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MARSHALL STAR

Serving the Marshall Space Flight Center Community

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Shuttle Endeavour is 'go' for launch Aug. 7

New safety monitoring system developed at Marshall in use on shuttle main engines

NASA Headquarters release and staff reports

NASA managers have set Tuesday, Aug. 7, as the official launch date for space shuttle Endeavour's STS-118 mission to the International Space Station.

The flight will include a key milestone for the Marshall Center, which developed an innovative new engine safety system to be fully implemented for the first time.

Liftoff of Endeavour from NASA's Kennedy Space Center, Fla., is scheduled for 6:02 p.m. CDT. Commander Scott Kelly and his six crewmates are scheduled to arrive at Kennedy on Friday, Aug. 3, for final launch preparations. The countdown is scheduled to begin at 8 p.m. Saturday, Aug. 4.

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NASA/KSC

The STS-118 crew, at the conclusion of the terminal countdown demonstration test at the Kennedy Space Center, Fla., on July 19, are, from left, pilot Charlie Hobaugh, mission specialist Rick Mastracchio, commander Scott Kelly, and mission specialists Tracy Caldwell, Barbara R. Morgan, Alvin Drew and Dave Williams. The STS-118 mission on Space Shuttle Endeavour is the 22nd flight to the International Space Station and will carry a payload including the S5 truss, a SPACEHAB module and external stowage platform 3.

NASA moves forward with astronaut assessments

NASA Deputy Administrator Shana Dale said the agency is moving forward to implement many of the recommendations contained in two studies released Friday, July 27, about astronaut health and behavioral assessments.

The two reviews were made public prior to a news conference in Washington, five months after the agency requested that an independent external committee conduct a comprehensive review of health services available to astronauts. Both studies were initiated in the aftermath of the arrest in February of former astronaut Lisa Nowak.

The first assessment of astronaut behavioral medicine procedures, an internal review, was completed by NASA's Johnson Space Center, Houston, earlier this week. The second assessment, a broader review by outside experts called the Astronaut Health Care System Review Committee, was organized by NASA Chief Health and Medical Officer Dr. Richard Williams.

"The review committee, chaired by Air Force Col. Richard Bachmann, commander of the U.S. Air Force School of Aerospace Medicine, completed a valuable task on short notice and I would like to acknowledge the group's dedication and time commitment to this important review," Dale said. "We are committed to improving the behavioral care and assessment procedures for astronauts.

"We believe the resulting modifications will be good for the astronaut corps and for NASA."

Dale said NASA immediately will address four primary areas of concern:

- NASA Chief of Safety and Mission Assurance Bryan O'Connor, a former astronaut, began an extensive examination focusing on allegations of improper alcohol use. O'Connor will review

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Message from the administrator

Nearly all of you will have seen the report of the review committee on astronaut medical and mental health care, officially released Friday, July 27. I chartered this review in the days following the unfortunate incident involving astronaut Lisa Nowak. It was my goal to determine whether this incident might have been in any way foreseeable by those entrusted with the care of our astronauts, whether the screening and evaluation procedures we employ for astronaut selection and assignment are as good as they can possibly be, and whether the physical and mental health support systems we have in place for our astronaut corps are serving their intended purpose as well as is possible.

Michael Griffin

The review committee was comprised of numerous medical and legal professionals experienced in the various disciplines relevant to aerospace medicine and mental health, and included a former astronaut and medical doctor. The committee's credentials are impeccable.

In reaching its conclusions, the committee interviewed numerous active and former astronauts, as well as a number of others including flight physicians, support personnel and astronaut spouses. All interviewees were volunteers; however, not all of those who volunteered were interviewed.

You have seen the resulting report, or been exposed to some of its more sensational excerpts. It alleges instances of alcohol abuse by astronauts on active flight status. Violations of the military twelve-hour "bottle to throttle" prohibition are asserted. Finally, the report cites ineffective communication between astronauts, their medical support professionals, and their management, and similar gaps between medical professionals and NASA management. The cited allegations, taken at face value, are very serious, and all of us in management, including me, Deputy Administrator Shana Dale, Johnson Space Center Director Michael Coats, Chief Health and Medical Officer Rich Williams, Director of Flight Crew Operations Ellen Ochoa, and Astronaut Office Chief Steve Lindsey, are taking them seriously.

The review board produced a number of recommendations, which will clearly improve our organization, and we plan to implement some of them without delay.

At the same time, however, our policy has been to say very little publicly until we know more. If you saw the press conference, I am sure you realize that the report was assembled from anecdotal information, unverified by the committee and, indeed, not documented in a way that would allow us to pursue the cited incidents to closure. This does not mean that the claims made in the report are untrue, but it does necessitate a "go slow" approach on our part regarding any public statements we might make.

