

## **SpaceX Dragon capsule launched to space station**

October 8 2012, by Marcia Dunn



In this image provided by NASA the Space Exploration Technologies Corp., or SpaceX, Falcon 9 rocket with it's Dragon capsule attached on top is seen at Space Launch Complex-40 at Cape Canaveral Air Force Station in Florida Oct. 2, 2012. The coming mission is the first under a \$1.6 billion contract with NASA that calls for a dozen resupply flights by SpaceX, essential in the post-shuttle era. The liftoff is planned for Sunday morning, Oct. 7, at 8:35 p.m. EDT. (AP Photo/NASA)

A commercial cargo ship rocketed into orbit Sunday in pursuit of the International Space Station, the first of a dozen supply runs under a mega-contract with NASA.



It was the second launch of a Dragon capsule to the orbiting lab by the California-based SpaceX company. The first was last spring.

This time was no test flight, however, and the spacecraft carried 1,000 pounds (453.6 kilograms) of key <u>science experiments</u> and other precious gear on this truly operational mission. There was also a personal touch: chocolate-vanilla swirl ice cream tucked in a freezer for the three station residents.

The company's unmanned Falcon rocket roared into the <u>night sky</u> right on time, putting SpaceX on track to reach the space station Wednesday. The complex was soaring southwest of Tasmania when the Falcon took flight.

Officials declared the launch a success, despite a problem with one of the nine first-stage engines. The rocket put Dragon in its intended orbit, said the billionaire founder and <u>chief executive officer</u> of SpaceX, Elon Musk.

"It's driving its way to station, so that's just awesome," noted SpaceX President Gwynne Shotwell.

In more good news, a piece of <u>space junk</u> was no longer threatening the station, and NASA could focus entirely on the delivery mission.

NASA is counting on private business to restock the space station, now that the shuttles have retired to museums. The space agency has a \$1.6 billion contract with SpaceX for 12 resupply missions.

Especially exciting for NASA is the fact that the Dragon will return twice as much cargo as it took up, including a stockpile of astronauts' blood and urine samples. The samples—nearly 500 of them—have been stashed in freezers since Atlantis made the last <u>shuttle flight</u> in July



2011.

The Dragon will spend close to three weeks at the space station before being released and parachuting into the Pacific at the end of October. By then, the space station should be back up to a full crew of six.

None of the Russian, European or Japanese cargo ships can bring anything back; they're destroyed during re-entry. The Russian Soyuz crew capsules have limited room for anything besides people.

Space Exploration Technologies Corp., or SpaceX—owned by PayPal cofounder Musk—is working to convert its unmanned Dragon capsules into vessels that could carry astronauts to the space station in three years. Other U.S. companies also are vying to carry crews. Americans must ride Russian rockets to orbit in the meantime, for a steep price.

Musk, who monitored the launch from SpaceX Mission Control in Hawthorne, California, called the capsules Dragon after the magical Puff to get back at critics who, a decade ago, considered his effort a fantasy. The name Falcon comes from the Millennium Falcon starship of "Star Wars" fame.

An estimated 2,400 guests jammed the launching center to see the Falcon, with its Dragon, come to life for SpaceX's first official, operational supply mission.

Across the country at SpaceX headquarters, about 1,000 employees watched via TV and webcast.

It was no apparition.

"Just over a year after the retirement of the space shuttle, we have returned space station cargo resupply missions to U.S. soil," said NASA



Administrator Charles Bolden Jr.

SpaceX is shooting for its next supply run in January.

Another company looking to haul space station cargo, Virginia's Orbital Sciences Corp., hopes to launch a solo test flight in December and a demo mission to the station early next year.

Every time <u>SpaceX</u> or a competitor flies successfully, Bolden told reporters, "that gives the nonbelievers one more opportunity to get on board and root for us" and help enable commercial launches for space station astronauts. This will further free NASA up to aim for points beyond low-Earth orbit, like Mars.

"This was a big night," Bolden concluded.

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