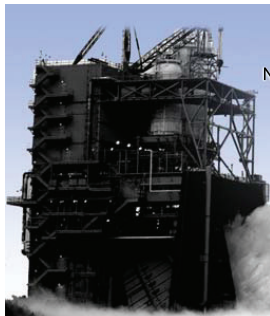


National Aeronautics and Space Administration



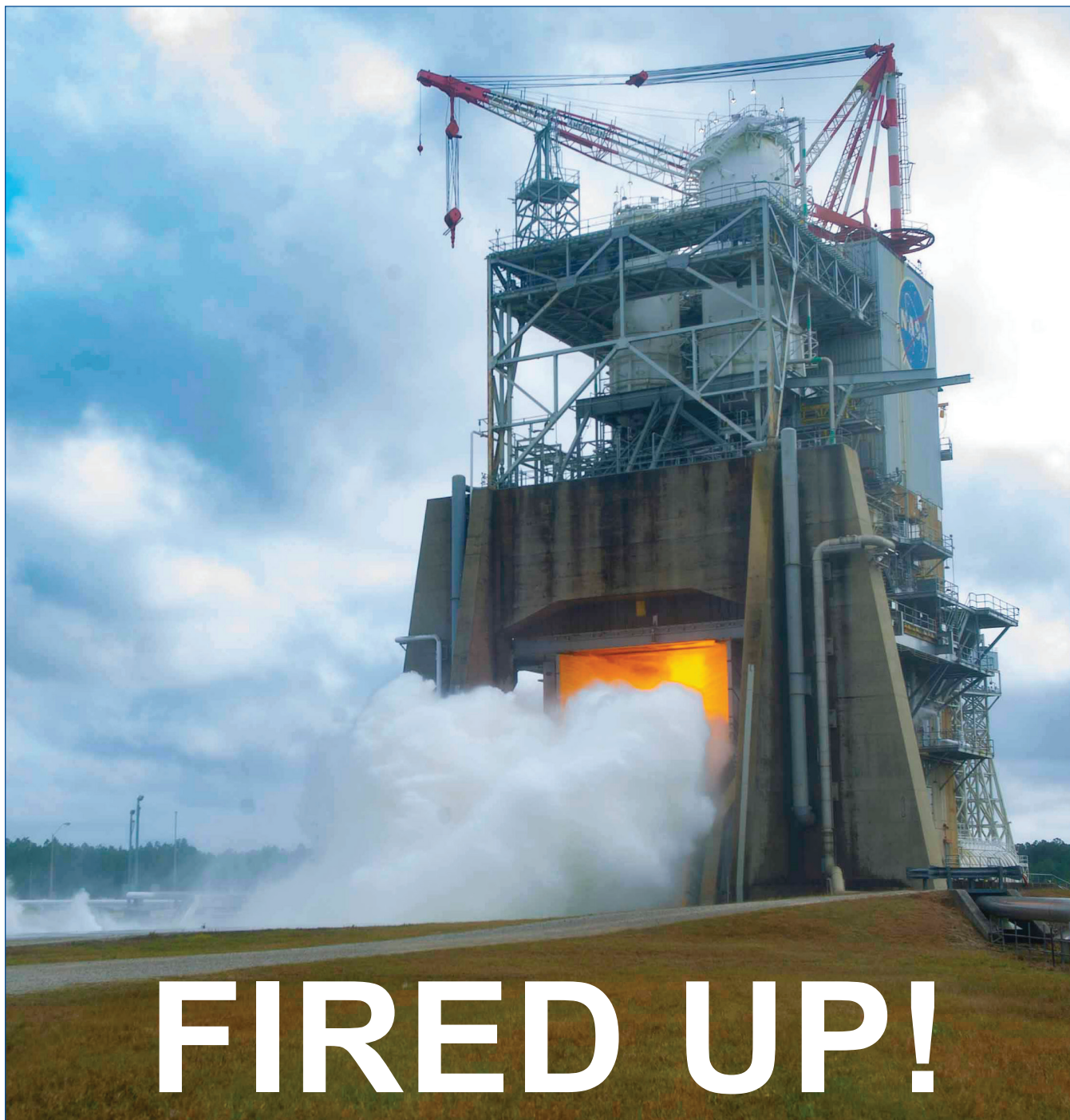
LAGNIAPPE

John C. Stennis Space Center

Volume 19 Issue 2

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February 2023



FIRED UP!

A remote camera offers a close-up view of the RS-25 hot fire on the Fred Haise Test Stand at Stennis Space Center in south Mississippi on Feb. 8, 2023.

See Page 3

One of my favorite quotes is, “Life imitates art far more than art imitates life,” by Oscar Wilde. The famous late Irish poet pointed out how art impacts the way people view the world; through their work, artists inspire and teach people what to see in the world around them.

This month, I honor an artist – Charlie Swan – for the work he contributed to the world and its impact on life at NASA’s Stennis Space Center. Swan worked at NASA Stennis for 35 years. He passed away January 9 at the age of 91.

The Mobile, Alabama, native was inspired to create me in the 1960s as the NASA Stennis mascot during those early years of construction in south Mississippi. At the time, the work was the largest construction project in the state of Mississippi and second largest in the United States.

Just four years after the historic announcement that the test site would be located in Hancock County, Mississippi, I arrived via Swan’s talented hand.

My role as the official mascot, I believe, was just as big as the construction project. My job was to motivate the many valuable employees, especially throughout the hot summer months when it could be easy to get

down during the early years of something new coming to life.

I evolved with time, much like NASA has over the years, with my likeness featured on certificates and awards that honored the many contributions of the fine folks at NASA Stennis. More recently, I show up on Lagniappe pages and may have appeared as a temporary tattoo on your child’s arm. Ark!

It all started with Swan. The award-winning artist created over a thousand portraits of me and others during his 70-year career. Swan’s art is sprinkled far and wide in the homes and offices of dignitaries, officials, and NASA pioneers.

He helped shine a spotlight on the value of those contributing their time and talents here at Stennis.

His illustrations taught people not only to notice the work of others but to be encouraging themselves. In more ways than one, through his creations, Swan brought encouragement to life.

