



MARSHALL STAR

Serving the Marshall Space Flight Center Community

Sept. 11, 2008

Patriot Day 2008

A Proclamation by the President of the United States of America

September 11, 2001, was etched into America's memory when 19 terrorists attacked us with barbarity unequalled in our history. On Patriot Day, we cherish the memory of the thousands of innocent victims lost, extend our thoughts and prayers to their families, and honor the heroic men and women who risked and sacrificed their lives so others might survive.

Since 9/11, we have recognized the threat posed by terrorists to the safety of the American people and worked to protect our homeland by fighting terrorists abroad. We are confronting terrorism by advancing freedom, liberty, and prosperity as an alternative to the ideologies of hatred and repression. Our Nation pays tribute to our courageous men and women in uniform serving around the world and the devoted members of our law enforcement, public safety, and intelligence communities at home who work night and day to protect us from harm and preserve the freedom of this great Nation.

Seven years ago, ordinary citizens rose to the challenge, united in prayer, and responded with extraordinary acts of courage, with some giving their lives for the country they loved. On Patriot Day, we remember all those who were taken from us in an instant and seek

their lasting memorial in a safer and more hopeful world. We must not allow our resolve to be weakened by the passage of time. We will meet the test that history has given us and continue to fight to rid the world of terrorism and promote liberty around the globe.

By a joint resolution approved December 18, 2001 (Public Law 107-89), the Congress has designated September 11 of each year as "Patriot Day."

NOW, THEREFORE, I, GEORGE W. BUSH, President of the United States of America, do hereby proclaim September 11, 2008, as Patriot Day. I call upon the Governors of the United States and the Commonwealth of Puerto Rico, as well as appropriate officials of all units of government, to direct that the flag be flown at half-staff on Patriot Day. I also call upon the people of the United States to observe Patriot Day with appropriate ceremonies, activities, and remembrance services, to display the flag at half-staff from their homes on that day, and to observe a moment of silence beginning at 8:46 a.m. eastern daylight time to honor the innocent Americans and people from around the world who lost their lives as a result of the terrorist attacks of September 11, 2001.

— George W. Bush

'08 Combined Federal Campaign to kick off Sept. 15

The 2008 Combined Federal Campaign Kickoff is scheduled for 10 a.m. Sept. 15 at the Bob Jones Auditorium at the Sparkman Center on Redstone Arsenal. This year's campaign theme is "Give Today, Change Tomorrow."

The guest speaker will be Lee Marshall, founder of Kids to Love Foundation. The foundation, formed in 2004, is a non-profit agency that meets the needs of foster children while they wait for permanent homes.

A fair will follow from 11 a.m. to 1 p.m. at the Sparkman Center parade field. There will be refreshments and door prizes. Buses will be available beginning at 9:15 a.m. to bring Marshall Space Flight Center employees to the kickoff.

For more information, go to <http://cfc.msfc.nasa.gov/kickoff.html>.

NASA administrator to host NASA Update on Sept. 12

NASA Administrator Michael Griffin will host a NASA Update on Sept. 12 at 10 a.m. CDT. The program will be broadcast live from the NASA Headquarters auditorium.

During the program, employees will be able to ask questions from NASA Headquarters and participating NASA centers. Marshall Center employees wishing to ask questions during the NASA Update can do so only from Building 4200, Morris Auditorium.

If you cannot ask your question during the program, you may send it by e-mail to nasaupdate@hq.nasa.gov.



Michael Griffin

Space shuttle Atlantis arrives at launch pad



Space shuttle Atlantis arrived Sept. 4 at Launch Pad 39A at NASA's Kennedy Space Center, Fla., where final preparations are under way for a targeted launch Oct. 8. Shuttle Atlantis' 11-day mission will be the fifth and final servicing mission to NASA's Hubble Space Telescope. Five spacewalks are planned to install new instruments and thermal blankets, repair two existing instruments, refurbish subsystems and replace gyroscopes and batteries. The result will be six working, complementary science instruments with capabilities beyond what is now available, and an extended operational lifespan of the telescope through at least 2013. Atlantis' seven-member crew will enhance the observatory and ensure cutting-edge science. The upgrades put in place advanced technology to improve the discovery power of Hubble by 10 to 70 times.



'Focus on Marshall' highlights advanced automated rendezvous and docking technology, and the 'brains' of Ares I-X

By Lori Meggs

How will future American spacecraft dock with the International Space Station? An advanced Marshall Space Flight Center technology is currently being tested for possible future use on commercially developed vehicles or the Orion spacecraft, which can carry up to six crew members to space.

