

Image: Orion parachutes measure up in high pressure test

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Credit: NASA/James Blair

Orion's three main orange and white parachutes help a representative model of the spacecraft descend through sky above Arizona, where NASA engineers tested the parachute system on Sept. 13, 2017, at the U.S. Army Proving Ground in Yuma. NASA is qualifying Orion's parachutes for missions with astronauts.

During this test, engineers replicated a situation in which Orion must abort off the Space Launch System rocket and bypass part of its normal parachute deployment sequence that typically helps the spacecraft slow down during its descent to Earth after [deep space missions](#). The capsule was dropped out of a C-17 aircraft at more than 4.7 miles in altitude and allowed to free fall for 20 seconds, longer than ever before, to produce high aerodynamic pressure before only its pilot and main parachutes were deployed, testing whether they could perform as expected under extreme loads.

Orion's full parachute system includes 11 total parachutes—three forward bay cover parachutes and two drogue parachutes, along with three pilot parachutes that help pull out the spacecraft's three mains.

Provided by NASA

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