



# MARSHALL STAR

Serving the Marshall Space Flight Center Community

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## Marshall Ares I-X team counting down to April '09 launch

By Craig Dunn

With the April 2009 launch of the Ares I-X rocket test now just a year away, Marshall managers working in the Ares Projects are hard at work finalizing designs for NASA's new flagship launch vehicles.

The Ares rocket fleet is a centerpiece of the Constellation Program. The program also includes the Orion spacecraft that will ferry astronauts to and from the International Space Station and the moon and the Altair lunar lander that will deliver astronauts to the lunar surface. Much like the historic Saturn I test flights implemented by Dr. Wernher von Braun's team for the Apollo moon program, the first three flights of the Ares I rocket are designed to test various aspects of the spacecraft prior to the first crewed Ares and Orion mission, currently scheduled for 2015.

Ares I-X will be NASA's first integrated test flight of a new launch vehicle since the launch of the space shuttle in 1981.



Artist rendering of Ares I-X test rocket on launch pad

"Plans for this flight began in October 2005," said Steve Davis, deputy manager of the Ares I-X Test Flight Project at the Marshall Center. "We were asked to put together a proposal outlining the major launch objectives, after which it was determined that this flight would serve as a valuable stepping stone in gaining the necessary data to make future Ares flights successful."

The Ares I-X test vehicle will be similar in shape, size and weight to the actual Orion and Ares I vehicle systems but will incorporate a mix of flight and mockup hardware. "The development and test phase of this flight is able to move forward much faster because we are using existing hardware that for the most part has already been tested and flown," Davis

said. High-fidelity mock-ups of the upper stage and the Orion crew module and launch abort system will be used to simulate the fully integrated spacecraft system.

*See Ares I-X on page 6*

## Deputy Director Lightfoot holds shuttle transition update

By Shelley Miller

Marshall Center Deputy Director Robert Lightfoot met with Marshall employees April 1 for an update on NASA's transition from the space shuttle to the Constellation Program.

Lightfoot informed employees that as part of the Fiscal Year 2008 Consolidated Appropriations Act enacted last December, NASA has provided a report to Congress on its plans for the retirement of the space shuttle and transition to the new Constellation Systems, with

an emphasis on minimizing the disruption to NASA's civil service and contractor workforce. The first report was submitted to Congress on March 31, and is available at [www.nasa.gov/transition](http://www.nasa.gov/transition). NASA will provide updates every six months.

In his update to employees in Morris Auditorium, and broadcast on centerwide TV, Lightfoot said the agency and Marshall have been evaluating and planning for this transition for more than two years

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# Update

## Continued from page 1

— since the announcement of the new Constellation assignments.

He said Marshall will continue to focus on workforce and resource planning; optimizing the use of real property and facilities; and evaluation and implementation of effective processes. He stressed that the report should be considered a "living document" because workforce plans and estimates will continue to mature.

The good news, Lightfoot told Marshall team members, is that Marshall is ready for the challenge with the right team and right skills. Center activities underway include a survey conducted with Marshall's space shuttle employees (65 percent indicated they will stay until the end of the program); a review and assessment of workforce skills and supply and demand projections; workforce synergy between the shuttle program and Ares Projects; and cross-training of employees for future work. Marshall's Shuttle Transition Team and Office of Human Capital are partnering on many activities to carry out a successful workforce transition.

Lightfoot said it's important to remember NASA is executing the first change in U.S. Civil Space Policy in 35 years, and it will be challenging and complex. But it will provide unique opportunities for the workforce to expand and use their skills in new and diverse ways, he said.



Marshall Center Deputy Director Robert Lightfoot discusses NASA's space shuttle transition activities with Marshall employees in Morris Auditorium on April 1.

In the coming months, Lightfoot will conduct a series of roadshows with members of the Marshall workforce to discuss the latest shuttle transition activities and answer questions. To view the shuttle transition presentation, or to submit a question for an upcoming transition meeting, go to <http://inside.msfc.nasa.gov/questions/>. Other communication tools available to inform employees about transition activities can be found at [www.nasa.gov/transition](http://www.nasa.gov/transition).

