



LAGNIAPPE

John C. Stennis Space Center

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Stennis tests engine for ISS cargo flight



A team of NASA, Orbital Sciences Corporation, Aerojet Rocketdyne and Lockheed Martin engineers conduct a hotfire test of Aerojet Rocketdyne AJ26 engine No. 16 on the E-1 Test Stand at NASA's Stennis Space Center on March 29. Stennis tests all first-stage engines used by Orbital to power its supply missions to the International Space Station. The company is partnered with NASA through the agency's Cargo Resupply Services initiative to provide eight cargo missions to the space station through 2016. Orbital built its Antares rocket and Cygnus spacecraft under NASA's Commercial Orbital Transportation Services Program. A video of the March 29 test is accessible on YouTube by searching "AJ26 test."



“Mission success requires every employee to be a valued, motivated and highly functioning team member.”



From the desk of
Jo Ann Larson

Manager, Stennis Office of Diversity and Equal Opportunity

Spring has FINALLY sprung, and with that, everyone has a sense of revitalization and renewed energy. The staff in the Office of Diversity and Equal Opportunity (ODEO) continues to be energized and hard at work accomplishing its mission by promoting a work environment free of discrimination and building a well-diversified workforce.

This year, the office welcomed Jake Jacobs to the ODEO staff as the Stennis diversity manager. He is definitely bringing momentum to the Diversity and Inclusion (D&I) Programs. A working group was established to develop the center’s Diversity and Inclusion Strategic Implementation Plan, and the plan rollout was in February. This plan is intended to serve as a road map to guide our efforts in making Stennis a leader in creating and sustaining a workforce that embraces diversity and inclusion. A powerful piece to the plan is engaging and empowering employees in leveraging their unique abilities and experiences to make significant contributions that enable the successful execution of NASA’s mission.

ODEO also has established a diversity board, chaired by Stennis Deputy Director Jerry Cook. The board will not only monitor D&I Plan actions but also will gather accomplishments from managers and supervisors and report those annually to all employees.

I am so very proud of the fact that Stennis has once again received the highest possible ranking in the “Support for Diversity” category in the Employee Viewpoint Survey for 2013. The center also ranked second out of 300 subcomponents as the Best Place to Work in the federal government by veterans, women and employees under age 40.

The sitewide Stennis Diversity Council, created in

2009, continues to grow its membership and has a total of 21 resident agencies represented. The council will continue to sponsor, support and celebrate the multiculturalism of the Stennis workforce through educational programs, events, activities, forums and presentations.

ODEO is putting the finishing touches on establishing Stennis’ first Employee Resource Group – the Extreme Ideas Future Leaders Team. The team consists of current and past NASA Foundations of Influence, Relationships, Success and Teamwork participants with the mission of exploring new ideas and innovative ways to conduct business at the center.

In closing, I would like to mention that this year marks the 50th anniversary of the Civil Rights Act of 1964. Take a moment to really reflect on what it was like in the United States 50 years ago. In many profound ways, our country was a very different place where commonplace rights now taken for granted were elusive for many Americans. The impact of the act on legal, educational, economic and social systems in the United States has touched every person.

Equal employment opportunity and diversity may not be rocket science, but it certainly is a vital part of the NASA mission! Mission success requires every employee to be a valued, motivated and highly functioning team member. We all play a critical role in making that happen!

Jo Ann

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FULFILLING NASA'S EXPLORATION MISSION

NASA gears up for next set of engine tests for SLS

The RS-25 engine that will power NASA's new rocket, the Space Launch System (SLS), off the launch pad and on journeys to an asteroid and Mars is getting ready for the test stand. And it is packing a big punch.

Engineers at NASA's Stennis Space Center near Bay St. Louis, Miss., are now focusing their attention on preparing the RS-25 engine after completing testing of the J-2X engine April 10. Four RS-25 engines, previously known as space shuttle main engines, will muscle the core stage of SLS for each of its missions. Towering more than 200 feet tall with a diameter of 27.6 feet, the core stage will store cryogenic liquid hydrogen and liquid oxygen that will feed the vehicle's RS-25s.

Modifications to the engines, like higher thrust levels, were needed on the proven workhorse to prepare them for the SLS. To accommodate a higher thrust level, the number of engines was increased from three, used during the shuttle era, to four. The power level also was increased for each engine.

Engines on the shuttle ran at 491,000 pounds vacuum thrust (104.5 percent of rated power level). After analyzing temperature and other factors on the engine, the power level was increased for SLS to 512,000 pounds vacuum thrust (109 percent of rated power level).

Modifications also have been made to the A-1 Test Stand at Stennis to prepare for RS-25's first hot-fire test.

