National Aeronautics and Space Administration

LAGNIAPPE

John C. Stennis Space Center

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Stennis opens new records facility

NASA's John C. Stennis Space Center cut the ribbon Aug. 24 on a new, storm-resistant Records Retention Facility that consolidates and protects records storage at the nation's premier rocket engine test facility. This facility will also house history office operations.

"The opening of this dedicated records storage facility emphasizes the importance of record retention and data management," said Dinna Cottrell, chief information officer at Stennis. "This facility ensures the required federal records are preserved, managed and accessible to all interested personnel."

The new storage facility will house and protect the history and the historical documents related to Stennis. It was designed to meet all specifications and storage criteria set forth by the National Archives and Records Administration. With completion of the new building in May, Stennis became the first NASA center to open a NARA-compliant storage facility.

Stennis leaders used Hurricane Katrina mitigation funds to renovate an existing building to meet the new codes. The 2005 storm damaged several Stennis facilities that previously housed records, highlighting the need for a more protective environment.

The records retention facility now serves as a central location for all NASA records at Stennis. It can accommodate 20,000 cubic feet of records storage and offers storm-resistant protection.

Participants in the Records Retention Facility ribbon-cutting included: (l to r) Gay Irby, Center Operations deputy director at Stennis; Linda Cureton, NASA chief information officer; Patrick Scheuermann, Stennis director; Jane Odom, NASA chief archivist; Dinna Cottrell, Stennis chief information officer; and James Cluff, Stennis records manager.

NASA technology chief visits Stennis

NASA Chief Technologist Bobby Braun visited John C. Stennis Space Center on Aug. 26. While at Stennis, he spoke to employees and the media about innovation and technology in NASA's future and the important role Stennis will play in space exploration programs. Braun also toured facilities and received briefings on work under way at Stennis.

From the desk of

Ken Human

Associate Director
Stennis Space Center

In the last two-and-a-half years, I had the opportunity to watch the first launch of the H-IIB from Tanegashima, Japan. Ten days later, I was at the Canadian Space Agency mission control center in St. Hubert, Canada, watching the Canadarm2 robotic arm maneuver the Japanese H-II Transfer Vehicle into its berth at the International Space Station (ISS).

I observed Russian flight controllers at TsUP (Moscow Mission Control) working on a Progress spacecraft mission in Korolev, Russia. I participated in negotiations with the Russians in Moscow over the contract terms for seats on the Soyuz spacecraft and had discussions with managers at the European Space Agency in Nordvik, Holland, about our agreements on the Automated Transfer Vehicle.

At the end of a busy work day, sitting at a cafe in Paris or on a bullet train to Tsukuba, Japan, I thought to myself that I wouldn't be there enjoying the sights if not for Hurricane Katrina forcing me to move to Houston.

I loved my job with the ISS and met wonderful, impressive people at Johnson Space Center, who are dedicated professionals. When I announced I was leaving to return to Stennis, some were surprised, even shocked. Why would I leave one of the most stable programs in the agency, especially if I loved my job? Many at Johnson who were working on the Constellation and Space Shuttle programs were worried about their futures. They pointed out that under just about any scenario being considered, ISS is likely to be extended to 2020 and perhaps beyond.

The answer was easy. There were a lot of reasons. First, Stennis has one of the best leadership teams I know of. I relished the chance to work not only with Director Patrick Scheuermann, Deputy Director Rick Gilbrech and the senior staff, but with all of the many up-and-coming young professionals who will be running this place in the years to come.

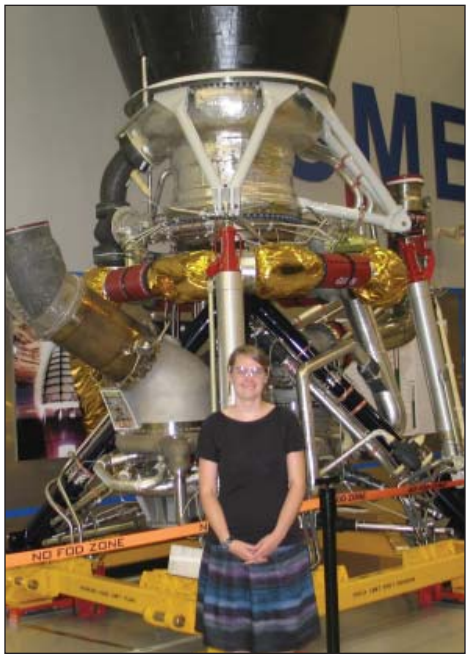
Second, at a point when so many are wondering about our American future in human space flight and the path it will take, this is the place where it begins. The rocket engines that will take American astronauts to space will be tested here, as they always have been, before they fly to space. The ISS will teach us many valuable lessons about living and working in space, but Stennis will pave the way for how the next generation of astronauts get there.

