



MARSHALL STAR

Serving the Marshall Space Flight Center Community

Dec. 11, 2008

Utah test managed by Marshall

Shuttle rocket motor successfully tested

By Sanda Martel

NASA's Space Shuttle Program successfully conducted a static, or stationary, firing of a space shuttle reusable solid rocket motor in Promontory, Utah, Dec. 4. The test was managed by the Reusable Solid Rocket Booster Project Office at the Marshall Space Flight Center.

"This test is an example of the aggressive testing program NASA pursues to assure flight safety," said David Beaman, manager of the Reusable Solid Rocket Booster Project Office at Marshall. "It also allows us to gather information on how motors with different ages perform."

Preliminary indications are that all test objectives were met. After final test data are analyzed, results for each objective will be published in a NASA report.

The flight support motor, or FSM-15, burned for approximately 123 seconds, the same time each reusable solid rocket motor burns during an actual space shuttle launch.

The test evaluated possible performance changes as shuttle motors age. Space shuttle solid rocket motors are certified for five years from their date of manufacture. The more than seven-year-old, four-segment motor tested Dec. 4 is the oldest ever fired.

The test further substantiated the certification that was established by NASA at the beginning of the shuttle program. It also provided important information for continued launches of the shuttle and development of the Ares I rocket, a key component of NASA's Constellation Program that will launch the Orion crew exploration vehicle on missions to the moon.



Fire and smoke billow from a space shuttle reusable solid rocket motor static test at a Utah test facility Dec. 4.

Ares I test objectives included performance data on a new nozzle design that would increase robustness and measurement of environmental changes caused by motor pressure and sound. This valuable data will assist in the final design of the launch structure for Ares I rockets by engineers from NASA and ATK Launch Systems Group of Promontory — a unit of Alliant Techsystems Inc. — which manufactures space shuttle solid rocket motors.

A space shuttle launch requires the power of two reusable solid rocket booster motors to lift the 4.5-million-pound shuttle vehicle. Each solid rocket booster generates an average thrust of 2.6 million pounds. In this latest test, the motor generated 3.3 million pounds maximum thrust for two minutes.

Martel, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

CFC ends Dec. 12; mailed donations must be postmarked by Dec. 29

Donations are still needed to reach the Marshall Center's goal of \$600,000 for the Combined Federal Campaign. Civil service employees, contractors and retirees are encouraged to give before the Dec. 12 deadline.

Mailed donations must be postmarked by Dec. 29. Civil service employees

can log in to WebTADS to make CFC contributions. On-site contractors may give their contributions to their organization leads, or contractors and retirees can mail them to:

David Percival
MSFC RS30
Huntsville, AL 35812

All checks should be made payable to the



Combined Federal Campaign. For more information, visit <http://cfc.msfc.nasa.gov/>.

[Please see page 2 for a bus tour feature and contribution update.]

A visit to the Greater Huntsville Humane Society

Marshall team members greeted with 'woof woof' on CFC bus tour

By Jessica Wallace

When you walk into the Greater Huntsville Humane Society, you most likely will receive a happy greeting from a furry, four-legged "friend."

That's exactly what happened to a group of Marshall Space Flight Center team members who hopped on a Combined Federal Campaign bus to the south Huntsville Humane Society facility.

The CFC is an annual initiative by federal and military personnel to raise money for charities. Bus tours take Marshall team members to some of the organizations supported by CFC contributions. It's a way to learn about how a charity operates, while observing how CFC contributions are helping folks — and animals — across the Tennessee Valley.

"I think one predominate thing all of the agencies involved in the bus tours have in common is their passion for what they do," said David Higginbotham, a photographer supporting Marshall's Application, Web & Multimedia Services Office. "Whether they are in the business of preserving a historic property or reaching out in the interests of the less fortunate, these people are 'all in' when it comes to what they do. As a photographer, I am sometimes assigned to cover CFC activities, and it has given me the opportunity to see firsthand how much good work is being done."

During the tour of the Humane Society, Marshall team members learned about the services the organization offers to the community, while having "hands-on" experience with the animals that barked, meowed and trotted alongside them during the visit.

