

Go For Gimbal!

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NASA conducts an RS-25 hot fire test on the Fred Haise Test Stand at NASA's Stennis Space Center in south Mississippi on April 26.

Stennis is essential to us learning about the equipment to fly the equipment.

-NASA SLS (Space Launch System)
Chief Engineer John Blevins prior to RS-25 engine test May 10



Memories are powerful strings tying together all the experiences of life. They capture moments of joy, triumph, and even lessons learned from challenges along the way. They can serve as a way to remind us how far we have come.

NASA Stennis has come a long way and is a place full of rich memories since ground was broken for construction of the site 60 years ago this month. I like to think of memories, not as historical artifacts or of times that once were, but more as inspiration toward the future.

The smell of freshly cut grass at the beginning of May reminded me of when I first came here. It was around the same time workers were tasked with clearing the area so that one day we could send humans to space.

Times were not always easy, but challenges were overcome and resilience prevailed. Victories have been celebrated at the place I call home ever since.

Since the 1960s, NASA Stennis has grown into the nation's largest propulsion test site. It also has evolved into a sprawling federal city, home to about 40 federal, state, academic, and private organizations, as well as several aerospace and technology-based companies.

In addition to the key contributions NASA Stennis has made to the Apollo, Space Shuttle, and, now, Artemis programs, the site has partnered with commercial companies for more than 20 years to help them achieve their space dreams.

The years of memories created at NASA Stennis remind everyone of the progress made for

so long. They also remind all of those who have contributed of the even greater potential there is moving forward.



The collection of people working at this vibrant federal city have a drive for progress that, considering all that already has been accomplished, surely will generate incredible results in days ahead – and new memories. Of course, sometimes with new memories, we never know the power they hold until after time has passed.

For example, last month when NASA named the four astronauts who will make up the Artemis II crew, I knew the names sounded familiar, as if I had met some of them before... and in fact, I had. There are so many great people I bump into here, and this reminds me that one never knows who is in the midst. Someone on site today might be someone going to the Moon, or even Mars, in the future.

Did you know three of the four Artemis II astronauts have visited NASA Stennis in the previous seven years? Commander Reid Wiseman came to NASA Stennis in 2016, pilot Victor Glover visited in 2018, and mission specialist Jeremy Hansen witnessed the Green Run hot fire in 2021. This crew, along with mission specialist Christina Koch, represent the best of humanity. As a group, they also reflect today's diverse astronaut corp.



Astronaut Victor Glover signs memorabilia at NASA Stennis in 2018 following a Silver Snoopy Award ceremony. Glover was named one of the four astronauts for the Artemis II crew last month.

I have always considered myself a dreamy gator (Ark!), and I know the future is full of endless possibilities. The future is waiting to be seized. Together, memories and progress push us forward, propelling us to the best, which is yet to come at NASA Stennis.

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NASA Tests Critical In-Flight Capability During Longest RS-25 Hot Fire to Date

NASA carried out a critical hot fire of the redesigned [RS-25](#) engine at NASA's Stennis Space Center

on April 26, demonstrating the the gimbal-ing, or pivoting, capabilities needed to stabilize a rocket during a launch and flight to space.

Operators at the nation's largest propulsion test site conducted the first gimbal test of the current RS-25 engine certification series on the Fred Haise Test Stand. The certification series is supporting lead engine contractor Aerojet Rocketdyne as it prepares to produce additional RS-25 engines for future [SLS](#) (Space Launch System) flights.

The new production includes engines for future Artemis missions to the Moon, as NASA returns humans to the lunar surface to establish a long-term presence for scientific discovery and to prepare for human missions to Mars.

During a 12-minute (720 seconds) hot fire, operators gimballed the RS-25 engine using a NASA Stennis-developed system to enable pivoting of the engine, mirroring maneuvers needed during launch and flight of the SLS rocket. The 720-second hot fire marks the longest-duration test of an RS-25 certification engine in the current test series.

Gimbaling is the technique of pivoting, or swiveling, the

engine a few degrees along a tight circular or back-and-forth axis to direct engine thrust and "steer" the rocket on a proper trajectory. It also plays a vital role to ensure the rocket maintains stability during flight to space.

Four RS-25 engines, firing simultaneously, help power each SLS launch, producing more than 2 million pounds of combined thrust during the eight-minute flight to orbit.

The test team at NASA Stennis performed multiple gimbal-ing maneuvers during the test, pushing the capability to its limits to provide a margin of operational safety.



(Top photo) NASA conducts an RS-25 hot fire test on the Fred Haise Test Stand at NASA's Stennis Space Center in south Mississippi on April 26.

(Left photo) A mounted camera outside of the Fred Haise Test Stand shows the RS-25 engine test at NASA Stennis on April 26, as operators gimballed, or swiveled, the engine a few degrees for the test.

For much of the April 26 test, the engine fired at the 111% power level, the level of thrust needed during launch. Operators briefly pushed the engine up to the 113% power level as well.

NASA and Aerojet Rocketdyne modified 16 engines remaining from the Space Shuttle program, which were proven flightworthy at NASA Stennis for Artemis missions I through IV. The [current series](#) of testing supports production of new RS-25 engines to help the Artemis V mission and beyond.

Under Artemis, NASA will land the first woman and first person of color on the Moon, establish long-term lunar science and exploration capabilities, and inspire the next generation of explorers – the Artemis Generation.

NASA Stennis Welcomes Media for Site Tour and RS-25 Test

NASA's Stennis Space Center hosted Media Day in conjunction with the first RS-25 engine test in May. NASA conducted another long-duration hot fire of an RS-25 engine May 10, continuing to pave the way for production of new engines for future deep space missions. Operators at the Fred Haise Test Stand at NASA Stennis fired an RS-25 certification engine for more than 10 minutes (630 seconds). The test duration is longer than the 500 seconds the engines must fire to help launch the SLS (Space Launch System) rocket on Artemis missions. The engine also fired at 111% power level, the same level of thrust needed during launch, and at 113%, allowing operators to provide a margin of operational safety. The May 10 hot fire marked the seventh in a 12-test series designed to certify production of new RS-25 engines for future Artemis missions by lead contractor Aerojet Rocketdyne. Four RS-25 engines fire simultaneously, producing up to 2 million pounds of combined thrust, to help power each SLS launch. In addition to viewing the engine test, media visited the B Test Stand and Aerojet Rocketdyne Engine Assembly Facility.

