

National Aeronautics and Space Administration



# LAGNIAPPE

John C. Stennis Space Center

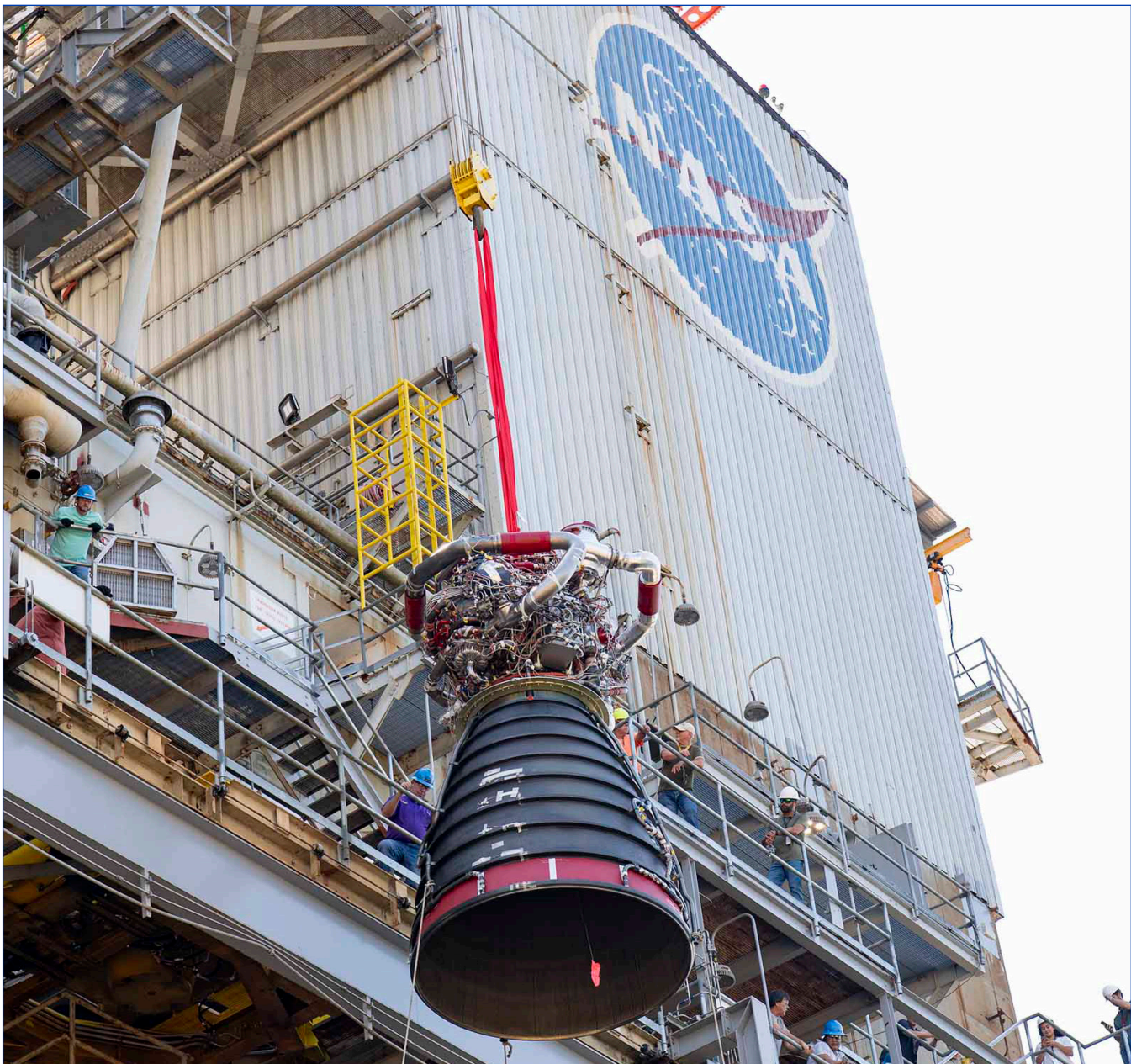
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September 2023

## New Series Now Loading...

See Pages 3-4



Crews lift RS-25 engine No. E0525, onto the Fred Haise Test Stand at NASA's Stennis Space Center on Aug. 30 for an upcoming certification series.

The month of September starts the gradual shift from summer to fall. In these parts along the Gulf Coast, fall may seem a million miles away considering the scorching summer we have experienced. A shade tree never felt so good!

Something not hard to see are all the good things happening around NASA Stennis. September provides a time to celebrate the hard work of all with Labor Day on the first Monday of the month. The month also made way for Gator to dress up and attend the Silver Snoopy Awards ceremony.

The work of many from years past and present, along with work to come, is displayed from page to page of this month's Lagniappe. The labor by many folks has laid the foundation for the success at NASA Stennis. Heck, I would not exist if it were not for the work put in by so many people who needed the perfect mascot to provide motivation during the early years.

The dedicated workforce at NASA Stennis workforce has contributed to the transformation of the second-largest (geographically speaking) NASA center ever since that time. Look back at the history of the A-2 Test Stand on the following pages. Testing

on the historic structure led to the first flight of the full Apollo spacecraft that would carry humans to the Moon, among other highlights. I foresee the test stand setting the stage for many more exciting things to come as NASA supports its commercial partner's dreams moving forward.

We cannot mention the work of commercial partners without making note of the RS-68 program that started NASA's work with the commercial sector more than two decades ago. RS-68 provided powerful tests – in both sound and significance – at NASA Stennis.

The impact of the labor from many folks contributing to the program has helped position NASA Stennis as a go-to place for commercial companies to further experience success.

As we carry on in the month of September, let us be reminded that work is not merely a means to an end, but also a journey to realize one's potential. That is evident from the history of A-2 and the significance of the RS-68 program.

The work provides opportunities to overcome challenges, adapt, and thrive. I continually witness that on display and believe it is why I enjoy the culture and people of NASA Stennis so much.