On the September episode of Marshall's monthly video program, "Focus on Marshall," viewers will get an inside look at the Next Generation Advanced Video Guidance Sensor — an autonomous docking sensor.

The sensors use video guidance to provide an accurate trajectory, allowing spacecraft to rendezvous safely with the space station. Viewers will witness a test of the sensors in the Flight Robotics Laboratory in Building 4619. They'll see how engineers are using the

10-story drop-tower in Building 4476 to test sensors more than a mile away.

Also in this episode, viewers will learn about the avionics, or "brains," of the Ares I-X, a test flight for the Ares I rocket.

The avionics will guide and control the flight and record how the test rocket reacts to the elements and high-speed environment during flight. This information will be relayed to scientists and engineers on the ground to help improve the Ares I design. The Marshall Center is responsible for the avionics elements of the upcoming test flight.

"Focus on Marshall" is broadcast on Marshall TV and will air on Sept. 11, 23 and 25 at 11 a.m., noon and 1 p.m. It also is available on NASA TV, Inside Marshall and on the NASA Portal.

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

Office of Strategic Analysis & Communications honors employees for exceptional work

By Jessica Wallace

The Marshall Space Flight Center's Office of Strategic Analysis & Communications honored its civil service and contractor team members Sept 4 at an awards luncheon. Approximately 135 of the organization's employees and honored guests gathered at the Huntsville Botanical Garden's Arbor room for good food and recognition of team members who performed outstanding work.

Daniel Schumacher, director of the Office of Strategic Analysis & Communications, welcomed employees, citing the organization's contributions to Marshall and NASA.

"In my short time as director, I quickly learned that you all are an excellent team," said Schumacher, who was named to the position in May. "Each person is very knowledgeable about what they do, and I know I can rely on every one of you."

Nominated by their team members for exceptional contributions to the office and the Marshall Center, honorees were presented peer awards by OSAC office managers Johnny Stephenson, Dom Amatore, Sharon Cobb, Andy Prince and Liz Newton.

Civil service employees receiving peer awards were Bill Simpson, Communication Award; Jennifer Morcone, Teamwork Peer Award; Sandra Turner, Excellence Peer Award; Edwin Jones, Innovation Peer Award; and Wes Brown, Above and Beyond Peer Award.

Contractor employees receiving peer awards were Kristina Hendrix of AI Signal Research Inc., Communication Award; Antoinette Pelt of Schafer Corp., Teamwork Peer Award; Clara Keyes of Schafer Corp.,



Office of Strategic Analysis & Communications Director Daniel Schumacher, standing third from left, congratulates the office's peer award winners. Seated from left are Antoinette Pelt, Sandra Turner and Ann Yelle; and standing from left are Bill Simpson, Monica Hooper, Schumacher, Clara Keyes, Wes Brown and Edwin Jones. Not pictured are Jennifer Morcone and Kristina Hendrix.

Excellence Peer Award; Ann Yelle of Schafer Corp., Innovation Peer Award; and Monica Hooper of AI Signal Research Inc., Above and Beyond Peer Award.

Schumacher thanked employees for continuously providing support to the center. "Your dedication is appreciated and I look forward to the coming year."

The writer, an AI Signal Research Inc. employee and Marshall Star editor, supports the Office of Strategic Analysis & Communications.



Moving toward NASA's 50th anniversary ...

NASA will mark its 50th anniversary Oct. 1. In preliminary statements related to the plans for NASA, President Dwight D. Eisenhower noted the "many aspects of space and space technology ... which can be helpful to all people as the United States proceeds with its peaceful program in space science and exploration. Every person has the opportunity to share through understanding in the adventures which lie ahead."

Marshall Association luncheon to be held Sept. 18

The Marshall Association will hold its next luncheon meeting at 11 a.m. on Sept. 18 at Activities Building 4316. Huntsville Mayor Loretta Spencer will speak.

The luncheon is \$11 for Marshall Association members and \$13 for nonmembers, payable at the door. Contact Bennie Jacks at bennie.a.jacks@nasa.gov or 544-7848 by Sept. 16 to reserve seating.

'Naked-Eye' gamma-ray burst was aimed at Earth

From combined reports

Unparalleled data from satellites and observatories around the globe show that the jet from a powerful stellar explosion March 19 was aimed almost directly at Earth. The event, called a gamma-ray burst, became bright enough for human eyes to see. The observations give astronomers the most detailed portrait ever made of a burst.