*Miller, an ASRI employee, supports the Office of Strategic Analysis & Communications.*

## Booster separation motor team holds appreciation event



Emmett Given/MSFC

The Reusable Solid Rocket Motor Booster Separation Motor team gathered at Redstone Arsenal Rustic Lodge on March 25 to celebrate the successful qualification and first flight of newly qualified motors supplied by ATK Launch Systems to the Space Shuttle Program. A group of 65 people representing government and industry attended and included representatives from the Reusable Solid Rocket Booster Project office; ATK Launch Systems, a unit of Alliant Techsystems Inc.; United Space Alliance; and other NASA centers. The ATK booster separation motors were used in the forward solid rocket booster frustum position on the two most recent shuttle missions, STS-122 and STS-123. David Beaman, Reusable Solid Rocket Motor Project manager, second from left, thanked the team. Pictured from left are Jay Nichols, booster separation motor team leader; Beaman; astronaut Barry Wilmore and Jack Phelps, chief engineer of the Reusable Solid Rocket Booster Project.

# NASA updates target launch date for next shuttle flight

NASA is targeting May 31 as the launch date for shuttle Discovery's STS-124 mission to deliver the large Japanese Kibo Pressurized Module to the International Space Station. The liftoff time is approximately 4:01 p.m. CDT.

NASA decided to reschedule Discovery's target launch date from May 25 to May 31 after shipment of the mission's external fuel tank from its assembly plant at the Michoud Assembly Facility in New Orleans to Florida was delayed by weather. The tank arrived at NASA's Kennedy Space Center in Florida on March 26.

Additionally, NASA elected to move the liftoff date in order to avoid having the launch team work through the Memorial Day weekend. The official launch date for Discovery will be determined during the standard Flight Readiness Review held approximately two weeks before launch.

Discovery's mission is the second of three flights that will launch components to complete the Japan Aerospace Exploration Agency's Kibo laboratory. The Japanese Pressurized Module will be the station's largest science laboratory, measuring 37 feet long and

14 feet in diameter, about the size of a large tour bus. The shuttle also will deliver the lab's robotic arm system that supports operations outside of Kibo. The lab's logistics module, which was installed in a temporary location during STS-123 in March, will be attached to the new lab.

Mark Kelly will command the seven-member crew, which includes Pilot Ken Ham, mission specialists Karen Nyberg, Ron Garan Jr., Mike Fossum, Japan Aerospace Exploration Agency astronaut Akihiko Hoshide and Greg Chamitoff. Chamitoff will replace Expedition 16/17 Flight Engineer Garrett Reisman and remain on board the station as a member of the Expedition 17 crew. Reisman will return to Earth with the STS-124 crew.



Inside the Vehicle Assembly Building at NASA's Kennedy Space Center, the external tank for space shuttle Discovery is suspended over the transfer aisle as it is lifted up into a checkout cell for processing.

## Preparing a new generation for NASA's future

# Huntsville's Stone Middle wins NASA's Habitat Moon Challenge

By Jessica Wallace

Sixth graders in Huntsville's Stone Middle School have proved you don't have to be a grownup to help NASA understand just how plants can grow on the moon.

A team of 10 students recently participated in NASA's Habitat Moon Challenge, winning first place in the nationwide competition among 13 middle schools in Alabama, Arizona, Maryland, New York, New Jersey, New Mexico, Oklahoma and Washington. The challenge was for students to design and construct a lunar plant growth chamber and run an experiment to effectively grow plants in a simulated lunar environment. The students worked in teams as "engineers and scientists," learning communication skills between team members during the design process.

Four students presented their research to Dr. Marci Delaney, competition judge and project manager for NASA's Exploring Space Challenges at Goddard Space Flight Center in Greenbelt, Md. The teams were

evaluated on the content of their projects and presentations.

"The students explained the steps they took to build the lunar plant modules, using an aquarium for a growth chamber and two-liter bottles to hold the plants," said Barbara Murphy, enrichment teacher at Stone Middle School and overseer of the challenge.