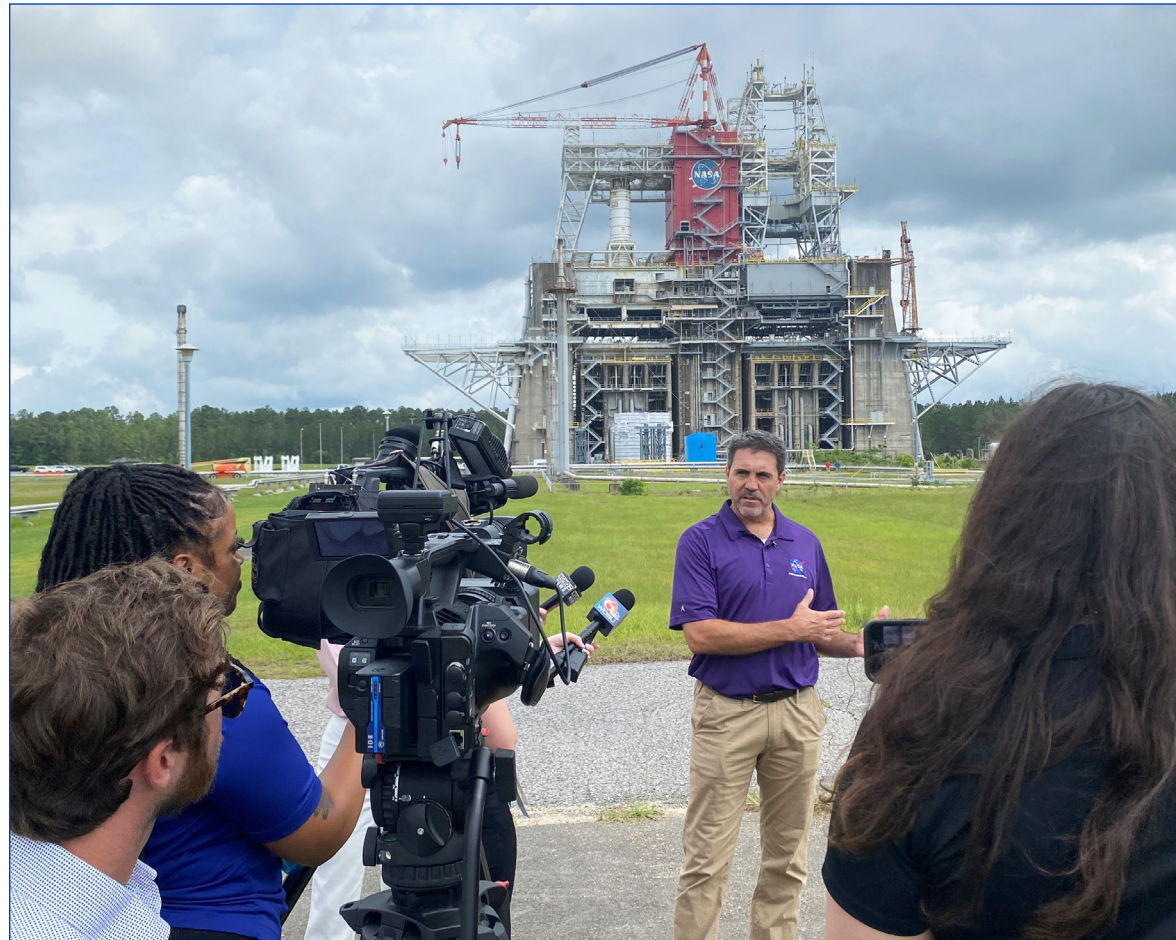
(Right photo) B-2 Test Stand Director Ryan Roberts talks with media about the history of the stand and NASA's Exploration Upper Stage project currently underway.

(Far right photo) Media film the RS-25 engine test during a partly cloudy day at NASA Stennis.

(Bottom left photo) John McManamen, chief engineer for NASA's Moon to Mars Program, talks with media at the RS-25 test May 10.

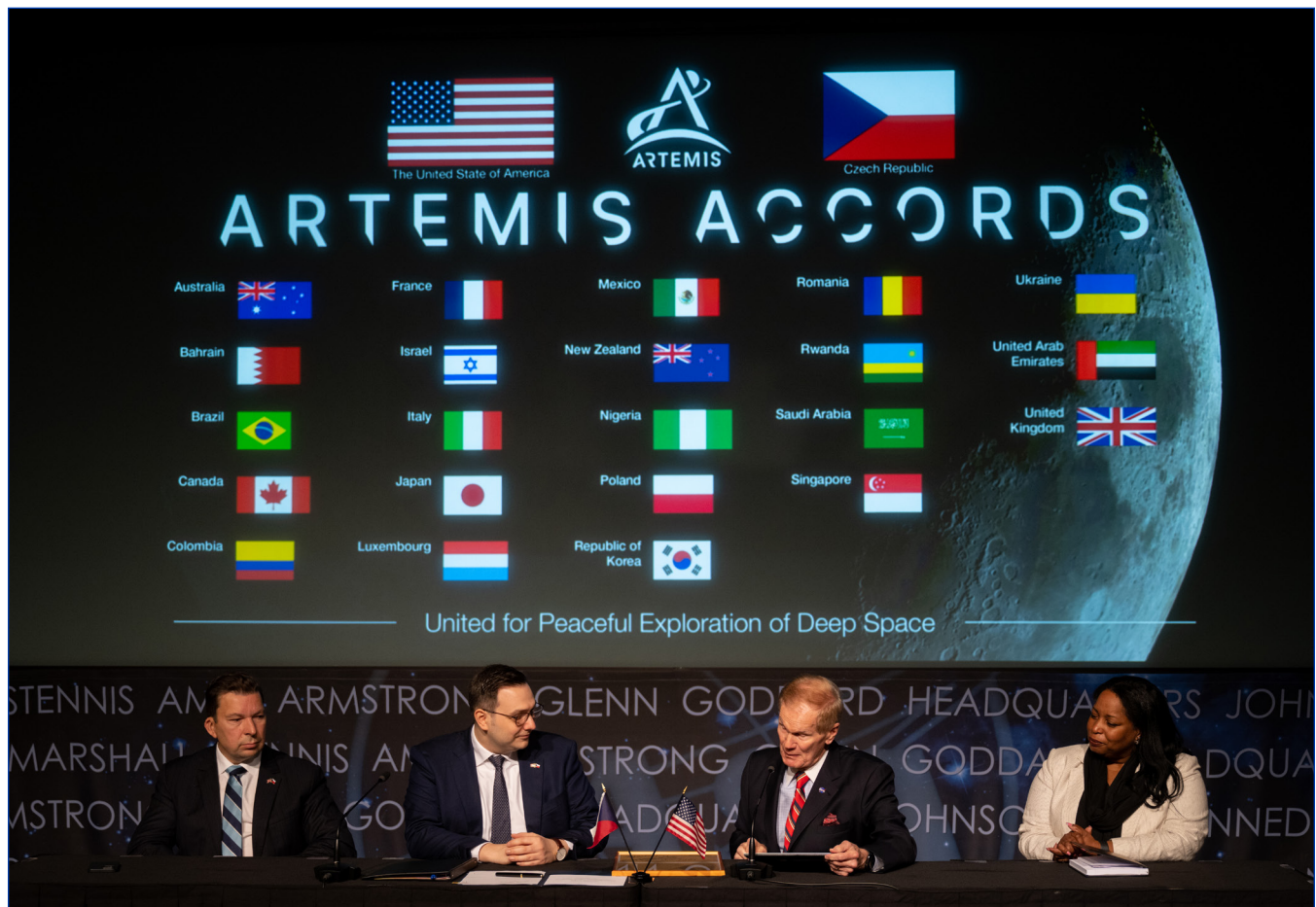
(Bottom middle photo) Aerojet Rocketdyne Senior Vice President for Space Business Unit Jim Maser speaks with media about production of the RS-25 engine and how the engines are used for NASA's Space Launch System program.

(Bottom right photo) WGNO multimedia journalist Jordan Lippincott prepares a report about the day at NASA Stennis.



