

Stennis launches Legends Lecture Series

John C. Stennis Space Center launched a yearlong 50th anniversary celebration Nov. 9 with the first presentation in its Legends Lecture Series, in which former NASA leaders reflect on past work at the facility.

“There is no better way to celebrate 50 years of excellence at Stennis than to honor the leaders – the legends – who brought us to this point and to embrace the lessons they provide,” Stennis Director Patrick Scheuermann said. “Stennis has established itself as the nation’s premier rocket engine test facility because of the commitment and dedication of these leaders and so many more. Even as we celebrate that history, we continue to build on our legacy, thanks to the commitment and dedication of countless others.”

See **LEGENDS**, page 5



Stennis Space Center Director Patrick Scheuermann (second from right) stands with Legends Lecture Series presenters George Hopson (l to r), Jerry Hlass and J.R. Thompson following their Nov. 9 presentation. It was the first of several presentations in the lecture series planned as Stennis Space Center celebrates its 50th anniversary.

Discovery launch postponed

Launch of space shuttle Discovery on the STS-133 mission – the last scheduled flight for the orbiter – will not occur before Nov. 30 after technical issues caused delays earlier in the month. The last delay occurred Nov. 5 when a hydrogen gas leak was detected. Flight managers decided to target Discovery for the next available window to give adequate time for repair of the leak and to address a crack detected on an external tank flange. Launch on Nov. 30 would be targeted for 3:05 a.m. CDT. Upon completion of the STS-133 mission to the International Space Station, Discovery will become the first shuttle orbiter to be retired. Shuttles Endeavour and Atlantis will be retired after flying missions in 2011.



From the desk of

Myron Webb

Legislative Affairs Officer
INFINITY Liasion



With the president's signature on the bipartisan NASA Authorization Act, we can be confident Stennis' unique propulsion capabilities and facilities will be essential to America's future space exploration program. Many factors ensure the center is well-positioned to play an integral role – our talented and experienced workforce, 125,000-acre buffer zone, successful record with commercial partnerships, and longstanding good relations with elected officials and community leaders. Stennis has earned "its wings."

Congress' appropriations process will provide many more details, but our broad guidelines have been enacted into law. Being ground zero for testing a new heavy-lift space launch system to carry humans beyond low-Earth orbit is exciting. It is also exciting that NASA's new endeavors will inspire future generations of scientists, engineers and explorers. On Nov. 17, a topping-out ceremony for INFINITY® at NASA Stennis Space Center will be held. This 72,000 sq. ft., next-generation science center, five miles outside our gates near Interstate 10, will make our visitor and education programs more visible and accessible.

I can hardly wait until the incredible science of NASA, the U.S. Navy, the National Oceanic and Atmospheric Administration, the Environmental Protection Agency,

the U.S. Geological Survey and others will be shared with more of our area residents, as well as with folks in the 12 million cars that pass outside our gates every year. INFINITY promises to motivate youth through "scientists in training missions" and exposure to many of the 3,000 Stennis scientists, engineers and technicians involved in exploration from the bottom of the ocean to the far reaches of the universe.

The non-profit board of directors, led by Gulfport Mayor George Schloegel and Apollo 13 astronaut Fred Haise, is working diligently to open the doors to INFINITY to reach the 296,000 Mississippi and Louisiana students within a 50-mile radius.

The science center will be a positive reflection on this great state and region. Showcasing world-class technology, combined with second-to-none hospitality, is a winning combination that will pay dividends in education, economic development and image enhancement. The eco-tourism experience, which will include walking, bicycling and bird-watching trails on the adjoining acreage purchased by the Department of Marine Resources, will also be an invaluable regional asset.

INFINITY will be special because it is based on a special place called Stennis Space Center. All of us who work at this unique federal and commercial city should give thanks daily. I also give thanks daily for the privilege and pleasure to have worked with two giants who left indelible fingerprints on Stennis and INFINITY – Roy Estess and Leo Seal. Their legacy will live on in the minds and hearts of everyone privileged enough to have seen their greatness firsthand.

State legislators visit Stennis

Members of the Southern Legislative Conference's Gulf Coast/Atlantic States Regional Task Force visited Stennis Space Center on Oct. 29.

