US Navy launches unmanned aircraft from carrier

May 14 2013, by Brock Vergakis

A Navy X-47B drone does a fly by the nuclear powered aircraft carrier USS George H. W. Bush after it was launched from the carrier off the coast of Virginia, Tuesday, May 14, 2013. (AP Photo/Steve Helber)

The U.S. Navy for the first time Tuesday launched an unmanned aircraft the size of a fighter jet from a warship in the Atlantic Ocean, as it wades deeper into America's drone program amid growing concerns over the legality of its escalating surveillance and lethal strikes.

Called the X-47B, the drone is considered particularly valuable because it's the first that is designed specifically to take off and land on an aircraft carrier, allowing it to be used around the world without needing the permission of other countries to serve as a home base.

There has been increasing pushback against the use of drones from some nations that say the strikes cause widespread civilian deaths and operate with only limited oversight, eroding the U.S. image overseas. Navy officials say the drone will provide around-the-clock intelligence, surveillance and targeting capabilities.

The X-47B took off successfully Tuesday morning and made two low approaches to the ship before heading back toward land. The test aircraft isn't intended for operational use; instead, the military is using the information it gathers during these demonstrations to develop the drone program. The Navy already operates two other unmanned aircraft, the small, low cost ScanEagle, which does not carry weapons, and the armed Fire Scout which is built more like a helicopter.

Both the military and the CIA use armed Predator and Reaper drones in surveillance and strike operations around the world. The military uses them routinely in Afghanistan and other warzones, while the CIA has conducted frequent strikes in the border region of Pakistan—most often secret operations that trigger sharp criticism from the government there.

The X-47B can reach an altitude of more than 40,000 feet (12,000 meters), has a range of more than 2,100 nautical miles (3,400 square kilometers) and can reach high subsonic speeds, according to the Navy. It is also fully autonomous in flight. It relies on computer programs to tell it where it to go unless a mission operator needs to step in. That differs from other drones used by the military, which are more often piloted from remote locations.

A Navy X-47B drone is launched off the nuclear powered aircraft carrier USS George H. W. Bush off the coast of Virginia, Tuesday, May 14, 2013. The plane isn't intended for operational use, but it will be used to help develop other unmanned, carrier-based aircraft. (AP Photo/Steve Helber)

Some critics have said the military's use of drones, furthered by Tuesday's tests, create concerns over the development of systems that could become weaponized and have less and less human control over launching attacks.

Human Rights Watch has called for a pre-emptive prohibition of the development and use of any unmanned systems that carry weapons and are fully autonomous.

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While current models, like the X-47B, retain some level of supervision over decisions whether to use lethal force, the group predicts that fully autonomous weapons could be developed within decades that select and engage targets with no human intervention.

Tuesday's tests show the trend toward greater autonomy "is not one that is going to be stopped," said Steve Goose, director of the arms division at Human Rights Watch.

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"For us, the question is where do you draw line?" Goose said. "We're saying you need to draw the line when you have a fully autonomous system that is weaponized. We're saying you must have meaningful human control over key battlefield decisions of who lives and who dies. That should not be left up to the weapons system itself."

The Department of Defense issued a directive last year that said it would not pursue fully autonomous weapons, at least for the next few years. The U.S. is the only country with such a directive, Goose said.

Northrop Grumman test pilots, Dave Lorenz, of Md., center, Md., and Bruce McFadden, left, of Md., prepare to taxi the Navy X-47B drone to be launched off the nuclear powered aircraft carrier USS George H. W. Bush off the coast of Virginia, Tuesday, May 14, 2013. (AP Photo/Steve Helber)

Before the planes can become commonplace, however, the military has to prove they can operate in the harsh conditions aboard an aircraft carrier at sea. The aircraft used a steam catapult to launch, just like a traditional Navy warplane does.

"These are exciting times for the Navy as we are truly doing something that has never been done before—something I never imagined could be done during my 29-year naval career," Rear Adm. Mat Winter, the Navy's program executive officer for unmanned aviation and strike weapons, wrote in a Monday blog post.

In this image provided by the U.S. Navy an X-47B Unmanned Combat Air System demonstrator is towed Monday, May 13, 2013 into the hangar bay of the aircraft carrier USS George H.W. Bush. The carrier is scheduled to be the first aircraft carrier to catapult-launch an unmanned aircraft from its flight deck Tuesday May 14, 2013. (U.S. Navy photo by Mass Communication (AP Photo/US Navy, Specialist 2nd Class Timothy Walter)

In this image provided by the U.S. Navy an X-47B Unmanned Combat Air System demonstrator is loaded onto the flight deck of the aircraft carrier USS George H.W. Bush on Monday May 6, 2013 in Norfolk, Va. The George H.W. Bush is scheduled to be the first aircraft carrier to catapult launch an unmanned aircraft from its flight deck on Tuesday May 14, 2013. (AP Photo/US Navy, Seaman Joshua P. Card)

While the tailless plane won't land on the aircraft carrier on Tuesday, the Navy plans to conduct those tests soon. Landing on a moving aircraft carrier is considered one of the most difficult challenges Navy pilots face. Following the test launch, the plane will make a series of approaches toward the aircraft carrier before landing at Naval Air Station Patuxent River in Maryland.

Earlier this month, the Navy successfully conducted a landing at that air station where the X-47B used a tailhook on the aircraft to catch a cable and suddenly stop, just as planes landing on carriers have to do.

In this image provided by the U.S. Navy, Dave Lorenz, a Northrop Grumman deck operator, drives an X-47B Unmanned Combat Air System demonstrator using an arm-mounted controller on the flight deck of the aircraft carrier USS George H.W. Bush Friday May 10, 2013. The George H.W. Bush is scheduled to be the first aircraft carrier to catapult launch an unmanned aircraft from its flight deck Tuesday May 14, 2013. (AP Photo/US Navy, Specialist 2nd Class Timothy Walter)

In the 2014 fiscal year, the Navy plans to demonstrate that the X-47B can be refueled in flight. The program cost is $1.4 billion over eight years. Northrop Grumman was awarded the primary contract in 2007.