# Boeing News Boeing Delta III Failure Linked to Upper-Stage Engine Systems

Based on a preliminary data review of the May 4 Delta III launch failure, Boeing officials are focusing on a hardware issue related to the rocket's second-stage engine system.

The data gathered also indicates the failure is related to a Delta III system that is not common with the upper stages flown on Delta II. While both rockets have components in common, the Delta III features a cryogenically propelled upper stage with a Pratt & Whitney-built engine.

The announcements, made here in a media briefing, follow Tuesday's failure to place the Orion 3 telecommunications satellite into its proper orbit for Hughes Space and Communications. Orion 3 was to serve the Asia-Pacific region where it would be owned and operated by Loral Space and Communications.

The Delta III rocket has two stages with the second or upper stage designed for multiple restarts. During Tuesday night's flight, the second stage completed its first burn as planned. Flight data indicates the engine restarted for the second burn, but immediately stopped. The second burn lasted less than 1 second versus the planned 2 minutes and 47 seconds. While this burn stopped prematurely, subsequent events continued as programmed including spacecraft separation.

"Initial data assessment points to the upper-stage engine system," said Russ Reck, Delta III investigation lead. "It is apparent the guidance system operated properly, so we can rule out software issues. We still have more data to review before we can determine the root cause. There are numerous factors which might cause the engine to completely stop and the team will look at each of them thoroughly."

The investigation will be directed from Huntington Beach.

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