NASA's MOON to MARS MISSION

Exploring the Cosmos Together



Miloslav Stašek, Ambassador of the Czech Republic to the United States (left), Foreign Affairs Minister of the Czech Republic Jan Lipavský (second from left), NASA Administrator Bill Nelson (second from right), and Acting Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs Jennifer R. Littlejohn (right), are seen following the

signing of the Artemis Accords on May 3. The Artemis Accords establish a practical set of principles to guide space exploration cooperation among nations, including those participating in NASA's Artemis program. The Czech Republic is the twenty fourth country to sign the Artemis Accords. Photo Credit: NASA/Joel Kowsky



Technicians Apply Foam to Moon Rocket Hardware for Artemis III

Technicians at NASA's Marshall Space Flight Center in Huntsville, Alabama, apply the first round of spray foam as part of the thermal protection system to the launch vehicle stage adapter (LVSA) of NASA's SLS (Space Launch System) rocket for Artemis III. The cone-shaped element connects the rocket's core stage to its upper stage called the interim cryogenic propulsion stage and partially encloses it. Spray-on foam insulation, along with other traditional insulation materials such as cork, provide thermal protection for every part – no matter how small or large – of the SLS rocket. The insulation is flexible enough to move with the rocket but rigid enough to handle the extreme pressures and temperatures as SLS accelerates from 0 to 17,400 mph and soars to more than 100 miles above Earth in just eight minutes. Photo Credit: NASA/Brandon Hancock

2022 NASA Stennis Honor Awards

NASA Stennis Space Center Director Dr. Rick Gilbrech and NASA Deputy Associate Administrator for Business Operations Casey Swails presented NASA Honor Awards to Stennis employees for contributions made in 2022 during an onsite ceremony April 26.

Four NASA Stennis employees received NASA's Exceptional Service Medal. The medal is awarded to government employees for sustained performance that embodies multiple contributions to NASA projects, programs, or initiatives.

Jeffery Henderson

received the NASA Exceptional Service Medal for his high-level contributions and dedication to the goals of the agency. As test stand director of what is now known as the Fred Haise Test Stand, Henderson led the effort to prepare the stand to conduct testing in support of NASA's Space Launch System program. He helped guide various work activities and resolve technical issues prior to the first successful RS-25 engine test in 2015. Since then, the test stand team has been successful in achieving numerous project milestones. Henderson's in-depth knowledge of propulsion testing makes him one of the most valued members of NASA Stennis.



Jeffrey Lott received the NASA Exceptional Service Medal for more than 20 years of agency service. Following career accomplishments such as



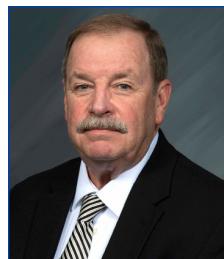
completing activation of the E-1 Test Stand and serving as test director, Lott was named to his current role in 2012. As chief of the NASA Stennis Mechanical Operations Branch, Lott uses his technical expertise and also plays a hands-on role in employee development. His team proved invaluable to preparations for the Green Run test series of Space Launch System core stage in 2021. Lott's leadership helps NASA Stennis succeed by promoting both agency and commercial efforts.

Dr. Kamili Shaw received the NASA Exceptional Service Medal for her sustained performance that is marked

by a consistent commitment to identifying areas for improvement and successfully implementing changes for the benefit of the agency. Among her career accomplishments, Shaw developed a Safety and Mission Assurance data mining tool that provides helpful insight into identifying early warning signs of potential accidents. The agencywide usage of the Crystal Ball tool gives employees the ability to take a more risk-based approach to safety and quality. Shaw exemplifies the spirit and goals of NASA's Exceptional Service Award through her leadership style, accomplishments, and innovation.

Michael Smiles received the NASA Exceptional Service Medal for continued outstanding service

as chief engineer of the NASA Engineering and Safety Center (NESC). Smiles provides consistent



and accurate evaluations of high-risk technical issues and ensures the success of critical NASA programs and projects. His work has resulted in value to the agency in the form of improved operations and reduced program risk. Smiles' work directly benefited the NASA's commercial crew and Artemis programs as he led multiple complex technical assessments for the efforts. Smiles is the focal point for NESC activity at NASA Stennis, where he has developed and managed the program for several years.

Two NASA Stennis employees received NASA's Exceptional Achievement Medal. The medal is awarded to government employees for a significant specific achievement or substantial improvement in operations, efficiency, service, financial savings, science or technology that contributes to the mission of NASA.

Freddie Douglas received the NASA Exceptional Achievement Medal for his efforts in leading the transition of

a Future State Initiative (FSI) project from a special study to ongoing organizational goals with measurable objectives. Throughout his 39-year NASA career, Douglas has served in several technical and leadership roles to advance the agency's goals. As deputy director of the Engineering and Test Directorate, he formed a team to target innovative ways to efficiently conduct the NASA Stennis mission. His experience leading change has been critical in applying strategic principles to help define the future of propulsion testing at NASA Stennis.



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This FSI effort has resulted in long-term facility investments and budget planning.

Teenia Perry received the NASA Exceptional Achievement Medal after managing approximately \$35 million



worth of repair projects following two hurricanes that affected NASA Stennis. By partnering with the U.S. Army Corp of Engineers, Perry took an innovative approach to procuring services needed, which greatly lessened the burden on the NASA civil servant workforce and ensured the timely completion of repairs. Her work proved especially crucial considering Green Run testing for NASA's Space Launch System program was underway at the time. Perry's management of the repair work helped ensure critical operations continued for NASA Stennis and tenants of the federal city.

Three NASA Stennis employees received NASA's Early Career Achievement Medal. The medal is awarded to government employees for unusual and significant performance during the first 10 years of an individual's career in support of the agency.

Brian Everett received the NASA Early Career Achievement Medal for significant contributions as a software quality



assurance engineer in the NASA Safety and Mission Assurance Directorate. Everett became a

NASA employee in March 2020 and soon began remote work off site due to the COVID-19 pandemic. Undeterred, he quickly learned about software development and assurance at NASA Stennis. Everett served the following year as the software assurance subject matter expert while his colleague participated in a year-long detail. Additionally, he played an integral role in preparing NASA Stennis for certification of the NASA Platform for Autonomous Systems software.

Peyton Pinson received the NASA Early Career Achievement Medal for critical support to



NASA and commercial test projects as an engineer in the Mechanical Operations Branch. Pinson has become an integral part of the E Test Complex, taking primary responsibility for operations and maintenance of the ultra-high pressure nitrogen generation system. The system proved vital for planned testing activities while being essential for Green Run testing of the Space Launch System core stage that helped launch Artemis I. In addition to being test conductor at the E Test Complex, Pinson recently completed a detail assignment as a propulsion analyst, where he contributed to operational strategies in support of ongoing and proposed projects.

Kevin Stiede received the NASA Early Career Achievement Medal for work that includes supervising



several critical projects from the Facility Services Branch of the Center Operations Directorate. Stiede has managed over \$2 million worth of maintenance activities. The projects have helped

eliminate time-based maintenance tasks and resulted in a significant return on investment, including cost avoidance of approximately \$500,000. The long-term savings is projected to exceed the initial cost within a few years. He also successfully managed rehabilitation to the natural gas system at NASA Stennis. Stiede currently manages a contract designed to make significant improvements in energy consumption throughout several facilities at NASA Stennis.

Two NASA Stennis employees received NASA's Silver Achievement Medal. The medal is awarded to government and non-government individuals or teams by NASA center directors for a stellar achievement that supports one or more of NASA's core values.

Christoffer Barnett-Woods



received the NASA Silver Achievement Medal for achievements key to the successful testing model of multiple commercial projects at the E-1 Test Complex. As electrical lead and instrumentation engineer, Barnett-Woods has supported planning and implementation of more than 150 tests at E-1. Additionally, he has helped modernize the test complex by upgrading the data acquisition system, which is vital to the success of hot fire tests. Barnett-Woods has navigated all testing needs to ensure the success of multiple commercial test projects. Throughout his work, Barnett-Woods demonstrates NASA's core values of safety, integrity, teamwork, excellence, and inclusion.