The completed J-2X test series provided many benefits as RS-25 enters the stand.

"From the start, testing of the J-2X engine progressed at an incredible pace and provided invaluable data," said Gary Benton, J-2X and RS-25

(Right photo) Engineers conduct a test of the J-2X rocket engine on the A-2 Test Stand at Stennis Space Center on April 10.

(Bottom right photo) Formerly known as space shuttle main engines, RS-25 engines will power the core stage of NASA's SLS.



test project manager at Stennis. "We began J-2X powerpack testing for the engine in late 2007 and conducted a wide range of full-engine developmental tests since then. We have collected data on engine and test stand capabilities and performance that will benefit the nation's space program for years to come."

A number of J-2X test objectives offer benefits to the upcoming battery of RS-25 tests, including defining the performance, control and data characteristics of the test stand, and new processes used to record and interpret engine performance data.

Many of the modifications made on the A-1 Test Stand are based on improvements made throughout J-2X testing. For example, RS-25 thrust measurement, data collection, engine control system architecture and control of propellant conditions at the engine inlet all will be based on J-2X test experience.

Another strength the RS-25 test team will inherit is experience. The test crew and data review team have continually improved the efficiency of test operations leading up to RS-25 testing.

"We're gearing up for what we trust will be a successful and essential RS-25 test series – technically as well as on cost and schedule – and our J-2X



experience directly contributes to this need," said Tom Byrd, deputy manager in the SLS Liquid Engines Office at NASA's Marshall Space Flight Center in Huntsville, Ala. The SLS Program is managed at the Marshall Center. "The manufacturing and testing we just completed will continue to be beneficial to the RS-25, the SLS Program and the agency's initiatives."

As future missions are defined for the 130-metric-ton vehicle – the largest configuration planned – NASA will consider various engine options that are the best value and design.

For more information regarding NASA's SLS Program, visit online at www.nasa.gov/sls

FULFILLING NASA'S EXPLORATION MISSION

Curiosity rover arrives at research waypoint



NASA's Curiosity Mars rover recorded this view of various rock types at a waypoint called "the Kimberley" shortly after arriving at the location on April 2, 2014. The Kimberley was selected in 2013 as a major waypoint for the mission because of the diversity of rock types distinguishable in orbital images, exposed close together at this location in a decipherable geological relationship to each other. The outcrop at the center of the image is a category that the rover team scientists call "striated," from its appearance in images taken from orbit before the rover reached this area. Farther in the

distance, the striated type is overlain by other types. On the horizon, slopes of Mount Sharp – the mission's long-term destination – are on the left and the rim of Gale Crater is on the right. Curiosity's Navigation Camera (Navcam) took the component images of this mosaic. The scene spans from south-southwest at left to west-northwest at the right. It is presented here as a cylindrical projection. NASA's Jet Propulsion Laboratory manages the Mars Science Laboratory Project. To learn more about Curiosity and its mission, visit: www.nasa.gov/mission_pages/msl/.

NASA in the News

NASA brings software down to Earth

NASA is making available to the public, at no cost, more than 1,000 codes with its release on April 10 of a new online software catalog. Organized into fifteen broad categories, the new catalog offers a wide variety of applications for use by industry, academia, other government agencies, and the general public. The technologies featured in the software catalog cover project management systems, design tools, data handling, and image processing, as well as solutions for life support functions, aeronautics, structural analysis, and robotic and autonomous systems. The codes represent NASA's best solutions to a wide array of complex mission requirements. NASA's Technology Transfer Program, managed by the Office of the Chief Technologist at NASA Headquarters in Washington, ensures technologies developed for exploration and discovery missions are broadly available to the public. To access the software catalog, and for more information on NASA's Tech Transfer program, visit online at: <http://technology.nasa.gov>.

For NASA news releases, visit: www.nasa.gov/news/releases/latest/index.html.

Stennis completes RS-25 'buy'

Stennis Space Center recently completed the first Government Mandatory Inspection Point (GMIP) "buy" on RS-25 rocket flight engine No. 2044, which will help power the core stage of NASA's new Space Launch System (SLS) vehicle. The "buy" was completed when Jennifer Franzo, a member of the Stennis Safety and Mission Assurance team, worked with George Paz of Bastion Technologies Inc. and the Aerojet Rocketdyne engine assembly team at Stennis to witness a final calibration and adjustment during installation of the high-pressure fuel turbopump on the engine. NASA safety personnel conduct risk-based assessments of space flight hardware to determine critical points that merit heightened attention. At those points, NASA mandates that work must be verified by the agency via firsthand observation during the construction/assembly process, by personal inspection of the work performed or through a test of the equipment. The recent GMIP was coordinated by Stennis with NASA's Marshall Space Flight Center in Huntsville, Ala., which manages the SLS Program.



