

# Bad valve forces NASA to call off shuttle launch

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Space Shuttle Discovery is seen on pad 39A at the Kennedy Space Center at Cape Canaveral, Fla. Tuesday Aug. 25, 2009. Discovery and a crew of seven are scheduled to lift off Wednesday morning on a mission to deliver supplies and equipment to the International Space Station. (AP Photo/Marta Lavandier)

(AP) -- NASA called off the launch of space shuttle Discovery on Tuesday, the second day in a row the liftoff was scrubbed, this time because of a bad fuel valve.

Launch officials halted the countdown midway through the fueling

process. The seven [astronauts](#) had not yet boarded the shuttle for the scheduled early Wednesday morning flight to the [international space station](#).

A new launch date was not immediately set. It was also unclear whether NASA would be able to meet the end-of-month deadline for sending Discovery on its way. Over the weekend, managers said if Discovery was not flying by Aug. 30 or so, the flight almost certainly would slide into October because of a pair of upcoming launches to the space station from Japan and Russia.

The problem cropped up while engineers were trying to open and shut the fill-and-drain valve in Discovery's engine compartment. It appeared to be broken, said [NASA](#) spokesman Allard Beutel. He stressed that the exact condition of the valve was not known; it could be sticky.

Workers will need to get into the engine compartment in order to check the valve, a potentially time-consuming operation.

The valve, a critical part of the main propulsion system, is used for the flow of liquid hydrogen from the [external fuel tank](#) to the main engines. It needs to be closed for launch, and open in order to drain the tank following a launch delay.

"You don't want it to get stuck in the position where it's closed because you cannot drain the tank that way," Beutel said. Rules prevent engineers from cycling the valve back and forth because "you don't take chances" with it, he said.

"Teams here are looking at the next steps," he added.

The valve worked fine during the first launch attempt, but thunderstorms prevented Discovery from blasting off early Tuesday morning.

Discovery is loaded with thousands of pounds of space station supplies and equipment, including a new treadmill named after Comedy Central's Stephen Colbert.

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