Robbie Randall received the NASA Silver Achievement Medal for effectively performing critical test project roles simultaneously.

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Through his work, Randall has demonstrated an ability to complete complex activities at a high level.



He successfully supported Space Launch System core stage testing for the Artemis I mission as one of four individuals to handle the hydrogen burn-off igniters. In this role, Randall proved instrumental with developing processes to store, transport, handle, and install the igniters. This paved the way for Randall being assigned as mechanical operations lead engineer for multiple commercial test projects. Additionally, he has supervised facility modifications during increased commercial testing at the E Test Complex. Randall's contributions reflect the NASA core values of safety, integrity, teamwork, excellence, and inclusion.

The Core Stage Liquid Hydrogen Flow Test and Bleed Development Test Team

received the NASA Silver Group Achievement Award for its work in progressing from design to testing in four months and in securing necessary information to maintain the scheduled path forward to support the launch of Artemis I. The team designed, fabricated, installed, activated, and tested the Artemis I core stage simulated liquid hydrogen system hardware to address pre-pressurization challenges during Green Run testing of the Space Launch system core stage for Artemis I at NASA Stennis in March 2021. Twenty-three test cases were examined after successfully completing 29 flow tests to provide needed data. The group included personnel from NASA, Boeing, and Syncom Space Services.

Team members included:

NASA
John Bourgeois



The Core Stage Liquid Hydrogen Flow Test and Bleed Development Test Team

David Carver
Jack Conley
Jasper Cook
Alex Elliot
Daniel Goad
Robert Goluba
Juan Gomez
Ronald Good
Angela Hall
Mark Hancock
Andrew Henken
Brandon Ladner
Peter Mazurkivich
Nicholas Nugent
Ryan Roberts
Barry Robinson
James Sheppard
Robert Simmers
Edward Smith
Darrel Varner
Richard Wear
Casey Wheeler
Burnley Wigley

Support Team

Vicki Ard
Kelly Austin
Glen Beech
James Bennett
Todd Bologna
Brett Bossier
Jace Boudreaux
Cheley Carpenter
Anthony Carrier
Samuel Clay
Blaine Cochran
Nicholas Coleman
Thomas Connelly
Jeffrey Coots

Joseph D'angelo
John Davis
Luke Denney
Shelton Dunn
Jason Evans
Tait Favaloro
Bradley Favre
Brandon Fleming
Anthony Fleming
Frank Ford
Gregory Freudenthal
Kerry Gallagher
Jason Grow
Brienne Guillot
Will Gurton
Charles Hariel
Larry Hart
Tamika Hawkins
Clayton Hoda
Gerald Howard
James Hudnall
William Ivey
Collin Jackson
Kurt Jarrell
Katie Jarrell
Daniel Jocks
Micah Jones
Marsella Jones
Tamika Jones
James Jordan
Matthew Klein
Charles Krampert
Chadwick Ladner
Wendell Ladner
Gregory Ladner
Catriona Ladner Shaw
Charlotte Lawrence

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Jeffery Lawson
 Harlie Lee
 Jonathan Lee
 Kimberley Lee
 Yassaman Liaghati-Mobarhan
 Curtis Lockwood
 Eduardo Lopez
 Derek Martin
 Ronald Martin
 Jacob Mckinley
 Jimmy Miles
 Timothy Miller
 Mark Mills
 Lori Mills
 Thomas Mitchell
 Dennis Ncaise
 Chad Nicholas
 Chad Northrop
 Donald Osborne
 Michael Palmer
 Cameron Parker
 Kevin Parker
 Barnie Parker
 Chad Parker
 Aaron Pearson
 Alan Peterson
 Melissa Quarles
 Ivan Ramirez
 Alvin Richard
 Michael Robinson
 Henry Rodriguez
 Karissa Rolfe
 Rachael Ryerson
 Laura Sakmyster
 Raymond Seymour
 Craig Shaw
 Andrea Skok
 Spencer Smith
 Billy Ray Smith
 Stacey Smith
 Frances Songy
 Darrin Spansel
 Jared Spiers
 Matthew Steed
 Paul Stephens
 Chris Sturgis
 Joshua Tarter
 Stacy Tarter
 Carmalee Tarter
 David Thomas
 Courtney Thoms
 Chad Tournillon
 Dale Tutor
 Perry Waller
 Ryan Williams



The Future State Initiative Team

Jesse Yarbrough
 Rickie Zerkus
 Michael Zimmerman

The Future State Initiative Team

received the NASA Silver Group Achievement Award for its work in helping NASA Stennis adapt its approach for supporting and conducting its propulsion testing mission. The team performed a four-phase approach over 10 months that identified cultural, technical, and business process adjustments necessary for the NASA Stennis test complex to ensure long-term viability. All resulting recommendations and policy adjustments are intended to enable the center to continue providing value to a range of aerospace community, stakeholders, and potential partners.

Team Members include:

NASA

Curtis Armstrong
 Sallie Bilbo
 Patrick Cullen
 Kimberly Driebergen
 William Miltier
 Scott Olive
 Stephen Rawls
 Jason Richard
 Claude Sanders
 Steven Taylor
 Calvin Thompson
 Grant Tregre

Support Team

Lorna Ammond
 Amber Archer
 Robert Hammond
 Bridget Neal

In addition to medal recipients, NASA Stennis individuals and groups were recognized for years of service and other noteworthy contributions.

Length of Service Awards

25 Years

Carol Kellar
 Teenia Perry
 Sallie Bilbo
 Wanda Campbell

30 Years

Troy Frisbie
 Karen Vander

35 Years

Gigi Savona
 Beth Bradley
 David Failla
 Dinna Cottrell
 John Stealey
 Patrick Appelman
 Thomas Lipski

40 Years

Thomas Stanley, Jr.
 Ramona Travis

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Group Achievement Award

Blue Origin LOX Duct Testing Team

NASA

Christoffer Barnett-Woods
 John Bourgeois
 Andrew Bracey
 Elizabeth Calantoni
 Brandon Goss
 James Hamilton
 Melissa Huggins
 Truc Le
 Jared Meredith
 Christopher Mulkey
 Raymond Nichols
 Kevin Oramous
 Peyton Pinson
 Robbie Randall
 Robert Ross
 Paul Rydeen
 Robert Smith
 Janice Tasin
 Richard Wear

Support Team

Justin Alison
 Christine Anderson
 Vicki Ard
 Kelly Austin
 Larry Beech
 Jesse Bilbo
 David Blansett
 Van Bolden
 Byron Bordelon
 Dwayne Brown
 Shelby Campbell
 Michael Carr
 Brandon Carver
 Brent Carver
 Brandon Clark
 Samuel Clay
 Blaine Cochran
 Nicholas Coleman
 Mark Corr
 Robert Craft
 Eric Cranford
 Jesse Crawford
 Cody Cuevas
 John Cumberland
 Michael Cummings
 Scott Curet
 Joseph D'angelo
 Horace Davis



