



MARSHALL STAR

Serving the Marshall Space Flight Center Community

Dec. 17, 2009

Marshall CFC drive ends with \$668,445

Contributions surge past 2009 goal; Tennessee Valley CFC also meets target

By Rick Smith

The Marshall Space Flight Center concluded its annual Combined Federal Campaign with \$668,445 in pledges and donations -- handily surpassing the center's \$625,000 goal for 2009.

The CFC fundraiser ran from Sept. 30 to Dec. 11.

Nearly 500 Marshall team members



took part in 65 Community Service Days events -- volunteering their time and energy to support a variety of charitable organizations that provide care and essential services to senior citizens, hospital patients, disadvantaged and disabled children, the homeless and more. More than 280 Marshall workers took part in 12 bus tours, visiting many

of the charitable institutions and care facilities in the Huntsville area to see firsthand the difference CFC funds make in countless lives.

"I could not be prouder of our work force," said Marshall Center Director Robert Lightfoot. "The hard work and dedication of our team is an inspiration to me every day. At this time of year, I'm also heartened to recall that the charitable spirit of the Marshall team matches our work ethic pound for pound."

Irene Taylor, CFC executive chairperson for the 2009 campaign, concurred. "At a time when fiscal

See CFC on page 5

Christmas spirit: Making a difference with 'Bikes or Bust'

Normally at Christmastime most of us think about the giving of gifts, and the eating of wonderful food. This is not the case for IBEW Local 558 Electricians on the Center Operations Support Services Contract at the Marshall Space Flight Center.

Each year the electricians take up money to buy their supervisors and foremen a gift, along with providing an in-house catered dinner for themselves. But not this year! The traditional collection of money was pooled and 18 bicycles were bought and donated to the



"Bikes or Bust" Program, sponsored by radio station WZYP in conjunction with the U.S. Marine Corps. The program distributes bicycles to needy children at Christmas.

"We just wanted to do our part in helping less fortunate children in the community and are really proud to be able to do a small part," said a spokesman for the group.

Director's Corner

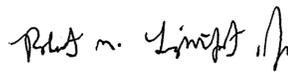
Wishing you and yours a joyful holiday!

Season's Greetings! The holidays are here, and Caroline and I want to wish all of you a safe and happy holiday. As we all gather around the dinner table to enjoy the company of family and friends, let's take the time to give thanks for the many blessings of the year just passed.

We are very blessed to live in a community that reaches out in compassion to help others in need. We also need to remember all the brave men and women in uniform

serving our country in lands far from home this holiday season. You're in our thoughts and our prayers. We thank you for the greatest gift of the season – for protecting our nation and safeguarding the freedom we all hold dear.

Enjoy the season, get some rest – and I'll see you all after the New Year!



Robert Lightfoot
Center Director



Unplug, turn off, conserve

Marshall Center has kept focus on energy-saving efforts

By Megan Norris Davidson

What would you do if you went to the mailbox, and inside was a \$22 million utility bill? That's how much the Marshall Space Flight Center spent on energy costs – water, electric, natural gas, steam and sewage – in fiscal year 2009.

To reduce those expenses, Marshall's Energy Efficiency Team is encouraging those who work at the center to remember one important practice: Turn it off.

"Conserving energy and water across the center can prove to be environmentally and economically profitable for all," said Cedreck Davis, energy and water program manager for the Facilities, Operations and Maintenance Office, part of Marshall's Office of Center Operations. "If everyone unplugs everything they have control of around their offices, such as coffee pots, computers and heaters, it could potentially save the center hundreds of dollars per day."

Marshall's Energy Efficiency Team – a group of more than two-dozen people

representing organizations across the center – evaluates and implements energy and water conservation strategies and projects to comply with government guidelines, and promotes integration of energy and water conservation practices into the center's culture. The team also seeks out sustainable energy and water management technologies to enhance present and future environmental conservation.



Marshall has a five-year energy and water management plan designed to meet the mandated requirements of Executive Order 13423, "Strengthening Federal Environmental, Energy and Transportation Management." The order requires all federal centers and agencies to reduce energy consumption by 3 percent each year and water consumption by 2 percent each year.