The Humane Society was incorporated in 1969 as a nonprofit organization to promote the humane treatment of animals. This "no-kill" shelter offers a place to stay for homeless and unwanted animals, and conducts an adoption program to place them into suitable homes. The organization depends entirely on donations, fundraisers and adoptions for funds. They take in all kinds of species and work to find them good homes.

"I did not realize what a great service this organization provides for Huntsville and the surrounding area until I took the bus tour,"

said Carol Drake, a document specialist in the Safety & Mission Assurance Directorate. "They have joined so many pets with families. Also, they have saved the lives of so many animals. This organization deserves all the support we can possibly give them."

During the tour,



David Higginbotham/MSFC

Marshall's Carol Drake of the Safety & Mission Assurance Directorate, left, and Karen Flanagan of the Office of the Chief Financial Officer visit the "cat room" at the Greater Huntsville Humane Society during a CFC bus tour.

Marshall team members visited sections of the shelter dedicated to the different animals. In one room, the visitors were welcomed by a colorful array of cats. In another room, they came across dogs playing with toys. According to Melissa Hull, director of the shelter, people in the community love to visit and sit with the cats and dogs while catching up on their reading. "I believe animals provide therapy," said Hull. "We have people who will come here just to hang out with the animals. By the time they leave, they're much happier."

"The Humane Society trip was great," said Karen Flanagan, a budget analyst in the Office of the Chief Financial Officer. "It is a positive place that is well operated, and they have a steady stream of improvements in the care and placement of the animals."

Improvements to the shelter are made possible by donations through the Combined Federal Campaign. With these gifts, the Humane Society keeps a few more animals off the street, placing them in a loving environment at the society's facility with the goal of finding them a wonderful home.

"I had never been to an animal shelter before, and had second-thoughts about going because I thought it would be a haunting experience," said Judy Hyde, a personnel security specialist in the Protective Services Office. "It was actually a very rewarding experience. The Greater Huntsville Humane Society showed how much these animals are loved and cared for by the staff with the funds they're receiving."

For more information on the Greater Huntsville Humane Society, visit <http://www.greaterhuntsvillehumanesociety.org/>.

To make a CFC donation, visit <http://cfc.msfc.nasa.gov/>. The contribution deadline is Dec. 12.

Wallace, an AI Signal Research Inc. employee and the Marshall Star editor, supports the Office of Strategic Analysis & Communications.



To date, Marshall has contributed \$585,714 toward the center's \$600,000 goal. The campaign ends Dec. 12. To donate, visit <http://cfc.msfc.nasa.gov/>.

Materials Science Research Rack leaves Marshall Center for final flight preparations

On Dec. 3, a new multi-user Materials Science Research Rack began its journey to the International Space Station leaving the Marshall Space Flight Center for NASA's Kennedy Space Center for final flight preparations.

The Materials Science Research Rack will be used to study a variety of materials — including metals, ceramics, semiconductor crystals and glasses — onboard the orbiting laboratory. It is scheduled to fly aboard space shuttle Atlantis on STS-128, targeted for launch in August 2009. Upon arrival to the space station, the research rack will be housed in the U. S. Destiny Laboratory. This module is the primary research laboratory for U.S. payloads, supporting a wide range of experiments and studies contributing to health, safety and quality of life for people.

"Materials science is an integral part of development of new materials for our everyday life," said Alex Lehoczky, project scientist for the Materials Science Research Rack at Marshall. "The goal of studying materials processing in space is to develop a better understanding of the chemical and physical mechanisms involved. Then, with this knowledge, we can reliably predict conditions required on Earth to achieve improved materials."

It is a highly automated facility and contains two furnace inserts in which sample cartridges will be processed up to temperatures of 2500 F. Initially, 13 sample cartridge assemblies, each containing experiment samples, will be processed. The cartridges are inserted one at a time into the furnace insert for processing. Once a cartridge is in place, the experiment is run by automatic command

or via telemetry command from the ground. Processed samples will be returned to the Earth as soon as possible for evaluation and comparison of their properties to samples similarly processed on the ground.

"Completing the Materials Science Research Rack brings us one step closer to making the International Space Station a robust orbiting laboratory," said Jimmie Johnson, project manager for the research rack at Marshall.