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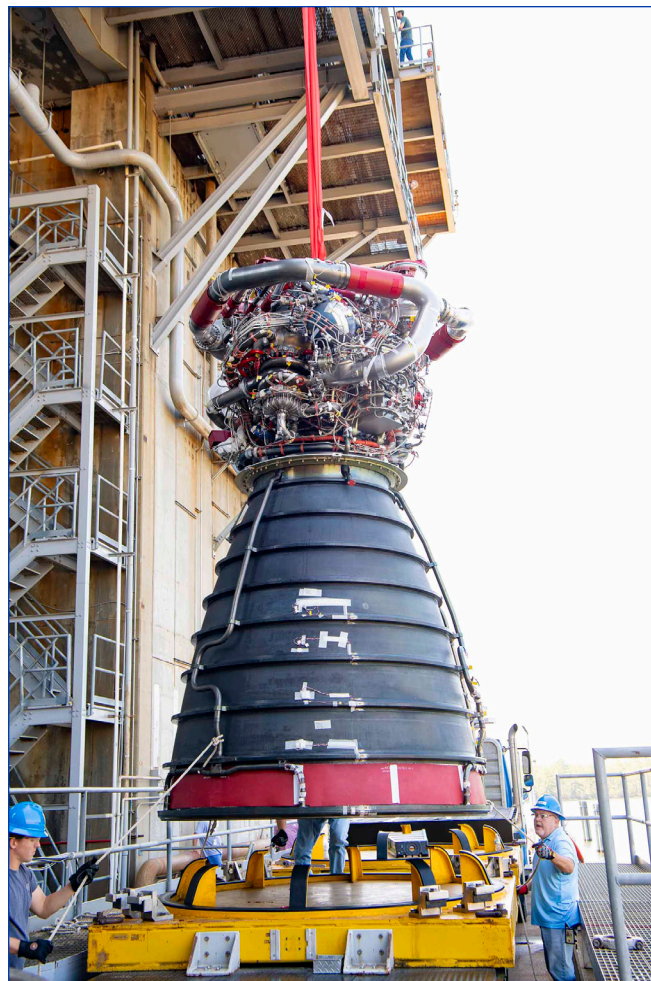
# Teams Install RS-25 Engine For Upcoming Hot Fire Series

Teams at NASA's Stennis Space Center installed RS-25 engine No. E0525 on the Fred Haise Test Stand on Aug. 30 in preparation for the next certification test series phase.

The Retrofit 3B test series follows an initial certification test series that concluded in June. The completion of the initial certification series was a key step for production of new RS-25 engines to help power NASA's [SLS \(Space Launch System\)](#) rocket on future [Artemis](#) missions to the Moon, beginning with Artemis V.

The second certification series, scheduled to begin in the fall, will help confirm manufacturing processes will reliably create production engines for lead [RS-25](#) engine contractor Aerojet Rocketdyne, an L3 Harris Technologies company.

For the upcoming series, the E0525 engine will incorporate a second set of new key components that match the design features of those used during the initial certification series. This includes a new nozzle, hydraulic actuators, flex ducts, and turbopumps.

