



# MARSHALL STAR

Serving the Marshall Space Flight Center Community

Sept. 15, 2005



NASA/SSC

Relief workers from the Marshall Center, including Kevin Plank, left, human resources specialist in Marshall's Office of Human Capital, volunteered to go to Stennis Space Center to aid the recovery process, orchestrating requests for goods, supplies and hardware from other NASA centers nationwide.

## Marshall Center continues to aid recovery of Stennis, Michoud

The Marshall Center continues to coordinate NASA resources nationwide to deliver aid and supplies to people at two Agency facilities recovering from Hurricane Katrina.

Power and communications have been restored at Stennis Space Center, and commercial power is expected to be restored to the Michoud Assembly Facility this week. Communications with Michoud continue to be maintained by satellite phone while commercial phone service in that area is being restored. Trucks continue to be dispatched from the Marshall Center every few days, delivering requested supplies and materials to both Stennis and Michoud, hit hard by Katrina Aug. 29.

Late last week, recovery teams established a land route to

See *Katrina* on page 4

## Marshall astronomers now among the 'stars'

By Lori Johnston Meggs

How do you get an asteroid named after you? Just ask two Marshall Center astronomers, whose names are now among the "stars."

Dr. Bill Cooke and Dr. Rob Suggs have learned that two big "rocks" orbiting the Sun nearly 300 million miles away between Mars and Jupiter — and posing no threat to Earth — now bear their names. The scientists were notified of the honor recently by the International Astronomical Union's Minor Planet Center at the Smithsonian Astrophysical Observatory in Cambridge, Mass.

Teams that discover an asteroid can



Emmet Given/MSFC

See *Stars* on page 3

Dr. Rob Suggs, left, and Dr. Bill Cooke.

# Classic cars, chance for airline tickets are 'opening act' for Combined Federal Campaign kickoff Sept. 20

By Sherrie Super

A chance to win free airline tickets, see vintage cars and enjoy classic tunes from the 1960s and 1970s are three good reasons to attend the Combined Federal Campaign Kickoff. Yet the main attraction, say campaign organizers, is the chance to help people in our local community.

The kickoff for the campaign — an annual effort by federal employees and military personnel to raise money for local charities — will be Tuesday, Sept. 20, at the NASA Picnic Area.

The celebration begins at 10 a.m., followed by an agency fair from 11 a.m. to 2 p.m. The fair will feature more than 50 local charitable organizations that will benefit from this year's campaign.

"I think this year's going to be a real challenge," said Rosa Kilpatrick, the Marshall Center's local federal coordinating committee member for the Tennessee Valley Campaign. "But I know our employees will live up to our reputation for supporting our community."

Marshall's fund-raising goal is \$575,000, a substantial percentage of the \$1.8 million goal for the entire Tennessee Valley 2005 Combined Federal Campaign.

The kickoff event will give Marshall employees — along with participants from Redstone Arsenal and the remaining 34 area federal agencies — an opportunity to learn about the charities, attend a Corvette car show, enjoy refreshments and register for door prizes. The grand prize is two free airline tickets to any location in the continental United States.

The campaign theme is "Compassion In Action," and Marshall employees are encouraged to wear their Combined Federal Campaign T-shirts or attire reminiscent of the 1960s or 1970s. A disc jockey will spin classic tunes from that era, and organizers are seeking Marshall employees to showcase their talents for a good cause — entertaining fellow kickoff attendees.

"Whether an employee is a singer, dancer, comedian or mime, we're hoping they'll lend their talents to a good cause," said Kilpatrick, adding that Marshall employees willing to provide entertainment should e-mail [Rosa.M.Kilpatrick@nasa.gov](mailto:Rosa.M.Kilpatrick@nasa.gov) by Monday, Sept. 19.

In case of inclement weather, the event will take place



Doug Stoffer/MSFC

Representatives of federal agencies participating in the Tennessee Valley Combined Federal Campaign gather during a recent meeting to discuss the campaign kickoff.

Sept. 27 in the Bob Jones Auditorium in Building 5304 in the Sparkman Center at Redstone.

The writer, an ASRI employee, supports the Public and Employee Communications Office.