NASA Headquarters' Environmental Management Division reviews each center's

energy and water management program every three years. Marshall received good scores for its most recent functional review in September 2007, and will undergo another review in August 2010.

"The success of these reviews is mainly due to the cooperation of all employees at the center," Davis said. "Teamwork is the key."

Visit the Energy Efficiency Team's Web site at <http://energyandwater.msfc.nasa.gov/index.html>. The site provides tips on water and energy conservation in the home and work place, a list of utility costs for each Marshall Center building and related energy conservation links. The site also has a section where team members can submit ideas about how the center can conserve energy.

For more information, contact Davis at 544-3221 or Rhonda Truitt, an SEI employee supporting Marshall's Facilities Management Office, at 961-3883.

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

NASA Technology Investment Program funds innovative projects at Marshall Center

By Megan Norris Davidson

Marshall Space Flight Center engineer Martin Volz had a project in mind. He wanted to develop a high-voltage grid for use in a solar wind plasma instrument for the upcoming Solar Probe Plus mission. It will measure the properties of the sun from a distance of less than 10 solar radii – a unit of length used to express the size of stars and equal to the current radius of the sun.

With help from NASA's Technology Investment Program, Volz will receive more than \$250,000 to turn his plans into more than just an idea.

The Technology Investment Program is designed with twin goals in mind: to foster the development of emerging in-house technologies that need an infusion of resources to advance their potential; and to enhance each NASA center's capabilities to support the agency's current and future missions.

"I am grateful that NASA has a program to develop new ideas to a sufficient level of maturity so they can be used to pursue new business," Volz said. "With the funding, these grids can be created and tested, which hopefully will enhance our chances of proposal selection and participation on the Solar Probe Plus mission."

The Marshall Center's program is overseen by the Technology Investment Advisory Committee, a subcommittee

of the Strategic Planning Council. Led by Todd May, Marshall's special assistant to the director, the Technology Investment Advisory Committee evaluates proposals for potential funding.

Committee members include Dennis Boccippio, manager of the Business Planning & Integration Office in Marshall's Office of Strategic Analysis & Communications; Helen McConnaughey, manager of the Shuttle Propulsion Office's Propulsions Systems Engineering and Integration Office; Joe Letsinger, manager of Science & Mission Systems' Program Planning & Control Office; Pam Caruso, manager of the Engineering Directorate's Engineering Technical Management Office; and Richard Tyson, a research scientist for Ares Projects.

The committee had approximately \$2 million to allocate for the fiscal year 2010 technology investment budget. Forty-nine proposals were submitted for consideration. Volz and eight other Marshall Center scientists and engineers who submitted proposals were awarded funds in October for projects in the areas of space and Earth science and lunar systems.

Herman Fitzgerald, a management support analyst for the Business Planning & Integration Office, hopes this year's projects will be just as successful as those from fiscal

year 2009. "The Marshall Center committed \$5.2 million on 10 projects in 2009, and captured \$8.3 million in contributions from outside the center," Fitzgerald said. "The figures show that the Technology Investment Program not only gives our employees the opportunity to work on projects that are of great interest to them, but which also benefit the center and the agency in improving technology to further space exploration."

All Marshall team members are encouraged to apply for Technology Investment Program funding. The investment focus for the proposals must provide return on investment on a mid-term timeline of three to five years, or a long-term projection of five or more years. Proposals should align with one or more market segments which include future transportation; mission integration and operations; environmental control and life support systems; lunar systems; and space and Earth science. The identified principal investigator for each proposal must be a civil servant.

The next call for proposals for fiscal year 2011 will be offered in the May-to-June 2010 timeframe. An announcement will be posted on Inside Marshall. For more information about the program, contact Fitzgerald at 544-2766.

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

Marshall Star, Daily Planet to take break for holiday season

This is the year's last issue of the Marshall Star, printed 50 times each year. The Star will not publish for two weeks during the holiday season. Publication will resume Jan. 7, 2010, with a special year-in-review edition, highlighting the Marshall Space Flight Center's 2009 accomplishments.

Classified ads still may be submitted during the weeks the Star is not published. They will resume in the Jan. 7 issue.

The Daily Planet will cease publication Dec. 23 and resume Jan. 4.

