

Regulatory Hotline

August 30, 2018

DRONES IN INDIAN SKIES: NOW A REALITY !

- Civil use of drones to be permitted from December 01, 2018
- Online 'Digital Sky' platform introduced for registration and approval process
- Procedures laid down for import of drones in India
- Security clearances required from the Ministry of Home Affairs for ownership and operation of drones
- Restrictions on foreign companies and foreign nationals from owning and operating drones

In 2014, the Directorate General of Civil Aviation ("DGCA") had issued a public notice announcing its intention to release guidelines to regulate the civil use of unmanned aircrafts. The notice clarified that until the formulation of regulations, there would be a blanket ban on civil use of drones by any individual, organization or non-governmental agency.¹ Further, the Directorate General of Foreign Trade ("DGFT") added another legal hindrance by way of a notification issued to restrict the import of drones.²

In a circular issued by the Director General of Civil Aviation ("DGCA") dated August 27, 2018, the government has finally introduced its policy for remotely piloted aircrafts systems ("Drone Policy"), ending a long period of ambiguity and paving the way for the commercialization of drones in India. The new policy defines and classifies remotely piloted aircrafts ("Drones"), how they are to be operated, and the restrictions that they will have to operate under. Please click [here](#) to access the Drone Policy.

Below is our analysis of the Drone Policy.

INTRODUCTION OF A DIGITAL PLATFORM

The Drone Policy seeks to introduce an all-digital-process for registering, operating and monitoring Drones in India, namely the 'Digital Sky Platform' enabling a one-time digital registration process for Drones, pilots and owners as well as monitoring Drone traffic. The press release dated August 27, 2018 issued by the Ministry of Civil Aviation states that the Digital Sky Platform is intended to include a unique unmanned traffic management ("UTM") platform that implements "no-permission, no takeoff" ("NPNT"). The purpose of the UTM, as mentioned in the press release is to ensure that each time an operator decides to fly a Drone (with Drones in the Nano category intending to operate up to 50 feet being the exception), they would require requisite permission to fly. Such permission is to be obtained through a mobile application with the permission or denial of the request to be granted on a real time basis vis-a-vis an automated process. Any Drone that does not have a digital permit will not be able to take-off. It would only take off on obtaining requisite permission.

However, although the Drone Policy requires manufacturers to provide a certificate of compliance (which would include NPNT compliance) to the DGCA, it has not specifically mentioned or described the roll out of an NPNT. We will therefore have to wait for the actual roll out of the Digital Sky Platform to see whether the UTM platform enabling NPNT is integrated into the same under the current Drone Policy.

Such a digitized process intends to prevent unauthorized flights altogether and avoid regulatory red-tape, while at the same time enabling efficient registration, regulation, monitoring and ensuring public safety.

While the Digital Sky Platform concept is indeed commendable, it will be interesting to see how the framework will practically integrate and coordinate between various enforcement agencies. This will require large amounts of investment in a robust and cutting edge digital infrastructure, expansion and inter-play between different frequency bands. The initial roll out of the technology is sure to face teething issues that will require timely ironing out.

CLASSIFICATION OF DRONES

The categorization of Drones has been done in accordance with the maximum All-Up-Weight (including payload) as indicated below:

- Nano: Less than or equal to 250 grams.
- Micro: Greater than 250 grams and less than or equal to 2 kg.
- Small: Greater than 2 kg and less than or equal to 25 kg.
- Medium: Greater than 25 kg and less than or equal to 150 kg.
- Large: Greater than 150 kg.

The All-Up-Weight is a key determinant of the regulatory requirements and relaxations granted to a particular Drone and compliances that must be adhered to while applying for ownership and operation of Drones. This is important because

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Drones in the Nano and Micro category are exempt from certain regulatory requirements. The All-Up-Weight includes not just the weight of the Drone itself but also of the weight of the extra materials that it may be carrying, including the weight of the fuel that it may hold. Persons interested in the ownership or operation of Drones must be aware of the functions and purpose of the Drone, including the maximum weight of the payload and the fuel, if any, before assessing the application requirements.

