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The Regulation of Drones in the Asia-Pacific Region: Focus on the New Data Privacy Guidance Note in Hong Kong

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In 1985, Marty McFly jumped into the DeLorean time machine and travelled 30 years into the future. He landed in 2015, where flying cars, hoverboards, 3D advertisements and video conferencing were the new amazing “futuristic” items that seemed impossible back in the 1980s.

It is interesting to see just how close the writers of “Back to the Future II” came in predicting what technological advancements awaited the world in 2015. Whilst we do not have flying cars and hoverboards yet, the widespread use of drones would fit well into Marty McFly’s world.

Drones (unmanned aerial vehicles that are controlled by computers or remotely by individuals) have recently become more common as mainstream vehicles used for both commercial purposes and by individual hobbyists. Many companies have started using drones for surveillance, search and rescue operations, crop monitoring, taking photos for use in real estate transactions, *etc.* Most recently, companies are exploring the use of drones as part of commercial operations to deliver packages to customers. For example, S.F. Express in China has a fleet of drones that are currently delivering about 500 packages a day¹. In September 2014,

Amazon filed a patent application for its own delivery drones, with the intent of eventual widespread commercial use in the United States.

General Concerns Regarding Drones

The increased use of drones has led to concerns about safety and the intrusion on privacy, given that the technology may be used to photograph or film individuals without their knowledge or consent, whether intentional or incidental to drone activities (be they commercial or not). Recordings made by drones may in fact constitute the collection of personal data and be governed by local data privacy laws.

Jurisdictions in the Asia-Pacific region have been turning their attention to the need to regulate the use of drones. So far, the developments have largely focused on operation and safety, rather than on privacy implications.

Hong Kong appears to be one of the first jurisdictions in the Asia-Pacific region to specifically address data privacy concerns regarding drones. On March 31, 2015, the Hong Kong Privacy Commissioner (“Privacy Commissioner”) issued an updated Guidance on CCTV Surveillance and Use of Drones (“Guidance Note”)².

From a privacy perspective, most countries seem to rely on existing privacy laws to cover the potential invasiveness of drone flights, whether for commercial or recreational use.

This article discusses the latest developments in other jurisdictions, the aviation regulations in Hong Kong concerning drones and the Guidance Note.

Developments in the Asia-Pacific Region

Aviation Regulations

Outside Hong Kong, there are very few Asia-Pacific jurisdictions that currently have in place regulations governing the use of drones.

The rise in accessibility and use of drones at an unprecedented pace has led to several countries making amendments to their existing regulatory frameworks to specifically take into account the use of drones.

Australia was the first country to ever regulate remotely piloted aircrafts (*i.e.*, drones), by introducing amendments to its existing regulations in 2002. Part 101 of the Civil Aviation Safety Regulations prohibits certain activities from being carried out by “unmanned aircrafts”, and non-compliance is a strict liability offence. In particular, a drone that is flown for money or economic gain is illegal unless a certificate has been obtained from the Civil Aviation Safety Authority. The current regulations concerning drones are in the process of being reviewed by the Civil Aviation Safety Authority, with plans to complete this review by 2016.

China appears to be taking the biggest leap forward in the commercialisation of drones. DJI, the biggest manufacturer of drones, is a China-based company founded by Frank Wang whilst he was studying at the Hong Kong University of Science and Technology. DJI accounts for between 50 percent and 70 percent of the global drone market³.

A few incidents involving the use of DJI drones have made headlines, increasing the public’s awareness of the security threats posed by drones in general. For example, in January 2015, a DJI drone accidentally crashed onto the lawn of the U.S. White House. DJI has since updated its drones to prevent them from flying over restricted areas.

Either way, concerns regarding national security and personal safety have highlighted the need to review and amend current local regulations.

In China, operators of drones that are heavier than 7 kilograms must obtain a licence, whilst operators of drones heavier than 116 kilograms or flown in areas shared with manned aircrafts must have a pilot’s licence and an unmanned aerial vehicle certification. The Civil Aviation Administration of China published Interim Pro-

visions in November 2013 on the Administration of Operators in the Civilian Unmanned Aircraft System, and new regulations are in the process of being finalised on the use of commercial drones. All regulated activities of drones are currently managed by the Aircraft Owners and Pilots Association of China.