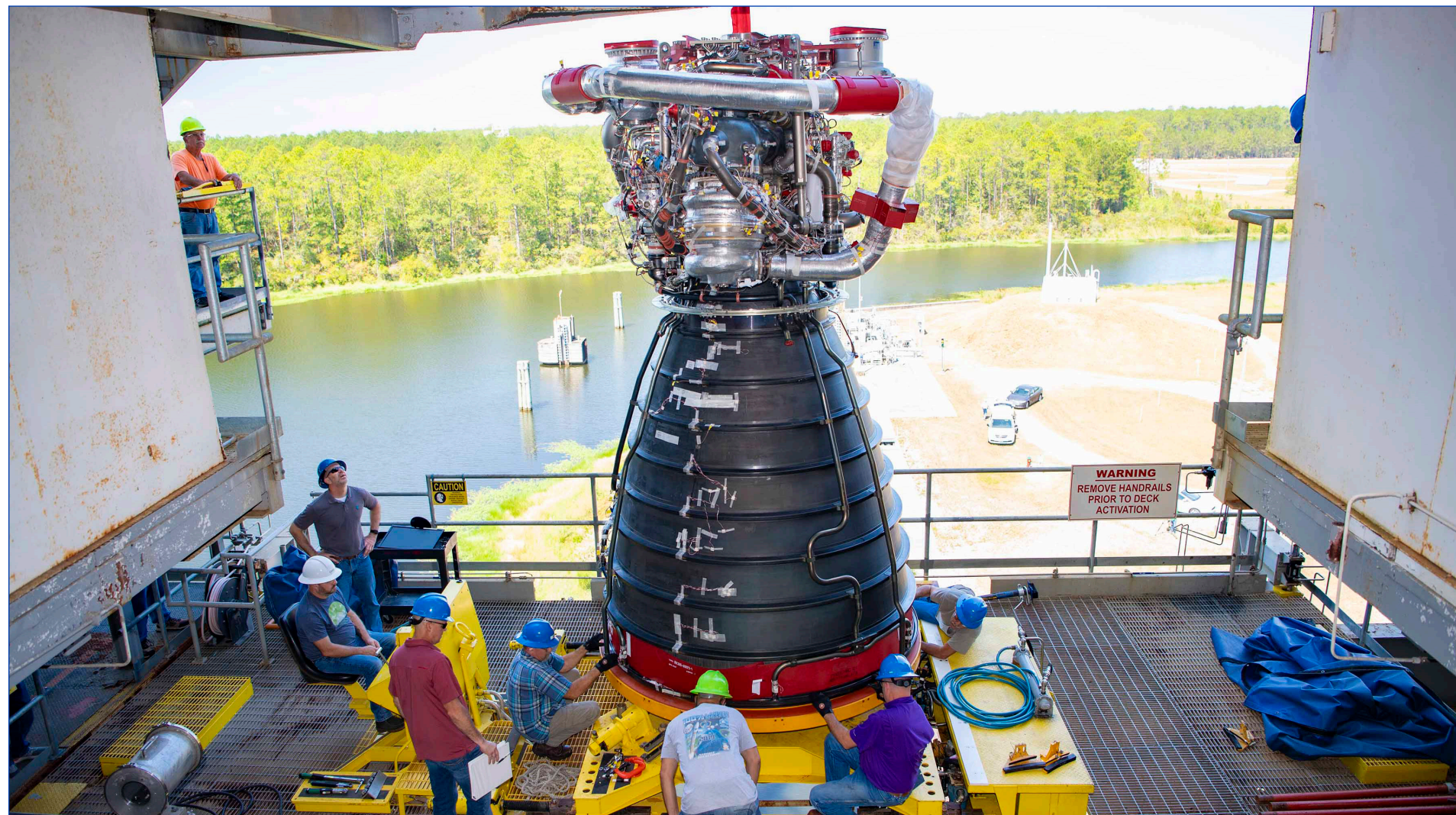
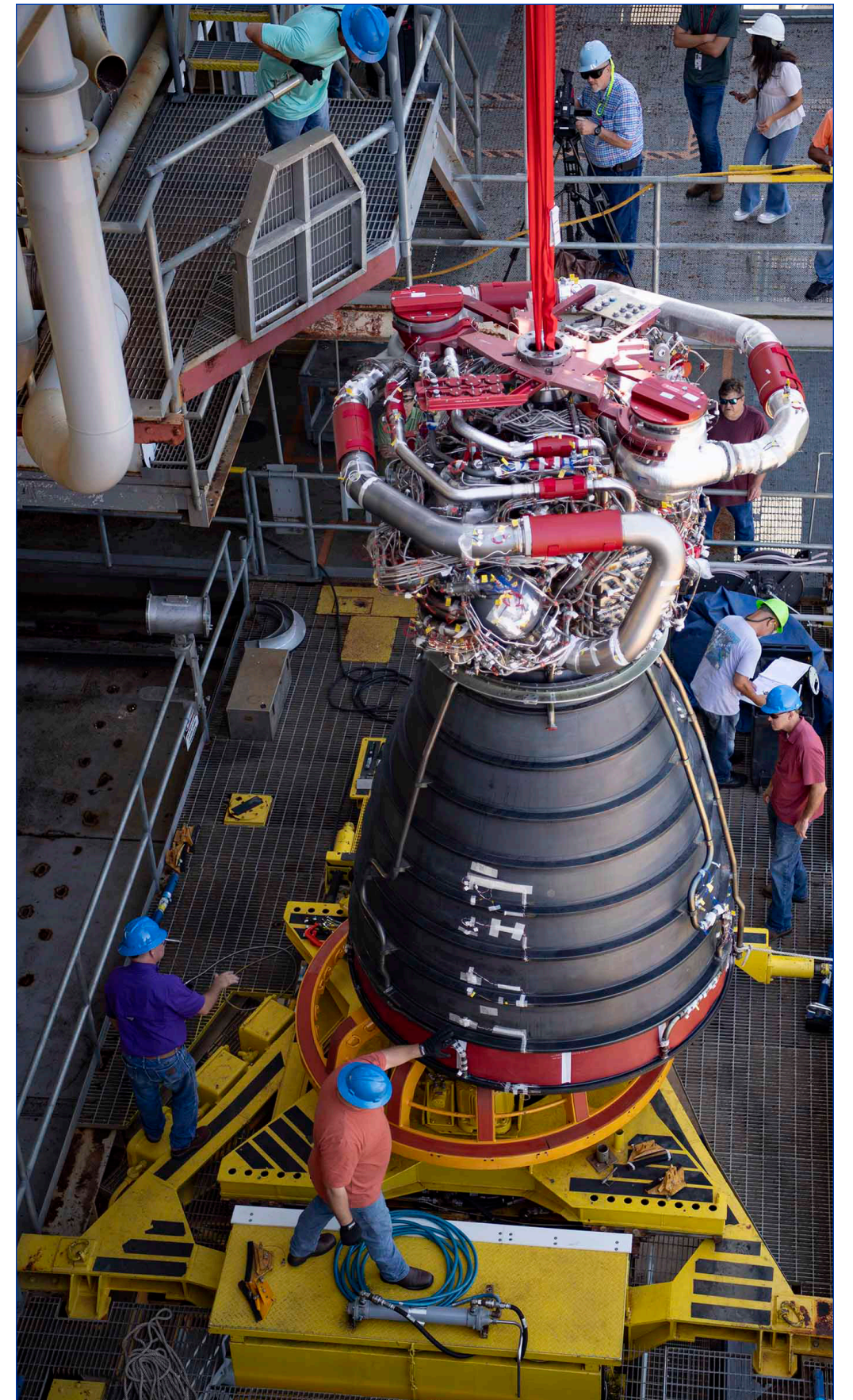
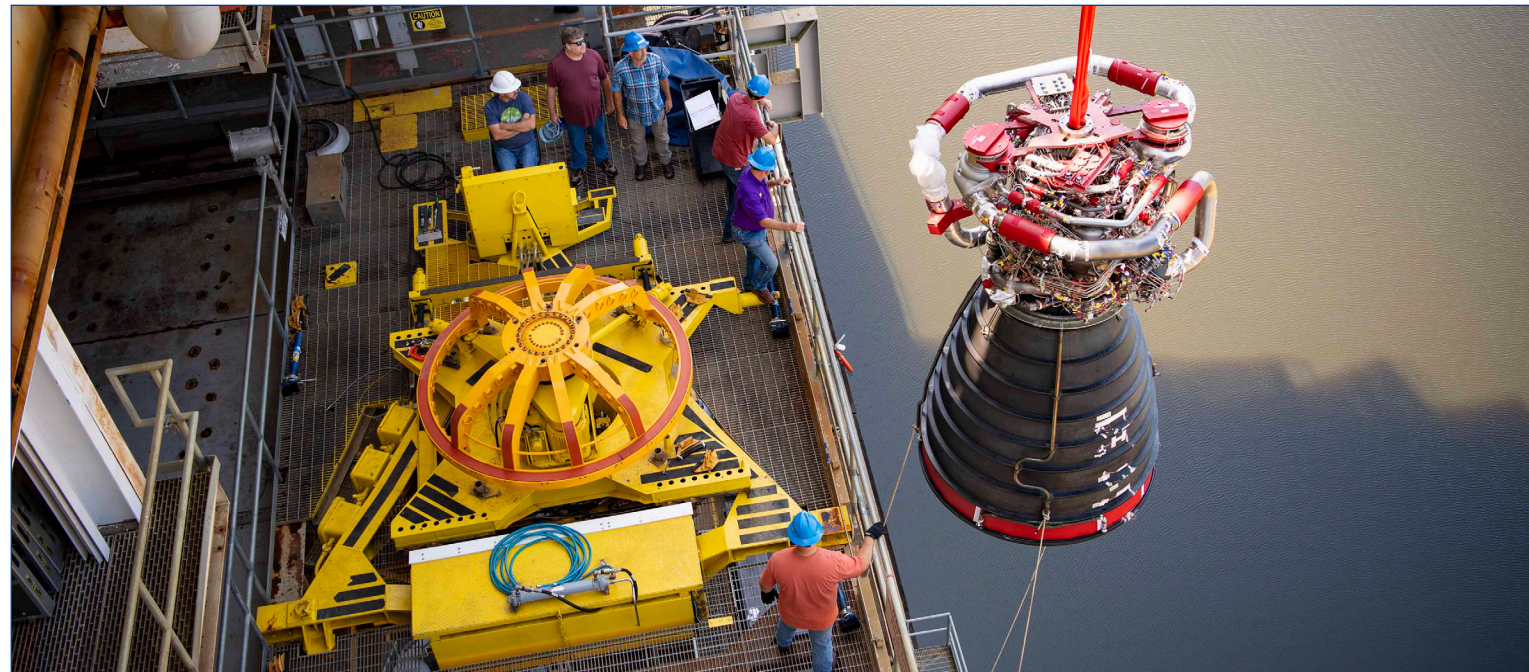