Finally, I returned because this place, this region, grows on you. I've never been anywhere else where you can count on your neighbors and your co-workers to care about you and lend a helping hand as much as you can here. Working at Stennis, I feel like I'm a small part of a great adventure. I'm excited to be back home.

Ken Human

Senate staff members visit Stennis

Staff members for Mississippi's two U.S. senators visited Stennis Space Center in August. Michael Cilenti (left photo), a Washington, D.C., staff member for Sen. Roger Wicker, toured Stennis facilities, including the A-3 Test Stand construction site, during an Aug. 17 visit. Lydia Collins, a Washington, D.C., staff member for Sen. Thad Cochran, toured Stennis facilities, including the Pratt & Whitney Rocketdyne engine assembly building, during an Aug. 12 visit. Cochran has served in the U.S. Senate since 1978. Wicker began his service in the U.S. Senate in 2007.



FULFILLING NASA'S EXPLORATION MISSION

Stennis test complexes full of activity

Work is under way across the test complex at Stennis Space Center:

• **A-3 Test Stand.** Construction on the new 300-foot test structure began in 2007 and continues with installation of the test cell and diffuser. When completed, the stand will use a series of chemical steam generators (CSG) to produce a vacuum that allows engine testing at simulated altitudes up to 100,000 feet. Such testing is critical for next-generation rocket engines that will carry humans beyond low-Earth orbit once more.

• **A-1 Test Stand.** Engineers are engaged in major maintenance and upgrading work on the 1960s-era stand, preparing it to test the power pack turbopump components for the J-2X engine. Since the J-2X is a new test article, a host of mechanical and technical aspects of the stand must be modified to meet test parameters. Power pack testing is scheduled to begin on the A-1 Test Stand in February 2011.

• **A-2 Test Stand.** The last scheduled space shuttle main engine test was performed on the A-2 Test Stand in July 2009. The stand now is being readied for sea-level testing of the J-2X engine. The work includes many of the same modifications under way at the A-1 stand. The first J-2X test on the A-2 Test Stand is planned for January 2011.

• **B-1/B-2 Test Stands.** The B Test Complex consists of a dual-position, vertical, static-firing test stand, also built in the 1960s. For a number of years now, Stennis has leased the B-1 test position to Pratt & Whitney Rocketdyne for testing its RS-68 rocket engines.

A-3 Test Stand construction continues at Stennis.

• **E-1 Test Stand.** The future of space travel is on full display at the E-1 Test Stand. In 2009, E-1 Test Stand engineers began modifications to test Aerojet's AJ26 engines for Orbital Sciences Corporation. Flight engine installation and testing is set for this fall. Two AJ26 engines will be used to power the first stage of Orbital's Taurus® II space launch vehicle to provide commercial supply missions to the International Space Station. The testing partnership between Stennis and the company is a prime example of the new NASA focus on working with commercial companies to provide space transportation.

• **E-2 Test Stand.** Engineers at the E-2 Test Stand are preparing for delivery and installation of a chemical steam generator unit. Tests then will be run to achieve an optimal level of CSG performance while minimizing usage and water consumption.

• **E-3 Test Stand.** Engineers at the E-3 Test Stand have been actively involved in construction of the A-3 Test Stand. They focused on sub-scale diffuser testing, providing critical data on design issues for the full-scale diffuser needed on A-3.

Upcoming launch schedule

STS-133
Shuttle Discovery
Target: Nov. 1

Discovery will deliver and install the Permanent Multipurpose Module and the Express Logistics Carrier 4, and will provide critical spare components to the International Space Station.

STS-134
Shuttle Endeavour
Target: Feb. 26, 2011

Endeavour will deliver spare parts including two S-band communications antennas, a high-pressure gas tank, spare parts for Dextre and micrometeoroid debris shields.

