



MARSHALL STAR

Serving the Marshall Space Flight Center Community

April 30, 2009

On the pads



Space shuttles Endeavour, left, and Atlantis stand on launch pads at the Kennedy Space Center, Fla.

By Sanda Martel

Two space shuttles are on launch pads at the same time at the Kennedy Space Center, Fla. – likely for the last time before the shuttle fleet is retired in 2010.

Shuttle Endeavour arrived at Launch Pad 39B April 17, and will be on standby in the unlikely event that a rescue mission is necessary for shuttle Atlantis' flight STS-125 astronauts. Atlantis, on pad 39A, is targeted to launch May 11 on the fifth and final servicing mission to NASA's Hubble Space Telescope.

Unlike crews bound for the International Space Station, the Atlantis astronauts cannot seek safe haven aboard the lab complex because Hubble and the station are in different orbits.

After Endeavour is cleared from its duty as a rescue spacecraft, it will be moved to Pad 39A for its STS-127 mission to the station. It is targeted to launch June 13.

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

NASA managers to meet April 30 to set space shuttle Atlantis' launch date

By Sanda Martel

An agency review of the preparations for space shuttle Atlantis' mission to service NASA's Hubble Space Telescope will be held April 30 at the Kennedy Space Center, Fla. The targeted launch date is May 11.

The official date of the launch will be announced at the conclusion of the Flight Readiness Review, a traditional meeting in which top NASA managers and engineers set launch dates, determine whether the shuttle's complex array of equipment, support systems and procedures are ready for flight and assess any risks associated with the mission.

"The propulsion elements managed at the Marshall Space Flight Center are in good shape and ready to meet the targeted launch date," said Steve Cash, manager of the Marshall Shuttle Propulsion Office.

The Marshall-managed propulsion elements include the external tank, solid rocket boosters and space shuttle main engines.

The Space Shuttle Program's readiness review, held April 20-21, verified that space shuttle Atlantis is ready to fly. The program's review also included shuttle ground processing and launch and landing operations associated with the mission.

The April 30 agency meeting will review all aspects of the mission – shuttle preparedness as well as Hubble payload processing, International Space Station operations during the mission and international partner cooperation.

Veteran astronaut Scott Altman will command the final space shuttle mission to Hubble. Retired Navy Capt. Gregory C. Johnson will serve as pilot. Mission specialists include veteran spacewalkers John Grunsfeld and Mike

See Atlantis on page 4

THE FACE OF MISSION SUCCESS IS:

Keith Parrish
Deputy branch chief,
Flight Systems Integration
& Test Branch



- **Organization:** Space Systems Department, Engineering Directorate
- **Joined NASA:** 1987
- **Education:** Bachelor's degree in chemical engineering, Mississippi State University in Starkville in 1986
- **Responsibilities:** I supervise the Environmental Control and Life Support System test team and oversee the testing program for the Urine Processor Assembly in the Water Recovery System.
- **What is the coolest part about ECLSS?** Taking something that was once a sketch on paper and turning it into hardware that is now performing on the International Space Station. Also, we enjoy the "ew" factor when people learn that we make drinking water from urine and sweat.
- **Who is someone you highly respect?** My dad has been my greatest "life coach." He has a disability, yet he worked at a physically demanding job for 32 years. Another is my co-worker Charlie Cooper who taught me the "Marshall way," which is work hard, have passion for technical excellence, stick to it and you'll be satisfied.

Marshall's Shelia Nash-Stevenson nominated for 2009 Women of Distinction award

By Jessica Wallace

Marshall Space Flight Center engineer Shelia Nash-Stevenson has been nominated by the Girl Scouts of North-Central Alabama for a 2009 Women of Distinction award. The nomination reflects her community contributions to Huntsville/Madison County.

The Girl Scouts of North-Central Alabama headquarters in Birmingham, Ala., serves 13,000 girls in 36 counties. This organization helps girls build courage, confidence and character through activities that inspire and challenge them.

The Women of Distinction awards, created in 1993, recognize women who have made special contributions to their community through civic, church, academic or professional involvement. Nominations were accepted for four different categories: career accomplishments, outstanding educator, community contributions and lifetime achievement.

