



MARSHALL STAR

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June 11, 2009

Space shuttle Endeavour set to launch June 13

By Sanda Martel

NASA has selected June 13 as the launch date for space shuttle Endeavour's STS-127 mission to the International Space Station. Commander Mark Polansky and his six crewmates are scheduled to lift off at 6:17 a.m. CDT from NASA's Kennedy Space Center, Fla.

The launch date was announced following a June 3 agency-level Flight Readiness Review – the traditional meeting

during which top NASA and contractor managers assess the risks associated with a space shuttle mission. They determined that the shuttle's equipment, support systems and procedures are ready for flight.

"The Marshall propulsion team is once again ready to launch space shuttle Endeavour on its STS-127 mission," said Steve Cash, Shuttle Propulsion Office manager at

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Ribbon-cutting marks opening of new 'green' Marshall engineering facility

Robert Lightfoot, acting director of the Marshall Space Flight Center, second from left, and U.S. Sen. Richard Shelby of Alabama, second from right, cut a ribbon June 8 to celebrate the opening of Building 4601 – the second completed facility in Marshall's new engineering complex. Joining them for the ribbon-cutting are Steve Miley, left, associate director of operations for Marshall's Engineering Directorate, and Ann McNair, right, director of Marshall's Office of Center Operations. The new building was designed and built according to efficient energy and water principles, making it eligible for registration with the U.S. Green Building Council for Leadership in Energy and Environmental Design (LEED)® – a voluntary, consensus-based national standard for developing high-performance, sustainable structures. The Marshall Center has submitted the new facility for council certification. The 135,182-square-foot facility will be home to engineers in Marshall's Materials and Processes Laboratory and Spacecraft and Vehicle Systems Department.



Marshall engineer's son killed in Afghanistan

U.S. Army Staff Sgt. Jeffrey Alan Hall, 28, of Huntsville died June 1 from injuries sustained in a roadside blast in Afghanistan.

Hall was the son of Charles Hall, a Marshall Space Flight Center engineer who supports the Engineering Directorate's Spacecraft & Vehicle Systems Department. He also leaves behind his wife, Allison; their daughter Audrey; his mother Annette; and his sister, Emily Hall Pruitt.

A native of Huntsville, Hall was a graduate of Grissom High School in Huntsville and the Huntsville Christian Academy. He enlisted in the Army in August 2000. He was the recipient of numerous Army commendations, and was awarded the Purple Heart and Bronze Star, posthumously.

Hall's body was flown home June 7. He was buried with full military honors June 9 at Maple Hill Cemetery in Huntsville.



David Higginbotham/MSFC

Double your crew, triple your science

Marshall's Payload Operations Center adjusts to 'six in the mix'

By Lori Meggs

There's no such thing as "business as usual" for team members in the Marshall Space Flight Center's Payload Operations Center. The

command post for science activities on the International Space Station just became twice as busy, now that six crew members are living and working on the orbiting laboratory.

Three new crew members arrived at the station May 29, inaugurating Expedition 20 and fulfilling the long-awaited goal of a six-person

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Marshall to hold Technology Awareness Campaign expo June 17

A Technology Awareness Campaign expo – spotlighting information technology services, products and solutions used at the Marshall Space Flight Center – will be held June 17 from 10 a.m. to 3 p.m. in Activities Building 4316.

Sponsored by Marshall's Office of the Chief Information Officer, the event also will provide information on current and new services that include Survey Tracker® – software with development, distribution and data-gathering tools to enhance the health of an organization and its customer communications; social networking to enhance mission capabilities; and

cloud computing. Cloud computing is an emerging technology that uses the Internet and central remote servers to maintain data and applications. It allows consumers to use applications without installation and to access personal files at any computer with Web access.

The theme of this year's expo is "What's in it for me? Information for today...solutions for the future."

Dozens of internal service providers and commercial vendors will be on hand to demonstrate information technology-related services. Experts will offer insight, tips and demonstrations on topics that include desktop

streaming technologies and Marshall's new voicemail system.

