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OF SUCCESS



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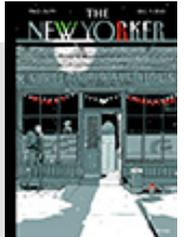
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HERE'S LOOKING AT YOU

Should we worry about the rise of the drone?

BY NICK
PAUMGARTEN

MAY 14,
2012



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THE WORLD OF SURVEILLANCE about
drones. The prospect of unmanned flight

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has been around—depending on your definition—since Archytas of Tarentum reputedly designed a steam-powered mechanical pigeon, in the fourth century B.C., or since Nikola Tesla, in 1898, demonstrated a radio-controlled motorboat at an exposition in Madison Square Garden. By the sixties the Air Force was deploying unmanned reconnaissance jets over Southeast Asia. Still, it was the advent, in the mid-nineties, of the Global Positioning System, along with advances in microcomputing, that ushered in the possibility of automated unmanned flight. The Department of Defense, meanwhile, developed a keen interest. With the wars in Iraq and Afghanistan, and manhunts in places like Yemen, the military applications, and the corporations devoted to serving them (Lockheed Martin, Northrop Grumman), came to dominate the skyscape. Many of these manufacturers had one client: the Department of Defense. In 2001, the military had just a few Unmanned Aerial Vehicles (U.A.V.s). Now it has more than ten thousand. Later this month, the F.A.A. will present a regulatory regimen enabling law-enforcement departments to fly small drones, and the military contractors will suddenly have some eighteen thousand potential new customers. As of now, only a tiny percentage of municipal and state police departments have any air presence, because most can't afford helicopters or planes. Small camera-loaded U.A.V.s are much cheaper. The



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ASK THE AUTHOR: JOIN A LIVE CHAT WITH NICK PAUMGARTEN ABOUT DRONES, ON THURSDAY, MAY 10TH, AT 3 P.M. E.T.

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public proposition, at this point, anyway, is not that drones will subjugate or assassinate unwitting citizens but that they will conduct search-and-rescue operations, fight fires, catch bad guys, inspect pipelines, spray crops, count nesting cranes and migrating caribou, and measure weather data and algae growth. For these and other tasks, they are useful and well suited. Of course, they are especially well suited, and heretofore have been most frequently deployed, for surveillance. “The nature of technology is that it is introduced for one role and then it slippery-slopes into unintended roles,” Peter W. Singer, a fellow at the Brookings Institution said. Singer believes that the drones will be as transformative as the advent of gunpowder, the steam engine, the automobile, or the computer. “Their intelligence and autonomy is growing,” he said. “It used to be that an aerial surveillance plane had to fly close. Now sensors on a U.A.V. can detect a milk carton from sixty thousand feet. The law’s not ready for all this.” Writer visits the headquarters of drone manufacturer AeroVironment and sees test flights of some of the company’s products. Discusses concerns about drones and privacy. Tells about the Nano Hummingbird created by AeroVironment’s Nano Lab. Describes other micro aerial vehicles being created at Harvard.



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