I honor and thank you, Charlie Swan, for the life you brought to the world through your art and for the memories that so many of us cherish from your contributions.



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NASA Conducts First 2023 Test of Redesigned Moon Rocket Engine



NASA conducts an RS-25 hot fire on the Fred Haise Test Stand at Stennis Space Center in south Mississippi on Feb. 8, 2023.

NASA's newly redesigned [RS-25](#) engine for future flights of the Space Launch System (SLS) rocket, underwent its first hot fire test of the year on Feb. 8 at the agency's Stennis Space Center near Bay St. Louis, Mississippi.

The series of testing supports production of new RS-25 engines by lead SLS engine contractor Aerojet Rocketdyne. The new engines will help power future [Artemis](#) missions to the Moon beginning with Artemis V as NASA explores the universe for the benefit of all.

The single-engine hot fire on the Fred Haise Test Stand followed a [confidence test in 2022](#), which tested whether all was ready to proceed with the certification series.

During the latest test, engineers fired the RS-25 engine for a full duration of about eight and a half minutes (500 seconds), the same amount of time the engines must operate to help power SLS to space. The RS-25 engine also operated at 111% power for most of the test, the same level needed to help lift SLS to orbit. The test featured a range of new components, most of which were installed for the December hot fire.

One additional component – a new nozzle – was installed prior to the most recent hot fire.

Four RS-25 engines fire simultaneously to generate a combined 1.6 million pounds of thrust at launch and 2 million pounds of thrust during ascent to help power each SLS flight. NASA and Aerojet Rocketdyne modified 16 engines remaining from the Space Shuttle Program, which were proven flightworthy at Stennis for Artemis missions I through IV.

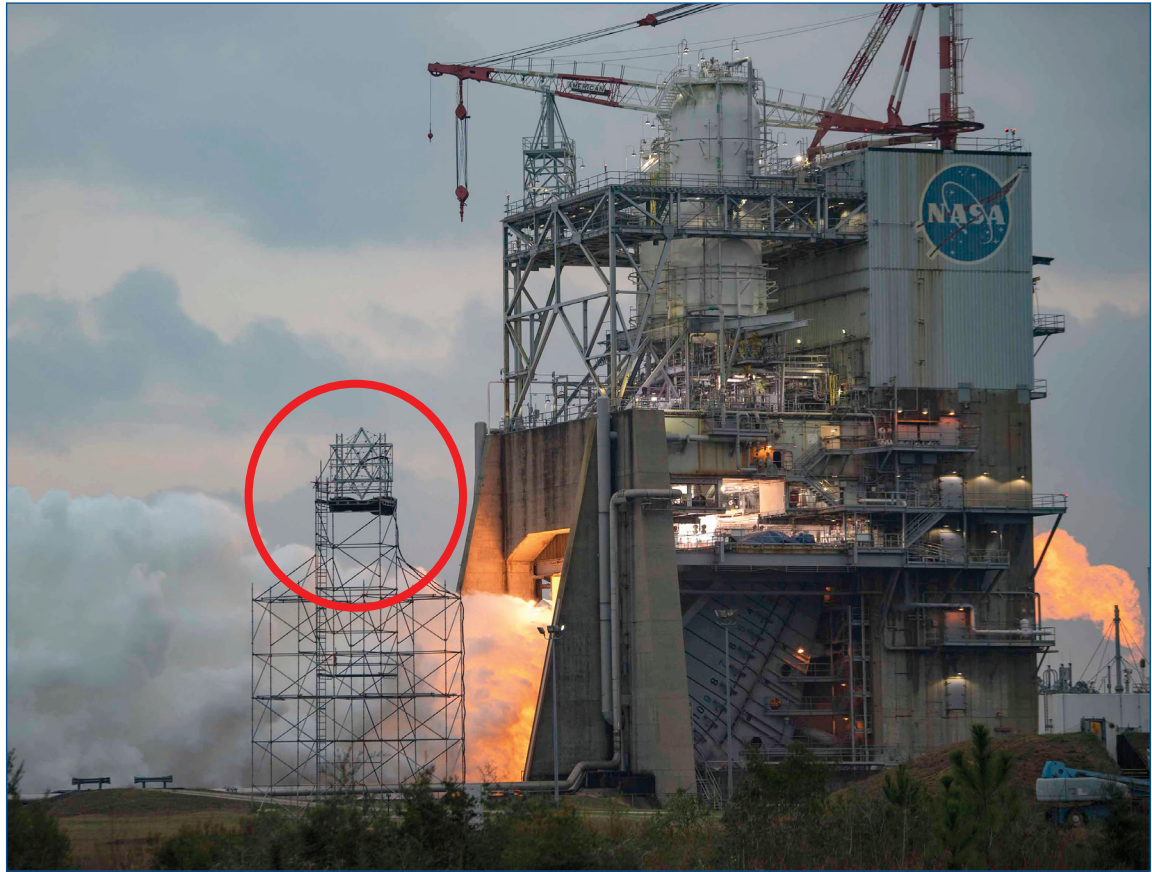
Every RS-25 engine that will help power SLS will be tested at NASA Stennis. RS-25 tests at the site are conducted by a combined team of NASA, Aerojet Rocketdyne, and Syncom Space Services operators. Syncom Space Services is the prime contractor for [Stennis](#) facilities and operations.

Through Artemis missions, NASA will land the first woman and the first person of color on the surface of the Moon, paving the way for a long-term lunar presence and serving as a steppingstone on the way to Mars.

For information about the Space Launch System, click [here](#).

Team Tests Unique Acoustics Mapping System at NASA Stennis

A phased array microphone system is shown (red circle) atop scaffolding near the Fred Haise Test Stand at NASA's Stennis Space Center during an RS-25 hot fire test on Dec. 14, 2022. A blended NASA team traveled to south Mississippi to conduct the first field test of the one-of-its-kind system, developed at NASA's Ames Research Center to provide a map of potentially damaging rocket launch acoustics. The system will undergo one additional field test, then be used during the Artemis II launch.



