National Aeronautics and Space Administration

LAGNIAPPE

John C. Stennis Space Center

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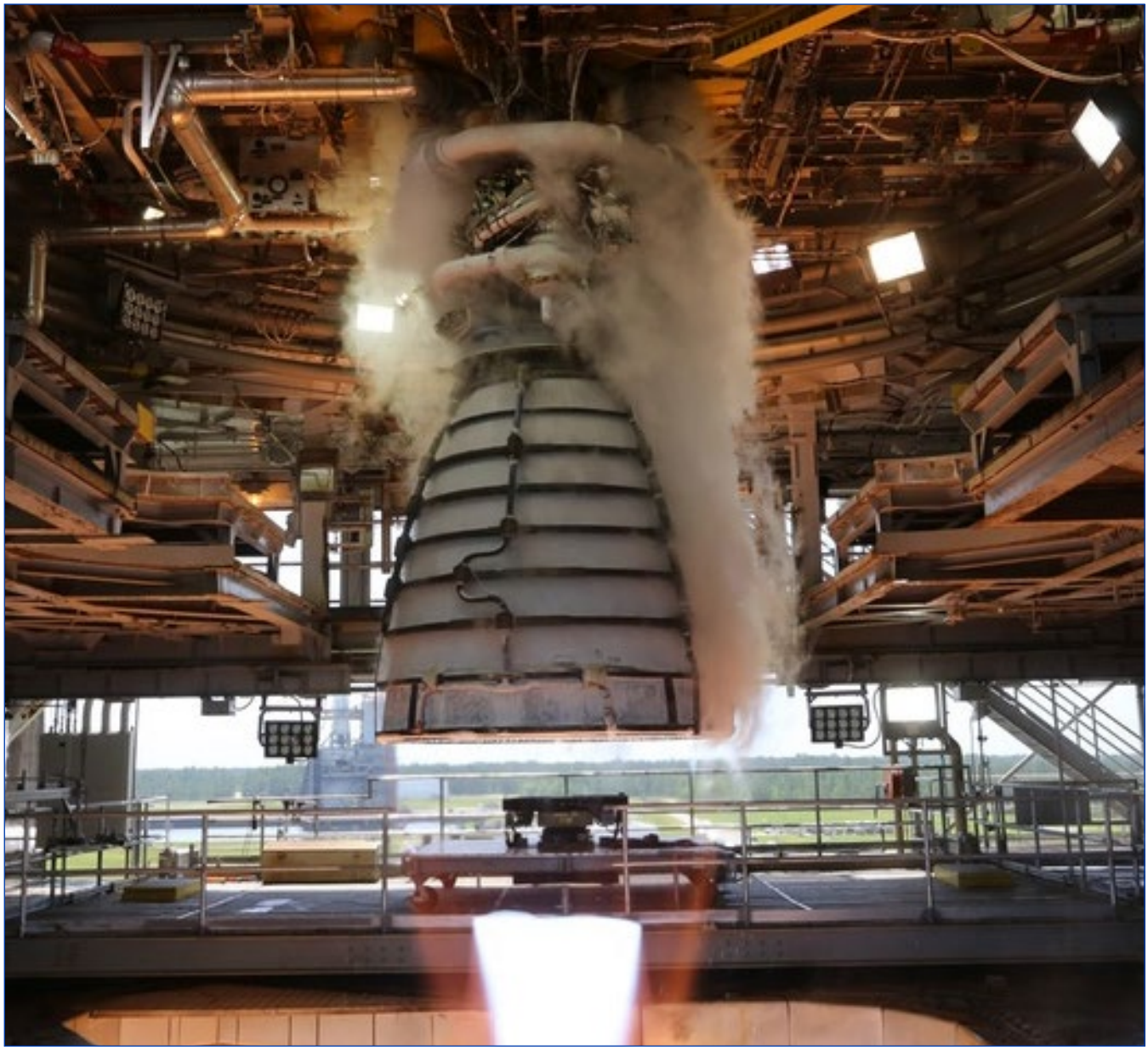
History-making test series



An Aerojet Rocketdyne AR-22 engine is test fired on the A-1 Test Stand at Stennis as part of a historic test series at the south Mississippi site. Following a pair of initial tests, a combined test team of NASA, Defense Advanced Research Projects Agency, Aerojet Rockedyne, Boeing and Syncom Space Services engineers and operators tested the AR-22 engine 10 times in a 10-day (240-hour) time period. It marked the first time a large liquid hydrogen/liquid oxygen rocket engine had been fired so consecutively in such a short period of time. The historic series was completed despite initial difficulties with "drying" the engine following tests and in spite of a lightning strike halfway through the series that threatened to derail the entire effort. Photo credit: Aerojet Rocketdyne **(See page 3 article)**

When President John F. Kennedy challenged the nation to send humans to the Moon, it seemed an impossible goal. It had only been a few months since the first American even had orbited Earth. However, as my old grandgator used to say when faced with something that never had been done – "What of it? Carts didn't even have wheels till somebody thought of it." Ark!

This country met Kennedy's goal, thanks in large part to testing work done right here at Stennis Space Center. And if you think the days of such improbable accomplishment are done, think again. It really should come as no surprise to hear that Stennis folk have once again led in achieving what no one else even has attempted.