We have numerous upcoming tasks, both near- and long-term, as a consequence of the release of the report by the committee. Former astronaut and current chief of the Office of Safety and Mission Assurance, Bryan O'Connor, has met with the commander and crew surgeon of STS-118, discussed the report and its allegations with them, and determined that none of the cited issues bear on the upcoming flight. Based on this assessment, he has given a "go" for the flight of STS-118.

In the longer term, and given the seriousness of the report's allegations, the only responsible action we can take, and the action we will take, is to investigate the cited behaviors in an attempt to establish the firmest possible basis of fact upon which to base future decisions. In no way do I want to minimize the importance of the concerns raised by the committee's report. However, and precisely because they are so serious, I feel compelled to ensure that I will act on the basis of fact rather than assertion. Only in this way can we preserve and enhance the trust that must exist between and among our flight crews, their physicians, and NASA management.

Finally, I cannot end this note without stating to all of you my personal belief in the professional excellence and dedication to the mission, and indeed the essential goodness, of our astronaut corps. I personally began working with our flight crews more than twenty-five years ago, and I know many, many former and current members of the corps as valued professional colleagues and personal friends.

These are people who have accepted the risks of working on mankind's frontier, and the years-long rigor of preparing for each flight out to that frontier. They accept risks comparable to those borne by combat troops, they do it with a smile, and when they come back, they spend hour upon hour sharing the experience with everyone from school kids to presidents. To listen to them recounting their adventures to a classroom — whether full of elementary school students or postdocs — is to put one in mind of listening, if only we could, to Lewis and Clark talk of their journey to the Pacific.

These men and women are, as a group, among the very best that our nation has to offer. But they are human, with human imperfections. To improve, we must be receptive to comments and reviews by outside groups. When we receive such feedback, we must evaluate it carefully and introspectively on its merits, avoiding the tendency to focus on those aspects which receive the greatest media attention. This is not easy, but it is necessary, and that is what we will do.

Michael D. Griffin
Administrator

Science and Mission Systems Office honors employees

By Dauna Coulter

The Marshall Center's Science and Mission Systems Office paid tribute to its outstanding employees and contractors at the organization's annual awards ceremony July 12 at the Redstone Officers' and Civilians' Club. Reflecting the Science and Mission Systems theme "Do, Accomplish, Enable," the awards event honored workers and teams who best represented this theme during the preceding year.

More than 200 people attended. Dr. John Horack, Science and Mission Systems Office manager, began the proceedings by addressing the attendees.

"Sometimes work feels like you are hiking uphill on a trail and you can only see 3 feet in front of you," Horack said. "All you see is sticks and rocks and other obstacles. … But after you hike a while, you turn around and look at the view and you can see all you've achieved. This ceremony helps us do that."

Bruce Anderson, chief operating officer of the National Space Science and Technology Center, recognized the Science and Mission Systems employees who received agency and center awards in 2007.

Horack presented the One NASA Peer Award to the Solar-B/Hinode team. Barbara Cobb accepted the award for the team. He awarded the Director's Commendation Award to David Weeks in appreciation for his work as the technical agent for the Defense Advanced Research Projects Space-X Launch Program.

Project leaders presented several Group Achievement Awards and Peer Awards to teams and individuals worthy of special notice.

Group Achievement Award recipients included the following teams:

- The Lab-on-a-Chip Application Development Team, for outstanding contributions leading to the development, launch and successful operations of the Lab-On-a-Chip Application Development on the International Space Station.
- The ARES V 6 Monolithic Telescope Study Team, for commendable performance in investigating the feasibility of placing a large monolithic telescope into a halo orbit about the Sun-Earth L2 Lagrange point using the Ares V baseline launch vehicle.
- The ARES I-X Roll Control Integrated Product Team, for the test requirements development and hot fire test support of the Peacekeeper Axial Engine as a roll control thruster for the Ares I-X demonstration flight.
- The James Webb Space Telescope/X-ray Calibration Facility Team, for exemplary performance and personal dedication in support of the James Webb Space Telescope by successfully completing the Backplane Stability Test Article cryogenic structural deformation test leading to the technology achieving TRL-6.
- The High-Energy Replicated Optics Team, for outstanding dedication and technical excellence in preparing the High Energy Replicated Optics balloon payload for flight, persevering to achieve a successful flight in spite of extremely poor weather and a very lengthy field trip.
- The WB-57 Ascent Video Experiment Team, for exemplary performance and personal dedication in the design, analysis, testing, and assembly of crucial improvements to the WB-57 Ascent Video Experiment leading to high altitude visual and near infrared imaging of the first Return-to-Flight space shuttle launch STS-116.
- The Orbital Express Advanced Video Guidance Sensor Team, for the development and demonstration of the AVGS as the primary docking sensor during the first automated docking operation in the history of the U.S. space program.

