Boeing Provides 1,600 Components Successfully Launched on Discovery

ST. LOUIS, June 02, 2008 -- The Boeing Company [NYSE: BA] provided more than 1,600 of the components in the payload that Space Shuttle Discovery is delivering to the International Space Station (ISS). Discovery launched Saturday from Kennedy Space Center, Fla., on a 14-day mission to deliver the Kibo Japanese Experiment Module-Pressured Module (JEM-PM), which includes the Japanese Experiment Module-Remote Manipulator System (JEM-RMS), a robotic arm to support experiments and maintenance.

JEM-PM is the Kibo module's main science component and the second of three Kibo elements to be delivered to the ISS. The largest payload and habitable module ever delivered to the ISS, the JEM-PM is the size of a 16-ton school bus.

In addition to providing common gear components for Kibo under an agreement with Mitsubishi Heavy Industries, Boeing also contributed essential payload processing. The common gear components include lights, fans, power switches and converters, racks, air diffusers, smoke detectors, berthing mechanisms and optical window assemblies.

The components that help keep the JEM-PM operating properly are similar to those that Boeing developed for the U.S. Destiny laboratory and the Harmony connecting utility node built by Italy.

"Even though the JEM-PM has an identical configuration of the gear Boeing provided for Destiny and Harmony, its most unique feature is that there are two big windows at one end of the science module," said Joel Bridges, the JEM-PM program manager when the module's components were being assembled and built at Boeing's facility in Huntsville, Ala. "These windows are similar to the windows in the Destiny lab, but will provide a nearly panoramic view of any experiments, helping to yield more scientific observation."

Another unique feature of the JEM-PM is that its water-based internal cooling loop dissipates heat generated by experiments and avionics. The loop relies on both the Boeing-built heat exchangers and the central ammonia cooling system.

Boeing also provided a new restraint mechanism that had to be developed for the space shuttle's robotic camera because of the immense size of the JEM-PM.

"Boeing worked with NASA and MacDonald, Dettwiler and Associates to perform analysis for the restraint mechanisms for the camera because there is less than one inch of clearance between the payload and the radiators mounted on the interior of the payload bay doors," said Mike Burghardt, Boeing chief orbiter engineer. "It's important to ensure clearance between the camera, the JEM payload and the radiators to prevent damage to any of this hardware from vibration experienced during liftoff and ascent."

The Boeing Checkout, Assembly and Payload Processing Services facility in Florida has provided a home for the JEM-PM since its arrival in June 2003.

A unit of The Boeing Company, Boeing Integrated Defense Systems is one of the world's largest space and defense businesses specializing in innovative and capabilities-driven customer solutions. Headquartered in St. Louis, Boeing Integrated Defense Systems is a $32.1 billion business with 71,000 employees worldwide.
###
Contact Info:
Susan Wells
Boeing Florida Operations
office: (321) 264-8580
mobile: (321) 446-4970
susan.h.wells@boeing.com
Tanya E. Deason-Sharp
Boeing Space Exploration
office: (281) 226-6070
mobile: (281) 705-4711
tanya.e.deason-sharp@boeing.com