A section of pipe is delivered at the B-1/B-2 Test Stand at Stennis Space Center as part of a high-pressure industrial water upgrade project.

NASA project upgrades critical test support system

NASA is replacing the 50-year-old high pressure industrial water system (HPIW) at Stennis Space Center, setting the stage for the center to continue rocket engine testing for the nation's space program well into the future.

“This project provides a needed upgrade of a system first installed in the 1960s,” said Karma Snyder, who has served as manager of the Stennis project since design work began in 2009. “The original system was built to last 30 years, so it has far exceeded expectations by remaining in use for almost five decades.”

The \$51 million HPIW project includes replacing full sections of large piping, as well as several large gate valves, that service the A Test Complex and B Test Complex stands at Stennis. Water is a critical element of engine testing on two fronts.

At Stennis, engines are anchored in place and fired just as they are on an actual space flight. The fire and exhaust from the test is redirected out of the stand by a large flame trench. A water deluge system directs

as much as 200,000 gallons of water a minute to cool the exhaust and to dampen the loudness of the test.

At the same time, a water supply must be available to the barges that supply cryogenic rocket propellants to fuel the engine in the event of a mishap or fire.

In the early days of testing, well water was pumped to the stands to meet those needs. In the 1980s, water began to be diverted from the nearby manmade canal system into a 66-million-gallon reservoir. Large pumps deliver the water from the reservoir to the test stands through underground pipelines.

Those pipelines have degraded with age. The 96-inch line from the reservoir to the B Test Complex is currently being replaced. Work on that phase is expected to be completed by summer 2015, which means it will be in place in time to support testing on the core stage of NASA's new Space Launch System (SLS) the following year. The SLS vehicle is being designed to carry humans and potential other payloads deeper into space than ever, to such destinations

as an asteroids and eventually Mars.

The HPIW project also involves replacing a portion of line servicing the A Test Complex and several 66-inch gate valves that are used to control water flow. Completion of that work is scheduled in 2017.

The new piping is fabricated from carbon steel and includes inner and outer linings that will help protect it from corroding elements. The new gate valves also represent a materials and design upgrade for the system.

The Stennis system was built to deliver as much as 300,000 gallons of water a minute at 300 psi. That proved a design challenge for pipe fabricators accustomed to supplying pipe for systems operating at much lower pressures. “It took some time to help suppliers even understand the system requirements we have here,” Snyder said.

The new system will meet those requirements for years to come. “These upgrades will serve us well into the future, for the next 50 years,” Snyder said. “We are well positioned to be in business for a long time.”

NASA associate administrator visits Stennis

NASA Associate Administrator Robert Lightfoot speaks to Stennis Space Center employees during an all hands session March 18. Lightfoot visited the south Mississippi center to discuss the future of NASA and present the agency's fiscal year 2015 budget. As NASA Administrator Charles Bolden stated March 4, the president's proposed budget invests more than \$100 billion in America's space program through the next six years, including the \$17.5 billion that is part of this year's budget. "The president's budget ... keeps us moving toward the missions and breakthroughs of tomorrow even as it enables the tangible successes of today," Bolden said.



Stennis receives Best Places to Work plaque



NASA's Stennis Space Center Deputy Director Jerry Cook (second from left) and Stennis Office of Human Capital Manager Dorsie Jones (third from left) receive a "Best Places to Work" plaque on behalf of site employees during an onsite ceremony March 18. In the eighth annual Partnership for Public Service workplace survey of 371 federal agencies and agency subcomponents, NASA ranked as the best place to work in the federal government among large agencies. For the third consecutive year, Stennis ranked first among all NASA centers and second among federal agency subcomponents. Cook and Jones were joined during the March 18 presentation by NASA Associate Administrator Robert Lightfoot (r), Assistant Administrator Jeri Buchholz (l) and Partnership for Public Service Vice President Tim McManus (second from right).

Safety first! Stennis holds rally for VPP visit

Stennis Space Center Director Rick Gilbrech speaks to employees during a NASA Voluntary Protection Program rally April 1. NASA is preparing for an OSHA team visit this month to recertify its status as a Star site demonstrating excellence in safety and health. Stennis Space Center earned its Star status in 2011. The April 1 rally featured several safety-related presentations. OSHA established VPP in 1982 to promote workplace safety and health.



