

# Final Piece Of NASA's Next-Generation Rocket Heads To Launch Site

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Artist concept of Ares I-X rocket. Image Credit: NASA

(PhysOrg.com) -- The final pieces of the Ares I-X flight test rocket left the Alliant Tech Systems manufacturing facility in Promontory, Utah, Thursday and began a 2,917-mile journey to its launch site at NASA's Kennedy Space Center in Florida.

The first [stage motor](#) segments are the last shipment of Ares I-X major hardware elements. The hardware will arrive in Florida later this month and undergo final processing and preparations before being stacked with the other portions of the [rocket](#).

"This shipment means great things for the Ares I-X mission," said Ares I-X Deputy Mission Manager, Steve Davis. "It's wonderful to see the next generation of American spaceflight continue to take shape. The

excitement is really building now as we start stacking the pieces and preparing for [launch](#) later this year."

The Ares I-X will be the first [flight test](#) for the Ares I rocket; the agency's next-generation spacecraft and crew [launch vehicle](#) system. The flight will provide NASA an early opportunity to test and prove hardware, analysis models, facilities and ground operations associated with Ares I.

The Ares I-X rocket is a combination of existing and simulator hardware that will resemble the Ares I rocket in size, shape and weight. It will provide valuable data to guide the final design of the Ares I. The test flight also will bring NASA one step closer to its goals of returning to the moon, and traveling to destinations beyond. The Ares I-X launch is scheduled later in 2009.

The Ares I-X first stage uses a four-segment [solid rocket](#) motor, capable of generating 3.3 million pounds of thrust. The motor provides the primary propulsion for the vehicle from liftoff to stage separation 120 seconds into the flight. The motor segments were taken from the existing space shuttle solid [rocket booster](#) inventory for the flight test. The booster used for the Ares I-X flight test is being modified to meet Ares needs by adding new forward structures and a fifth segment simulator to better replicate the size and shape of the Ares I crew launch vehicle.

NASA's Marshall Space Flight Center in Huntsville, Ala., manages the first stage project for the Ares I-X mission, located at NASA's Johnson Space Center in Houston.

Provided by JPL/NASA ([news](#) : [web](#))

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