

## SpaceX launch good for NASA, not private firm (Update)

October 8 2012, by Seth Borenstein

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A private rocket successfully sent a capsule full of cargo zipping toward the International Space Station in a first of its kind delivery for NASA, but couldn't deliver on job No. 2: putting a commercial satellite into the correct orbit.

One of nine engines on Space X company's Falcon 9 rocket failed Sunday 79 seconds after launch because of a pressure loss. The engine didn't explode, but it did start a series of events that meant another company's private satellite is not in the place it is needed.

The main mission for the Falcon launch—delivering half a ton of science and food supplies toward the space station—is still on track with a docking of the cargo-laden Dragon capsule scheduled for Wednesday. SpaceX on Monday said the ship's flight computer calculated a new path to the station for the capsule. It is the first of a dozen supply runs under a mega-contract with NASA.

"Falcon 9 did exactly what it was designed to do," the California based SpaceX said. "Like the Saturn V, which experienced engine loss on two flights, Falcon 9 is designed to handle an engine out situation and still complete its mission."

But not all of its mission.

The original plan was for Falcon to fire its second stage engines after Dragon left and then deploy an industrial communications satellite into

orbit for Orbcomm of Dulles, Virginia.

Because this is a new resupply ship for the space station, NASA and its international partners had set detailed safety rules in advance for Falcon, even though the engine failure was far from the station. And those rules prevent SpaceX from firing its second stage engines, Orbcomm said in a statement.

The satellite is in a lower orbit and engineers are trying to figure out how to boost it, Orbcomm said.

This was the first of 18 satellites that Orbcomm had hired SpaceX to deliver. The satellites help in two-way communications for companies to track their heavy equipment across the world. The company wouldn't respond to questions about the cost of the satellite or launch services.

Harvard University astronomer Jonathan McDowell, who tracks launches worldwide, noticed the problem for hours before either company acknowledged that the satellite was in the wrong orbit. Even though SpaceX was congratulating itself after the launch, McDowell said: "We can't say that it was a perfect launch."

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