NASA's Swift satellite detected the explosion early at 1:19 a.m. CDT on March 19. "Swift was designed to find unusual bursts," said Swift principal investigator Neil Gehrels at NASA's Goddard Space Flight Center in Greenbelt, Md. "We really hit the jackpot with this event."

The Swift mission, which has been in orbit since November 2004, is another active instrument probing the gamma-ray sky.

Observations across the spectrum began 30 minutes before the explosion and followed its afterglow for months.

For the first time, sightings clearly reveal a narrow ultra-fast core within a wider, slightly slower jet.

In a paper published in the Sept. 11 issue of the journal *Nature*, Judith Racusin of Penn State University in University Park, Pa., and a team of 93 coauthors concluded that the burst's extraordinary brightness arose from a jet that shot material directly toward Earth at 99.99995 percent the speed of light.

Dr. Chryssa Kouveliotou, senior astrophysicist at the Marshall Space Flight Center, and Alexander van der Horst, a NASA postdoctoral program fellow at Marshall, contributed to the *Nature* paper documenting this burst's extraordinary power. Kouveliotou is an affiliated member of the Swift team.

"This was a dress-rehearsal for those of us working with new information streaming in from NASA's Fermi spacecraft," said Kouveliotou. "Now, with Fermi successfully launched and in orbit, if

a burst this bright happens again, we hope that the Fermi Gamma Ray Burst Monitor will also catch it on the fly. So, bring them on. We are ready!"

Swift's Burst Alert Telescope first sensed the explosion — formally known as GRB 080319B — and pinpointed its position in the constellation Boötes. Within the next 15 seconds, the blast became

visible in a dark sky to human eyes. It briefly crested at magnitude 5.3 on the astronomical brightness scale.

Incredibly, the dying star was halfway across the observable universe — 7.5 billion light-years away.

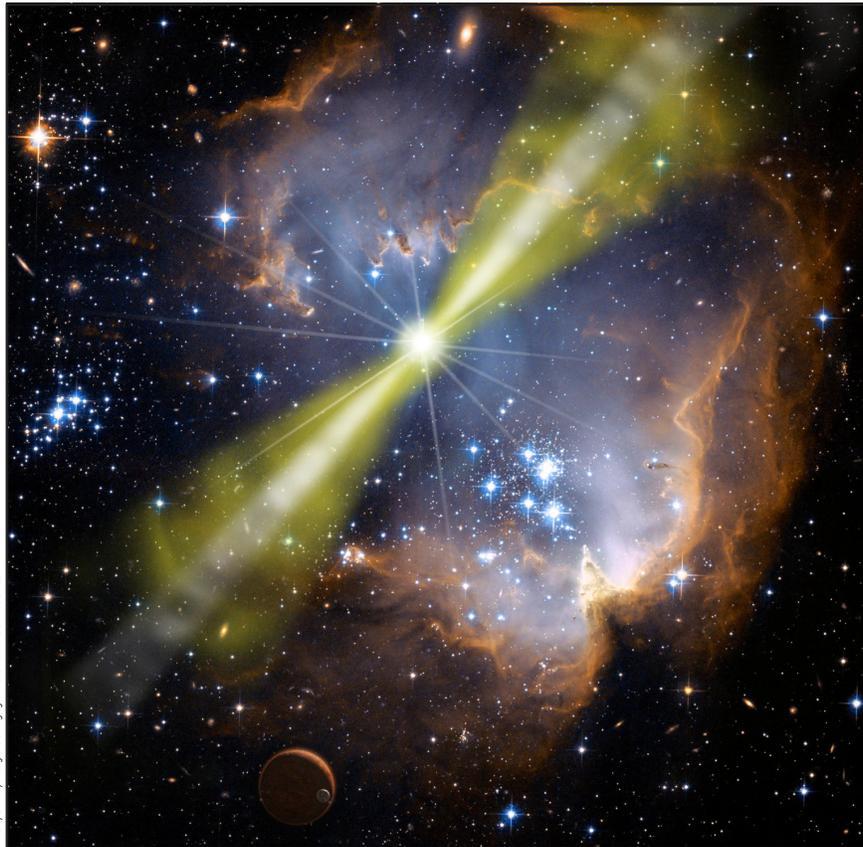
"We've been waiting a long time for this one," said Grigory Beskin of Russia's Special Astrophysical Observatory. He heads the Russian-Italian collaboration that operates the TORTORA optical camera at the European Southern Observatory in Chile.

