NASA says test flight of new heat shield a success

The Associated Press

ATLANTIC, Va. (AP) -- An experimental heat shield for future spacecraft landings successfully survived a test launch Monday that brought it through the earth's atmosphere at speeds of up to 7,600 mph, NASA said.

The demonstration launch from Wallops Flight Facility on Virginia's Eastern Shore involved a 680-pound cone of high-tech rings covered by a thermal blanket of layers of heat-resistant materials. The Inflatable Reentry Vehicle Experiment, or IRVE-3, was launched from a three-stage Black Brant rocket for a suborbital flight.

IRVE-3 separated from the launch vehicle about six minutes into the flight about 280 miles in the Atlantic Ocean off North Carolina.

An inflation system pumped nitrogen into IRVE-3 until it expanded to a mushroom shape almost 10 feet in diameter. Engineers in the Wallops control room watched as four onboard cameras confirmed the inflatable shield held its shape despite the force and high heat of re-entry, NASA said.

A high-speed Navy Stiletto boat based at Joint Expeditionary Base Little Creek-Fort Story was dispatched to retrieve the capsule.

The purpose of the launch was to determine whether a space capsule can use an inflatable outer shell to slow and protect itself as it enters an atmosphere at hypersonic speed during a planetary entry and descent.

"We're pushing the boundaries with this flight," said Lesa Roe, director of NASA Langley Research Center in Hampton. "We look forward to future test launches of even bigger inflatable aeroshells."

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