Nash-Stevenson was nominated for her community involvement in such organizations as the Craig and Steven Hogan Family Center YMCA campaign committee, the City of Madison Board of Education, Madison Rotary Club, Jack and Jill of America Inc., Delta Sigma Theta Sorority Inc., Juvenile Conference Committee, Bob Jones High School Parent Teacher Association and First Missionary Baptist Church.

"I am honored and humbled," said Nash-Stevenson of her nomination. "I volunteer because there is always a need for work to be done in the community. Most of the organizations I'm involved in deal with children. I can't stand to see a child suffer or hurt. I know I can't help all of them, but I try to help as many as I can.

"I don't look to be rewarded," she added. "My satisfaction comes from seeing people smile because of something

I've done for them. Or to hear people say 'thank you,' because I made a difference in their lives. To know that somebody noticed what I do for others is humbling."

Award winners will be announced at the Women of Distinction luncheon at the Huntsville Country Club on May 8.

Nash-Stevenson is an aerospace engineer in the Vehicle Systems Engineering Planning & Control Branch. As the Ares knowledge management officer for the Ares Risk Management Team, she ensures data are captured to facilitate informed decision making, and advises managers in making decisions based on that information. Ares rockets will return humans to the moon and later take them to Mars and other destinations.

She joined NASA in 1989 as an engineer. Nash-Stevenson was on the technical staff in the Engineering Center at Hughes Aircraft Company in Huntsville from 1988 to 1989. From 1986 to 1988, she was a scientist at Nichols Research Corp. in Huntsville. She started her career in 1984 as a physicist at the Army Ballistic Missile Defense Systems Command in Huntsville.

Nash-Stevenson earned her bachelor's degree in electrical/electronic engineering technology in 1981, a master's degree in applied physics in 1984 and a doctorate of philosophy in applied physics in 1994 – all from Alabama A&M University in Huntsville.

She has received NASA honors, including an Outstanding Achievement Award in 1989 for contributions to NASA's mission, and the NASA Administrator's Fellowship in 1998.

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



Shelia Nash-Stevenson

Interested in flying?

Micro modelers flying high at the Activities Building

By Sanda Martel

When you were a kid, did you ever dream about designing and building your own airplane? Or maybe as an adult you have a keen interest in flying and wish you could pilot your own plane?

Then check out the Marshall Athletic and Recreation Society, or MARS, Micro Modelers Club – also known as MMM. Members have an interest in designing, building and flying very small model airplanes indoors.

Meetings, generally scheduled twice monthly, are held at the Marshall Space Flight Center Activities Building 4316. Meetings are publicized on “Inside Marshall” and by an Internet mailing list. The next meeting will be May 7, from 4-6:30 p.m. One business meeting will be held each year.

The club received approval by the Marshall Exchange to form a new club in October. Membership is open to all Marshall and Redstone Arsenal civil service and contractor employees and retirees. There are no dues to join.

“Even if you only want to learn more about micro modeling and are not necessarily interested in joining, you’re still welcome to stop by and watch the show,” said Al Clark, the club’s president. The group’s goal is to share enthusiasm for the hobby, teach others how to build their own flying machines, fly them and have fun doing so.

“Some of our members are very experienced and some are very new to the hobby,” said Clark. “Our experienced members are more than happy to help new members.”

Clark said most enthusiasts buy



A recent meeting of the MARS Micro Modelers included, front row from left, Porter Bridwell, Marshall's director from 1994-1996; John Chapman, External Tank Project manager; Al Clark, of the Safety & Mission Assurance Directorate and the club's president; and Tom Killough, an aerospace engineer.

ready-to-fly models, while others design and build a model from scratch. “What we all have in common is a desire to fly.”

Rob Suggs, the club's vice president, said the Activities Building is a great place to meet. “Flying model planes indoors doesn’t pose many of the problems outdoor fliers have to cope with – such as wind, trees and planes going out of sight,” he said.

Still, fliers must closely control the plane’s flight path within a building’s boundaries. Models fly in circular or oval patterns to avoid excessively bashing the walls and ceiling. Pilots must be vigilant to avoid midair collisions, as 10 or more models may be airborne simultaneously.

If you’re not familiar with radio-controlled model airplanes, we’re talking, well, small. Some models have wingspans as small as 3 inches. This club’s maximum allowed weight for taking to the air indoors is eight ounces. Ultra light models may be radio controlled or free flying; there are even

rubber-band-powered models.

