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Marshall Star, October 19, 2011 Edition

MARSHALL STAR

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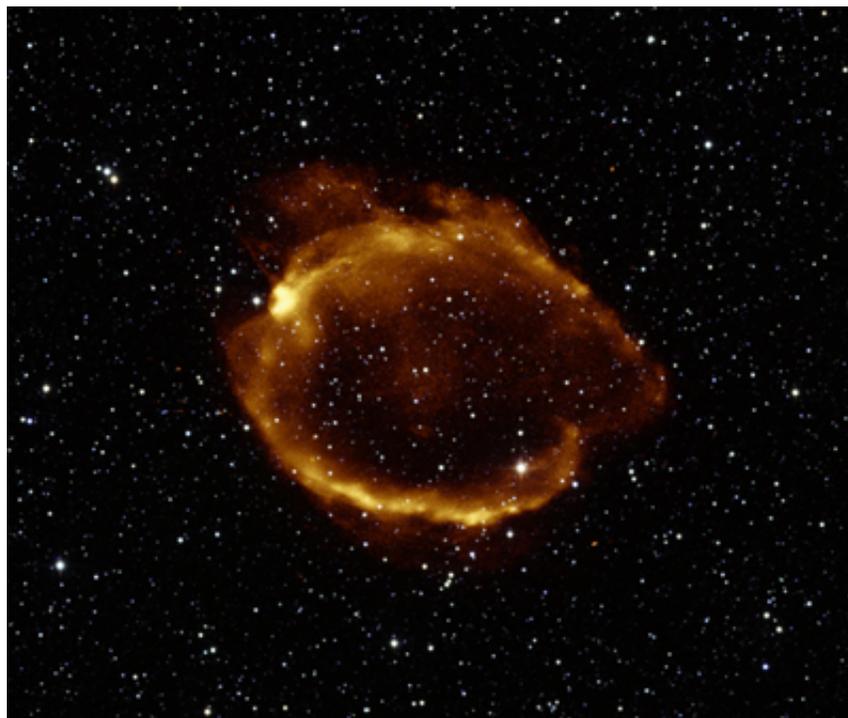
G299.2-2.9, a Middle-Aged Supernova Remnant

NASA feature

G299.2-2.9 is an intriguing supernova remnant found about 16,000 light years away in the Milky Way galaxy. Evidence points to G299.2-2.9 being the remains of a Type Ia supernova, where a white dwarf has grown sufficiently massive to cause a thermonuclear explosion.

Image right: Supernova remnant G299.2-2.9 (X-ray: NASA/CXC/U.Texas/S. Park et al, ROSAT; Infrared: 2MASS/UMass/IPAC-Caltech/NASA/NSF)

Because it is older than most supernova remnants caused by these explosions, at an age of about 4,500 years, G299.2-2.9 provides astronomers with an excellent opportunity to study how these objects evolve over time. It also provides a probe of the Type Ia supernova explosion that produced this structure.



This composite image shows G299.2-2.9 in X-ray light from NASA's Chandra X-ray Observatory and the ROSAT satellite -- an X-ray observatory developed through a cooperative program between Germany, the United States, and the United Kingdom.

Kingdom. The X-ray light, in orange, has been overlaid on an infrared image from the Two Micron All-Sky Survey, or 2MASS. The faint X-ray emission from the inner region reveals relatively large amounts of iron and silicon, as expected for a remnant of a Type Ia supernova. The outer shell of the remnant is complex, with at least a double shell structure. Typically, such a complex outer shell is associated with a star that has exploded into space where gas and dust are not uniformly distributed.

The Marshall Space Flight Center manages the Chandra program for NASA's Science Mission Directorate in Washington. The Smithsonian Astrophysical Observatory controls Chandra's science and flight operations from Cambridge, Mass.

Since most theories to explain Type Ia supernovas assume they go off in a uniform environment, detailed studies of this complicated outer shell should help astronomers improve their understanding of the environments where these explosions occur. It is very important to understand the details of Type Ia explosions because astronomers use them as cosmic mile markers to measure the accelerated expansion of the universe and study dark energy.

