



Executive Summary
Final Rule on
Remote Identification of Unmanned Aircraft (Part 89)
December 28, 2020

The Remote Identification of Unmanned Aircraft Final Rule is the next incremental step towards further integration of Unmanned Aircraft (UA) in the National Airspace System. In its most basic form, remote identification can be described as a “digital license plate” for UA. Remote ID is necessary to address aviation safety and security issues regarding UA operations in the National Airspace System, and is an essential building block toward safely allowing more complex UA operations.

The final rule establishes a new Part 89 in Title 14 of the Code of Federal Regulations. The final rule has been sent to the Office of the Federal Register and will become effective 60 days after the publication date in the Federal Register. Publication is expected in January 2021. Compliance timeframes and major provisions are summarized below.

Operating Rules

Under the final rule, all UA required to register must remotely identify, and operators have three options (described below) to satisfy this requirement. For UA weighing 0.55 lbs or less, remote identification is only required if the UA is operated under rules that require registration, such as part 107. Operational rules take effect 30 months after the effective date of the rule.

1. Standard Remote ID Unmanned Aircraft:
 - Broadcasts remote ID messages directly from the UA via radio frequency broadcast (likely Wi-Fi or Bluetooth technology), and broadcast will be compatible with existing personal wireless devices.
 - Standard Remote ID message includes: UA ID (serial number of UA or session ID); latitude/longitude, altitude, and velocity of UA; latitude/longitude and altitude of Control Station; emergency status; and time mark.
 - Remote ID message will be available to most personal wireless devices within range of the broadcast; however, correlating the serial number or session ID with the registration database will be limited to the FAA and can be made available to authorized law enforcement and national security personnel upon request.
 - Range of the remote ID broadcast may vary, as each UA must be designed to maximize the range at which the broadcast can be received.

2. UA w/ Remote ID Broadcast Module:

- Broadcast Module may be a separate device that is attached to an unmanned aircraft, or a feature built into the aircraft.
- Enables retrofit for existing UA, and Broadcast Module serial number must be entered into the registration record for the unmanned aircraft.
- Broadcast Module Remote ID message includes: serial number of the module; latitude/longitude, altitude, and velocity of UA; latitude/longitude and altitude of the take off location, and time mark.
- UA remotely identifying with a Broadcast Module must be operated within visual line of sight at all times.
- Broadcast Module to broadcast via radio frequency (likely Wi-Fi or Bluetooth technology).
- Compatibility with personal wireless devices and range of the Remote ID Broadcast Module message similar to Standard Remote ID UA (see above).

3. FAA-Recognized Identification Areas (FRIA):

- Geographic areas recognized by the FAA where unmanned aircraft not equipped with Remote ID are allowed to fly.
- Organizations eligible to apply for establishment of a FRIA include: community-based organizations recognized by the Administrator, primary and secondary educational institutions, trade schools, colleges, and universities.
- Must operate within visual line of sight and only within the boundaries of a FRIA.
- The FAA will begin accepting applications for FRIAs 18 months after the effective date of the rule, and applications may be submitted at any time after that.
- FRIA authorizations will be valid for 48 months, may be renewed, and may be terminated by the FAA for safety or security reasons.

Design and Production Rules for Manufacturers

- Most unmanned aircraft must be produced as Standard Remote ID Unmanned Aircraft and meet the requirements of this rule beginning 18 months after the effective date of the rule.
- Remote ID Broadcast modules must be produced to meet the requirements of the rule before they can be used.
- The final rule establishes minimum performance requirements describing the desired outcomes, goals, and results for remote identification without establishing a specific means or process.
- A person designing or producing a standard UA or broadcast module must show that the UA or broadcast module met the performance requirements of the rule by following an FAA-accepted means of compliance.
- Under the rule, anyone can create a means of compliance. However, the FAA must accept that means of compliance before it can be used for the design or production of any standard remote identification UA or remote identification broadcast module.
- FAA encourages consensus standards bodies to develop means of compliance and submit them to the FAA for acceptance.
- Highlights of Standard Remote ID UA Performance Requirements:
 - UA must self-test so UA cannot takeoff if Remote ID is not functioning

- Remote ID cannot be disabled by the operator
- Remote ID Broadcast must be sent over unlicensed Radio Frequency spectrum (receivable by personal wireless devices, ex: Wi-Fi or Bluetooth)
- Standard Remote ID UA and Remote ID Broadcast Modules must be designed to maximize the range at which the broadcast can be received.

Other Provisions in the Remote ID Final Rule

- Automatic Dependent Surveillance-Broadcast (ADS-B) Out and Air Traffic Control (ATC) Transponder Prohibition for UAS
 - The final rule amends Parts 91 and 107 to prohibit use of ADS-B Out or ATC Transponders on UAS unless otherwise authorized by the Administrator, or if flying under a flight plan and in two-way radio communication with ATC.
 - ADS-B Out & ATC transponder authorization is likely for large UAS operating in controlled airspace.
 - Part 89 prohibits the use of ADS-B Out as a means of meeting remote ID requirements.
- Aeronautical Research
 - The rule provides for operators to seek special authorization to operate UA without remote identification for the purpose of aeronautical research or to show compliance with regulations.
- Deviation authority
 - Final rule provides a mechanism for the FAA Administrator to authorize deviations from the operating requirements.
- Foreign Registered Civil Unmanned Aircraft Operated in the United States
 - The rule allows a UA registered in a foreign country to be operated in the United States only if the operator files a notice of identification with the FAA. This enables the FAA and law enforcement to correlate a remote ID broadcast with a person responsible for the operation of a foreign-registered UA.

Major Changes from Proposed Rule to Final Rule

- Network-based / Internet transmission requirements have been eliminated. The final rule contains Broadcast-only requirements.
- UAS operators under the Exception for Limited Recreational Operations may continue to register with the FAA once, rather than registering each aircraft. However each Standard UA or Broadcast Module serial number must also be entered into the registration record for the unmanned aircraft.
- 'Limited Remote ID UAS' has been eliminated and replaced with Remote ID Broadcast Module requirements to enable existing UA to comply.
- FRIA applications may be submitted to the FAA beginning 18 months after the effective date of the rule, and applications may be submitted at any time after that.
- Educational institutions may now apply for FRIAs as well as community-based organizations.