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The Future of Drones: Can they be Legitimized?

Overview

A camera for aerial photography at a big fat Indian wedding, a journalist capturing aerial footage of natural calamity or a pizza being delivered to a high rise building, "Drones" are entering the public space for various purposes in India. A Drone or Unmanned Aerial Vehicle ("**UAV**") is the next technological revolution after the computer and Internet. With the ability of undertaking varied tasks such as providing wireless internet, delivering medicines[1], assessing earthquake damage,[2] recreational usage; drones are finding new usages every day. Like every new technology, this one has also been subject to debate around the world.

This article aims to give a brief perspective on India's legal position on drones, the current regulatory framework of drones in other countries such as the United States of America ("**USA**"), Germany and the European Union ("**EU**"), and the way forward for India.

What is a "Drone"?

Before delving into the legal position regarding drones, it is important to define the term "Drone". In aviation and space, a drone is a term that refers to any vehicle that operate on surfaces or in the air without a person on board to control it; and that can vary in size, shape, form, speed, and a host of other attributes. It could vary from a model aircraft / toy in a store or a large sized aircraft sent in a war zone.[3]

Furthermore, the International Civil Aviation Organization (ICAO) has introduced a definition, referring to drones as "RPAS", i.e. Remote Piloted Aircraft Systems. The intention to introduce the term "Remote Pilot" by ICAO is to highlight the fact that the system is not always unmanned and always has a pilot in command responsible for the flight[4] which may be controlled either by on-board computers or the remote control of a pilot on the ground.

Also, there are certain other terminologies generally associated with Drones, namely- "UAVs", "UAS" and the Model Aircraft. The "UAV" is a power driven aircraft that is designed to fly without a human operator on board. "UAS", on the other hand, although unmanned, has a broader connotation and includes-

- the aircraft
- the control system(s) on the ground
- the control data link(s)
- other support equipment

Lastly, the "Model Aircraft" is mechanically driven or launched into flight for recreational purposes and is not designed to carry

persons or living creatures.

While drones are used for commercial purposes, they are also used in combat (such as providing battlefield intelligence). In India, the police department is planning to use drones for law enforcement, for example, using pepper spray drones to clamp down on protestors.[5] However, there exists a strong possibility of drones being misused, hence regulations in this regard has become imperative and the same has been deliberated by legislators across several jurisdictions.

Position in India

In India, the Director General of Civil Aviation ("**DGCA**") vide public notice dated 7th October, 2014, in the interest of national security, imposed a blanket ban on the use of civil drones till further guidelines were notified. This ban on civil use was largely imposed in the interest of national security. Although, admittedly, the DGCA states that drones have "potential for large number of civil applications", but is still a cause of concern for air safety in India. Post such notification, there have been no guidelines / circulars issued by the DCGA.

Further, Press Note No. 3 (2014 Series) released by the Department of Industry Policy & Promotion, Ministry of Commerce and Industry laid down a list of electronic aerospace and defence equipment which required an industrial licence for manufacturing / production[6] ("**Press Note**"). This list included aircrafts UAVs, Remotely Piloted Vehicles (RPVs), autonomous programmable vehicles, unmanned lighter than air vehicles (*including drones, balloons and UAVs*). The Press Note also clarified that dual use items (as specified in the said list) having military as well as civilian applications (such as drones) would require an industrial licence for manufacturing / production. Although the Press Note does not explicitly prohibit manufacturing / producing of UAVs / drones without a licence for civilian purposes, it appears that a joint reading of the DGCA public notice read along with the Press Note would limit the use of UAVs / drones for civilian purposes.

But the potential of this sector cannot be undermined. Over a period of time, the Indian defence sector has been using drones for national security and as a result India accounts for 22.5% of the world's unmanned aerial vehicle (UAV) imports (for defence purposes) between 1985 and 2014, followed by United Kingdom and France.[7] Furthermore, the Indian government recently entered into an arrangement to purchase armed drones from Israel for USD 400 million.[8] Most of India's UAV imports have been from Israel.[9]

Currently there is no detailed regulatory framework for the use of drones in India, although the public notice issued by the DGCA and the Press Note clearly limit the production and use of drones. However, there has been hearsay that the DGCA is looking to make a distinction qua the commercial use of drones,[10] and drone usage guidelines are expected soon.