In Singapore, the Unmanned Aircraft (Public Safety and Security) Bill (“Singapore Bill”) was introduced for a first reading in Parliament on April 13, 2015. The new legislation is expected to take effect from June 1, 2015, and will require drone operators to obtain a permit from the Civil Aviation Authority unless the drone weighs less than 7 kilograms and will be used only for recreational or private use. Even if the drone weighs less than 7 kilograms, flights within 5 kilometres of an aerodrome, or at an altitude of 200 feet above sea level, will first have to be authorised. Criminal sanctions also will be imposed on any operators who, for example, fly drones that discharge any gas, liquids or solids, or which carry any dangerous items.

The Singapore Bill also will make it an offence to use drones to take photographs, make video recordings or broadcast or stream live images of an area declared by the government to be a protected area. The “protected areas” are intended to cover security sensitive areas. Using drones to take such photographs will be a strict liability offence, the breach of which will result in a fine of up to S\$20,000 (U.S.\$14,988) and 12 months’ imprisonment being imposed on both the drone operator and the person taking the photograph or making the recording (if different to the drone operator).

The Singapore Bill largely targets drones used for commercial purposes, and avid drone hobbyists who fly recreationally should not be significantly affected by the new legislation.

Similarly, in New Zealand, new rules are being proposed to regulate remotely piloted aircraft systems weighing less than 25 kilograms.

Japan, the leading innovator in robotics, is currently one of the most liberal Asian developed countries in respect of the operation of drones. Currently, in Japan, drones are required only to fly below 150 metres and at least 9 kilometres away from airports, with other requirements applying in respect of drones used for agricultural purposes.

The liberal nature of Japan’s drone regulations may have been intended as a way of enabling the industry to rapidly develop and grow, without being stifled by the need to comply with licensing requirements or other restrictions. However, to keep pace with other developing countries, a panel was appointed by the Prime Minister in March 2015 — the Robot Revolution Realization Committee — to review existing radio and civil aeronautics laws and to devise industry best practice guidelines for drones.

The need to swiftly strengthen the regulation of drones was highlighted in April 2015, when a drone (equipped

with a camera and carrying a low level of radioactive liquid) landed on the roof of the office of Japan's Prime Minister.

The developments in the Asia-Pacific region seem to be largely in line with the current aviation regulations in Hong Kong (discussed below), and new rules in the industry are focused largely on regulating the commercial use of drones. Whilst the private recreational use of drones is not generally regulated, recommendations have been issued by relevant governmental aircraft authorities to provide safety guidelines for individuals.

Data Privacy

From a privacy perspective, most countries seem to rely on existing privacy laws to cover the potential invasiveness of drone flights, whether for commercial or recreational use.

For example, in Singapore, no laws specifically target the use of drones that invade personal spaces. The existing data protection laws require permission for taking photos and videos in a private place for commercial use, and similar regulations are set in place to govern the taking of obscene or indecent images. Whilst the Singapore Bill will also introduce restrictions on the use of drones to photograph and film any protected areas designated by the government, these "protected areas" are intended to cover security sensitive areas.

In Australia, the privacy laws do not cover actions of individuals in their private capacity, which may open up a large sphere of immunity for private drone operators.

The concerns addressed by the Hong Kong Privacy Commissioner in the Guidance Note (discussed below) are indeed at the forefront from a data privacy perspective, and growing concerns worldwide around the regulation and enforcement of privacy in relation to drones will no doubt follow.

Regulations in the European Union and the United States

In the United States, the strict ban on most commercial uses of drones has been relaxed in the new safety rules proposed by the Federal Aviation Administration in February 2015 for small unmanned aircraft systems (under 55 pounds) conducting non-recreational activities. The new rules have been ordered by the Congress to be completed by the end of September 2015.