'Turning dreams into reality'

Stennis celebrates center success during 2014 Gala



Members of the Stennis Space Center community and supporters of the NASA rocket engine test facility gathered at Hollywood Casino in Bay St. Louis on April 5 to mark the 52nd year of operation for the south Mississippi center. More than 300 Stennis employees and guests gathered for the annual Gala celebration, sponsored by Partners for Stennis. The theme of the evening was "Turning Dreams into Reality." Speakers for the event included Stennis Director Rick Gilbrech (top photo), U.S. Rep. Steven Palazzo of Mississippi and SpaceX senior engineer and former astronaut Garrett Resiman (bottom photo). The evening also featured presentation of the Roy S. Estess Public Service Leadership Award, named for the late director of Stennis from 1989 to 2002. The annual award was established in memory of Estess to honor an individual demonstrating a career record of innovative leadership benefitting the government, as well as a history of volunteerism supporting the general public. The award was presented to Gulfport Mayor George Schloegel (middle photo, on right), a longtime NASA supporter and past chair of the INFINITY Science Center board.



2014 Girls Excited about Math and Science

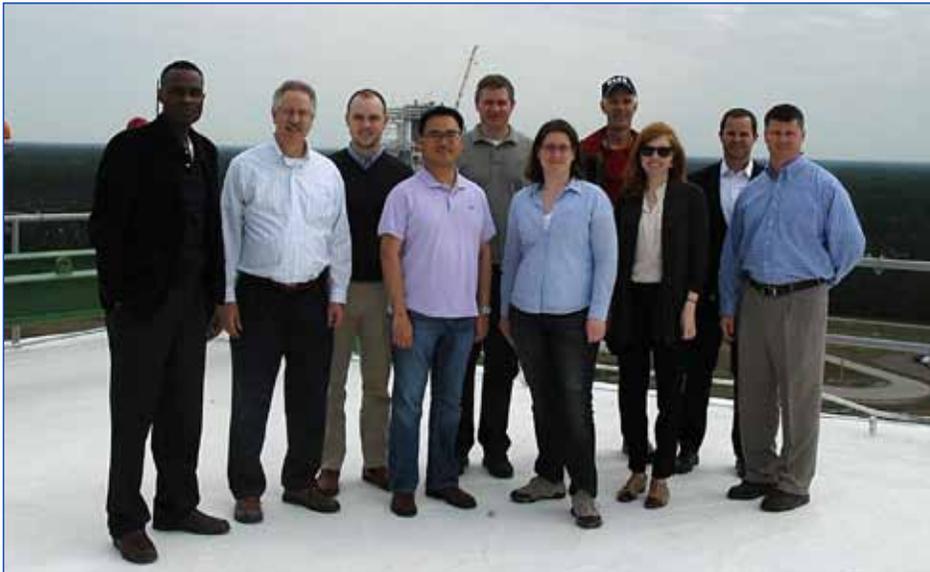
More than 250 high school girls from Louisiana and Mississippi participated in the third annual Girls Excited about Math and Science activities at Stennis Space Center on March 28. Participants attended a variety of presentations, including a cryogenics demonstration (bottom photo), a "Dress for Success" fashion show and a College and Career Expo (middle right photo). Students also attended motivational presentations by NASA engineers Rebecca Junell and Amanda Stein and by Alyssa Carson of Baton Rouge (middle left photo). Carson has dreamed of being an astronaut since she was three years old and continues to work toward that goal. Last fall, the seventh-grade student became the first person to complete NASA's Passport Program, which involves visiting all 14 NASA centers across nine states.



Stennis hosts site visitors

NASA HR directors

Stennis Space Center hosted NASA Assistant Administrator for Human Capital Management Jeri Buchholz and NASA human resources directors and training officers from across the agency for a scheduled meeting March 18. Stennis Office of Human Capital Manager Dorsie Jones welcomed colleagues to the center.



