



## News Release

For Immediate Release

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## World's Largest Rocket Stage Recovery Parachute Test is Successful

### Another Milestone Accomplished in Ares I Development

**Yuma, Arizona, October 2, 2007** – Alliant Techsystems (NYSE: ATK), and United Space Alliance (USA) successfully conducted the first in a series of six main parachute drop tests in the development of the deceleration system for the first stage of NASA's Ares I crew launch vehicle on Sept. 25 at the Army Yuma Proving Grounds.

The parachute test was conducted by extracting a 42,000 pound weighted test unit at an altitude of 17,500 feet from a C-17 aircraft. The test unit was allowed to accelerate to a pre-determined velocity at which time the 150 ft. diameter main parachute was deployed. Initial data indicates all of the test objectives were met.

"The test went flawlessly and met our initial expectations," said Mike Kahn, ATK vice president of Space Launch Systems. "We have a great team of individuals and subcontractors who helped ensure the success of this important test and bring us closer to full development of this new five-segment booster."

The one-ton, 150-foot-diameter Ares main parachute is the largest parachute of this type in use today. The parachute was designed and manufactured by USA at the Kennedy Space Center, under a subcontract to Alliant Techsystems, the Ares I First Stage prime contractor. The chute is derived from the 136-foot main parachute currently used on the Space Shuttle Solid Rocket Boosters (SRB), which splash down into the Atlantic Ocean after each shuttle launch.

"Taking the knowledge and experience we've gained from our work on the Space Shuttle Program and applying it to the next generation of rockets for the Constellation Program is very exciting," said Dan Mann, USA's Ares Stage I Program Manager

The Ares I rocket is one in a family of vehicles NASA is developing to return humans to the moon in the next decade. Ares I and the Orion crew exploration vehicle will become America's primary space transportation system after the space shuttle is retired in 2010.. Ares I first stage is comprised of a five segment reusable booster developed from the twin four segment boosters used to launch the Shuttle.

Due to the added weight of the extra segment, and the higher apogee reached by the Ares booster, the current parachute system needed to be upgraded to enable booster for reuse. Similar to the Space Shuttle SRBs, the Ares first stage recovery system will consist of a cluster of three main parachutes deployed simultaneously during re-entry to Earth atmosphere prior to splash down in the ocean.

To date three drop tests of the pilot parachute have been conducted with two more scheduled for the future. The next main parachute drop is currently scheduled for November. During first test flight, Ares 1-X, which is a full-scale launch vehicle with inert upper stage, the new parachute system will be used operationally. Ares 1-X is schedule to launch in April 2009.

### **About the companies**

**ATK Launch Systems Group** provides innovative and cost-effective launch systems solutions to a broad range of customers. The Group is the world's leading manufacturer of rocket motor systems for human-rated and unmanned space launch vehicles, strategic missiles, and missile defense interceptors. It serves both commercial and government customers, including prime contractors, NASA, the U.S. Air Force, U.S. Navy, U. S. Army and U.S. Missile Defense Agency.

**ATK** is a \$4 billion advanced weapon and space systems company employing approximately 16,500 people in 21 states. News and information can be found on the Internet at [www.atk.com](http://www.atk.com)

**United Space Alliance** is a world leader in space operations with extensive experience in virtually all aspects of the field. Headquartered in Houston and employing 10,000 people in Texas, Florida and Alabama, USA is applying its broad range of capabilities to NASA's Space Shuttle, International Space Station and Constellation programs as well as to space operations customers in the commercial and international space industry sectors.

**Note to editor:** High res images are available upon request.

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