"They came to the conclusion that in order to water plants on the moon, you have to place a wick through the soil, and water the plants through a straw at the bottom of the module," Murphy said. "This will prevent the water from flowing out because of little gravity on the moon. Dr. Delaney was really impressed with their findings."

The teams also planted corn seeds in the bottles and wrapped the aquarium with black paper to create the illusion of space. They put lamps in the chamber to light the plant growth, and sat back and watched the corn sprout.

Murphy said the Stone Middle schoolers

enjoyed being scientists. For earning first place, they received certificates and gift cards to Borders bookstore, and will have their names entered in a drawing for a free trip to Space Camp at the U.S. Space & Rocket Center in Huntsville.

"The teams had fun watching their plants grow in the lunar plant modules they created," Murphy said. "This is an excellent opportunity for students at this age to become fascinated with science. After all, they are our next-generation explorers that are going to one day help fulfill NASA's mission."

Winning second place was a team of students from Parkland Magnet Middle School in Rockville, Md.

To learn about the different competitions NASA offers to all grade levels in primary and secondary schools, visit the NASA Exploring Space Challenges Web site at <http://esc.nasa.gov/index.html>.

Wallace, an ASRI employee and Marshall Star editor, supports the Office of Strategic Analysis and Communications.

# Marshall's Constellation Support Office making big things happen

By Dauna Coulter

"It's the little details that are vital — little things make big things happen," Basketball Hall of Famer John Wooden once said.

NASA is heading back to the moon in a few years, a trip about 1,000 times farther than the International Space Station, and that's a pretty big thing. Millions and millions of bits of data, years of technical interchange, and a symphony of voices make up the myriad of "little details" that have to be managed in preparation for the journey. Marshall's Constellation Support Office, located within the Exploration & Space Operations Programs & Projects Office in the Science & Mission Systems Office, coordinates the daily progress of these critical elements.

"We manage the resources that scientists and engineers need in order to do their jobs," said Beth Cook, Marshall focal point for Constellation Systems Engineering & Integration support. "We keep a roof over their heads, so to speak, so they can do their work without worrying about the details. They need to be able to use their time to apply their unique expertise and skills to get us back to the moon."

The Constellation Program has more than just the moon on its horizon. It is responsible for building a reusable vehicle to replace the space shuttle, and for sustaining a human presence in space for decades to come. To do this critical work, the program employs a skilled workforce spread across the country.

For the Constellation scientists and engineers to work efficiently and effectively, many details need to be worked out. For example, supplies, test facilities, and other infrastructure have to be available and sufficient; requirements must be analyzed and in sync across hardware elements and sub-elements; documentation must be in order; and safety and quality must be ensured.

"We provide the support to deliver all those products," said Cook. "The Constellation Support Office is the physical location to bring in all kinds of resources that provide an integrated Marshall support to the Constellation Program, and the people in our office provide that virtual support."

The Constellation Support Office is also responsible for coordinating inter-center task agreements with Johnson Space Center in Houston for Marshall support requirements. The staff works with the performing organizations to develop the task agreements; then they monitor and manage the budget and resources for the center according to those agreements.

## How it all works

Because members of the management and support staff for each directorate are located at several centers, including Marshall, the work is performed, for the most part, virtually.

"It's unusual, but it works," said Cook. "Although the work is spread among centers, we work together to achieve success."

Virtual teleconferencing is the nature of this business, and the Marshall Constellation Support Office uses collaborative online software and telephones to connect team members daily to ensure all the little details are covered. Whether communication is needed in the form of a staff meeting or to review engineering drawing changes, the virtual meeting room gives everyone an over-the-shoulder look at a presentation or document, which can be edited real-time.

"Because we are a virtual team, we had to find new ways to stay in touch, communicate and develop the teaming required to do our jobs," said Marshall's Renee Cox, Initial Capability Systems Integration Plan lead. "Our workers rely heavily on teleconference meetings with Webex capabilities, and we also use video conferences. We are showing that virtual communication can be successful on something as complicated as establishing a moon base."

