

# US military embraces robot 'revolution'

13 August 2009, by Dan De Luce



A prototype of the X-47B Navy Unmanned Combat Air System (UCAS) sits on display at Naval Air Station Pax River Webster Field Annex in St. Inigoes, Maryland, on August 10. The X-47B, made by Northrop Grumman Corporation, is to demonstrate the first-ever carrier-based autonomous launches and recoveries.

Robots in the sky and on the ground are transforming warfare, and the US military is rushing to recruit the new warriors that never sleep and never bleed.

The latest robotics were on display at an industry show this week at a naval airfield in Maryland, with a pilotless helicopter buzzing overhead and a "Wall-E" look-alike robot on the ground craning its neck to peer into a window.

The chopper, the MQ-8B Fire Scout, is no tentative experiment and later this year will be operating from a naval frigate, the USS McInerney, to help track drug traffickers in the eastern Pacific Ocean, Navy officers said.

The rugged little robot searching an enemy building is called a Pakbot, which can climb over rocks with tank treads, pick up an explosive with its mechanical arm and dismantle it while a soldier directs the machine from a safe distance.

There are already 2,500 of them on the ground in Iraq and Afghanistan, and a lighter version

weighing six kilograms (14 pounds) has arrived that can be carried in a backpack, according to iRobot, the same company that sells a [robot](#) vacuum to civilians, the Roomba.

Monday's demonstration of robotic wonders was organized by defense contractors and the US Navy, which says it wants to lead the American military into a new age where tedious or high-risk jobs are handed over to robots.

"I think we're at the beginning of an unmanned revolution," Gary Kessler, who oversees unmanned aviation programs for the US Navy and Marines, told AFP.

"We're spending billions of dollars on unmanned systems."

Kessler and other [Pentagon](#) officials compare the robots to the introduction of the aircraft or the tank, a new technology that dramatically changes strategy and tactics.

Robots or "unmanned systems" are now deployed by the thousands in Iraq and Afghanistan, spying from the sky for hours on end, searching for booby-traps and firing lethal missiles without putting US soldiers at risk.

The use of robotics in the military has exploded in the past several years as technology has advanced while Washington faced a new kind of enemy that required patient, precise surveillance.

In 2003, the US military had almost no robots in its arsenal but now has 7,000 unmanned aircraft and at least 10,000 ground vehicles.

The US Air Force, which initially resisted the idea of pilotless planes, said it trains more operators for unmanned aircraft than pilots for its fighter jets and bombers.

Peter Singer, author of "Wired for War," writes that future wars may see tens of thousands of

unmanned vehicles in action, possibly facing off against fleets of enemy robots.

Unlike expensive weapons from the Cold War-era, robotic vehicles are not off-limits to countries with modest defense budgets and dozens of governments are investing in unmanned programs.

At the trade show, military officers from the United States, Chile, Australia, Saudi Arabia and India listened to defense contractors promote their robotic vehicles, including a tiny helicopter about two-feet long and L3's Mobius -- a nimble medium-sized drone that reaches speeds of up to 215 knots.

The technology may sometimes resemble something out of "Star Wars" or a toy shop, but the robots determine matters of life and death on the battlefield.

In the fight against Al-Qaeda, drones are Washington's favored weapon.

Predator and Reaper aircraft, armed with precision-guided bombs and Hellfire missiles, regularly carry out strikes in Pakistan's northwest tribal area, causing an unknown number of civilian casualties.

Last week, a drone strike is believed to have killed the Pakistani Taliban leader Baitullah Mehsud.

The unmanned aircraft in the US military's inventory range from small Ravens, that can be tossed into the air to see over the next hill, to the giant Global Hawk, a 44-foot-long spy plane that can fly at high altitude for up to 35 hours.

The drones and ground vehicles are often operated using joysticks or consoles familiar to a younger generation raised on video games.

"Soldiers these days have a lot of experience playing video games when they're growing up, and they're really familiar with these controls. So this really reduces the training time on these types of unmanned vehicles," said Charlie Vaida of iRobot, which makes a game console for the Pakbot.

Amid plans for unmanned bomber jets for aircraft carriers, the onslaught of drones could eventually render fighter jets a relic of history.

Military officers insist the robots are a complement and not a substitute for traditional aircraft, and pose no threat to the careers of their fellow pilots.

"I think they understand we're not going to replace them," said Captain Tim Dunnigan, a navy chopper pilot. "This is going to augment them."

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