



MARSHALL STAR

Serving the Marshall Space Flight Center Community

Feb. 14, 2008

Shuttle Atlantis launches Feb. 7

Engine cutoff sensor system performs flawlessly

By Sanda Martel

Space shuttle Atlantis and its seven-member crew lifted off Feb. 7 from the Kennedy Space Center, Fla., to begin the STS-122 mission to the International Space Station.

Shuttle managers said the newly designed connector in the shuttle's fuel sensor system performed flawlessly during the countdown, due to the work of the multi-disciplinary team charged with isolating and fixing the system's feed through connector.

"Our team did a tremendous job," said Steve Cash, manager of Marshall's Shuttle Propulsion Office. "The ECO sensor system on STS-122 performed extremely well thanks to the newly redesigned feed through connector, and the Marshall propulsion systems stand ready to proceed with a very busy year of space shuttle launches," he added.

The new connector configuration adapted for the mission was tested at the Marshall Center's unique engineering and test facilities to verify that the new design corrects the open circuits found in the original connector.

The STS-122 mission was twice delayed in December 2007 after false readings occurred in that system while Atlantis' external fuel tank was



Amid clouds of smoke and steam, space shuttle Atlantis hurtles into space Feb. 7 for a rendezvous with the International Space Station on mission STS-122.

See STS-122 on page 3



During a recent visit to Central America, Marshall researcher Dan Irwin discusses the inner workings of SERVIR with NASA Deputy Administrator Shana Dale.

SERVIR: NASA lends a hand in Central America

By Dauna Coulter

A few months ago, Marshall researcher Dan Irwin stepped off a plane in Guatemala and found, to his surprise, that he was running for mayor. It seems the people of San Andres had put his name on the ballot.

Irwin respectfully declined, but he was touched. If you ask him why the residents of rural San Andres are crazy about him, Irwin, a humble soul, shrugs his shoulders and says, "Everyone has a hobby. Mine is building things — helping develop their community. I enjoy it."

Irwin is a pioneer of SERVIR, Spanish for "to serve," a high-tech satellite visualization system he helped develop at the National

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U.S. Rep. Artur Davis to headline Marshall Black History Month event

U.S. Rep. Artur Davis of Montgomery will be the keynote speaker at the Marshall Center's annual Black History Month program Feb. 19 at 10:30 a.m. in Morris Auditorium in Building 4200.

The event is the centerpiece of Marshall's annual commemoration of Black History Month, the American tradition which turns 32 this year.

Davis, representing Alabama's 7th Congressional District, is a member of the U.S. House of Representatives' Ways and Means Committee, which oversees all major economic policy issues, including tax policy, healthcare and Medicare and Social Security programs. He is only the 10th Alabamian in 188 years to serve on the committee.

Davis also sits on the U.S. House Judiciary Committee, which covers legal issues from constitutional law and immigration to the criminal and civil justice systems; and on the House Administration

Committee, which oversees national election laws and the day-to-day operations of the Alabama House.

All Marshall Center team members are invited to hear Davis speak at the Black History Month program, and to visit the 4200 lobby throughout the month of February to see displays celebrating African-American heritage and its role in America's space program.

Later this month, the Marshall Center also will hold a "Lunch and Learn" program highlighting Black History Month. Details about the event will appear on Inside Marshall next week, and in the Feb. 21 issue of the "Marshall Star."

The theme of the 2008 celebration is "Carter G. Woodson and the Origins of Multiculturalism," honoring the African-American historian, author and journalist who, in 1926, founded Negro History Week — the event that would expand into Black History Month 50 years later. Woodson has been widely identified as the first American scholar to popularize the importance of contributions by African-Americans to the successful growth and prosperity of the nation as a whole.



Artur Davis

Employee Leave and Earnings Statements available online in March

Beginning in March, all NASA employees will access their Leave and Earnings Statements electronically through Employee Express and will no longer receive paper statements. This initiative will not affect pay or leave in any way.

Employee Express puts federal employees in control of their payroll and personnel information. It provides access anytime to LES, with two-year historical archives, and other important documents such as W-2 forms.

Additional benefits of Employee Express include increased security for personal information, quick, convenient electronic access to LES compared to paper statements, reduced paper waste, the ability to view or change direct deposit information and federal and state tax information, and the ability to view or change health benefits or Thrift Savings Plan information and deductions.

To set up electronic LES, employees should visit the Employee Express Web site, <https://www.employeeexpress.gov>, and follow

these instructions:

- Log in to Employee Express.
- Under the left-hand heading, "Payroll — Personnel Actions," click "Earnings and Leave Hardcopy On/Off," select "Off" and click "Save."

Users can contact the Help Desk at 888-353-9450 for technical assistance.

NASA has a waiver process for employees who meet specific criteria and wish to continue receiving paper LES. Employees can learn more about the waiver process by visiting the NASA Shared Services Center Web site at <http://www.nssc.nasa.gov/> customerservice and clicking on the "Payroll" tab at the top of the screen.

Questions concerning electronic LES can be directed to the NASA Shared Services Center at 877-677-2123, by fax at 866-779-6772 or by e-mail at nssc-contactcenter@nasa.gov.

