

The Unmanned Aircraft System Rules, 2021

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In News: Recently, the Ministry of Civil Aviation has notified the Unmanned Aircraft System (UAS) Rules, 2021, which lay the terms of drone usage by individuals and businesses as well as terms of research, testing, production and import of these vehicles.

The Unmanned Aircraft System Rules, 2021

- The new rules set a regulatory framework aimed at encouraging the use of drones for various commercial and security purposes and outlines the 'dos and don'ts' for users.
- Drones weighing more than 250 grams (gm) can only be flown by a remote pilot with permission from the Directorate General of Civil Aviation (DGCA) for every flight.
- A permit will be needed to use a drone other than those in the nano category, weighing 250gm or less.
- Nano drones with a maximum speed of more than 15 metres per second in level flight or capable of flying more than 15 metres high and have a range exceeding 100 metres from the remote pilot will fall in the next category—micro drones for which permit and take-off permission are needed.
- New rules prescribe penalties for any unauthorized import, buying, selling and leasing of drones. Such penalties will be more for heavier drones.
- These rules also apply to drones that are currently used in the country.
- Flying a drone by a person who is not a licensed remote pilot will also be a compoundable offence.
- According to New rules, drones will not be allowed to

operate beyond visual line of sight or for delivery of goods, which would limit the use of these gadgets to surveys, photography, security and various information gathering purposes.

The drone rules, 2021 has also listed a set of essential equipment without which any drone will be deemed unfit to fly.

The essential equipment include:

- Global Navigation Satellite System (GNSS) receiver(s) for horizontal and vertical position fixing
- Autonomous Flight Termination System or Return To Home (RTH) option
- Geo-fencing capability
- Flashing anti-collision strobe lights
- Flight controller
- Flight data logging capability
- No Permission – No Takeoff (NPNT) compliant
- Secondary Surveillance Radar (SSR) transponder (Mode C or S) or ADS-B OUT equipment (if intended to operate beyond 400 feet/120 m AGL)
- Reliable Command and Control Link
- Real-time tracking system
- Barometric equipment with capability for remote subscale setting
- Detect and Avoid (if intended to operate beyond 400 feet/120 m AGL)
- Manufacturer Serial Number
- Fire-resistant identification plate for engraving the UIN
- A two-way communication system (if intended to operate beyond 400 feet/120 m AGL)
- 360 degrees collision avoidance system

Unmanned Aircraft Systems

- Unmanned Aircraft means an aircraft, which is intended

to operate with no pilot on board and UAS includes these and the associated elements.

- Categories: Aeroplane, Rotorcraft and Hybrid unmanned aircraft system.
- Sub-categories: Remotely piloted, Model remotely piloted and Autonomous unmanned aircraft systems.
- Remotely piloted aircraft have been divided into five categories based on their weight-
 - **Nano** : Less than or equal to 250 grams.
 - **Micro** : From 250 grams to 2kg.
 - **Small** : From 2 kg to 25kg.
 - **Medium** : From 25kg to 150kg.

Large : Greater than 150kg

About the UAS

Rules apply to:

- UAS registered in India.
- A person owning or possessing or engaged in exporting, importing, manufacturing, trading, leasing, operating, transferring or maintaining an UAS in India.

Eligibility Criteria for grant of authorisation as importer, manufacturer, trader, owner or operator

- **In case of individuals:** Citizen of India and 18 years of age or more.
- **In case of company/body corporate:** Registered and has its principal place of business within India. Chairman and at least two-thirds of its directors are citizens of India.
- **In case of firm/association of persons or body of individuals or a local authority or any legal entity:** Has a principal place of business within India, whether incorporated or not, Central Government and State Government or an agency thereof.

Prohibitions

- No UAS shall be used or operated or transferred to any other person in India unless it is registered with the DGCA and it has a certificate of conformance issued either by an authorised importer or manufacturer.
- Prohibition on carriage of arms, ammunition, explosives, military stores, etc.
- No person shall drop or project or cause or permit to be dropped or projected from an UAS in motion anything except in a manner and procedure as specified by the DGCA.
- Drones will not be allowed to operate beyond visual line of sight, which would limit the use of these gadgets to surveys, photography, security and various information gathering purposes.
- No person shall carry dangerous goods on unmanned aircraft unless such operation is in compliance with the Aircraft (Carriage of Dangerous Goods) Rules, 2003.