# Teams Install RS-25 Engine For Upcoming Hot Fire Series

(Top left photo) Following its arrival to the test stand on the engine transport trailer, a crane lifts RS-25 engine, E0525, on the west side of the Fred Haise Test Stand at NASA Stennis on Aug. 30.

(Far right photo) Crews place the RS-25 engine on the engine vertical installer (EVI) at the Fred Haise Test Stand at NASA Stennis on Aug. 30. The EVI is on a rail system that slides the engine under the gimbal block. The EVI is used to raise the engine so technicians can fully secure it to the test facility infrastructure.

(Bottom left photo) Crews complete positioning the RS-25 engine on the engine vertical installer (EVI). Once the engine is fully attached to the test facility, the EVI is lowered and moved away. Next, technicians ensure all connections to the test facility are complete, as preparations continue for the first engine test of the new series.



# NASA Stennis Inks Expanded Test Complex Agreement with Relativity Space

*“... a testament to the value of NASA Stennis and our test complex infrastructure ...”  
-NASA Stennis Director Rick Gilbrech*

**N**ASA's Stennis Space Center teamed with Relativity Space on Sept. 7 as the company announced an expansion of site activity, signing a lease agreement to operate the historic A-2 Test Stand.

The new agreement supports NASA's commitment to increase access to space and grow commercial markets to serve the nation's interests. It also further solidifies NASA Stennis as an ideal testing location for commercial aerospace companies, large and small.

“We applaud Relativity Space in announcing this expanded agreement,” said NASA Stennis Director Rick Gilbrech. “Since arriving on site in 2016, the company has grown into a valued member of the NASA Stennis community. This increased footprint is a testament to Relativity's continued progress in the commercial space arena. It also is a testament to the value of NASA Stennis and our test complex infrastructure in supporting commercial space endeavors. We look forward to an ongoing relationship with Relativity team members as they work to achieve their space goals.”

Relativity Space's latest plans at NASA Stennis will convert the A-2 Test Stand infrastructure to support advanced vertical first stage testing of the company's medium-to-heavy-lift reusable 3D-printed rocket, Terran R. With the redesigned stand, the company will increase its test capabilities and accelerate its development process.

“New history is being written at Stennis Space Center as we breathe life into the historic A-2 Test Stand with our Terran R program,” said Tim Ellis, co-founder and CEO of Relativity Space. “We appreciate the support from NASA and the state of Mississippi and look forward to continuing to build out our team and testing infrastructure here in the Gulf Coast. The scale of Terran R as a medium-heavy lift reusable launch vehicle is substantial. Exclusive access to these rare, national-asset facilities through partnership with NASA uniquely enables Relativity to develop a world-class launch vehicle. Together with our significant private capital commitments to reinvest in these facilities, we are building innovative capabilities to solidify America's leadership in space.”

The expansion adds about 30 acres to the company's on-site footprint, which now totals 298 acres within

the NASA Stennis test complex. The seven-year lease agreement is valued at a total of \$2.76 million with an option to renew up to an additional 10 years at the end of the original term. Overall, the company is poised to invest some \$267 million into its NASA Stennis operations, creating hundreds of new jobs in the next several years.

Conversion of the A-2 Test Stand marks the third great iteration of propulsion activity for the structure. It originally was built in the 1960s to test Saturn V rocket stages for Apollo missions to the Moon. It then was outfitted to support single-engine testing. NASA used the stand to test space shuttle main engines from 1976 to 2009. In fact, the final main engine test of the space shuttle era was conducted on the stand in July 2009.

The stand then was used to test next-generation J-2X rocket engines from 2011-14. The latest announcement marks the stand's first use by a commercial aerospace company.

“The A-2 Test Stand has a rich history for NASA and NASA Stennis,” Gilbrech said. “It has been the site for numerous milestone tests, including the Apollo Saturn S-II stage, space shuttle main engine, and Constellation J-2X engine test programs. It is exciting to see this historic structure continue to provide valuable propulsion service almost 60 years later.”

Relativity Space, based in Long Beach, California, originally partnered with NASA Stennis in 2016 to test its Aeon 1 engine on the site's E-3 Test Stand. The partnership quickly expanded, and Relativity now holds 10-year exclusive-use leases for the E-2 and E-4 stands, has a commercial use agreement for the E-1 site, and is building new engine and stage test infrastructure in the R Complex at NASA Stennis.