Two mobile emergency command vehicles – the Communications Restoration and Recovery vehicle and the Data Restoration and Recovery vehicle – will be open for tours. These rolling command centers are used when communication capabilities are affected, such as during power outages.

Giveaways will be held throughout the day. Free popcorn and soft drinks will be available. At 1:30 p.m., sponsors will offer ice cream to event-goers.

For more information, visit Inside Marshall or call information technology specialist Burt Bright at 544-0334.

Ares Projects upper stage team celebrates achievements

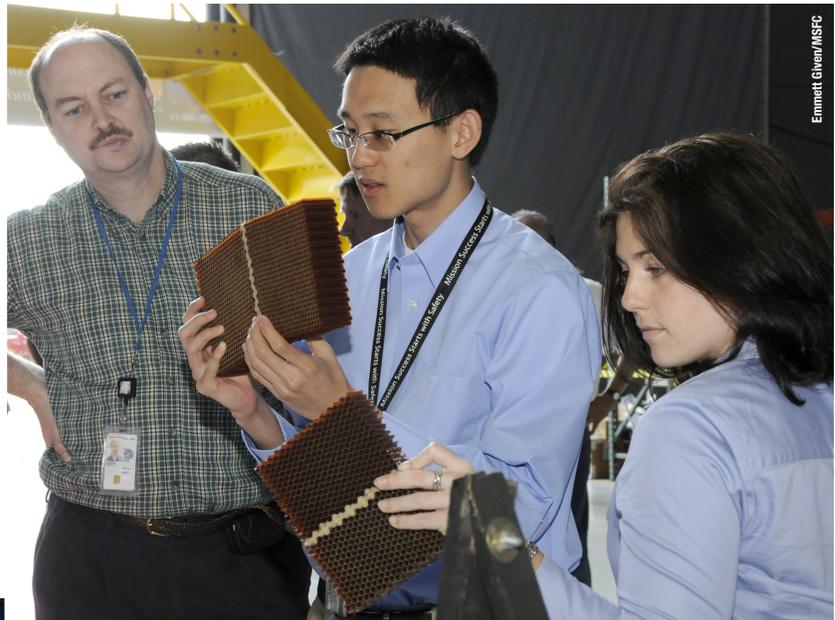
Marking its milestone achievements in developing Constellation Program vehicles, the Ares Projects Upper Stage Office celebrated with a picnic and awards presentation May 27 at the Marshall Picnic Grounds. Festivities included a manufacturing showcase with demonstrations and presentations from facility personnel, and a tour of the Marshall Space Flight Center's Weld Development Facility.

A highlight of the event was the center's new robotic and vertical weld tools – state-of-the-art hardware being used for development work on the Ares I upper stage, which is managed

at Marshall. Referred to as “friction stir welding,” the process produces high-strength, almost defect-free joint welds and can uniformly weld materials together – a vital requirement of next-generation launch vehicles and hardware that must endure long-term space travel.

Project managers honored 21 key team members with “Awards of Excellence” certificates. Those honored are from Stage Definition, Stage Operations, Avionics & Software, Systems Engineering and the Boeing Company – prime contractor for the production of the upper stage.

Inspecting honeycomb material as part of the upper stage manufacturing showcase event are, from left, Keith Niehuss, Peter Ma and Vicky Garcia. The bonded honeycomb core material will be used on the Ares I rocket upper stage common bulkhead to stabilize the metallic portions of the aft and forward end of the common bulkhead while providing insulation between the liquid hydrogen and liquid oxygen tanks.



Marshall Center materials engineer Bob Carter, right, explains the friction stir welding process to Ares Projects team members at the celebration.

More than 1,000 kids have fun and learn at Marshall's 'Take Our Children to Work Day'



Children participating in the Marshall Space Flight Center's "Take Our Children to Work Day" get artistic as they tackle space-themed art projects in Activities Building 4316. On June 4, more than 1,000 children and grandchildren of Marshall Center team members toured NASA facilities, investigated science and space — and clearly demonstrated that learning can be fun. The annual event is organized by the Marshall Center's Office of Diversity and Equal Opportunity.

