

Road map for drones

14th April, 2018



With an aim to prepare a road map and fast-track the implementation of unmanned aerial vehicle (UAV) technology, or drones, in the country, the Centre has announced setting up of a 13-member task force headed by Minister of State for Civil Aviation Jayant Sinha.

Terms of reference:

- Apart from developing a road map, the task force would also lay down implementable recommendations for central and state governments, industry and research institutions.
- The committee's road map would also focus on R&D, acquisition and commercialisation, application and adoption in specific sectors, regulatory framework as well as preference for Make in India.

What necessitated this move?

That drones have tremendous practical applications can no longer be disputed. Some of India's startups are revolutionising drone applications in areas as diverse as disaster management, precision agriculture and crop insurance, mining, infrastructure projects, and land records. The increasing use of drone-enabled solutions by various state departments and ministries — such as the railways, surface transport, power, and law enforcement — further validates their efficacy. Yet, the Indian regulatory approach has been unfriendly thus far towards drone innovations and applications.

Draft Regulation on Civil Use of Drones Announced:

The Directorate General of Civil Aviation, in November 2017, announced draft regulations on civil use of Remotely Piloted Aircraft Systems, commonly known as Drones.

- As per the draft, all commercial categories of drones except those in the Nano category and those operated by government security agencies, will have to be registered by DGCA in the form of Unique Identification Number (UIN).
- The Mini and above categories will require Unmanned Aircraft Operator Permit (UAOP), but the model aircraft up to maximum take-off weight of 2 Kgs flown below 200 feet inside educational institution premises will not require UIN/UAOP.
- The draft regulation also mandates remote pilots to undergo requisite training, except for Nano and micro categories. As per the draft regulation, the Micro and above category drones will have to be equipped with RFID/SIM, return to home option and anti-collision lights.
- The draft regulation also specifies certain restricted areas for operations of drones. Drones cannot be operated within an area of 5km from airport, within permanent or temporary Prohibited, Restricted and Danger Areas as notified by AAI in AIP and without prior approval over densely populated areas or over or near an area affecting public safety or where emergency operations are underway and within 50 km from international border and beyond 500 m (horizontal) into sea along the coastline.

Way ahead:

Flying drones safely in India will require research and development to understand how they can be best used in India's unique landscape. Such R&D occurs best in a market-oriented environment, which will not happen unless civilian drone use is permitted. Building profitable companies around drone use can be complicated when the core business model is illegal.

What's important?

For Mains: Drones- civil and military uses, their regulation- need and challenges.

To be looked in UPSC Paper 3 Topic: Awareness in the fields of IT, Space, Computers, robotics, nano-technology.