## Kickoff, Agency Fair bus stops

For the Sept. 20 Combined Federal Campaign kickoff and agency fair, buses will begin making round trips to the Picnic Area from 9 a.m. to 2:30 p.m. Taxi service will be available for employees who are not located on a bus route. A van with a chair lift also will be available by special request. For taxi service or special transportation requests, call 544-TAXI.

Buses will be available at the following entrances/exits at Marshall buildings:

### Bus 1

- 4666 Main
- 4663 East
- 4612 West
- 4610 Northeast
- 4487 South Main

### Bus 2

- 4493 Main
- 4481 West End
- 4471 East End
- 4705 South
- 4708 Northwest

### Bus 3

- 4200 Main
- 4203 North Side



# Daughter of Marshall employee helps kick off charity drive

By Skip Vaughn

A child's giggle can lighten the mood of any office. And this child's laughter was inspiring, too.

Lindsey Jones, 9, was diagnosed with a rare form of cancer, rhabdomyosarcoma, one month before her fourth birthday. She lost her eyesight because of the cancer.

Lindsey will sing the national anthem at the kickoff for the Tennessee Valley Combined Federal Campaign on Sept. 20 at 10 a.m. at the NASA Picnic Area.

"I feel honored," Lindsey said of singing at the event.

She met Redstone post commander Maj. Gen. Jim Pillsbury and his wife, Becky, during a recent visit to his office. Pillsbury, chairman of the Tennessee Valley Combined Federal Campaign, gave her a book in Braille and a doll. "I think you're just spectacular,"

he told her.

Lindsey sang "God Bless America" at a Huntsville Stars baseball game a few weeks ago. She's a fourth-grader at Central Elementary in Madison County.

She resides in Gurley with her parents, Keith and Terry Jones. Keith works for Coca-Cola and is in the Navy; Terry is a management support assistant at the Marshall Center.

"She's a cancer survivor," Terry said. "She's very excited to be here."

Lindsey was treated at Children's Hospital in Birmingham where she underwent radiation and chemotherapy for a year. She has been in remission for four-and-a-half years. She takes dance, is in the Brownies, plays the keyboard and autoharp, and loves to sing.

She was a recipient of the Make-A-Wish Foundation and Give Kids the World.



Skip Vaughn, Redstone Rocket

**Maj. Gen. Jim Pillsbury, commander of the Army Missile Command and Redstone, listens as Lindsey Jones reads the book in Braille that he gave her.**

Through these charitable organizations, she went to Disney World in Orlando in October 2001.

*The writer is the editor of the Redstone Rocket.*

## Stars

*Continued from page 1*

submit any name for it to the Minor Planet Center. The center distributes lists of newly named asteroids every two months. The team that discovered the Cooke and Suggs asteroids was familiar with the scientists' work for NASA in the field of meteor showers.

"It's kind of cool knowing there's a six-mile-wide rock in our solar system with my name on it," says Bill Cooke, a meteor shower forecaster in Marshall's Engineering Directorate. "I don't own it," he says with a laugh, "but someday maybe I can visit there."

Since its discovery in 1998, Cooke's asteroid was simply known as 15058. It's now officially known as "Billcooke." Suggs' asteroid, discovered in 2000, was dubbed "Suggs," since no other

asteroid shares his name. "Suggs" is about three miles wide, but has a lower number than Cooke's — 14727 — which, according to astronomical tradition, is said to be more prestigious. "I don't mind that Suggs' asteroid has a lower number," says Cooke. "Mine is larger and it matches my personality — far out

and eccentric."

There's no rivalry between these astronomers. After all, they grew up in Rossville, Ga., and have been friends since middle school. But they never dreamed they'd end up together again working for NASA.

