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## Books



## Monday, September 26. 2011

Posted by [nimda](#) in [In the Public Interest](#)

### As The Drone Flies...

The fast developing predator drone technology, officially called unmanned aerial vehicles or UAVs, is becoming so dominant and so beyond any restraining framework of law or ethics, that its use by the U.S. government around the world may invite a horrific blowback.

First some background. The Pentagon has about 7,000 aerial drones. Ten years ago there were less than 50. According to the website [longwarjournal.com](#), they have destroyed about 1900 insurgents in Pakistan's tribal regions. How these fighters are so clearly distinguished from civilians in those mountain areas is not clear.

Nor is it clear how or from whom the government gets such "precise" information about the guerilla leaders' whereabouts night and day. The drones are beyond any counterattack-flying often at 50,000 feet. But the Air Force has recognized that a third of the Predators have crashed by themselves.

Compared to mass transit, housing, energy technology, infection control, food and drug safety, the innovation in the world of drones is incredible.

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Coming soon are hummingbird sized drones, submersible drones and software driven autonomous UAVs. The Washington Post described these inventions as "aircraft [that] would hunt, identify and fire at [the] enemy-all on its own." It is called "lethal autonomy" in the trade.

Military ethicists and legal experts inside and outside the government are debating how far UAVs can go and still stay within what one imaginative booster, Ronald C. Arkin, called international humanitarian law and the rules of engagement. Concerns over restraint can already be considered academic. Drones are going anywhere their governors want them to go already--Iraq, Yemen, Somalia, Libya, and countries in North Africa to name a few known jurisdictions.

Last year a worried group of robotic specialists, philosophers and human rights activists formed the International Committee for Robot Arms Control (ICRAC) (<http://www.icrac.co.uk/>). They fear that such instruments may make wars more likely by the strong against the weak because there will be fewer human casualties by those waging robotic war. But proliferation is now a fact. Forty countries are reported to be working on drone technology or acquiring it. Some experts at the founding conference of ICRAC forshadowed hostile states or terrorist organizations hacking into robotic systems to redirect them.

ICRAC wants an international treaty against machines of lethal autonomy along the lines of the ones banning land mines and cluster bombs. The



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trouble is that the United States, unlike over one hundred signatory nations, does not belong to either the land mines treaty or the more recent anti-cluster bomb treaty. Historically, the U.S. has been a major manufacturer and deployer of both. Don't count on the Obama White House to take the lead anytime soon.

Columnist David Ignatius wrote that "A world where drones are constantly buzzing overhead--waiting to zap those deemed threats under a cloaked and controversial process--isks being, even more, a world of lawlessness and chaos."

Consider how terrifying it must be to the populations, especially the children, living under the threat of drones that can attack through clouds and dark skies. UAVs are hardly visible but sometimes audible through their frightful whining sound. Polls show Pakistanis overwhelmingly believe most of the drone-driven fatalities are civilians.

US Air Force Colonel Matt Martin has written a book titled Predator. He was a remote operator sitting in the control room in Nellis Air Force Base in Nevada watching "suspects" transversing a mountain ridge in Afghanistan eight thousand miles away. In a review of Martin's book, Christian Cary writes "The eerie acuity of vision afforded by the Predator's multiple high-powered video cameras enables him to watch as the objects of his interest light up cigarettes, go to the bathroom, or engage in amorous adventures with animals on the other side of the world, never suspecting that they are under observation as

they do."

For most of a decade the asymmetrical warfare between the most modern, military force in world history and Iraqi and Afghani fighters has left the latter with little conventional aerial or land-based weaponry other than rifles, rocket propelled grenades, roadside IEDs and suicide belted youths.

People who see invaders occupying their land with military domination that is beyond reach will resort to ever more desperate counterattacks, however primitive in nature. When the time comes that robotic weapons of physics cannot be counteracted at all with these simple handmade weapons because the occupier's arsenals are remote, deadly and without the need for soldiers, what will be the blowback?

Already, people like retired Admiral Dennis Blair, former director of National Intelligence under President Obama is saying, according to POLITICO, that the Administration should curtail U.S.-led drone strikes on suspected terrorists in Pakistan, Yemen and Somalia because the missiles fired from unmanned aircraft are fueling anti-American sentiment and undercutting reform efforts in those countries.

While scores of physicists and engineers are working on refining further advances in UAVs, thousands of others are staying silent. In prior years, their counterparts spoke out against the nuclear arms race or exposed the unworkability of long-range missile defense. They need to re

-engage. Because the next blowback may soon move into chemical and biological resistance against invaders. Suicide belts may contain pathogens--bacterial and viral--and chemical agents deposited in food and water supplies.

Professions are supposed to operate within an ethical code and exercise independent judgment. Doctors have a duty to prevent harm. Biologists and chemists should urge their colleagues in physics to take a greater role as to where their knowhow is leading this tormented world of ours before the blowback spills over into even more lethally indefensible chemical and biological attacks.

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