Two Steps Forward, One Step Back: FAA's UAS Identification and Tracking Aviation Rulemaking Committee (ARC) Issues Final Report

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Background

The FAA?s UAS Identification and Tracking (?UAS ID?) Aviation Rulemaking Committee (ARC) published its final report on December 19, 2017. The ARC, which was chartered to provide recommendations to the FAA regarding technologies available for remote identification and tracking of Unmanned Aircraft Systems (UAS), was charged with three objectives:

1. Identify, categorize and recommend available and emerging technology for the remote identification and tracking of UAS.
2. Identify the requirements for meeting the security and public safety needs of the law enforcement, homeland defense, and national security communities for the remote identification and tracking of UAS.
3. Evaluate the feasibility and affordability of available technical solutions, and determine how well those technologies address the needs of the law enforcement and air traffic control communities.

Report

The membership of the ARC included representatives from a wide range of stakeholders, including: the general aviation community, industry member organizations, law enforcement agencies, public safety organizations, manufacturers, researchers and standards organizations. The group recommended two methods for UAS to provide remote ID and tracking information to public authorities:

1. Direct Broadcast - Direct broadcast transmits data in one direction only with no specific destination or recipient. Data can be received by anyone within broadcast range.

2. Network Publishing - Network publishing is the act of transmitting data to an internet service or federation of services. Appropriate officials could then access the data to obtain ID and tracking information.

The ARC could not reach consensus on what threshold of UAS operations would be subject to ID and tracking requirements. However, it did recommend two options, both of which would essentially result in UAS used for recreational purposes (i.e., by hobbyists) not being covered. The ARC also recommended that, regardless of which option for applicability the FAA chose, the following UAS should be exempt from remote ID and tracking requirements:

1. UAS operated under ATC and possessing the equipment associated with such operations.
2. UAS that are exempted from ID and tracking requirements by the FAA (e.g., for the purposes of law enforcement, security or defense, or under an FAA waiver).

In addition, the ARC further recommended that the FAA:

1. Include a waiver mechanism in the remote ID and tracking rule, to allow individual operations or classes of UAS to deviate from the requirements of the rule if operations are conducted under the terms of a certificate of waiver.
2. Apply the remote ID and tracking requirements to the remote pilot, not to the manufacturer of the UAS.
3. Require manufacturers to label their products to indicate whether they are capable of meeting applicable remote ID and tracking requirements.
4. Consider whether unmanned aircraft equipped with advanced flight system technologies that are strictly for safety purposes and that keep the aircraft within visual line of sight of the remote pilot, such as a ?return to home? feature, should be exempt from remote ID and tracking requirements, provided the safety features cannot be readily altered or reprogrammed.

Analysis

Being able to remotely identify and track UAS will be critical to resolve the safety and security concerns that must be addressed before UAS can achieve their full potential. The ARC?s report is an important step to address these concerns. However, the report also highlights the challenges associated with a technology with such a wide range of uses. For example, many businesses that plan to use UAS for commercial purposes object to the exemption of UAS used for recreational purposes from those requirements. Industry?s concern is that, given the large number of UAS operated by hobbyists, a remote ID and tracking system that does not include these systems will be ineffective. Consequently, there is still a good deal of work to be done before these issues are resolved.

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