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The Moon is in the Spotlight, or Crosshairs, Again



On July 20, 1969, millions of viewers all over the world gathered around the television to watch as two humans changed history by walking on the surface of the moon. It was an amazing time for space exploration and the moon.

Image left: On Oct. 8, more than 580 International Observe the Moon Night events were held in 54 countries to bring a renewed interest to Earth's oldest celestial neighbor. (MSFC/Emmett Given)

Fast forward 42 years and the moon is back in the spotlight. On Oct. 8, observers from more than 54 countries celebrated Earth's oldest neighbor by participating in the second [International Observe the Moon Night](#). More than 580 events were held to raise awareness about the moon and the night sky.

The event, hosted by the Marshall Space Flight Center and the Lunar Quest Program, was held at the Education Training Facility in Huntsville and drew more than 500 children and adults. Visitors were treated to a number of moon-related educational activities and scientific presentations to build awareness about the brightest object in the night's sky. Participants learned how the moon was formed, more about its numerous craters, how to observe the moon from Earth and about NASA's work in lunar research and exploration.

One of the biggest draws was a cluster of telescopes set up on the lawn staffed by lunar experts who knew how to zero in on the moon's prominent craters that night. Audible gasps were heard from visitors as they exclaimed in amazement at what they saw. "I can't believe it's not completely smooth and round like a bowling ball," said one child. "Look at all those craters! It's amazing," said another.

Image right: Children ponder a globe of the moon at the International Observe the Moon Night event at the Educator Resource Center in Huntsville. (MSFC/Emmett Given)

The clear night sky offered perfect viewing conditions and it almost seemed like the moon turned up its wattage, or reflection, showing off its many craters, hills and rills. Rills are snakelike depressions that wind across many areas of the maria, or dark areas on the surface of the moon.

The moon was definitely bright on Oct. 8, even though it doesn't give off any light of its own. Instead, it reflects light from the sun. Like Earth and the rest of the solar system, the moon is about 4.6 billion years old and Earth's only natural satellite.

The moon put on a visible display that night. Observers remarked about how impressed they were with what they saw and learned at the Observe the Moon event. Many remarked about how they took the moon for granted since it's always visible, even during the daytime, but they seem to never look up.



Many looked at our closest celestial neighbor with a bit more awe after that night. Amazing, it is.

Newton is a public affairs officer in the Office of Strategic Analysis & Communications.

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Marshall to Hold Safety & Wellness Day Events Oct. 26

By Rick Smith

The Marshall Space Flight Center's 2011 Safety & Wellness Day activities Oct. 26 will include a visit by a former shuttle astronaut, a 5K run, a health walk and more. "Start Safe -- Stay Safe" is the theme of this year's event.

The day's events will open with a 5K run at 8 a.m. at Building 4315. At 9 a.m., the Marshall team is invited to Morris

Auditorium in Building 4200 to hear guest speaker [Robert Crippen](#), the former NASA astronaut who in 1981 piloted STS-1, the first space shuttle orbital test flight. Crippen also commanded three additional shuttle flights -- STS-7 in 1983 and STS-41C and STS-41G in 1984 -- and was director of NASA's Kennedy Space Center from 1992 to 1995.

Team members also may watch Crippen's speech on Marshall TV and [Desktop TV](#).

A Health & Safety Expo will be held in Building 4316 from 10 a.m. to 2 p.m. Numerous vendors and organizations will display their products and services and talk with team members about workplace safety.

A Chick-Fil-A boxed lunch will be served under tents outside Building 4316 from 11 a.m. to 1 p.m. Tickets are \$7, and include a sandwich, bag of chips, walnut fudge brownie, soft drink and a coupon for a free Chick-Fil-A sandwich. Tickets must be purchased from team members' Admin Officers on or before Oct. 21. Tickets will not be available at the event. Entertainment during the lunch will be provided by the Sharon Hancock Band, which includes a number of Marshall team members, and guitar soloist Shane Adkins, a Marshall Center technician.