Nominated by organization team members, Peer Award winners excelled in the categories of communication, teamwork, excellence, innovation and above-and-beyond service. The following people received awards:

- Paige Vaughn and Kathy Moorhead, Communication Award
- Steve Elrod and Chet Speegle, Teamwork Award
- Dr. Doug Rickman and Gail Linton, Excellence Award
- Dr. Richard Blakeslee and Dr. Mikhail Gubarev, Innovation Award
- Dr. Brian Ramsey and Stacie Gooch, Above-and-Beyond Service Award

Horack closed the ceremony with these words:

"I have a difficult time answering when someone asks me what we do at Science and Missions Systems. I feel like saying, 'How long do you have?' There are so many things we do – and do very, very well. It makes me extremely proud. This is a special time in my life, to have the opportunity to work with all of you here."

The writer, a Schafer Corp. employee, supports the Office of Strategic Analysis and Communications.

David Higginbotham/MSFC

From left are a few recipients of the Peer Awards: Chet Speegle, Teamwork Award; Dr. Mikhail Gubarev, Innovation Award; Gail Linton, Excellence Award; Paige Vaughn, Communication Award; and Dr. Doug Rickman, Excellence Award.

Marshall Center's John Vickers honored by AIAA

By Lori Meggs

John Vickers, manager of the Marshall Center's National Center for Advanced Manufacturing, has received the Holger Toftoy Award from the Alabama-Mississippi section of the American Institute of Aeronautics and Astronautics. The award, named for the late U.S. Army commander of Redstone Arsenal who is credited with bringing Dr. Wernher von Braun and the German rocket team to Huntsville, recognizes outstanding technical management in aeronautics and astronautics.

John Vickers

The National Center for Advanced Manufacturing, within the Engineering Directorate's Materials and Processes Laboratory, serves as NASA's chief resource for aerospace manufacturing research and development. Vickers was recognized for helping to establish the manufacturing center, which has capabilities and facilities at both Marshall and the Michoud Assembly Facility in New Orleans, which is managed by Marshall.

Vickers manages operations of the National Center for Advanced Manufacturing at Michoud in a partnership among NASA, the state of Louisiana and the University of New Orleans. Founded in 1999, the center provides research and advanced manufacturing technology for use in aerospace and commercial markets, which will be integral in support of major projects for the Constellation Program's next generation of crew exploration and launch vehicles.

As an engineer and manager in the Materials and Processes Laboratory, Vickers is responsible for manufacturing engineering of space transportation and spacecraft systems, research and development, strategic planning, new business and partnerships with government, industry and academia.

The award also recognized Vickers, serving in leadership positions with several national organizations, for his efforts to accelerate the development and implementation of manufacturing technologies in support of the aerospace and defense industrial base and the competitiveness of U.S.-based manufacturing. Vickers serves as NASA's representative to the National Science and Technology Council's Interagency Working Group on Manufacturing Research and Development.

During his NASA career, Vickers has received numerous awards and honors including the NASA Exceptional Service Medal, a Director's Commendation Award and numerous Certificate of Appreciation, Group Achievement and Special Service awards.

A native of Arab, Ala., Vickers joined NASA in 1989 and holds a bachelor's degree in engineering from the University of Alabama in Huntsville. Vickers, his wife Lisa, and their children reside in Arab.

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.

STS-118

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The STS-118 mission marks the first full operation of the Advanced Health Management System, an engine safety system that shuts down an engine if anomalies are detected. The system, developed at the Marshall Center, will be actively operating on all three shuttle main engines for the first time.

The system is designed to collect and process turbopump accelerometer data, a measure of turbopump vibration. It also continuously monitors turbopump health. If vibration anomalies are detected, the system shuts the engine down.

The Advanced Health Management System was tested in active mode on one engine during the STS-117 mission in June. Data from the mission indicated the system operated as intended.

Endeavour's launch date was announced July 26 following the traditional flight readiness review at Kennedy. During the two-day meeting, top NASA and contractor managers assessed any risks associated with the mission and determined that the shuttle's equipment, support systems and procedures are ready for flight.

During the 11-day mission, Endeavour's crew will add another truss segment to the expanding station, install a new gyroscope on the complex and add an external spare parts platform. The flight will include at least three spacewalks. The crew will debut a new system that enables docked shuttles to draw electrical power from the station to extend visits to the outpost. If this system functions as expected, three additional days will be added to the STS-118 mission.