“This latest announcement continues a remarkable story at NASA Stennis,” said Duane Armstrong, manager of the NASA Stennis Strategic Business Development Office. “Relativity Space arrived on site less than 10 years ago with a handful of employees and a single test project. It has since emerged as a leading aerospace company. NASA Stennis provided perfect capabilities and services for the company to grow. Its story serves as a signal to all that NASA Stennis is open for aerospace business.”

# NASA's Stennis Space Center A-2 Test Stand Retrospective

The A-2 Test Stand at NASA's Stennis Space Center has a storied history stretching more than 50 years. The accompanying photos offer a look at the historic test structure. (Below descriptions start with first row, left to right.)

## Getting to Work

After NASA announced plans to build a propulsion test site in south Mississippi, the hard work of constructing the new facilities began. This included building the large concrete-and-steel structures needed to test rocket engines and stages for deep space missions.

## Laying a Foundation

Construction of the A-2 Test Stand required digging down some 50 feet with steel beams driven another 95-to-100 feet to provide a foundation for the massive structure. Crews had to overcome various challenges, including south Mississippi weather conditions.

## Getting There

By early 1965, the A-2 Test Stand was beginning to rise into the sky to eventually stand more than 200 feet tall. Meanwhile, the first flights of NASA's Gemini Program had flown; Apollo missions to the Moon were a few short years away.

## Taking Shape

In late summer 1965, the A-2 Test Stand was taking definite shape. In fact, the first propulsion test at NASA Stennis was less than a year away.

## Setting Up

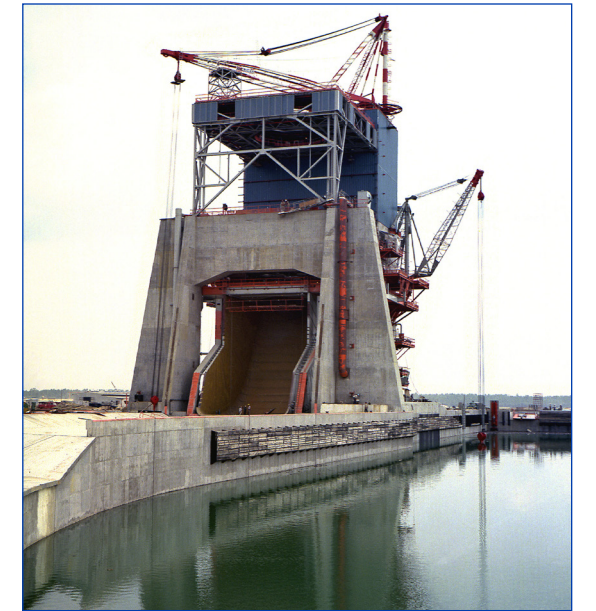
By October 1965, a prototype Saturn II rocket stage had arrived for installation on the A-2 Test Stand. It marked the first use of the historic stand, even as construction efforts continued elsewhere throughout the test complex.

## Making History

The first propulsion test was conducted on the A-2 Test Stand on April 23, 1966. It lasted just 15 seconds but fully ushered south Mississippi into the Apollo era.

## On to Space

NASA tested the Saturn V S-II-2 rocket stage on the A-2 Test Stand at NASA Stennis on April 6, 1967. The stage subsequently flew on the Apollo 6 mission launched in April 1968, the final uncrewed Apollo flight.



Click [here](#) to see more historical photos of the A-2 Test Stand at NASA Stennis.

Click [here](#) to watch a historical video of the A-2 Test Stand at NASA Stennis.

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## Set for the Moon

Crews lift the Saturn V S-II-4 stage onto the A-2 Test Stand at NASA Stennis in November 1967. Following a hot fire test in February 1968, the stage flew on the Apollo 9 mission in March 1969, the first flight of the full Apollo spacecraft that would carry humans to the lunar surface a few months later.

## A New Campaign

Following the end of the Apollo Program, the A-2 Test Stand was modified to support testing of space shuttle main engines. A sunset image offers a scenic view of a space shuttle main engine test on the A-2 Test Stand at NASA Stennis on July 21, 2003.

## End of an Era

Space shuttle main engine testing at NASA Stennis concluded with a final hot fire on the A-2 Test Stand on July 29, 2009. Altogether, NASA Stennis conducted 2,307 space shuttle main engine tests from 1975 to 2009.

## A Parting Look

Space shuttle main engine No. 0525 is transported from the A-2 Test Stand on Aug. 17, 2009. NASA conducted its final space shuttle main engine test on the stand less than a month earlier. Two years later, the STS-135 mission marked the official end of the space shuttle era.

## Shake, Rattle, and Roar

The steam cloud from a J-2X engine test on Jan. 15, 2014, drifts back across the A-2 Test Stand at NASA Stennis. NASA began testing J-2X engines on the A-2 stand in 2011 and concluded the campaign later in 2014.



Click [here](#) to see more historical photos of the A-2 Test Stand at NASA Stennis.

Click [here](#) to watch a historical video of the A-2 Test Stand at NASA Stennis.

# NASA Stennis, Aerojet Rocketdyne Conclude Historic Commercial Test Partnership

A landmark partnership between NASA's Stennis Space Center and Aerojet Rocketdyne, an L3Harris Technologies company, has concluded after more than two decades of dedicated and coordinated effort in testing the world's most powerful hydrogen-fueled rocket engine.

NASA Stennis was selected in 1997 as the location to assemble and test RS-68 engines to power the Delta IV rocket, a United Launch Alliance vehicle used for the U.S. Air Force's Evolved Expendable Launch Vehicle Program. The decision paved the way for the first commercial partnership between the center and a commercial aerospace company, providing a model for future collaborations to serve NASA and all of America's interests.

"The RS-68 program leaves a legacy that has proven invaluable to America's space efforts," NASA Stennis Director Rick Gilbrech said. "The work with Aerojet Rocketdyne really laid the groundwork for commercial partnership efforts of today. It has been a privilege to work with the company through these years to support the nation's critical launch capabilities."

The Reimbursable Space Act Agreement signed between NASA and Aerojet Rocketdyne on May 18, 1998, ushered in many milestones over the duration of the partnership. Along with assembling the engine, the company modified, maintained, and operated the B-1 Test Stand for testing of the RS-68 throughout a 25-year period as NASA Stennis became the first NASA center to lease its test facilities to a commercial company. With the close of the agreement, Aerojet Rocketdyne has returned the test stand to NASA.

