

Ethical and Legal Aspects Pertaining to law Enforcement use of Drones

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Abstract: Law enforcement is an information-based activity. The use of drones (also referred to as unmanned aerial vehicles or UAVs) for policing may be beneficial as an aerial surveillance tool in gathering information pertaining to crime prevention, detection and /or investigation which are conducted in the interest of national security. In most instances, the law enforcement use of drones for purposes of search and rescue, crime scene investigation and hostage situations are not controversial. However, police use of drones for crowd monitoring and protests may be contentious as it may violate various human rights such as the right to privacy which includes data protection, free speech, right to protest and freedom of movement. These rights must be balanced against public safety. The discussion focuses on identifying ethical and legal concerns relating to the use of drones by the police and how these concerns should be addressed. It highlights that the danger is not the drone technology itself, but how it is used and the manner in which the police deal with, process and act upon information gathered, in order to prevent or control crime. The use of drone technology for surveillance impacts on human rights. There is a risk that surveillance may manifest itself in governmental domination and power if no safeguards are in place to curtail pervasive surveillance. It should be established whether domestic drone policing is in general so intrusive that the drawbacks outweigh the benefits of using it for public safety purposes. The manner in which these issues are addressed may serve as a guideline to countries who are considering the use of drones for law enforcement.

Keywords: police drones; law enforcement use of drones; legal and ethical aspects pertaining to domestic aerial policing; aerial drone police surveillance; constitutional impact of the use of police drones.

1. Introduction

Drones — also called Unmanned Aerial Vehicles (UAVs) - are simply described as aircraft that do not carry a human pilot and are remotely controlled (NCSI, 2021). It could be compared to a mobile CCTV camera.

Drones have been around for more than two decades. The use of drone technology started in the military. It's origin dates back to World War 1 when both the United States (US) and France worked on developing automatic, unmanned airplanes (Insider Intelligence, 2021). Since the mid-1990s, countries such as the US have been operating drones and utilizing armed and unarmed drones in combat situations (Dorsey and Amaral, 2021).

Although drone technology may have started in the military, the last few years have been significant in terms of drone adoption, usage expansion across industries and global awareness. Governmental and non-governmental actors are now moving towards the utilisation of drones. This discussion focuses specifically on domestic law enforcement (governmental actor) usage of drones. It is not directed at the use of drones for border control or for commercial purposes.

At the outset of this discussion it is important to take note that drones pose a security and safety threat. A drone is essentially a flying computer and its security systems are capable of being "hacked" or breached. Drones may also be used for malicious purposes such as to commit a crime. It could be used for physical attacks such as face-recognising drones or drones smuggling contraband (UNICRI, 2019). In 2021 it was reported that a prisoner in Italy used a drone to smuggle a gun into prison which he used to shoot fellow inmates (AFP, 2021). There is a possibility that a drone could be used for a terrorist attack (Police Executive Research Forum, 2020).

It is suggested that the advantages of drone usage for policing outweigh the security and safety threats. Drones are ideally suited for numerous aerial law enforcement tasks such as search and rescue, crime scene investigation, hostage situations or crowd monitoring to detect any suspicious-looking members during an event. Drone technology provides a better field of view and it may enter areas that would be perilous to people (Police Executive Research Forum, 2020). It may be equipped with facial recognition technology or with license plate readers. Law enforcement agencies argue that aerial surveillance, via a drone or other means, is less intrusive and less likely to result in deadly altercations with a distrustful public than controlling on foot. Deploying a police drone protects a police officer from physical danger (Enemark, 2021). It is also much less expensive and complex to operate than a manned helicopter (Greenwood, 2020).

The downside to police use of drones is public distrust. Some members of the public may equate it to military drones and perceive it as the militarisation of the police, whereas others may perceive the use of police drones as a serious violation of the right to privacy and data protection.

Drone technology may be seen as a tool - and one of many - for improving policing. Visible policing by means of drones may address the public's demand for safety and security. Drones undeniably have the potential to be an asset to law enforcement to ensure public safety, but there are ethical and legal aspects that must be considered.

The looming prospect of expanded use of drones (not only by law enforcement but also by non-governmental actors), has raised understandable concerns for lawmakers in countries in which it is used. Countries that are not yet making use of drones may learn from the challenges countries experience where law enforcement are using drones.