U.S. senatorial aides

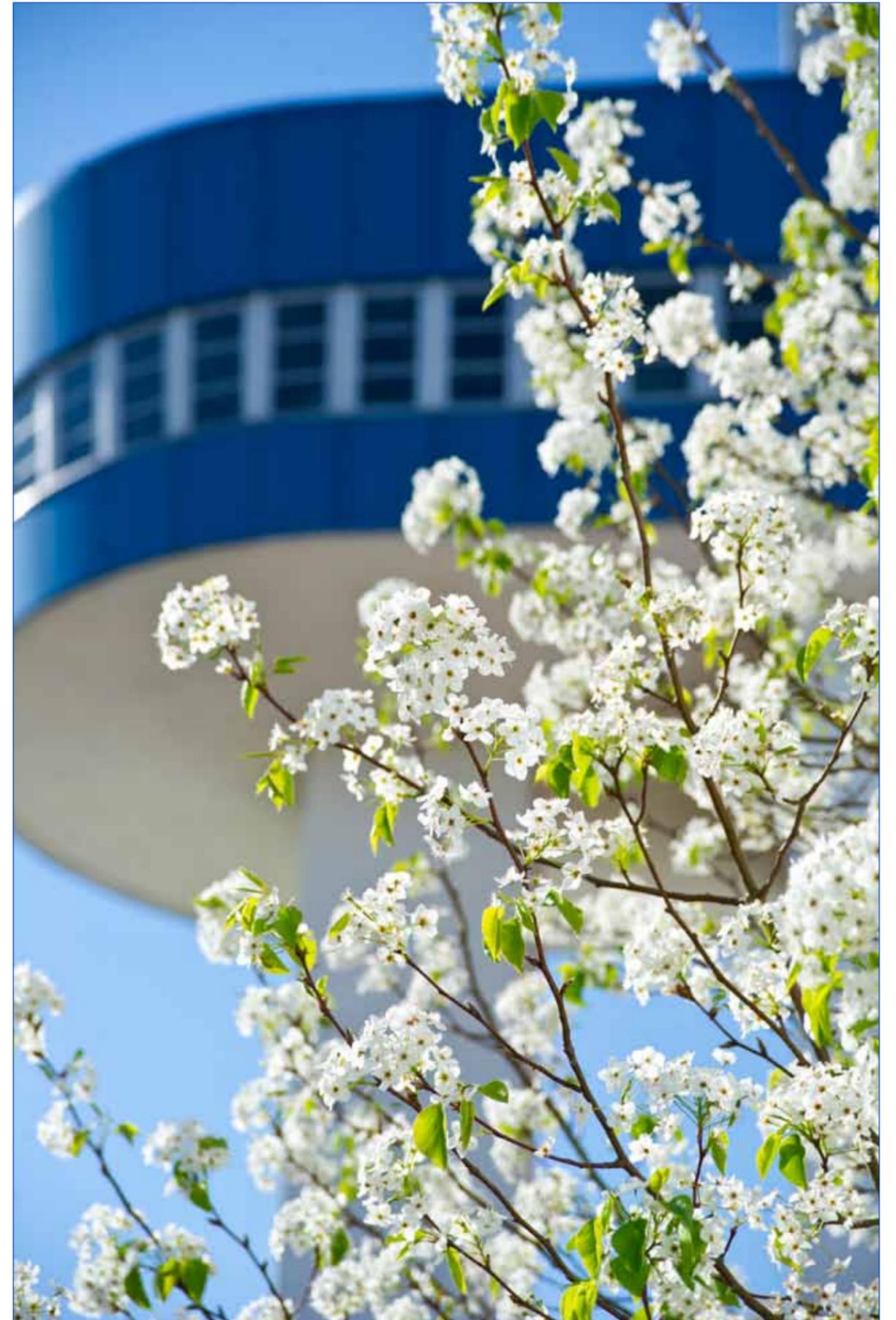
Aides to several U.S. senators enjoy a view of Stennis Space Center from atop the A-2 Test Stand during a visit to the site March 20. Aides participating in the tour of Stennis facilities were: Carolyn Chuta, military legislative assistant for Sen. Jack Reed of Rhode Island; Karen Courington, military legislative assistant for Sen. Tim Kaine of Virginia; Joseph Lai, military legislative assistant for Sen. Roger Wicker of Mississippi; Lenwood Landrum, senior defense policy advisor for Sen. Jeff Sessions of Alabama; Errol Robinson, legislative fellow for Sen. Wicker; Stephen Smith, military legislative assistant for Sen. Angus King of Maine; and William Todd, military legislative assistant for Sen. Thad Cochran of Mississippi.

Gettysburg College Eisenhower Institute

Students of the Eisenhower Institute at Gettysburg College, based in Gettysburg, Pa., and Washington, D.C., tour exhibits at INFINITY Science Center during a visit to Stennis Space Center on March 28. In addition to visiting INFINITY, the students also met with Stennis management and toured the rocket engine test site. The Eisenhower Institute was established in 1983 to honor the legacy of President Dwight Eisenhower and is recognized as a non-partisan center for leadership and public policy.



Springtime at Stennis



Stennis marks engine testing milestones

Note: For more than 50 years, NASA's John C. Stennis Space Center has played a pivotal role in the success of the nation's space program. This month's Lagniappe provides a glimpse into the history of the south Mississippi rocket engine test center.

Stennis Space Center is known as America's largest rocket engine test complex. Since the site's inception in 1961, the center has accomplished many milestones in testing engines.

At the then-Mississippi Test Operations 48 years ago on April 23, the first test firing of a Saturn V second-stage prototype was conducted on the A-2 Test Stand. Tests of additional stages followed. Tested stages were transported by barge across the Gulf of Mexico to Kennedy Space Center in Florida, where they were prepared for launch on Apollo missions.