A NASA team successfully field tested an innovative phased array microphone system designed to map rocket launch acoustics during a December 2022 RS-25 hot fire at the agency's Stennis Space Center.

The one-of-its-kind system provided a sound map of engine test acoustics during the hot fire on the Fred Haise Test Stand on Dec. 14, 2022. The system now will be employed during a commercial launch and for the Artemis II launch, the first crewed flight test of the Space Launch System (SLS) rocket and Orion spacecraft around the Moon.

If all goes well, microphone array could become a permanent launch fixture as NASA continues to explore the secrets of the universe for the benefit of all.

Launch acoustics are a critical concern. Noise, energy, and their resulting vibrations during launch operations can damage sensitive components and surrounding hardware. To mitigate the situation, NASA uses a "rainbird" water deluge system designed to dampen the acoustical impacts.

NASA Stennis follows a similar approach during large hot fire tests, spraying thousands of gallons of water to protect the test stand flame deflector and lessen the acoustical impact of the hot fires.

For the RS-25 test on Dec. 14, a blended team from three NASA centers led in deploying the phased array system near the Fred Haise Test Stand. A scaffolding tower was built, with the large array of microphones placed atop.

A team from NASA's Ames Research Center in Silicon Valley, California, developed the system, a circular grid of mounted microphones and cameras designed to collect the data needed to create an acoustical sound map. Personnel from NASA's Kennedy Space Center and NASA's Langley Research Center also were involved in the development process.

Following early testing at NASA Ames, the RS-25 engine test at NASA Stennis provided the team an ideal opportunity to field test the new system. Although the test experienced an early shutdown, it provided sufficient data for the team to verify and validate the grid system approach and design.

When employed for the Artemis II mission, engineers expect the system to provide data regarding the new "rainbird" system developed to protect the mobile launcher and rocket during launches. The resulting sound map will allow engineers to confirm the water spray system is functioning as designed and needed.

The NASA Engineering and Safety Center is funding the phased array microphone system project.

NASA's MOON to MARS MISSION

Data from First SLS Flight Prepares NASA for Future Artemis Missions



(Above photo) The core stage of NASA's Space Launch System (SLS) rocket has more than 1,000 sensors and 45 miles of cabling. The SLS core stage's base heat shield is roughly 1.3 inches thick and was specially designed to protect the 212-foot-tall stage and its two liquid propellant tanks from launch pad temperatures greater than 3,200 degrees Fahrenheit. Data indicates the structure was not affected by temperatures that can turn sand to glass. Photo Credits: NASA/Chris Coleman and Kevin Dav

(Left photo) Four RS-25 engines and two five-segment solid rocket boosters provide more than 8.8 million pounds of thrust for SLS during liftoff and flight. Thanks in part to development of a new RS-25 engine controller that checks engine health 50 times per second, engineers were able to collect more than 100 measurements on pressures, temperatures, flows, speeds, and vibrations on the four RS-25 engines that helped power Artemis I. The RS-25 engines were tested and proven flightworthy at NASA's Stennis Space Center. Photo Credit: NASA/Joel Kowsky

Click [here](#) to read more about data collected from Artemis I.

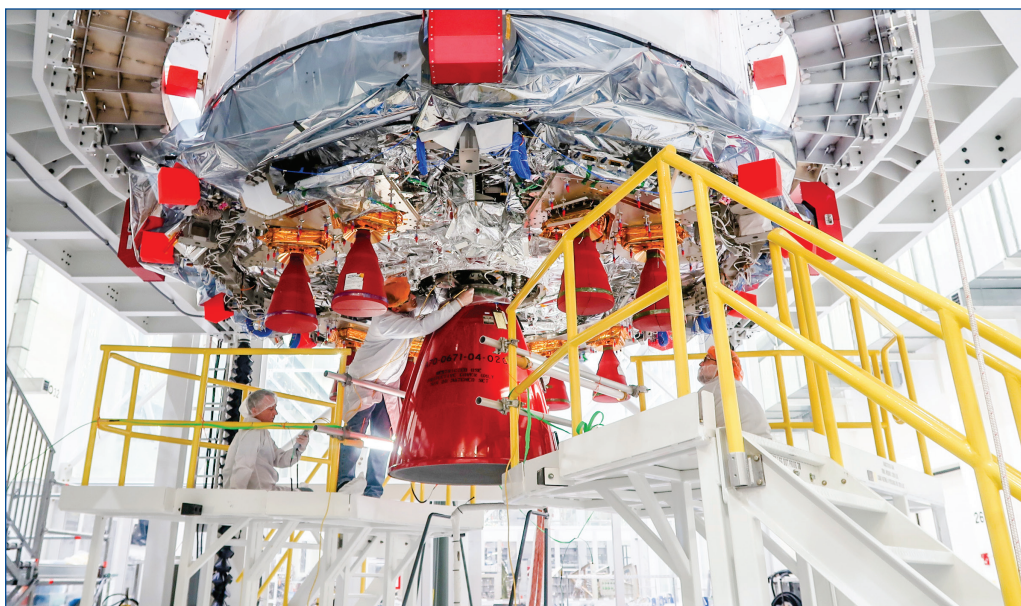
NASA's MOON to MARS MISSION

Orion Manikins Return From Artemis I Mission

After a 25.5-day flight beyond the Moon and back inside the Artemis I Orion crew module, two manikins undergo post-flight payload inspections inside the Space Station Processing Facility at NASA's Kennedy Space Center in Florida on Jan. 11, 2023. As part of the Matroshka AstroRad Radiation Experiment investigation, the two female manikins – Helga and Zohar – were equipped with radiation detectors. Zohar also wore a radiation protection vest, to determine the radiation risk during the Artemis I mission and potentially reduce exposure during future missions with astronauts. The detectors will be removed at Kennedy and the torsos will return to teams at the German Space Agency for further analysis. Artemis I Orion launched atop the Space Launch System (SLS) rocket from Kennedy's Launch Complex 39B on Nov. 16, 2022. During the flight, Orion flew farther than any spacecraft built for humans has ever flown, paving the way for human deep space exploration and demonstrating NASA's commitment and capability to extend a human presence to the Moon and beyond. The primary goal of Artemis I was to thoroughly test the SLS and Orion spacecraft's integrated systems before crewed missions. Under Artemis, NASA aims to land the first woman and first person of color on the Moon and establish sustainable lunar exploration. Photo Credit: (NASA/Kim Shiflett)



