US military preparing new generation of drones for urban combat

Bryan Dyne
5 January 2015

The Pentagon's Defense Advanced Research Projects Agency (DARPA) has established a research and development program, known as the Fast Lightweight Autonomy Program (FLAP) which aims to develop new types of unmanned aerial vehicles—more commonly known as drones—for urban combat operations, according to the *Washington Times*.

DARPA is preparing to dispense several initial $5 million contracts to companies bidding to produce the new drone models sought by the US military, which will have the ability to fly inside structures, maneuver through tight spaces, and operate autonomously from human controllers, all at speeds of up to 70 kilometers per hour. The drones are specifically designed to mimic the flight capabilities of the goshawk, a bird species. Private sector firms will begin submitting bids as early as Tuesday.

In addition to the goshawk type, the US military is already acquiring drones the size of mosquitos as part of an Army Research Laboratory program called Micro Autonomous Systems and Technology (MAST), run as a collaboration between the Defense Department, BAE Systems, NASA's Jet Propulsion Laboratory and several major US universities. The Black Hornet Personal Reconnaissance System, a miniature rotary wing drone that takes high definition photographs and transmits footage instantaneously to its handler, has already been used by occupation forces in Afghanistan to surveil enemy positions.

"Birds of prey and flying insects exhibit the kinds of capabilities we want for small UAVs [Unmanned Aerial Vehicles]… The goal of the FLA program is to explore non-traditional perception and autonomy methods that would give small UAVs the capacity to perform in a similar way [to bird and insect species], including an ability to easily navigate tight spaces at high speed and quickly recognize if it had already been in a room before," said FLAP top official Mark Micire.

A main priority of FLAP is to produce drones that operate without human controllers. Current drone models operated by the US military and police forces require a human operator for takeoff, flight, landing and the targeting of missiles. The new autonomous control systems sought by the Pentagon will enable a few skilled computer programmers to direct a fleet of highly agile drones.

The military's new self-directing weapons systems will be integrated into ongoing operations by conventional US forces, according to Pentagon officials. "Urban and disaster relief operations would be obvious key beneficiaries, but applications for this technology could extend to a wide variety of missions using small and large unmanned systems linked together with manned platforms as a system of systems," DARPA director Stefanie Tompkins said.

"By enabling unmanned systems to learn 'muscle memory' and perception for basic tasks like avoiding obstacles, it would relieve overload and stress on human operators so they can focus on supervising the systems and executing the larger mission," Tompkins said.

The military is promoting the latest generation of drones as specially designed for "humanitarian" use, such as search and rescue missions to find people trapped or stranded as a result of floods, hurricanes, avalanches and earthquakes.

Nonetheless, the new high-tech drone systems will primarily be used for combat missions in urban settings, according to media reports. Given that the US military is currently engaged, deployed for or preparing for combat in more than fifty countries, the Pentagon is planning to weaponize the drones in every conceivable

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fashion. In December, the Obama administration launched a new escalation of its US drone war, which has already killed hundreds of innocents, including countless children.

In combination with the militarization of the police, the development of autonomous, computer-controlled weapons systems raises terrifying possibilities. Police forces inside the US already use drones for surveillance purposes. The new mini-drones now point to a nightmarish future in which “no knock” SWAT team raids are accompanied by lightning-fast killer robot aircraft, controlled by artificial intelligence.

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