wiley

ALERT

FAA Releases Long-Awaited Remote ID NPRM

December 26, 2019

This morning, the Federal Aviation Administration (FAA) released its long-awaited notice of proposed rulemaking (NPRM) on the remote identification (remote ID) of unmanned aircraft systems (UAS or drones), or the ability of people on the ground to determine the identity of an unmanned aircraft in flight. The item is expected to be published in the Federal Register on December 31, 2019, which will initiate a 60-day comment period. This rulemaking is expected to be hugely consequential for the UAS industry, as security stakeholder concerns about the inability to identify UAS in flight have caused considerable delay of the FAA's regulatory agenda to revise its Part 107 rules to enable expanded commercial UAS operations including flights over people, at night, and beyond visual line of sight (BVLOS).

The NPRM Proposal

The NPRM proposes to subject both UAS operators and manufacturers to remote ID requirements. The proposal establishes two categories of remote ID capabilities—"standard remote ID" and "limited remote ID." Standard remote ID would publish information about the aircraft and control station (the remote ID message) using both radiofrequency broadcasting and via the internet to a Remote ID UAS Service Supplier (USS), and UAS equipped with standard remote ID could operate BVLOS (with the proper FAA authorization, of course, as Part 107 currently prohibits BVLOS operations without a waiver). Limited remote ID would publish the remote ID message only to a USS, and the UAS would need to be operated within visual line of sight. For either category of remote ID capability, the remote ID message would contain the same information: (1) the UAS ID (serial number of UAS or session ID); (2) latitude/longitude and altitude of the control station; and (3) time stamp, except that standard remote ID systems also would be required to provide the location of the

Authors

Joshua S. Turner
Partner
202.719.4807
jturner@wiley.law

Sara M. Baxenberg
Partner
202.719.3755
sbaxenberg@wiley.law

Practice Areas

Telecom, Media & Technology
Uncrewed Aircraft Systems (UAS)

aircraft. The NPRM also proposes to allow UAS that are not equipped with remote ID to operate in specially designated areas, called FAA-recognized identification areas (FRIAs).

Manufacturers would be required to equip UAS with remote ID using an FAA-approved means of compliance, issue each UAS a serial number, label the aircraft with the proper remote ID capability, and submit a declaration of compliance to the FAA.

Here is a more detailed breakdown of the proposed requirements:

Proposed Remote ID Requirements for UAS Operators

- **Scope of proposed requirements.** All operators of UAS that are required to be registered (in other words, all UAS greater than 0.55 pounds or operated pursuant to the FAA's Part 107 rules) would be subject to remote ID requirements.
- **Compliance.** As illustrated in the FAA's graphic below, the NPRM proposes three options for complying with remote ID requirements: (1) utilize standard remote ID (broadcast and USS, where internet connection is available); (2) utilize limited remote ID (USS only) and operate the UAS only within visual line of sight and no more than 400 feet from the control station; or (3) use no remote ID, and operate only within visual line of sight and within the boundaries of a FRIA. A couple of notes about FRIAs:
    - As discussed in the next section, the NPRM proposes that all UAS manufactured for use in the United States will be required to have either standard or limited remote ID capability. Accordingly, remote-ID-less use of UAS at FRIAs would be limited to amateur-built aircraft and those manufactured before the compliance dates.
    - In addition, the NPRM proposes that only community-based organizations (CBOs) could apply to be designated as an FRIA. A CBO is an FAA-recognized organization that is dedicated to model aviation. This term is used in the context of the statutory exception from certain FAA rules for model aircraft (originally Section 336 of the 2012 FAA Modernization and Reform Act, but more recently repealed and replaced with Section 349 of the FAA Reauthorization Act of 2018). To avoid the more stringent requirements of the FAA's Part 107 rules, a recreational UAS operator needs to operate "within the programming of a [CBO's] safety guidelines."
- **Implementation timeline.** The NPRM proposes a 36-month transition period from the effective date of the rule, after which all operators would be subject to the remote ID requirements.

Proposed Remote ID Requirements for UAS Manufacturers

- **Scope of proposed requirements.** All UAS designed or produced for use in the United States would be required to be equipped with either standard or limited remote ID.
- **Compliance.** The NPRM proposes four basic requirements for manufacturers: (1) equip the aircraft with remote ID capabilities using an FAA-approved means of compliance; (2) issue each unmanned aircraft a serial number that complies with the ANSI/CTA-2063-A serial number standard; (3) label the

unmanned aircraft to indicate that it is remote ID compliant and the type of remote ID (standard, limited); and (4) submit a declaration of compliance for acceptance by the FAA.