In late June and early this month, a combined team of Stennis engineers and operators on the A-1 Test Stand tested an Aerojet Rocketdyne AR-22 rocket engine 10 times in a 10-day period (240 hours)! The tests were not even derailed by a pair of lightning strikes and inclement weather that delayed one hot fire.

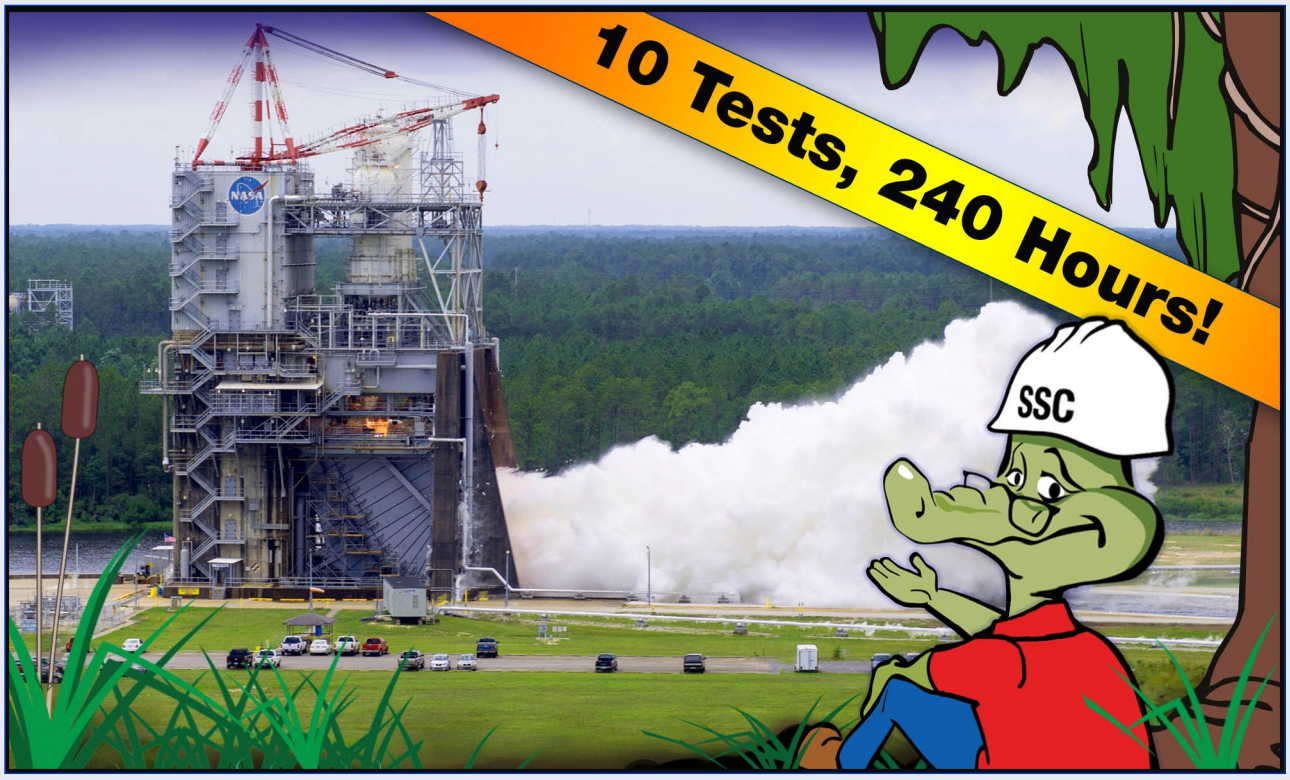
It was quite a feat – one more test and I would have had to pull my shoes off to keep count. Ark!

You can read details about the test series on page 3. Suffice to say that it took an awful lot of careful preparation, hard work and sheer determination to meet the goal – three traits Stennis is known for when it comes to rocket engine testing.

In fact, Stennis folk are so well versed in those qualities that they can make testing look easy, almost routine. It can even make conducting 10 tests in a row look like just another day at the office. It certainly is not so.

What is so is that Stennis folk have reached an unparalleled level of excellence in rocket engine testing. From Apollo rocket stages to space shuttle main engines to the most-recent hotfire challenge, Stennis folk have proven themselves unmatched in testing expertise.

Adjectives get thrown around way too much these days. However, some events and circumstances demand such characterization. So, when it comes to the recent test accomplishment here at Stennis, let us just call it what it is – ABSOLUTELY REMARKABLE. (Capitalization intended and rightfully deserved).



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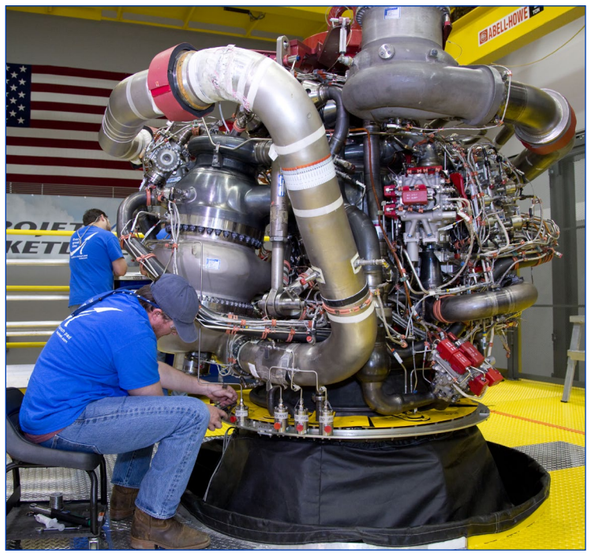
FULFILLING NASA'S EXPLORATION MISSION

Stennis team completes unprecedented string of rocket engine tests

Most people start their vehicle every day – even multiple times a day – without much thought. Get comfortable, fasten the seat belt, adjust the mirrors if needed, turn the ignition and one is ready to drive.