In its original form, the RS-68 engine generated more than 650,000 pounds of sea-level thrust with its first flight launching November 2002. The evolved engine, RS-68A, capable of producing 705,000 pounds of thrust, first test fired at NASA Stennis in September 2008. Following completion of certification testing, the first flight with RS-68A engines launched in June 2012.

Additionally, the Delta IV rocket powered by RS-68 engines tested at NASA Stennis flew NASA's Orion spacecraft for its first mission called Exploration Flight Test-1 in 2014 as

NASA's SLS (Space Launch System) rocket was under development.

The next time Orion flew into space came when SLS, powered by four RS-25 engines also produced by lead engine contractor Aerojet Rocketdyne, lifted off during the successful Artemis I mission in 2022.

Mike McDaniel, Aerojet Rocketdyne general manager at NASA Stennis, has helped steer the RS-68 engine program since his arrival at NASA Stennis in 1999 and continues to lead the company's RS-25 engine work on site. McDaniel noted that the same processes used for the RS-68 engine program have been incorporated into work on RS-25 engines at the facility.

Between military and NASA operations, RS-68 engines have a track record of 100 percent mission success. Aerojet Rocketdyne conducted the final RS-68 engine test at NASA Stennis in April 2021. Since that time, crews used a certification engine to maintain test stand and workforce readiness in the event any RS-68 engines needed retesting.

"The relationships formed, and freedom of information shared, are some of the highlights from the program," McDaniel said. "Talking about how the test stand functions and what we are doing with the test stand to ensure we are taking care of a NASA asset, that communication – everything from the safety part of it, to the quality, to keeping open communication and trust – contributed to the success."

Over the life of the RS-68 program, Aerojet Rocketdyne conducted 341 hot fire engine tests at NASA Stennis, recorded a total run time of 58,672 seconds, and delivered 77 flight certified production engines to power Delta IV launch vehicles.

The engines have powered 44 launches, including 15 heavy launch configurations using three core vehicles and three engines. The final Delta IV mission is scheduled for March 2024 using the last three RS-68 production engines.

"We met the customer schedule, met the customer cost, and the engines have delivered 100 percent mission success," McDaniel said. "When you take that into account, it shows the success of the program at NASA Stennis."



Aerojet Rocketdyne conducts its final RS-68 engine acceptance test April 12, 2021, on the B-1 Test Stand at NASA's Stennis Space Center. The RS-68 program, the first commercial partnership between NASA Stennis and a commercial aerospace company, officially concluded at the end of August.



# NASA in the News

## Frank Rubio Breaks NASA's Single Spaceflight Record



In this image from July 24, astronaut [Frank Rubio](#) completes a session on the Surface Avatar Remote Control Terminal, which investigates how haptic controls, user interfaces, and virtual reality could command and control surface-bound robots from long distances. While aboard the International Space Station, Rubio has worked on several experiments involving robotics, space physics, and biology, and he participated in three [spacewalks](#). On Sept. 11, Rubio surpassed NASA's single spaceflight record of 355 continuous days in space made by astronaut Mark Vande Hei on March 30, 2022. NASA TV broadcast a [prerecorded space-to-ground conversation Vande Hei had with Rubio](#) on Sept. 5, when he congratulated the orbiting astronaut for his record-breaking mission. Rubio is set to return to Earth on Sept. 27, when he will have spent 371 days in space. Photo Credit: NASA/Warren Hoburg

### NASA's Psyche Mission on Track for Liftoff in October

**B**ound for a metal-rich asteroid of the same name, the Psyche mission is targeting Oct. 5 to launch from NASA's Kennedy Space Center in Florida. The spacecraft's solar arrays are folded like an envelope into their stowed position. Xenon gas – fuel for the journey to the asteroid belt – is loaded. All four thrusters have passed their final tests. Engineers have confirmed the massive high-gain antenna is set to transmit data. The software is tested and ready. The science instruments – a multispectral imager, magnetometer, and gamma-ray and neutron spectrometer – that will investigate the asteroid Psyche are poised for action. NASA's Psyche spacecraft has less than 30 days to go before the opening of its launch period, which runs from Thursday, Oct. 5 through Wednesday, Oct. 25. What the mission learns from the metal-rich asteroid may reveal more about how planets form. Read more [here](#) about the Psyche mission.

### NASA Selects Geology Team for the First Crewed Artemis Lunar Landing

**N**ASA has selected the geology team that will develop the surface science plan for the first crewed lunar landing mission in more than 50 years. NASA's Artemis III mission will land astronauts, including the first woman to land on the Moon, near the lunar South Pole to advance scientific discovery and pave the way for long-term lunar exploration. "Science is one of the pillars of Artemis," said Dr. Nicky Fox, NASA science associate administrator. "This team will be responsible for leading the geology planning for humanity's first return to the lunar surface in more than 50 years, ensuring that we maximize the science return of Artemis and grow in our understanding of our nearest celestial neighbor." Read more [here](#) about the Artemis III Geology Team, led by principal investigator Dr. Brett Denevi of the Johns Hopkins University Applied Physics Laboratory in Laurel, Maryland.

# NASA Stennis News

## NASA Stennis recognized for contributions to Artemis I

NASA Orion Crew and Service Module Office Manager Tim Otterson (second from left) presents a certificate of appreciation to Troy Frisbee (third from left), chief of staff and legislative affairs officer at NASA's Stennis Space Center, during a recognition ceremony Aug. 30 at the site. The certificate was presented in recognition of the south Mississippi center's "invaluable contributions to the success of the Artemis I mission and Orion's record-setting 1.4-million-mile flight around the Moon and back." Blaine Brown (l), director of Orion spacecraft mechanical systems for Lockheed Martin, and Scott Wilson (r), NASA manager of Orion production operations, also participated in the presentation ceremony. Representatives of the NASA and Lockheed Martin Orion Program offices visited NASA Stennis to recognize employees at the Lockheed Martin facility on site.