United States and Germany on Drone Laws

Currently, a handful of countries have framed specific laws for the regulation of UAVs. Countries such as USA, Germany and UK have amended their existing aviation laws to include UAVs under the purview of aircrafts. These laws lay down specifications with respect to the weight, dimension and altitude of drones.

The law with respect to Drones in the United States was in place since the 1980s, only the terminology has changed over the years. The guidelines that existed back then were for simple model aircrafts and helicopters. These guidelines were only issued to hobbyists to stay under 400 ft. In 2007, the Federal Aviation Administration ("**FAA**") issued guidelines prohibiting the commercial use of Drones. Later in 2012, FAA Modernization and Reform Act of 2012[11] states that a model aircraft (which could be a drone):

- must not weigh more than 55 pounds;
- must be within the visual line of sight of the operator;
- must be used only for recreation and hobby purposes.

In the event the same is used for commercial / business purposes, an airworthiness certificate from the FAA needs to be

obtained.

Having said that, certain states like the District of Columbia are a complete no-fly zone for UAVs. The rules set forth after the 9/11 attacks establish "national defence airspace" over the area and limit aircraft operations to those with an FAA and Transportation Security Administration authorization. As a result, violators could face stiff fines and criminal penalties.[12]

Similarly, Germany has amended its German Aviation Act (Luftverkehrsgesetz, LuftVG)[13] to recognize civilian drone usage for sports and recreation only with a condition that it should not weigh more than 5 kilograms. However, if the drone used for private purposes weighs more than 5 kilograms or is used for commercial purposes, a flight permit is required to be obtained from the federal state authority such as the district or local government in the provinces. Unmanned drones weighing more than 25 kilograms are not permitted to fly at all. In addition, all drones are required to stay within the line of sight of the person flying it and a distance of 1.5 kilometres from airports and special no-fly zones has to be maintained.

The EU Stand

The EU has been moving faster than the Americans on the regulations of Drones. The European Aviation Safety Agency ("**EASA**") has released a regulatory framework that calls for new regulations to be proposed by December this year. Interestingly, their focus is on innovation and they do not stick to the regulations related to manned aviation, alone. Looking into industry standards and the pace of the growth in the EU for small and medium sized business opportunities, the EASA is of the belief that it would foster jobs and further growth in the economy. In furtherance to this, EASA released a 'Proposed Concept of Operations for Drones' which deals with the regulation regarding the use and operation of drones.[14] It lays down three categories of drones based on the nature and purpose of the drone, namely–

- Open – These do not require an authorisation by an Aviation Authority for the flight but require the drone to stay within defined limitations
- Specific – These require an Operations Authorisation by an Aviation Authority with specific limitations adapted to the operation
- Certified — These are drones with a higher risk associated with them due to the kind of operation they are used for. Such drones require certification from aviation authorities.

Accordingly, permissions have to be sought from the aviation authority and an airworthiness certificate has to be obtained. The UAVs must be under the direct visual line of sight of 500 metres and at an altitude not exceeding 150 metres. With respect to the privacy and data protection risks, the EU has released a report[15] evaluating the implications of drones and has concluded that Europe's existing regulatory framework is adequate to address the emergent technology, however, certain pre-conditions need to be addressed and met in order to ensure that drones do not pose serious risks for citizens' fundamental rights to privacy and data protection, to security and to safety.

The EASA has further provided that a solution to combat privacy would be to install chips/SIM cards in drones and direct operators to self-register in a web based application maintained by the local authorities. Though specific provisions have to be framed by Member States of the EU, the EASA document provides clarity in terms of the objective of the proposed law and the rights and duties of the stakeholders.

Legal Implications in India

While India does not have any concrete laws vis-à-vis Drones yet, there are various legal implications Drones might have on the existing laws.

It is surprising to note that Drones are being sold in open markets and on e-commerce websites, in the absence of any intimation from the authorities with respect to the sale and purchase of drones. While there continue to be restrictions on drone manufacturing / production along with an explicit flying ban by the Director General of Civil Aviation, there is no explicit ban on it being sold in the country.

With the use of drones coming into the mainstream, they are also offered protection under various patent regimes across the world. For example, Amazon, one of the leading e-commerce websites, has applied for a patent for its delivery system drone that delivers products to the customer's doorstep within 30 minutes of the order.[16] Boeing also obtained a patent for its "flying submarine" drone which is adaptable for both flight and water travel.[17]

Under the Indian Patents Act, 1970 ("Act"), although there is no express restriction on filing patent applications in relation to drone inventions, specific procedures need to be adhered if the invention has an impact on defence or national security and the grant of such patents may be subject to prior government approvals (*including the Indian Ministry of Defence*).

