Executive Summary
Notice of Proposed Rulemaking on
Remote Identification of Unmanned Aircraft Systems (Part 89)
December 20, 2019

The Notice of Proposed Rulemaking (NPRM) proposes to add a new part 89 to Title 14 of the Code of Federal Regulations. The NPRM will be open for a 60-day comment period upon publication.

Purpose
- Remote identification of Unmanned Aircraft Systems (UAS) is necessary to address aviation safety and security issues related to the integration and operation of UAS in the National Airspace System and is an essential component of future UAS Traffic Management.
- National security partners, Federal, State, and local law enforcement agencies need to know the location and identity of unmanned aircraft (UA) and must be able to locate the control station. For security reasons and threat discrimination purposes, they also need to have near real-time access to remote ID messages. The proposed rule addresses this by requiring all UAS to transmit the remote ID message via the internet to a Remote ID UAS Service Supplier (USS) and by requiring certain UAS to broadcast the remote ID message directly from the UA.
- The transmission requirements enable the storage of the data for investigation purposes.

The proposed rule is structured around operating rules for UAS operators and design and production rules for manufacturers of UAS operated in the United States.

Operating Rules
Under the proposed rule, any UA that is required to be registered (e.g., because it weighs more than 0.55 lbs. or is operated under part 107) must remotely identify. Operators have three ways to satisfy the proposed remote identification requirements.

1. Operate a standard remote ID UAS:
   - A standard remote ID UAS both:
     - Transmits the remote ID message over the internet to a Remote ID USS; and
     - Broadcasts the remote ID message directly from the UA via radio frequency (RF) spectrum.
   - If no internet is available, the operator of a standard remote ID UAS may broadcast only.
   - The remote ID message of a standard remote ID UAS includes:
2. Operate a limited remote ID UAS:
   • A limited remote ID UAS transmits remote ID messages over the internet to a Remote ID USS.
   • A limited remote ID UAS cannot operate more than 400 feet from the control station.
   • A limited remote ID UAS must be operated within visual line of sight.
   • The remote ID message of a limited remote ID UAS includes:
     o UAS ID (serial number of UAS or session ID);
     o Latitude/longitude and altitude of the control station; and
     o Time stamp.

3. Operate a UAS with no remote identification equipment at an FAA-recognized identification area (FRIA):
   • FRIAS are geographic areas recognized by the FAA where UAS that cannot remotely identify are allowed to fly. Community based organizations may apply for the establishment of a FRIA.
   • UAS with no remote identification capabilities (e.g., those manufactured prior to the compliance date of the final rule that are not updated to meet the performance requirements of the final rule and amateur-built UAS) can operate at FRIAS.
   • UAS with no remote identification must operate within visual line of sight and within the boundaries of a FRIA.

Note: Remote ID USS would be third-party service suppliers qualified by the FAA to offer remote ID services. Remote ID USS are expected to be similar to the third parties currently providing services under the FAA’s Low Altitude Authorization and Notification Capability (LAANC). Remote ID USS would collect and store remote ID message data and provide it to the FAA.

The proposed rule would require operators of UAS to comply with the new requirements by the compliance dates specified in the proposal. The FAA expects a significant number of existing UAS to become compliant with the proposed requirements through software upgrades pushed by manufacturers. UAS that cannot comply with remote ID requirements would have to operate exclusively within a FRIA, as previously described.

**Design and Production Rules for Manufacturers**

- As a general rule, after the compliance date of the final rule, all UAS manufactured for operation in the United States must be standard remote ID UAS or limited remote ID UAS.
- Manufacturers would have to meet the performance requirements for remote ID by using an FAA-accepted means of compliance (MOC).
• Manufacturers would file a declaration of compliance (DOC) declaring to the FAA that the UAS meet the performance requirements for remote ID and stating which MOC was used for the manufacturing of the UAS.

• UAS must be labeled as either standard remote ID UAS or limited remote ID UAS.

• The proposed rule requires manufacturers to:
  • Allow the FAA to inspect their facilities, technical data, and any UAS produced.
  • Perform independent audits on a recurring basis to demonstrate the UAS meet the remote identification requirements.
  • Maintain product support and notification procedures to notify the public and the FAA of any defect or condition that causes a UAS to no longer meet the remote identification requirements.

• Some of the highlights of the performance requirements for remote ID include:
  • The UAS must self-test so the UA cannot takeoff if the remote ID equipment is not functioning.
  • The remote ID functionality cannot be turned off.
  • The UAS must automatically connect to internet and transmit the remote ID message to a Remote ID USS.
  • Standard remote ID UAS must also broadcast the remote ID message over unlicensed RF spectrum receivable by personal wireless devices (e.g., Wi-Fi or Bluetooth).
  • Limited remote ID UAS must have a built-in feature that prevents it from operating more than 400 feet from the control station.

**Other proposed rule changes in the Remote ID NPRM**

• The NPRM proposes to prohibit the use of Automatic Dependent Surveillance-Broadcast (ADS-B) Out and Air Traffic Control (ATC) Transponder in most UAS operations.
  • The NPRM proposes to amend parts 91 and 107 to prohibit the use of ADS-B Out or ATC Transponders on UAS, unless otherwise authorized by the Administrator, or unless the UAS is flying under a flight plan and is in two-way radio communication with ATC.
  • The NPRM recognizes that ADS-B Out and ATC transponder authorization is likely necessary for large UAS operating in controlled airspace.
  • Proposed part 89 prohibits the use of ADS-B Out as a means of meeting the remote ID requirements.

• Registration Rule changes:
  • The NPRM proposes to amend parts 47 and 48 to require, as part of the registration process, the provision of the serial number of the UA and the telephone number of the owner of the UA.
  • The NPRM proposes to revise part 48 to have a single set of registration requirements for all small UAS (irrespective of whether they are flown for recreational or non-recreational).