



# 60 Years of Excellence



For six decades, NASA's Stennis Space Center has operated as the nation's premier propulsion test site. Since the 1960s, the American human space program has flown on rocket systems and engines tested at Stennis. The center now is testing rocket stages and engines that will power the next great era of space exploration, which includes a return to the Moon and eventual travel to Mars. Since the 1960s, Stennis has grown into the nation's largest propulsion test site. It also has evolved into a sprawling federal city, home to more than 50 federal, state, academic, and private organizations, as well as several technology-based companies. The site was known by several names before being designated as Stennis Space Center on May 20, 1988. It has witnessed a number of historic moments, as the following list and photos illustrate.

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|-------------------------|------------------------------------------------------------------------------------------------------|
| <b>May 25, 1961</b>     | President John F. Kennedy challenges the nation to send humans to the Moon by the end of the decade. |
| <b>October 25, 1961</b> | NASA announces plan to build a national rocket test site in south Mississippi.                       |
| <b>May 17, 1963</b>     | Workmen cut the first tree to begin construction of Stennis.                                         |
| <b>April 23, 1966</b>   | Stennis conducts its first test – a Saturn V rocket booster (S-II-T) hot fire.                       |
| <b>July 20, 1969</b>    | Apollo 11, powered by Saturn V rocket stages tested at Stennis, lands the first humans on the Moon.  |
| <b>March 1, 1971</b>    | NASA announces Stennis will test main engines for the new space shuttle vehicle.                     |

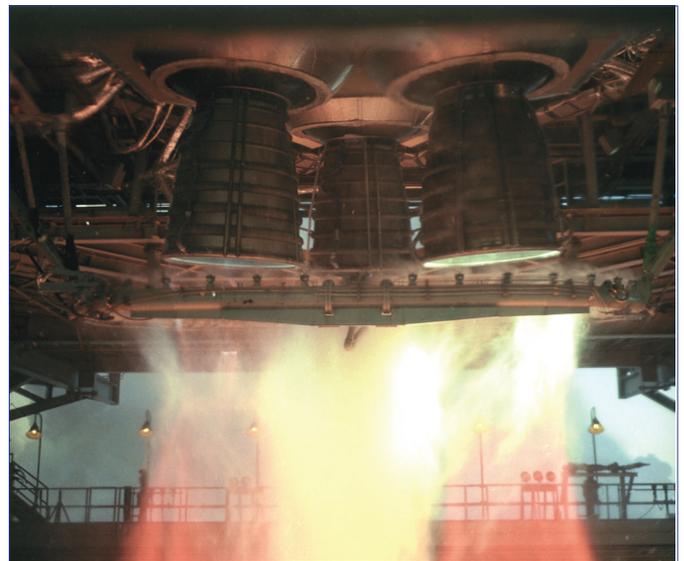
# NASAFacts



**A Saturn V stage is lifted onto the A-2 Test Stand at Stennis (10-18-65).**

- May 19, 1975** Stennis conducts the first space shuttle main engine test.
- May 28, 1976** A flag-raising ceremony marks the official move of the Naval Oceanographic Program to Stennis.
- April 21, 1978** Stennis conducts the first test of the space shuttle Main Propulsion Test Article, with three main engines in launch configuration and firing simultaneously.
- January 18, 1989** Construction begins on Stennis component test facilities, which will grow into the versatile, three-stand, seven-test-cell E Test Complex.
- August 20, 1990** For the first time, space shuttle main engine are hot fired on all three large Stennis test stands in one day.
- December 30, 1991** NASA administrator designates Stennis as the Center of Excellence for large propulsion system testing.
- July 24, 1992** Stennis conducts the 2,000th hot fire test of a space shuttle main engine.
- May 30, 1996** NASA designates Stennis as the lead center to manage capabilities and assets for rocket propulsion testing.
- August 5, 2002** Lockheed Martin, the U.S. Navy, and the Naval Oceanographic Office cut ribbons on new Stennis facilities, collectively valued at \$60 million.

- January 21, 2004** NASA marks 1 million seconds of space shuttle main engine test and flight operations during a Stennis hot fire on the A-2 Test Stand.
- August 11, 2005** Stennis celebrates the 30th anniversary of space shuttle main engine testing at the facility.
- August 29, 2005** Hurricane Katrina makes landfall on the Gulf Coast, its eye passing directly over Stennis Space Center.
- May 8, 2007** NASA announces the decision to build the A-3 Test Stand at Stennis to conduct high-altitude testing of next-generation rocket engines.
- October 22, 2008** Stennis conducts a flight certification test on space shuttle main engine No. 2061, the last shuttle flight engine scheduled to be built.
- July 29, 2009** Stennis conducts its 2,307th – and final – space shuttle main engine test.
- November 10, 2010** Stennis conducts the first successful test of a AJ26 rocket engine for Orbital Sciences Corporation. The test project is part of NASA's effort to partner with companies to provide commercial flights to space.
- July 21, 2011** Space shuttle Atlantis completes the STS-135 mission, the final mission of NASA's Space Shuttle Program. As with all previous shuttle missions, Endeavour is powered into orbit by engines tested and proven flightworthy at Stennis.