The visiting legislators toured center facilities and received briefings on Stennis' support of research related to the recent Gulf of Mexico oil spill. Tour participants included (l to r): SLC Program Manager Lori Jones-Rucker; A-3 Test Stand Project Manager Lonnie Dutreix; task

force Presiding Officer Sen. David Baria, D-Bay St. Louis; SLC Deputy Director Ken Fern; Rep. Al Williams, D-Midway, Ga.; Rep. Jamie Ison, R-Mobile, Ala.; Rep. Billy Broomfield, D-Moss Point; and SLC First Vice Chair Rep. Frances Fredericks, D-Gulfport.



FULFILLING NASA'S EXPLORATION MISSION

A-3 Test Stand component arrives



The first of nine chemical steam generator (CSG) units that will be used on the A-3 Test Stand arrived at Stennis Space Center on Oct. 22 (above photo). The following week, Stennis employees moved and installed the unit on the E-2 Test Stand for verification and validation testing before it is installed on the new A-3 stand (accompanying photos). Each CSG unit includes three modules (bottom right photo). Steam generated by the nine CSG units that will be installed on the A-3 stand will create a vacuum that allows Stennis operators to test next-generation rocket engines at simulated altitudes up to 100,000 feet. Simulated high altitude testing is critical for engines that will carry humans into deep space once more.



Upcoming launch schedule

STS-133
Shuttle Discovery
Target: Nov. 30

Discovery will deliver and install the Permanent Multipurpose Module and the Express Logistics Carrier 4

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

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

Orbital Sciences Corporation
Taurus rocket
Target: Feb. 23, 2011
Site: Vandenberg AFB

The mission will help increase understanding of Earth's energy balance by collecting key data.

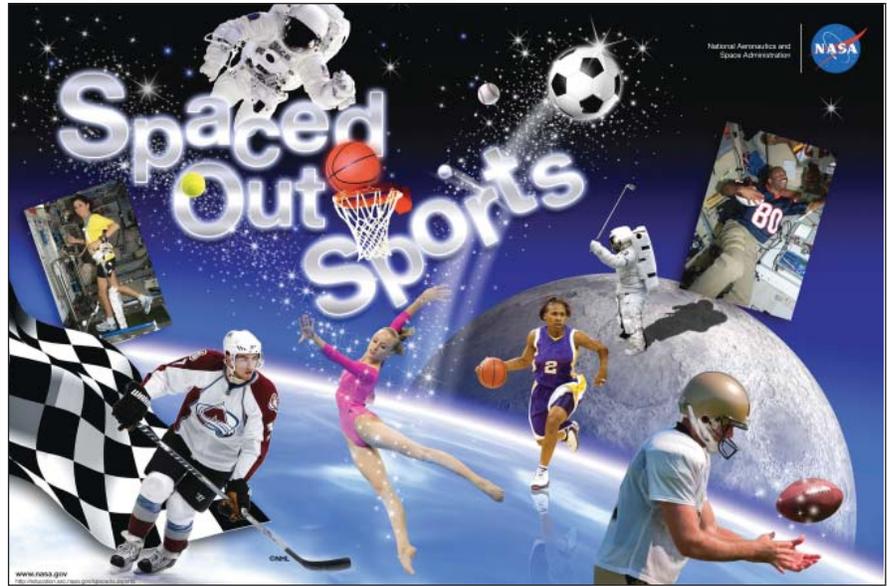
Stennis kicks off student design challenge

NASA has launched Spaced Out Sports, a national challenge for students in grades 5-8 to create games that will be played by astronauts aboard the International Space Station (ISS).

“This is a great opportunity for students to learn fundamentals of science in a hands-on way,” said Katie Wallace, education director at Stennis, where the curriculum was developed. “Student teams around the nation will have a chance to earn a NASA-sponsored schoolwide celebration and to see their game played by astronauts aboard the space station.”

The challenge focuses on helping students learn and apply Sir Isaac Newton’s Laws of Motion. The accompanying Science and Sports curriculum and other materials were unveiled at the recent USA Science and Engineering Festival in Washington, D.C., the Mississippi Science Teachers Association Conference and the Louisiana Science Teachers Association Conference.

Using the Science and Sports curriculum, teachers will lead students through a study of Newton’s laws, highlighted by hands-on activities. They also will use a video featuring NASA scientists and engineers



explaining the science concepts and Digital Learning Network modules that will help guide students in development of their games.