2. Identifying ethical and legal aspects pertaining to law enforcement use of drones

The 2020 George Floyd protests against police brutality in the US did not only constitute the biggest wave of protests in the US since the 1960s, but they were also the most monitored protests in American history. The law enforcement surveillance of the Black Life Matters (BLM) protest brought about many legal and ethical issues taking into consideration that citizens have a right to peaceful protests and free speech. The question asked pertaining to the protests is how the police justifies the use of the many surveillance tools - from social media analytics to body cameras and drones - to monitor the protests and protesters (Greenwood, 2020). It could be argued that surveillance was used for national security purposes to ensure public order and/or prevent and/or detect crime. National security may be described as the capacity of a state to provide for the protection and defence of its citizenry. On the other hand, how is a balance achieved between the protection of human rights, such as free speech, privacy which includes data protection and national security against excessive governmental power and domination?

The discussion specifically focuses on the use of drones for policing. It focuses on various interlinked issues relating to the ethical and legal use of drones for law enforcement purposes, such as

- whether specific legislation should regulate the use of drones for policing (in addition to aviation legislation);
- whether the use of drones amount to search;
- whether a warrant must be required before the police may use drones;
- whether drones may be weaponised;
- the admissibility of drone gathered evidence (such as videos) in a court;
- the manner in which it impacts on privacy and data collection; and
- the risk of pervasive surveillance.

3. Overview of the legal position in countries pertaining to police use of drones

3.1 Introduction

An overview of countries in respect of drone policing serves as a background to the discussion of the ethical and legal concerns relating to domestic drone policing.

3.2 The U.S.

The U.S. police have been using drones since approximately 2016 (Police Executive Research Forum, 2020).

The Federal Aviation Administration (FAA) is the designated authority to regulate aircraft, including drones, that fly in U.S. airspace (Police Executive Research Forum, 2020). The FAA also currently prohibits anyone, including law enforcement, from attaching firearms or similar weapons to drones. In 2015 North Dakota became the first state to legislate in favour of drones armed with non-lethal weapons whereas several other states have expressly prohibited any kind of drone weaponization (Enemark, 2021; see par. 4.6 hereafter).

The mission of the FAA is "to provide the safest, most efficient aerospace system in the world" (FAA, 2021). This mission does not include regulating privacy-related issues and the FAA has no guidelines regarding privacy (Fischer et al, 2017).

The Fourth Amendment of the U.S. Constitution is considered the bedrock of privacy as it protects the right of people to be secure against unreasonable searches and seizures. The ultimate goal of this provision is to protect people's right to privacy and freedom from unreasonable intrusions by the government. The Fourth Amendment right is therefore relevant in respect of the use of drones for aerial surveillance.

Several Supreme Court judgements deal with aerial surveillance, although not specifically by means of drones. The Supreme Court's aerial surveillance jurisprudence established principles pertaining to privacy and the Fourth Amendment that are applicable to law enforcement use of drones.

In *Katz v United States* (1967) the right to privacy was extended to protect people in places in which people have a reasonable expectation of privacy. It is unconstitutional under the Fourth Amendment to conduct a search and seizure without a warrant anywhere that a person has a reasonable expectation of privacy, unless certain exceptions apply (Fischer et al, 2017; Feeney, 2021). The Supreme Court found in *United States v Knotts* (1983) that individuals do not have an expectation of privacy when driving a car on public roads (Fisher et al, 2017). With reference to the *Knotts* case, it may be found that drones may surveil moving targets and continue to track their location in public.

Thus, a person has a legitimate expectation of privacy if he honestly and genuinely believes the location under surveillance is private, and if a reasonable person in the same or similar circumstances would believe the location to be private as well. Therefore, the government has more latitude to legally survey communications in a public place than it does in a private place. This may explain the use of drones in respect of the 2020 BLM protests.

Aerial observations of the outside of a home are generally not prohibited by the Fourth Amendment, but the government must conduct the surveillance from a public navigable airspace in a non-physically intrusive manner. The government conduct may not reveal intimate activities traditionally associated with the use of the home (McNeal, 2014). In *California v Ciraolo* (1986), the Supreme Court ruled that the defendant's yard was not constitutionally protected from observation from a public vantage point such as public airspace and the warrantless aerial surveillance did not violate the Fourth Amendment. The ruling in *Ciraolo* could be interpreted to allow unrestricted usage of drones in public airspace over any surface (Fischer et al, 2017).