This month in history ...

Fifty years ago this month, the United States was moving still closer to the creation of a national space agency. House Resolution 496 passed by the House of Representatives established a Select Committee on Astronautics and Space Exploration to investigate plans for the exploration of outer



space and to submit recommendations for the control and development of astronomical resources. The committee was among numerous government and public groups advancing toward what would result in the creation of the National Aeronautics and Space Administration in October 1958.

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being filled. Tests revealed that open circuits in the external tank's feed through connector were the most likely cause. A modified connector, designed with pins and sockets soldered together to eliminate gaps that could lead to a loss of connectivity, was installed for the mission. The sensor system is one of several that protects the shuttle's main engines by triggering their shut down if fuel runs unexpectedly low.

During the STS-122 mission, Commander Steve Frick and his six crewmates are installing the European Space Agency's Columbus laboratory on the station. Columbus will expand the research facilities of the station and provide scientists around the world with the ability to conduct a variety of life, physical and materials science experiments. The mission includes three spacewalks, delivery of a new crew member to the station and the

return of another astronaut after nearly four months on board the complex.

The STS-122 crew, in addition to Frick, includes Pilot Alan Poindexter and mission specialists Leland Melvin, Rex Walheim, Stanley Love and European Space Agency astronauts Hans Schlegel and Leopold Eyharts. Poindexter, Love and Melvin are making their first spaceflight. Eyharts will replace current station crew member Dan Tani, who has lived on the outpost since October. Eyharts will return to Earth on shuttle Endeavour's STS-123 mission, targeted for launch March 11.

Landing for Atlantis is scheduled for Feb. 19 at the Kennedy Space Center.

For the latest on the STS-122 mission, visit www.nasa.gov/shuttle.

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

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, Feb. 21, is 4:30 p.m. Thursday, Feb. 14.

Miscellaneous

Weider Pro 9635 home gym, universal multi-station, \$150 obo. 533-9701
Used Little League baseball bag, helmet, Hit-N-Stick batting practice tool. 885-2448
Pottery Barn Kids bed set, twin bed quilt, pillow, quilted shams, bed skirt, slipcover, \$75. 466-0723
White solid oak table, leaf, four matching chairs, \$500. 508-0509
35 canning jars and lids, \$9; full bed, headboard, foot board, mattress, boxsprings, \$300. 655-6348
8-foot Steve Mazerik Slatron pool table, \$400. 461-9182
Toshiba 34-inch diagonal HD-ready television, remote, owner's manual, \$300. 880-1544

Love seat, tan/earth tone fabric, wood trim, \$100. 682-3502
1/2-carat diamond anniversary band, \$250. 426-7862
8-foot Olhausen pool table, traditional mahogany finish, accessories, house cues, \$2,400. 651-3249
Ebersole upright antique piano, \$200; Yamaha HC-2 organ, \$975. 881-7283
Broyhill kitchen hutch, glass sides, doors, shelves, \$575; wood kitchen table, four chairs, \$375. 975-1667
Contemporary dining room set, 72-inch glass table, six upholstered chairs, two China cabinets, \$950. 603-1273
PSU 305 watt for PC, \$33. 417-4828
Hitachi 51-inch Ultravision HDTV, model 51F510, 1080i, \$500. 348-5042
Maytag washer, dryer, white, \$50 for pair. 931-4409
Whirlpool bathtub, 72 by 42 inches, almond, six jets, working pump, \$150. 655-6701
Nintendo Wii nunchuk remote control, new in package, \$25. 828-1234
Queen Anne furniture suite, dark high-gloss stain, \$750; oak roll-top desk, \$450. (931) 425-0205
Pelican canoe, \$275; Hawken Muzzleloader, \$250; Nordic Track treadmill, \$400; Jennings compound bow, \$100. (931) 425-0205
SanDisk Ultra II 2GB SD Card, 10MB/s read speed, 9MB/s write speed, \$20. 961-9324
Assorted Persian rugs, semi-antique, room size, hand-knotted wool, \$375 each. 489-8031

Vehicles

2007 Chrysler Pacifica Limited, black, all power, leather, DVD, 2,400 miles, \$24,000. 394-1054

2006 Starcraft 215B trailer, extras, \$19,500 obo. (317) 294-2766
2006 Buick Lucerne, loaded, remainder four year/50k-mile warranty, 23k miles, \$19,500. 348-7501
2005 Honda VTX1300R motorcycle, many accessories, 9k miles, \$6,150. 564-7499
2002 Honda Odyssey, 85k miles, \$10,000. 464-9729
2001 Ford Taurus SES, 3.0L V6, new tires/battery, 84k miles, \$5,000. 682-8795
2001 Mazda Miata LX, tan leather, power windows, black, 61k miles, \$10,900. 883-6894 or 468-6894
2001 Volvo S40, four door, sedan, blackberry, four cylinder, turbo, AM/FM, cassette/CD, \$4,500. 468-6016
1999 Toyota 4-Runner Limited Edition, white, brown interior, sunroof, CD, A/C, \$7,000. 694-1260
1998 Mercury Mountaineer, V6, automatic, leather, \$3,500 obo. 797-5494
1995 Nissan Sentra XE, 179k miles, \$2,000 obo. 828-3810

Wanted

Treadmill, working condition. 665-1485

Free

13-inch Beagle, female, white/lemon color, 3-7 years old. 777-1810
Quaker parrot, 10 years old. 217-0811
House cat, healthy, all shots, accessories. 489-8031

Lost

30GB Zune, Building 4663. 603-6333

Marshall seeking volunteers for NASA's Great Moonbuggy Race April 4-5

Marshall Center team members are encouraged to step up and participate in the 15th annual NASA Great Moonbuggy Race, Friday and Saturday, April 4-5, at the U.S. Space & Rocket Center in Huntsville.