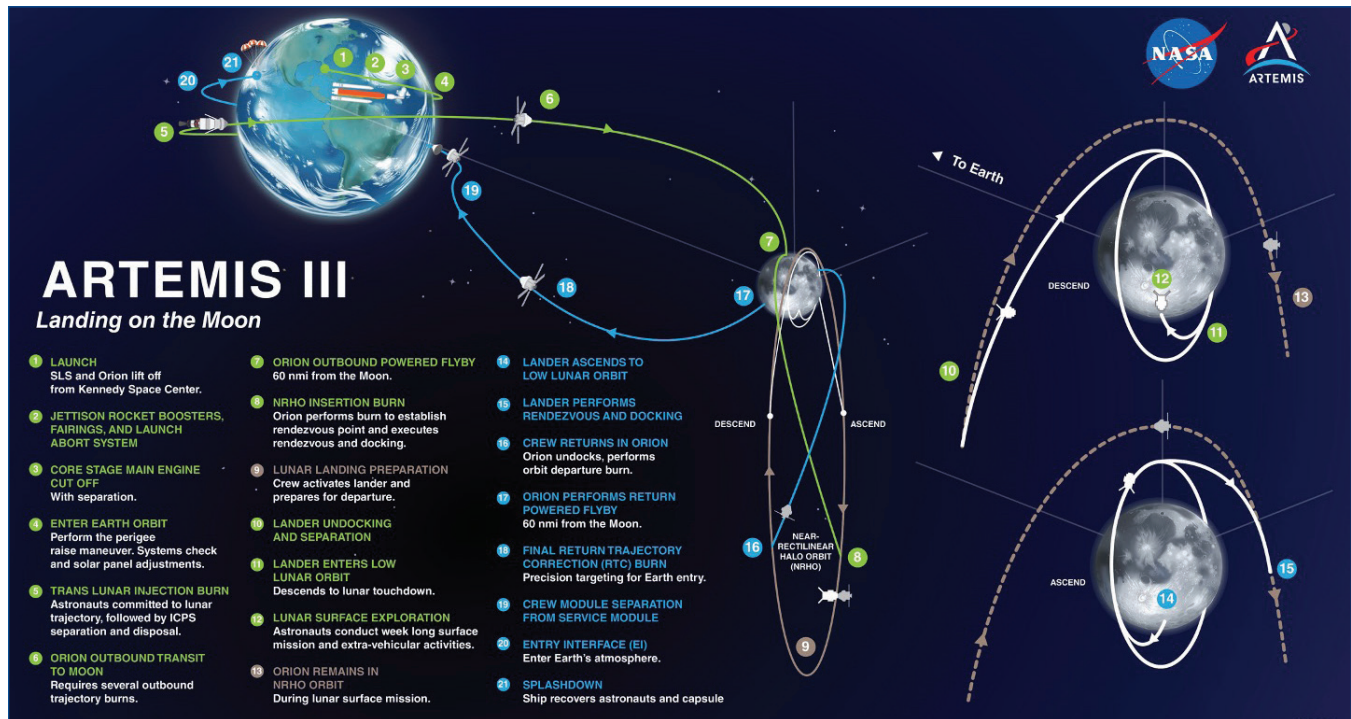
Progress Continues on Service Module for Artemis II



Inside the Neil Armstrong Operations and Checkout Building at NASA's Kennedy Space Center in Florida, technicians work on the European Service Module that will help power and propel the Orion spacecraft carrying astronauts around the Moon on the Artemis II mission. On Jan. 13, 2023, the service module was moved into a lifting station to enable technicians to install Orion's orbital maneuvering system engine nozzle and heat shield, which was completed on Jan. 16. The service module provides in-space maneuvering capability, power, and life support commodities necessary for astronauts onboard Orion. Photo Credit: (NASA)

NASA's MOON to MARS MISSION

Artemis III: NASA's First Human Mission To Lunar South Pole



Humans have always been drawn to explore, discover, and learn as much about the world – and worlds – around them. For the benefit of all humanity, NASA and its partners will land the first woman and first person of color on the surface of the Moon with Artemis. Following two Artemis test missions, Artemis III, currently planned for 2025, will mark humanity's first return to the lunar surface in more than 50 years. NASA will make history by sending the first humans to explore the region near the lunar South Pole. NASA's Orion spacecraft will be the crew's ride to and from Earth and into and out of lunar orbit. Orion is the only spacecraft capable of returning crews to Earth at lunar reentry velocities. On the successful Artemis I mission, Orion's uniquely designed heat shield was tested under these extreme reentry conditions. On Artemis III, four astronauts will depart from Launch Pad 39B at Kennedy Space Center in Florida atop the Space Launch System, the only rocket powerful enough to send Orion, its crew, and their supplies to the Moon in a single launch. The crew will be selected from among the most diverse astronaut corps in history, each equipped with unique skills and intensively trained. Artemis III will be one of the most complex undertakings of engineering and human ingenuity in the history of deep space exploration to date.



An illustration shows the SpaceX Starship human landing system design. NASA has selected SpaceX to provide the human landing system that will transport Artemis III astronauts from Orion in lunar orbit to the surface of the Moon and back again. SpaceX plans to use a unique concept of operations to increase overall efficiency of their lander. After a series of tests, SpaceX will fly at least one uncrewed demo mission that lands Starship on the lunar surface. When Starship has met all of NASA's requirements and high standards for crew safety, it will be ready for its first Artemis mission.
Photo Credit: (SpaceX)

Click [here](#) to read more details about the Artemis III mission.