Telescopes around the world were already studying the afterglow of another

burst when GRB 080319B exploded just 10 degrees away. TORTORA's rapid imaging caught the blast's first light in unprecedented detail. "You miss this valuable early data if you wait for a satellite trigger," Beskin said. "This blast validated our design."

Racusin was on duty for Swift that morning. "At first, I thought something was wrong," she recalled. Both the satellite's UltraViolet and Optical Telescope and X-Ray Telescope indicated they were effectively blinded. Within minutes, as reports from other observers arrived, it was clear this was a very special event.

Gamma-ray bursts are the universe's most luminous explosions; most occur when massive stars run out of nuclear fuel. As a star's core collapses, it creates a black hole or neutron star that, through processes not fully understood, drives powerful gas jets outward.



This artist's concept shows a close-up view of the "naked-eye" gamma-ray. Observations indicate material shot outward in a two-component jet.

See Burst on page 5

Burst

Continued from page 4

These jets represent the fastest bulk flow of matter in the cosmos. They rip through a star at nearly the speed of light. As the jets shoot into space, they strike gas previously shed by the star and heat it, which generates bright afterglows.

The team believes the jet directed toward Earth contained a narrow, 0.4-degree-wide component moving at 99.99995 percent lightspeed. This fast-moving core resided within a broader, slightly less energetic jet about 8 degrees wide.

The broad component is more typical of what Swift sees from

other bursts. Perhaps every gamma-ray burst has a narrow jet, but astronomers miss it most of the time. The nearly head-on alignment required to see it occurs by chance only about once a decade.

Swift is managed by the Goddard Space Flight Center. It was built and is operated in collaboration with Penn State, the Los Alamos National Laboratory and General Dynamics in the United States; the University of Leicester and Mullard Space Sciences Laboratory in the United Kingdom; Brera Observatory and the Italian Space Agency in Italy; plus partners in Germany and Japan.

For more images, go to http://www.nasa.gov/centers/goddard/news/topstory/2008/brightest_grb.html.

Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Marshall Star Ad Form." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue, Sept. 18, is 4:30 p.m. Thursday, Sept. 11.

Miscellaneous

Longaberger 4-quart casserole dish, sage, \$60 obo. 509-2536

Full-size air hockey table, pucks, disks, \$100. 508-5042

Electrical engineering textbooks/notebooks, math, solar engineering, radar, \$5 each. 837-6776

Utility trailer, 5 feet by 10 feet, high sides, lights, 2,000-pound axle, \$350 obo. 353-7670

Pictures, mirrors, comforter sets, bathroom accessories. 658-5678

Antique waterfall hope chest, \$200 obo; vintage Formica kitchen table, yellow/chrome, built-in leaf, \$90. 882-3895

Mirage speakers, two OM-7 towers, two Omnisat satellite speakers, stands, \$1,500. 679-2165

Laatu special-edition sauna, LMR 45 heater, stones, red cedar exterior/interior. 536-7711 or 961-7517

Bed frame, still in the box, \$50. 777-8970

White dresser, mirror, \$50; oak dining table, six chairs, \$400. 776-7399

1959 Rockola Jukebox, 1950s and 1960s music, \$1,500 firm. 851-8190

Camper shell for Dodge Dakota, \$50. 461-9894

Brunswick pool table, 8 feet, 1-inch slate, balls, cues, rack, cue stand, four stools, \$1,200. 837-0220

Oak china cabinet, reproduction oak ice box, \$75 each. 508-8269

Four Uniroyal Tiger Paws tires, P185/60R15, MB Motoring 5 stud, universal lug chrome rims, \$600. 882-1481

Murray 40-inch riding lawn mower, 12.5HP, \$500; Kenmore heavy-duty washer, \$250. 656-2557

Stanley "Summerhaven" white bedroom pieces, dresser, chest, book case, nightstand, \$600. 895-8294

Browning bow, 31-inch draw length, 80-pound pull max. 565-7990

Wide 14-karat gold band, one .50-carat pear diamond, ten .025-carat round diamonds, \$1,000. 552-0998