Starting a rocket engine is a much – as in MUCH – more complicated procedure. Even test firing a rocket engine requires completing hours of preparation and post-test procedures, involves dozens of people and features test checklists as thick as a new paperback book release.

That makes what the A-1 Test Stand team at Stennis Space Center accomplished during an 11-day period in late June and early July a staggering achievement. Beginning June 26, a combined team of NASA, Defense Advanced Research Projects Agency (DARPA), Aerojet Rocketdyne, Boeing and Syncom Space Services (S3) engineers and operators test fired an AR-22 rocket engine 10 times in a 240-hour period!



Aerojet Rocketdyne technicians complete final assembly on the first AR-22 rocket engine, shown at its facility located at Stennis Space Center.

"This accomplishment is the first time in history that a large liquid oxygen/liquid hydrogen engine has been tested this often in such a short duration," Stennis Director Rick Gilbrech noted. "It required a combination of innovation and determination from the entire team."

The test series was a challenge from the beginning, requiring detailed planning and preparation. "We had never attempted anything like this," A-1 Test Stand Director Jeff Henderson said. "We're talking about a pretty incredible effort by a lot of different people, all working together to accomplish a really difficult mission."

The testing was part of DARPA's effort to develop an Experimental Spaceplane (XSP) – called the Phanton Express – as a low-cost, reusable system for delivering small satellites into orbit. The goal is to design a vehicle that can be launched on short notice and with rapid turnaround times.

Aerojet Rocketdyne's AR-22 engine has been selected to power the new vehicle. It is being assembled using materials and components from early versions of the much-tested and highly-reliable space shuttle main engines.

The 10-test series at Stennis was designed to demonstrate the rapid turnaround capability not only of the engine but of the test team and facilities. DARPA indicated that accomplishing the tests within the 240-hour period was essential to keep the project moving forward, Henderson said. The effort required around-the-clock work for operators. Even as team members were completing post-test procedures, others were focusing on pre-test work needed for the next day's test.

It also required considerable innovation. For instance, an AR-22 engine uses liquid oxygen and liquid hydrogen at super-cold temperatures and high pressures, the two mixing to form a highly combustible fuel. As basic science teaches, mixing oxygen and hydrogen in the right proportion also creates water. Thus, following a test, the engine has to be "dried" of any moisture that may have accumulated internally. To do so, pressurized nitrogen or air is pushed through the system and engine. The procedure is a must – and takes time, way too much time following the first warmup tests.

After a pair of preliminary tests, the drying process took twice as long as needed for the 24-hour turnaround. Adjustments were made, but operators approached the June 26 kickoff test still unsure if the drying issue had been remedied.

It had been – and the turnaround series was under way. Each test was set for 100 seconds at about the same time every day. The first four tests were conducted without major problems, and all was progressing towards the fifth hot fire when lightning struck late in the afternoon of June 29, damaging equipment at the A Complex Test Control Center and on the A-1 stand.

In what one DARPA representative described as a "herculean" effort, Stennis team members responded quickly, working to replace damaged hardware. Meanwhile, an Aerojet Rocketdyne team worked to compile a procedure for checking repairs to ensure all was ready and safe to resume testing.

Stennis Space Center operators conduct a successful initial test of the Aerojet Rocketdyne AR-22 rocket engine on the A-1 Test Stand on June 12.

What could have taken weeks to assess, repair and check out was accomplished in less than a day, thanks to the work of Stennis team members. The fifth test was scheduled for later in the day June 30 when weather once again intervened.

Lightning in the area prevented the scheduled June 30 test, despite the fact that the stand, engine and test team were ready to go. The test was pushed into the next morning, with subsequent tests occurring through the July 4 holiday, despite a second lightning strike July 2 that caused minimal damage.

At about 11 a.m. on July 6, the Stennis test ignited the AR-22 engine for the 10th – and final – test in the turnaround series. Although it had been 11 calendar days since the first test of the series, all 10 of the 100-second hot fires had been completed in a 240-hour period – with a bit more than an hour to spare.

The Stennis team had met the challenge. "The work of the A-1 test team was outstanding," Gilbrech emphasized following completion of the series. "The team safely executed a complex plan of hazardous activity on an aggressive pace, 24 hours a day, across weekends and a holiday. Equally outstanding was the support that the water plant, gas house and cryogenic facility gave in making sure that whatever the test team needed was there without having to ask. The S3 shops responded without hesitation to recover the electrical systems damaged by the lightning strike and put the test team in a posture to be ready to test again in less than 24 hours."

Henderson said Boeing and DARPA officials were "very pleased" with the skill and performance of the test team and already have planned additional project testing next summer at Stennis. "One of the Boeing participants repeatedly characterized the test team here as a national asset," he said.

