

GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
RAJYA SABHA
UNSTARRED QUESTION NO : 1454
(TO BE ANSWERED ON THE 5th August 2024)

REGULATORY CHALLENGES POSED BY UNMANNED AVIATION

1454. SHRI AYODHYA RAMI REDDY ALLA

Will the Minister of CIVIL AVIATION be pleased to state:-

- (a) whether Government is addressing the regulatory challenges posed by the rapid advancement of unmanned aviation, ensuring public safety while fostering innovation, if so, the details thereof;
- (b) the initiatives being undertaken to enhance the autonomy and artificial intelligence capabilities of UAVs, and the potential applications these advancements hold; and
- (c) the measures being taken to address concerns surrounding data privacy and security in the context of unmanned aviation, particularly with regards to surveillance and monitoring?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF CIVIL AVIATION

(Shri Murlidhar Mohol)

(a) In order to address the regulatory challenges posed by the rapid advancement of unmanned aviation, ensuring public safety while fostering innovation, Ministry of Civil Aviation has issued the Drone Rules, 2021, the Drone (Amendment) Rule, 2022 and Drone (Amendment) Rule, 2023. The salient features of the Drone Rules 2021 are as follows:

(i) the entire airspace of India is segregated into green, yellow and red zones based on the location of airports and other specified vital installations and is displayed on the Digital Sky Platform.

(ii) for any operation of a drone in green zone following is required:

1.The drone has to conform to the type certificate issued by Directorate General of Civil Aviation (DGCA) unless exempted thereby ensuring quality and public safety.

2.The drone should have unique identification number (UIN) obtained through self-registration on the Digital Sky Platform for traceability.

3.The remote pilot should have valid Remote Pilot Certificate (RPC) by a DGCA

authorised Remote Pilot Training Organisation (RPTO) after training & passing the test for safe operation.

4.The drone should have valid insurance to cover third party damage.

(iii) for operation in yellow zone, permission from concerned Air Traffic Control (ATC) authority is required which ensures safe and restricted access to drones into controlled airspace.

(iv) No drones are allowed to operate in red zone unless permitted by Central Government.

(b) The enhancement of autonomy and AI capability of the Unmanned Aircraft System (UAS) has to be led by industry. This would require investment in R&D of the UAS. The Production Linked Incentive (PLI) scheme for drones and drone components of Ministry of Civil Aviation is an initiative to enhance the capacity of industry.

Further, as per Drone Rules, 2021, there is no restriction for R&D organisation on UAS operations in green zone under the control of such organisation thereby supporting innovation and advancement by the industry for various applications like precision agriculture, mining, mapping surveillance etc.

(c) Various measures are being undertaken to address concerns surrounding data privacy and security are as under:

(i)All drones type certified under the Certification Scheme for Unmanned Aircraft System (CSUAS) issued by the Ministry of Civil Aviation have tamper avoidance mechanism for "Firmware" as well as "Hardware" to protect onboard computer from tampering (unauthorised access). The continued compliance by the manufacturer (Type Certificate Holder) for the same is ensured through surveillance audit by DGCA.

(ii) Presently, the operation of the Unmanned Aircraft System has been restricted to Visual Line of Sight (VLOS) conditions only and the safe operation is ensured through the trained and certified remote pilots.

(iii) No drones are allowed to operate in red zone unless permitted by Government and concerned owner of the red zone. Unauthorised access into red zone is a cognizable offence in the Drone Rules, 2021.
