

## Shuttle launch off until end of month to fix leak

November 5 2010, By MARCIA DUNN, AP Aerospace Writer



Space shuttle Discovery is seen on launch pad 39A after todays launch was scrubbed because of hydrogen gas leak at the Kennedy Space Center in Cape Canaveral, Fla., Friday, Nov. 5, 2010. NASA says the next launch attempt will be no earlier than Monday. It's possible, though, the flight may be off until December. (AP Photo/Terry Renna)

(AP) -- Space shuttle Discovery's final voyage was postponed Friday until the end of the month so NASA can fix a fuel leak.

It's the fourth delay in a week for Discovery's mission to the International Space Station with six veteran astronauts and the first



humanoid robot bound for orbit.

NASA tried to launch Discovery on Friday, but a potentially dangerous hydrogen gas leak cropped up midway through the fueling process and the countdown was halted.

The launch was initially put off until at least Monday. But by early afternoon, it was clear that more time was needed to fix the problem on the fuel tank.

NASA is now targeting Nov. 30 for Discovery's final liftoff. The space agency has to wait until then because of unacceptable solar angles for most of November. Those sun angles would cause the shuttle to overheat while docked to the station.

When it does launch, it will be the 39th and final flight of Discovery, NASA's oldest and most traveled shuttle. The shuttle first flew in 1984. NASA will close out its shuttle program next year

The fuel leak occurred where a vent line attaches to the external <u>fuel</u> <u>tank</u>. It's the same type of problem that forced delays for two shuttle missions last year, and had not reoccurred since then.

Last year, a minimum of four days was needed to replace the leaky parts. The leak was considered serious because hydrogen gas is flammable. Friday's leak was the biggest one yet.

Friday was the closest NASA had come to launching Discovery on this mission, and news of the leak came as a huge disappointment. All morning, until the leak, the words "Go Discovery" echoed from the firing room, as well as up at the space station, where six astronauts eagerly awaited the shuttle's arrival.



A launch attempt Thursday was thwarted by <u>stormy weather</u>. Three previous delays were caused by helium and nitrogen gas leaks and a sluggish circuit breaker. Monday was the original launch date.

After Discovery, Endeavour is set to lift off at the end of February. Atlantis may make one extra flight next summer, but Washington has yet to provide the money for it.

The White House has instructed NASA to shift its focus from launching astronauts into orbit, to sending them to asteroids and Mars. Given the budget limitations, the space agency can achieve that only by giving up the costly shuttle program.

## **More information:** NASA:

http://www.nasa.gov/mission-pages/shuttle/main/index.html

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