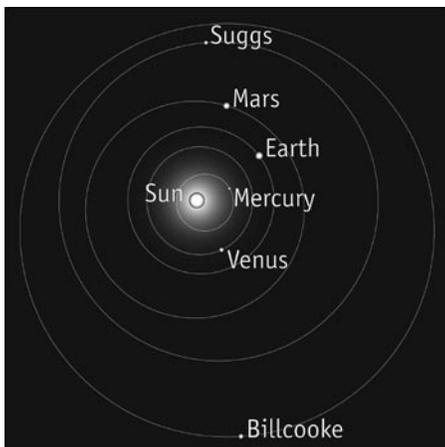
Suggs is a planetary astronomer, joining Marshall in 1998 with the meteoroid space environments group. Cooke's expertise is in astrometry — the study of star and planet positions in the solar system. He came to Marshall in 1995 as a contractor with Huntsville-based Physitron, Inc., and joined the civil service in 2004. Today, Cooke and Suggs work together in the Spacecraft and Vehicle Systems Department of Marshall's Engineering Directorate.

Their names are well-known in the astronomical community. In 2001, Cooke developed a method for meteor shower forecasting called the meteor stream model. The computer model is used to forecast meteor shower activity specific to the orbits of spacecraft such as the Space Shuttle and NASA's Chandra X-ray Observatory. Data gleaned from Cooke's system is used to protect these spacecraft from potentially damaging meteoroids.

To test the model's accuracy, Suggs waits for clear, dark nights — the best to view meteors — and joins Cooke and others to observe the predicted meteor showers.

Their predictions and accuracy led to their names on asteroids. "The idea there is a huge rock flying around in the asteroid belt with my name is a romantic notion," says Suggs. "I see it as a family heirloom that can be passed on through generations."

*The writer, an ASRI employee, supports the Public and Employee Communications Office.*



The "Suggs" and "Billcooke" asteroids orbit the Sun nearly 300 million miles from Earth, between Mars and Jupiter.



NASA/SSC

Marshall Center Director David King hauls a box of relief supplies off a NASA jet at Stennis Space Center. King joined NASA Administrator Mike Griffin last week for a tour of Stennis and the Michoud Assembly Facility, where recovery operations from Hurricane Katrina continue. The Marshall Center is coordinating NASA's relief and recovery efforts at both sites.



NASA/SSC

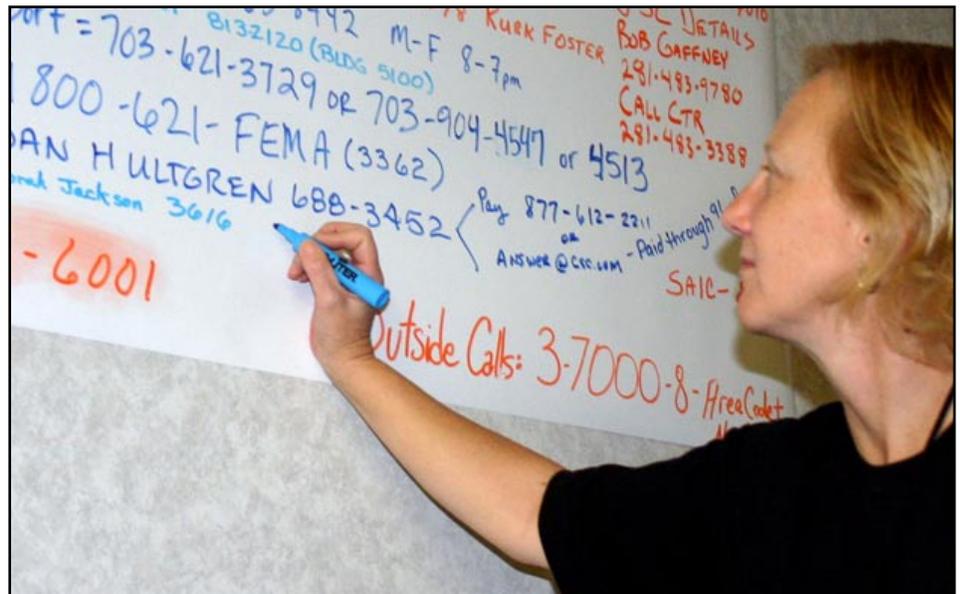
Volunteer relief worker Ann Matisak, an institutional resources liaison in the Chief Financial Office at Marshall, finds temporary quarters at Stennis as recovery efforts continue there in the wake of Hurricane Katrina.

### Relocation Assistance Center helping Stennis, Michoud employees

The Marshall Center last week opened a Relocation Assistance Center to help Stennis and Michoud workers — dozens of whom are expected to temporarily move with their families to the Huntsville area.