Tom Killough – a micro modeler for 73 years – is described by fellow club members as an expert in the hobby. He built his first model at age 6 and went on to design wind tunnel models for 34 years for the U.S. Army. Now 80 years old, Killough works part time for a defense contractor and still “gets a kick” out of building and flying models, he said. He also flies larger, remote-controlled planes at outdoor locations, as do many of the other MMM club members.

“The technology and equipment now available to the micro modeler did not exist 10 years ago,” said John Chapman, another club member. “Back then, only a few experimenters were building micro models. Now, anyone can go to the local hobby shop and buy ready-to-fly models that are easy to fly.”

If the micro modelers had a motto, it probably would be, “If it flies, we like it!”

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

Call for 2009 Software of the Year award under way

The annual call for the 16th NASA Software of the Year award is under way. The award recognizes developers of exceptional software created for or by and owned by NASA.

For more information, visit http://inside.msfc.nasa.gov/announcements/soty_nom-call.html. The deadline for entries is May 21. Team members may submit to:

MSFC Award Liaison Officer, LS01
James McGroary
4200/149J

For questions, please call McGroary at 544-0013 or Caroline Wang at 544-3887.

Massimino and first-time space fliers Andrew Feustel, Michael Good and Megan McArthur.

Altman, a native of Pekin, Ill., will be making his fourth spaceflight and his second trip to Hubble. He commanded the STS-109 Hubble servicing mission in 2002. He served as pilot of STS-90 in 1998 and STS-106 in 2000. Johnson, a Seattle native and former Navy test pilot and NASA research pilot, was selected as an astronaut in 1998. He will be making his first spaceflight.

Chicago native Grunsfeld, an astronomer, will be making his third trip to Hubble and his fifth spaceflight. He performed a total of five spacewalks to service the telescope on STS-103 in 1999 and STS-109 in 2002. He also flew on STS-67 in 1995 and STS-81 in 1997. Massimino, from Franklin Square, N.Y., will be making his second trip to Hubble and his

second spaceflight. He performed two spacewalks to service the telescope during the STS-109 mission in 2002.

Feustel, Good and McArthur were each selected as astronauts in 2000. Feustel, a native of Lake Orion, Mich., was an exploration geophysicist in the petroleum industry at the time of his selection by NASA. Good is from Broadview Heights, Ohio, and is an Air Force colonel, weapons systems officer and graduate of the Air Force Test Pilot School at Edwards Air Force Base, Calif. He has logged more than 2,100 hours in 30 different types of aircraft. McArthur, born in Honolulu, considers California her home state. She earned a doctorate in oceanography from the Scripps Institution of Oceanography at the University of California-San Diego.

STS-125 is an 11-day flight featuring five spacewalks to extend Hubble's life into the next decade by refurbishing

and upgrading the telescope with state-of-the-art science instruments and swapping failed hardware.

In addition to the originally scheduled work, shuttle Atlantis also will carry a replacement science instrument command and data handling unit for Hubble. Astronauts will install the unit on the telescope, removing the one that stopped working on Sept. 27, 2008, delaying the servicing mission until the replacement was ready.

For more information about the Hubble Space Telescope mission, visit http://www.nasa.gov/mission_pages/shuttle/shuttlemissions/hst_sm4/overview.html.

For more information about the Space Shuttle Program, visit http://www.nasa.gov/mission_pages/shuttle/main/index.html.

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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, May 7, is 4:30 p.m. Thursday, April 30.

Miscellaneous

Utility trailer, 4'x8' Harbor Freight folding/storable, 95% assembled, \$175. 880-6146

Custom-made white kitchen island, 3'x3', formica wood trimmed top, \$400 obo. 464-0337

Cedar fence posts, \$3 and up. 682-7165

Bernina 200, sewing machine, upgraded to 730 embroidery & bernina stitch regulator included, \$3500. 417-2424

Moonroof visor for 2006-2009 4-door Honda Civics, new, never used, \$50. 541-4991

Power lift chair, Pride Mobility CL20, new Feb 2009, brown, includes couch cane \$430. 520-9318

Tony Little's Gazelle Freestyle, \$65. 539-4449

Computer armoire; would like to trade for treadmill. 348-7146

Wedding dress, \$650; Water fountain/statue/bird bath combo, \$350; stepper exerciser, \$60. 651-4723

Yamaha GH1 5'3" brand piano, serial B5614673, black high polish finish, \$9,000. 931-625-0671.