Volunteers are needed in two shifts each day, 8 a.m. to 12:30 p.m. and noon-5 p.m., to help with a variety of race activities. A volunteers'

meeting will be held March 26 at 3 p.m. at the Space & Rocket Center. Volunteers will receive complimentary lunches and race T-shirts.

To sign up, go to <https://moonbuggy-volunteer.msfc.nasa.gov/index.cfm> or contact Karla Miller for more information at 544-5885 or karla.i.miller@nasa.gov.

Marshall schedules annual tornado exercise Feb. 20

The Marshall Center will observe Severe Weather Awareness Week on Feb. 17-22. The center's annual tornado drill will be held Feb. 20, beginning at 9 a.m.

Listen for the Emergency Warning System announcements and evacuate to protective areas when it's appropriate. Contact Cathy Miller, Marshall's emergency preparedness officer, at 544-3131 for more information.

SERVIR

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Space Science and Technology Center in Huntsville. SERVIR monitors the environment of Central America. It helps track and combat wildfires, improves land use and agricultural practices, and helps local officials respond faster to natural disasters.

Developing SERVIR was a full-time job for Irwin, including many months on assignment in Central America. What do you do in your spare time so far from home? With the help of community residents, Irwin built a playground and a library in San Andres. "I worked on the projects before and after work and on weekends," says Irwin, "just as other people spend time on their hobbies at those times."

But it is Irwin's "real" work with SERVIR that makes contributions reaching far beyond the community level to the whole of Central America.

"SERVIR has brought together a lot of different people from a lot of different backgrounds to create the kind of team needed to help solve very complex issues and provide potentially life-saving solutions to local decision makers and stakeholders," says John Horack, manager of Marshall's Science & Mission Systems Office, where SERVIR technology is developed and tested.

SERVIR's supercomputer at the Water Center for the Humid Tropics of Latin America and the Caribbean, or CATHALAC, in Panama City, Panama, integrates data from a variety of sources and displays a real-time map of crisis points. At a glance, decision makers can see where rain will fall, where flooding will occur, the location of forest fires, hurricanes, tornadoes — pretty much anything nature can dish out. CATHALAC then warns residents.

SERVIR also takes a global approach to environmental challenges by supporting the 10-year plan for implementation of the Global Earth Observation System of Systems, or GEOSS, which was adopted by the European Commission and more than 70 governments worldwide.

GEOSS's main purpose is to foster cooperation and integration among countries by pooling Earth observation tools and data for the benefit of all. Because of SERVIR's positive impact in Central America, GEOSS recently adopted SERVIR as their template for how to meet GEOSS goals. At the organization's recent Ministerial Summit in Cape Town,

South Africa, which was attended by representatives of more than 70 nations and more than 50 international organizations, SERVIR was recognized as a "GEOSS Early Achievement."

What's the secret to SERVIR's success? It's not "what" but "who" — namely, Irwin and what he calls the "dream team."

These behind-the-scene "wizards" include administrators, scientists and technicians like, at CATHALAC, Director Emilio Sempris, Emil Cherrington and Francisco Delgado; and, at the Marshall Center, Burgess Howell, Robert Griffin and Jason Arnold.

The CATHALAC team members are in charge of day-to-day on-site operations: gathering and processing the satellite data, combining it with ground observations, and getting the results quickly into the hands of national environmental management and disaster response leaders. Team members at Marshall's test-bed facility view SERVIR data at the same time as their Central American counterparts view it and play key roles in supporting and coordinating SERVIR projects.

"I'm involved at several different levels within SERVIR," says team member Griffin. "I help coordinate among institutions in a country as well as with SERVIR and its partners in the United States and abroad. As with everyone involved with these projects, I help create products to solve problems in the event of a natural disaster."

All of the SERVIR team members will help achieve the next important step — geographic expansion. NASA is extending SERVIR's life-saving benefits to Africa and the Caribbean. SERVIR's flexibility and adaptability make it perfect for meeting the new challenges of these geographic areas, helping NASA and its partners bring global technology to the grass roots level.

"This is an extremely exciting time to be a part of this project," says Griffin. "Right now, I'm working to deploy SERVIR in the Dominican Republic. Most recently we brought together radar imagery and other information to help the Dominican Republic's government respond to extensive flooding in the wake of Tropical Storm Noel."

Says Irwin of Griffin and other members of the team, "all of these people are indispensable to all that we've done and will continue to do. Without them, it would be impossible."

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

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