In *Florida v Riley* (1989) the Supreme Court held that aerial surveillance above 400 feet does not constitute a search and does not require a warrant (Fischer et al, 2014). McNeal (2014) indicates that by tying the Fourth Amendment's protections to the location in airspace from which the surveillance was conducted, the Supreme Court has left open the possibility that low altitude surveillance may violate the Fourth Amendment. The drones that law enforcement are most likely to acquire and operate are most effective at altitudes below 500 feet. McNeal (2014) recommends that legislators should follow a property rights approach to aerial surveillance, explicitly extending to property owner's rights in their airspace up to 350 feet above ground level. Such an approach may solve most public and private harms associated with drones by allowing the landowner to exclude intrusions into their airspace by government and private parties.

In *Kyllo v United States* (2001), the Court addressed the constitutionality of using technology to survey the inside of the defendant's home without actually entering the home and found that this search constituted a Fourth Amendment search and would be presumptively unreasonable without a warrant. As a result of *Kyllo*, the government cannot equip drones with devices that can see inside a home without a warrant (Fischer et al, 2017).

Feeney (2021) makes a valid point by emphasizing that although Supreme Court precedent may not require warrants for drone surveillance, state law makers may improve upon this standard. He is correct when he states that "the Supreme Court precedent sets the floor, not the ceiling." (Feeney, 2014). This explains why most states provide that the usage of a drone by law enforcement must be executed by means of a warrant subject to exceptions, namely extreme circumstances, such as an imminent danger to life or property (Fischer et al, 2017; NCSL, 2021).

3.3 United Kingdom (UK)

Police in the UK embrace the use of drones. In November 2020 it was revealed under the Freedom of Information Act (PFA) 2012 that 40 of the 43 national police forces had adopted drone technology, with over 288 drones operational across the board (Jackson, 2021).

Drone operations are conducted in compliance with the relevant legislation and are overseen by the Civil Aviation Authority (CAA). The police do not need special permission to fly in UK airspace as the police work is classed as “commercial gain” and therefore permission is not required (Jackson, 2021). Since the use of drones by the police is considered as a commercial operation, police are allowed to fly a drone in congested areas and permitted the overflight of people and/or premises, provided other conditions and minimum separation distances are met. Police officers must abide by the same regulations as other drone pilots in the UK. The drones must follow all CAA regulations and fly within 500 m of the pilot. The drones cannot fly outside of the pilot’s line of sight unless a second pilot is used. Drones are restricted from flying above 400 ft (Jackson, 2021).

As drones are considered the equivalent of a mobile CCTV, police must comply with the Surveillance Camera Code of Practice (available at <https://www.gov.uk/government/publications/surveillance-camera-code-of-practice>) which was issued under section 30 of the Protection of Freedoms Act 2012. It provides guidance on the appropriate use of surveillance camera systems in public places by the police in England and Wales. The police has a legal duty to adhere to the principles of the Code when operating overt surveillance camera systems in public places. When it comes to data collection, processing and retention, the police must comply with the Data Protection Act 2018 (as updated on 1 January 2021).

3.4 France

France is an European Union (EU) member state. Strict privacy and data protection laws are applicable in EU member states. The use of police drones for surveillance of demonstrations was banned in 2020 (see par. 4.4 hereafter). In 2021, parliament was presented a bill on criminal responsibility and internal security, intended to provide a long-awaited legal framework for the use of drones by law enforcement agencies (Pollet, 2021). The bill defines the scenarios in which police may use drones. Those are limited to preventing attacks on people and property, fighting terrorism, traffic regulation, border surveillance and assemblies likely to result in serious disorder (Pollet, 2021).

3.5 South Africa (SA)

The SA police service is not yet using drones for law enforcement purposes, but it will soon be utilised. In 2020 representatives from the South African Police Service (SAPS) and Johannesburg Metro Police Department (JMPD) stated that drones will be used in the future for law enforcement, public safety and disaster management (Cronje, 2020). In 2021 a private security group indicated that they would become the first security providers to use drones to track criminals in specific residential areas (Staff writer, 2021).

4. Discussion of the legal and ethical aspects pertaining to police use of drones

4.1 Introduction

The discussion hereafter explores ethical and legal aspects with respect to police use of drones. Each of the aspects could warrant a discussion on its own. The purpose of this discussion however, is to provide an overview of the various aspects and to establish whether the concerns relating to the legal and ethical aspects are of such a nature that it outweighs the benefits derived from the use of police drones.