The video and modules feature celebrity sports figures, including members of the National Football League world champion New Orleans Saints, explaining the “science behind their games.” Students also will have an opportunity to participate in a Digital Learning Network webcast with other astronauts aboard the ISS.

Students will learn the differences in games played in the gravity environ-

ment of Earth and in a microgravity environment, such as that on the ISS. They then will design or redesign a game to illustrate and apply Newton’s laws. Three submissions will be chosen during the spring school semester. The three winning teams will be able to watch their games played aboard the ISS.

“This Spaced Out Sports challenge could inspire students in the direction they will follow the rest of their lives,” Wallace said. “It is no stretch to imagine that some of these very students will one day be astronauts or leaders in America’s space program.”

Stennis response teams conduct emergency exercise



Response teams at Stennis Space Center conducted an emergency exercise Oct. 27, responding to a simulated natural gas pipeline explosion that resulted in numerous casualties. Fire, emergency medical services and security personnel were involved in the exercise, which involved e-mail notification of all site personnel. Response teams acted to bring the pipeline leak under control and treat the casualties (above left photo). In the accompanying photo, Stennis Fire Department lieutenants Warren Fandal (left) and Greg Lampley discuss conditions during the exercise, which lasted a bit more than an hour.

NASA honors Stennis employees

Employees of Stennis Space Center were honored Oct. 30 by NASA's Space Flight Awareness program for contributions to flight safety. The awards were presented by astronaut Ricky Arnold during a Florida ceremony in conjunction with the targeted launch of shuttle Discovery on the STS-133 mission. Recipients and ceremony participants included: (seated, l to r) Jared Grover (NASA), Mark Turowski (Jacobs Technology NASA Test Operations Group), Connie Hulbert (Lockheed Martin Enterprise Information Technology and Data Solutions), Bret Barras (A²Research), Patrick Hayley (Pratt & Whitney Rocketdyne); (standing, l to r) Robert Bruce (NASA), Stanley Mitchell (Jacobs Technology Facility Operating Services Contract Group), Stennis Director Patrick Scheuermann, Jonathan Morris (Jacobs Technology NTOG), Arnold, Oliver Swanier (PWR), Trent Lee (PWR) and Jeff Wright (PWR). Three people received awards but were unable to attend the ceremony. They are Duane Donner (Jacobs Technology FOSC), Mike Harbart (NASA) and Caroline Sundberg (ASRC Research and Technology Solutions).



Stennis employees focus on energy awareness



Energy awareness was on display at Stennis during recent events. (Left) Stennis employees Breena Fortenberry and Courtney Bissonnette brief visitors on a pair of alternative fuel vehicles used at Stennis and on display during the Mississippi Odyssey event in Biloxi on Oct. 15. (Right) Tony Gorefski, a NASA employee at Stennis, talks with Mississippi Power representative Jamarca Proctor during an onsite Energy Awareness Day on Oct. 19.



LEGENDS

Continued from page 1

Former leaders reflecting on the emergence of Stennis as a center of excellence during the first planned lecture series session were: Jerry Hlass, former Stennis Space Center director; George Hopson, former Space Shuttle Main Engine Project manager; and J.R. Thompson, former NASA deputy administrator.

NASA's public announcement of Hancock County, Miss., as the site for a new rocket engine test facility came on Oct. 25, 1961. Almost five decades later, three former NASA leaders returned to the facility to offer remembrances about their work. The leaders particularly focused on

the transition of NASA from Apollo lunar missions to low-Earth orbit space shuttle missions in the 1970s.

Stennis Space Center played an integral role in each space program. The Mississippi facility tested all of the engines used on 11 manned Apollo missions, including six missions that landed on the moon. The facility then re-tooled to test all main engines used on more than 130 space shuttle missions to date.

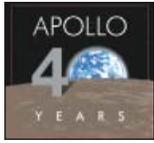
The center now is in another transition period, preparing to test next-generation rocket engines that once more will carry humans beyond low-Earth orbit to deep space destinations. Work includes modifying two rocket engine test stands, as well

as building a new simulated high-altitude stand.

Even as those preparations continue, the Stennis community is reflecting on five decades of work that saw its facility emerge as the nation's premier rocket engine test site. Fifty years ago, it was said that however America traveled to the moon, it had to go through south Mississippi. Fifty years later, the same is being said once more – regardless of destination in space, the path leads through Stennis Space Center.