Changing table, white, \$50. 658-7801

Tickets to "Real Space Cowboys" benefit dinner with Apollo astronaut Charlie Duke, Mercury astronaut Scott Carpenter at USSRC on May 8. 232-3525

Kenmore gas stove, white with gray burners, \$250 obo. 606-1717

Adult peacocks \$40. 351-1929

Pool table, 9 ft. Connelly, Snooker and Billiards, light, accessories, www.thewilletfamily.com/forsale/, \$2,250. 883-7021

301 Disc CD changer with remote, Pioneer PD-F1007, \$80. 776-4175.

Paradigm stereo speakers, Studio 20 reference series, built-in amplifiers, gamers or audiophiles, \$725. 352-514-8405

White wicker dresser, twin headboard, side table, chest, mirror, trash can, tissue box, \$150. 759-3009

Black media console, DVD racks, Sony 5.1 Dolby surround sound with subwoofer, \$225. 334-524-7353

ProForm Crosswalk 2.5 treadmill with upper-body arm exerciser, folds up, \$225; executive desk with credenza, \$450. 880-9025

Couch, love seat, \$225; entertainment center, \$35; TV stand, \$25; and more. 461-7520

Bowflex Blaze, complete, set up, \$390 obo. 270-0091

Off-white brocade camelback sofa, \$300. 881-8545

Vehicles

2008 Keystone sprinter travel trailer 300 kbs, \$19,500. 233-3407

2005 Acura MDX. Asking RFCU payoff of \$20,800. 726-1345

2006 Suzuki GS500F, 55 mpg, regular gas, \$3,495. 461-0930

2002 Saturn SC2, 4 cyl, automatic, 3 door, 63k miles, \$4,975. 572-1867

2000 Wrangler Sport, 5 speed, 6 cylinder, <http://www>.

linuxslacker.com/jeep.html. 533-2337

2000 GMC Jimmy SLE, 2 wd, 4 door, white, grey leather interior, 114K miles, \$4,950. 895-9589

1999 Ford Explorer V6, 4x4, 2 door, white, 125k miles, new brakes/rotors/plugs. \$3,300 obo. 759-1636

1999 VW Jetta, 4 door, AC, automatic, AM/FM stereo, 6-disc CD, 152k miles, \$3,500. 536-7219

1997 Lincoln Towncar, signature edition, loaded, \$3,600. 586-7424 or 744-4015

1996 Nissan Pathfinder LE, all power, leather, 2wd, sunroof, 197K miles, \$3,500. 709-0976

1996 Honda Accord EX, 4 door, black, \$3,300. 653-9222

1993 Acura Integra, automatic, 133K miles, \$2,195. 508-5416

1969 MGB convertible, pale primrose yellow, chrome bumpers, wire wheels, \$2,700. 350-2777

Wanted

Someone to fix a Spirit of 76, 5-steel ball pinball machine; can dispenser in an old Westinghouse Coca Cola machine, Madison area. 772-1199

FAA IA needed for annuals/maintenance on a C210M in Huntsville, hands-on owner. 832-928-6066

Need free chain link fencing. Will haul off. 776-9684

Free

Camper shell for Dodge Dakota pickup truck. 880-6146

6 free kittens, two are bobtailed. 288-6224 or 535-4498

1920s vintage antique 5" poplar tongue and groove paneling, small trailer load. 895-9348

Found

Red sweater found in north parking lot of 4200 on 4/22/09. 544-4680

New engineering leadership development program offered to Marshall civil service employees

By Megan Norris Davidson

Marshall Space Flight Center civil service employees who want to broaden their skills now can apply to the new Marshall Systems Engineering Leadership Development Program.

The program was established to foster a steady supply of capable systems engineering practitioners; develop leaders with systems engineering skills needed to manage complex projects; and increase the qualified candidate pool for systems engineering jobs across NASA. The program is managed jointly by Marshall's Office of Human Capital and the Engineering Directorate.

"This program is intended to give qualified employees and their supervisors a definitive way to enhance the career development of future leaders at the Marshall Center," said Scott Croomes, deputy chief engineer of Marshall's Chief Engineer's Office. "As spacecraft and launch vehicle designs become increasingly complex, a greater premium is placed on the skills that help engineer those systems.

"For this country's exploration aspirations to be realized, we need men and women who excel at bringing the pieces of a technical puzzle together on a daily basis," Croomes added.