Lockheed Martin is the prime contractor for Orion, NASA's new multi-purpose crew vehicle to carry astronauts on deep space exploration missions, including Artemis flights to the Moon. Orion was initially launched on a Delta IV rocket to complete a short test mission of two Earth orbits and re-entry. It then was launched by the SLS (Space Launch System) rocket on the Artemis I mission in late 2022, traveling to the Moon, and farther in space

than any previous human-rated vehicle, before returning safely to Earth. On Artemis II, four astronauts will travel to the Moon aboard the Orion spacecraft. NASA Stennis tested the SLS core stage that flew on the Artemis I mission and is testing every RS-25 engine that will help launch future Artemis missions.

## Passing the Torch

NASA's Stennis Space Center passed the torch Sept. 7 in support of future Special Olympics Mississippi Summer Games hosted at Keesler Air Force Base in Biloxi. Representatives from the Stennis Special Olympics Board, Keesler Air Force Base, and Special Olympics Mississippi were present as NASA Stennis Associate Director Rodney McKellip presented the remaining funds from the Area III Stennis Special Olympics organization, totaling \$8,868.71, to Keesler Special Olympics officials. This comes following more than 30 years of community support from the Area III Stennis Special Olympics organization. NASA Stennis first hosted the Area III Special Olympic Field Games in 1983. Special Olympics provides year-round athletic competition in a variety of sports for children and adults with intellectual disabilities.



# NASA Stennis News



## NASA Honors 2023 Stennis Employees for Flight Safety

Astronaut Sunita Williams stands with 2023 Silver Snoopy recipients from NASA's Stennis Space Center following the presentation of the awards during an on-site ceremony Sept. 6. The Silver Snoopys are astronauts' personal awards, given in recognition of contributions to flight safety and mission success. The award is presented to less than 1% of the total NASA workforce annually. Recipients (and their companies) of the 2023 awards, along with the ceremony presenter were (l to r) Nicolas Zogaib (NASA), Kirby Campbell (Syncom Space Services), Kevin Camp (NASA), David Keith (NASA), Dale Tutor (Syncom Space Services), Williams, Casey Wheeler (NASA), Kris Mobbs (NASA), Emma Johnston (Alutiiq Essential Services), Vincent Moran (Aerojet Rocketdyne), and Danny Nowlin (SaiTech Inc.). Photo Credit: NASA/LaToya Dean



## Senate Staff Member Tours NASA's Stennis Space Center

Anderson Helton (third from right), legislative assistant for U.S. Sen. Roger Wicker, stands with NASA Stennis leaders during a site visit Aug. 31. Helton received an overview presentation of the NASA federal city and learned about the success of NASA Stennis partnering with commercial companies. Pictured (l to r) are NASA Stennis Chief of Staff and Legislative Affairs Officer Troy Frisbie, NASA Stennis Strategic Business Office Manager Duane Armstrong, NASA Stennis Deputy Director John Bailey, Helton, NASA Stennis Associate Director Rodney McKellip, and NASA Stennis Director of Engineering and Test Directorate Joe Schuyler.



## Launcher Fires Component at NASA Stennis E Test Complex

Launcher, a Vast Company, is continuing to test the thrust chamber assembly for its E-2 engine at NASA's Stennis Space Center, the nation's largest propulsion test site. The test campaign is underway in the E Test Complex, which offers aerospace companies unique capabilities and an experienced team of engineers to support a range of test projects. NASA Stennis is proud to work with Launcher as it prepares to conduct full engine testing at the south Mississippi site. The E Test Complex supports NASA's commitment to increase access to space and grow commercial markets to serve the nation's interests. Photo Credit: Launcher, a Vast Company

# Education Program Specialist Highlights Journey from Louisiana HBCU to NASA

The ripple effect from Louis Thompson's time at a Louisiana HBCU (Historically Black College and University) set the stage for future success and where he now finds himself with NASA. The Kenner, Louisiana, native is based at NASA's Stennis Space Center near Bay St. Louis, Mississippi, working as an education program specialist of the southeast region for the NASA Office of STEM Engagement.

He provides workshops, professional development classes, and other STEM (science, technology, engineering, and mathematics)-related opportunities designed to inspire the next generation of explorers. The people Thompson routinely speaks with could one day support NASA's astronaut missions to Mars. "It's an amazing opportunity to engage with the Artemis Generation," Thompson said.

It is an opportunity Thompson does not take lightly as he recalls a prominent space memory from Aug. 30, 1983, that forever influenced him. "Two days after my 13th birthday, Guion (Guy) Bluford became the first African American to go to space," he said. "I remember thinking to myself, 'I didn't know they allowed Black people to go to space.' It was a profound moment for me."

The Slidell, Louisiana, resident became a trailblazer in his own right. Thompson became the first male in his family to earn a four-year higher education diploma when he graduated from Xavier University of Louisiana in New Orleans with a bachelor's degree in mathematics.

It did not come easy. Thompson initially enrolled at another school but struggled with academics. "The transition to an HBCU was exactly what I needed to thrive," he said. The experience taught Thompson how to use failure as fuel while learning necessary skills, such as perseverance, problem solving, patience, and empathy. It guided him toward a teaching career. Lessons learned later helped him mentor and watch his two sons receive college degrees in consecutive years.

"In addition to a high-quality education, attending an HBCU teaches you grit," Thompson said. "A lot of the activities that go on at HBCUs mirror what is happening in the real world. I felt prepared to tackle the pressures of life."

Thompson served six years as a contractor at NASA Stennis, transitioning to the NASA team earlier this

year. The importance of teamwork and community, which Thompson also learned about at Xavier, serves him well in his current role. He works on several K-12 and higher education projects, specifically focused on supporting students and educators at Minority Serving Institutions in underserved and under-resourced regions.

Thompson is most proud about the work he does as intern lead at NASA Stennis within the Minority University Research and Education Project. "As someone who never, in his wildest imagination, thought

he could ever work somewhere like NASA, I love encouraging and inspiring students to reach for things they think are impossible, such as interning or working for NASA," he said.

Thompson has watched NASA Stennis progress towards a more diverse workplace inclusive of various demographics of people. The continued work of growing a workforce from various backgrounds, all contributing to NASA's Artemis effort, is what Thompson is most excited about going forward. He knows there are many out there ready to thrive at the agency when the opportunity presents itself – much like the opportunities that came his way at Xavier of Louisiana and now at NASA.

