Common Booster Core for Boeing Delta IV Family of Rockets Reaches Major Milestone

The Common Booster Core (CBC) for the Boeing Delta IV family of rockets successfully passed a critical test on Saturday. Boeing engineers say the results mark a major milestone for the Delta IV program, which is targeting early 2002 for its inaugural launch.

Engineers conducted the first in a series of hot-fire tests on the CBC. They ignited the Boeing-built Rocketdyne RS-68 engine for 15 seconds, generating the equivalent of 14 million horsepower.

"We are conducting extensive tests on a fully integrated CBC prior to its inaugural launch next year," said Dan Collins, vice president of Delta and Titan programs for Boeing. "From the propulsion to the hydraulics to the avionics, we exercised these systems together to make certain the integrated components and systems function properly."

"The test firings will include a five-and-a-half minute full flight duration test where the CBC goes through sequences and events of an actual flight. The test program is designed to substantially reduce the risk in launching a new vehicle," Collins added.

Saturday's test comes on the heels of a string of successful RS-68 engine tests. The tests have validated the Delta IV main engine's performance, and also successfully addressed turbo pump issues identified last year. The Delta team has put nearly 1,000 seconds of test time on an RS-68 engine that has incorporated the modified fuel turbo pumps. The RS-68 has performed as expected completing full mission duration testing for the Delta IV Medium and Delta IV Heavy flight profiles. The Delta IV Heavy profile test included a 10 percent time reserve and lasted more than 360 seconds.

The tests were followed by comprehensive inspections of the turbo pump assemblies, which confirmed the structural integrity of the turbo pump. The RS-68 tests and the CBC test are tangible evidence that Boeing has overcome all issues seen to date and is on track for a commercial launch in early 2002.

The CBC allows all five variants of the Delta IV family of rockets to use common systems and assemblies. This permits Boeing to consistently produce a quality vehicle by using a single set of processes and procedures. The CBC consists of a 656,000 lb. thrust main engine, liquid-oxygen and liquid-hydrogen tanks, and avionics.

For Boeing Delta customers, this provides a cost effective, quality and reliable launch vehicle.

The Delta IV family of rockets is capable of lifting payloads ranging from 9,285 pounds (4,210 kg) to 28,950 pounds (13,130 kg) to geosynchronous transfer orbit.

RS-68 Engine Firing

CBC on Test Stand

Test Video (7 Mb QuickTime Movie)

Boeing Delta Web Site

###

21-007

For further information:
Larry Salazar
(714) 343-8030
Boeing Communications
(714) 896-1301
Boeing Launch Hotline
(714) 896-4770