During the development process, Marshall engineering performed hardware and software tests to ensure the design met all technical requirements of the International Space Station Program.

"It's very exciting to see hardware that we all have worked on for the past several years finally be delivered to Kennedy in preparation for its flight to the space station," said Allison Lee of Marshall's Flight Systems Integrations and Test Branch.



Allison Lee, Marshall systems test engineer, and Jeff Clancy with Teledyne Brown Engineering look over the Materials Science Research Rack before shipment to Kennedy Space Center for final flight preparations. The research rack will launch onboard STS-128 in August 2009.

Obituaries

Carl T. Huggins, 86, of Huntsville died Nov. 7. He retired from the Marshall Center in 1977 as an electronics engineer. He is survived by his wife, Elizabeth Huggins.

Billy M. Stevenson, 75, of Fayetteville, Tenn., died Nov. 7. He retired from the Marshall Center in 1988 as an aerospace engineering technician. He is survived by his wife, Eva Hall Stevenson.

John Isbell, 72, of Guntersville died Nov. 13. He retired from the Marshall Center in 1994 as a printing specialist.

Alfred Raymond Morse Jr., 80, of Huntsville died Nov. 18. He retired from the Marshall Center in 1985 as an engineer. He is survived by his wife, Edwina "Wink" Morse.

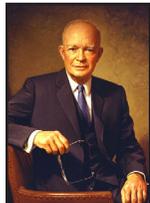
Frank John Richter Sr., 91, of Guntersville died Nov. 20. He retired from the Marshall Center in 1990 as a construction representative.

Thomas Orville O'Bryant, 83, of Huntsville died Nov. 20. He retired from the Marshall Center in 1990 as an electronics technician. He is survived by his wife, Kay O'Bryant.

In celebration of NASA's 50th anniversary

Presidential reflections on space exploration

American leadership sent a powerful message to the nation when it created NASA. President Dwight D. Eisenhower's administration and every presidential administration since 1958 has helped set the path for space exploration in America. Listed below are various excerpts indicating the importance that all of the presidents have attached to NASA.



Dwight Eisenhower

President Dwight D. Eisenhower: "The momentum thus gained accelerates today under the civilian management of the new National Aeronautics and Space Administration, guided by Dr. Glennan, and his deputy, Dr. Dryden." *An excerpt from Eisenhower's remarks at the 1958 swearing-in ceremony for the first NASA administrator and deputy administrator*

President Dwight D. Eisenhower: "The gifted scientists, engineers and technicians who splendidly served the Army are now eagerly developing, for this new organization, the gigantic launch vehicle, Saturn." *An excerpt from Eisenhower's remarks at the dedication of the Marshall Center on Sept. 11, 1960*

President John F. Kennedy: "We go into space because whatever mankind must undertake, free men must fully share." *An excerpt from Kennedy's May 21, 1961, address to Congress*



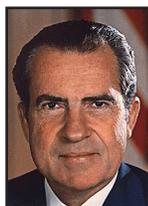
John Kennedy



Lyndon Johnson

President Lyndon B. Johnson: "Our space technology is opening new doorways to world peace." *An excerpt from a presidential report during a 1966 annual report to Congress*

President Richard M. Nixon: "For one priceless moment in history, the world is truly one; one in our pride and admiration of what you have done, and one in our hopes and prayers that you will safely return to us." *An excerpt from Nixon's July 20, 1969, phone call to the Apollo 11 astronauts*



Richard Nixon



Gerald Ford

President Gerald R. Ford: "The day is not far off when space missions made possible by this first joint effort will be more or less commonplace." *An excerpt from Ford's remarks regarding an Apollo-Soyuz mission in 1975*

President Ronald W. Reagan: "In the future, as in the past, our freedom, independence and national well-being will be tied to new achievements, new discoveries and pushing back frontiers." *An excerpt from Reagan's remarks following the conclusion of the STS-4 mission in 1982*



Ronald Reagan



George H. Bush

President George H. Bush: "Wernher von Braun was the giant who put Huntsville on the map. When someone asked him what it would take to build a rocket to reach the moon, von Braun replied, 'The will to do it.'" *An excerpt from Bush's remarks during a visit to the Marshall Center in 1990*