The Relocation Assistance Center is providing a variety of information and assistance to NASA employees and contractors. The support center, in Building 4200, Room G-13, can help evacuees and their families resolve financial concerns, find temporary or long-term housing, arrange physician appointments, seek crisis counseling and child care services, and obtain transportation. The relief organization will quickly help Stennis and Michoud employees obtain office space, security badges and vehicle decals.

For more information, Stennis and Michoud employees and contractors may call the Relocation Assistance Hotline at 877-470-5240.



NASA/SSC

Susan Gentile, a management analyst in the Office of Human Capital at Marshall, updates contact information maintained during recovery operations at the Stennis Center. Gentile is one of numerous Marshall Center employees who volunteered to travel to Stennis to support recovery operations there.

## Katrina

*Continued from page 1*

Michoud, considerably easing the logistics of resupplying the facility. Land access enables NASA to transport supplies, materials and relief personnel to Michoud by bus or van, instead of the multiple daily helicopter flights conducted during the first weeks of the recovery effort.

Employees of the Marshall Center continue to volunteer as relief workers at Stennis and Michoud, rotating to the sites on a regular basis. The volunteer program is expected to continue for the foreseeable future.

Marshall also is partnering with Ames Research Center to ensure a steady supply of potable water to the Michoud facility to be used for showers and in bathroom facilities. Rotating teams of electricians, mechanics, safety engineers and support personnel

also are traveling to both sites to participate in site cleanup and restoration of power and operations.

Last week, Marshall opened a Relocation Assistance Center for displaced Stennis and Michoud employees and contractors, to speed up the workforce placement process and to provide housing, medical care and other necessities for their families. A food drive is successfully yielding non-perishable goods to be sent to the NASA sites, as well as other parts of the Southern U.S. coast devastated by Hurricane Katrina.

NASA has a toll-free number (888/362-4323) for recorded updates about general conditions at Stennis and Michoud. For updates on the Web, visit <http://www.nasa.gov/hurricane>.

# Katrina aftermath: How you can help

As Katrina recovery efforts continue, the Marshall team can help in numerous ways.

**NASA Family Assistance Fund:** This fund provides a grant of up to \$400 and an interest-free loan of up to \$600 for people living in declared disaster areas. Employees interested in contributing to the fund may do so by mail, by payroll deduction, by phoning 800-338-0755 or by visiting the FEEA Web site <http://www.feea.org/nasa.shtml>. For more information, call Martin Howard at 202-358-1176.

**Food Drive:** Employees may bring non-perishable food items to any of the "Katrina Relief Drive" food bins in buildings 4203, 4487, 4493, 4570, 4610, 4612, 4619, 4666, 4708, 4711, 4732, and at the National Space Science and Technology Center. The central drop-off point is Bldg. 4316. If any bin is full, please phone the individual listed on the bin for pickup information.

**Relocation Center:** A Relocation Assistance Center has been established

at Marshall to assist NASA employees and contractors who evacuated, or plan to evacuate to Huntsville from Stennis and Michoud. The center, in Building 4200, Room G-13, can help evacuees and their families resolve financial concerns, find temporary or long-term housing, arrange physician appointments, seek crisis counseling and child care services, and obtain transportation. The center will quickly help Stennis and Michoud employees obtain office space, security badges and vehicle decals. For more information, Stennis and Michoud employees and contractors may call the Relocation Assistance Hotline at 877-470-5240.

**Call Center Support:** A Marshall team is staffing Call Center telephones to talk with NASA employees, family members and others seeking hurricane recovery information or physical or emotional assistance. To volunteer in the Call Center on a rotating basis, please call Lynn Motley at 544-7549 or Brandi Thomas at 544-1035.

**Home-Sharing:** Many displaced Stennis and Michoud workers and their families will relocate to the Huntsville area until recovery operations are complete. Marshall employees are invited to consider volunteering to house individuals or a family until more permanent housing can be made available. If interested, please call the EOC at 866-836-7918 between 7 a.m. and 4 p.m. You also may register online at <http://www6.jsc.nasa.gov/jscteam/housing/signup.cfm>.