Henderson affirmed the assessment. Prior to the series, he had talked about the extensive preparatory work needed to get both the test stand and test team ready for such an accomplishment. He acknowledged not all could be foreseen.

Once hot fire began, issues could arise – with the engine, the facility and the team. "You have to be as prepared as possible, then prepared as well to respond to issues that arise," Henderson noted. "That's what this team does best."

ISS astronaut offers a closer view of Moon

Posted to Twitter by @Astro_Alex, European Space Agency astronaut Alexander Gerst, this image shows the Moon as seen from the International Space Station. As Gerst said in the tweet, "By orbiting the Earth almost 16 times per day, the #ISS crew travel the distance to the Moon and back – every day. #Horizons" The International Space Station is the world's only orbital laboratory. An international partnership of space agencies provides and operates the elements of the station. The principals are the space agencies of the United States, Russia, Europe, Japan and Canada.

NASA in the News

NASA technologies reduce aircraft noise

A series of NASA flight tests has successfully demonstrated technologies that achieve a significant reduction in the noise generated by aircraft and heard by communities near airports. The recent Acoustic Research Measurement (ARM) flights tested technology to address airframe noise, or noise that is produced by non-propulsive parts of the aircraft, during landing. The flights successfully combined several technologies to achieve a greater than 70 percent reduction in airframe noise. "We are very confident that with the tested technologies we can substantially reduce total aircraft noise, and that could really make a lot of flights much quieter," said Mehdi Khorrami, an aerospace scientist at NASA's Langley Research Center in Virginia, and principal ARM investigator. Significant reduction in aircraft noise must be realized in order for air transportation growth to maintain its current trend. The reduction of airframe noise may lead to quieter aircraft, which will benefit communities near airports and foster expanded airport operations. For more, visit: https://www.nasa.gov/aeroresearch

Kepler parked to download science data

Early this month, NASA's Kepler team received an indication that the spacecraft fuel tank is running very low. NASA has placed the spacecraft in a hibernation-like state in preparation to download the science data collected in its latest observation campaign. Once the data is downloaded, the expectation is to recommence observations with any remaining fuel. Returning recently collected data back to Earth is the highest priority for the remaining fuel. To send the data home, the spacecraft must point its large antenna back to Earth and transmit during its allotted Deep Space Network time, scheduled in early August. Until then, the spacecraft will remain parked in a no-fuel-use safe mode. On August 2, the team will command the spacecraft to awaken and maneuver the spacecraft to the correct orientation and downlink the data. If the maneuver and download are successful, the team will begin observing again on August 6 with the remaining fuel. Kepler is expected to run out of fuel in the next few months. For more on Kepler and its mission, visit: https://go.usa.gov/xUWX8.

Stennis employees receive Silver Snoopy awards

Astronauts Vic Glover (l) and Jeannette Epps (r) stand with 2018 Silver Snoopy recipients from Stennis Space Center following presentation of the awards during an onsite ceremony June 26. Silver Snoopys are astronauts' personal award, given in recognition of contributions to flight safety and mission success and presented to less than 1 percent of the total NASA workforce annually. Recipients (and their companies) of the 2018 awards were: (l to r) Jesse Lamonte (NASA), Katie Kopcso (NASA), Missy Ferguson (NASA), Michael Holmes (NASA), Sheila Arrington (NASA Shared Services Center), Brad Messer (NASA), Vincent Muñoz (A2Research), Thomas Lipp (Aerojet Rocketdyne), Timothy Gwinn (Aerojet Rocketdyne), Sarah Davis (Aerojet Rocketdyne), Eric Cranford (Syncom Space Services), James Williams (Syncom Space Services) and Bertha Jackson (SaiTech).

NASA engineer wins prestigious achievement award

NASA engineer Dawn Davis of New Orleans, chief of the electrical design and software branch of the Stennis Space Center Engineering and Test Directorate, has won one of the most important honors in science, technology, engineering, and math (STEM).

Davis was named recipient of the Professional Achievement (Government) Award by the Women of Color STEM Conference. She will be honored during the 23rd Women of Color STEM Conference on Oct. 11-13 in Detroit.

"Davis was selected because she is among an extraordinary group of forward-thinking STEM experts," national conference Chair Monica Emerson said. "This year, the candidates were the strongest and represented the most diverse collection of executive professionals we have had the pleasure of evaluating. From managers to vice presidents, this year's Women of Color STEM candidates stand out as superior authorities in their respective fields."