NASA's Day of Remembrance Honors Fallen Heroes



(Left photo) A NASA image shows the Apollo 1 Crew (l-r): Virgil I. Grissom, Edward H. White, and Roger B. Chaffee. On Jan. 27, 1967, veteran astronaut Grissom, first American spacewalker White, and rookie Chaffee were sitting atop the launch pad for pre-launch test when a fire broke out in their Apollo capsule. The mission was scheduled to launch Feb. 21, 1967. "Three valiant young men have given their lives in the nation's service," said President Lyndon B. Johnson. "We mourn this great loss and our hearts go out to their families." The investigation into the fatal accident led to major design and engineering changes, making the Apollo spacecraft safer for the coming journeys to the Moon.

To read more about Apollo 1, click [here](#).

To read more about Challenger, click [here](#).

To read more about Columbia, click [here](#).



(Left photo) NASA's Stennis Space Center Associate Director Rodney McKellip (right) and NASA Shared Services Center Operations Director Nikki Tubbs commemorate fallen NASA heroes during the annual Day of Remembrance ceremony on Jan. 26. Following their comments, McKellip and Tubbs placed a memorial wreath in memory of NASA family members who lost their lives while furthering the cause of exploration and discovery. "In addition to the names of the astronauts and flight crew members, let us also remember others who have sacrificed in so many ways to support the nation and its space mission," McKellip said. "These unnamed individuals include those who lost loved ones and faced the rest of their lives without them. ... Let us reflect on their sacrifice, even as we dare ourselves to reach toward new dreams and commit ourselves to ensuring the safety of all future explorers." The NASA Day of Remembrance is observed each year in January.

To view the NASA Day of Remembrance video, click [here](#).



(Left photo) A NASA image shows STS-51L crew (l-r): Mission Specialist Ellison S. Onizuka, Pilot Michael J. Smith, Payload Specialist Christa McAuliffe, Commander Francis R. "Dick" Scobee, Payload Specialist Gregory B. Jarvis, Mission Specialist Judith A. Resnik, and Mission Specialist Ronald E. McNair. On the morning of Jan. 28, 1986, just 73 seconds after launch, a booster engine failed and caused the shuttle Challenger to break apart, taking the lives of all seven crewmembers. "We will never forget them, nor the last time we saw them, this morning, as they prepared for the journey and waved goodbye and 'slipped the surly bonds of Earth' to 'touch the face of God,'" said President Ronald Reagan, quoting from John Gillespie Magee's poem, High Flight.



(Left photo) A NASA image shows the STS-107 crew (top row l-r): Mission Specialist 1 David M. Brown, Pilot William C. McCool, Payload Commander Michael P. Anderson (bottom row l-r): Mission Specialist 2 Kalpana Chawla, Commander Rick D. Husband, Mission Specialist 4 Laurel Blair Salton Clark, and Payload Specialist 1 Ilan Ramon. This year marks 20 years since the seven-member crew was 16 minutes from landing the morning of Feb. 1, 2003, when Mission Control lost contact with the shuttle, Columbia. A piece of foam falling from the external tank during launch opened a hole in one of the shuttle's wings, leading to the breakup of the orbiter upon re-entry. "Mankind is led into the darkness beyond our world by the inspiration of discovery and the longing to understand," President George W. Bush said while addressing the nation. "Our journey into space will go on."

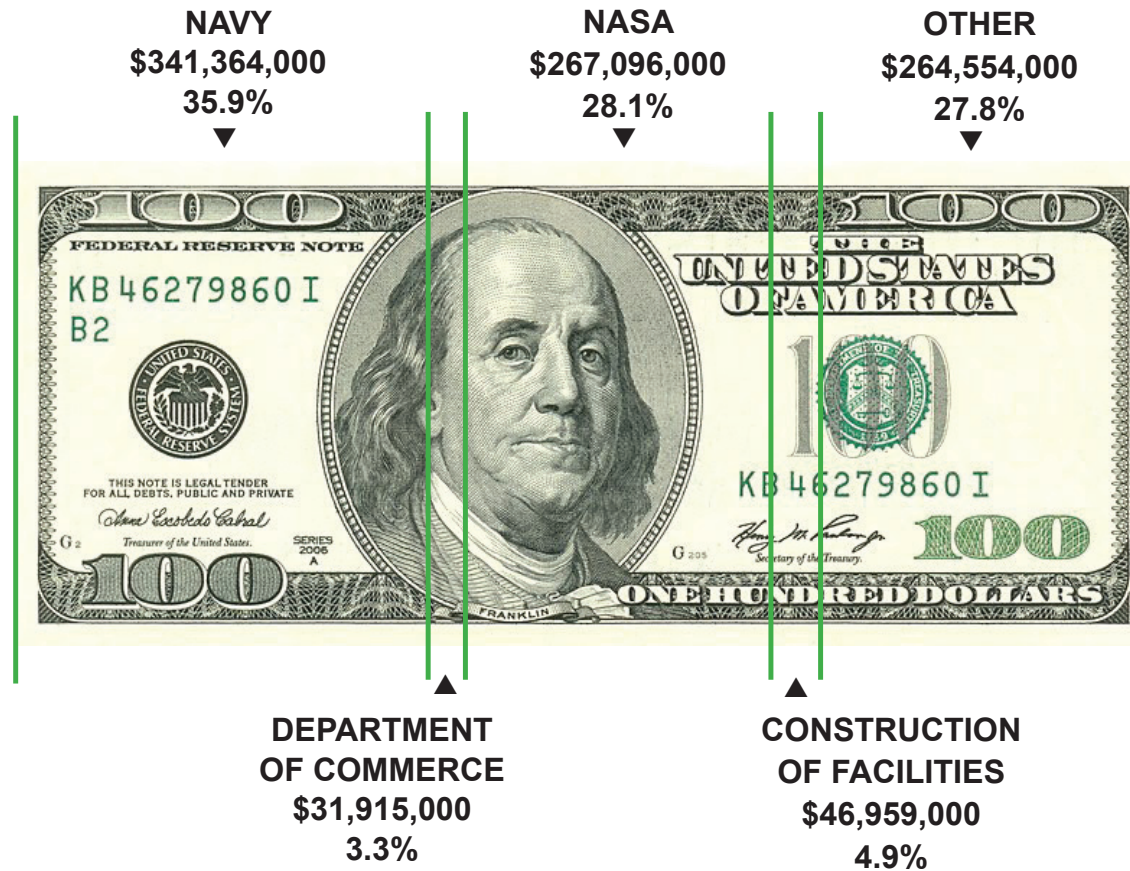
National Aeronautics and Space Administration