A final test of the S-IC-15, the last of the booster stages manufactured at Michoud Assembly Facility in New Orleans, took place Sept. 30, 1970. A month later, the final Saturn V second-stage S-II-15 was tested Oct. 30, 1970.

With the Apollo Program ending in 1972, NASA announced on March 1, 1971, that the then-Mississippi Test Facility would test main engines for NASA's new reusable spacecraft, the space shuttle. The first space shuttle main engine was unveiled on March 25, 1975, in Canoga Park, Calif. The engine subsequently was shipped for testing to the again-renamed National Space Technology Laboratories.

For 34 years, Stennis and major contractor Pratt & Whitney Rocketdyne (now Aerojet Rocketdyne) would test every main engine used to power the shuttle into orbit on 135 missions. Not a single space shuttle mission failed because of engine malfunction. The last space shuttle main engine was tested at Stennis on the A-2 Test Stand on July 29, 2009.

The 48 years of rocket engine testing in the history of NASA's Apollo and Space Shuttle programs and now

the Space Launch System Program feature many history-making events, including the following:

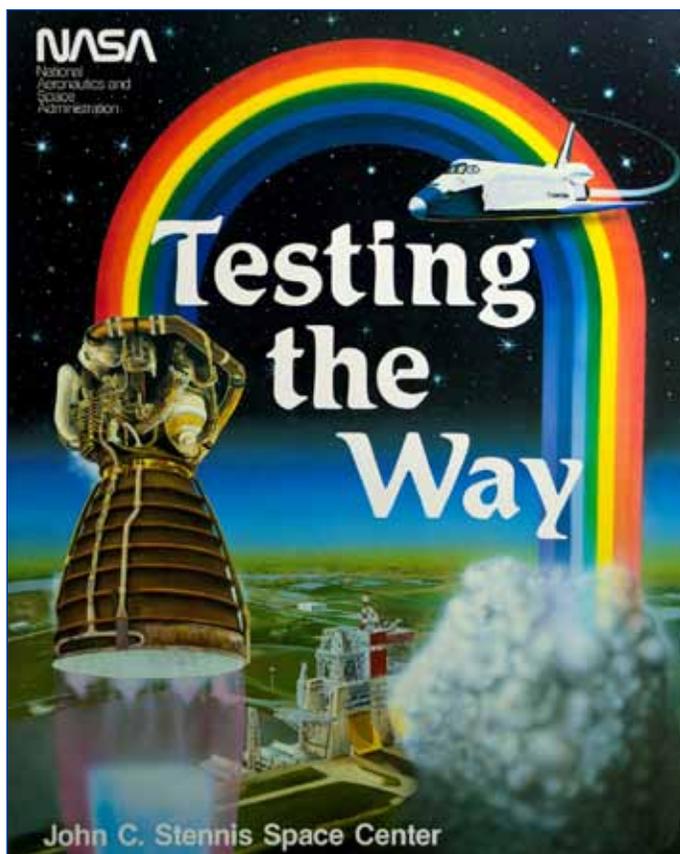
- Aug. 25, 1967 – Saturn V first stage, powered by five F-1 engines that produce more than 7.5 million pounds of thrust, is tested on the B-2 Test Stand.
- March 13, 1968 – MTF reaches its busiest peak with Saturn rocket stages in all three site test stands.
- May 19, 1975 – The then-renamed National Space Technology Laboratories conducts its first space shuttle main engine test.
- April 21, 1978 – First system test of the space shuttle Main Propulsion Test Article is conducted with three

shuttle main engines firing simultaneously.

- Feb. 25, 1988 – NSTL conducts 1,000th test firing of space shuttle main engine.
- Aug. 20, 1990 – Space shuttle main engine tests are conducted on all three test stands in one day.
- May 30, 1996 – NASA designates Stennis as lead center to manage capabilities and assets for rocket propulsion testing.
- Jan. 21, 2004 – Space shuttle main engine reaches a significant milestone of 1 million seconds of test and flight operations during a test firing at Stennis.
- Sept. 29, 2006 – Stennis conducts the final space shuttle main engine test on its A-1 Test Stand.
- Oct. 22, 2008 – A flight

certification test on engine No. 2061, the last space shuttle main flight engine built for the program, is conducted on the A-2 Test Stand.

- July 26, 2011 – Stennis conducts a successful engine start test on the next-generation J-2X rocket engine, marking the start of the third major test series for the historic A-2 Test Stand.
- Nov. 5-9, 2012 – NASA records a historic week with tests on three different rocket engines/components on three different E Test Complex stands. The 27 total tests include firings on all three stands in a 24-hour period Nov. 6-7 and a nine-hour-plus period Nov. 8.
- Dec. 13, 2012 – NASA engineers conduct the final test-firing of the J-2X powerpack assembly, an important component of the new engine.