President Jimmy Carter: "They did it through personal imagination, through personal diligence, through personal initiative. We have some awards to present them which they truly deserve." *An excerpt from Carter's remarks in 1997, while presenting Marshall employees Curtis R. Helms and Thomas W. Winstead with Presidential Management Improvement Awards for improvements to the space shuttle external tank*



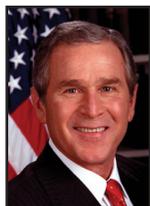
Jimmy Carter



William Clinton

President William J. Clinton: "Today we celebrate the falling away of another barrier in America's quest to conquer the frontiers of space and also to advance the cause of equality." *An excerpt from Clinton's March 5, 1998, remarks regarding the appointment of Eileen Collins as the first female space commander*

President George W. Bush: "Today I announce a new plan to explore space and extend a human presence across our solar system. We will begin the effort quickly, using existing programs and personnel. We'll make steady progress — one mission, one voyage, one landing at a time." *An excerpt from Bush's remarks announcing a new vision for space exploration in January 2004*



George W. Bush

Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Marshall Star Ad Form." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue, Dec. 18, is 4:30 p.m. Thursday, Dec. 11.

Miscellaneous

Maytag dryer, 1 1/2 years old, \$175. 881-3527

Craftsman radial arm, table saws, local delivery, \$150 each, \$200 for both. 464-9871

Canon EOS 30D DSLR camera, 18-55mm lens, 55-250mm lens, batteries, charger, software, manual. 864-2517

Wooden bunk bed, \$50. 430-4041

Washer, dryer, beige, \$150. 852-8750

Solid oak kitchen table, six chairs, \$275. 852-8750

"Transformers", "300" HD-DVDs, \$15 both. 777-1810

John Deere riding mower, less than 30 hours, 54" cutting deck, three cutting blades, \$2,500. 337-7243

Black DCM TF-400 speakers, <http://www.dcmspeakers.com/manuals/TF400.pdf>, \$100 pair; iron and glass top end table, \$90. garybraden@comcast.net or 797-5282

iPod Touch, 32GB, in sealed box, \$300. 468-3749

Laptop, HP pavilion dv2418nr, 2GB RAM, 160GB HD, \$400. 961-7460

CKC Toy Yorkies, three girls, one boy, born Nov. 24, girls \$600, boy \$550. 425-8381

1970s Coke machine, \$650; antique barber chair, \$950. 658-8241 or bospragins@yahoo.com

Remote control truck, \$35; 50-gallon aquarium, cabinet, \$350; cloth baby books, \$10 each. 466-4500

Peavey Mark VIII bass amp head, 210TX, 410TX bass enclosures, \$600; Fender guitar, \$500. 636-2978

Cedar fence posts, 7 feet, \$3; 9- to 12-foot corner posts, \$12.50. 682-7165

AKC German Shepherd, female, black and cream. 828-9494

Weider weight bench, 300-pound steel weights, \$175. 773-8877 or 280-8093

Three cemetery plots, Huntsville Memory Gardens, "Memories" lot 24 A, spaces 2, 3, 4. \$4,000. 881-3840

Goodyear Assurance Triple Tred 205/55R16 tires, 6~7/32" tread remaining, \$35 each, \$120 for four. 837-1035

IBM Aptiva 166MHz PC, CD, monitor, \$50 obo; 486/66 PC, CD, monitor, \$25 obo. 828-5326

Ventless cast-iron gas logs, propane, manual, heats 1,000 square feet, \$550. 655-6348

Garage door panels, fits 8' by 16' opening, minus tracks, some hardware, you haul, \$400. 586-5126

Garbage compactor, residential, brown, \$300 obo. 852-5595

Entertainment center, \$500; 36-inch TV, \$250, \$600 for both. 417-5507

Nordic Track CX985 Elliptical machine, \$250. 655-4820

Antique oak wash stand, towel bar. 426-8059

Ladies custom tennis bracelet, white/yellow gold links, approximately 1 1/2 ctw, \$775. 693-4280

