

11 December 2012 Last updated at 16:29 ET

X-37B US military space plane launches for third flight

A notoriously mysterious military space plane operated by the US Air Force has launched from Florida, the third flight in a secretive test programme.

The reusable, unmanned craft is designed to operate in Earth orbit for extended periods. Its prior missions in 2010 and 2011 lasted 224 and 469 days.

The US government kept the timing of Tuesday's launch secret and has not said how long the mission will last.

That has prompted fevered speculation as to the craft's ultimate purpose.

Tuesday's launch had been pushed back from October, delayed by two satellite launches. Patrick Air Force Base in Florida gave notice of a hazard from a launch in a window between 15:45 and 22:15 GMT (10:45 to 17:15 local time).

The X-37B craft, designed by aerospace giant Boeing, shares more than just a passing similarity to the now-retired space shuttle.

It is just a quarter the size of the shuttle, but is launched on a rocket - the Atlas V. It is coated in thermal tiles to withstand the heat of re-entry, after which it lands on its own gear autonomously.

The stated mission of the craft, [according to the US Air Force](#), is an "experimental test program to demonstrate technologies for a reliable, reusable, unmanned space test platform".

But the latest mission in particular sparked speculation that the craft was [spying on the Chinese space lab Tiangong-1](#) - an idea that has since been largely discredited.

When it returned from its second mission in June, programme manager Lt Col Tom McIntyre said: "We knew from post-flight assessments from the first mission that OTV-1 could have stayed in orbit longer. So one of the goals of this mission was to see how much farther we could push the on-orbit duration."

But any official mission objectives seems set once again to remain secret.

[More Science & Environment stories](#)



[Ash dieback 'originated in Asia' \[news/science-environment-20680252\]](#)

Increasing evidence points to the idea that the fungus that is causing ash dieback originated in Japan or Korea, where it co-exists with native ash trees.

[Work starts at Sub-Antarctic lake \[/news/science-environment-20682647\]](#)

[Honey bees' genetic code unlocked \[/news/science-environment-20667948\]](#)



BBC © 2012 The BBC is not responsible for the content of external sites. [Read more.](#)