Since 1995, awards presented at the

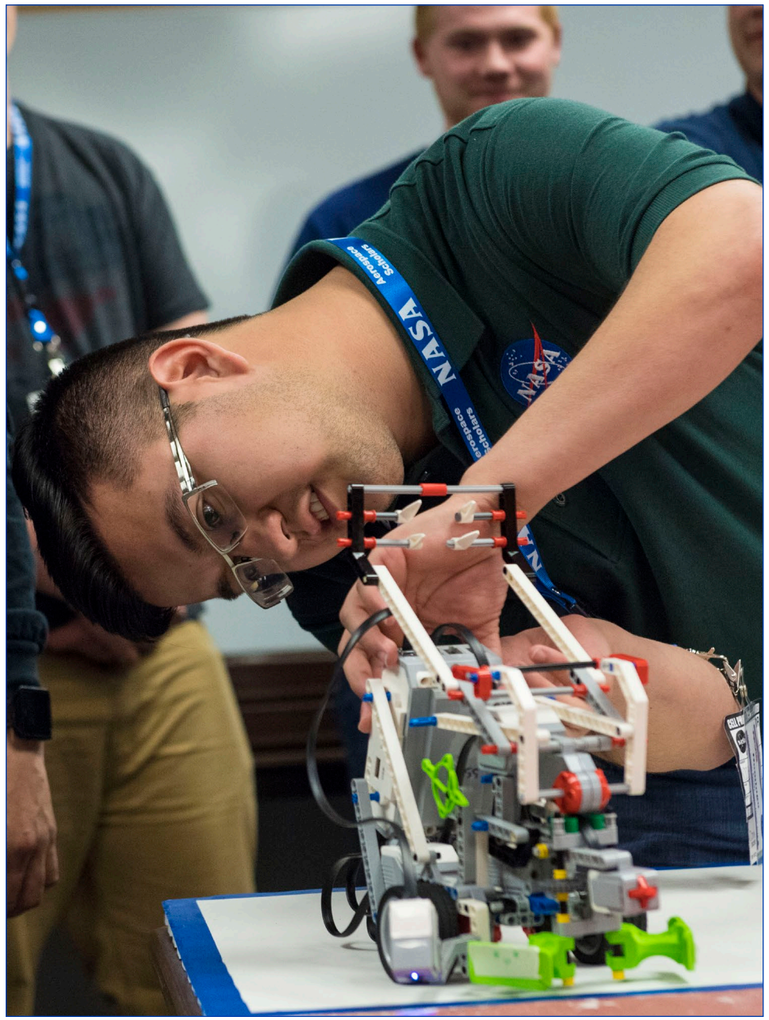
Women of Color Conference have honored excellence in STEM and underscored the serious underrepresentation of women in STEM and at senior levels in all disciplines. For 23 years, employers committed to inclusion have chosen the Women of Color STEM Conference to exchange best practices and strategies on how to attract and keep girls and women in scientific and technical fields.

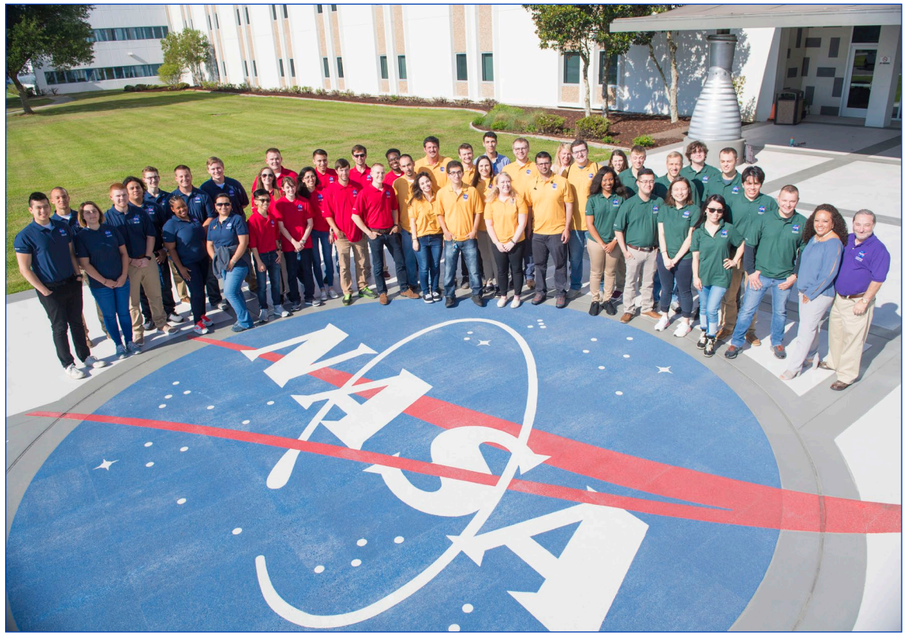
The recognition program is more important than ever before as just half of STEM graduates pursue careers in their educational paths. This year's conference will provide forums on the retention of women and girls in STEM, continuous improvement and networking. The conference theme, "Press for Progress," reflects the global push for gender parity. Just a quarter of the more than 5 million tech jobs last year were held by women, but the percentage of women of color – particularly black and Hispanic workers – in the industry stands at single digits.

The Women of Color STEM Conference is produced by Career Communications Group Inc., the leader in workforce diversity, working with all types of companies to help support them in promoting multiculturalism and gender equity in STEM fields.

Since its inception, the Women of Color STEM Conference has been a leading event for professional development, networking and providing a resource for women to feel empowered. For more information about the 2018 Women of Color STEM Conference, visit online at: www.womenofcolor.net.

