SpaceX back in delivery business with futuristic pop-up room

April 8 2016, by By Marcia Dunn

The SpaceX Falcon 9 rocket stands ready for launch at the Kennedy Space Center in Cape Canaveral, Fla., Friday, April 8, 2016 as photographers set up remote cameras. The rocket, scheduled for launch later today, is set to deliver almost 7,000 pounds of science research, crew supplies, and hardware to the International Space Station. (AP Photo/John Raoux)

SpaceX stands ready to resume station deliveries for NASA and it

couldn't have a more attention-grabbing payload: the first inflatable room ever built for astronauts.

Bigelow Aerospace is providing the futuristic pop-up pod, which swells to the size of a small bedroom. It's a testbed for orbiting rental property that the Nevada company hopes to launch in four years, and also for moon and Mars habitats.

The unmanned Falcon rocket was scheduled to lift off at 4:43 p.m. Friday. It will be SpaceX's first shipment for the International Space Station in a year. A launch accident halted cargo flights last June. As usual, SpaceX will try to land the leftover booster on an ocean barge, something it's yet to achieve for reusability, as a way to shave launch costs.

Traffic has been heavy lately at the 260-mile-high complex. NASA's other commercial shipper, Orbital ATK, made a delivery at the end of March, then Russia just last weekend. Now, it's SpaceX's turn.

Besides a bevy of biological experiments—including 20 mice for a muscle study, and cabbage and lettuce plants for research as well as crew consumption—the SpaceX Dragon capsule holds the pioneering pod.

The Bigelow Expandable Activity Module, or BEAM, is a 21st-century reincarnation of NASA's TransHab, which never got beyond blueprints and ground mock-ups in the 1990s. Hotel entrepreneur Robert Bigelow bought rights to TransHab, then persuaded NASA to host BEAM at the space station.

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Empty except for sensors, the experimental BEAM is Bigelow's first soft-sided space structure meant for people. Astronauts will enter periodically during the two years it's at the station.

Bigelow hopes to have two station-size inflatables ready to launch around 2020 for commercial use, potentially followed by inflatable moon bases. NASA, meanwhile, envisions using inflatable habitats during 2030s Mars expeditions.

"It is the future ... the next logical step in humans getting off the planet," NASA's space station program manager, Kirk Shireman, told reporters Thursday.

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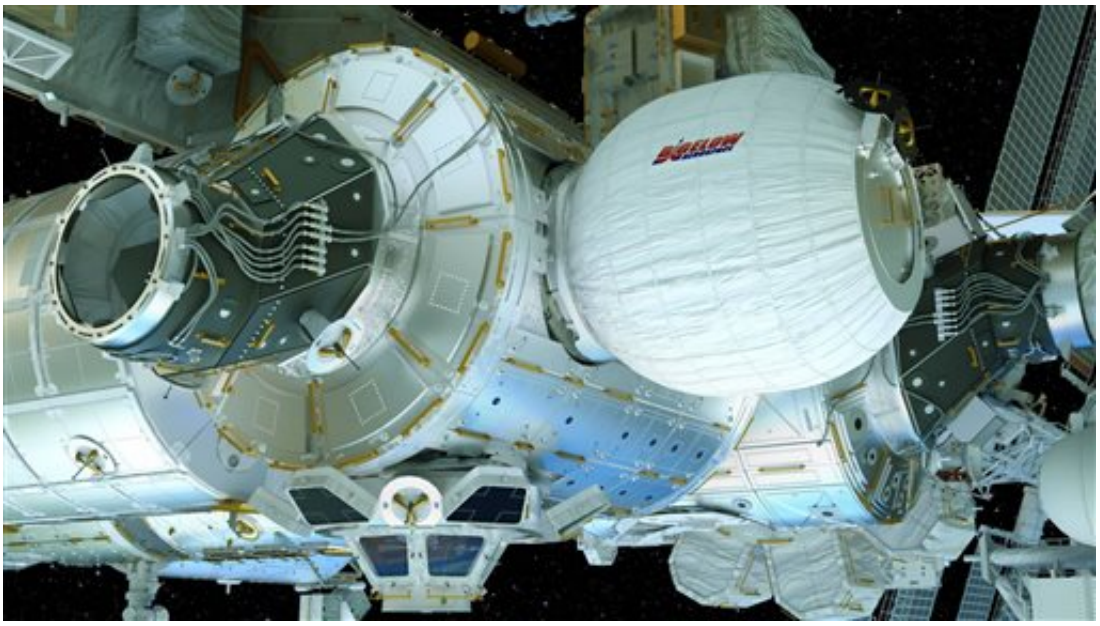
Bigelow was on hand for Friday's launch attempt, accompanied by a dozen employees.

The Dragon and its 7,000-pound load will take two days to reach the space station. SpaceX's last delivery attempt ended in flames after just two minutes, doomed by a snapped strut in the oxygen tank of the upper stage. The company successfully resumed Falcon launches late last year with satellites.

Besides Falcon repairs and upgrades, SpaceX has activated the Dragon's parachute system this time. That way, in case of a launch accident, the Dragon can parachute into the Atlantic and hopefully be salvaged. The Dragon is the only station cargo ship capable of returning items to Earth and thus equipped with parachutes.



This image provided by Bigelow Aerospace on April 6, 2016 shows an illustration of the Bigelow Expandable Activity Module (BEAM), center right, attached to the International Space Station. It's a technology demonstration meant to pave the way for moon bases and Mars expeditions, as well as orbiting outposts catering to scientists and tourists. (Bigelow Aerospace via AP)

More information: SpaceX: www.spacex.com/

Bigelow Aerospace: bigelowaerospace.com/

NASA: www.nasa.gov/mission_pages/station/main/index.html