Redstone Arsenal firefighter David Smythe, left, shows off one of the big trucks to Paul Logston, son of Francee Logston, who works in the Engineering Directorate's Mission Operations Laboratory. Among the dozens of activities organized for "Take Our Children to Work Day" by the Marshall Center were presentations and demonstrations by Sci-Quest, the U.S. Space & Rocket Center, the Huntsville Police Bike Patrol, the Redstone Arsenal Fire Department, the National Weather Service and Redstone Federal Credit Union.



Asian Pacific Heritage Month event looks at Marshall history



During a Lunch & Learn event May 28, Dr. Biliyar Bhat, left, a materials engineer in the Marshall Space Flight Center's Materials and Processes Laboratory, and Marshall historian Mike Wright discuss a photo of Bhat that appeared in the Marshall Star in 1974. Bhat was then a National Academy of Sciences Fellow, completing a resident research associate program at the Marshall Center with his advisor Dr. Paul Schuerer, also in the photo. Bhat, who joined Marshall full time in 1980, today supports materials research for the design and development of the Ares I rocket and Ares V heavy cargo launch vehicle. During the event, Wright shared photos and memorabilia and talked about contributions by persons of Asian and Pacific-Islander heritage throughout the center's history.

crew. This 20th research mission to the station also marks the first time all five international partners – NASA, the Russian Federal Space Agency, the Japan Aerospace Exploration Agency, the European Space Agency and the Canadian Space Agency – are represented by crew members aboard the station.

Prior to Expedition 20, about 200 hours of crew time was devoted to science on the station during each expedition. Now, during Expedition 20, almost 600 hours of crew time is allotted for science over the next six months. Payload Operations Center team members are plotting the crew schedules for conducting experiments – something they've been looking forward to since they began this role eight years ago.

"This is a realization of years of anticipation," said Lybrease Woodard, manager of the Payload Operations and Integration Function in Marshall's Mission Operations Laboratory. "The space station is on the cusp of being all it was advertised to be – four space laboratories with crew members carrying out science experiments from all over the world. It is challenging, exciting and rattles the nerves a bit, but our team is definitely prepared."

To support the increase in activity, the payload operations team has added two new positions – change traffic engineer and operations controller support.

The change traffic engineer is responsible for coordinating the review



Sharing a meal in the Unity node of the International Space Station are Expedition 20 crew members, clockwise from left, Canadian Space Agency astronaut Robert Thirsk, European Space Agency astronaut Frank De Winne; Russian Space Agency cosmonaut Gennady Padalka, commander; Russian Space Agency cosmonaut Roman Romanenko; Japan Aerospace Exploration Agency astronaut Koichi Wakata; and NASA astronaut Michael Barratt.

of changes to operational products, such as updated crew procedures, as well as changes to the on-orbit short term plan and schedule.

The operations controller support position assists the real-time operations controller in the implementation of changes in the day-to-day planning and executing of all NASA payloads.

"We understood in advance the amount of science activities this increase in crew size would bring, and these additional positions will enable us to take the prep work off the real-time team to concentrate on the execution of the crew work day," Woodard said.

Among the varied science disciplines

represented by the research conducted on the station are science investigations studying the deconditioning of heart muscle during long-duration spaceflight and the effects of the space environment on the human immune system.

"These experiments are all contributing to one of the goals of the station – to serve as a platform to the moon and beyond," Woodard said. "We continue to learn a great deal about how the human body endures six months in space. Our team is proud to help the program achieve its goals."

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

Marshall offers new Contracting Officer Technical Representative course

A Federal Acquisition Certification program training course will be offered at the Marshall Space Flight Center on July 20-24.

The Office of Federal Procurement Policy requires that all Contracting Officer Technical Representatives complete the program, which is

open to all Marshall civil service employees and on-site contractors who deal with contracts. The course promotes development of essential, standard acquisition competencies. Those interested may register through SATERN. The location of the course will be listed on SATERN in coming

weeks. The course will be offered again Nov. 16-20 at Marshall.