**LIFESouth/Red Cross Blood Drives:** Blood donation is urgently needed in the aftermath of Hurricane Katrina. Visit the LIFESouth Community Blood Center or American Red Cross in Huntsville. See "Inside Marshall" for details, or call Rick Wallace at 544-8885.

Volunteers are needed to support additional Marshall relief activities. Visit: [http://www1.msfc.nasa.gov/INSIDE/announcements/katrina\\_volunteer\\_support.html](http://www1.msfc.nasa.gov/INSIDE/announcements/katrina_volunteer_support.html).



NASA/SSC

Security personnel from the Marshall Center — including Owen Johnson, manager of Marshall Protective Services, front, and Tom Dolleslager, a Marshall investigator — were among the first to arrive at Stennis in Katrina's aftermath. Marshall continues to send volunteer security personnel, engineers, electricians and support crews to Stennis and to Michoud Assembly Facility.



NASA/SSC

Stennis Emergency Operations Center workers from various NASA centers around the nation address issues related to restoring power and operations at Stennis and Michoud.

# Mission Operations Laboratory transitions to faster, less expensive computer system

By Lori Johnston Meggs

The Marshall Center's Mission Operations Laboratory has completed a three-year cost-saving initiative for its computer systems, with upgrades at the Payload Operations Center — the U.S. command post for science activities on board the International Space Station.

The recent transition to Linux servers, coupled with an earlier upgrade to Windows desktop systems, significantly increases the speed and efficiency of gathering and disseminating Space Station scientific data. These low-cost systems replaced outdated, lower performance and more expensive Unix servers and workstations.

Every day, these systems monitor and store several billion bits of data from the Space Station, while simultaneously handling time-critical commands to Space Station payloads and serving a diverse community of research scientists located around the world.

"The new architecture enables end users to experience significantly increased application performance, improved system reliability and handle three times the data in real-time, while realizing significant yearly operational cost savings," said Darrell Bailey, chief of the Ground Systems Integration Branch of the Mission Operations Laboratory. "We are the first major NASA control center to complete a

wide-scale operational upgrade to Linux-based technologies. And we are very proud of the work that has been accomplished to get to this point."

The comprehensive upgrades included the integration of commodity-priced PC servers running the Linux operating system; other available open-source technologies; selected commercial vendor software packages; and over three-million lines of custom-developed, control center software to create a robust, secure, flexible and certified architecture supporting human space flight operations.

*The writer, an ASRI employee, supports the Public and Employee Communications Office.*

## Around Marshall

### **'Continuous Risk Management' topic of IEEE seminar Thursday, Sept. 15**

Phillip Brezovic of Hernandez Engineering Inc. will speak on "Continuous Risk Management" at a "Lunch-n-Learn" seminar at 11:15 a.m. Thursday, Sept. 15. The event is sponsored by the Engineering Management Society — a chapter of the Huntsville Section of the Institute of Electrical and Electronics Engineers (IEEE). It will be held in the Engineering Building, Room 258, at the University of Alabama in Huntsville. The event is free and the public is welcome. For more information, call Sonya Hutchinson at 544-3312.

### **Physics Nobel Prize winner to speak at Alabama A&M University Sept. 16**

Dr. Antony Leggett of the University of Illinois at Urbana-Champaign, the 2003 winner of the Nobel Prize in physics, will speak as part of the Eighth Annual Putcha Venkateswarlu Memorial Lecture on Friday, Sept. 16, at 3 p.m. The event will be in the James I. Dawson Auditorium Cooperative Extension Building at Alabama A&M University. His topic is "What can we do with a quantum liquid?" A reception will be held at 5 p.m. in the Clyde Foster Multi-Purpose Room at the university's School

of Business. Both events are free and the public is invited. The Marshall Center and Alabama A&M are sponsors of the event.

### **2005 'Alabama Update' with Gov. Bob Riley will be Sept. 27**

Alabama Gov. Bob Riley will speak at the 2005 "Alabama Update" hosted by the Chamber of Commerce of Huntsville/Madison County on Tuesday, Sept. 27. The event will be at noon in the Von Braun Center North Hall. Tickets are \$30. Reservations are required. Ticket payment must be received by Rosa Kilpatrick in the Government and Community Relations Office by close of business Wednesday, Sept. 21. For details, see "Inside Marshall" or call 544-0042.