Orbital Sciences Corporation
Taurus® rocket
Target: Nov. 22
Site: Vandenberg AFB

The mission will help increase understanding of Earth's energy balance by collecting data on the atmosphere and on how the sun's irradiance affects climate.

Stennis honors contractors of the year

Stennis Space Center Director Patrick Scheuermann recognized three on-site companies Aug. 16 as part of NASA's Small Business Industry Awards Program. (Left) Larry Bramlitt, general manager of the Jacobs Technology Facility Operating Services Contract group, received Large Business Prime Contractor of the Year honors for his company's performance in providing a broad range of base operations and institutional services at Stennis. (Center) Marlena LaFontaine (left), Stennis project lead with Patriot Technologies, and Lori Huthoefer, company president, received Small Business Prime Contractor of the Year honors for their company's performance in providing administrative support staff across all offices at the rocket engine test facility. (Right) Major Mittendorf, managing partner of Comprehensive Occupational Resources (CORE), and Sue Smith, onsite CORE representative, received Small Business Subcontractor of the Year honors for the company's performance in providing health and fire services at Stennis. All three companies will be honored at the third annual NASA Small Business Symposium and Awards Ceremony, scheduled for Nov. 30 - Dec. 1 in the Washington, D.C., area. They also now are eligible for the agencywide awards to be announced at the symposium.

Stennis hosts NASA Night at Zephyr Field

Employees from Stennis Space Center traveled to New Orleans on Aug. 20 to host NASA Night at Zephyr Field. Stennis personnel provided a variety of activities and materials for fans attending a game between the New Orleans Zephyrs and the Las Vegas 51s. Left, Stennis Director Patrick Scheuermann throws the first pitch of the game. Below, Stennis employee Chris Smith helps a young baseball fan "launch" a balloon rocket.

StenniSphere opens Kidz Zone area

The StenniSphere visitor center at NASA's John C. Stennis Space Center opened a new exhibit Aug. 25, a Kidz Zone attraction that offers young visitors an interactive look at space.

The new StenniSphere area includes a feature that allows visitors a chance to perform simple tasks while wearing gloves similar to those used by astronauts; a puzzle that allows children to "build" the International Space Station; a standup cutout that gives children an opportunity to take a photo of themselves "wearing" a spacesuit; and a video screen presentation providing answers to commonly asked questions about space.

NASA chief financial officer visits Stennis

NASA Chief Financial Officer Elizabeth Robinson (center) visited Stennis Space Center on Aug. 17, touring facilities and the A-3 Test Stand construction site. Joining her on the tour of the facility were: (l to r) Deputy Director Rick Gilbrech, Stennis Chief Financial Officer Jim Bevis, Project Directorate representative Randy Holland and engineer Tom Rich.

INFINITY rising – construction on I-10 under way

Construction is under way for the new INFINITY Science Center just west of the Mississippi Welcome Center at exit 2 on Interstate 10. Roy Anderson Corp. of Gulfport is building the 72,000-square-foot, $43 million science and education center, which will feature a space gallery and an Earth gallery to showcase the science underpinning missions of the agencies at Stennis Space Center. The project is being spearheaded by INFINITY Science Center, Inc., a non-profit corporation led by Gulfport Mayor George Schloegel and Apollo 13 astronaut Fred Haise, in partnership with NASA, the state of Mississippi and private donors. When completed, it will serve as the official Stennis visitors center and will be home to the NASA Educator Resource Center.

Corps of Engineers office opens at Stennis

Note: John C. Stennis Space Center has played a pivotal role in the success of the nation's space program. This month, Lagniappe looks back on an important moment in the center's history.

On Sept. 26, 1963, Dr. Wernher von Braun, director of NASA's Marshall Space Flight Center in Hunstsville, Ala., raised the national colors at the U.S. Army Corps of Engineers area engineer's office building at the Mississippi Test Operations (now John C. Stennis Space Center). The act signified completion of the office and subsequent occupancy by 62 corps employees then assigned to the MTO project.

The 200-foot-by-36-foot, framed building with cement siding was constructed by F.B. Bear Construction Co. of Pensacola, Fla., under a $102,000 contract with the Army engineers.

