



MARSHALL STAR

Serving the Marshall Space Flight Center Community

March 13, 2008

Spectacular launch for space shuttle Endeavour

From combined reports

Space shuttle Endeavour brought an early sunrise to the East Coast March 11, launching from NASA's Kennedy Space Center at 1:28 a.m. CDT and beginning the STS-123 mission to the International Space Station.

"The STS-123 launch was spectacular," said Steve Cash, manager of the Shuttle Propulsion Office at the Marshall Center. "The entire propulsion team is to be congratulated on a job well done, and we look forward to a great space shuttle mission to the International Space Station."

During the 16-day flight, Endeavour's seven astronauts will work with the three-member space station crew and ground teams around the world to install the first section of the Japan Aerospace Exploration Agency's Kibo laboratory and the Canadian Space Agency's two-armed robotic system,



The space shuttle Endeavour lights up the early morning sky at NASA's Kennedy Space Center in Florida, lifting off at 1:28 a.m. CDT on March 11.

See STS-123 on page 5



Racers from the Huntsville Center for Technology bring home the high school division trophy in NASA's Great Moonbuggy Race in 2007.

Workers ready the course for NASA's 15th annual Great Moonbuggy Race

By Rick Smith

As he does each year around this time, John Tripp walks on the "moon," pondering the challenges ahead for those explorers brave enough to dare its cratered terrain.

Tripp is a construction foreman for Huntsville's U.S. Space & Rocket Center. The "moon," for the moment, is still just a winding ribbon of cement footpaths looped around the exterior of the

See Moonbuggy on page 7

Employee Assistance Program can help you lighten the load

By Rita Roberts

A fight with a family member or worry about a relative or friend's health may sometimes result in a less productive employee on the job. That's when the Marshall Center's Employee Assistance Program can help.

Loss of productivity can be directly linked to employee health issues, according to the Cornell University Institute for Health and Productivity Studies, part of the Cornell Center for Policy Research in Ithaca, N.Y., that studies the health and well-being of employees and business productivity.

The Marshall Center's Employee Assistance Program helps many employees deal with problems at home. But this isn't the only area where the program can help.

Any issues that negatively impact work performance, such as stress, marital problems, mental health disorders, financial or legal concerns, substance abuse problems and family issues, can be a reason for employees to seek assistance from the Employee Assistance Program.

Lynn Motley, a licensed certified social worker, provides confidential counseling to Marshall civil service employees. As the primary point of contact for the program, Motley, a Marshall contractor with WILL Technology Inc. in Huntsville, supports the Employee Services and Operations Office within the Office of Human Capital. She not only helps employees, but family members also.

With an office in the Medical Center Building 4249, Motley encourages employees to contact her directly for an appointment. "I hope people can get past the fear of counseling and actually use the program," she says. "I want them to realize there is no stigma in needing help. And it's entirely confidential, including all my records. There is even a separate door to enter if an employee is hesitant about being seen."

In addition to one-on-one counseling, the program offers workshops on stress management, marital relationships, communication skills and elder care. A life-long resident of the Huntsville area, Motley is familiar with the community and can recommend outside resources that also might benefit a client.

Ron Goetzel, lead researcher and director of Cornell's Institute for Health and Productivity Studies, says studies show "good health care means more productive employees and improved competitiveness for businesses."

Motley says she's just a cog in the wheel for Marshall's mission success. Healthier and happier employees equal better more productive employees, she explains.

"Every person's job at Marshall directly affects the center's key role in human space exploration and science missions," says Motley. "It's important to

be performing at your highest level to support these missions. I'm another resource to help make that happen."

When EAP can help

Motley works to make supervisors and managers aware of the program and to feel comfortable using it. "Managers are an important link to what's going on with employees and are encouraged to make referrals," says Motley.

What are indicators that an employee has a problem and could use the assistance of the program? "Look for any change in the employee," explains Motley, "such as coming in late, taking long lunches, coming in from lunch smelling of alcohol, poor work performance, a lot of unscheduled absences, temper outbursts and irritability — any subtle or major behavior change. Even coming in sick can be an indicator and is something we call presenteeism, or working at less than full capacity."