4.2 Purpose-specific regulation

Drones are regulated by aviation legislation and regulations which address issues such as the design, manufacturing of drones and whether a drone must be registered etc. The question is whether there should be a purpose-specific act that, in addition to the aviation legislation and regulations, regulate the use of drones by police. Such an act will address various legal and ethical issues specific to police use of drones, such as the circumstances in which the police may use a drone, warrant requirement, privacy and data protection, the use of weaponised drones and the admissibility of drone evidence in court proceedings.

In the US, many states have purpose-specific legislation. The US government could on federal level consider a uniform policy in respect of police drone usage. In 2021, France introduced legislation governing police drone use. Such purpose specific legislation may contribute to legal certainty, transparency and accountability.

4.3 Warrant requirement

Some privacy advocates have called for an outright ban on drone usage, but such a call is not supported as this will not be to the benefit of the public safety in general as there are many instances in which drones may assist law enforcement.

Many privacy advocates have focused solely on requiring warrants before the use of drones by law enforcement to counter-act the threat of surveillance. The use of drones by means of a warrant is supported, but there may be instances where it should be allowed without a warrant. In this regard, McNeal (2014) makes a valid argument that legislators should reject calls for a blanket requirement that all drone use must be accompanied by a warrant. There may be circumstances where the police urgently need to use a drone for aerial surveillance and there may not be time to apply for a warrant, for example in a a hostage situation or a protest turned violent. McNeal's (2014) criticism of a blanket requirement of a warrant in all cases is justifiable as such a technology-centric approach harms public safety and deprives law enforcement of a tool that they could use to protect people in public spaces.

4.4 Protests and crowd monitoring

Using police drones and other surveillance tools during protests and crowd monitoring may be controversial as most countries' citizens have a constitutional right to free speech and peaceful protesting (see par. 4.4 hereafter).

In 2020 the French Supreme Administrative Court ruled that drone surveillance of demonstrations may not be used (Monrey, 2020). Data protection law in France

- requires proof of the necessity and proportionality of a surveillance device, without which its use cannot be authorised; and
- provides that political opinions, as expressed at protests, are a form of "sensitive data" and a surveillance device must therefore be "absolutely necessary" in order for it to be legitimately deployed.

The Court found that there was no evidence that the drone surveillance was absolutely necessary to maintain public safety in crowds (Monrey, 2020). Banning the police from using drones does not eliminate the risk of, for example, a terrorist using a drone for an attack and the police should be equipped to deal with such a possibility.

Criticism was levelled against the use of a Predator-class drone during the U.S. 2020 BLM protest as it could be considered as "unduly intimidating and could have an unwelcome chilling effect on participation in public life" (Enemark, 2021). The protests – like most protests - were highly public events which were televised, it took place on streets where there were surveillance cameras and spectators photographing the event. The use of the drone was but one of many surveillance tools used and it provided information of possible threats to public safety.

In the UK, the police have used drones to monitor political protests, including those held by the non-violent BLM movement (Dodd, 2021).

South Africa has experienced many demonstrations that have turned violent. In early July 2021, South Africa experienced its worst riots and looting since 1984 (IOL reporter, 2021). In my opinion, the use of drones would have contributed to more visible policing during these riots and looting and would have improved law enforcement by ensuring the safety of the public.

4.5 Admissibility of drone-gathered evidence

Each drone has a memory card that captures images. Once the drone is back on the ground, the card is removed and the images can be transferred to a police official's computer. The vast majority of drone-gathered evidence will be in the form of photographs, video and audio recordings. This evidence must be gathered in accordance with a warrant (discussed at par. 4.3) and data protection laws must govern the processing, storage and access of the information (see par. 4.7).

4.6 Weaponised drones

It should be established whether the police may use a weaponised drone against a suspect to protect public safety, for crowd control or to disperse a riot.

Enemark (2021) discusses the ethical use of armed drones to enforce domestic law enforcement. Although the military uses armed drones, it cannot be compared to the domestic use of drones. At present the police have not deployed armed drones. However, it should be determined whether circumstances exist that could justify the police use of an armed drone. It could be argued that if a gun man goes on shooting spree, the killing of the perpetrator by means of an armed drone could be considered to prevent the loss of further lives. The police will only use force to mitigate very serious threats such as the potential loss of life. By using an armed drone in such

circumstances, the criminal threat would be neutralised with little exposure of danger to the police and members of the public.