### **MARS Tennis Club tournament set for Sept. 17**

The MARS Tennis Club will hold a closed "Hi-Lo" doubles tournament Saturday, Sept. 17. Warm-up begins at 8 a.m. with tournament play beginning at 8:30 a.m. Teams will be formed the morning of the tournament based on players' abilities. Club members who wish to participate should call Amy Hemken at 544-7097.

# 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

Wheelbarrow, \$10; large aluminum tub, \$10.  
256-881-4067

Sony Handycam camcorder batteries, two (2), and battery charger, \$45. 714-3742

Janome 5700 embroidery machine w/memory cards.  
777-3782

Piano, short upright, late 1960s vintage, needs refinishing (partially stripped) and tuning, \$25. 603-5807/Greg

Hot Wheels, 3 storage boxes of 48 each, bought 1993-2000, \$10 per box. 256-757-0469

KDS CRT monitor, 19", \$100. 683-5900

Mossberg 835 3-1/2" pump w/four choke tubes, Realtree Camo; matching slug-barrel & scope, fiber-optic sites.  
256-593-7207

Post-hole driller tractor, 3-point hitch attachment, \$200; water tank, few hundred gallons, \$200. 653-8311

New Playstation, two controllers, memory card, 6 games, \$250. 348-4899

Gateway VX1120, 22" flat screen, 20" viewable, \$100.  
682-4743

PC computer, 533MHz, 17" monitor, printer, speakers, MS Office, \$80. 508-0691

Motorized chair for Handicapped-Ranger II Storm Series, \$1,200. 256-729-1717

Sony PSP Value-pack, Dynasty Warriors game, Spiderman2 movie, 6-month warranty, \$250. 776-6978

Oak finish office computer table, credenza, bookshelves, file drawers, \$75; Two computer desks, \$30 each.  
772-1870

Weimaraner puppy, male, Champion bloodline, 10-weeks, all shots, \$300. 489-8890

Two Longberger baskets: 2003 Blue Ribbon Collection, \$60; 1998 25th Anniversary, \$75. 509-2536

Amana gas pack, 3-ton, \$75; expandable clothes rack, \$20; coat tree, \$10. 852-6952

Matching Futon bunkbed w/mattresses, entertainment center & nightstand, \$275. 751-3766 after 4:30 p.m.

China cabinet, \$225; love seat, \$200; hanging lamps, \$10; stereo, \$75; computer desk, \$75. 534-0939

Glider rocker, \$50; olive sectional sofa, \$500; Oak corner TV cabinet, 36", \$300. 881-2131

Samson 700-watt power amp, rack-mounted dual-channel, dual-fan w/SpeakOn/XLR connectors, \$350. 303-3702/Decatur

Star Wars life-size Yoda figurine w/light stand, \$250.  
256-658-9784

Mustang rear bumper, used, \$45. 722-2821 after 4 p.m.

Beau Soleil tanning bed, 2 yrs. old, 20 new bulbs, 3 months old, facial tanner. 256-586-2994

Navy and white plaid sofa, \$200. 881-0995

New Martin 210 acoustic guitar w/case, \$550. 772-3809

## Vehicles

2001 Nissan Frontier, crew-cab, 4WD, loaded, \$14,000.  
256-434-0073

1973 VW Square-back, orange, new tires, injectors, etc. with spare motor, \$3,800. 722-0777

1999 Lexus ES300, V6, leather, moon-roof, 5-disc CD, 72K miles, rebuilt title, \$9,900. 895-6640

1996 Chrysler Town & Country LXi, green, 97K miles, second owner, leather seats, tow pkg., \$5,500.  
355-6858

1992 GMC Vandura 2500 Hi-top conversion van, 92K miles, fold down rear seat/bed, a/c, \$3,900. 881-8674

1997 Honda Civic Ex, 2-door coupe, 119K+ miles, one-owner, \$4,900. 539-1316

2002 Ford F250 Super-Duty, crew-cab, Lariat, 7.3 diesel, 4x4, 137K mile, white, \$20,000. 256-497-3518

Gulfstream, 36', 30K miles, generator, jacks, VCR, camera, awning, bath, kitchen, bedroom, \$36,000.  
256-931-0177