The program also has a Critical Incident Stress Management Plan, a requirement from NASA Headquarters, which details what to do in case of any critical incident ranging from a suicide at work to a hurricane. "The plan communicates how to intervene and help employees return to their normal functioning level quickly and appropriately," says Motley.

She credits the team of Marshall employees who help make it work. "I don't do it by myself. I have the aid of a critical incident stress debriefing team of about 15 employees within Marshall."

Each member goes through an initial two-day training class when they agree to serve on the team to learn how to handle debriefing. Since it was formed, the team staffed a Marshall call center in the days following Hurricane Katrina in 2005 and have assisted center employees to deal with the unexpected deaths of Marshall employees. Motley is the contact person for any critical incident that involves

See EAP on page 3



Doug Staffer/MSFC

Lynn Motley, a licensed certified social worker, is the primary point of contact for the Marshall Center's Employee Assistance Program.

EAP

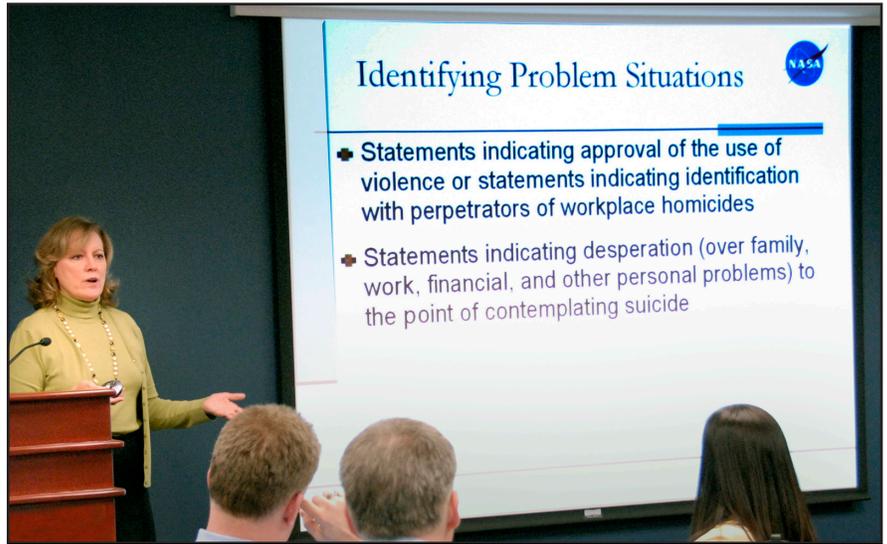
Continued from page 2

Marshall and uses the Critical Incident Stress Management Plan as a guideline during any incident.

She stresses, however, that she is not a miracle worker. "There are situations in which I refer people to resources off the center for help. But I like to think that a lot of the time I help people work through their problems, regain their ability to solve problems without me and return to being a happy and productive individual."

For more information about the Employee Assistance Program, visit <http://ohc.msfc.nasa.gov/eso/eap/index.html>.

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



During new employee orientation, Lynn Motley provides training about the Employee Assistance Program and discusses how to identify problem situations and when an employee might need assistance from the program.

Stressed out?

Working in a fast-paced, dynamic environment can be stressful. In fact, according to Lynn Motley, the primary point of contact for Marshall's Employee Assistance Program, 100 percent of Marshall's employees will experience work-related stress some time during their employment here.

What is job stress? The National Institute for Occupational Safety and Health says it's the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources or needs of the worker.

Motley says working circumstances play a big role in job stress. Those include management style of an employee's manager or organization, tasks assigned, interpersonal relationships, work roles, career concerns and environmental conditions.

Conditions that can result from stress include cardiovascular disease, muscular skeletal disorders, psychological disorders, workplace injury, suicide, cancer, ulcers and impaired immune function.

Both managers and employees should pay attention to stress levels and know that the Employee Assistance Program can help them, she says. Warning signs to look for in stressed employees include headaches, sleep disturbances, difficulty concentrating, short temper, upset stomach, job dissatisfaction, abnormal absenteeism or tardiness and low morale.

