

# US private rocket readies key demonstration launch

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American firm SpaceX readied Tuesday the first demonstration launch of its Falcon 9 rocket to low Earth orbit for NASA's Commercial Orbital Transportation Services program next week.

Dubbed COTS 1, the December 7 launch will also mark the first time a private firm attempts to have a spacecraft -- SpaceX's Dragon capsule -- re-enter Earth's atmosphere from orbit, a key step in developing commercial launchers to put people into space.

It will be the first of three demonstration launches for Falcon 9, which was successfully launched in June.

The flights aim to evaluate the launcher and the spacecraft's capabilities and structural integrity at various stages of the launch, flight and water landing in the Pacific Ocean.

Last week, the Federal Aviation Administration issued a one-year license to [SpaceX](#) for the Dragon spacecraft to reenter Earth's atmosphere, the first of its kind ever granted to a commercial firm.

The US space agency NASA signed a 1.6-billion-dollar contract with SpaceX in December 2008 under the COTS program to provide twelve spacecraft with cargo capacity of at least 20 tonnes to resupply the [International Space Station](#) (ISS) through 2016.

NASA has also signed a contract of 1.9 billion dollars with Orbital Space

Corporation for eight launches of its Taurus II rocket starting in 2011.

The Falcon 9 -- as tall as an 18-story building -- and the Dragon spacecraft will launch from Cape Canaveral, Florida next Tuesday, with a window extending from 9:03 am (1403 GMT) to 12:22 pm (1722 GMT). If necessary, there will be other launch opportunities on December 8 and 9.

President [Barack Obama](#) hopes the private sector will help fill the gap that will open when the space shuttle fleet is retired next year, and before a new generation of [spacecraft](#) is developed.

The three US shuttles -- Discovery, Atlantis and Endeavour -- will become museum pieces after a final [shuttle mission](#) to the space station in late February.

Obama has proposed spending six billion dollars over five years to help the private sector develop reliable and affordable launchers to transport cargo and US astronauts to the International [Space](#) Station.

During the transition period, the United States will depend on Russian Soyuz rockets for access to the ISS.

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