For example, Chris Hardcastle, Systems Engineering & Integration director, physically located at Johnson Space Center, has frequent conference calls with his team, which is scattered across NASA centers. These tag-ups connect the team

**See Constellation Support Office on page 5**



Members of the Constellation Support Office staff review the integrated Constellation schedule while discussing activities via teleconference with Johnson Space Center personnel. From left, Chris McLemore, Beth Cook, Steve Meacham, Bess Bailey, Dilek Malone, Bill Cooper, Roy Young, Robyn Carrasquillo, Thad Henry and Renee Cox.

## 2008 Student Launch Initiative

# High school, college rocketeers to fly high over North Alabama April 19, 26

The skies over North Alabama will fill with thunder this month, as the Marshall Center hosts its annual twin rocketry challenges — the University Student Launch Initiative for college-level teams and the Student Launch Initiative for high school students.

Eleven university teams from around the nation will fly their rockets April 19. Sixteen high school teams will launch theirs April 26. Both launch events are scheduled to kick off at 9 a.m. at Bragg Farms in Toney, Ala. Marshall team members and their families are invited to attend.

Both launch initiatives challenge student teams to design, build and fly a reusable rocket with a working scientific payload to 1 mile in altitude. The launch culminates a school year's worth of design work, test flights and rigorous documentation, all to be judged by panels of scientists and engineers from NASA and its partners.

"Events such as the Student Launch Initiative and University Student Launch Initiative are one of the most visible ways NASA and the Marshall Center actively support educational communities all across the nation," said Tammy Rowan, manager of Marshall's Academic Affairs Office. "It's our goal to inspire tomorrow's engineers, scientists and explorers through opportunities like these, to give them hands-on experience that will help them make informed choices about their future career paths."

The teams won their launch slots by submitting project plans to NASA at the start of the 2007-2008 school year. The high school teams pre-qualified by placing in the top 25 rocketeers in the Team America Rocketry Challenge in Virginia in May 2007.

NASA's University Student Launch Initiative is sponsored by the Huntsville division of ATK Launch Systems of Brigham City, Utah. Both the high school and college-level events are organized for NASA by the Marshall Center's Academic Affairs Office in the Office of Human Capital.

For more information about launch events, and directions to the site, visit Inside Marshall.

For more information about NASA Education projects including the Student Launch Initiative and University Student Launch Initiative, visit <http://education.nasa.gov>.

## This month in history ...

NASA marks its 50th anniversary this year Oct. 1. Among those Americans who laid the foundation for space exploration in America was the rocket inventor Robert H. Goddard. This makes today, April 3, noteworthy because on this same day in 1926, Goddard conducted his second flight of a liquid-fueled rocket. For more information about Robert Goddard, go to <http://history.nasa.gov/sputnik/goddard.html>.



## Constellation Support Office

*Continued from page 4*

and contribute to what he refers to as "the battle rhythm of his office." Cook says the team has established camaraderie through these types of meetings, and they even engage in friendly office banter from center to center.

"The team manages to add a human element to the virtual interactions," said Cook, "and that is important."

A recent resolution of requirements conflicts by Systems Engineering & Integration personnel from several centers is another good example of the Constellation Support Office's successful system in action. During the eight weeks preceding an extended face-to-face Integrated Stack Technical Interchange meeting at the Johnson Center, the team identified and collected almost 400 requirements conflicts that needed to be resolved

across projects. Then the affected parties worked virtually — through conference calls and e-mails — to resolve most of the issues. The remaining issues were resolved at the face-to-face meeting.

"This system is good for the agency because it really ties all 10 centers together for the first time, more in a basket weave formation rather than independent sand boxes," said Cox. "This interweaving allows the agency to pull on best practices and lessons learned, which vary center to center, such that a well understood and well thought out path forward can be established and implemented."

By also virtually weaving the little details together, the Constellation Support Office is helping make some very big things happen.