Blue Origin LOX Duct Testing Team

Wyatt Davis	Tamika Jones
Armando Delgado	Marsella Jones
Phillip Dossett	Ricky Jones
Joni Dumas	Yancey Jordan
Daniel Duplantis	Kevin Jurich
Tait Favaloro	Kim Juzang
Susan Fendley	Robin Ladner
Dan Fillette	Steven Ladner
Anthony Fleming	Jackie Ladner
Brandon Fleming	Chadwick Ladner
Bryce Fowler	Gregory Ladner
Allen Frederick	Jody Ladner
Adam Fulks	Harlie Lee
Kerry Gallagher	Jonathan Lee
Brock Giovenco	Joseph Lesieur
Richard Grimstead	Eric Lichtenstein
Patrick Guidry	Keith Lizana
Brianne Guillot	Jeremiah Lumpkin
Kenneth Hancock	Paul Lusich
Michael Haralson	Ricky Lyons
Scott Hariel	Thomas Martin
Jessie Harriel	Derek Martin
Larry Hart	Bruce Matthews
Kenneth Hawkins	Ronnie Mcgowan
Tamika Hawkins	Jacob Mckinley
Rubin Herrin	Timothy Miller
Mack Hester	Lori Mills
Darwyn Hilsher	Mark Mills
Petter Hobgood	Timothy Mitchell
Clayton Hoda	Gerald Moran
Jeret Howard	James Nabors
William Ivey	Nicole Narvaez
Anthony Jackson	Douglas Necaize
Kurt Jarrell	Dennis Necaize
Daniel Jocks	James Necaize
Michael Johnson	Jay Necaize
Edward Johnson	
Robert Jones	

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Curtis Olive
 Timothy Osborne
 Donald Osborne
 Kevin Parker
 Chad Parker
 Aaron Pearson
 Nicholas Phelps
 Kenneth Powe
 Christopher Quinn
 Mitchell Railey
 Karissa Rolfe
 Joe Russell
 Larry Saucier
 Timothy Seals
 Raymond Seymour
 Grant Shaw
 Andrea Skok
 Garrett Smith
 Spencer Smith
 Stacey Smith
 Darrin Spansel
 Johnie Spence
 Joshua Spence
 Billy Spence
 Devin Spence
 Jared Spiers
 Jonathan Strickland
 Mary Subat
 Carmalee Tarter
 Joshua Tarter
 Stacy Tarter
 David Thomas
 Courtney Thoms
 Richard Vaughan
 Nicholas Vitrano
 Terry Wactor
 Karmela Wahl
 Jason Wheat
 Cleveland Whitfield
 Rolland Wichterich
 Ryan Williams
 Raymond Williams
 Aaron Williamson
 Craig Wise
 Daymond Wood
 Rickie Zerkus
 Michael Zimmerman

Firehawk Hybrid Rocket Motor Testing Team

NASA
 Jared Grover
 Raymond Nichols
 Delton Rodriguez



Firehawk Hybrid Rocket Motor Testing Team

Robert Ross
 Paul Rydeen
 Gary Taylor

Support Team

David Coote
 Lorrie Gibson

Land and Building Enhanced Use Lease Agreement Team

NASA

Leslie Anderson
 Andrew Clarke

Kimberly Driebergen
 Mark Hancock
 Rachel Harrison-Woodard
 Linh Lam
 Adam Murrah
 Timothy Pierce
 Kevin Power
 Jeffrey Renshaw
 Davin Rieke
 Robert Ross
 Kamili Shaw

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Land and Building Enhanced Use Lease Agreement Team

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Support Team

Robert Hammond
Mary Subat

Launcher Thrust Chamber Assembly and LOX Turbopump Team

NASA

Leslie Anderson
Christoffer Barnett-Woods
Kimberly Dribergen
Melissa Huggins
Truc Le
Christopher Mulkey
Peyton Pinson
Robbie Randall
Richard Rauch
Stephen Rawls
David Roberts
Richard Wear
Robert Williams
Christina Zeringue

Support Team

Van Bolden
Byron Bordelon
Samuel Clay
Jesse Crawford
Wyatt Davis
Anthony Fleming
James Hancock



Launcher Thrust Chamber Assembly and LOX Turbopump Team

Mack Hester
Chadwick Ladner
Jody Ladner
Nicole Narvaez
Karmela Wahl
Tommy Seals
Tait Favaloro
Tamika Hawkins
Tamika Jones
Chadwick Ladner
Grant Shaw
Carmalee Tarter
David Blansett
Susan Fendley
Dan Fillette
Adam Fulks
Brock Giovenco

Rubin Herrin
Anthony Jackson
Yancey Jordan
Eric Lichtenstein
Paul Lusich
Bruce Matthews
Jacob Mckinley
Kevin Parker
Raymond Seymour
Josh Spense
Raymond Williams
Armando Delgado
Roger Bridges
Brandon Clark
Joni Dumas
Charles Hariel
Petter Hobgood
Matthew Hollinghead
Jeret Howard
Kurt Jarrell
Kim Juzang
Joseph Lizana
Carley Odom
Kenneth Powe
Mary Subat
Terry Wactor

NPAS CMMI Level 2 Certification Team

NASA

Rae Anderson
Dawn Davis
Alex Elliot
Brian Everett
Jorge Figueroa
Shanice Hopson
Bridget Jones



NPAS CMMI Level 2 Certification Team

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Travis Martin
Ke Nguyen
Landon Tynes
Lauren Underwood
Jacqueline Wall

Support Team

Joshua Broberg
Gayli Craver
Harini Daram
Amy Gormley
Jonathan Morris
Quentin Oswald
Eduardo Piatti
Brian Rey
Michael Walker
Mark Walker

RS-25 E0525 Retro 3A

Test Series Team

NASA

Apolonia Acker
Daniel Allgood
Rae Anderson

Henry Bakker
Cory Beckemeyer
John Bourgeois
Valerie Buckingham
Thomas Carroll
David Carver
Veronica Causey
Craig Chandler
Jack Conley
Howard Conyers
Kimberly Driebergen
Alex Elliot
Reginald Ellis
Daniel Goad
Robert Goluba
Ralph Gonzalez
Ronald Good
Joshua Greiner
Jared Grover
Angela Hall
Jeffery Henderson
Andrew Henken
Michael Holmes
Lester Langford
Hooper Lavigne
Ryan Mckibben
Kristopher Mobbs
Tristan Mooney
Ke Nguyen

Raymond Nichols
Jason Peterson
Peyton Pinson
Benjamin Powell
Michael Rewis
Jason Richard
Mark Robinson
Cecile Saltzman
Ryan Seals
Marc Shoemaker
Robert Simmers
Calvin Thompson
Neil Toupin
Nyla Trumbach
Mark Turowski
Bradley Tyree
Darrel Varner

Support Team

Demario Barganier
Bret Barras
Jeffrey Barros
William Berry
Karon Bradley
Raven Bridges
Casa Compton
Shane Corr

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RS-25 E0525 Retro 3A Test Series Test Team

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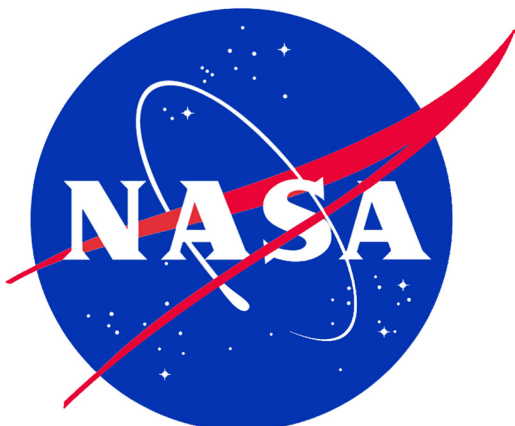
Lorrie Gibson
 Gage Haas
 Gonathun Hart
 Vincent Henricks
 John Hornor
 Felisha Jarrell
 Emma Johnston
 Stephen Koch
 Rachel Ladner

Robert Manton
 Joshua Mcbeth
 Thomas Mckrush
 Robert McLain
 Jennifer Melton
 Shane Mendel
 Jamie Moran
 Charles Nowlin
 Jennifer Ramsey
 Ronnie Rigney
 Jeannie Roberts
 Harold Ross

Shelby Russell
 James Ryan
 Theresa Spears
 William Stewart
 Bradley Stockstill
 Carly Sudduth
 Nestor Torres
 Stephen Weiss
 Charles Wells
 Karl Wilcox
 Wanda Williams
 Denise Woods



NASA Deputy Associate Administrator for Business Operations Casey Swails speaks during the Stennis Honor Awards Ceremony April 26. In addition to presenting awards, Swails met with center leadership and the Women Inspiring Stennis Excellence resource group and toured commercial partner facilities.