2002 Nissan Pathfinder SE, 4WD, SUV, 35K miles, \$18,000.  
751-1950/night

1997 Dodge Ram 1500 SLT, bed-liner, tow package, alloy

wheels, 82K miles, \$7,000. 351-8360

1964 Chevy pickup, short-bed, V8, headers, Power glide, \$1,500. 721-6572

2003 VW Jetta, 50K miles, 1.8T, 4-cyl., 30mpg, 5-speed, sliver, leather, sunroof, CD, keyless. 303-4514

2002 Forest River Shamrock travel trailer, 23', w/hitch, slide, queen/double bunk, microwave, gas grill, \$12,000. 230-6846

1988 Ford F150 XLT, V8, 217K miles, auto, power, new tires, \$2,100. 655-9022

1994 Oldsmobile Ciera, automatic, V6, 172K miles, non-smoker, air, all-power, service records, \$800. 837-6797

2001 Ford Explorer Sport, red, automatic, CD player, sunroof, 74K miles, \$7,800. 479-1650

1973 Corvette, 350CID, auto, air, T-tops, matching numbers, white w/black leather interior, \$11,000.  
964-5312

Farmall 100 tractor w/bush hog and other attachments, \$2,800. 895-2823

Honda XL600R motorcycle, licensed for street, low miles, \$950. 683-9364

1997 Cadillac Deville, tan w/leather interior, a/c, am/fm radio, 115K miles, \$5,700. 256-479-8917

2002 Ford Mustang GT, blue w/beige interior, 25,520 miles. 615-794-0509

2005 Toyota Camry, 16K miles, silver, \$16,200.  
256-961-9785

## Wanted

Need handyman to help finish attic. 772-1870 evenings

Three Alabama tickets for Alabama/Florida game, Oct. 1, will accept single ticket. 256-881-3322

Someone to teach private, youth & adult, guitar lessons.  
256-656-8723

Whisper Mill grain mill or Nutri-Mill grain mill. 828-0815

Golf cart in good running condition, prefer one w/cover but will consider others. 256-746-9849