The Marshall Employee Assistance Program Web site has a simple stress test for employees to find out their stress susceptibility. The test asks the employee to rate daily habits and personal characteristics. The score can be totaled to determine how well one is protected against stress.

What can employees do to reduce stress? According to Motley, maintaining a work/life balance is a key stress reducer. Other good stress reducers:

- Actively work at developing a support network of friends and coworkers
- Take care of physical health — eight hours of sleep, three healthy meals a day, exercise and progressive muscle relaxation
- Leave your desk at lunch
- Come to work on time and leave on time
- Take a vacation — not just at holiday time, but throughout the year to rest and relax
- Do something for someone else

Motley encourages anyone who is feeling a lot of stress to make an appointment to talk with her. It's confidential and she can be contacted directly at 544-7549.

Obituaries

Benjamin Donald Sadler, 88, of Madison died Feb. 19. He retired from the Marshall Center in 1987 as a materials expeditor.

Billy Joe Doran Sr., 78, of Decatur died March 4. He retired from the Marshall Center in 1986 as an aerospace engineer. He is survived by his wife, Betty Smith Doran.

From Apollo to Ares

Ron Tepool and Eric Tepool have contributed to Marshall's past, present and future goals

By Sanda Martel

From Saturn V to the space shuttle, the Marshall Center and its people have been at the forefront of space propulsion and transportation challenges. Marshall engineers now are developing the next generation of transportation and propulsion systems for placing new rockets and explorers into space.

Ron Tepool and his son, Eric Tepool have made contributions to Marshall's past accomplishments and future goals. Their careers and accomplishments are a reflection of Marshall's expertise — past, present and future — in putting people and payloads into space.

Eric grew up in a household where family conversations often turned to his father's work as a test engineer at the Marshall Center. Ron arrived at Marshall in 1963 — the height of the build-up toward the Apollo moon landings of the late 1960s and early 1970s.

"That was a time before parents brought their kids to work for a day, but I knew what my dad did for a living," recalled Eric.

He remembers a day in March 1978, when the space shuttle Enterprise landed at the Redstone Airfield atop the shuttle carrier aircraft. At Marshall test facilities, the shuttle was mated to the external tank and solid rocket boosters for the first time and subjected to a series of ground vibration tests.

Ron, then a test director for the space shuttle mated vertical ground vibration test, took Eric to the airfield to watch the shuttle land. "Maybe it was then that I decided, as a 13-year-old, that I wanted to follow in my dad's footsteps," said Eric.

Some 30 years later, this father and son are serving as chief engineers in programs that represent NASA's and Marshall's history and future. Ron, the space shuttle main engine chief engineer for the past six years, dates back his NASA career 45 years, having worked as a test engineer for the Saturn V rocket F-1 engine that took Apollo astronauts to the moon. He's served as test engineer for the Lunar Roving Vehicle program, as well as the Skylab Apollo Telescope Mount, Solar Panel Deployment and Thermal Vacuum Testing programs; and test engineer during the development and activation of the X-Ray Calibration Facility. He also served as a member of both the Challenger and Columbia investigation teams.

Eric has served as the chief engineer for the Ares I J-2X upper stage engine since July 2007, contributing to the successful development of the J-2X engine system. The J-2X will power the upper stages of both the Ares I crew launch vehicle and the Ares V cargo launch vehicle, which will greatly expand human exploration and knowledge of the moon and support human exploration of the solar system for decades to come.

Ron is a 1963 graduate of the University of Evansville in Evansville, Ind., with a degree in mechanical engineering. He earned four varsity letters at the university — three in football and one in baseball — and was named the football team's Most Valuable Player and to the 1961 All-Conference Team in the Indiana Collegiate Conference.

He thought he might follow in his father's footsteps and become a construction contractor. But after visiting a classmate who was enrolled in the work-study cooperative education program at Marshall, Ron changed his career plans, deciding instead to become a part of the nation's space program. "It was pretty heady stuff," said Ron. His career has included some memorable moments,

including the time Walt Disney was the guest of Wernher von Braun at the Marshall Center and attended an F-1 engine test, in 1965.

