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News

Features

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SpaceX First Manned

Mission ?

<https://www.dailymail.co.uk/sciencetech/article-8332119/SpaceX-nine-days-away-manned-launch.html>

## SpaceX will launch its first manned mission next week: Elon Musk's rocket company will carry astronauts to the International Space Station from US soil for the first time since 2011

Daily Mail 18<sup>th</sup> May 2020 >

- **Two NASA astronauts will set off to the ISS on a SpaceX Crew Dragon on May 27**
- **Demo-2 mission will mark the first time the firm has launched people into space**
- **It's also the first launch of astronauts to the space station from US soil since 2011**

Elon Musk's private company SpaceX has confirmed that its first manned space shuttle will launch next week.

NASA astronauts Robert Behnken and Douglas Hurley will take off in the company's Crew Dragon spacecraft from the Kennedy Space Center in Cape Canaveral, Florida on May 27 at 4:32 pm EDT (9:32pm BST).

As part of the 'Demo-2' mission, Behnken and Hurley will dock with the International Space Station (ISS) about 19 hours later and remain there for up to four months.

SpaceX, which has received billions of dollars from NASA since the late 2000s, has been supplying cargo to the ISS since 2012.

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'Lifting off from Launch Pad 39A atop a specially instrumented Falcon 9 rocket, Crew Dragon will accelerate its two passengers to approximately 17,000 mph and put it on an intercept course with the International Space Station,' NASA says.

'Once in orbit, the crew and SpaceX mission control will verify the spacecraft is performing as intended by testing the environmental control system, the displays and control system and the maneuvering thrusters, among other things.

'In about 24 hours, Crew Dragon will be in position to rendezvous and dock with the space station.

The spacecraft is designed to do this autonomously but astronauts aboard the spacecraft and the station will be diligently monitoring approach and docking and can take control of the spacecraft if necessary.'

With the Demo-2 mission, SpaceX is helping to establish itself as the leader in the private space sector thanks to its reusable rocket, the Falcon 9.

SpaceX has now overtaken aerospace behemoth Boeing, whose uncrewed demonstration of its Starliner spacecraft failed last year.

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The Demo-2 mission follows uncrewed mission Demo-1, launched in March 2019, which acted as a successful test-run for the Crew Dragon craft.

SpaceX also said it would be delaying the next launch of its next Starlink satellites, which aims to boost global internet connectivity, to focus on Demo-2 during a period of adverse weather.

'Standing down from the Starlink mission, due to tropical storm Arthur, until after launch of Crew Demo-2,' it tweeted on Monday.

NASA and SpaceX had said they would press ahead with plans to launch astronauts into space from US soil for the first time in nearly a decade later on this month, despite the coronavirus pandemic.

The launch will be the first crewed launch from the United States to orbit since NASA's space shuttle program ended in 2011 – since then, the US has had to pay to put its astronauts on Russian Soyuz rockets to give its astronauts rides to the ISS.

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NASA administrator Jim Bridenstine told reporters earlier this month that the SpaceX Crew Dragon capsule will be only the fifth class of US spacecraft to take humans into orbit, after the Mercury, Gemini, Apollo and Space Shuttle programs.

'If you look globally, this will be the ninth time in history when we put humans on a brand new spacecraft,' said Bridenstine.

'We're going to do it here in the midst of the coronavirus pandemic. I'm going to tell you this is a high priority mission for the United States of America,' he said.

Behnken and Hurley will reportedly arrive at their launchpad in a car made by Tesla, one of Musk's other companies – the Model X SUV.

Hurley, who was the pilot on the last Space Shuttle mission, admitted it was 'disappointing' that the launch won't be a public affair, as crowds are discouraged from gathering at Cape Canaveral to as part of measures to prevent coronavirus infection.

'We won't have the luxury of our family and friends being there at Kennedy to watch the launch but it's obviously, the right thing to do in the current environment,' he said.

Half of SpaceX's engineers have been teleworking, and on the day of the launch, NASA personnel in the mission control room will be spaced six feet (two meters) apart.

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The SpaceX Crew Dragon spacecraft undergoing final processing at Cape Canaveral Air Force Station, Florida, USA, 11 April 2020 (issued 18 April 2020), in preparation for the Demo-2 launch



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Bob Behnken (L) and Doug Hurley (R) participating in a fully integrated test of critical crew flight hardware



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### SPACEX CREW DRAGON CAPSULE

The March 2 test, the first launch of U.S. astronauts from U.S. soil in eight years, will inform the system design and operations

The capsule measures about 20 feet tall by 12 feet in diameter, and will carry up to 7 astronauts at a time.

The Crew Dragon features an advanced emergency escape system (which was tested earlier this year) to swiftly carry astronauts to safety if something were to go wrong, experiencing about the same G-forces as a ride at Disneyland.

It also has an Environmental Control and Life Support System (ECLSS) that provides a comfortable and safe environment for crew members.

Crew Dragon's displays will provide real-time information on the state of the spacecraft's capabilities, showing everything from Dragon's position in space, to possible destinations, to the environment on board.



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Those CRS-2 Dragon missions will use 'propulsive' landings, where the capsule lands on a landing pad using its SuperDraco thrusters rather than splashing down in the ocean.

That will allow NASA faster access to the cargo returned by those spacecraft, and also build up experience for propulsive landings of crewed Dragon spacecraft.