Joining Kelly on the flight will be pilot Charlie Hobaugh and mission specialists Tracy Caldwell, Rick Mastracchio, Barbara R. Morgan, Alvin Drew and Canadian Space Agency astronaut Dave Williams.

The mission will be Endeavour's first flight in more than 4 1/2 years. The spacecraft has undergone extensive modifications in addition to the Advanced Health Management System, including safety upgrades already added to shuttles Discovery and Atlantis.

For more information about the STS-118 mission, including images and interviews with the crew, visit http://www.nasa.gov/shuttle.

Assessment

Continued from page 1

all existing policies and procedures related to alcohol use and astronaut medical fitness prior to flight. The goal is to ensure that risks to flight safety are dealt with by appropriate authorities, and, if necessary, elevated through a transparent system of senior management review and accountability.

- NASA's Medical Policy Board, made up of senior internal and external medical experts, will further assess the medical and behavioral findings and recommendations in the two reviews. The board will institute behavioral health assessments as a part of annual flight physicals for all astronauts.
- The agency will develop an astronaut code of conduct and has engaged NASA's astronaut corps to help develop the formal guidelines. The astronauts already have started to develop an initial set of recommendations, and agency leadership will establish a collaborative process to create an official code.
- To address organizational culture issues outlined in the reports, NASA will conduct a series of internal assessments, including anonymous surveys to be completed by astronauts and flight surgeons, to provide feedback and gather information. The goal is to improve communications and ensure that leadership is responsive to concerns and complaints.

"We are moving as quickly as we can on the recommendations, and Administrator Mike Griffin and I will closely monitor progress on these issues," Dale added. "After the review is completed, it is our intention to share the findings with the public, to the maximum extent possible."

For copies of the reports and a complete transcript and video of the news conference, go to http://www.nasa.gov/audience/formedia/features/astronautreport.html.

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 is 4:30 p.m. Thursday.

Miscellaneous

Charles Frace Wayfarers print, $85. (859) 338-2649

Shelby utility trailer, 5x8, mesh ramp, plank bed, 15-inch wheels, $550. 431-8603

Twin bed, white iron, heart-shaped headboard, footboard, mattress, box springs, $100. 233-1487

48-inch round kitchen table, wood, two leafs, six chairs, $150. 533-1261

Shih-tzu puppies, CKC, one male, one female, ready Aug. 6. 498-5089

Refrigerator, LG Titanium (SS), 26 cubic feet, side by side, $700. 340-1089

52-inch Sony rear projection TV, $500 obo. 509-2536

Bunk bed, metal frame, royal blue, full on bottom, twin on top, $25. 351-1754

Berkline leather recliner, navy, $175 obo; dining table, six chairs, $150. 426-1822

Leather living room set, sofa, loveseat, chair, ottoman. $975. 426-1822

Two tickets, Willie Nelson concert, Atlanta, Ga., Aug. 20, $150. 233-8505

Two high back chairs, $20 each; admiral dishwasher, $75; gas dryer, $50. 464-7996

Oak dining room set, six chairs, $250. 772-1870

Upright Piano, ebony, $400. 665-6021

The Legend of Zelda: Twilight Princess game for Wii, $40. 655-6293

Two tickets, Smashing Pumpkins concert, Oct. 30, Atlanta, Ga., Fox Theatre, $200. 885-5973

8-foot Kasson-Auburn pool table, fruitwood, Queen Anne feet, leather pockets, accessories, $2,500. 880-6563

Two formal arm chairs, matching ottoman, $200; formal ball-and-claw end table, cherry, $100. 503-6773

Quadrajet carburetor, $75;TKO punching bag, stand, $65; Martin jaguar magnum compound bow, $180. 293-9135

Sony rear projection TV, 52-inch screen, $100. 244-4296

Love seat, roll arm, $100; chair, ottoman, $200. 721-0999

Two hard-side suitcases, one black, one mauve, $30 each. 837-6776

Antique Victorian furniture, price negotiable. 852-1726

Pink wingback chair, $50; two crystal lamps, $15. 682-5418

Tektronix OS-245(P) oscilloscope, AM-6565/U vertical, TD-1085/U timebase, $225. 288-0906

Star Wars Episode I figure, vehicle collection, all boxed, $500. 479-4345

Sirius "Stiletto" portable satellite radio/MP3 player, car kit, $100. 656-8543

Two trolling motors, controls, $25; MTD 30-inch rear engine riding mower, $150. 325-2919