*Coulter, a Schafer Corporation employee, supports the Office of Strategic Analysis & Communications.*

# Ares I-X

*Continued from page 1*

Ares I-X passed a major milestone in March with its initial critical design review at NASA's Langley Research Center in Hampton, Va. A second phase of the review, scheduled for early summer, will focus on guidance, navigation and control systems.

Several key areas of the Ares flight are managed here at Marshall, including the first stage, avionics system and roll control system.

The Ares I-X first stage work is being managed by Marshall's Chris Calfee in the First Stage Office. The prime contractor responsible for the development and testing of the first stage is ATK Launch Systems of Brigham City, Utah. This stage consists of a single, four-segment reusable solid rocket booster — flight hardware currently in the shuttle inventory — modified to include a fifth inert, or inactive, segment to simulate the Ares I rocket's five-segment booster.

Kevin Flynn in the Flight and Integration Test Office at Marshall manages the avionics system. The prime contractor responsible for design, development, testing and evaluation is Jacobs Technology Inc., of Tullahoma, Tenn. The avionics system for Ares I-X is evolved from the Atlas V rocket, first launched in 2002 as part of the U.S. Air Force's Evolved Expendable Launch Vehicle program. This system will include the guidance, navigation and control unit; data handling and telemetry; and associated cabling and support equipment. Lockheed Martin, a subcontractor to Jacobs, will begin avionics system testing in April at its Astronautics division in Denver.

Ron Unger is the Marshall Ares I-X manager overseeing work on the roll control system, with Teledyne Brown Engineering of Huntsville as the prime contractor. The roll control system will manage the amount of rotation by the first stage solid rocket from liftoff to its separation from the second stage, ensuring Ares I-X stays on its designated trajectory for the first two minutes of flight. The new system, originally made by Rocketdyne for military applications, will control the firing of these simple, flight-certified thrusters, to achieve very precise roll control.

Other project managers at Marshall include the Ares I-X project integration manager Kimberly Robinson, who manages the integrated master schedule, risk management, configuration data

management and assessment and reporting of mission progress. John Howell, Ares I-X Business Manager, is responsible for Ares I-X budget planning and performance assessment.

NASA's Constellation Program at NASA's Johnson Space Flight Center in Houston manages the Ares I-X mission.

## Meeting the objectives

NASA's five major objectives for the Ares I-X test flight include launch and in-flight control of the vehicle; successful separation of the first stage and upper stage; demonstration of the assembly and recovery of the first stage; first-stage separation sequencing, entry dynamics and parachute performance; and evaluation of vehicle roll torque throughout first-stage flight.

"The April 2009 flight is a development test, so any and all data we get out of it is going to provide valuable information for future flights," Davis said. "We'll measure success, in no small part, simply by completing assembly and then flying this vehicle."

Design and hardware fabrication efforts continue toward major milestones, Davis added. Drop tests of parachutes for the Ares I crew launch vehicle first stage, which also will be used for Ares I-X, are already under way at the U.S. Army's Yuma Proving Ground near Yuma, Ariz.

The first cluster test of the main parachutes, which control the return of the first stage solid rocket motor, is scheduled for May 2008. Hardware for the Ares I-X test flight is scheduled to begin arriving at NASA's Kennedy Space Center in Florida for vehicle assembly in August of this year.

"We have operated at a very fast pace from the inception of this test flight," Davis said. "We have carefully planned, implemented and integrated various systems and hardware, with the goal of achieving a successful test flight next spring," he said. "The entire Ares I-X team, especially those here at Marshall, continue to do a terrific job, and I know we are doing everything possible to make this flight a success."

For more information about the Ares launch vehicles and NASA's Constellation Program, visit: <http://www.nasa.gov/constellation>.

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



Artist rendering of Ares I-X in Vehicle Assembly Building

# NASA's 15th annual Great Moonbuggy Race to kick off April 4

Marshall Center team members are invited to come out to the U.S. Space & Rocket Center on April 4-5 to cheer on the young racers in NASA's 15th annual Great Moonbuggy Race.