## Free

Kittens, 2 black, 1 yellow, 1 gray. 828-3181

Purple martin gourds and poles. 881-6595

## FEMA seeking disaster relief volunteers

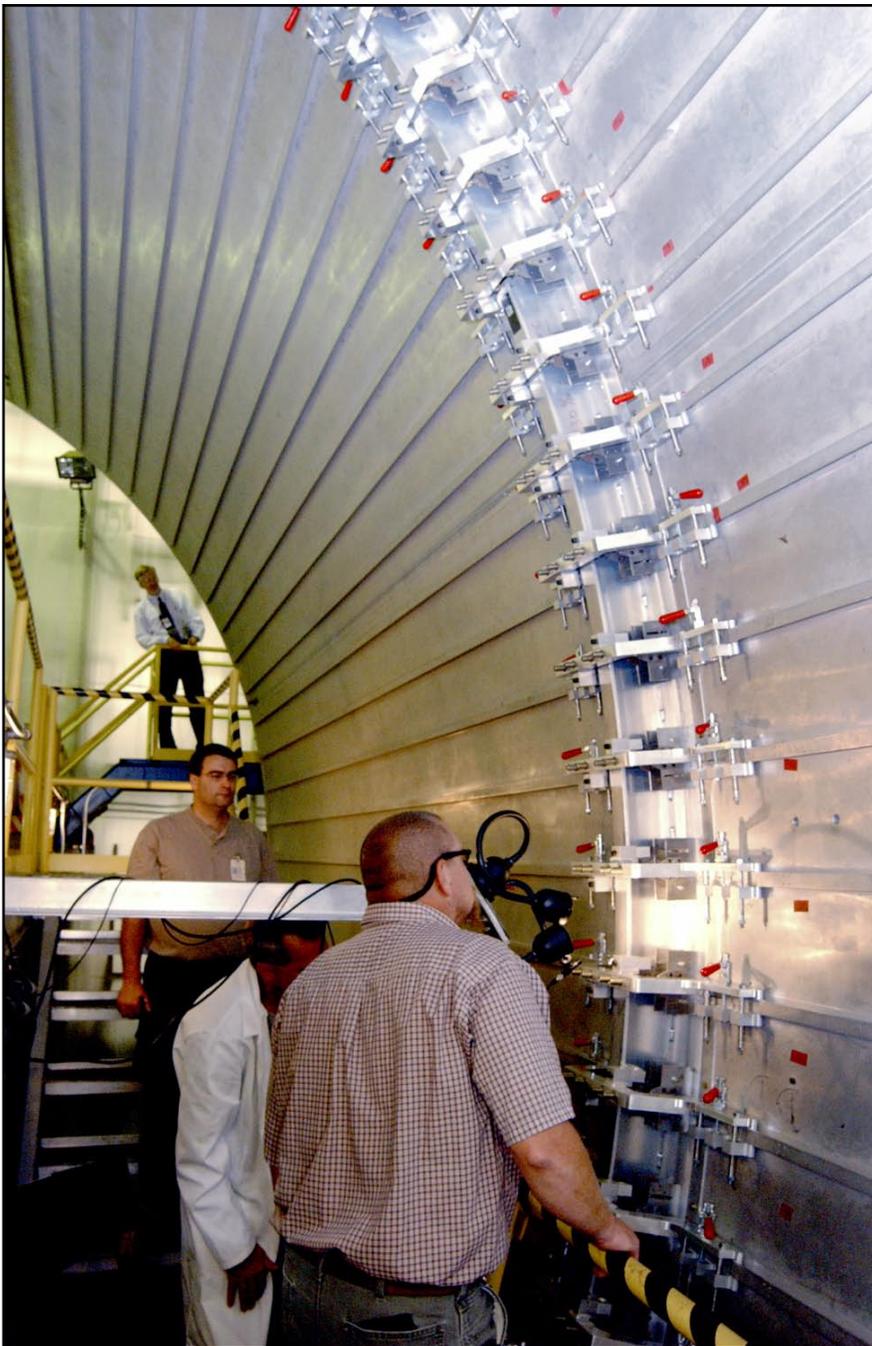
The Federal Emergency Management Agency (FEMA) is leading recovery efforts in the aftermath of Hurricane Katrina. To assist in these disaster relief efforts, the Department of Homeland Security is requesting volunteers from other federal agencies to deploy for field assignments with FEMA on this effort. Field assignments are expected to be 30 days minimum in length.

Employees interested in volunteering should review the information available online at <http://insidenasa.nasa.gov> to ensure they meet all requirements and are capable of meeting the challenge of the working conditions they likely will face in

Mississippi, Louisiana or Alabama.

Interested parties must seek the approval of their supervisor prior to volunteering. Once applicants have determined they meet all requirements and have received the written authorization of their supervisors, they should contact the office of Danny Hightower, Marshall's point of contact for the relief effort, at 544-7496.

Call Chris Cejka in Human Capital Management at NASA Headquarters, 202-358-4781, for more information. Please do not contact FEMA directly.



Emmet Given/MSFC

# Marshall Center demonstrates self-reacting friction stir welding

By Lori Johnston Meggs

The Marshall Center's Engineering Directorate and External Tank Project recently demonstrated the self-reacting friction stir welding process to employees in Building 4707. Friction stir welding is a solid-state welding process that does not melt metal. The demonstration was performed on a full-size weld tool that replicates one used to make circumferential welds — that go around the circumference of a cylinder — on the Space Shuttle External Tank. The self-reacting process is a variation of friction stir weld processes used to join panels and segments of the External Tank. The "self-reacting" aspect substantially reduces the amount and complexity of tooling required. The purpose of the demonstration is to ensure that the process and the tool are ready to be implemented.

*The writer, an ASRI employee, supports the Public and Employee Communications Office.*

**Jeff Hamilton, at the top of the stairs, business development manager for the Marshall Center's Engineering Directorate, watches as Lockheed-Martin employees, counter-clockwise from the top, Chris Sellers, Steve Rainwater and Frank Williams, monitor the friction stir welding demonstration.**

## MARSHALL STAR

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