Col. D.A. Raymond, district engineer for the Army engineers, said that approximately one-half of an estimated peak of 160 Army engineer employees would occupy the building by the end of the year.

Capt. William C. Fortune, a member of the U.S. Navy and manager of the Mississippi Test Operations, participated with Dr. von Braun and Col. Raymond in the flag-raising ceremony. Others present were Col. David Roberts, deputy district engineer for NASA support; Charles A. Jackson Jr., area engineer for the Corps of Engineers; Mack Herring, public information officer for the Mississippi Test Operations site; Dr. George Constan, manager of Michoud Operations in nearby New Orleans; and NASA and Corps of Engineers employees.

The Army Corps of Engineers served as real estate, engineering, design and construction agents for NASA in building the sprawling $500 million Mississippi Test Operations in Hancock County.

During the 1960s, the Corps of Engineers was the world's largest engineering/construction organization and provided heavy construction services around the globe for the Army and Air Force. The corps also carried out a vast national civil works program for flood control, navigation, hydroelectric power generation and stream flow regulation. In the Southeast, the corps had important engineering and construction responsibilities for NASA at the Cape Canaveral facility in Florida and at Marshall Space Flight Center.

Dr. Wernher von Braun, front, speaks at the flag-raising ceremony for the new Corps of Engineers office at the Mississippi Test Operations (now John C. Stennis Space Center). Others participating in the 1963 ceremony were Charles Jackson (l to r), Capt. William C. Fortune and Col. D.A. Raymond.

Contract awarded for Route 607 expansion

NPD Resources Inc., based in Brookhaven, Miss., has been awarded a $12.46 million contract to expand state Route 607 at Stennis Space Center from two lanes to four lanes. The project is expected to take 18 months.

The state road will be expanded to a four-lane divided highway between Saturn Drive and Texas Flat Road at Stennis Space Center, a distance of about four miles.

The improvement will be made by adding two lanes west of the existing roadway from Saturn Drive to the north security gate at Stennis and adding two lanes east of the existing roadway from the gate to Texas Flat Road. A 30-foot depressed median will separate the four lanes.

The roadway addition is part of a larger project under way to expand state Route 607 to four lanes all the way to I-59. The expanded road not only will provide service to Stennis Space Center but will serve as a valuable hurricane evacuation route for Gulf Coast residents in the future.

"It is important for federal and state agencies to work together," said Kelly Castleberry, District 6 engineer for the Mississippi Department of Transportation. "The Mississippi Department of Transportation and NASA demonstrate this effectively through their cooperation on the various phases of widening Route 607 to four lanes."

MDOT now is in the design phase for the section of roadway from Texas Flat Road to I-59.

Office of Diversity and Equal Opportunity

Observe Hispanic American Heritage Month

As we celebrate Hispanic American Heritage Month, we focus on one young child's dream of becoming an astronaut.

Reach for the stars and no dream is too big, are statements many parents have made to their children to give them courage to do great things. Little did 9-year-old Carlos Noriega know that someday, he would be an astronaut.

Noriega watched transfixed as the first man walked on the moon in 1969 and thought that was "the greatest thing" someone could do. He dreamed of being there himself someday. His perception of reality, however, made him soon forget this dream.

Noriega was 5 years old when he, his parents and his two younger sisters moved from their home in Lima, Peru, to Santa Clara, Calif. After high school, patriotism and a desire to go to college led Noriega to enroll in the Navy Reserve Officer Training Corps program at the University of Southern California. He was selected to attend the Naval Postgraduate School in Monterey, Calif., in 1988, and collected dual master's degrees there in computer science and space systems operations. A tour at the U.S. Space Command in Colorado Springs, Colo., taught him "a lot about the space business," he said. Yet, it still hadn't occurred to him that he could ever be an astronaut.

Then, one day, he came across a co-worker applying for the astronaut program. "I kind of laughed and said, 'What makes you think you're qualified to be an astronaut?' He showed me the paperwork from NASA. I started looking through it and thought, 'Well, shoot, I'm qualified, too,'" Noriega said. "I decided to apply based on the thought that, 'If he can do it, why can't I?'"