  - To get approval for a remote ID means of compliance, the manufacturer would be required to submit testing and validation procedures demonstrating that the remote ID capabilities function as intended and in compliance with the performance requirements in the proposed rules. The proposed performance requirements vary significantly in their measurability and subjectivity—for instance, they include requirements both that the position of the UAS be accurate "to within 100 feet of the true position, with 95 percent probability," but also that the UAS be designed to "reduce[] the ability of a person to tamper with the remote identification functionality."
  - The FAA's proposed means of compliance process necessarily means that manufacturers will not be able to comply with remote ID until the FAA has approved their means of compliance. Earlier this year, in its NPRM on UAS flights over people, the FAA proposed a similar means of compliance process for meeting injury risk thresholds.
- **Implementation timeline.** The NPRM proposes a 24-month transition period from the effective date of the rule, after which UAS would be required to have an FAA-accepted declaration of compliance.

Quick Takeaways from the NPRM

The Wiley Rein UAS team is still evaluating the NPRM, a more-than-300-page document with detailed proposals, but at a high level, the NPRM is consistent with the concepts that have emerged for remote ID through the FAA's Remote ID and Tracking Aviation Rulemaking Committee (ARC) and in other fora. First, the industry and the agency have recognized the potential of both broadcast and networked solutions for Remote ID. The FAA has employed the third-party supplier model in the context of the Low Altitude Authorization and Notification Capability (LAANC), which enables UAS operators to obtain real-time authorization to operate in controlled airspace. It was widely expected that the FAA would use the same third-party supplier model for remote ID deployment, given the success of the model in the context of LAANC and the FAA's release of a Request for Information just over a year ago seeking USS for remote ID.

The long compliance timelines raise questions about the future of the FAA's regulatory agenda, given that the lack of remote ID implementation has held up future rulemakings for expanded UAS operations. If the FAA adopts its proposal and finishes the rulemaking in 2020 (which would be an ambitious but achievable timeline), the earliest that all UAS would be remote-ID compliant would be sometime in 2023. It is likely that the FAA would continue with other rulemakings during this transition period so that operators could begin conducting expanded operations immediately once the remote ID requirements are effective, but the agency's precise regulatory timeline is unclear. In the NPRM, the FAA notes that "[a] final rule for operation of small UAS over people and at night is contingent upon a final action for UAS with remote identification being in effect."

The agency also asks about whether entities obtaining waivers from Part 107 to conduct expanded operations should be required to comply with remote ID requirements—depending on how quickly the technology can be deployed, such a policy could allow for more expanded operations to be authorized through waivers than might have otherwise been possible during the transition period.

Finally, a note on spectrum considerations. The proposed broadcast solution would use unlicensed spectrum pursuant to Part 15 of the Federal Communications Commission's (FCC) regulations. While use of unlicensed spectrum is the lowest-cost option for operators, it also comes with the least protection from interference. The FAA appears to be compensating for this lower protection by requiring redundancies, including internet-based transmissions and requiring standard remote identification UAS to include a monitoring feature that would notify the pilot in control of the UAS if the broadcast capability is lost.

The NPRM also proposes to prohibit UAS from transmitting Automatic Dependent Surveillance-Broadcast (ADS-B) communications. ADS-B is a broadcast-based technology that allows aircraft to share location information with air traffic control. Earlier this year, the FAA adopted regulations requiring all aircraft to be equipped with ADS-B Out by January 1, 2020 to operate in certain airspace. Citing concerns about the lack of ADS-B infrastructure for UAS at low altitudes, the potential for UAS to overcrowd the available ADS-B spectrum and cause harmful interference to manned operations, and the inability of ADS-B Out to provide information about the location of a remote control station, the FAA proposes in the NPRM to prohibit ADS-B Out by UAS. Given these limitations, the industry at large did not expect the FAA to utilize an ADS-B solution for remote ID, and the proposed prohibition is thus consistent with industry perspective.

Next Steps

Comments on this NPRM will be due in late February or early March. UAS industry participation in this proceeding is essential, as a workable Remote ID solution is necessary for the FAA's regulatory trajectory and full UAS integration.

For further information about this NPRM and for assistance from the Wiley Rein team in developing advocacy positions and drafting comments, please contact the following: Anna M. Gomez, Joshua S. Turner, Katy M. Ross, and Sara M. Baxenberg.