Program levels

The program consists of two levels: Level I concentrates on developing "journeyman" systems engineers – those demonstrating valuable competency and skills. Level II is focused on turning those skilled workers into systems

engineering leaders. Applications for Level I are due no later than June 5 to program managers Phil Hall of Marshall's Engineering Programs and Systems Office or Susan Whitfield of the Office of Human Capital. A formal call for applications to Level II will be issued in fiscal year 2010.

Level I targets employees near the beginning of their careers who possess the following qualifications:

- A bachelor's degree in engineering, science, physics or math from an accredited institution
- An aptitude and interest for further developing technical skills in systems engineering
- Working knowledge of technical integration, systems engineering and project management concepts and tools. This experience can be gained through completion of the Marshall Professional Intern Program – a developmental program for recent college graduates and other employees who have moved into entry-level or intermediate-level professional jobs – or its equivalent. (The Professional Intern Program is a job listing, rather than a program for which an individual can apply).
- Approval to participate in the program from the employee's supervisor.

Level I combines course requirements from NASA's Academy of Program/Project and Engineering Leadership

program, or APPEL, with a six-month rotational assignment to another organization at Marshall. The APPEL training curriculum is focused on providing NASA-specific expertise to ensure that the agency's technical work force shares a common base of knowledge and skills.

Level I participants must complete four APPEL courses – or courses deemed equivalent by the program managers. A schedule for upcoming courses in systems engineering that will satisfy program requirements can be found at http://ohc.msfc.nasa.gov/ti/ti_seldp/SELDP_Courses_Schedule.pdf.

Employees interested in program

Employees who have completed some or all program requirements and would like to be considered for the program should contact Hall or Whitfield for an assessment of the employee's systems engineering capabilities.

Employees interested in Level I should discuss participation in the program with their supervisor. If the employee receives supervisory approval, applicants should fill out Marshall Form 4517, available at <https://repository.msfc.nasa.gov/forms/forms.html>. The form should be signed by their supervisor and returned to Hall or Whitfield.

For more information about the program, visit <http://ohc.msfc.nasa.gov/ti/SELeadership.html>.

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

Obituaries

Carlyle R. Smith, 79, of Huntsville died March 6. He retired from the Marshall Center in 1988 as an aerospace engineer. He is survived by his wife, Mary Helen Smith.

Milton Eugene Whitehead, 86, of Decatur died March 13. He retired from the Marshall Center in 1974 as an aerospace engineering technician. He is survived by his wife, Colleen Whitehead.

Kermit Wendell Sherbert, 70, of Athens died March 30. He retired from the Marshall Center in 2006 as a quality assurance specialist. He is survived by his wife, Yvonne Sherbert.

Marshall team celebrates Earth Day

To mark Earth Day at the Marshall Space Flight Center, team members gathered April 21 at the Activities Building 4316. Activities included a tree planting and an "environmental expo." Representatives from more than 35 local vendors and organizations demonstrated environmental practices and products.



Earth Day festivities kicked off with a tree planting at the Activities Building. From left are Huntsville Mayor Tommy Battle, Marshall Engineering Director Dan Dumbacher, Madison Mayor Paul Finley, alternate STS-45 Payload Specialist Dr. Rick Chappell, former Marshall Deputy Director Dr. Carolyn Griner and former Marshall Center Director Dr. Wayne Littles.



Marshall Earth Day volunteers handed out samples of wastewater processed by the Environmental Control Life Support System. Janet Salverson, right, of Teledyne Brown Engineering, hands Bob Devlin, deputy director of the Office of Center Operations, a taste of purified wastewater. Looking on is Cindy Upton, center, the Regenerative ECLSS sustaining engineering project manager in the Science & Mission Systems Office.



Standing in front of a Sycamore moon tree planted in 1996 across from Building 4708 are, from left, former Marshall Director Dr. Wayne Littles, former Marshall Center Deputy Director Dr. Carolyn Griner and alternate STS-45 Payload Specialist Dr. Rick Chappell. In 1971, astronaut Stuart Roosa carried Sycamore seeds to the moon aboard Apollo XIV. Later one was planted at Mississippi State University in Starkville, Miss. During an Earth Day ceremony at Marshall in 1996, an offspring from that tree was planted by Littles, Griner and Chappell. The three admired its growth during this year's celebration.

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