Oval oak coffee table, 45.4x27.5, $65. 895-9589

Encyclopedia Britannica, 1966 edition, bookcase, $45. 348-7146

Sony TV stand, SU-RS11XB, black, for Sony KDS-A20 series TVs, $125. 655-3065

Rain suit for motorcycle rider, size small/medium. 777-8229

100 pounds saltwater live rock, fish, coral, $500; saltwater nano-tank,15-inch cube, $150. (504) 715-7226

Norge washer, white, $150; GE dryer, white, $125; Kelvinator refrigerator, almond, $200. 468-8306

Two-year-old Whirlpool dishwasher, $175. 829-9590

Vehicles

2006 Polaris Sportsman, $1,800; 2006 Honda Rancher ES 350, $3,500; 2002 Artic Cat, $3,700; 593-0922

2005 Toyota Camry XLE, four cylinder, sunroof, spoiler, 42k miles, $16,300. 859-9204

2005 Silverado, 2500 HD, 6.0 engine, 18k miles, $18,500. 776-1826

2004 Chevy Trailblazer LT EXT, six cylinder, gold, DVD, Bose, On-Star, $16,500 obo. 776-9506

2004 R-Vision Class-A Motorhome, slide, workhorse chassis, extended warranty, www.thewillettfamily.com/rv, $59,995. 883-7021

2004 Nissan Frontier XE, extended cab, light brown, 39k miles, $11,200. 654-6870

2003 Suzuki Intruder 1500LC, 43 mpg, silver/gray, saddle bags, 23k miles, $6,200. 520-0802

2003 Harley-Davidson Ultra Classic Electraglide, "100th Anniversary" edition, $13,500. 683-1846

2002 PT Cruiser, new tires, fully loaded, 32k miles, $8,500. 883-1096

2002 Kia Sedona minivan. 233-6197

2002 Nissan Frontier XE pickup truck, green, king cab, bed liner, 42k miles, $10,500. 883-6894

2001 BMW X5 3.0 SUV, black, auto, moon roof, 84k miles, $18,500. 536-8995

2001 Chevy S10, Vortec V6, sports package,136k miles, $7,500. 777-1319

2001 Lexus RX300 SUV, black, tan leather, sunroof, CD changer, 110k miles, $13,800. 461-0096

2001 Limited Edition PT Cruiser, all options, silver, 79k miles, $7,500. 797-8895

2000 GMC Sonoma, custom-designed work truck, 4 X 4, automatic, 90K miles, automatic, off-road, green, regular cab, $8,000. 931-967-7307

1999 Astro van, seven-passenger seating, rear air, new tires, 151k miles, $4,250. 837-5036

1998 Mercury Marquis LS Sedan, 32k miles, $7,000 obo. 880-3254

1998-2001 Jaguar XJR, XJ8 L, XJ8. 797-8895

Wanted

Log cabin, large outbuilding, paddle boat. 509-7907

Anyone fluent in German, get together once or twice a week, speak/practice German. 656-2965

Suspended ceiling parts, 24-inch cross-tees, older style for 25- to 40-year-old grid system. 233-0705

Found

Black thumb drive, 4200 complex. 544-4680

Free

Flashing LED 50th birthday button. 534-2623

Two huge gray rocks. 837-6776

Heavy-duty moving boxes, dish packs, wardrobes, packing paper. 325-8984

NASA College Scholarship Fund awards two scholarships

Doug Stoffer/MSFC

The NASA College Scholarship Fund Inc., managed by a Texas nonprofit corporation, awarded college scholarships July 16 to Kathryn Brewer, daughter of Marshall's Jeffrey Brewer of the Engineering Directorate, and Kevin Chou, son of Marshall's Shih-Hung Chou of the Science & Mission Systems Office. Marshall Deputy Director Robert Lightfoot presented plaques to the recipients. From left are Lightfoot, Kathryn Brewer, her mother Jan Brewer, and Jeffrey Brewer.

From left, Lightfoot, Kevin Chou, his mother Chi H. Yu and Shih-Hung Chou. The NASA College Scholarship Fund is open to NASA employees' and former NASA employees' dependents. For more information about the fund, go to http://nasapeople.nasa.gov/nasascholarship/index.htm.

Obituaries

James Allen Waldrop, 81, of Belleair Beach, Fla., died July 14. He retired from the Marshall Center in 1983 as an aeronautical engineer. He is survived by his wife, Hannah Waldrop.

Rebecca W. Bray, 57, of Madison died July 24. She had been a Marshall team member since 1980. Bray worked as a computer research and development scientist in the Applications, Web, & Multimedia Services Office in the Office of the Chief Information Officer.

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