In the European Union, drones weighing 150 kilograms or more are currently regulated by the European Aviation Safety Agency ("EASA"), whilst those weighing less than 150 kilograms are regulated at a national level by local aviation authorities. This has resulted in an incoherent and fragmented system of regulation in the EU.

As a result, the European Commission published a Communication entitled "A New Era for Aviation" in April 2014⁴ ("Communication"), which sets out its strategy for the development of the commercial drones market. The Communication argues that the EASA should develop a common set of rules for the operation of all drones in the EU (rather than simply in relation to

drones weighing more than 150 kilograms). In particular, the Communication proposed that three different categories of civil drones be devised on a risk based approach, with proportionate regulations applying to each category depending on the level of risk presented. This method would allow the continued growth of the drones market by applying the strictest regulations only in respect of the drones that pose the most risk. By December 2015, the European Commission is expected to complete its drafting of a new law regarding the category of drones that provides the lowest level of risk.

Aviation Regulations in Hong Kong Concerning Drones

Hong Kong is currently the largest drone hub, with over 90 percent of the world's drones being shipped out through Hong Kong⁵. The recreational use of drones in Hong Kong is also becoming commonplace, with an estimate of over 5,000 drone users⁶.

Whilst Hong Kong does currently have laws that regulate the use of drones, concerns have been raised that the existing laws are insufficient to address public safety concerns.

Under the Air Navigation (Hong Kong) Order 1995 (Cap. 448C), an application needs to be submitted to the Civil Aviation Department ("CAD") for permission to operate a drone in Hong Kong, at least 28 days before the intended flight. For drones that will be used for non-recreational purposes (*i.e.*, commercial use), such permission needs to be obtained from the CAD irrespective of the size and weight of the drone.

Exemptions apply in relation to drones used for recreational purposes. If a drone weighs no more than 7 kilograms without its fuel, and it will be used for recreational purposes only, it will be classified as a "flying model aircraft" and is exempt from the requirement to apply to the CAD for a flight permit. The CAD issued updated guidelines on February 15, 2015, setting out safety measures for the flying of model aircrafts, *e.g.*, model aircrafts cannot be flown over congested areas or within the vicinity of an airport and main aircraft approach and take-off paths. The flight of a model aircraft should not exceed 300 feet above ground level, and operations shall be conducted during daylight hours only.

Whilst, on the one hand, the current law is seen as being beneficial to the drone market, as it does not over regulate the recreational use of drones, on the other hand, it is also seen as insufficient, as most drones will fall below the 7 kilogram threshold due to technological advancements. Drones that weigh less than 7 kilograms can still pose a safety risk if, say, they fly over crowded areas or into airspaces occupied by commercial airlines. The fact that such recreational drones do not need to be registered with the CAD may make it hard for drone operators to be held accountable for their actions.

Hong Kong Privacy Commissioner's Guidance Note

In Hong Kong, the Personal Data (Privacy) Ordinance ("PDPO") regulates the collection and use of personal data. Drones that have a recording function (*i.e.*, they capture images or record videos) will likely fall within the scope of the PDPO as they "collect" personal data.

Up until the issuance of the Guidance Note, the only relevant guidance provided by the Privacy Commissioner related to street surveillance by way of CCTV (*i.e.*, the Guidance on CCTV Surveillance Practices issued in July 2010). The new Guidance Note not only expands on the Privacy Commissioner's practical guidelines for use of CCTV surveillance by data users to deal with changes introduced by the Personal Data (Privacy) Amendment Ordinance 2012 (*see analysis at W DPR, July 2012, page 4*), but also separately addresses the unique nature of drones.

Whilst the Guidance Note is not legally binding and non-compliance will not in itself constitute an offence, the Privacy Commissioner will take any non-compliance into account in determining whether or not there has been any breach of the Personal Data (Privacy) Ordinance, including the data protection principles.