In 2016, the UN Human Rights Council published a report on the proper management of assemblies (Enemark, 2021). It recommended that less lethal weapons be used to allow for the de-escalation of tensions. It also urged great caution in the use of weapons that are remotely controlled as would be the case with an armed police drone.

The issue of using an armed drone in the policing of a protest that has turned violent may be problematic. Drones armed with non-lethal weapons in the form of rubber bullets or water cannons could be deployed to de-escalate the violence (Enemark, 2021). Enemark (2021) warns however that there is a risk that the use of police drones forcefully against people rioting could have the opposite effect by aggravating an already angry crowd and escalating the overall threat to public safety. In addition, police drones could also cause panic and result in a stampede.

One can only speculate on the outcome of the use of weaponised drones pertaining to violent protests. The July 2021 rioting and looting in South Africa may have been contained by drones armed with non-lethal weapons, but as Enemark (2021) surmises, it could have intensified the situation.

4.7 Constitutional impact of domestic drone policing

The right to privacy is afforded stronger protection within the home than in public. For example, a protester in a public space will still have a right to privacy albeit a much weaker right than in his home. This right must be weighed against public safety.

The right to privacy includes data protection. As indicated, the police collect large amounts of information for the prevention, detection and investigation of crime. There must be safeguards in place to protect the collection, processing and sharing of data. The United Nations Inter-regional Crime and Justice Research Institute (UNICRI) propose that law enforcement agencies comply with the following requirements regarding data protection, namely fairness, accountability, transparency and explainability (UNICRI, 2019).

The U.S. does not have federal law that provides for data protection and this constitutes a major difference between the approach of the US and EU to data protection. As indicated, the EU provides for strict data protection. Law enforcement agencies must show that their systems, technology and processes are fully compliant with the General Data Protection Regulation (GDPR). The Law Enforcement Directive (referred to as LED) is a piece of EU legislation, parallel to the GDPR, which deals with the processing of personal data by data controllers for law enforcement purposes which fall outside of the scope of the GDPR (CNIL, 2021). The GDPR and the LED are both part of the European data protection package (CNIL, 2021). In 2020, South Africa implemented the Protection of Personal Information Act 4 of 2013 which is based on the GDPR. As indicated, the UK police must comply with the Data Protection Act. In respect of protests, the UK police may interfere with the right to privacy if such interference is proportionate to the objectives of maintaining public order and preventing or detecting a crime (UK Privacy International, 2021). The police may only process data regarding a protest that are necessary for the administration of justice. When it comes to facial images, the processing must be strictly necessary. Legislation provides that the police may hold data only as long as it is necessary (see UK Privacy International, 2021).

4.8 Drones as a surveillance tool

Drone technology is one of many types of surveillance technologies that police use (Greenwood, 2020). The use of police drones for surveillance is an example of visible policing and not a covert surveillance tool. As indicated, drones should not be used at random as a general surveillance tool, but used for a specific purpose to promote public safety and in circumstances that warrant the use of a police drone. The police use of drones must be conducted in accordance with a warrant subject to exceptions and the data collected must comply with data protection laws.

The 2013 Snowden disclosures and 2018 Facebook-Cambridge Analytica scandal illustrated that the risk of pervasive surveillance is real (Watney, 2021). The danger exists that surveillance technology may be abused and result in an Orwellian big brother society and ultimately a police state, especially in circumstances where mass

surveillance is conducted. It is therefore important that police use of drones comply with human rights safeguards (see par. 4.7).

5. Conclusion

The discussion illustrates that the use of drones by the police is beneficial for crime detection, prevention and investigation in specific circumstances. The legal position of countries pertaining to police drone use provides a background to the legal and ethical aspects referred to. The concerns with the legal and ethical aspects must be addressed by means of safeguards to ensure that the police do not abuse their power. Fischer et al (2017) conclude that imposing safeguards in respect of domestic drone policing “would allow us to incorporate this new technology and separate the benefits from the dangers it presents.” By having clear guidelines in place for accountability and transparency, public distrust in the use of police drone technology will be assuaged. It is important that the police are equipped with the latest technologies, such as drone technology, in tackling crime and ensuring public safety, especially as criminals may use these technologies for crime commission.

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