

SpaceX capsule to deliver new parking spot for space station

June 26 2015, by Marcia Dunn



In this March 24, 2015 photo made available by NASA, engineers in the Space Station Processing Facility at the Kennedy Space Center in Cape Canaveral, Fla. check measurements on the International Docking Adapter. On Sunday, June 28,

2015, SpaceX is scheduled to launch a much-needed load of supplies and this new docking port to the International Space Station, on the heels of a failed supply run by Russia. (Cory Huston/NASA via AP)

SpaceX stands ready to launch a much-needed load of supplies to the International Space Station this weekend on the heels of a failed supply run by Russia.

Besides food and experiments, the Dragon cargo ship ordered up by NASA holds a new docking port, or parking place, for future commercial crew capsules.

Liftoff is scheduled for 10:21 a.m. Sunday. Good flying weather is forecast for SpaceX's unmanned Falcon rocket.

This shipment is especially critical because the space station has lost two deliveries since fall.

A Russian supply ship spun out of control shortly after liftoff in April and burned up on re-entry with all its contents. In October, an Orbital Sciences Corp. cargo carrier was destroyed in a Virginia launch explosion.

Once again, SpaceX is picking up the slack. This will be the eighth station supply run for the California-based company; the first was in 2012.

"Dragon has been super reliable," SpaceX's Hans Koenigsmann told reporters Friday.

Nearly 5,300 pounds of gear is packed for the trip, including

replacements for science experiments lost in the Orbital launch accident, some of them designed by students.

Stored in the capsule's unpressurized trunk is the first of two new docking rings for the station. Spacewalking astronauts will hook up the 1,160-pound port built by Boeing later this summer.



In this Tuesday, May 15, 2012 file photo, Russian cosmonaut Gennady Padalka waves before boarding a Soyuz-FG rocket for its launch to the International Space Station from the Russian-leased Baikonur Cosmodrome in Kazakhstan. On Sunday, June 28, 2015, Padalka will become the world's most experienced

spaceman - set to break the world record for most accumulated time in space, surpassing the 803-day mark held by former cosmonaut Sergei Krikalev, now a Russian space program official. (AP Photo/Yuri Kochetkov, Pool)

The twin ports eventually will be used by astronauts arriving in new American-built capsules. NASA is paying billions of dollars to SpaceX and Boeing to develop the crew capsules. The SpaceX version is a souped-up Dragon. Boeing's model is the CST-100, short for Crew Space Transportation; the 100 represents the beginning of space at 62 miles up, or 100 kilometers.

In both cases, manned flights are still at least two years off. Until then, Americans will continue to hitch rides to the space station on Russian rockets for tens of millions of dollars per seat.

The Russian Space Agency plans to take another stab at a station shipment from Kazakhstan next Friday. Russian space officials want to see how that goes before launching a new three-man crew to the station on July 22, two months late because of the April cargo ship mishap.

Three men currently are living at the space station, three fewer than usual because of the recent hold in Russian Soyuz launches. Two of them are one-quarter of the way through a one-year mission: American Scott Kelly and Russian Mikhail Kornienko.

The third, Russia's Gennady Padalka, will become the world's most experienced spaceman this weekend. He's set to break the world record for most accumulated time in space, surpassing the 803-day mark held by former cosmonaut Sergei Krikalev, now a Russian space program official.

By the time Padalka returns to Earth in September, he will have spent 2½ years in orbit.

Minutes after Sunday's liftoff, in a test on its own dime, SpaceX will make another attempt to vertically land a Falcon 9's discarded first-stage booster on an ocean platform off the north Florida coast. Two of the previous efforts—aimed at demonstrating rocket reusability—ended in flames, while another was called off because of rough seas.

A new modified barge is making its debut for the upcoming Falcon flight; it's called "Of Course I Still Love You." Like barge No. 1, "Just Read the Instructions," the names hail from science fiction writer Iain M. Banks' Culture series. SpaceX founder Elon Musk wanted to honor the late Scottish author. And yes, the SpaceX Falcon rocket is a nod to the "Star Wars" Millennium Falcon.

More information: SpaceX: spacex.com

NASA: www.nasa.gov/mission_pages/station

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