Stennis hosts workshop for community college scholars

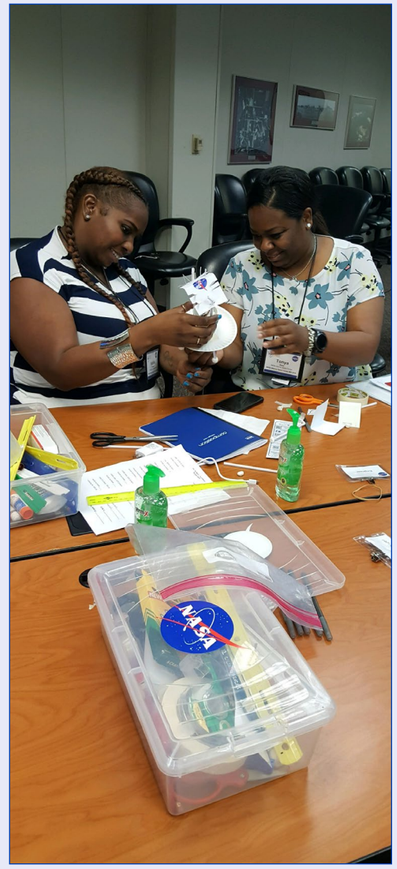




Community college students (above photos) demonstrate the capabilities of their robotic rover prototypes on a simulated Mars landscape during the recent NASA Community College Aerospace Scholars (NCAS) workshop at Stennis Space Center. The Stennis Space Center Office of STEM (science, technology, engineering and mathematics) Engagement hosted 42 community college students (bottom photo) from across the country for the workshop the week of June 25. Funded by the Minority University Research and Education Program, NCAS supports community college students who are interested in pursuing STEM studies and careers. The weeklong workshop offers students a hands-on, collaborative NASA experience to encourage them in their ongoing studies. During the NCAS workshop, students are divided into four teams competing to design and build a reliable, cost-efficient Mars rover. The teams build prototypes of their design to demonstrate the rover's effectiveness in completed assigned missions on a simulated Mars terrain (see accompanying photos). The teams also develop mock budgets and documents needed to "win" a NASA contract for their rover design. Stennis Space Center educators and engineering mentors support the student teams during the effort. In addition to the robotic competition, workshop participants had the chance to participate in a question-and-answer session with two current astronauts, view two engine tests, talk online with former astronaut Fred Haise, work on personal resumes, tour Stennis facilities and interact with Stennis engineers about their work at the center. The Stennis Office of STEM Engagement hosted a second summer group of NCAS students for a workshop the week of July 9. For more regarding NCAS, visit: https://go.usa.gov/xnJHC and https://www.nasa.gov/education.

Stennis hosts workshop for minority university educators

A pair of educators (top photo) participate in a hands-on learning exercise during a five-day Minority University Research and Education Program Educator Institute hosted by the Stennis Space Center Office of STEM (science, technology, engineering and mathematics) Engagement last month. Twenty educators and faculty advisers from Southern University in Baton Rouge, La., Grambling State University in Grambling, La. and Mississippi Valley State University in Itta Bena, Miss., participated in the annual institute. The workshop was presented in collaboration with Texas State University and the NASA STEM Educator Professional Development Collaborative. It featured unique NASA activities aligned to national education standards and current agency missions. Participants also had a chance to tour various Stennis facilities, including the Aerojet Rocketdyne engine assembly building and the A-2 Test Stand.



Close call system helps address potential hazards

Note: The following is part of a regular focus on safety and health at Stennis Space Center. It was written by Karen Patton and Kamili Shaw in the NASA Office of Safety and Mission Assurance.

NASA Stennis' Close Call Reporting System (CCRS) is the official center hazard reporting system. Stennis personnel are encouraged to submit any hazard they observe to prevent a possible injury or illness.

Hazards reports can be made anonymously and should be reported to the CCRS hotline using:

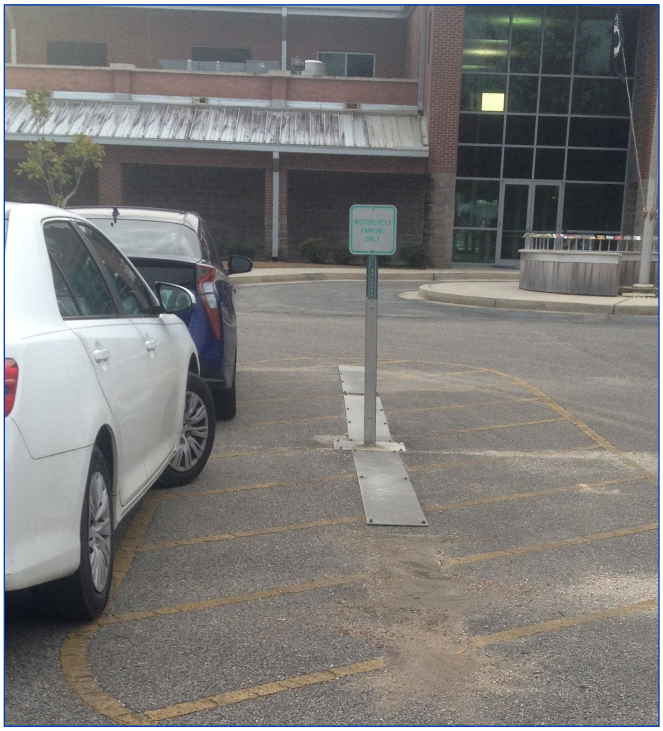
- 228-688-SAFE (7233)
- Paper form located in the appendix of the CCRS work instruction, SCWI-8715-0006, SSC Close Call Reporting System
- Electronic form using the link at the top of the Stennis internal Safety and Mission Assurance website located at https://osma.ssc.nasa.gov/

Earlier this year, a tripping hazard was found in the Naval Small Craft Instruction and Technical Training School (NAVSCIATTS) Building 2206 parking lot and reported.