Additional lecture series presentations will be held during the upcoming year. Other activities commemorating the 50th anniversary year also are being planned.

NASA raises the flag at new testing facility



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 rocket engine testing center's history.

Two November events are notable in NASA's John C. Stennis Space Center history: the debut of its first issue of Lagniappe and the first flag-raising ceremony.

The initial Lagniappe on Nov. 11, 1977, featured the site's first flag-raising ceremony, held Nov. 21, 1962, at the then-called Mississippi Test Operations facility. The flag-raising was staged in the front yard of the Rouchon House, where NASA officials established their headquarters in a vestige of the old town of Gainesville in Hancock County, Miss.

Many prominent NASA pioneers participated in the event, including Bart Slattery, public affairs officer of NASA's George C. Marshall Space Flight Center (MSFC); Dr. Wernher von Braun, MSFC director; Capt. William Fortune, MTO first site manager; Dr. George Constan, NASA's Michoud Assembly Facility manager; Dr. Oswald Lange, chief of NASA's Saturn Program Office; Dr. Hermann



Weidner, chief of the Structures and Mechanics Laboratory; Karl Heimbürg, NASA's Test Laboratory director; and Dan Driscoll, a Test Laboratory employee.

Bart Slattery, (l to r) greeted Dr. Wernher von Braun in this 1962 photo as the American flag was raised for the first time at the Mississippi Test Operations facility, now John C. Stennis Space Center. Others who shared the honors were: Capt. William Fortune, Dr. George Constan, Dr. Oswald Lange, Dr. Hermann Weidner, Karl Heimbürg and Dan Driscoll.

Weidner, chief of the Structures and Mechanics Laboratory; Karl Heimbürg, NASA's Test Laboratory director; and Dan Driscoll, a Test Laboratory employee.

The 1977 Lagniappe article stated only a handful of people were present when Old Glory and the official NASA flag were hoisted. There were no speeches or fanfare, but the event had historical meaning. For local citizens, the ceremony went a long way toward showing that NASA really meant business when it announced Oct. 25, 1961, that a "moon rocket

testing site was to be built in Hancock County, Miss."

In addition to the flag-raising article, the first Lagniappe issue briefly defined its title term – "Lagniappe is used commonly by natives, or many who live in this Mississippi Gulf Coast or South Louisiana area, as 'a little something extra.' Webster's New Collegiate Dictionary says the word is of French-American or French-Spanish origin. It is defined in its broadest use: 'something given or obtained gratuitously or by way of good measure.'"

Stennis employees kick off 2010 CFC effort

Stennis Space Center Director Patrick Scheuermann speaks to facility employees during an Oct. 20 kickoff for the 2010 Combined Federal Campaign. The CFC is the largest annual workplace charity effort.

Each year, gifts collected from federal employees in various agencies help to support organizations providing health and human service benefits throughout the world. During the kickoff ceremony, Stennis employees were able to view exhibits by some of the organizations supported by the annual campaign. Stennis has set a goal of contributing \$210,000 through the campaign this year. Last year, Stennis employees exceeded their giving goal of \$200,000 by 16.5 percent.



Office of Diversity and Equal Opportunity

Avoid stereotyping cultural differences

"How anyone can try to make generalizations about an entire continent of people, plus all the Asian Americans and the infinite permutations of people's differing experiences, is beyond me."

Faye Lee, Japanese-American

Differences between people within any given nation or culture are much greater than differences between groups. Education, social standing, religion, personality, belief structure, past experience, affection shown in the home and a myriad of other factors will affect human behavior and culture.

Sure, there are differences in approach as to what is considered polite and appropriate behavior, both on and off the job. In some cultures, "yes" means "I hear you" more than "I agree." Length of pleasantries and greetings before getting down to business; level of tolerance for being around someone speaking a foreign language; politeness measured in terms of gallantry or etiquette, such as standing up for a woman who approaches a table, yielding a seat on the bus to an older person, etc.; and manner of expected dress are all examples of possible cultural differences and traditions.

Paying attention to customs and cultural differences can give someone outside that culture a better chance of assimilation or acceptance. Ignoring these can get an unsuspecting person into trouble. Cross-cultural observations can easily be tainted and contaminated by other factors. Perceived status differences can create barriers between cultures and even within organizations. Acting on generalizations about such matters as eye contact, personal space, touch and interest in participation can have serious negative consequences.