Eric earned a bachelor's degree in mechanical engineering from Auburn University in Auburn, Ala., in 1988 and began his NASA career in 1990, following two years working for the Army at Redstone Arsenal. His first job at Marshall was working on the design, development and testing of the space shuttle main engine's alternate high pressure oxidizer and high pressure fuel turbopumps. He also has served as the Marshall on-site representative for the MC-1 (Fastrac) engine at the Santa Susana Field Laboratory in Ventura County, Calif.; subsystem manager for the COBRA project office; and Integrated Powerhead Demonstrator engine chief engineer. He was named chief engineer of the Ares V Core Stage in August 2006 — working to assure technical processes and tools were acceptable for design and evaluation of the

Ares V propulsion systems — before accepting his current position.

From Project Mercury to the Ares Projects that will help send astronauts to the moon and on journeys beyond, the Marshall Center, the Tepools and other dedicated individuals will continue to play a critical role in maintaining America's preeminence in space.

"I'm proud to be part of the legacy of the Marshall Center and all that we've accomplished since our beginning in the early 1960s," said Ron.

"And I'm proud of what we'll accomplish in coming years," said Eric, noting that the first Ares launch is scheduled for no later than 2015.

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



Emmett Given/MSEC

Eric Tepool, Ares I J-2X upper stage engine chief engineer, stands behind a composite scale model of the J-2X engine. His father, Ron Tepool, holding a model of the space shuttle main engine, has served as space shuttle main engine for six years.

This month in history ...

Fifty years ago this month, President Dwight D. Eisenhower, in a brief statement, released the President's Science Advisory Committee's report, "Introduction to Outer Space: an Explanatory Statement." This report set forth the basic factors making the advancement of space technology a national necessity, and explained to the nontechnical reader the principles and potentials of space travel. The many uses of space technology for scientific and military purposes were summarized, and a timetable for carrying out these objectives was included.



STS-123

Continued from page 1

known as Dextre. STS-123 is the longest shuttle mission to the station and will include a record five shuttle spacewalks at the orbiting laboratory, delivery of a new crew member to the complex and the return of another astronaut after nearly seven weeks aboard the station.

Shortly before launch, Commander Dominic Gorie thanked the teams that helped make the launch possible. "You've got seven smiling faces on board here," said Gorie. "God's truly blessed us with a beautiful night to launch so let's light 'em up and give them a show."

Joining Gorie on STS-123 are Pilot Gregory H. Johnson and mission specialists Robert L. Behnken, Mike Foreman, Rick Linnehan, Garrett Reisman and Japan Aerospace Exploration Agency astronaut Takao Doi. Reisman will replace current station crew

member Leopold Eyharts, who has lived on the outpost since early February. Reisman will return to Earth on shuttle Discovery's STS-124 mission, targeted for launch on May 25.

Endeavour's cargo will help continue the station's assembly. The Japanese Experiment Logistics Module-Pressurized Section, or ELM-PS, will hold experiment samples, maintenance tools and other spare items. Dextre can be attached to the station's robotic arm to handle smaller components typically requiring a spacewalking astronaut. At the tip of each arm is a "hand" that consists of retractable jaws used to grip objects.

NASA is providing continuous television and Internet coverage of Endeavour's mission, which is the 122nd shuttle flight, the 21st for Endeavour and the 25th shuttle mission to the station.

For information about other NASA missions and activities, visit <http://www.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, March 20, is 4:30 p.m. Thursday, March 13.

Miscellaneous

- Six tickets, Opening Round NCAA, Birmingham, March 21 and 23, \$306. 527-2578
- CKC-registered Bullmastiff puppies, seven girls, two boys, born Feb. 13. 337-4086
- Contemporary dining room set, 72-inch glass table, six chairs, two China cabinets, \$500 obo. 603-1273
- Four NASCAR Nationwide Series tickets, Bristol, Tenn., March 15, face value. 338-7670
- 2007 Holiday Barbie, \$50. 837-5578
- 1/2-carat women's diamond band, \$225. 426-7862