IMPORT OF DRONES

The Drone Policy now allows for the import of Drones albeit with certain regulatory requirements in place. Entities that intend on importing Drones into India shall first have to obtain an Equipment Type Approval (“ETA”) from the Wireless Planning and Coordination (“WPC”) wing of India’s Department of Telecommunication (“DoT”) for operating Drones in de-licensed frequency bands. De-licensed frequency bands are low frequency bands, which for instance, facilitate communication between connected vehicles in the automotive industry. Drones will now also run on such de-licensed frequency bands.

On obtaining the ETAs, the importers are then required to obtain import clearance from the DGCA. Details of the Drone, including the maximum All-Up-Weight, maximum height attainable, foreign manufacturer details, purpose of operations and security clearance (along with other details) are to be provided. Such details shall be vetted by the DGCA and on case-to-case basis, the DGCA shall accordingly provide the import clearance. Based on the import clearance received from the DGCA, the Director General of Foreign Trade (“DGFT”) shall subsequently issue the license for the import of the Drones.

Only on obtaining the clearance from DGCA and the license from DGFT can the importers then proceed to obtaining a unique identification number (“UIN”) and unmanned aircraft operator permits (“UAOP”) which are necessary to fly / operate the drone. Processes for obtaining UIN and UAOP are detailed below.

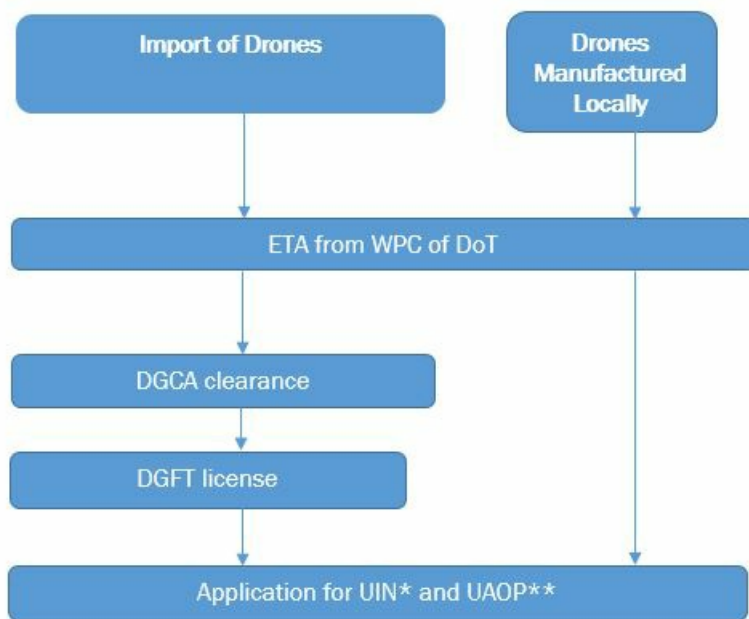
However, there is no specific approval process or time-line provided within which the WPC, DGCA and DGFT shall provide the necessary import clearances. Also, it is unclear whether the import clearances would be linked to the online Digital Sky Platform. Thus, there remains ambiguity with respect to the time / effort that may be required for obtaining such clearances.

However, importers of Nano sized drones are exempt from DGCA and DGFT import clearances.

DOMESTICALLY MANUFACTURED DRONES

Although Drones manufactured in India do not require DGFT/DGCA import clearances, they still need to obtain ETA approvals from the WPC for operating in de-licensed frequency bands. In addition, UIN and UAOP would also need to be undertaken before operating / flying a drone.

Below is the step chart prior to obtaining UIN and UAOP:



Do note that apart from the above process, local Drone manufacturers may also need to procure an industrial license from the Department of Industrial Policy and Promotion (“DIPP”) for manufacturing of Drones in India. Primary reason being that Drones fall under the category of dual use (defense and civil use), hence triggering the industrial license requirements. This might prove to be a disadvantage to domestic manufacturers in comparison with Drone importers who would not be required to procure such industrial licenses.

ELIGIBILITY FOR OWNERSHIP

To be eligible to apply for a UIN, the Drone must be wholly owned either:

- a. By a Citizen of India; or
- b. By the Central Government or State Government or any company or corporation owned or controlled by either of the said Governments; or
- c. By a company or a body corporate provided that:
 - i) It is registered and has its principle place of business within India;
 - ii) Its chairman and at least two-thirds of its directors are citizens of India;
 - iii) Its substantial ownership and effective control is vested in Indian Nationals; or

d. By a company or company registered elsewhere than in India provided that it has leased the Drone to any organization mentioned in b and c above.

