



News Release

Defense Advanced Research Projects Agency

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IMMEDIATE RELEASE

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DARPA APPROVES RETURN TO FLIGHT FOR FALCON 1 LAUNCH VEHICLE

The government board review of the March 24 attempted launch of the Space Exploration Technologies Falcon 1 launch vehicle has reported its findings. Based on the results of the board's review, the Director of the Defense Advanced Research Projects Agency (DARPA) has given the approval for the Falcon 1 launch vehicle to return to flight-status. The next launch is planned for this Fall.

The board determined that the only plausible cause of the fire was the failure of an aluminum B-nut on the fuel pump inlet pressure transducer due to inter-granular corrosion cracking. This caused RP-1 fuel to leak onto the engine and down the outside of the thrust chamber. Once the engine ignited, the leaking fuel caught fire. The fire, over time, resulted in a loss of pneumatic pressure, causing the RP-1 and liquid oxygen pre-valves to close, terminating engine thrust 34 seconds after ignition.

The board's determination was based on the analysis of recovered parts immediately adjacent to the failed B-nut, telemetry that showed lower than expected pressure in the fuel line near the failed B-nut (evidence of a fuel leak in that particular location), and pre-launch fuel checks that verified the integrity of the rest of the fuel system.

The DARPA/Space Exploration Technologies team will work together to accomplish and verify the recommended corrective actions as the launch vehicle moves toward its next planned launch. The March 24 launch of the Space Exploration Technologies Falcon 1 vehicle was conducted under the DARPA/Air Force Falcon Small Launch Vehicle program, which is developing and demonstrating an affordable and responsive space lift capability.

The government review board was chartered by DARPA and co-chaired by retired Air Force Brig. Gen. Simon P. "Pete" Worden, NASA Ames Research Center director, and retired Air Force Col. Robert L. Paulson, a private consultant. It consisted of both government and Space Exploration Technologies members.

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