One unrestricted space in Maple Hill Cemetery, \$1,800. 552-0998

Twin bed, solid wood, mattress, box springs, \$100. 837-8433 or 206-0582

Wood bunk beds, full lower bunk, \$400. 757-615-2616

Sumter student desk, hutch, chair, \$150. 479-5165

1913 Ivers and Pond Cabinet Grand upright piano, \$1,250. 694-9017

Baldwin piano, black, upright, \$500. 338-9840

Garbage compactor, residential, brown, \$300 obo. 852-5595

Several handmade Persian rugs, 10x12, \$1,000 - \$1,500. 650-5422

Valhalla Masonic Garden, four plots, \$4,000 plus transfer. 881-9421

Vehicles

2007 Honda TRX450R Sport ATV quad, electric start, plastics, black/flames, red frame, \$4,950. 345-9555

2006 Mazda MX-5 Miata Sport, silver, 28.5 MPG, new tires, 19,100 miles, \$16,800. 714-3742

2005 four-horse trailer, mid-tack, stud wall, rear storage, air conditioning, \$15,000. 426-2006

2005 Ford Five Hundred Limited, AWD, leather, moon roof, pueblo gold, 44k miles, \$15,000. 975-1667

2004 Chevy 1500 Z71, four door, tow package, power leather heated seats, \$16,000 obo. 509-2536

2002 GMC Envoy, black, sunroof, \$6,500. 776-9165

2002 Suzuki XL-7, seats seven, \$7,400 obo. 783-6278

2000 Ford Windstar SEL, loaded, power sliding doors, seven passenger, \$4,500. 881-1005

1999 Toyota 4-Runner Limited Edition, white, brown interior, sunroof, CD, A/C, \$7,000. 694-1260

1996 Corvette, black, leather, all power, Bose stereo, removable top, 55k miles, \$12,000. 656-7099

1989 Power Boat Monterey, trailer, rebuilt Chevrolet V6 engine, \$3,500. 536-7711 or 961-7517

1987 Mustang Notchback, \$4,000. 777-2667

Wanted

Lifejackets, for children, small adults. 216-9973

Alabama vs. Kentucky tickets, Oct. 4, two or four. 566-1554

Homes/offices to clean; elderly or children assistance. 651-4723

Electrical work, wiring houses, adding/removing switches, plugs, lights, detached garage. 468-8906

410-gauge shotgun shells, any shot size or slugs, 2 1/2 or 3 inches. 828-1234

Auburn vs. LSU football tickets, Sept. 20. 225-933-7239

Free

Jennifer Convertible sleeper sofa, queen size, blue and white striped, you pick up. 655-7124

Firewood from downed trees, you cut/haul. 325-0085

Found

U.S. currency, Building 4200, south parking lot; sunglasses, Building 4200, ground floor; sunglasses, Building 4600. 544-4680

Michoud Assembly Facility spared Hurricane Gustav damage; now prepares for Hurricane Ike



Water rose dockside, which is outside the levee at Michoud Assembly Facility in New Orleans, as Hurricane Gustav passed over Sept. 1. Only 1.5 inches of rain accumulated on the ground inside the levee and just one of the four pumps operated to keep Michoud dry. NASA managers are closely monitoring Hurricane Ike's path, which is currently in the Gulf of Mexico. Michoud is a NASA-owned facility managed by the Marshall Space Flight Center. The world-class manufacturing facility provides vital support to NASA exploration and discovery missions. Michoud manufactures and assembles critical hardware components for the space shuttle and exploration vehicles under development at Marshall and other NASA field centers.

Rains from Hurricane Gustav drenched Michoud's shipping dock, where space shuttle external tanks are loaded onto NASA's Pegasus barge for shipment to the Kennedy Space Center, Fla.



Physical inventory of NASA bar-coded property to begin Oct. 6

A 100 percent physical inventory of NASA tagged bar coded property at the Marshall Space Flight Center, conducted by the Logistics Services Office in the Office of Center Operations, will begin Oct. 6.

The primary objective is to complete the inventory in a timely manner with as little disruption to the user community as possible.

All equipment in file cabinets, desks and other storage areas must be made available for scanning by the inventory teams. All controlled equipment documented on the "Mobile Equipment

Property Pass" must also be made available for inventory. Managers are asked to inform employees who work off-site of the inventory schedule date for their department.

If absences are scheduled during an inventory visit, the user must make arrangements with management for an alternate time.

For the 2008 physical inventory schedule, go to "Inside Marshall" or http://inside.msfc.nasa.gov/announcements/2008_pi-schedule.html. For questions, contact Amanda Overcast at 544-3193 prior to the scheduled visit.

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