4,900+ site employees

\$951,888,000

Direct Global Impact



2022 STENNIS ECONOMIC IMPACT

NASA Civil Servants – 445
 NASA Contractors – 1,308
 Department of Navy and Contractors – 1,976
 Department of Commerce and Contractors – 238
 Other Resident Agencies – 1,012
(totals as of Sept. 30, 2022)

Doctorates – 176
 Masters – 690
 Bachelors – 1,779
 Associates – 578
 Some College – 533
 High School Diploma – 1,193
 Other – 29

Scientific/Engineering – 1,483
 Business/Professional – 1,112
 Technical Crafts/Production – 1,325
 Clerical – 335
 Other – 724

Average salary with benefits
\$109,000



Residential Distribution of Stennis Employees

Mississippi
 Pearl River County
 1,211 (24.3%)
 Hancock County
 976 (19.6%)
 Harrison County
 911 (18.3%)
 Other Counties
 265 (5.3%)

Louisiana
 St. Tammany Parish
 1,156 (23.2%)
 Other Parishes
 255 (5.2%)

Other
 Other States
 205 (4.1%)

\$718,769,000

Direct 50-Mile Radius Impact

NASA Spinoffs Feature Stennis Developed Technologies

When it comes to NASA, most people look to the skies as rockets, rovers, and astronauts push the boundaries of space exploration. But the benefits of going above and beyond can be found here on Earth through products and services born from NASA innovation.

The latest edition of NASA's [Spinoff publication](#) features dozens of new commercialized technologies that use the agency's technology, research, and/or expertise to benefit people around the globe. It also includes a section highlighting technologies of tomorrow.

"From the heavens to hospitals around the world, NASA spinoffs are improving life for all of humanity," said NASA Administrator Bill Nelson. "The work NASA does in research and technology gives businesses a competitive edge, driving an economy that allows America to compete globally and creating good-paying jobs for this generation – and the next."

NASA's Spinoff 2023 features more than 40 companies using NASA technology, research, and funding to create better [batteries to store green energy](#), improve [airport ground traffic](#) to save passengers and airlines time while cutting fuel costs, [distribute ventilators](#) around the world, and even [heal wounds faster](#) on humans and animals alike.

The 2023 publication also features The Spinoffs of Tomorrow section highlighting technologies developed at various agency centers and available for use by various industries. It includes two valve technologies developed at NASA's [Stennis Space Center](#):

Floating Piston Valve: The NASA Spinoff 2023 publication describes the valve developed at NASA Stennis as a "novel approach to low-maintenance, actuator-less valves." Designed to work with extremely high pressures, the valve uses a piston approach to control system flows, eliminating the need for a

conventional actuator. The NASA Stennis valve also does not require the use of valve stems and stem seals, while ensuring consistent seating force regardless of pressures. The innovative valve offers greater reliability and seat life, thus reducing maintenance downtime and costs. In addition to its use in propulsion testing, the

valve has applications for power plants, chemical refineries, and pharmaceutical manufacturing.

Cryogenic Butterfly Cam Valve: According to the NASA Spinoff 2023 book, the unique butterfly valve designed at NASA Stennis provides "no-leak" performance in a broad range of temperatures. The NASA Stennis valve addresses a key disadvantage of current butterfly valves, which require the butterfly disc to establish a tight seal at exactly 90 degrees. Providing additional torque to the valve may cause the disc to rotate beyond 90 degrees, allowing fluid flow. Current butterfly valves also

usually fail leakage tests when used with liquid nitrogen, a key cryogenic in propulsion testing. The simple NASA Stennis design remedies these issues by allowing rotation of the valve shaft, enabling the disc to slide until it seals tightly despite temperature changes. The NASA Stennis valve can be used in various aerospace, natural gas, and cryogenic plant systems.

"It isn't just the commercial space industry that can leverage our innovations," said Daniel Lockney, executive of NASA's Technology Transfer program. "Practically any industry area can find a NASA technology as a solution to its business needs. Our scientists, researchers, and engineers are constantly creating new materials, software, tools, and more. If it isn't here now, it soon will be."

Spinoff is part of the agency's Technology Transfer program within STMD. The program is charged with finding the widest possible applications for NASA technology through partnerships and licensing agreements with industry, ensuring that NASA's investments in its missions and research find additional applications that benefit the nation and the world.



NASA's 2023 Spinoff publication features more than 40 companies using NASA innovations to benefit people around the globe. It also features new technology developed at various agency centers, including NASA's Stennis Space Center.



An international team of astronomers using NASA's James Webb Space Telescope has obtained an in-depth inventory of the deepest, coldest ices measured to date in a molecular cloud. In addition to simple ices like water, the team was able to identify frozen forms of a wide range of molecules, from carbonyl sulfide, ammonia, and methane, to the simplest complex organic molecule, methanol. This is the most comprehensive census to date of the icy ingredients available to make future generations of stars and planets, before they are heated during the formation of young stars. This image from the telescope's Near-Infrared Camera features the central region of the Chamaeleon I dark molecular cloud, which resides 630 light-years away. Click [here](#) to read more. Photo Credit: NASA, ESA, CSA, and M. Zamani (ESA)

NASA in the News

NASA Launches Aeronautics Spanish-Language Webpages

As part of its effort to provide more resources to new audiences, NASA has launched new [webpages](#) featuring aeronautics information in Spanish. The webpages aim to make aeronautics content more accessible to the Spanish-language community. "This is a significant step forward in our efforts to make the knowledge we've accumulated at NASA available to people all over the country, and the world," said Bob Pearce, associate administrator for NASA's Aeronautics Research Mission Directorate. "We're making sure that as we explore and tackle the biggest challenges facing aviation, we're providing benefits for all. By presenting aeronautics information and educational materials in Spanish, we're working to foster a diverse, bold and effective next generation of explorers. We're counting on this generation to help NASA carry its vision into the future." Click [here](#) to read more about how this will inspire the next generation of NASA explorers.