"For 11 years in a row, NASA has been ranked as the Best Place to Work in the federal government, and it has been the thrill of my life to be part of NASA Office of STEM Engagement," he said. "I am grateful for all of the mentors and colleagues that have helped me along this amazing journey."



Louis Thompson, NASA Office of STEM Engagement Education Program Specialist for the southeast region, is pictured at NASA's Stennis Space Center.

# A Creative Mind That Inspired NASA Stennis

Throughout his life, artist Charlie Swan was aware that his calling resided in the world of creativity – be it drawing, painting, sketching, or any medium that allowed him to channel his thoughts.

captain’s suggestion, leading to a regular presence of his cartoons on the publication’s pages. Following his tour of service, Swan bid farewell to the Air Force and embarked on a new journey.

Swan’s penchant for art defined him and also paved the unexpected path to his role as an illustrator when he was enlisted in the Air Force in 1952.

Swan seized on a moment of inspiration during his voyage to an overseas post aboard the USS Mann to sketch a cartoon for the Navy’s newsletter. The act propelled him into an unforeseen encounter: an invitation to the captain’s quarters.

The meeting marked a pivotal juncture in Swan’s life spanning the next 50 years. The captain shared that he had chanced upon Swan’s cartoon in the newsletter and was impressed. He urged Swan to submit his work to the Stars and Stripes military publication. Swan followed the



An April 2016 image shows the late Charlie Swan (l) during a program at NASA’s Stennis Space Center as the NASA Stennis mascot, Gator, created by Swan is reintroduced to the center.

Hired as an illustrator for a contractor at NASA’s Stennis Space Center, he embarked on a 34-year tenure at the propulsion test site.

Collaborating with one NASA contractor or another, Swan remained a mainstay of creativity for colleagues, friends, and all who encountered his artistic creations.

Swan’s illustrations still adorn the corridors and walls of NASA Stennis.

Most notably, he is remembered for creating Stennis’ motivational mascot – a friendly-looking alligator aptly named Gator – as work was underway to construct the site in the 1960s.

Swan passed away on Jan. 9, 2023, at the age of 91, but his art still can be seen in public and private collections.

## Hail & Farewell

### NASA welcomes the following interns:

- Brianna Daniels**
- Raquel Espinosa**
- Alannah Graves**
- Michael Gregory**
- Joseph Kneusel**
- Saniya Kulkarni**
- Decker Lazzeri**
- Ella Potts**
- Jessie Shurlds**
- Kelly Tran**
- Dylan Williams**

- Student Trainee Office of STEM Engagement
- Student Trainee Engineering and Test Directorate
- Student Trainee Office of Communications
- Student Trainee Engineering and Test Directorate
- Student Trainee Engineering and Test Directorate
- Student Trainee Engineering and Test Directorate
- Student Trainee Safety and Mission Assurance Directorate
- Student Trainee Engineering and Test Directorate
- Student Trainee Office of Communications
- Student Trainee Engineering and Test Directorate
- Student Trainee Center Operations Directorate

## Office of Diversity and Equal Opportunity

# Celebrating National Hispanic Heritage Month

Each year the United States observes National Hispanic Heritage Month from Sept. 15 through Oct. 15 to celebrate Hispanic/Latino/Latinx Americans (those whose ancestors are from Spain, Central and South America, Mexico, and the Caribbean) history, culture, and contributions.

National Hispanic Heritage Month initially began as Hispanic Heritage Week in 1968 under President Lyndon Johnson. In 1988, it was expanded to cover 30 days by President Ronald Reagan.

Every year, the National Council of Hispanic Employment Program Managers vote to determine a theme for [Hispanic Heritage Month](#). This year's theme is: "Todos Somos, Somos Uno: We Are All, We Are One."

Jennifer Lasko from the U.S. Department of the Treasury submitted the winning theme, stating: "I thought of this theme in retrospect to how we in the Hispanic community represent so many different things (many cultures, many skin colors, many points of views), and yet, we are together as one – one community, one people, one vision. We are the No. 1 global ethnicity that represents so many different countries, with a vast array of histories and experiences.

"[We] come together to not only cherish what commonalities and differences we share; we also strengthen each other with a united vision in partnership to elevate each other [and] our nation," Lasko said. "A pesar de nuestras diferencias, somos uno – despite our differences, we are one. Somos la misma gente, somos la misma voz – we are one people, we are one voice. Let's come together to celebrate all of us, the beauty in our variety, and in our sameness, in our humanity."

The Hispanic/Latino/Latinx community has influenced and contributed to the enrichment of American Culture for generations. Some contributions can be attributed to medical and technological inventions, such as the [Neonatal Artificial Bubble](#), invented by Claudio Castillon, which is used to improve the intensive care of high-risk newborns.

Other contributions have come in the form of policies and laws, such as the Agricultural Labor Relations Act of 1975, which is primarily attributed to the work of labor activist [Cesar Chavez](#). The act is the nation's first and only law that guarantees farm workers the right to organize, choose their own union representative, and negotiate with their employers.

In Mississippi and Louisiana, Hispanic Heritage Month is often celebrated through festivals where Hispanic/Latino cuisine, music, and dancing is shared with all. Louisiana holds several

festivals to celebrate Hispanic Heritage Month, such as the Que Pasa Fest in New Orleans, the Hispanic Heritage Festival in New Orleans, and the Gonzales Spanish Heritage Festival. Additionally, Mississippi holds several events such as the Festival Latino, the Festival Hispano, and ¡LatinFest!.

Please take time during Hispanic Heritage Month to learn about the rich history, culture, contributions, and achievements of Hispanic, Latino, and Latinx people and consider ways to include diverse voices in an upcoming project.

To learn more about Hispanic Heritage Month, visit the links below:

[National Council of Hispanic Employment Program Managers](#)  
[National Park Service Hispanic Heritage Month](#)  
[National Archives Hispanic Heritage Month](#)



# Online Resources



## WLOX: NASA's Joe Schuyler talks historic agreement

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