NASA Core Values

- Safety
- Excellence
- Teamwork
- Integrity
- Inclusion

NASA Leaders Attend Small Business and HBCU Summit



More than 200 participants attended the NASA and Partners Small Business and Historically Black Colleges and Universities (HBCU) Summit on April 27 at Southern University at New Orleans (SUNO). During the one-day education and networking event hosted by the NASA Office of Small Business Programs and Partners, attendees acquired tips, tools, and resources for doing business with the agency, tailored to small businesses and HBCUs. Attendees also learned about the procurement process at NASA, the NASA Mentor-Protégé Program, federal government opportunities, working with agency prime contractors, resources from trade associations, and more. Partnering organizations included SUNO, the U.S. Small Business Administration Louisiana District Office, Louisiana

APEX Accelerator (formerly Louisiana Procurement Technical Assistance Center), Dillard University, and Xavier University of Louisiana. NASA Stennis speakers included Director Dr. Rick Gilbrech, Engineering and Test Directorate Deputy Director Freddie Douglas, NASA Small Business Innovation Research and Small Business Technology Transfer Program Manager Tom Stanley, and small business specialist Kay Doane.

(Top photo) NASA Stennis Director Dr. Rick Gilbrech gives opening remarks during the NASA and Partners Small Business and Historically Black Colleges and Universities Summit on April 27 at Southern University at New Orleans. Photo Credits: NASA/Michael S. DeMocker



NASA Stennis Engineering and Test Directorate Deputy Director Freddie Douglas, a Southern University graduate, participates at the NASA and Partners Small Business and Historically Black Colleges and Universities (HBCU) Summit at Southern University at New Orleans.



NASA Small Business Innovation Research and Small Business Technology Transfer Program Manager Tom Stanley (right) participates in the NASA and Partners Small Business and Historically Black Colleges and Universities (HBCU) Summit at Southern University at New Orleans.

NASA Supports Small Business and HBCUs

Small businesses are integral in the work NASA does. NASA contracts resulted in \$3.6 billion for small businesses in fiscal year (FY) 2022. NASA Stennis awarded \$143 million dollars supporting small businesses in FY 2022. Additionally, Historically Black Colleges and Universities (HBCUs) are a viable recruiting and sourcing platform for NASA to access the best talent and cultivate an inclusive work environment. There are 14 HBCU graduates currently working among the NASA Stennis workforce, including six Southern University graduates.

NASA in the News

NASA, Rocket Lab Launch First Pair of Storm Observing CubeSats

Through NASA's TROPICS mission, researchers will improve life on Earth by observing the atmosphere to increase humanity's understanding of hurricanes, typhoons, and other intense weather. Two NASA CubeSats are in orbit after successfully launching May 8 at 1 p.m. NZST (May 7 at 8 p.m. CT). The first pair of the agency's TROPICS (Time-Resolved Observations of Precipitation structure and storm Intensity with a Constellation of Smallsats) satellites lifted off aboard an Electron rocket from Rocket Lab's Launch Complex 1 Pad B in Māhia, New Zealand. TROPICS is a constellation of four identical CubeSats designed to observe tropical cyclones in a unique, inclined low-Earth orbit over Earth's tropics – an orbit that allows them to travel over any given storm about once an hour. Current weather tracking satellites have a timing of about once every six hours. Rocket Lab, a new commercial [tenant](#) at NASA Stennis, was selected for the TROPICS mission in 2022. Click [here](#) to read more about the mission.

NASA's Voyager Will Do More Science With New Power Strategy

Launched in 1977, the Voyager 2 spacecraft is more than 12 billion miles (20 billion kilometers) from Earth, using five science instruments to study interstellar space. To help keep those instruments operating despite a diminishing power supply, the aging spacecraft has begun using a small reservoir of backup power set aside as part of an onboard safety mechanism. The move will enable the mission to postpone shutting down a science instrument until 2026, rather than this year. Switching off a science instrument will not end the mission. After shutting off the one instrument in 2026, the probe will continue to operate four science instruments until the declining power supply requires another to be turned off. If Voyager 2 remains healthy, the engineering team anticipates the mission could potentially continue for years to come. Click [here](#) to read more about the only spacecraft ever to operate outside the heliosphere, the protective bubble of particles and magnetic fields generated by the Sun



Rocket Lab's Electron rocket lifts off from Launch Complex 1 at Māhia, New Zealand on May 8 at 1 p.m. NZST (May 7 at 8 p.m. CT), carrying two TROPICS CubeSats for NASA. Photo Credit: Rocket Lab

NASA Stennis News

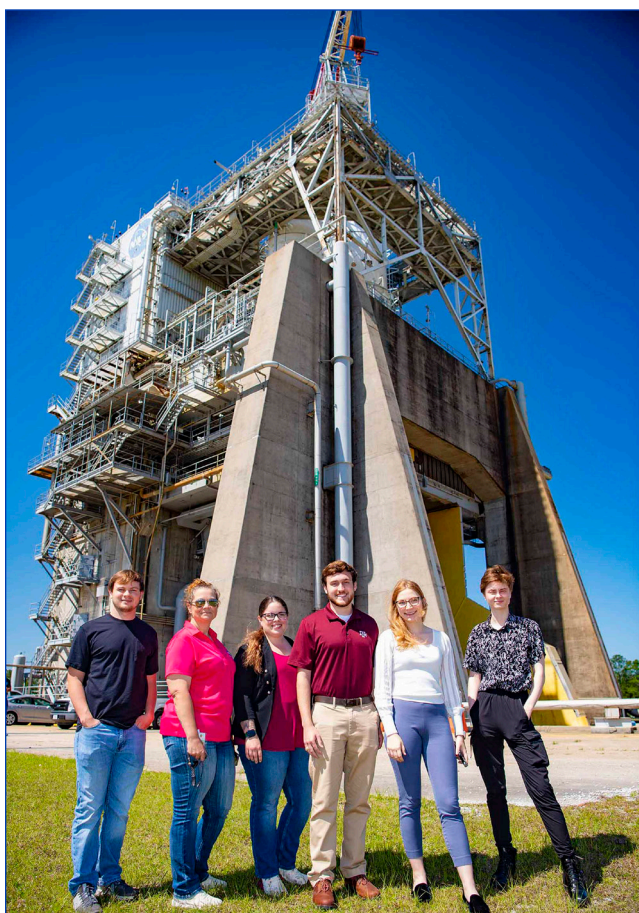
Prevention Group Holds Annual Meeting at NASA Stennis



(Above photo) The NASA Mishap Program Working Group stands in front of the Roy S. Estess Building at NASA's Stennis Space Center during a site visit April 26. As part of NASA's Office of Safety and Mission Assurance, the prevention program includes representatives from all NASA centers, the Jet Propulsion Laboratory, and all component facilities. The advisory body develops agencywide plans and strategies to promote effective leadership through sharing best practices and lessons learned. It meets quarterly and NASA Stennis hosted the annual face-to-face meeting for 2023.