- Fisher-Price Power Wheels Jeep, battery, charger, \$45. 325-2919
- Antique cast-iron double bed, box springs, \$75. 684-6541
- Picture-framing equipment, chopper, mat cutter, mats, supplies, \$500. 683-3397
- Four 31x10.50R15 BF Goodrich all-terrain tires, 10k miles on tires, \$375. 830-6584
- Reebok elliptical, \$300; Bowflex Sport, \$500. 683-5030
- Step2 swing set, 2 years old, pictures available, \$150. 777-1810
- Kenmore chest deep freezer, 15 cubic feet, lockable, \$150. 858-5552
- Weimaraner puppies, AKC, silver, born Jan. 5, \$400. 287-2488 or 347-2097
- 1995 John Deere LX172 riding mower, 38-inch deck, 14hp, \$200. 337-6991
- Five-piece Diablo Punx drum set, red, 2 years old, \$250. 325-3225
- Jugs two-wheel curveball pitching machine, heavy duty, 70-foot cage net, frame, L-screen, \$1,200. 651-1911
- Oak dining room set, hutch, table, pad, six chairs, \$350. 468-1066
- Black bunk bed, twin mattress top, full futon mattress, couch bottom, sheets, cover, \$150. 683-9232
- Yamaha organ, console model, dual keyboard, \$975; Singer sewing machine, \$175. 881-7283
- Designer sunglasses \$100 gift certificate, Eyecare Associates, \$75. 698-4533

Vehicles

- 2006 Saturn Ion, four door, black, auto, alloys, power package, sunroof, 11k miles, \$10,900. 503-6773
- 2006 Yamaha TM350 Wolverine, blue, 2WD, fully automatic, \$5,000. 509-6573

- 2004 Jeep Liberty Columbia Edition, 4x4, khaki/slate, tow package, 95k miles, \$9,000. 606-5039
- 2003 Acura TL S, white, spoiler, sunroof, six-disc CD changer, 70k miles, \$15,200 obo. 509-6916
- 2001 Ford Taurus SES, 3.0L V6, new tires, \$5,000. 682-8795
- 2000 Jetta, auto, air, alloys, power windows/locks, sunroof, 120k miles, \$5,000 obo. 509-3559
- 1999 Toyota 4-Runner Limited Edition, white, brown interior, sunroof, CD, A/C, \$7,000. 694-1260
- 1997 Chevy Suburban 1500, towing package, \$4,000 negotiable. 931-425-0163
- 1990 Ford F-150, 302 V8, five speed, 4X4, new tires, 90k miles, \$5,100. 682-8070
- 19-foot Bayliner Capri Bowrider, 125 hp, trailer, covers, extras, \$3,500. 653-3647

Wanted

- Private-entry guest room, weekdays, excellent references. 658-8849
- Canoe, lower priced. 658-8849
- Baby Chihuahua, in good health, reasonably priced. 464-9034
- Houses/offices to clean, available evenings, weekends. 777-8595

Found

- U.S. currency, Building 4200 area. 544-4680

Lost

- Man's wedding band, lost at Marshall Wellness Center, inscription on ID, reward offered. 828-1234

Improving weather forecasts, one storm – and one partner – at a time

By Jennifer Morcone

Thanks to an innovative collaboration, NASA earth science satellite measurements are helping the National Weather Service improve short-term weather predictions.

The Short-term Prediction Research and Transition Center, located at the National Space Science Technology Center in Huntsville, taps into streams of research information available from NASA instruments and develops specialized tools, which help forecasters improve the accuracy of weather predictions. Forecasters using SPoRT products in forecasting systems have seen improvements in understanding how certain weather systems will evolve.

To commemorate five years of fruitful collaboration, the SPoRT team hosted a celebration workshop March 3, which included remarks by NASA, Marshall Center and National Weather Service representatives, along with a science-sharing training session for forecasters in the Huntsville National Weather Service Forecast Office. It is the only one in the country co-located with NASA researchers.

"The SPoRT approach is based on establishing a close working relationship with the end user of the data, matching NASA data and research capabilities to forecast problems, and involving the user in all aspects of the development," said Gary Jedlovec, SPoRT principal investigator.

The key to the success of the SPoRT program lies in its commitment to customer service and collaboration. The Short-term Prediction Research and Transition Center works with local forecasters to understand forecast issues and develops techniques that directly meet their needs. Potential solutions are refined at the SPoRT Center and then validated before transitioning the process to the front-line forecasters.