Stereotyping can have intense negative effects, especially when managers make fewer attempts to involve those of other cultures because they have been taught not to expect participation! In another instance, they might not realize there may be something wrong when a student or employee of a different ethnicity makes little eye contact with them. These differences between cultures and peoples are real and can add richness (and humor) to the fabric of life. People everywhere have much in common, such as a need for affiliation and love, participation and contribution. When the exterior is peeled off, there are not so many differences after all.

Hail & Farewell

NASA welcomes the following:

Katrina Wright Industrial hygienist
Center Operations Directorate

NASA Stennis Space Center
Shooting For A Star



**Congratulations,
NASA SSC and
NTOG!**

Congratulations to NASA SSC and
the Jacobs Technology NASA Test Operations Group
for successful completion of their
Voluntary Protection Programs audits!

Both are being recommended
to receive Star status from OSHA.

Great job, NASA and NTOG!

Stennis briefs

Tech recognition. Stennis Space Center was cited twice in the August issue of *Tech Briefs*, a magazine focusing on engineering solutions for design and manufacturing.

In the area of physical sciences, NASA employee Thomas Stanley and Science Systems and Applications Inc. employees Robert Ryan, Kara Holekamp and Mary Pagnutti were recognized for developing a simplified method of vicarious radiometric calibration. The new approach was praised as much less complex and labor-intensive.

In the area of information sciences, Gopal Tejwani, a Jacobs Technology Inc. employee at Stennis Space Center, was recognized for enhancing the rocket plume spectroscopy simulation code used in monitoring the health of a rocket engine. The work involved enhancing the code to include new electronic bands needed in plume diagnostics work.

LAGNIAPPE
 is published monthly by the
 Office of External Affairs - Public Affairs
 at NASA's John C. Stennis Space Center

Comments or suggestions should be forwarded to:

NASA PUBLIC AFFAIRS OFFICE
 Attn: LAGNIAPPE
 Mail code IA10
 Building 1100, Room 304
 Stennis Space Center, MS 39529

or call 228-688-3749

Managing Editor ... Rebecca Strecker
 Editor ... Lacy Thompson



National Aeronautics and
 Space Administration

PRESORTED STANDARD
 U.S. POSTAGE
PAID
 GULFPORT, MS
 PERMIT NO. 268

John C. Stennis Space Center
 Stennis Space Center, MS 39529

Official Business
 Penalty for Private Use \$300

Stennis students attend A-Train symposium

DEVELOP students from Stennis Space Center attended the A-Train International Symposium in New Orleans on Oct. 25-28 to learn about the A-Train satellite “constellation” through a range of activities and presentations.

The gathering focused on the satellite combo being assembled in space to provide three-dimensional images of Earth’s atmosphere and surfaces.

It featured a daylong workshop on data products and their use, as well as workshops on remote sensing



and satellite data. The schedule also included plenary sessions featuring guest speakers who presented updates on current research.

The Stennis DEVELOP students

presented posters and projects completed by the team. NASA DEVELOP interns Jason Jones, Jared Zeringue, Robert Clark and Ross Reardon presented research on methods of tracking the Gulf of Mexico oil spill, detecting natural oil seeps in the Atlantic Ocean and assessing the impact of sugar cane and marsh burning practices on local air quality.

DEVELOP is a NASA training and development program. Students work on Earth science research projects, mentored by science advisers from NASA and partner agencies.

FIRST LEGO seeks volunteers

The Stennis Space Center Education Office is seeking volunteers and judges to assist in the Mississippi Championship FIRST LEGO League competition set for Dec. 4 in Hattiesburg.

At the competition, teams use LEGO MINDSTORMS NXT robots to complete assigned missions. They also present research on selected topics. Volunteers should call Randall Hicks at 228-688-3653 or e-mail randall.t.hicks@nasa.gov.

Stennis attends national festival



Young visitors to the inaugural USA Science and Engineering Festival at the National Mall in Washington, D.C., learn about the life cycle of a star at an exhibit sponsored by the Stennis Space Center Education Office. Stennis personnel participated in the final weekend of the Oct. 10-24 festival with education activities and to present information on its new Spaced Out Sports Design Challenge.