NASA, DARPA Will Test Nuclear Engine for Future Mars Missions

NASA and the Defense Advanced Research Projects Agency (DARPA) have announced a collaboration to demonstrate a nuclear thermal rocket engine in space, an enabling capability for NASA crewed missions to Mars. NASA and DARPA will partner on the Demonstration Rocket for Agile Cislunar Operations, or DRACO, program. The non-reimbursable agreement, designed to benefit both agencies, outlines roles, responsibilities, and processes aimed at speeding up development efforts. "NASA will work with our long-term partner, DARPA, to develop and demonstrate advanced nuclear thermal propulsion technology as soon as 2027. With the help of this new technology, astronauts could journey to and from deep space faster than ever – a major capability to prepare for crewed missions to Mars," said NASA Administrator Bill Nelson. Click [here](#) to read how using a thermal rocket benefits space travel.

NASA Stennis News



NASA's Office of the Chief Information Officer Tours NASA Stennis

Employees of NASA's Office of the Chief Information Officer (OCIO) stand at the A-2 Test Stand as part of a site tour on Feb. 2. The tour followed a meeting with NASA Chief Information Officer Jeff Seaton. As part of the tour, the group visited the NASA Stennis History Office, Records Retention Office, and Aerojet Rocketdyne's Engine Assembly Facility. As NASA continues to leverage technology to keep missions moving forward, information technology (IT) and the people behind it are an essential part of NASA's mission. The Office of the Chief Information Officer provides safe, secure, reliable, and ever-advancing IT capabilities and services.

Best-Selling Author Visits NASA Stennis For Research on Upcoming Book

Author Adam Higginbotham (left) talks with NASA engineers, including Barry Robinson (right), in the A Complex Test Control Center during a visit to NASA's Stennis Space Center on Jan. 25. The international best-selling author is conducting research for his latest book about the Space Shuttle Program and shuttle Challenger. Higginbotham talked with Robinson and other NASA Stennis engineers who worked on the shuttle program. Higginbotham also toured the Fred Haise Test Stand. In addition to a stop at NASA Stennis, the author is visiting NASA's Kennedy Space Center in Florida, Johnson Space Center in Houston, and Marshall Space Flight Center in Huntsville, Alabama.



NASA Stennis News

INFINITY Science Center Hosts Scouts In Space Event



NASA Visitor Relations Specialist Nick Middleton (right) speaks to participants during the Scouts in Space event hosted by INFINITY Science Center at NASA's Stennis Space Center on Jan. 14. The day included hands-on activities for all ages of scouts and the more than 380 people in attendance. Additionally, INFINITY staff gave a presentation on Artemis I titled, "Back to the Moon." NASA's ASTRO Camp Collaborative Partners Program displayed an exhibit, and representatives from Aerojet Rocketdyne participated in the event.



NASA Stennis Attends Career Expo

A student participates in a NASA Stennis hands-on activity during the annual Pathways2Possibilities Mississippi Delta event in Greenville on Feb. 8. More than 2,300 youth attended the two-day event, which is an interactive career expo for all 8th graders and opportunity youth, ages 16-24, in south Mississippi.

Did You Know?

NASA Stennis conducts ongoing face-to-face, virtual, and social media engagement activities to help communicate the agency and center stories. By the end of 2022, such efforts had reached almost 53,000 individuals in face-to-face and virtual opportunities and attracted more 1.3 million social media followers/subscribers.

NASA Stennis Leader Builds Career on Inspiration from Parents

Growing up in Compton, California, Katrina Emery's parents taught her a simple lesson that has carried her through more than 20 years of increasingly significant work roles to a senior leadership position at NASA's Stennis Space Center.

"Nothing beats a failure but a try."

Since those childhood years, Emery not only has tried but has succeeded in establishing a career as an educator and leader with the world's foremost space agency.

A resident of Slidell, Louisiana,

Emery currently serves as manager of the Office of Diversity and Equal Opportunity for both NASA Stennis, located near Bay St. Louis, Mississippi, and the NASA Shared Services Center, also located at the site. "I tell young people that their career path starts early," Emery said. "It begins with the inspiration you draw from friends, family, and community."

For Emery, that inspiration came from her parents, both of whom were educators. Emery subsequently earned a bachelor's degree in accounting and master's in public administration from Southern University in Baton Rouge, Louisiana.

Her university mentors eventually urged Emery to apply for a NASA professional leadership fellowship. "I didn't think I would qualify, but my mentors really pushed me," Emery recalled. "As it turns out, I was one of only 10 individuals selected out of hundreds of applicants."

Emery enjoyed her experience with the agency. When the fellowship ended, she worked under an Intergovernmental Personnel Act to help manage NASA-funded grants to minority-serving institutions. She then joined the agency team in 2007 as project manager for NASA's University Research Centers, which focused on promoting a competitive aerospace research capability among the nation's minority-serving institutions.

Following more fully in her parents' footsteps, Emery became director of the Office of Education at NASA's

Dryden Flight Research Center in Edwards, California, in 2012. She moved to the same role at NASA Stennis in 2013. A large part of her work in that office focused on inspiring student interest in STEM studies and careers.



Katrina Emery leads the Office of Diversity and Equal Opportunity at NASA Stennis and the NASA Shared Services Center.

"I always remind students that early career programs are a great way to get your foot in the door," said Emery, who was recognized by *Diverse: Issues in High Education* as one of the top 25 women in high education in 2013. "Ask your mentors what opportunities are out there for you – and do

not underestimate your experience and skillset."

In 2017, Emery assumed her current role and now leads in the development and oversight of the center's diversity and equal opportunity policies, awareness programs, and standards. The work also involves supporting the newest NASA core value – inclusion. "Our focus is to ensure that we maintain a work environment where all employees feel welcomed, respected, connected, and engaged," Emery said. "I want to empower all employees to contribute their unique talents to ensure the success of NASA's mission."