The recommendations relating to CCTV surveillance in the Guidance Note apply equally to the use of drones. Therefore, data users must assess:

- whether or not the use of the drone is necessary and proportionate to the benefit to be derived from using the drone;
- whether or not there is a less privacy intrusive method of achieving the same purpose; and
- whether or not it has in place transparent policies and practices regarding the use of the drone and personal data collected, and whether it has sufficient controls to prevent unauthorised use or access of the drone or personal data.

The public's reasonable expectation of privacy must be ascertained, and less privacy intrusive measures must be seriously considered.

The Guidance Note also provides the following specific advice in relation to the use of drones:

- Data users should ensure that the flight path of the drone is carefully planned out in order to avoid the unnecessary collection of personal data and to avoid flying close to other people or properties (*e.g.*, launch the drone as close as possible to the area it intends to cover);

- Data users must clearly establish what, when and where data should be recorded by the drone, and erase any irrelevant data recorded by the drone as soon as practicable;
- Data users should encrypt any wireless transmission of data from the drone, to prevent any unauthorised interception;
- Data users must implement safeguards and controls to prevent any unauthorised access to any recordings stored in the drone if, say, the drone becomes lost or comes into the possession of an unauthorised person; and
- Data users have to notify affected individuals that the drone may record videos or images of them and the purposes of collecting such data. This of course poses a practical challenge, since the area to be covered by a drone could be vast, and may therefore record images and videos of a substantial number of individuals. The Guidance Note therefore advises that a flashing light should be used on the drone to indicate when it is recording; data users should announce intended drone operations in advance, *i.e.*, via social media; the logo and contact details of the data user should be placed on the drone; staff members operating the drone should wear clothes identifying the data user; and large banners containing the required privacy notices and data users' contact details should be placed at the location where the drone is being launched.

The new Guidance Note, coupled with the Privacy Commissioner's continued focus on mobile apps, makes it clear that the Privacy Commissioner will be keeping a close eye on the use of new technology and its data privacy implications.

Consequences of Failing to Comply with the Guidance Note

Whilst the Guidance Note is not legally binding and non-compliance will not in itself constitute an offence, the Privacy Commissioner will take any non-compliance into account in determining whether or not there has been any breach of the PDPO, including the data protection principles ("DPPs").

If the Privacy Commissioner determines that a data user has breached one or more of the DPPs following an investigation, it may issue an enforcement notice requiring the data user to take remedial action. It should be noted that the Privacy Commissioner is empowered to issue an enforcement notice even if the relevant breach has been rectified. Any failure to comply with an enforcement notice constitutes an offence and attracts a fine of HK\$50,000 (U.S.\$6,449) and two years' imprisonment (plus a daily fine of HK\$1,000 (U.S.\$129) if the offence continues). There are increased penalties for breaching multiple enforcement notices or for repeated contravention of the PDPO on the same facts after an enforcement notice has been issued and complied with.

Conclusion

The agility and size of a drone, which are among its main selling points, are also what make it prone to abuse. In time, a balance will need to be established between the need to protect the public's privacy and safety, and the desire to ensure increased commercial efficiency through the deployment of drone technology.

For now, drone operators must familiarise themselves with their local aviation laws, as well as wade through the complexities of local data privacy laws.

NOTES

¹ <http://www.dailymail.co.uk/news/peoplesdaily/article-3009593/Drone-delivery-China-s-largest-mail-firm-deliver-1-000-packages-DAY-remote-areas-using-fleet-aircraft.html>.

² http://www.pcpd.org.hk/english/resources_centre/publications/files/GN_CCTV_Drones_e.pdf.

³ <http://www.scmp.com/lifestyle/article/1789450/hong-kong-wild-frontier-drones-lack-rules-prompts-fears-over-privacy-and>.

⁴ Communication from the Commission to the European Parliament and the Council: A new era for aviation: Opening the aviation market for the civil use of remotely piloted aircraft systems in a safe and sustainable manner, COM(2014) 607, <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52014DC0207>.

⁵ <http://www.scmp.com/lifestyle/article/1789450/hong-kong-wild-frontier-drones-lack-rules-prompts-fears-over-privacy-and>.

⁶ *Ibid* 4.

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