Marshall's annual "Walk for Life" will be held from 1-1:30 p.m. at Building 4315, and center organizations are encouraged to hold their own safety and wellness activities from 1-3 p.m.

For more information, visit the official Marshall [Safety & Wellness Day](#) website.

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

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Marshall Combined Federal Campaign Rally Set for Nov. 1; Former University of Alabama Running Back Siran Stacy to Speak

By Rick Smith



As the Combined Federal Campaign reaches its midway point for 2011, the Marshall Space Flight Center will hold a "Thanks For Giving: 50 Years of CFC" rally Nov. 1 -- to recognize the value and impact of the annual government fundraiser and to sustain the giving spirit as the holiday season approaches.

Marshall Center team members and their Team Redstone counterparts are invited to attend the rally from 10:30-12:30 a.m. in Activities Building 4316.

The keynote speaker will be [Siran Stacy](#), an accomplished running back for the University of Alabama in Tuscaloosa from 1989-1991, who went on to play in the NFL and the World Football League. In 2007, he lost his wife and four of his five children when a drunk driver collided with their family van. Since then, Stacy has launched a career as a motivational speaker, sharing the importance of family, community and spirituality as healing forces in the face of tragedy.

Numerous charitable organizations will participate in a CFC expo during the event, talking with team members about their services. Light refreshments will be served.

Buses will be available to take team members to and from the event. A bus route and schedule will appear on ExplorNet in coming days.

Raising the CFC bar

The CFC goodwill drive supports charitable organizations at the local, state and national level. As of Oct. 17, Marshall donations had passed \$137,721.

The center's goal is to raise \$700,000 by the campaign's end Dec. 16. Marshall engineer Jim Duffy, executive chairperson for this year's campaign, is confident the center will exceed that goal.

"I see CFC giving as a matter of civic pride," he said. "It's an investment in community and the common good -- and the Marshall team's record of contributions exemplifies that ethic."

He recalled the tornadoes that swept through Alabama last spring, and the way communities rallied to support one another, donating goods, building supplies and funds to those whose homes were devastated.

"Unexpected hardship can befall any of us at any time," Duffy said. "The gifts we give today truly may be the help we need tomorrow."

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.

Team members can visit the [Marshall ExplorNet](#) for information about making a donation, to volunteer for Community Service Days events or join a bus tour to an area business that benefits from CFC giving.

In its 50-year history, the national campaign has raised nearly \$7 billion to help those in need. More information about the annual government effort can be found [here](#).

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Marshall's David Brock Shares Disability Experience, Tips to Help Disabled for Annual Disabilities Awareness Program

Marshall Space Flight Center's Small Business Specialist David Brock, right, addresses Marshall team members during an Oct. 13 Disabilities Awareness Program "Lunch-and-Learn" seminar organized by the Office of Diversity & Equal Opportunity. Brock, who is legally blind, shared his personal experience of sight impairment and eventual blindness and how everyone can help those who are disabled. Stayce Yarbrough, second from right, interprets Brock's presentation for hearing-impaired attendees. More than 50 Marshall team members attended. (NASA/MSFC)



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NASA Exchange Holds Annual Pecan Sale

By Bill Mayo



It's that time of year once again for the NASA Exchange Pecan Sale. For 25 years, the Pecan Sale has been one of the most anticipated sales the Exchange has each year. It has been so popular that other NASA centers have

started their own sales as their employees were ordering pecans from the Marshall Exchange.

In 1986, a Marshall employee approached the Exchange asking if fresh South Alabama pecans could be sold prior to the holiday season for baking needs. The sale was a big hit! Over the years, more nuts, such as cashews, almonds and walnuts have been added to the event. These nuts are delivered fresh from California as these types of nuts are not grown in Alabama.

The sale has changed from a first come/first serve purchase set-up, to placing pre-orders. However, the sale is changing back to the first come/first serve method this year. Pre-ordering has always been a challenge for customers, as many don't know how much or what they need for the holidays when ordering in October. The Exchange believes this sales method will provide better service to customers and increase the number of employees able to buy the nuts.

