

## The age of drones has arrived quicker than the laws that govern them

September 10 2015, by Gbenga Oduntan



No drone-fly zone. Credit: Niall Carson/PA

Just because you may not have seen a drone overhead doesn't mean it hasn't seen you. And, as was demonstrated by the <u>killing of two British</u> <u>jihadis</u> in Syria recently, these unmanned aerial vehicles are increasingly



deployed by the West as frontline weapons of war.

Drones are set to become a defining feature of this century. Thousands are already in operation in most developed countries worldwide – and that is likely to grow to hundreds of thousands as drones of different shapes and sizes are deployed by the media, emergency services, scientists, farmers, sports enthusiasts, hobbyists, photographers, the armed forces and government agencies.

Eventually commercial uses will dwarf all others. Amazon promises to deliver purchases within 30 minutes via delivery drones. Domino's Pizza has staged hot pizza drone delivery. More than 20 industries are approved to fly commercial drones in the US alone, and developing countries are following suit.

The question is, is this boom in drones moving faster than the law? How to fit such a proliferation of drones into the current regulations? The answers will need to be written into national and international laws quickly in order to govern an increasingly busy airspace. Many existing laws may need to be tweaked, including those governing cyber-security, stalking, privacy and human rights legislation, insurance, contract and commercial law, even the laws of war.

There have after all been numerous suspect or dangerous uses of drones already. For example, <u>illegal flights over seven nuclear plants across</u>

<u>France</u>, disruption to <u>US forest fire-fighting</u>, and seven <u>near-misses at airports in the UK</u>. In the US several landowners have <u>shot them down</u>, leading to court cases that pit claims of trespass and the right to privacy against criminal damage.

## Piecemeal legal changes not enough

French legislators responded swiftly with a police order to the first



balloon flights by the Montgolfier Brothers in 1784 by <u>prohibiting all</u> <u>flights over Paris</u> without prior authorisation. In the same way sovereign states ought to define precisely how and when they will permit drone flights over their territory. So far legal development to govern drone use has been very piecemeal; most countries have done nothing yet.

Again, it was France that was first to introduce dedicated legislation governing drones through a decree in 2012 bringing drones within its <u>civil aviation</u> regulations. Drones are allowed to fly between 50-150 metres from the ground and there are penalties up to five years in prison and fines of 75,000 euros for <u>unlawful use of a drone</u>.

Also in 2012, the US congress passed the Federal Aviation Authority (FAA) Modernisation and Reform Act which required the integration of civil drones into national airspace by the end of September 2015.

The Italian Civil Aviation Authority issued <u>commercial drone</u> <u>regulations</u> in April 2014. The law vaguely requires the operators to comply with data-protection laws and hold insurance. In the meantime, controversial Italian surveillance firm Hacking Team is already developing drones capable of <u>delivering spyware to computers and smartphones</u>, infecting them via Wi-Fi.

However, the UK has struggled with fitting drones into its legal framework as neither the Civil Aviation Act nor the Air Navigation Order provide a good fit. The Department for Transport recently announced plans to introduce fines of up to £2,500 for flying drones in built-up areas. Some clarity is provided by the CAA's Unmanned Aircraft System Operations in UK Airspace Guidance, which requires drone pilots to maintain direct line of sight with drones and limits their altitude to a maximum 120 metres. Small drones must avoid and give way to manned aircraft at all times.



## Flying in the face of the law

The International Civil Aviation Organisation (ICAO) plans to introduce policies to regulate civilian drone flight by 2028 worldwide. The EU and US have signed a formal agreement to cooperate on integrating drones into civil air traffic management. But consensus is notoriously difficult in international regulation – it could take decades to achieve a global agreement.

The last international civil air treaty of note is the <u>1944 Chicago</u> <u>convention</u>. This impressive treaty created the standards for the <u>common use of airspace between nations</u>. For example, that every nation has sovereignty over its airspace and that no aircraft operated by the state (such as military or police) will fly over other states without authorisation. It also required nations air regulations to be obeyed and required aircraft to be registered and display their registration marks.

For drones, however, it's not clear what types and sizes of drones are required to be registered and display their nationality. There are drones the size of small birds or even coins that can fly across national borders in near-invisibility, upsetting these egalitarian rules. It's vital these issues are comprehensively dealt with quickly in a new treaty, in the same spirit of egalitarianism as at Chicago in 1944.

## **Dronefare versus Lawfare**

For many, drones are typified by their use for military operations in Afghanistan and Iraq. The US is reported to have up to 7,000 drones in Afghanistan, with the main source of funding for developing modern drone technology coming from the military.

Successive US governments' policies of conducting drone assassinations



will perhaps go down as one of the most egregious use of air power in human history, with thousands of lives lost in an <u>amorphous conflict</u> against vaguely-defined al-Qaeda and ISIS "affiliates". The only legitimisation in most cases appears to be White House's early morning bureaucratic meetings.

The American Civil Liberties Union has correctly addressed this, stating: "The <u>targeted killing program</u> itself is not just unlawful but dangerous ... it is dangerous to characterise the entire planet as a battlefield." A recent RAF strike was the first targeted <u>UK drone attack</u> on a British citizen. However, UK armed Reaper drones have accounted for <u>up to a third of the 100 airstrikes</u>) in Iraq alone as at January 2015.

Lethal <u>drone</u> technology is going to be available to nearly all countries in a very short time. The possibility that even a few dozen states might follow the path beaten by the US is really a scary proposition – as what goes around may fly around.

This story is published courtesy of The Conversation (under Creative Commons-Attribution/No derivatives).

Source: The Conversation

Citation: The age of drones has arrived quicker than the laws that govern them (2015, September 10) retrieved 24 April 2024 from <a href="https://phys.org/news/2015-09-age-drones-quicker-laws.html">https://phys.org/news/2015-09-age-drones-quicker-laws.html</a>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.