Office of Diversity and Equal Opportunity

Remember – age is also a dimension of diversity

The following article was submitted by Randy Galloway, Director, Stennis Engineering & Test Directorate

When one hears “diversity” discussed, the tendency is to think of things like gender and race, but age is also a dimension of diversity. In NASA, age diversity is becoming an increasingly important business driver. Why is this so? The NASA workforce, like the aerospace workforce in general, has seen a gradual increase in its average age to the point where 52 percent of the workforce is above 50 with an average age of 49.1 and only 20 percent of the workforce is under 39. At Stennis, we have 52 percent of the workforce over 50 and our average age is 48.3, while 23 percent is below age 39.

This situation exists for several reasons. One is that many of the baby boomer generation were hired into NASA after the Challenger accident in 1986, fresh out of school or nearly so. In the 1990s, NASA drastically slowed hiring of “fresh out” engineers due to budget cuts. After a long period of hiring experienced workers, the agency realized some hiring of “fresh outs” needed to be done. That decision is reflected in the slight peak of “twenty-somethings” that we can now (barely) see on age distribution graphs.

Why is this age gap important? First, the agency needs to assure that relevant knowledge is captured from the experienced workforce and passed to the younger set before retirement. Second, development of the younger generation has to become a priority as a wave of retirements of managers and experts will occur in the next seven years. Also, “boomer” managers must learn how to manage and interact more effectively with the next generation to assure that they will stay in the workforce.

The generations following baby boomers have much different views and traits than those of their parents and grandparents. They tend to be much more mobile in their work, changing jobs much more often than previous generations. They also resist efforts to hold them to a fixed schedule for promotions and achievement. Boomers tend to think younger employees have “attention deficit” issues, whereas the younger folks think their bosses discount their ability to learn rapidly and to multitask. Entry-level engineers today have never known a world without the Internet and cannot remember a time when they

could not summon much of the knowledge of the last two millennia at a touch of a button. They have acquired the ability to carry on multiple conversations with multiple people at the same time and keep them sorted, even if they use an indecipherable code in doing so – OMG!. Boomers have trouble viewing these traits as positives.

What are boomer bosses to do? Perhaps the best idea is go out of the way to become inclusive of the next generation, seeking to gain understanding at the same time. Boomer bosses also need to be open and honest with the younger generation about agency promotion and compensation policies. While the next generation may not agree with the policies, at least they will know them. By including them whenever possible in every aspect of work, boomers can both learn from and share what they have learned with the next generation. This will also develop them for the coming challenges and help keep them in the fold, rather than going off to a new challenge somewhere else. Boomers must remember a lot of the knowledge gained along the way in their careers was gained just *after* it was really needed! Boomers must be willing to let the next generation have the same (or even better) chances to grow and learn, even if it means failing occasionally.

If the boomers can learn to do these things, the future will be in good hands.

Hail & Farewell

NASA bids farewell to the following:

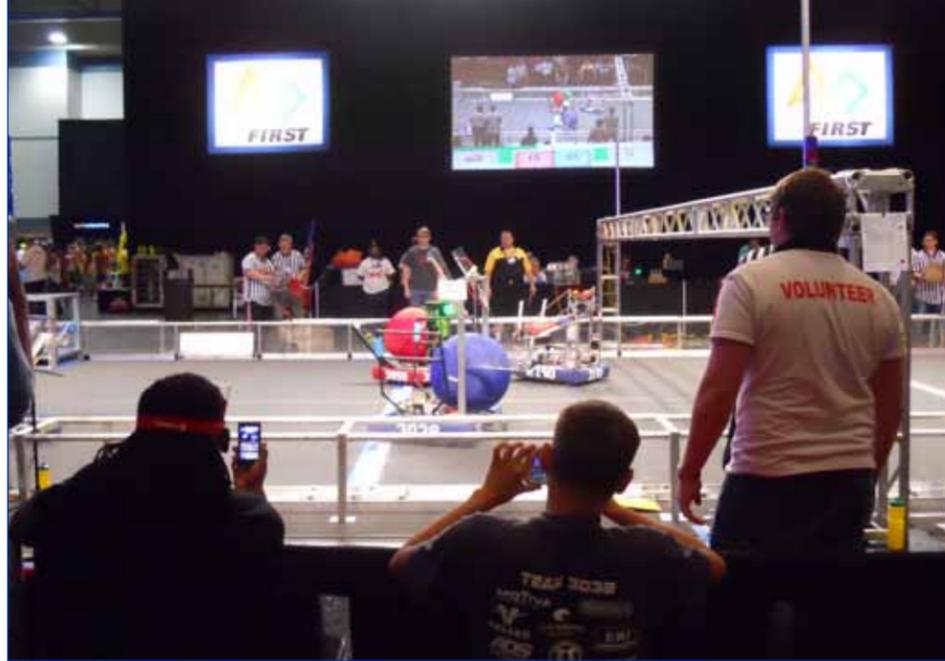
Mark Glorioso	Director Center Operations Directorate
Jessica Thompson	Student Office of Communications