The Drone Policy prevents foreign nationals and subsidiaries of foreign companies from applying for a UIN to own a Drone. This provision will most likely discourage foreign Drone players entering into the Indian market as their Indian subsidiaries will not be able to own / operate Drones in India. This may also dis-incentivized foreign players from investing in the Indian Drone market.

OWNERSHIP: UNIQUE IDENTIFICATION NUMBER

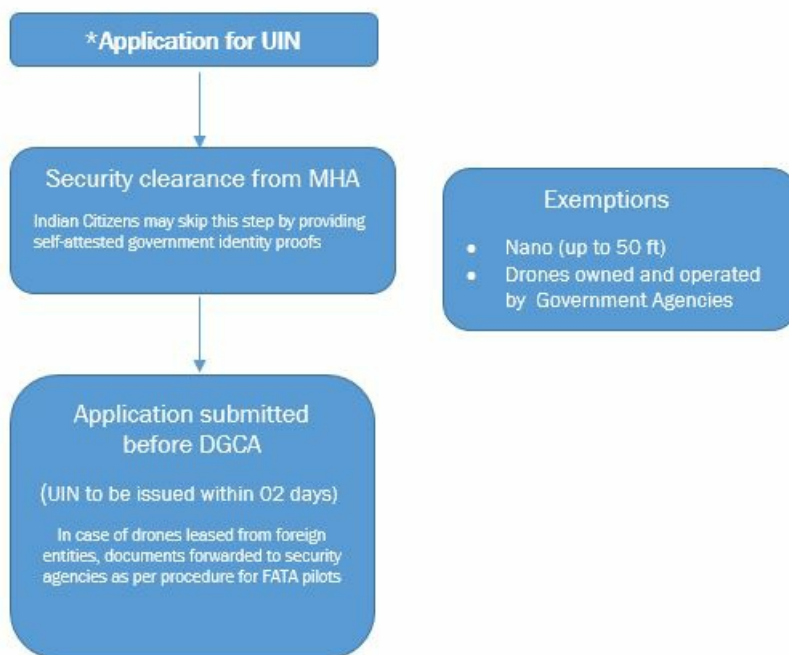
Having ensured that the ETA (and other relevant approvals for import of drones) have been duly obtained, to be eligible to own/operate Drones, one will require a UIN. However, Drone in the Nano category intended to fly up to 50 feet above ground level in uncontrolled airspace, enclosed premises for commercial, recreational or research and development purposes, and those owned by the National Technical Research Organisation (“**NTRO**”), Aviation Research Centre (“**ARC**”) and Central Intelligence Agency (“**CIA**”) (collectively referred to as “**Government Agencies**”) are exempt from this requirement.

The Drone Policy has provided detailed specifications on what is to be included in the UIN application including the prescribed form for the said application. Details of the owner, purpose and base of operations, specifications of the Drone, maximum All-Up-Weight, equipment specifications etc. are required for obtaining a UIN. In addition, security clearance is also required from the Ministry of Home Affairs (“**MHA**”) which is a pre-requisite for obtaining the UIN.

Do note that Indian citizens may exempt themselves from the requirement of security clearance from the MHA by providing self-attested copies of at least two out of three valid identity proofs such as passport, driving license or Aadhar Card. In case of foreign remote pilots employed by Indian entities, the DGCA shall forward documents for security clearance to security agencies in accordance with the procedure to be followed by Foreign Aircrew Temporary Authorization (“**FATA**”) pilots. There is no specific time-line provided for this additional procedure.

As per the Drone Policy, DGCA shall issue the UIN within 02 working days provided all relevant documents are duly submitted, Further, we understand that the submission of the documents / approval process would be via the online Digital Sky Platform. However, do note that there is no timeline provided within which the MHA needs to provide necessary security clearances.

