

Navy tests drone landings on aircraft carrier along with manned plane

August 19 2014, by Bob Yirka



Credit: U.S. Navy photo taken by Mass Communications Specialist Seaman Apprentice Alex Millar/Released

The Navy has successfully tested the ability of a drone (the X-47B) to execute takeoff and landings on an aircraft carrier (USS Theodore Roosevelt) along with a manned aircraft (an F/A-18 Hornet fighter plane). The test marks the first time that a drone has flown a mission in

conjunction with manned aircraft as part of normal carrier operations.

Most people are aware of the incredible complexity involved in having multiple planes take off and land on an [aircraft carrier](#)—not only is space limited, but the deck is constantly moving due to the ocean below. There is also the issue of arrested landings, where cables and hooks are used to catch hold of the plane (or [drone](#)) to cause it to slow faster than it can do on its own, allowing for a short landing strip on the deck. Making it all work smoothly requires that every participant follow an exact protocol—any deviation can result in accidents. For that reason, introducing something new requires careful planning and testing before execution is attempted. That's certainly the case for the X-47B, a pilotless craft that has been designed to take-off and land on an aircraft carrier. To date, engineers and Navy crew have demonstrated that the drone is capable of taking off, executing missions, returning to a ship and executing arrested landings safely. Its pilots have also undergone rigorous training. Once the drone is in flight, it's mostly autonomous, leaving the pilot to monitor its activities. Once it lands on the deck of an aircraft carrier, however, full control is turned over to a pilot standing on the deck holding a hand-held device. The pilot is responsible for any movement of the drone on the deck, for folding the wings of the drone, and for conveying the vehicle to its non operational state (parking).

In this latest test, the F/A-18 went first, lining up and taking off from the carrier, the drone (nicknamed the Dorito due to its shape) followed moments later. After several minutes of flight, the drone returned to the ship and landed—after the drone was moved out of the way, the manned plane landed.

The test drone will remain aboard the Roosevelt (for the duration of the ship's current deployment) repeating the same mission several times before being tested in other scenarios, such as night landings. The Navy expects testing to continue for at least a year before the drone can be

certified for use in actual combat missions.

More information: [navylive.dodlive.mil/2014/08/1 ... unmanned-operations/](http://navylive.dodlive.mil/2014/08/1...unmanned-operations/)

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