

CLIENT ALERT

A Bright End to a Bleak Year: the FAA Releases Final Rules on Remote ID and Operations Over People

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This week, the FAA delivered on its promise to the drone industry that it would release a final rule of both Remote Identification of Unmanned Aircraft Systems (Remote ID) and Operations Over People before we all put 2020 in the rear view mirror. The release of the final rules is a major milestone for the drone industry; once fully implemented, the rules will enable routine, complex unmanned aircraft system (UAS or drone) operations, such as operations beyond visual line of sight (BVLOS) and operations over people, and will lay the groundwork for an Unmanned Traffic Management System that will allow for full integration of drones into the National Airspace System.

Remote ID

Coming almost two years after release of the proposed rule, the final rule adopts much of the one proposed, while deviating in some key areas. Remote ID will provide identification of drones in flight and the location of their control stations or takeoff locations, creating a “digital license plate” for use by public safety agencies and law enforcement.

Spoiler alert: the final rule does not require network transmission of Remote ID message elements.

The final rule creates a new Part 89 of the Federal Aviation Regulations and will become effective 60 days after publication in the Federal Register. Under the new regulation, any drone that is required to be registered will need to comply with Remote ID requirements. Practically, this means that drones weighing over .55 pounds and drones being operated under Part 107 (without regard to minimum weight) will need to have remote ID capability. After the applicable implementation periods, no drone required to comply with Remote ID may be manufactured or operated in the U.S. unless it complies with the rule’s equipage and broadcast requirements. Once the rule is published in the Federal Register, drone manufacturers will have 18 months and 60 days to produce compliance aircraft and operators will have 30 months and 60 days to operate compliant aircraft.

Manufacturers of standard Remote ID drones and broadcast modules will be required to comply with certain design and production requirements. Recognizing that the drone industry continues to evolve, the FAA is implementing performance-based design and production requirements to describe desired outcomes and goals, as opposed to mandating specific design and production requirements and processes. Thus, manufacturers of standard Remote ID drones and broadcast modules for operation in the U.S. must show that the relevant device meets the requirements of an FAA-accepted means of compliance. Additionally, manufacturers will be required to issue each standard remote ID drone or broadcast module a serial number that complies with the ANSI-CTA-2063-A standard, label the relevant device to indicate that it complies with Remote ID, and submit a declaration of compliance to the FAA, indicating that the relevant device complies with Remote ID.

Operators may comply with Remote ID in one of three ways:

- **Standard Remote ID:** The drone must broadcast Remote ID messages directly from the aircraft via radio frequency broadcast. This category of compliance was included in the proposed rule, though, notably, the final rule has removed the requirement that the drone also transmit remote ID messages via internet connection to a third-party service supplier. Operators flying BVLOS must do so using a Standard Remote ID drone and must comply with the broadcast requirements. The Remote ID messages must include either the drone's serial number or a session ID (a randomly-generated alphanumeric code assigned on a per-flight bases), the latitude, longitude and altitude of the drone and the control station, the velocity of the drone, the drone's emergency status, and a time stamp.
- **Unmanned Aircraft with a Remote ID Broadcast Module:** This method allows operators to comply via a separate Broadcast Module, which is a separate device that is either attached to (in the case of a retro-fitted aircraft) or built into (in the case of a newly manufactured aircraft) the drone. The Remote ID messages must include the serial number of the broadcast module (as opposed to the drone itself), the longitude, latitude, and altitude of the drone and the take-off location, the velocity of the drone, and a timestamp. This category of compliance was not included in the proposed rule.
- **FAA-Recognized Identification Areas (FRIAs):** This method of compliance allows operators (mainly recreational operators) to operate a drone within an FAA-approved geographic area. The FRIA option was created mainly for recreational operators, and BVLOS operations are prohibited under this method of compliance. The FAA will begin accepting applications from community-based organizations and educational institutions 18 months after the rule is published in the Federal Register.

The proposed rule raised a number of privacy concerns within the drone industry, primarily driven by fears that the government and the general public would have unbridled access to flight and identifying data.

Under the final rule, remote ID messages may be received by an in-range personal wireless device, however, only the FAA will have the ability to match a particular serial number or session ID with registration information that could identify the registered owner. Though a welcome safeguard, this change does not seem to address stakeholders' concerns that the general public could access geolocation and other flight data, which could expose the drones themselves and their pilots to unwanted attention and/or risk.

Operations Over People

The final rule for Operations Over People, which will also take effect 60 days after publication, allows for routine flights over people not participating in the operation without a waiver if the operator can demonstrate that the operation is unlikely to cause serious injury to a person on the ground in the event of an equipment failure. The rule creates four categories of aircraft, each with distinct technical capabilities and operational restrictions for operations over people.

- **Category 1 aircraft** must weigh less than .55 pounds, including payload and external attachments and must not contain any exposed rotating parts that could lacerate human skin. Category 1 aircraft will not need to comply with an FAA-accepted means of compliance or hold a declaration of compliance.
- **Category 2 aircraft** must not cause injury to a human that is equivalent to or greater than the severity of injury caused by a transfer of 11 foot-pounds of kinetic energy upon impact from a rigid object, must not contain any exposed rotating parts that could lacerate human skin, and must not contain any safety defects. Category 2 aircraft must meet an FAA-accepted means of compliance and have a Declaration of Compliance.

- **Category 3 aircraft** must not cause injury to a human being that is equivalent to or greater than the severity of injury caused by a transfer of 25 foot-pounds of kinetic energy upon impact from a rigid object, must not contain any exposed rotating parts that could lacerate human skin, and must not contain any safety defects. Category 3 aircraft must meet an FAA-accepted means of compliance and have a declaration of compliance.
- **Category 4 aircraft** must have an airworthiness certificate issued under 14 CFR Part 21 and must be operated in accordance with the approved flight manual. The addition of Category 4 marks a significant change from the proposed rule and reflects the FAA's recent progress toward issuing type certificates for drones.

A less buzzworthy aspect of the rule is its allowance of night operations for operators with specific training that use an aircraft that meets the rule's external lighting requirements. This part of the rule will provide much-needed relief for public safety agencies, which often need to conduct night operations as part of emergency response activities and are currently required to obtain waiver from the FAA to conduct such operations. The final rule did not contain any significant changes from the proposed rule with regard to night operations.

While certainly a welcome development at the end of a tumultuous year for the aviation industry, there will be much work to do before the rules can be implemented, and stakeholders should begin planning a compliance strategy for both Remote ID and Operations Over People (if applicable) well before the implementation periods approach over the next several years.

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