Nearly 400 students on more than 60 teams — representing high schools, colleges and universities in 17 states, Puerto Rico, Canada, India and Germany — will pilot lunar rovers of their own design around a course simulating the harsh surface of the moon, competing to win cash, trophies and other prizes.

The race is slated to start at 8 a.m. each day.

Organized by the Marshall Center's Academic Affairs Office, NASA's Great Moonbuggy Race is one of numerous educational programs and initiatives led each year by Marshall to help attract and inspire America's next generation of scientists, engineers and explorers — those who will carry on the nation's mission of exploration, to the moon and onward into the solar system.

For more information about the racers, the course and the history of the race, visit <http://moonbuggy.msfc.nasa.gov>.

## 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, April 10, is 4:30 p.m. Thursday, April 3.*

### Miscellaneous

Oak dining room set, hutch, table, pad, six chairs, \$350. 468-1066  
14-inch original rally rims off of a 1976 Nova. 586-2994  
Xbox games, New Rainbow Six Vegas 1, 2, \$20, \$40; Lost Planet Extreme Condition, \$15. 722-9535  
Piedmont Pool membership, \$250. 776-9165  
Weimaraner puppies, AKC, silver, 11 weeks old, second shots, \$350. 347-2097  
Bulldog puppies, 8 weeks old, first shots, wormed, tails docked, \$150. 784-9337 or 227-9053  
White glider rocker, yellow and polka dot cushion, \$50. 651-2257  
GE Profile side-by-side refrigerator, Culligan ice/water dispenser, \$450. 714-8580  
Dual-axle utility trailer, 5"x12", tailgate ramp, built by Lone Wolf, title, \$695. 325-2919  
Wedding dress, size 16/18, preserved, veil, \$200; 1/2-carat diamond band, yellow gold, \$225. 426-7862  
47-inch Panasonic widescreen TV, \$400 obo. 604-7424  
Singer knitting machine, attachments, large cones of yarn, \$750. 714-9712  
Tru-Cut 20-inch reel mower, 3.5 B&S engine, \$550. 880-3703  
Sony Handycam 330X-Hi8; HP Photosmart 7350 printer; HP 720 digital camera, \$175. 508-5416  
Contemporary glass table, chairs, China cabinets, \$500 obo; La-Z-Boy recliner with heater, \$525. 603-1273  
Intex 18'x48" frame pool, disassembled, \$250 obo; 18-foot round leaf net, solar cover, \$35 each. 656-5703  
Four-post queen-sized bed, 14-drawer dresser, mirror, seven-drawer dresser, oak, \$2,000 obo. 898-4684

### Vehicles

2007 Nissan Altima 3.5 SE, six speed, black, power,

sunroof, 16,800 miles, assume payments. 612-7729  
2005 Bayliner 219 deck boat, 220hp Mercruiser engine, \$25,000. 270-0426  
2005 Kawi KLR650, 60 mpg, extras, 15k miles, \$3,900. 882-9407  
2004 Ford Expedition, Eddie Bauer edition, two-tone paint, 61k miles, \$15,900. 205-260-6703  
2004 Ford F-150 Supercrew Lariat, 2WD, leather, sunroof, tow package, 48k miles, \$18,000. 426-1822  
2003 Yamaha FZ1, 25k miles, \$4,500; 2006 Suzuki GSX-R1000, extras, 8k miles, \$8,000. 882-9407  
2003 Harley VRSCA VROD, 100th anniversary model, loaded, 2,500 miles, \$17,500. 679-9004  
2003 Honda dirt bike, XR50cc, \$400; helmet, \$50; accessories, \$75. 426-4769  
2002 Nissan Xterra, silver, 2WD, all options, 26k miles, \$11,500. 527-8116  
2002 Honda GL1800 Touring, Bluetooth GPS, spoiler, rack, \$11,850. 656-1152  
2002 Fifth Wheeler camper, sleeps six, bath, A/C, gas heater, microwave, stove/oven, refrigerator, \$14,995. 721-1260  
2002 Mazda Protege LX, five-speed, A/C, cruise, silver/gray, 56,600 miles, \$5,300. 536-2809  
2001 Ford Taurus SES, 3.0L V6, new tires, \$4,900. 682-8795  
2000 BMW 528i, beige, leather, automatic, multi-CD changer, 104k miles, \$13,500 obo. 922-1424  
1999 Toyota 4-Runner Limited Edition, white, brown interior, sunroof, CD, A/C, \$7,000. 694-1260  
1999 van, call for additional details, \$4,500. 479-2631  
1998 Mercury Mountaineer, V6, automatic, leather, \$3,200 obo. 797-5494  
1998 Itasca Suncruiser 35-foot motorhome, slide, levelers, 43k miles, \$29,900. 698-3761  
1993 Mazda RX-7, twin turbo, silver, new clutch/paint, 101k miles, \$10,500. 881-1886  
1992 Honda Accord EX, black, sunroof, automatic, power steering/windows/locks, 181k miles, \$1,990. 882-1382  
1988 Oldsmobile 98 Regency, 135k miles, \$1,500. 658-3642  
19-foot Bayliner Capri Bowrider, 125 hp, trailer, covers, extras, \$3,500. 653-3647  
1988 Bronco, lift, 36-inch tires, trade for jeep wrangler, \$3,000. 412-3406