Stennis celebrate women's equality

Stennis Space Center celebrated Women's Equality Day with a program featuring presentations from a pair of area women – Leslie Henderson, founder and brewmaster of Lazy Magnolia Brewing Co. in Kiln, Miss., and Kathanne Greene, associate professor of political science at the University of Southern Mississippi in Hattiesburg. Shown above are (l to r): Jo Ann Larson, Stennis Equal Opportunity officer; Henderson; Greene; and Shannon Breland, public affairs officer for the Naval Research Laboratory at Stennis and a member of the Stennis Diversity Council.

On May 15, 1997 Marine Lt. Col. Carlos Noriega said he had to pinch himself to believe he was sitting in space shuttle Atlantis. Minutes later, he was launched into space on a nine-day mission to the Russian Mir space station.

The NASA Office of Diversity and Equal Opportunity, along with the Stennis Diversity Council, hope you will join in Hispanic American Heritage Month festivities Sept. 15 through Oct. 15. Planned events include: a speaker from Tulane University; a salsa dancer offering lessons; and a lunch and learn. Additional information on times and dates will be announced.

NASA Stennis Space Center
Shooting For A Star

VPP
Voluntary Protection Programs

Final VPP audits on the way

The last two Voluntary Protection Programs audits before NASA Stennis Space Center becomes a VPP Star site!

- T-33 days and counting until the Jacobs/TOC audit on October 18, 2010.
- T-47 days and counting until the NASA audit on November 1, 2010.

Hail & Farewell

NASA bids farewell to the following:

Millie Lucco	Management support assistant Project Directorate

And welcomes the following:

Querita Poole	Management support assistant Office of Safety & Mission Assurance
Jennifer Franzo	AST, quality assurance Office of Safety & Mission Assurance
Charles Hallal	Computer scientist Center Operations Directorate

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FIRST LEGO® League kicks off Sept. 18

Students from Mississippi and Louisiana will gather at Stennis Space Center on Sept. 18 for a kickoff workshop for the 2010 FIRST (For Inspiration and Recognition of Science and Technology) LEGO® League competition.

During the workshop, student teams will review this year's "Body Forward" challenge, which focuses on the cutting-edge field of biomedical engineering. In FIRST LEGO® League, students ages 9 to 14 use LEGO® kits to build robots to perform assigned tasks, then compete as teams in regional tournaments. FIRST LEGO® League is designed to inspire student interest in science and technology.

DEVELOP students at Stennis focus on oil spill

DEVELOP students at NASA's John C. Stennis Space Center put their knowledge of remote sensing and access to NASA technology to use this summer to study the Deepwater Horizon oil spill in the Gulf of Mexico.

DEVELOP is a NASA Science Mission Directorate Applied Sciences training and development program. Students work on Earth science research projects, mentored by science advisers from NASA and partner agencies and extend research results to local communities.

The Stennis students partnered with DEVELOP students at NASA's Langley Research Center in Hampton, Va., and the Mobile (Ala.) County Health Department to form a Gulf of Mexico Oil Spill Response team. The DEVELOP team engaged in research using NASA technology to track the extent of the oil spill and to study how sea surface temperatures are being affected by the conditions.

The team contributed to a fact sheet explaining NASA's contributions to oil spill response. The sheet includes satellite images showing the impact of the spill on sea surface temperatures, air quality and vegetation.

"With the oil spill disaster unfolding in the Gulf of Mexico, this summer's DEVELOP students had a chance to make immediate, practical use of their training," said Cheri Miller, DEVELOP manager at Stennis Space Center. "They are helping people understand what NASA has to offer as the Gulf Coast recovers from this oil spill disaster."

Students shared the information with local communities addressing coastal management issues resulting from the oil spill. For instance, DEVELOP students attended a Gulf of Mexico Alliance workshop. The Gulf of Mexico Alliance is a regional partnership of Alabama, Florida, Louisiana, Mississippi, Texas and 13 federal agencies, including NASA, focused on enhancing the ecological and economic health of the Gulf of Mexico region.

In addition to their Gulf of Mexico oil spill work, this summer's DEVELOP students at Stennis conducted four projects – analyzed the effects of sugarcane burning on air quality and public health in Louisiana; researched the impact of El Nino on water resources for Florida agriculture; investigated the ability of NASA satellites to predict air quality near Hawaii volcanoes; and evaluated the ability of NASA satellites to accurately measure hurricane wind speeds.