For additional information, visit http://inside.msfc.nasa.gov/train/cotr_july-nov.html. For questions, contact Jannifer Matthews, a contract specialist in the Office of Procurement, at 961-2387.

Marshall hosts symposium for space station partners



The Marshall Space Flight Center's Huntsville Operations Support Center recently hosted the 2009 International Space Station Ground Segment Control Board Symposium. The multilateral program-level board manages development and maintenance of space station computer systems and hardware which downlink data during science experiments.

The group discussed using the capabilities of the Marshall facility for future space station missions involving Japanese and European automated vehicles.

Nearly 50 representatives from NASA, the Japan Aerospace Exploration Agency, the European Space

Agency, the Canadian Space Agency and the Italian Space Agency attended the meeting. Those attending also included NASA team members from Marshall; Goddard Space Flight Center in Greenbelt, Md.; Johnson Space Center in Houston; and the White Sands Complex near Las Cruces, N.M.

The Huntsville Operations Support Center in Building 4663 is the Backup Control Center for the space station in the event the Johnson Center has to shut down in an emergency, such as a hurricane. The Marshall facility also has capabilities to remotely support the European, Japanese and Russian control centers.

James Webb Space Telescope science group visits Marshall



Jeff Kegley, at far left, facility manager of the Marshall Space Flight Center's X-ray and Cryogenic Facility, explains the workings of its operations room to the James Webb Space Telescope Science Working Group. The group, from NASA's Goddard Space Flight Center in Greenbelt, Md., visited June 2. The group defines mission science requirements and provides scientific oversight for the Webb Telescope. The telescope — planned for launch in 2014 — will be the premier observatory of the next decade, serving thousands of astronomers worldwide. It will study the history of the universe, from the first luminous glows after the Big Bang, to the formation of solar systems capable of supporting life on planets like Earth, to the evolution of our own solar system.

Stallworth scores with Marshall Association



Stallworth, left, talks with Markeeva Morgan, center, of the Engineering Directorate, who serves as Marshall Association president, and Ed Worley, a Schafer Corp. employee in the Office of Strategic Analysis & Communications.

John Stallworth, a Pittsburgh Steelers football player from 1974-1987, spoke about the importance of teamwork at the Marshall Association luncheon May 19.

Stallworth, inducted into the Pro Football Hall of Fame in 2002, told Marshall Space Flight Center team members that five actions are necessary for successful teamwork: commitment, leadership, dreams, high presence or focus and respect. He provided examples from his experiences during his football career.

The Marshall Association fosters the exchange of innovative and stimulating ideas within the Marshall community. To learn more about the association, visit http://inside.msfc.nasa.gov/marshall_association/.

To join, contact Jennifer McCaghren, association treasurer, at 544-5189. The next meeting will be at 11:30 a.m., June 30, in Activities Building 4316. Dr. David Williams, president of the University of Alabama in Huntsville, will speak.

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, June 18, is 4:30 p.m. Thursday, June 11.

Miscellaneous

- 17-inch machined aluminum five split-spoke wheel, 2005-2009 Mustang, \$125. 882-1566
- Antique oak high-back bed, full size, \$750. 353-0370
- Power Wheels Barbie Jeep, \$100; play kitchen, \$15; talking blender, mixer, other items, \$25. 830-8299
- Garman 60csx handheld GPS, SE topo maps, bike/car mounts, \$350. 508-4379
- 3-SW Ping Eye-2 irons, green dot, \$160. 683-3397
- Troybilt Pony riding lawnmower, 42-inch cut, \$600. 990-4243
- Kids Home Depot play workbench, tools, accessories, saw horses, \$40. 777-1810