The nuts are scheduled to arrive at the center Nov. 17 and will be on sale that afternoon at the Space Shop on the first floor of Building 4203. Shop hours are Monday-Friday, 7:45 a.m-4 p.m. The pecan sale will continue until all nuts are sold. The Exchange has ordered a significant amount, and expects to have quantities available until Christmas.

If you have any questions, call the Space Shop at 256-544-2185.

2011 pecan and nut prices per one-pound bag are:

Pecan Halves	\$9.50
Raw Peanuts	\$2.25
Chocolate Covered Pecans	\$10.00
White Chocolate Pecans	\$10.00
Roasted and Salted Pecans	\$10.00
Praline Pecans	\$10.00
Almonds:	
Natural (12 oz. bag)	\$4.50
Blanched/Slivered (11 oz. bag)	\$4.50
Roasted and Salted Pistachios	\$8.00
Cashews	\$8.50
English Walnuts	\$7.50

Bill Mayo is the NASA-Marshall Exchange manager.

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MARS Softball Club Honors Season Champions

By Jim Lomas

The 2011 MARS Softball Club has completed another year on the new softball field south of Building 4203. The season ran from April through September. The Softball Club completes each year with a tournament to determine the best team in each division. The teams played a total of 176 games this year with a mid-season charity softball tournament for tornado relief. There were 19 teams with more than 300 players in the club -- a figure that is growing each year. Pictures of the 2011 tournament champions are on display in the Activities Building 4316.

The three divisions are:

Division A - Intermediate/Competitive, Mixture of Skilled/Intermediate players

Division B – Intermediate/Co-ed League, Skilled Players

Division C - Beginner/somewhat Co-ed League, Intermediate Players

(Co-ed teams require a minimum of two females on the field.)

The 2011 tournament champions were:

Division A – Hit Circus

Division B – TBE Integrators

Division C – Fireballs

Team pictures and information on the Softball Club can be found on ExplorNet at:

<https://explornet.msfc.nasa.gov/groups/softball-club?view=overview>

If you are interested in playing softball or have questions, please contact MARS Softball League President [Jim Lomas](#) at 256-544-8305 or the Vice President [Victor Pritchett](#) at 256-544-5771.

Jim Lomas is the MARS Softball Club president and an aerospace engineer in the Engineering Directorate.

Hit Circus, Division A champions of the 2011 MARS Softball Club, are, from left, front row, Al Mayers, Tony Fiorucci, Chase Dervan and Scott Ringel. Back row, John Peugeot, Mike Kiser, Andy Young, Phil Haas, Josh Borgert and Mack Chavis. Not pictured are Victor Pritchett, Jason Mishtawy, Greg Stenberg, Blake Pierce and Johnathan Johnson. (MARS Softball Club)





The 2011 MARS Softball Club Division B champions, TBE Integrators, are, from left, front row, Austen Young, Mike Defatta, Cristy Presson, Katie Presson, Cindy Wood and John Gieger. Back row, Travis Presson, Lance Watson, Clif Jones, Harland Patton, Michael Cluxton, Walker Gabriel, Nate Neveu and Rantz Berryman. Not pictured are Louis Whitlow, Lee Burket, Clark Herrington, Ashley Chafin, Brett Chafin and Jimmy Wrape (MARS Softball Club)

The Fireballs, Division C champions from the 2011 MARS Softball Club are, from left, front row, Morgan Abney, Jared Dervan, Chase Dervan, Anora Brooke, Will Cartagena and Brian Sabourin. Back row, Corey Harrell, Jon Millard, Cordero Watkins, Alex Sobey, Shane Brooke and Jay Abney. Not pictured are Greg Barnett, Phil Haas, Sharon Watkins, Kevin Rugani, Freda Ayers and John Hutt. (MARS Softball Club)



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Shuttle Buddies to Meet Oct. 24

The Shuttle Buddies will meet at 8:30 a.m., Oct. 24, at Mullins Restaurant on Andrew Jackson Way in Huntsville. For more information, call Deemer Self at 256-881-7757.

Find this article at:

<http://www.nasa.gov/centers/marshall/about/star/index.html>