Below is the step chart indicating the application process for obtaining a UIN:



OPERATION OF DRONES: UNMANNED AIRCRAFT OPERATOR PERMIT

Civil Drone operators for Drones i.e. persons, organizations or enterprises engaged in or offering to engage in the operation of Drones (“**Operators**”) must acquire UAOP from DGCA by submitting an application through the Digital Sky Platform with the prescribed fee and in the prescribed form. Operators of Drones in the Nano Category and of Drones in the Micro Category flying up to 50 feet and 200 feet respectively, in uncontrolled airspace / enclosed premises, are exempt from the requirement of obtaining a UAOP. Similarly, Operators of Drones owned by Government Agencies are also exempt from this requirement. However, in the case of Micro Drones, the operator is required to inform the concerned local police office twenty-four hours before operating the Drone.

The application for a UAOP, to be submitted through the Digital Sky Platform, is to include details of the Standard Operating Procedure (“**SOP**”) and requisite permissions from the property owners of areas where the take-off and landing of the Drone would take place. The Operator, in its application, must also provide details of the remote pilot, with either the security clearance from MHA or self-attested copies of at least two out of three valid government issued identification proofs such as Passport, Driving License or Aadhaar Card, in addition to the copies of the training records, insurance details and the security programme.

Once submitted with all requisite details, the DGCA is required to issue the UAOP within 07 working days. Copies of the same must be provided to the MHA, Bureau of Civil Aviation Security, Indian Air Force, ATS providers, which includes the Airport Authority of India (“**AAI**”) and Ministry of Defence, and the concerned district administration. In the case of a company or corporation registered outside India leasing a Drone to an Indian entity, only that Indian entity will be issued

the UAOP.

The validity of UAOP shall be for a period of 05 years from the date of issue and shall not be transferrable.

Below is the step chart indicating the application process for obtaining a UAOP:



REMOTE PILOT: TRAINING REQUIREMENTS

To be eligible to operate a Drone, a remote pilot is required to be 18 years of age, should have passed a tenth standard exam in the English language, and must have undergone thorough ground and practical training. However, these requirements will not apply for operation of Drones in the Nano and Micro categories.

The responsibility of providing ground training is upon DCGA approved Flying Training Organisations ("FTOs"). The training programme shall include teaching theoretical subjects intended to equip the pilots with knowledge equivalent to that undertaken by the aircrew of a manned aircraft or a private pilot license holder to enable him / her to control the operation of a Drone under any and all circumstances. Similarly, for obtaining practical training, a five-day intensive syllabus and curriculum has been prescribed for training remote pilots.

These requirements, to a certain extent, conform to international best standards such as in the United States, where a person must be at least 16 years of age and must pass an Aeronautical Knowledge Test ("AKT") at an FAA-approved knowledge-testing centre along with undergoing a Transportation Safety Administration ("TSA") security screening. Similarly, in Australia, for a person to pilot a Drone in a commercial operation, he / she must hold a 'Drone Controller's Certificate' as well as a remote pilot licence ("RePL").

EQUIPMENT STANDARDIZATION

All Drones, with the exception of Nano Drones flying up to 50 feet, must incorporate standardised equipment with serviceable components. There are varying requirements depending on the flight height of the Drone along with the airspace in which it is intended to fly (controlled / uncontrolled).

Such requirements include navigation satellite system, return home option, flashing anti-collision strobe lights, RFID and GSM SIM Card, being Digital Sky platform compliant for enabling real time tracking, fire resistant identification plate with inscribed markings, and finally, a flight controller with the capability to log all the flight data etc.

Irrespective of the flight height of such Drones, all Drones must be equipped with the capability of establishing two-way communication between the remote pilot and the concerned air traffic service. Additionally, the tracking system on the Drones is required to be both self-powered and tamper proof so that even in cases of an accident, data can be transmitted. The movement of such Drones is to be monitored by the Indian Air Force ("IAF") in coordination with the AAI.

FLYING RESTRICTIONS

The Drone Policy requires that the Drones ought to be operated within the visual line-of-sight and in the daytime-only. The visual line-of sight-requirement is in conformity with the present international norms and although it may limit some of the commercial applications of Drones, as Drone technology advances and Commercial Drones become the norm, such a requirement should undergo periodic relaxations.

The Drone Policy also divides the air space into different zones, indicated as follows;

- No Drone Zones - Flying not permitted
- Controlled airspace — permission required before flying
- Uncontrolled airspace — automatic permission

DRONE TRAFFIC CONTROL

The Operator will have to obtain permission to fly the Drone through the 'Digital Sky Platform' along with informing the local policy, prior to flying the drone. However, Nano Drones are exempt from this obligation.