Personnel noticed bolts attaching metal plate to the asphalt in parking lot presented a tripping hazard and reported it to the CCRS. The purpose of the metal plate was to provide a level surface for motorcycle kickstands in the parking lot. The bolts were used to secure the metal plate to the asphalt, but over time had backed out.

A CCRS investigator contacted NAVSCIATTS personnel to accompany him on an initial review. It was quickly determined that the metal plate and bolts should be removed from the parking lot, and NAVSCIATTS personnel accomplished this within an hour of the initial review.

This hazard reported to CCRS may have prevented an injury. Seemingly small hazards can have big consequences, and it is important to correct them. If you see a hazard that has the potential to cause injury or property damage, notify your supervisor and report it to CCRS. Employee involvement in identifying and reporting hazards is one way all employees can support a strong safety culture at Stennis.



Earlier this year, a report was made through the Stennis Close Call Reporting System of a tripping hazard outside Building 2206. Bolts in a parking lot plate had backed out, creating a tripping hazard. Photos show the hazard before (left) and after (right) it was addressed by removing the plate.

An engaged safety culture keeps Stennis Space Center rocketing forward!

To contribute to this page, contact:

Kamili Shaw at kamili.j.shaw@nasa.gov or Karen Patton at karen.patton@nasa.gov

Aerojet Rocketdyne achieves safety milestone

Aerojet Rocketdyne's facility at Stennis Space Center recently surpassed 5 million working hours without a single lost time incident requiring an employee to take time off.

The milestone, an Aerojet Rocketdyne record, was reached May 30, and the safety performance has continued since then, including through the execution of a test program in which the company's AR-22 engine fired 10 times in less than 240 hours, which is unprecedented for a liquid-fueled engine of its size. The AR-22 is the main propulsion system for the Phantom Express experimental space plane, being developed by Boeing for the Defense Advanced Research Projects Agency.

Aerojet Rocketdyne's Stennis facility is used to assemble large, liquid-fueled rocket engines including the RS-68A, RS-25 and AR-22. The RS-68A is the main engine for the Delta IV rocket, primarily used to launch defense satellites, while the RS-25 and AR-22, both derived from the space shuttle main engine (SSME), will power NASA's Space Launch System heavy lift rocket and Phantom Express, respectively. The company also tests rocket engine components used for a variety of different engine programs at Stennis Space Center.

"Our products support some of the nation's most important national security and science missions, but safety still comes first here at Aerojet Rocketdyne," said Eileen Drake, the company's chief executive officer and president. "This tremendous achievement is testimony to our safety-oriented culture."

Aerojet Rocketdyne employs nearly 200 people at its Stennis site, and the current milestone of flawless safety performance dates back to Nov. 6, 2003. Additionally, Aerojet Rocketdyne has worked more than 26 months without an injury or illness recorded by the U.S. Occupational Health and Safety Administration.

Mike McDaniel, site lead at Aerojet Rocketdyne's Stennis facility, said, "These outstanding achievements would not be possible without our employees' tremendous dedication to make safety the highest priority. We each owe it to our family, friends and coworkers to work safe every task and every second."

Bill Hill, NASA deputy associate administrator for Exploration Systems Development, congratulated the Aerojet Rocketdyne team, stating it was a "magnificent achievement."

Hail & Farewell

NASA bids farewell to the following:

Jesse Lamonte	AST, Quality Assurance	Safety and Mission Assurance Directorate

NASA welcomes the following:

Colin Bennett	Student Intern	Safety and Mission Assurance Directorate
Baylee Bourque	Student Intern	Center Operations Directorate
Mark Robinson	AST, Flight Systems Test	Engineering and Test Directorate
Malcolm Wood	Program Specialist	Center Operations Directorate

1966 – the United States pulls ahead in the Space Race

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.

On Oct. 4, 1957, the Soviet Union launched Sputnik I into low-Earth orbit. They also put the first human in space, Yuri Gagarin. The United States had its eye on the big prize, though. The U.S. was going to the moon.

The Space Race morphed into the Moon Race, and the then-Mississippi Test Facility was a very important factor in the U.S. winning the race to the Moon. NASA needed a place to test the large rocket engines and stages needed to carry humans to the Moon.

In August 1961, an ad hoc committee of members from NASA Headquarters and Marshall Space Flight Center began the work of finding the perfect location. There were several variables to consider since the rockets would be assembled at the Michoud Assembly Facility outside of New Orleans and launched from Cape Canaveral, Florida. NASA needed a facility that, ideally, would lie between these two places, be away from a densely populated area because of the noise associated with testing rocket engines, have access to both waterway and highway, have a mild climate so testing could conceivably be done year round, and have supporting communities nearby.

Several already existing facilities were in the running, but the committee kept coming back to a marshy, pine tree-covered area along the Pearl River in Mississippi. The Pearl River site won out over the final six locations.

On Oct. 25, 1961, NASA announced that a rocket engine test site would be established in Hancock County, Mississippi. The site, then known as Mississippi Test Operations, would test the Saturn rockets that would launch the Apollo missions to the Moon. Construction would begin as soon as possible.

Just five years later, on the misty morning of April 23, 1966, there was a loud "crack," and a flame lit up the A-2 Test Stand for the first time. Hard work done all night led to ignition of the Saturn V second stage rocket engines.

