

Watch the Falcon 9 rocket booster descend into the ocean for its "soft" landing (w/ Video)

July 23 2014, by Nancy Atkinson



Screenshot from the SpaceX webcast of the Falcon 9 launch on July 14, 2013.

SpaceX today released video from the Falcon 9 first stage flyback and landing video from the July 14 launch of six ORBCOMM advanced telecommunications satellites. This was a test of the reusability of the Falcon 9's first stage and its flyback and landing system. It splashed down in the Atlantic Ocean, and SpaceX called it a "soft" landing, even though the booster did not survive the splashdown. SpaceX CEO Elon Musk tweeted on July 14 that the rocket booster reentry, landing burn and leg deployment worked well, but the hull of the first stage "lost

integrity right after splashdown (aka kaboom)." He later reported that detailed review of rocket telemetry showed the booster took a "body slam, maybe from a self-generated wave."

SpaceX today said last week's test "confirms that the Falcon 9 booster is able consistently to reenter from space at hypersonic velocity, restart main engines twice, deploy landing legs and touch down at near zero velocity."

This [video](#) is of much higher quality than the video from the first soft landing test in the ocean, back in April of this year following the launch of the CRS-3 mission for the Dragon spacecraft to the International Space Station.

Even though the booster has not been recoverable from either test (the April test saw too rough of seas to get the booster) SpaceX said that they received all the necessary data "to achieve a successful landing on a future flight. Going forward, we are taking steps to minimize the build up of ice and spots on the camera housing in order to gather improved video on future launches.

The booster tipping over is the nominal procedure (in water), but the booster did touch down in a vertical position; additionally, as seen in the video, the landing legs deployed perfectly, and the flyback boosters performed flawlessly.

"At this point, we are highly confident of being able to land successfully on a floating launch pad or back at the launch site and reflly the rocket with no required refurbishment," SpaceX said in today's press release.

"However, our next couple launches are for very high velocity geostationary satellite missions, which don't allow enough residual propellant for landing. In the longer term, missions like that will fly on Falcon Heavy, but until then Falcon 9 will need to fly in expendable

mode."

The next attempt for a our next water landing will be on Falcon 9's thirteenth flight, a launch to the ISS for the fourth resupply mission, but they indicated the test would have a "low probability of success." That flight is currently scheduled for no earlier than September 12, 2014. The next big challenge comes in flights 14 (another ORBCOMM satellite launch) and 15 (Turkmen satellite), where the [booster](#) will attempt to land on a solid surface. Those flights are currently scheduled for NET October and November of 2014.

Provided by [Universe Today](#)

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