Another fundamental question of law is that, of invasion of privacy and collection of data by drones without the consent of affected people. In Germany, the German Federal Court of Justice had held that surveillance using GPS tracking systems was an invasion of privacy.[18] The same applies to civilian drones as there is a risk that drones make use of photography or filming technology which may breach private rights of others. In Florida, a law has been enacted prohibiting the use of drones to intentionally record images of people. The law provides for civil action against the state and private individuals with remedies of compensation and injunctive relief.[19]

In India, though surveillance not sanctioned by the Government is illegal, drones might continue to pose a threat to privacy. Today, the legislature is also deliberating on a 'Right to Privacy' law which is currently at a consultative stage. Simultaneously, the apex court will also soon rule on whether the "Right to Privacy" is a fundamental right of an individual guaranteed under the constitution of India.[20]

The Road Ahead

With India's innovation flight taking off with Prime Minister's 'Make in India' campaign, the drone industry cannot be ignored considering its various uses and benefits in the field of agriculture, medicine, disaster management, law enforcement, journalism etc. In fact, a lot of start-up companies are possibly looking at Drone technology as a way to pierce through traffic, which would drastically improve their logistics. Also, with markets around the world demanding for smarter drones, India's potential can certainly be tapped with adequate legal safeguards in place.

Despite these uses, regulations are necessary to avert any dangers and prevent misuse. Keeping in mind the above legal implications, the DGCA along with the Ministry of Defence must draw a distinction between civilian and military use and accordingly provide for liabilities and remedies in case of violation.

Further, any potential guidelines for regulating drones must be integrated into the existing system to strike a balance between creating reasonable and proportionate regulations along with fostering growth and innovation, at the same time.

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[2] Thomas McMullan, *The unmanned aerial vehicles that are giving drones a good name*, The Guardian, 4th May, 2011, available at http://www.theguardian.com/technology/2015/may/04/unmanned-aerial-vehicles-giving-drones-a-good-name

[3] https://www.priv.gc.ca/information/research-recherche/2013/drones_201303_e.asp#ftnref5

[4] Council of the European Union. Towards a European Strategy for the development of civil applications of Remotely Piloted Aircraft Systemsexternal (RPAS), Working Paper (13438/12), September 6, 2012.Council of the European Union.

[5] Agence France Press, *Pepper-spraying drones could be used on unruly crowds by Indian police*, The Guardian, 8th April,

2015, available at http://www.theguardian.com/world/2015/apr/08/pepper-spraying-drones-could-be-used-on-unruly-crowds-by-indian-police

[6] http://dipp.nic.in/English/acts_rules/Press_Notes/pn3_2014.pdf

[7]Seehttp://www.business-standard.com/article/specials/india-tops-list-of-drone-importing-nations-115050400136_1.html

[8] http://www.timesofisrael.com/india-to-buy-armed-israeli-drones-in-400m-deal/

[9] Supra Note 6

[10] See http://www.livemint.com/Opinion/tPhUoNGoDptmkk6XgBVggI/Amazon-drones-Why-drones-in-India-should-take-wing-soon.html

[11] See http://www.gpo.gov/fdsys/pkg/CRPT-112hrpt381/pdf/CRPT-112hrpt381.pdf

[12] https://www.faa.gov/news/updates/?newsId=83267

[13] *See* http://www.gesetze-im-internet.de/luftvg/BJNR006810922.html#BJNR006810922BJNG000202301

[14] *See* https://www.easa.europa.eu/easa-and-you/key-topics/civil-drones-rpas

[15] *See* http://www.europarl.europa.eu/RegData/etudes/IDAN/2015/519221/IPOL_IDA(2015)519221_EN.pdf

[16] *See* https://www.google.co.in/patents/US8825226

[17] Benjamin Zhang, *Boeing has patented a flying drone that turns into a submarine*, Business Insider, 16th August, 2015, available at http://www.businessinsider.in/Boeing-has-patented-a-flying-drone-that-turns-into-a-submarine/articleshow/48504572.cms

[18] *See* BGH, judgment from 04.06.2013 – 1 StR 32/13

[19] *See* http://laws.flrules.org/2015/26

[20] Presently sub-judice before the Supreme Court in the Aadhar Card Scheme matter http://judis.nic.in/supremecourt/imgs1.aspx?filename=42841