Over the past five years, SPoRT has grown into a nationally recognized program with strong advocates within NASA, the National Weather Service and the larger weather community. Dr. Tsengdar Lee, manager of the scientific computing portfolio and the SPoRT program at NASA Headquarters in Washington, spoke at the anniversary celebration, noting, "Transitioning research to operations is hard, and people think it just happens. This is very difficult work. We are encouraged by what you have accomplished and are fully committed to continuing SPoRT."

The SPoRT team currently provides real-time data and products to seven weather forecast offices, but will expand to work with a dozen offices this year. NASA information is processed in such a way it can be directly accessed within the modeling and forecast systems local forecasters use each day. In this way, the forecasters have access to the unique NASA products directly in their decision support systems like any

other data stream.

Because the National Weather Service is responsible for issuing all public weather forecasts in the United States, it is committed to working with research partners to improve its ability to forecast the weather. Mike Coyne, meteorologist in charge at the Huntsville National Weather Service, attributes the success of the program to NASA's commitment to working with local forecasters, understanding the day-to-day problems they tackle, and designing customized solutions.

"We are really indebted to SPoRT," said Coyne. "The program not only helps us improve our forecasts, but it helps us when it helps the most — meeting our mission to provide quality information and warnings that hopefully save life and property."

One of the most dramatic results of this local collaboration has been an increased understanding of the relationship between lightning activity and severe thunderstorms.

The majority of lightning during a storm flashes within clouds and doesn't strike the ground. A NASA Lightning Mapping Array in northern Alabama captures detailed information about lightning rates through a series of ground-based sensors, including the frequency of in-cloud lightning flashes. By looking at the in-cloud flash rates, NASA researchers discovered an increase in total lightning activity often indicates the development of strong storms. By incorporating flash rates along side Doppler radar and other indicators, local forecasters have been able to issue severe weather warnings to communities in a storm's path an average of three minutes earlier.

"This doesn't seem like a lot, but if you're at home watching TV and hear a warning, it's enough time to get your family into an



David Higginbotham/MSFC

Dr. Tsengdar Lee, left, manager of the scientific computing portfolio and the SPoRT program at NASA Headquarters in Washington, and Geoffrey Stano, SPoRT meteorologist, examine weather conditions across the Southeast United States.

See SPoRT on page 7

Moonbuggy

Continued from page 1

sprawling museum and tourist attraction.

But by month's end, a half-mile of the paths will be transformed into a harsh lunar landscape that will test the engineering savvy — and physical endurance — of some 400 high school and college students on 69 teams.

The students, hailing from 20 states, Puerto Rico, Canada, India and Germany, are converging here April 4-5 for NASA's 15th annual Great Moonbuggy Race, organized by the Marshall Center. They'll race lightweight moonbuggies of their own design, based on the original lunar rovers first used during the Apollo 15 moon mission in 1971.

Tripp's construction team will meet them with 17 unique course obstacles, built of plywood and old tires and covered with some 20 tons of gravel and 5 tons of sand. All of it will be reshaped into moon-like ridges and craters, sandy basins and lava-etched "rilles."

The unearthly landscape was first designed in 1993 by Dr. Larry Taylor, a lunar geologist and professor at the University of Tennessee at Knoxville; Dr. J.M. Wersinger, a physics professor at Auburn University in Auburn, Ala.; and the Marshall Center's Dr. Frank Six, now Marshall's university affairs officer supporting the annual event.

Each moonbuggy starts the competition disassembled, able to fit into a space no larger than 4 feet in width, height and length. It must be carried in "collapsed" mode to the starting line, assembled, then checked for all required "parts" — fenders, a flag and simulated hardware including batteries, a communications antenna, radio and TV camera.

And then they're off. Each rover is piloted by two students: one male, one female. The buggies race against the clock, rather than side-by-side. Judges mark their progress, ticking off points if drivers' feet touch the ground, or if buggies lose their on-board equipment. The drivers push hard to conquer each

obstacle without overturning the rover or exceeding the race's 15-minute time limit — a new rule in 2008.