In addition, all remote pilots are required to file their respective flight plans at least 24 hours prior to taking flight along with necessary air traffic clearances. The exception to this rule is for Nano and Micro category Drones intending to fly within the limits as prescribed under the Drone Policy.

To operate a Drone in the controlled airspace, the remote pilot must establish and maintain communication with the Air Traffic Controller ("ATC") before entering it. Such operators will also undertake safety risk assessment of such operations, both at the launch and the recovery site. Such take-off and landing sites should be segregated from public access and should be under the complete control of the Drone operator. Designated safe areas ought to be established for emergency drone holding and termination of its flight.

Operators shall also be responsible for ensuring the privacy norms of all concerned entities.

Drones, at all times, will have to give way to manned aircrafts and shall not discharge or drop any material or substance without special permission and as specified in the UAOP.

CONSEQUENCES FOR VIOLATION OF PROVISIONS

In the event of violation of any provisions in the Drone Policy, the UIN/UAOP issued by the DGCA shall be suspended/cancelled by the DGCA. Since the UIN and UAOP are mandatory for operating drones, suspension/cancellation should deter users from violating norms.

It is also provided that breach of compliance of any of the requirements stated in this regulation and falsification of records/documents shall attract penalties under various sections of the Indian Penal Code (“**IPC**”) including section 287 (negligent conduct with respect to machinery), section 336 (act endangering life or personal safety of others), section 337 (causing hurt by endangering life or personal safety of others), section 338 (causing grievous hurt by act endangering life or personal safety of others) and any other relevant section of the IPC. The Local Police Office shall have jurisdiction for enforcement of violations of provisions of the IPC. It is also provided that necessary actions may be taken as per the relevant sections of the Aircraft Act, 1934 / the Aircraft Rules 1937 or any statutory provisions.

ANALYSIS: HITS AND MISSES

The Drone Policy 1.0 is a welcome step towards civil use of Drones in India. Concepts such as the Digital Sky Platform portrays adoption of new-age technologies by the Indian government to ensure safety and accountability of all parties concerned. The Drone Policy promises to open various opportunities for the Indian economy including applications in industries such as security management, agriculture, infrastructure maintenance, insurance and others.

The commercialization of Drones, also promises to open up various new business opportunities and increase business efficiencies. For instance, high-level knowledge and skills will have to be acquired for safely operating a Drone. This will increase demand for Drone Operators, which should add skilled job opportunities in the Indian Market. There may be an increase in demand for trainers as well as FTOs, which might attract investments from businesses. After-sale servicing and repairing of Drones is likely to be another industry that will emerge. The Drone Policy also envisages Drones which may carry and discharge payloads, albeit requiring special permission, thereby paving the way for Drone delivery services. However, at the same time, the restrictive visual-line-of-sight requirement might limit its advancement for the time being.

However, it is unclear as to the rationale for restricting Drone usage for wholly owned / subsidiaries of foreign companies incorporated in India. Such restrictions may disincentive foreign participation in the Indian Drone market

Moreover, we are yet to see the development of the Digital Sky Platform as envisaged in the Drone Policy. We believe that the successful development of a robust Digital Sky Infrastructure will be critical to the success of the Drone Policy as such a technology not only envisages a one stop platform for granting approvals, but would also go a long way in enabling enforcement agencies to effectively monitor and regulate the operation of Drones in India. Currently, we are yet to see a beta version of such a Digital Sky Platform but hopefully the roll out should be in the coming months. In addition, considering that some of the provisions appear to be broad and lack specificity, there could be potential implementation delays.

Having said the above, it must be noted that the Drone Policy has been knowingly labelled as “Regulations 1.0” keeping open the possibility of amendments and improvements in the near future.

– Siddharth Ratho & Huzefa Tavawalla

You can direct your queries or comments to the authors

¹ http://dgca.nic.in/public_notice/PN_UAS.pdf

² [http://dgft.gov.in/Exim/2000/NOT/NOT16/Notification_No.16_\(English\).pdf](http://dgft.gov.in/Exim/2000/NOT/NOT16/Notification_No.16_(English).pdf)

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