Women's History Month program

Stennis Space Center employees observed Women's History Month during a March 26 program, emphasizing the 2014 theme of “Celebrating Women of Character, Courage and Commitment.” A panel discussion presentation featured women from three Stennis agencies: Iris Moore (l to r) of the Naval Oceanographic Office, Nanette Hardin of Lockheed Martin and Monica Ceruti of the NASA Office of Chief Counsel. Also participating in the program were Charles Beasley (l) of the Mississippi Enterprise for Technology at Stennis and Kenneth Newton of the NASA Shared Services Center.

Teams compete in 2014 Bayou Regional *FIRST*[®] Robotics Competition



Spectators get a close-up view during a round of competition at the 2014 *FIRST*[®] Robotics Bayou Regional Competition on April 3-5 in Kenner, La. The annual event attracted dozens of high school teams from 10 states.

Students on high school teams from 10 states competed for top honors during the 2014 *FIRST*[®] (For Inspiration and Recognition of Science and Technology) Robotics Bayou Regional Competition on April 3-5 in Kenner, La.

A combined team from Ovey Comeaux, Lafayette and Teurlings High schools in Lafayette, La., and a team from Gulfport (Miss.) High School partnered with a team from Arkansas to emerge as the champion of this year's Aerial Assist game competition.

A team from Hammond (La.) High Magnet School walked away with the most prestigious honor, earning the Regional Chairman's Award, which recognizes the team creating the best partnership effort and best exemplifying the true meaning of *FIRST*[®].

Members of two Louisiana schools were named *FIRST*[®] Dean's List finalists, awarded to students who have led their teams and communities to greater awareness of *FIRST*[®] and its mission. They are Widni Widmeier, a member of the Woodlawn High School team from Baton Rouge, and Alexander Lew, a member of the Northshore and Salmen High schools team from Slidell. Both now are finalists for the 2014 national Dean's List award.

The team from St. Patrick Catholic High School in Slidell also reached the competition finals. Thirteen teams from Louisiana and Mississippi competed in the quarterfinals and five advanced to the semifinal round. Louisiana and Mississippi teams also earned several other awards in such areas as team spirit, safety and gracious professionalism.

FIRST[®] Robotics Competition (FRC) is designed to encourage students to pursue engineering and technology careers. High school teams are given six weeks to build robots that can perform assigned tasks. They then compete in regional events to earn a chance to go to the world championship event, scheduled this year on April 23-25 in St. Louis. NASA and Stennis Space Center are supporters of FRC and the Bayou Regional event.



Students participate in Astro Camp

Young students enjoy hands-on activities during a one-day Astro Camp conducted by Stennis Space Center on March 15. Thirty-one children, ages 7-12, visited INFINITY Science Center to participate in the Spaced Out Sports camp. Activities focused on Newton's Three Laws of Motion and included exercises in which campers built and launched javelin rockets and prototype helmets for egg "astronauts" and learned about life aboard the International Space Station. All activities were designed to encourage student interest in science, technology, engineering and mathematics.



Stennis conducts outreach activities at Long Beach school



Students at Long Beach (Miss.) Middle School view a cryogenic demonstration by NASA engineer Jason Hopper (above photo) during outreach activities conducted by Stennis Space Center on March 26. In addition to that presentation, students learned about rocket engine testing from NASA engineer Christine Powell (left photo) and viewed a video of a Stennis engine test. The activities were part of an outreach effort at the school, designed to generate interest among students for studies and careers in science, technology, engineering and mathematics.

Stennis hosts Area III Special Olympics



Stennis Space Center hosted participants and guests for the 2014 Area III Special Olympics games April 12. Athletes from several surrounding counties participated in a variety of activities patterned on the World Olympics, including an opening ceremony, parade of athletes and various sporting events. Stennis is an annual sponsor of the Area III games.

(Top left photo) Stennis mascot Orbie the Astronaut greets Special Olympic athletes at the games.

(Top right photo) NASA Office of Human Capital Manager Dorsie Jones welcomes athletes and guests to the annual activities.

(Bottom photo) Special Olympics athletes and guests stand for the presentation of colors to open the 2014 Area II Special Olympics.