Interns Tour NASA Stennis

(Left photo) NASA Office of STEM Engagement staff and student interns stand in front of the Fred Haise Test Stand during a NASA Stennis site tour on April 28. NASA Office of STEM Engagement paid internships allow high school and college-level students to contribute to agency projects under the guidance of a NASA mentor. The Pathways program offers current students and recent graduates paid internships that are direct pipelines to full-time employment at NASA upon graduation. The group includes students from Mississippi College, Mississippi State, Rochester Institute of Technology, and Texas A&M.



Find Your Place in Space

Nearly 18,000 of the nation's top scientists, engineers, and business professionals work across the United States at NASA's 10 center locations, the NASA Shared Services Centers, or one of the agency's smaller test and research facilities. Learn more about NASA internships [here](#).

NASA Stennis News

Government Publishing Office Celebrates 15 Years of Service

NASA's Stennis Space Center is a unique federal city home to about 40 federal, state, academic, private, and technology-based tenants. One government office that is part of the federal city at NASA Stennis celebrated 15 years of service last month.

When demand for U.S. passports increased in 2008, the U.S. Government Publishing Office (GPO) opened a production facility at NASA Stennis.

"Congratulations to the entire team in Stennis for surpassing all of our expectations," said GPO Director Hugh Nathaniel Halpern.

The publishing office, which was originally intended as a backup site for production of passports, cited the secure location of Stennis as a reason for its selection.

The GPO has produced nearly 91 million U.S. passports since 2008.

"Our teammates there quickly proved their value and are critical to our overall secure credential production business," Halpern said. "Thanks to each of them for 15 years of dedication to delivering a first-rate product and customer experience to our federal customers."

Mississippi Legislators Visit Stennis



Leaders at NASA's Stennis Space Center welcome Benjamin Turpen, professional staff member of the U.S. House of Representatives Appropriations Committee, to NASA Stennis on April 13. Turpen learned about the work conducted at NASA Stennis, which includes rocket propulsion testing and the site's role as a federal city. Pictured (seated, l to r) are NASA Stennis Associate Director Rodney McKellip, Turpen, and NASA Stennis Deputy Director John Bailey. Pictured (standing, l to r) are NASA Stennis Chief Financial Officer Deborah Norton, NASA Office of the Chief Financial Officer representative Ryan Sims, NASA Stennis Director of Engineering and Test Directorate Joe Schuyler, and NASA Stennis Strategic Business Office Manager Duane Armstrong.



NASA's Stennis Space Center Director Rick Gilbrech (l) and NASA Stennis Deputy Director John Bailey (center) meet with U.S. Rep. Mike Ezell of Mississippi (r), during an on-site visit April 12. NASA Stennis hosted the congressman and staff members representing Mississippi's 4th congressional district for a visit and site tour that included stops at the Aerojet Rocketdyne Engine Assembly Facility, the Fred Haise Test Stand, and the E Test Complex.

NASA Engineer Embraces the Challenge of Change

NASA software project manager Kris Mobbs is no stranger to change. After being born in Michigan, he lived in Illinois and then Wisconsin.

A new job for his dad brought he and his family to Mississippi nearly 30 years ago.

Mobbs since has lived in various places along the Gulf Coast including Biloxi, Gulfport, and Ocean Springs.

The Woolmarket resident learned to embrace change early in life. Mobbs brings that perspective with him daily to NASA's Stennis Space Center, where the challenge of change and hard parts of the job are made easier because of the people he works alongside.

"The people are hands down the best," said NASA engineer Kris Mobbs. "The amount of support, trust, guidance, acceptance, constructive criticism, forgiveness, and comradery I have received and experienced has been life changing."

The NASA Stennis federal city welcomed Mobbs to the site nearly nine years ago. He started as an intern at the Naval Research Laboratory after earning a bachelor's degree in computer science from The University of Southern Mississippi.

Mobbs followed his passion of software engineering in positions as a contract worker for the Navy and NASA before landing a job as a NASA engineer in the Electric Operations branch. He feels his NASA career has limitless potential, citing daily support from management to pursue his passion.

He currently manages the NASA Data Acquisition Software (NDAS), which was created at NASA Stennis. The goal is to build a software product that can be easily adopted by other projects and facilities within the agency.

This would help minimize cost, while providing long term maintenance, training, and support. One function the software serves is collecting critical test information

on RS-25 engines that will help power the Space Launch System rocket on Artemis missions to the Moon and eventual flights to Mars.

A key task with the overall scope of the project is prioritizing multiple center stakeholder needs. Looking ahead, there is no shortage of new features to create or improvements to make with existing features.

It is in the challenging times, where being trusted by management with his decision making to lead

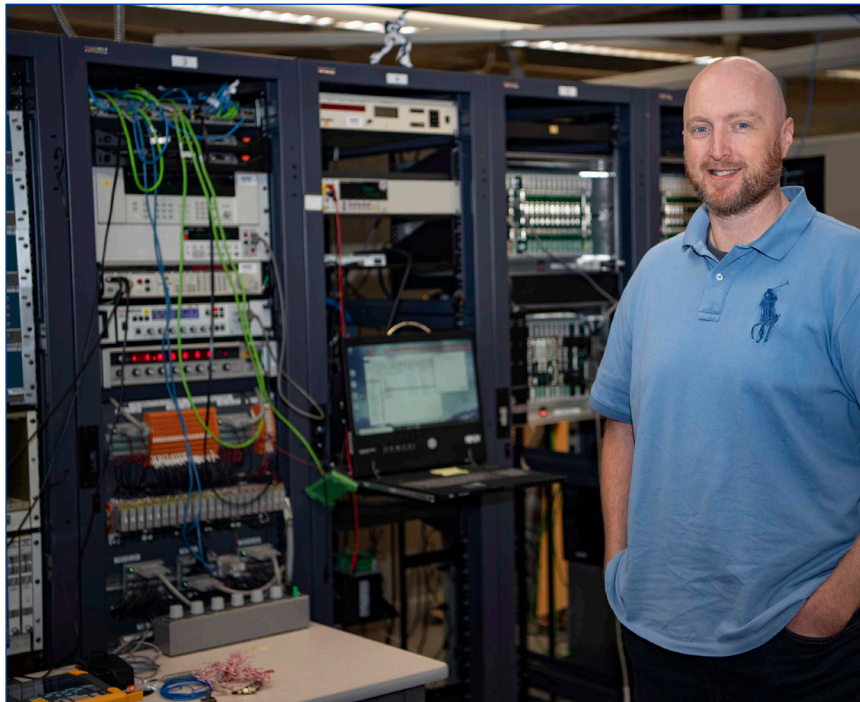
the project, strengthens the engineer's resolve to move forward.

"I have never had to look far for guidance," Mobbs said. "I have learned a lot about electrical engineering, personnel management and funding, NASA software engineering and NASA software safety."

"I am very grateful to everyone who has given me the time to grow in these areas. Just like anyone learning something new, I stumble. Everyone I have worked with have always accepted my failures, forgave without resentment, and provided plenty of constructive criticism."

As NASA inspires the world, Mobbs is encouraged daily at a place he describes as "one big family no matter who you are."

"There are very exciting times ahead," Mobbs said. "Our agency and center are changing and adapting to our new commercial friends joining us in space. It requires us to change as well and not all change is bad. I look to our future at NASA with optimism and to my opportunities with excitement and pride."