Emery and her team highlight special emphases throughout the year and provide various opportunities for employees to participate in diversity and inclusion programs and development activities.

Meanwhile, Emery maintains her commitment to ongoing self-education. She has completed several management and leadership training programs. She has earned numerous NASA group awards, as well as recognition for professional achievements and service within the community.

For Emery, it is all part of her philosophy for career growth and leadership. "Build relationships to stay up-to-date and find future opportunities," she said. "Be open to new jobs that will grow your skillset and open even more doors. Join groups that expand your professional network, and always showcase your skills."

A Look Back at Logtown and Possum Walk

A couple thousand residents lived in a small town known as Logtown, which was built around a sawmill as the 19th century rolled into the 20th century.

Once the mill opened in 1889, Logtown grew and its peak reached approximately 3,000 residents. It was located in the swamps of what is now NASA's Stennis Space Center.



An image from May 1963 shows the Logtown Post Office that was built in 1883.

Logtown featured rustic Queen Anne style homes, a school with classes through 12th grade, churches, boarding houses, and a bank.

A 1997-98 archaeological survey conducted on three land parcels owned by NASA assessed the potential cultural significance of the area prior to planned logging activities.

As part of the center's 125,000-acre buffer zone, Logtown was one of five Hancock County communities that made way for NASA's Mississippi Test Operations in the 1960s.

Due to the high volume of river traffic from New Orleans, Logtown residents and the neighboring village of Possum Walk received mail twice a day.

Possum Walk, located near INFINITY Science Center on the north side of Bayou Bogue Homa, was known for its rich African American settlement roots. A ferry helped workers travel from Possum Walk to the Logtown sawmill for work.

Not much is known about the origins of the settlement, but historians suspect it was a location during pre-Civil War times where enslaved people lived.

During reconstruction, enslaved people became independent businesspeople in the timber and turpentine industry. Some were focused on engineering. A formerly enslaved person turned blacksmith from Pearlington, Usan Vaughn, invented the carry log, a high-wheeled vehicle that allowed easier access to lumber in the marshlands.

The survey stated that Vaughn's new invention used a wider tread and wheels with a diameter of 7 feet. These new carry logs did not bog down as easily and were made to carry much larger logs.

To learn more, walk through history in NASA's backyard by visiting the Possum Walk trail at INFINITY Science Center.

Hail & Farewell

NASA welcomes the following:

Robert Beverly

Emergency Management Specialist

Center Operations Directorate

Jessica Harder

Student Trainee, Engineering

Safety and Mission Assurance Directorate

Steven Helmstetter

Electrical Engineer, AST

Engineering and Test Directorate

Heather Seagren

Financial Management Specialist

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Black History Month: Honoring The Late John Lewis

Carter G. Woodson, an American historian, author, journalist, and founder of the Association for the Study of African American Life and History (ASALH) established February as Black History Month in 1926.

Woodson's purpose of creating Black History Month was to bring public attention to the important contributions of Black people in America. Since its inception, Black History Month has become a time to reflect on the histories, experiences, accomplishments, cultures, and communities of Black people.

The 2023 Black History Month theme announced by the ASALH is "Black Resistance." The theme focuses on historic and ongoing racial oppression.

"Black people have had to consistently push the United States to live up to its ideals of freedom, liberty, and justice for all," the ASALH states. "Black people have sought ways to nurture and protect Black lives, and for autonomy of their physical and intellectual bodies through armed resistance, voluntary emigration, nonviolence, education, literature, sports, media, and legislation/politics. Black-led institutions and affiliations have lobbied, litigated, legislated, protested, and achieved success."

The late John Lewis was one of many advocates for Black resistance. Lewis was born in Troy, Alabama, on February 21, 1940. Lewis's parents were sharecroppers and growing up he helped with their crops. As a teenager, he was inspired by Martin Luther King Jr.'s sermons.

Lewis left Alabama to attend the American Baptist Theological Seminary in Nashville, Tennessee in 1957. While at seminary school, Lewis learned about non-violent protests and began organizing local sit-ins at segregated lunch counters, which resulted in multiple arrests of the protesters.

Lewis committed to the civil rights movement in 1961 by participating in the Freedom Rides. During this time, Lewis was arrested again. Lewis was named chair of the Student Nonviolent Coordinating Committee (SNCC) in 1963. The committee, along with other civil rights leaders, organized the March on Washington.

"Lewis – the youngest speaker at the event – had to alter his speech in order to please other organizers but still delivered a powerful oration that declared, 'We all

recognize the fact that if any radical social, political, and economic changes are to take place in our society, the people, the masses, must bring them about.'" ([John Lewis - Biography](#))

Lewis and Hosea Williams led a march in 1964 from Selma to Montgomery, Alabama. The march brought national attention to the ongoing struggle of voter suppression in the South. As marchers passed over Edmund Pettus Bridge, they were attacked by state troopers.

During this confrontation, Lewis's skull was fractured. The violent attacks were recorded and disseminated throughout the country, and the images proved too powerful to ignore. 'Bloody Sunday,' as the day was labeled, brought forth the passage of 1965's Voting Rights Act.

Lewis continued to advocate for voting rights in America, and in 1986, he was elected to the House of Representatives, where he represented Georgia's 5th District.

During his time in Congress, Lewis called for healthcare reform, fought against poverty, and sought improvements in education.

Lewis was repeatedly elected to represent Georgia's 5th District. Even after receiving a diagnosis of Stage 4 pancreatic cancer in 2019, Lewis continued to work until his death on July 17, 2020.

Throughout his life, Lewis resisted brutal oppression. He did this by organizing and conducting sit-ins and marches, and by standing alongside other civil rights leaders like King.

During his time in Congress, Lewis worked to bring inclusion, equality, and equity to minority Americans. "By resisting, Black people have achieved triumphs, successes and progress," according to the ASALH.

To learn more about Black History Month and other resisters like Lewis, check out the links below:

[The Man Behind Black History Month - HISTORY](#)

[Martin Luther King Jr. and 8 Black Activists Who Led the Civil Rights Movement - Biography](#)

[Little Known Facts About Black History - Biography](#)

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