Charbroil "Big Easy" oil-free turkey fryer, vinyl cover, \$70. 895-9593

Honeywell digital thermostats, FocusPro TH5110D1022 (1H/1C), \$30; TH5220D1029 (2H/2C), \$45. 541-4991

Titleist "Scotty Cameron" Newport 2 putter, \$250. 881-1249

2005 Women's Fuji Finest road bike, intro road bike, \$250. 694-0034

Oak/hickory firewood, \$65 delivered. 232-8311

Vehicles

2007 VW EOS, red, six speed, no leather

seats, 19,500 miles, \$25,500. 694-0034

2007 4Runner Sport, 2WD, leather, heated seats, warranty, 27k miles, \$20,500. 426-1822

2006 BMW 325i, white/tan, loaded, 40k miles, \$22,900. 883-6894 or 468-6894

2003 Yamaha TTR225 dirt bike, new tires, chain, \$1,200. 653-0800

2002 Dodge Grand Caravan ES minivan, leather, DVD, all power doors, \$4,995 obo. 852-6952

2001 Kawasaki Bayou 300 4x4 four wheeler, red, less than 50 hours, \$2,500. 828-9798

2000 Grand Cherokee, 114k miles, \$5,000. 658-8241

1996 Corvette, removable top, 25 MPG, 72k miles, \$10,500. 723-8877

1992 Chevrolet Lumina, four door, 31k miles, \$1,850. 534-2025

1984 Toyota Cressida, five speed, needs minor work, factory shop manual, \$300 obo. 233-0705

Wanted

Electrical work to do, wiring houses, detached garage, adding/removing lights, switches, plugs. 468-8906

Verizon Wireless compatible cell phone, good condition. 682-1083

NordicFlex Ultra Lift exercise machine, manufactured around ten years ago. 503-1348

Tickets to the Broadway Theater League's Chitty Chitty Bang Bang, Feb. 1. 603-1273

Used stereo tuner/amplifier, 100 watts, with turntable (phono) connections. 426-4955

Found

Brown wool hat, north parking lot, Building 4200, Dec. 1. 544-4680

Free

Two male black cats, littermates, five years old, toys included. 337-1288

Kitten, 4 months old, male, short hair, solid black. 464-3694

NASA calls for comment on draft Ares V request for proposals; Marshall hosts presolicitation conference

From combined reports

NASA has released a draft request for proposals regarding Phase I of its Ares V launch vehicle. The rocket will perform heavy lift and cargo functions as part of the next generation of spacecraft that will return humans to the moon. Phase I will define operational concepts, develop requirements and refine design concepts for the Ares V.



Emmett Given/MSFC

Steve Creech, Ares V project manager, gives an overview of Ares V project at the Ares V presolicitation conference Dec. 3

This document is a draft of the final version of the request for proposals for Phase I, expected between late December 2008 and early January 2009. By responding to this draft request for proposals, potential offerors can provide input on the requirements, small business goals and contract

structure. The industry input received will be combined with NASA's expertise for potential inclusion in the final version of the request for proposals for Phase I, which will ask for bids on five Ares V work packages.

A presolicitation conference was held Dec. 3 at the Marshall Space Flight Center. The conference was designed for information sharing about the Ares V Phase I for potential offerors. Presenting overviews of their respective areas were Marshall Center Director David King; Jeff Hanley, Constellation Program manager at Headquarters; Steve Cook, Ares Projects manager; Steve Creech, Ares V Project manager; and Dan Dumbacher, director of the Engineering Directorate. Fred Bickley, Ares V Source Evaluation Board chair and Joe Eversole, Ares V contracting officer, discussed request for proposals and solicitation details. Over 70 individuals from industry attended the conference.

For a copy of the draft request for proposals for Phase I, designated NNM09274026R, and more information about the conference, visit <http://prod.nais.nasa.gov/cgi-bin/eps/sol.cgi?acqid=131145#Draft%20Document>.

For more information about the Ares projects, visit <http://www.nasa.gov/ares>.

Marshall Association holding Toy Drive

The Marshall Association will be conducting a Toy Drive until Dec. 12 for Toys for Tots. New toys will be collected in the Building 4203 lobby from 11:15 a.m. until 12:45 p.m.

For questions, contact Annette Sledd at 544-2457.



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