**Stennis tests the space shuttle Main Propulsion Test Article (1979).**

**August 24, 2011** Stennis marks transfer of 1.6 million square feet of facility space from the U.S. Army, setting the stage for years of major expansion at the site.

**October 25, 2011** Stennis leaders plant a time capsule celebrating the center's 50th anniversary. NASA publicly announced plans to build the rocket engine test site on Oct. 25, 1961.

**April 13, 2012** The INFINITY Science Center opens as the Stennis official visitor center. The 72,000-square-foot facility features space and Earth science artifacts and activities.

**July 24, 2012** Engineers conduct a 1,350-second test of a J-2X powerpack, the longest-duration test firing ever in the Stennis A Test Complex.

**August 16, 2012** Stennis marks a historic moment with the first instance of two female engineers conducting rocket engine tests on the same day at the facility.

**November 5-9, 2012** Stennis records an historic week within its E Test Complex, conducting a total of 27 hot fire tests on three different rocket engines/components on three different test stands.

**January 9, 2015** Stennis conducts the first test of an RS-25 rocket engine that will help power NASA's Space Launch System.

**March 10, 2016** NASA marks a major milestone in its return to deep space human exploration with the first test of an RS-25 flight engine on the A-1 Test Stand at Stennis Space Center.

**April 23, 2016** Stennis celebrates its 50th anniversary of rocket engine testing.

**June 16, 2016** The Saturn V S-IC-15 rocket stage makes a historic return to Stennis, en route to permanent display at the INFINITY Science Center. The stage first traveled the waterway route to Stennis for testing in 1970.

**May 17, 2017** Stennis is awarded NASA's Small Business Administrator's Cup for the best overall small business program, the second time the site has earned the prestigious cup in the award's eight-year history.

**Feb. 21, 2018** NASA tests an RS-25 engine on the A-1 Test Stand at Stennis at the highest power level ever, reaching 113 percent of original thrust level.

**March 21, 2018** Stennis signs its first Commercial Space Launch Act with Relativity Space, a private company developing small rocket launch vehicles. The company later announces plans to build a production facility at Stennis.



**Stennis conducts its final space shuttle main engine test (7-29-09).**

**June-July 2018** A combined team of NASA, Defense Advanced Research Projects, Aerojet Rocketdyne, Boeing, and Syncom Space Services personnel achieve an unprecedented accomplishment in late June to early July by conducting 10 hot fire tests of an AR-22 rocket engine in a 240-hour period.

**November 2018** NASA caps a six-year process to prepare the B-2 Test Stand and related support facilities for testing the first core stage of the agency's Space Launch System rocket.

**April 4, 2019** A successful hot fire test culminates four-plus years of testing for RS-25 engines that will send the first four Space Launch System rockets into space. The hot fire completes acceptance testing of all 16 former space shuttle main engines that will help launch the first four missions and concludes 51 months of testing that demonstrated RS-25 engines can perform at the higher power level needed for the new rocket.

**January 21-22, 2020**

NASA sets the stage for Green Run testing of the first Space Launch System core stage as the flight article is lifted and installed on the B-2 Test Stand at Stennis. The stage, which will be used to launch the Artemis I mission, arrived at Stennis on Jan. 12 from Michoud Assembly Facility in New Orleans. The Green Run test series represents the first top-to-bottom integrated testing of the stage prior to its maiden flight.

**March 18-May 11, 2020**

NASA suspends core stage testing activity on the first Space Launch System core stage at Stennis Space Center in response to the spread of the COVID-19 virus. Limited teams return to the B-2 Test Stand at Stennis on May 11 to continue Green Run testing of the core stage, as conditions allow.

**January 16, 2021**

NASA and a blended team of test operators conduct an initial hot fire of its first Space Launch System core stage on the B-2 Test Stand at Stennis. All four RS-25 engines ignite successfully for the test before the core stage experiences an automated shutdown after 67 seconds.

**January 28, 2021**

NASA conducts the first hot fire in a new RS-25 single-engine test series on the A-1 Test Stand at Stennis. The test of developmental engine No. 0528 marks the beginning of a seven-test series to provide data to Aerojet Rocketdyne for production of new RS-25 engines.

**March 18, 2021**

NASA and a blended test team conduct a full-duration test of the first Space Launch System core stage on the B-2 Test Stand at Stennis, firing its four RS-25 engines just as during an actual launch. The test culminates a series of eight Green Run tests of the stage and its integrated systems, conducted during a year marked by the COVID-19 pandemic restrictions and a recordbreaking hurricane season.

**April 12, 2021**

Aerojet Rocketdyne conducts the final scheduled hot fire test of an RS-68 engine on the B-1 Test Stand at Stennis, culminating a Commercial Space Act testing partnership of more than 20 years with the south Mississippi center. The RS-68 was the first engine to be both assembled and tested at Stennis.



Stennis tests the first core stage of NASA's Space Launch System rocket, firing its four RS-25 engines simultaneously on the B-2 Test Stand (3-18-21).