NASA and contractor team develop one fast satellite

By Kimberly Newton

Environmental testing of the Fast, Affordable Science and Technology Satellite, or FASTSAT-HSV01, has been completed successfully. FASTSAT-HSV01 is a unique platform that can carry multiple small instruments or experiments to low-Earth orbit on a wide range of expendable launch vehicles for a fraction of the cost traditionally required for such missions. The satellite or "bus" will carry six small payloads, including three technology demonstration experiments and three atmospheric research instruments.

The recent environmental tests will ensure before actual flight that the satellite can withstand the rigors of liftoff and the extreme thermal conditions of space.

"This is a significant accomplishment for the team," said FASTSAT-HSV01 Project Manager Mark Boudreaux at the Marshall Space Flight Center. "From the beginning we've been on a very ambitious schedule and in just 10 months we have designed, developed and tested the satellite in a simulated space environment."

In the past month, engineers at the Marshall Center subjected the spacecraft to the vibration levels of launch, electromagnetic emissions and thermal vacuum conditions of space.

Nanosail D – a technology experiment to demonstrate deployment of a compact solar sail boom system from FASTSAT – will be the first solar sail deployed demonstrating FASTSAT's ability to launch a nanosatellite into space. Nanosail D was built and is managed at the Marshall Center with support from NASA's Ames Research Center in Moffett Field, Calif.

The other two technology experiments include the Threat Detection System and the Miniature Star Tracker, both managed by the Air Force Research Lab at Kirtland Air Force Base, N.M.

In addition, the spacecraft carries three atmospheric instruments built at



FASTSAT-HSV01 is a unique platform that can carry multiple small instruments or experiments to low-Earth orbit.

NASA's Goddard Space Flight Center in Greenbelt, Md., in partnership with the U.S. Naval Academy in Annapolis, Md. The instruments include the Thermosphere Temperature Imager, designed to measure spacecraft drag and other flight characteristics; the MINI-ME, a low-energy neutral atom imager that will detect neutral atoms formed in the plasma population of the Earth's outer atmosphere to improve global space weather prediction; and the Plasma and Impedance Spectrum Analyzer, a device that will test a new measurement technique for the type and density of thermal electrons in the ionosphere – which can interfere with radio-base communications and navigation.

FASTSAT-HSV01 and all six experiments/instruments flying on the

STP-S26 multi-spacecraft/payload mission have been manifested for launch in 2010 and have been approved by the U.S. Department of Defense Science and Experiments Review Board. The STP-S26 mission is executed by the Department of Defense Space Test Program at the Space Development and Test Wing at Kirtland Air Force Base, which is a unit of the Air Force Space and Missile Systems Center.

The payloads on the FASTSAT-HSV01 mission are cosponsored by NASA and the Department of Defense. The satellite was created at the Marshall Center with the Von Braun Center for Science and Innovation, in partnership with Dynetics, a corporate partner. *Newton is a public affairs officer in the Office of Strategic Analysis & Communications.*

margins are narrowing and belts are tightening nationwide, the Marshall family recognized that times like these are when the need is greatest -- throughout our community and across the country," she said. "Once again, our team opened their hearts and gave generously. I'm incredibly pleased to work with the men and women of the Marshall Center."

The Marshall Center's CFC effort is part of the Tennessee Valley Combined Federal Campaign -- a joint effort that also includes the Army's Aviation and Missile Command and other federal agencies at Redstone Arsenal and in surrounding Alabama and Tennessee counties.

The Tennessee Valley CFC also passed its 2009 goal, set at \$2 million. According to Donna Johnson, local federal coordinating committee chairperson, combined contributions to date -- including the Marshall Center's pledges and donations -- total \$2,093,000.

Final totals for the Tennessee Valley CFC effort are expected by the end of the year.

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

By the close of the Combined Federal Campaign on Dec. 11, the Marshall Center team pledged \$668,445. The center's goal for the 2009 fundraiser was \$625,000.



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, Jan. 7, is 4:30 p.m. Thursday, Dec. 31.

