall Center in 1974 as an electrical engineer. He is survived by his wife, Agnes Hollingsworth Anderson.

**Robert Leslie Durham**, 77, of Athens died Sept. 18. He retired from the Marshall Center in 1990 as an engineering technician.

**Jack Russell Underwood**, 81, of Huntsville died Sept. 23. He retired from the Marshall Center in 1982 as a supply clerk.

## MARSHALL STAR

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