

SpaceX lands Falcon 9 rocket after launching Japanese satellite

August 14 2016



SpaceX Falcon 9 rocket sits on a launch pad in Cape Canaveral, Florida

SpaceX successfully landed a reusable Falcon 9 rocket on a floating drone ship at sea early Sunday after the vehicle had sent a Japanese communications satellite into orbit.

The California-based company's eighth launch this year was part of its ongoing effort to re-use costly rocket parts instead of jettisoning them into the ocean.

It was also the fourth time SpaceX has vertically landed a used Falcon 9 rocket aboard a floating platform at sea.

The white rocket launched under a dark night sky from Cape Canaveral, Florida at 1:26 am (0526 GMT).

Less than three minutes into the flight, the rocket's main stage separated as planned, with SpaceX mission control erupting in cheers as live video showed the moves.

Around six minutes later, the first stage landed on the Of Course I Still Love You drone ship, drawing more cheers at mission control.

The vertical landing on the reconverted deck barge in the Atlantic Ocean was especially challenging because the JCSAT-16 [satellite](#) had to be carried into a highly elliptical orbit some 22,300 miles (36,000 kilometers) above the Earth's equator.

"The first stage will be subject to extreme velocities and re-entry heating, making a successful landing challenging," Space Exploration Technologies Corporation—SpaceX's full name—said prior to the mission.

The communications satellite will help provide more stable satellite services for video distribution and data transfer communications in Asia, Russia, Oceania, Middle East and North America.

It was the second JCSAT satellite SpaceX has launched in four months for satellite operator SKY Perfect JSAT Corporation.

SpaceX chief Elon Musk wants to revolutionize the launch industry by making [rocket](#) components reusable.

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Citation: SpaceX lands Falcon 9 rocket after launching Japanese satellite (2016, August 14)
retrieved 27 April 2024 from

<https://phys.org/news/2016-08-spacex-falcon-rocket-japanese-satellite.html>

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