Boeing Completes Preliminary Design Review of Commercial Crew Space Transportation Vehicle

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CST-100 will assure safe, reliable, affordable US access to space

HOUSTON, **March 13**, **2012** -- Boeing [NYSE: BA] successfully completed a Preliminary Design Review (PDR) of the company's integrated Commercial Crew Space Transportation system, which includes the Crew Space Transportation (CST)-100 spacecraft, on March 12. The integrated system will provide the United States with the capability to transport people and cargo to the International Space Station (ISS), the Bigelow Space Complex and other destinations in low Earth orbit.

The system PDR, which included the CST-100 spacecraft, launch vehicle and ground system, evaluated technical adequacy, progress and risk resolution of the design and test approach.

"The progress made by the Commercial Crew team has been outstanding. It is clear that this team has the discipline and the right design, test and safety approaches and processes to ensure a safe, reliable and affordable transportation system by the middle of the decade," said John Mulholland, vice president and program manager, Boeing Commercial Programs.

"Boeing is leveraging not only the enduring spaceflight capabilities resulting from our 50-year heritage supporting human spaceflight, but also our contemporary expertise and experience, to achieve milestones toward the future of human spaceflight such as this PDR," Mulholland added.

The PDR included representatives from Boeing, NASA, the Federal Aviation Administration and independent consultants. They examined all milestones accomplished in the development of the integrated system design since the Delta System Definition review that was conducted in May 2011, under NASA's Commercial Crew Development Space Act Agreement.

Boeing has scheduled additional tests to be performed in 2012, including a launch abort engine hot fire test series, which was successfully completed on March 9, parachute drop tests in April, a landing air bag test series in May, a forward heat shield jettison test in June, and an attitude control engine hot fire test in June, 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. This system will provide crewed flights to the ISS and also support Bigelow Aerospace's orbital space complex. The program is based on Boeing's experience and innovation of over 50 years of human spaceflight and nearly 100 years of commercial aviation.

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 the United Launch Alliance's Atlas V launch vehicle for initial CST-100 test flights in 2015.

A unit of The Boeing Company, <u>Boeing Defense</u>, <u>Space & Security</u> is one of the world's largest defense, space and security businesses specializing in innovative and capabilities-driven customer solutions, and the world's largest and most versatile manufacturer of military aircraft. Headquartered in St. Louis, Boeing Defense, Space & Security is a \$32 billion business with 62,000 employees worldwide. Follow us on Twitter: <u>@BoeingDefense</u>.

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Contact:

Susan Wells Space Exploration Office: 321-264-8580 Mobile: 321-446-4970 susan.h.wells@boeing.com