- GE 30-inch slide-in electric range, self-cleaning oven, smooth top, model JSB42BKBB, \$1,000. 541-0627
- BIC sailboard with several sails, spare parts, \$250; Mystere sailboard with several sails, spare parts, \$250; sailboard seat harness, \$50; Yamaha YPT-300 portable keyboard, \$100. 534-1461
- PlayStation 2, two games, memory card, \$95; youth bowling ball, size 8, \$70. 466-4500
- Oak pedestal dining room table, leaf, six chairs, \$350. 776-7399

Vehicles

- 2007 Ford 500 Limited, all power, leather seats, maroon, 9k miles, \$15,700. 740-1324
- 2007 Tacoma, regular cab, five speed, 29k miles, 12,500. 506-7352
- 2005 Hyundai Elantra, red, new tires, 29k miles, \$7,000. 655-6293
- Two 2004 STX-15F Jet Skis, four-stroke, 160 HP, three person, dual trailer, dry box, \$14,000. 837-3804
- 2000 Mercedes ML430 SUV, white, loaded, entertainment package, navigation, sunroof, \$7,500 obo. 520-2802
- 1999 Softail Standard, 8,500 miles, \$7,900. 278-5783
- 1998 Stingray RS180 Bowrider, new 140HP engine, ski

- items, picture available, \$10,000. 640-6427
- 1996 Chevy Silverado crew cab dually, 116k miles, \$6,900 obo. 586-0013
- 1995 Mazda Protégé, 199k miles, \$600. 464-8933
- 14x5 double-axle trailer, can e-mail picture, \$1,000. 509-2524

Wanted

- Taylor Swift concert tickets, Birmingham, Sept. 11, at least two tickets, potentially three or four. 527-1444
- Student intern needs ride from SE Huntsville through August 7. 684-2778
- Reasonably priced pop-up camper with air conditioning. 508-0509
- Lightweight transport wheelchair, good condition, low price. 464-9910
- Single/full-size bed, nightstand, dresser, computer desk, table, chairs. 679-5916

Free

- Fallen cherry tree trunk, limbs removed; chainlink fence, posts, two gates. 881-3322
- Used PAR 12 volt bilge pump; used Marchal-Motorola marine alternator. 5341461

Endeavour *Continued from page 1*

the Marshall Space Flight Center. “We don’t have any issues with the space shuttle main engines, solid rocket boosters or external tank; all performed in an excellent manner during the last launch, STS-125.

“We remain focused to safely fly the space shuttle for the three remaining missions in 2009, and the five we will fly in 2010,” Cash said.

Polansky will be joined on the mission by pilot Doug Hurley and mission specialists Christopher Cassidy, Tom Marshburn, Dave Wolf and Julie Payette, a Canadian Space Agency astronaut. Endeavour will deliver Tim Kopra to the space station as an Expedition 20 flight engineer and science officer. Japanese astronaut Koichi Wakata, who launched with the STS-119 crew in March 2009, will return to Earth with the STS-127 crew after spending more than three months aboard the space station. Hurley, Cassidy, Marshburn and Kopra will be making their first trips to space.

Endeavour’s 16-day flight will deliver the final components of the Japan Aerospace Exploration Agency’s Kibo laboratory to the space station. The mission will include five spacewalks and the installation of two platforms outside the Japanese module.



STS-127 crew members are, from left, Dave Wolf, Christopher Cassidy, Doug Hurley, Canadian Space Agency’s Julie Payette, Mark Polansky, Tom Marshburn and Tim Kopra.

STS-127 will be the third space shuttle mission in 2009. Shuttle Discovery, launched March 15, flew the STS-119 mission to the space station. It delivered and installed the final set of solar array wings and a truss element to complete the space station’s electricity-generating system.

Landing was March 28 at Kennedy. Shuttle Atlantis’ flight, STS-125, launched May 11 from Kennedy for the fifth and final servicing mission to

the Hubble Space Telescope. It landed May 24 at Edwards Air Force Base, Calif.

After STS-127, seven space shuttle flights to the space station remain before the shuttles retire in 2010.

For more information about the STS-127 crew and its mission, visit <http://www.nasa.gov/shuttle>.

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

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