NASA software engineer Kris Mobbs is shown at NASA's Stennis Space Center, where he leads the NASA Data Acquisition Software team. The team earned a 2023 NASA Engineering and Safety Center (NESC) Group Achievement Award in recognition of outstanding accomplishment through the coordination of individual efforts that have contributed substantially to the success of the NESC mission.

May 17, 1963 – The Start of Something Great

The sound of a falling tree cut down by work crews 60 years ago on May 17, 1963, signified the rise of what transformed into NASA's Stennis

Space Center.

As recounted in the official history of NASA Stennis, "Way Station to Space" by Mack Herring, the selection of Hancock County was a complex and heavily evaluated task.

There were specific conditions required for the selected site to test rocket stages and engines.

NASA required a facility accessible to Michoud Assembly Facility in New Orleans, where rockets were built, and Kennedy Space Center in Cape Canaveral, Florida, where rockets were launched.

The site needed to be in a rural area due to noise and vibrations that come with testing, while situated in a place where local communities supported it.

Another key element for the location was its access to water, highway, and rail for supplies and transportation of rockets.

A site committee formed and considered existing as well as new locations. After filtering through locations that did not meet the initial criteria, NASA soon created a shortlist that included Hancock County, Mississippi.

The south Mississippi site met all requirements. The location was 45 miles from New Orleans, accessible via

river and highway, surrounding communities that could support it, and featured a climate permitting year-round testing. Shortly after the committee visited the site, they

decided it would be the place where testing for the Apollo rockets would happen.

On May 17, 1963, workers cut the first tree to begin construction of what was to be the Mississippi Test Facility. Building the facility was not an everyday occurrence.

The banks of the Pearl River and the surrounding land were full of trees, grass, vines, mud, snakes, and mosquitos. South Mississippi weather did not make the task any more manageable

as sweltering temperatures and persistent storms plagued the work area.

The muddy conditions caused machinery to become bogged down, which slowed and sometimes stopped construction altogether. Mixing old technology, such as mules and plows to clear the land, along with new machinery and building materials, got the job done.

By 1966, just three years after the U.S. Corps of Engineers cut the first tree down, the first static test firing of a Saturn V engine stage was conducted.

Less than four years later, astronauts Neil Armstrong and Buzz Aldrin walked on the lunar surface during the Apollo 11 mission, safely transported thousands of miles by the Saturn V rocket, powered by engines tested at the site now known as NASA Stennis.



Crews cut the first tree May 17, 1963, to begin clearing the test site area for construction. At the height of construction of Stennis facilities in the 1960s, some 6,100 employees were onsite with 30 prime and 250 subcontractor companies. It was the largest construction project in Mississippi and the second largest in the United States. Photo Credit: NASA/Stennis

Hail & Farewell

NASA welcomes the following:

Cassi Meyer

Law Clerk

Office of the General Counsel

Alison Butsch

Supervisory Accountant

Office of Chief Financial Officer

Office of Diversity and Equal Opportunity

Local History Celebrates Asian American and Native Hawaiian Pacific Islander Heritage Month

May marks the celebration of Asian American and Native Hawaiian Pacific Islander (AANHPI) Heritage Month. The observation celebrates the rich contributions of Asian Americans, Native Hawaiians, and Pacific Islander people to U.S. society, the economy, and culture. The U.S. Census Bureau defines AANHPIs as persons whose roots can be traced to the original peoples of the Far East, Southeast Asia, the Indian subcontinent, Hawaii, Guam, Samoa, or other Pacific Islands. This highly diverse group encompasses different cultures, languages, religions, backgrounds, histories, and other characteristics.

Asian Americans, and Native Hawaiians, and Pacific Islanders make the United States more vibrant through a diversity of cultures, languages, and religions. There is no single story of the AANHPI experience but rather a diversity of contributions that enrich America's culture and society and strengthen the nation's role as a global leader.

Asian Americans, Native Hawaiians, and Pacific Islanders have helped build and unite the nation in each successive generation. From laying railroad tracks, tilling fields, and starting businesses, to caring for loved ones and honorably serving the nation in uniform, AANHPI communities are deeply rooted in the history of the United States.

The Federal Asian Pacific American Council theme for 2023 is entitled, "Advancing Leaders Through Opportunity," which further highlights the council's efforts in advancing leaders in federal and District of Columbia governments. This year's theme continues the "Advancing Leaders" theme started in 2021.

In Mississippi and Louisiana, AANHPI heritage can be celebrated through local Vietnamese culture. In the 1960s-70s, more than 120,000 Vietnamese refugees came to the United States. Several Vietnamese immigrants migrated to Mississippi and Louisiana to be close to the port city of New Orleans.

According to [Mississippi History Now](#), "Many Vietnamese immigrants were fishermen, and the Gulf Coast's seafood industry became a reason for some of them to relocate permanently to Mississippi."

Additionally, Vietnamese immigrants were attracted to the subtropical climate of Mississippi and Louisiana because it was like Vietnam.

Vietnamese immigrants not only faced the hardships of a native country divided by war but also faced animosity and violence when seeking refuge in America. Specifically in Mississippi and Louisiana, Vietnamese immigrants struggled to integrate into the already established fishing community.

According to Mississippi History Now, "As [Vietnamese] immigrants settled, they found that some communities proved more receptive than others. Biloxi was one such community, as labor was desperately needed in the oyster factories. Although not the ideal situation for the fishermen at the time, experienced Vietnamese fishermen and their relatives worked in the factories to gain entrance into the seafood industry?"

New Orleans and Biloxi now participate in Vietnamese culture, including the annual harvest festival known as Tet Trung Thu festival. It is celebrated on the lunar August to honor the Moon. The celebration has children making their way throughout the streets singing and carrying colorful lanterns of different shapes and sizes. They feature fishes, stars, butterflies that spin when candles are inserted. This represents the Earth circling the Sun.

One important event before and during the Vietnamese mid-Autumn Festival is lion dancing. Both non-professional and professional children groups perform dances on the streets or go to houses. Biloxi and New Orleans has a history of hosting a mid-Autumn Moon Festival for its residents.

Additionally, Vietnamese Americans in the seafood industry participate in the Biloxi "Blessing of the Fleet." The event was first held in August 1929 at the beginning of shrimp season. Boat owners decorate boats and line up to be blessed by local Catholic priests. It represents a blending of many immigrant cultures of the Mississippi Gulf Coast.

This month, take the opportunity to celebrate the rich Vietnamese history and culture in Mississippi and Louisiana. To learn more about AANHPI month and local history, visit the links below:

[White House AANHPI Fact Sheet](#)
[Vietnamese Folklife in New Orleans](#)
["Viet-Cajun" Food Mixes Vietnamese, Southern US Cultures](#)
[Preserving Vietnamese Culture and Language in Southern Louisiana: Altars as Symbols of Identity](#)

Online Resources

View coverage from NASA Stennis Media Day

Click the links below.

- [AP: NASA Tests Redesigned Moon Rocket Engine](#)
- [WDAM: NASA Tests Engine for Artemis Mission](#)
- [WDSU: NASA Crews in Southern Mississippi Work on Future Space Flights](#)
- [WGNO: NASA Tests Engines for Future Artemis Flights](#)
- [WLOX: Stennis Space Center Engine Test Takes Next Step Toward Space Travel](#)



NASA Stennis Artemis Resources

Click the above photo for NASA Stennis Artemis resources.



SuperTalk Mississippi Interviews NASA Engineer Bradley Tyree

Click the above photo for the interview.



NASA Moon To Mars

Click the above photo to learn more about NASA's Moon to Mars Strategy and Objectives Development.