The test lasted for 15 seconds. Less than a month later, a full-duration static firing of the Saturn V stage was conducted. The Apollo Program was gearing up for human lunar missions. The Space Race was on, and the United States had just pulled ahead.

A plume of steam signals the first Saturn V rocket stage test on the A-2 Test Stand at Stennis Space Center on April 23, 1966.

Office of Diversity and Equal Opportunity

Casual microaggressions carry negative messages

A microaggression is the casual degradation of any marginalized group. The term was coined by psychiatrist and Harvard University professor Chester M. Pierce in 1970 to describe insults and dismissals he regularly witnessed non-black Americans inflict on African Americans. Eventually, the term came to encompass the casual degradation of any socially marginalized group, such as the poor or the disabled.

Psychologist Derald Wing Sue defines microaggressions as "brief and commonplace daily verbal, behavioral and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory or negative racial slights and insults to the target person or group. They are not limited to human encounters alone but may also be environmental in nature, as when a person of color is exposed to an office setting that unintentionally assails his or her racial identity."

Listed below are examples of microaggression and the messages that they send. [Adapted from: Wing, Capodilupo, Torino, Bucceri, Holder, Nadal, Esquilin (2007). Racial Microaggressions in Everyday Life: Implications for Clinical Practice. *American Psychologist*, 62, 4, 271-286.]

Theme	Microaggression	Message
Alien in own land When Asian Americans and Latino Americans are assumed to be foreign-born.	"Where are you from?" ... "Where were you born?" ... "You speak good English." ... Asking an Asian American to teach you words in his/her native language.	You are not American. ... You are a foreigner
Ascription of Intelligence Assigning intelligence to a person of color on the basis of their race.	"You are a credit to your race." ... "You are so articulate." ... Asking an Asian person to help with a math or science problem.	People of color are generally not as intelligent as whites. ... It is unusual for someone of your race to be intelligent. ... All Asians are intelligent and good in math/sciences.
Color Blindness Statements that indicate that a white person does not want to acknowledge race.	"When I look at you, I don't see color." ... "America is a melting pot." ... "There is only one race, the human race."	Denying a person of color's racial/ethnic experiences. ... Assimilate/acculturate to the dominant culture. ... Denying the individual as a racial/cultural being.
Criminality – assumption of criminal status A person of color is presumed to be dangerous, criminal or deviant on basis of their race.	A white person clutching a purse or wallet as a black or Latino approaches. ... A store owner following a customer of color in the store. ... A white person waiting to ride the next elevator when a person of color is on it.	You are a criminal. ... You are going to steal. ... You are poor. ... You do not belong. ... You are dangerous.
Denial of individual racism A statement made when whites deny their racial biases.	"I'm not a racist. I have several black friends." ... "As a woman, I know what you go through as a racial minority."	I am immune to races because I have friends of color. ... Your racial oppression is no different than my gender oppression. I can't be a racist. I'm like you.
Myth of meritocracy Statements which assert that race does not play a role in life successes.	"I believe the most qualified person should get the job." ... "Everyone can succeed in this society, if they work hard enough."	People of color are given extra unfair benefits because of their race. ... People of color are lazy and/or incompetent and need to work harder.
Pathologizing cultural values/communication styles The notion that the values and communication styles of the dominant/white culture are ideal.	Asking a black person: "Why do you have to be so loud/animated? Just calm down." ... Asking an Asian or Latino person: "Why are you so quiet? We want to know what you think. Be more verbal." ... Dismissing one who brings up race/culture in work/school setting.	Assimilate to dominant culture. ... Leave your cultural baggage outside.

‘Birds of a feather ...’

Wildlife is abundant at Stennis Space Center, as seen in the photos of various birds who have found nesting homes on center test stands.

Faces of Stennis

Each month, Lagniappe will feature employees at Stennis Space Center whose work enables the center to fulfill its mission as the nation's largest rocket engine test center. This month's employee is highlighted on the following page.

Kamili Shaw

Kamili Shaw's two favorite words – "Good morning!" – signal a new day in which anything might happen. "It means there is a whole day ahead to accomplish goals or spend with family and friends or in reflection," says Shaw, lead of the Quality Management Systems Division in the NASA Safety and Mission Assurance (SMA) Directorate at Stennis Space Center. "Whatever the day may bring, at the beginning of it, when we say good morning to each other, the possibilities are endless." A native of the Washington D.C./Baltimore area, Shaw knows something about the possibilities of a day. She marked her 10th anniversary as a NASA employee this month, three of which has been spent at Stennis. The New Orleans resident serves as the center's risk manager and as a member of the SMA Directorate leadership team. She currently is working to bring together streams of data to better predict safety incidents. Prior to arriving at Stennis, Shaw worked at NASA's Goddard Space Flight Center on several satellite programs, some of which have launched and are operating. She is particularly proud to have spent three years on the Hubble Space Telescope Servicing Mission 4, including attending the launch and working in the mission control room. Now, she is excited about NASA's new Space Launch System rocket and Stennis' role in testing its engines and stages. For Shaw, whose earliest space memory is watching the shuttle Challenger explosion at school, the very best things about NASA and Stennis are the people and the work. "For me, at NASA, it's always the mission," she says. "The work happening right here at Stennis has the potential to make an impact on so many NASA missions into the future."