

# NASA fuels Discovery for mission to space station

15 March 2009, By MARCIA DUNN , AP Aerospace Writer



In this image provided by NASA space shuttle Discovery sits on launch pad 39A at NASA's Kennedy Space Center in Cape Canaveral Florida. Space Shuttle Discovery's seven member crew are scheduled to lift off Sunday evening March 15, 2009 on a mission to the International Space Station. NASA has until Tuesday to launch Discovery before having to wait for a Russian Soyuz rocket that is set to blast off to the space station March 26. (AP Photo/NASA)

(AP) -- Aiming for a Sunday evening launch, NASA began fueling space shuttle Discovery again in hopes repairs took care of a dangerous leak.

Liftoff was set for 7:43 p.m., provided there were no more hydrogen leaks. Good weather was forecast.

During the first launch attempt Wednesday, hydrogen gas spewed into the air from a vent line connected to Discovery's [external fuel tank](#). NASA replaced all the hookups, but could find nothing broken. Officials promised to halt the countdown

again if the problem recurs.

Hydrogen gas valves inside [Discovery](#) already had forced a one-month delay.

NASA has until Tuesday to send Discovery and a crew of seven to the international [space station](#). The shuttle needs to deliver one last set of [solar wings](#) and some critical parts for the space station's water-recycling system.

If Discovery isn't flying by then, it will have to get in line behind a [Russian Soyuz rocket](#) that's set to blast off March 26 with a fresh space station crew. That would bump the shuttle launch into April.

Because of the four-day leak delay, NASA had to shorten Discovery's flight by a day and cut out a spacewalk. Even more reductions will be needed if the launch slips to Monday or Tuesday, increasing the pressure for a Sunday departure.

Assuming Discovery blasts off Sunday, the mission will last 13 days and feature three spacewalks, the first of which will be to install the new solar wings.

Commander Lee Archambault and his crew also will deliver a spare urine-into-drinking water converter to replace one that's broken up at the space station, and a flusher and iodine solution to get rid of bacteria that's lurking in the water dispenser.

NASA wants to double the size of the space station crew to six people at the end of May. Waiting until next month to fly Discovery could jeopardize that plan.

Discovery originally was supposed to lift off Feb. 12, but NASA ordered extra tests for the valves that control the flow of hydrogen gas into the fuel tank. The three valves in the shuttle's engine compartment kept being replaced to ensure they were the best available and safe to fly.

One of these valves - which maintain tank pressure during liftoff - broke during the last shuttle launch in November. No harm was done, but NASA did not want to take any chances.

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On the Net:

NASA: <http://spaceflight.nasa.gov>

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