



ASSEMBLY — 40TH SESSION

TECHNICAL COMMISSION

Agenda Item 30: Other issues to be considered by the Technical Commission

**UPDATE ON REGULATIONS FOR OPERATION OF
REMOTELY PILOTED AIRCRAFT SYSTEM**

(Presented by India)

EXECUTIVE SUMMARY

This information paper presents an update on the current regulations in India for civil use of remotely piloted aircraft systems (RPAS) commonly known as drones. The paper also provides the mechanism being adopted by India for the safety oversight of RPAS operations and future regulatory provisions being made.

| | |
|--------------------------------|--|
| <i>Strategic Objectives:</i> | This working paper relates to Strategic Objectives Safety. |
| <i>Financial implications:</i> | Nil |
| <i>References:</i> | |

1. INTRODUCTION

1.1 Regulations on civil RPAS in the Aircraft Rules, 1937 were introduced in November 2017. Based on the regulations, Director General of Civil Aviation (DGCA) issued Civil Aviation Requirements (CAR) Section 3 Series X Part I on operation of civil RPAS on 27 August 2018, effective 1 December 2018.

1.2 Guidance in the form of “DGCA RPAS Guidance Manual”, “Frequently Asked Questions (FAQs)”, “Dos & Don’ts”, and “Training And Procedures Manual For Remote Pilot Training” have also been issued which are available on DGCA Website <http://dgca.gov.in>.

1.3 The CAR broadly specify the categories of RPAS, procedure for acquiring a unique identification number (UIN) and an unmanned aircraft operator permit (UAOP). In addition, the requirements under the CAR cover security and safety of RPAS operations, remote pilot training, maintenance, and minimum standards for manufacturing of RPAS for both Indian and foreign manufactures.

2. DISCUSSION

2.1 Currently, the provisions of the CAR permit only day, visual line of sight and maximum up to 400 ft above ground level (AGL) (depending on the category of the drones). Tethered drones and model aircraft are not regulated whereas operation of fully autonomous aircraft is not permitted.

2.2 For the issuance of UIN, UAOP and controlling day-to-day operation of RPAS, an online web-based single window system called the “Digital Sky” is currently running on beta version.

2.3 The RPAS embedded with an encrypted (compatible) firmware by the manufacturer would receive permissions through “Digital Sky” each time before take-off. Without permission, the RPAS would not lift off (no permission – no take off). The permission may be automatic or may require manual intervention depending on the intended zone of operation. The platform will eventually enable UTM functions as well.

2.4 The RPAS (2 kg and above) is being provisionally certified by DGCA for the minimum equipment standards specified in the CAR for its compatibility with the digital sky platform. Subsequently, the owner/operator will be able to apply for UIN and UAOP (as applicable).

2.5 Currently, only Indian Citizens are permitted to operate drones in India and all the imported drones are required to meet the minimum equipment standards specified in the CAR before the drone can be imported into India.

2.6 DGCA, India has invited Expression of Interest (EoI) for conducting the experimental beyond visual line-of-sight (BVLOS) operation in the low risk areas. In future, commercial operations in BVLOS, night operations, commercial package delivery may be allowed which will be adequately catered in the next revision of the CAR.

2.7 The envisaged future work in the area would cover approving organizations involved in design and/or manufacturing of RPAS, certification of RPAS, remote pilot training, and licensing of remote pilots.

2.8 Currently, counter/anti-drone systems primarily fall in the domain of security agencies, however, keeping in mind and understanding that there may be legitimate as well as illegitimate drone operations, the use of counter/anti drone systems in and around the airport would need to be studied extensively and regulated for safety and security of both manned and unmanned aircraft.

3. CONCLUSION

3.1 The Assembly is invited to note the information contained in this paper.