Miscellaneous

- Four radial Good Year tires, #23570R15, \$300; two General tires #21570R15, \$30 each. 722-9989
- Treadmill, \$100 obo. 541-9071
- Longaberger cake basket, 12x12, lifter, print fabric liner, medium stain, \$50. 837-6776
- Snapper high-vacuum riding mower, 30-inch cut, needs new 12.5-hp engine, \$100. 325-0085
- Princess cut white gold bridal set, 1.01 carats, jeweler will confirm value, \$8,000 obo. 604-9790
- Pflatzgraff Folkart dishes, 71 items, service for 11 settings, \$300. 837-0656 or contact bwalls@pobox.com
- Flexsteel sofa, floral design, \$100. 837-5035 leave message

- Heavy gauge 10'x10'x6' chain link dog kennel, custom built for black Lab, \$450 obo. 901-606-3306
- Kasson pool table, fruitwood, Queen Anne feet, leather pockets, all accessories, \$2,500. 880-6563
- Gift certificates for house cleaning. 777-8595
- Browning Ambush compound bow, 60-pound draw wt, \$100. 776-7399
- Weights, bench, treadmill, exercise bike, universal machine, steel dumbbells, \$800 obo or by piece. 755-6020
- 9-foot pre-lit Christmas tree, \$175; Panasonic miniDV camcorder, \$125. 337-7943
- Fisher Price Smartcycle, Magic School Bus and Spongebob educational games, \$60. 417-7275

Three display cases, locks, lights, glass doors, \$175 each. 233-5599

Folding wire dog crate, 30Lx21Wx24H, \$40. 777-1810

Fender seven-piece drum set, \$500. 227-0339

Poulan Pro 19.5HP riding lawn mower, 42-inch cut, \$1500 obo. 656-2557

Mirrors, three boxed, 3/8", 42x36; two used, mounting holes, 1/4", 48x54, 48x27. 777-3989

Vehicles

2008 Yamaha VSTAR 650 Silverado, black and chrome, 493 original miles, \$5,500. 586-0758

2008 Honda Odyssey EX-L, MP3/Multi CD, sunroof, leather, 18k miles, \$26,900. 714-3769

2005 Lexus ES330, silver, leather, 99k miles, \$15,000 obo. 651-8965

2004 Honda 350cc, 4WD, electronic shift, yellow, 225 hours/1300 miles, \$3,000 obo. 509-2524

2003 Chevy Cavalier, five speed, 30 MPG, 61k miles, \$4,000. 651-1911

1992 GMC Diesel white pickup, 150k miles, \$3,500. 379-4010

Wanted

F-style Mandolin with great tone. 431-8665

Trampoline, safety net enclosure; Lego sets or loose building blocks. 464-8933

Used Bowflex or Soloflex in good condition. 777-8229

Free

Two adult female indoor cats to good home, together since kittens, spayed. 883-7322

Found

Quantegy precision magnetic tape; Palm V PDA, Dec. 1, Building 4600; black leather belt for a leather coat, Dec. 9, ramp to Building 4200. 544-4680

Cash in Building 4200 area. 544-7700

Lost

Black Motorola KRZR K1 clamshell cell phone, possibly at Building 4203. 837-0656

'Focus on Marshall' highlights Ares I-X launch

By Lori Meggs

The launch of the Ares I-X test flight is featured on the December episode of "Focus on Marshall" – the Marshall Space Flight Center's video program.

The "Focus on Marshall" team traveled to the Kennedy Space Center, Fla., in October to capture all the events surrounding the historic flight. The test flight lasted about six minutes -- from launch from the newly modified Launch Complex 39B -- until splash down of the rocket's booster stage nearly 150 miles down range.

Viewers will see the launch and hear Marshall personnel

discuss preparations for the flight of the 327-foot-tall Ares I-X. The flight offered an opportunity to test and prove new hardware, facilities and ground operations – important data for future space vehicles.

"Focus on Marshall" will air on Marshall TV Dec. 17, 29 and 31 at 11 a.m., noon and 1 p.m. The series is available each month on NASA TV, Inside Marshall and on the NASA Portal.

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

And to all a good flight



The Marshall Space Flight Center participated in WAAY TV's 33rd annual Christmas Parade Dec. 5 in downtown Huntsville. Marshall's Exhibits team in the Office of Strategic Analysis and Communications decorated the float, at left, which featured Santa Claus, lots of lights and a reindeer nose on the space shuttle's external tank.

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