Tripp keeps the moonbuggy course safe, but tough. A Space & Rocket Center construction worker for more than two decades, he's been in charge of the course for 13 years. He's made a science out of the right blend of sand and rock, the right combinations of steep and shallow.

He has to stay sharp, he said, because student builders grow ever more sophisticated, refining their designs and fielding sturdier buggies. Veteran teams compare concepts, and even give "newbie" racers free insight.

"That camaraderie is exciting to see," says Tammy Rowan, manager of the Marshall Center's Academic Affairs Office, which organizes the race. "The race doesn't just pit schools against one another — it's a shared experience among students who love math, science and engineering. We hope it helps show them the community and partnership that awaits them in these career fields, and provides practical, hands-on experience to reinforce their class work."

Tripp admits he enjoys making the experience as "practical" and "hands-on" as possible. His course never fails to keep the pit crews in NASA's repairs tent busy on race day — welding snapped struts, replacing bent wheels and sprockets.

But most teams push through, and Tripp likes that too. "Some of them reach the end and just fall over exhausted," he said. "But they get there. That's what it's all about."

The 2008 race is sponsored by NASA's Space Operations Mission Directorate. Primary corporate sponsors are the Northrop Grumman Corp., The Boeing Company and Teledyne Brown Engineering, all of Huntsville.

For more information about the race, including a map of the course, a list of participating schools and a complete list of sponsors, visit <http://moonbuggy.msfc.nasa.gov>.

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

SPoRT

Continued from page 6

interior room or basement," said Chris Darden, science operations officer for the Huntsville National Weather Service office. "We'd like to think it helps save lives and it definitely helps improve our ability to get better information to our customers."

Going forward, SPoRT aims to help partners prepare for the next generation of weather satellites, which will be launched by NASA and the National Oceanic and Atmospheric Administration over the next 10 years. The satellites will carry advanced sensors

capable of producing higher-resolution images containing more information about the atmosphere and ground than today's satellites can provide.

"What we're doing now with SPoRT is good training, preparation and validation for how future measurements will be used nationally," said Jedlovec. "In a few years, the research we're doing here will have far reaching impacts across the country and even globally."

Morcone supports the Public and Employee Communications Office in the Office of Strategic Analysis & Communications.

North Carolina teachers witness Ares model rocket launch at Marshall



David Higginbotham/MSFC

Twenty-eight teachers from North Carolina watch the launch of a 1:100 scale model of the Ares I rocket March 5 at the Marshall Center. The teachers were selected by the North Carolina Center for the Advancement of Teaching in Cullowhee to attend the week-long Space Academy for Educators at the U. S. Space & Rocket Center. Vince Huegele, a Marshall test engineer in the Engineering Directorate, center, launches the model. The teachers toured Marshall and attended a special briefing on the Ares Projects. Ares I, designed to loft the Orion capsule to orbit, is a key component of the Constellation Program, which will send humans to explore the moon by 2020 to set up a permanent lunar outpost. The Marshall Center manages the Ares Projects for NASA's Constellation Program, based at NASA's Johnson Space Center in Houston.

Black History Month concludes with 'Lunch & Learn' events



Emmett Given/MSFC

The Marshall Center concluded its annual commemoration of Black History Month in February with two "Lunch & Learn" events. Above left: Marshall Historian Mike Wright, left, discusses challenges faced by post-Emancipation historians in locating, preserving and publicizing a record of early African-American contributions in American politics, economics, culture and technology. Dozens of Marshall team members, including Willie Love, assistant



David Higginbotham/MSFC

director of the Office of Diversity and Equal Opportunity, right, joined the discussion. Above right: Marshall information technology contractor Sonnie Hereford IV, right, introduces his father, Dr. Sonnie Hereford III, a lecturer at Calhoun Community College in Huntsville. The elder Hereford presented his documentary, "A Civil Rights Journey," a snapshot of the civil rights movement in Madison County, which both Herefords witnessed firsthand.

MARSHALL STAR

Vol. 48/No. 24

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

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

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



U.S. Government Printing Office 2008-723-022-20140

PSRRT STD
US POSTAGE PAID
HUNTSVILLE, AL
PERMIT NO. 298