### Wanted

Someone to till a four-row garden space, Harvest-Monrovia area. 658-3960  
Fuser for HP LaserJet 5 printer. 883-2757  
RV to rent locally for weekend of July 25th. 539-7140  
Small portable DVD player. 777-8229

### Found

Pair of men's frameless glasses, south parking lot of Building 4200. 544-4680

### Free

7-month-old lab mix puppy to good home. 586-2994

## Call for 2008 Software of Year Award underway

The annual call for the 15th Annual NASA Software of the Year Award is underway. This prestigious award is designed to give recognition to developers of exceptional software created for or by and owned by NASA. The deadline is April 24. Go to "Inside Marshall" under "Upcoming Events" for details. For questions, contact James McGroary at 544-0013 or Caroline Wang at 544-3887.

## MARS Ballroom Dance Club to hold dinner dance April 12

The MARS Ballroom Dance Club will hold a semi-formal spring dinner dance from 6:30 to 11 p.m. on April 12 in the East Hall of the Von Braun Center. The cost is \$25 for members and \$35 for guests. Contact Gerald Maxwell at 544-1954 by close of business April 7 for reservations.



David Higginbotham/MSFC

## Marshall readies historic test stand in preparation for Ares I testing

There's a change in Marshall's skyline if you look south toward the Saturn V Dynamic Test Stand. Last week the roof was removed and the sliding door was lowered as engineers began preparations on the historic, 360-foot-high structure, for the Ares I Integrated Vehicle Ground Vibration Test. The test stand is best known as the site where NASA conducted full-scale Saturn testing of the towering rocket used to send the first lunar explorers to the moon, and later conducted structural tests on the integrated space shuttle system. Now it is being readied for ground vibration testing of the Ares I rocket and Orion crew capsule, the next-generation exploration vessel that will carry human explorers to the International Space Station, back to the moon and into the solar system in coming decades. As part of the effort to prepare the test stand, its massive, 144-foot-high, 71-ton door was opened March 31 – ushering in a new century in NASA's rich history of testing rockets for flight. Renovations to the test stand to accommodate the Ares I launch vehicle will include safety upgrades, refurbishment of the 200-ton derrick crane on the roof and installation of a new electrical power system. These repairs will return the facility to its original capability, with Ares testing scheduled to begin July 2011. The test program is expected to take approximately one year.

## MARS Softball season to begin April 21

The 2008 MARS Softball season will begin April 21. Games are played Monday, Tuesday and Thursday at either 5 or 6 p.m. Each team usually plays one game per week. All Marshall civil service employees, onsite contractors, approved offsite contractors and

family members are eligible to participate. For more information, go to "Inside Marshall." For interested players or questions, contact Jim Lomas at jim.lomas@nasa.gov or 544-8305, or Victor Pritchett at victor.e.pritchett@nasa.gov or 544-5771.

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