# Boeing Successfully Completes Parachute Drop Test of Crew Space Transportation Spacecraft

## 1st test of fully combined vehicle landing system

**HOUSTON, April 3, 2012** -- Boeing [NYSE: BA] successfully completed a parachute drop test of the company's Crew Space Transportation (CST)-100 spacecraft today at the Delamar Dry Lake Bed near Alamo, Nev. CST-100 is part of the Boeing Commercial Crew Transportation System (CCTS), which will provide the United States with the capability to transport people and cargo to the International Space Station (ISS), the Bigelow Aerospace Complex and other destinations in low Earth orbit.

An Erickson Sky Crane helicopter lifted the CST-100 test article to about 11,000 feet and released it. Three main parachutes deployed to slow the capsule's descent before six airbags inflated, providing a smooth ground landing. The event was the first drop test of the fully combined vehicle landing system, including all elements.

"This successful test is a tremendous milestone that brings Boeing one step closer to completing development of a system that will provide safe, reliable and affordable crewed access to space," said John Mulholland, vice president and program manager, Boeing Commercial Programs.

Boeing is drawing on its significant knowledge, testing and experience gained from the Apollo missions as it develops and tests the CCTS. Leveraging re-entry and ocean landing data from the Apollo program, the rigorous CST-100 landing tests will reduce risk and validate the post re-entry landing and recovery capability of this system.

As part of the Boeing Commercial Crew team, Bigelow Aerospace played a key role by providing the capsule test article and associated electronics and supporting the test itself. Bigelow Aerospace is a Boeing customer, with plans to use the CCTS for transportation to and from Bigelow on-orbit platforms. Boeing and Bigelow Aerospace are partnering to advance the commercial space market by offering opportunities for integrated transportation and on-orbit platform capabilities and services to new customers.

The team is planning a second test later this month, following parachute inspection and re-packing. This second drop test will include a drogue parachute deployment sequence on top of the main parachute deployment, demonstrating the full, nominal parachute system performance.

Boeing has scheduled additional tests to be performed in 2012, including a landing air bag test series in May, a forward heat shield jettison test in June, and an orbital maneuvering/attitude control engine hot fire test in June -- all to gather additional data on key functional elements of the spacecraft design.

The Boeing Commercial Crew program includes the design, manufacture, test and evaluation, and demonstration of the CST-100 spacecraft, launch vehicle and mission operations -- all part of Boeing's Commercial Crew Transportation System -- for NASA's Commercial Crew Development program.

The CST-100 is a reusable capsule-shaped spacecraft based on proven materials and subsystem technologies that can transport up to seven people, or a combination of people and cargo. Boeing has designed the spacecraft to be compatible with a variety of expendable rockets. The company has selected United Launch Alliance's Atlas V launch vehicle for initial CST-100 test flights in 2015-16.

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