



**Inputs on Remote ID for OIRA
November 12, 2020**

Aaron Pierce
CEO - Pierce Aerospace

Gary Bullock
CTO - Pierce Aerospace

Email Contact: info@pierceaerospace.net
Pierce Aerospace is an Indiana based small business

Pierce Aerospace Inputs on Remote ID:

1. Pierce Aerospace Supports the ASTM F3411 Standard Specification for Remote ID and Tracking with the understanding that ASTM standard is likely to evolve.
2. While both network + local broadcast Remote ID capabilities are necessary for most commercial operations, local broadcast should be a primary means of compliance with the Remote ID Rule for most commercial applications. This suggestion is performance-based.
 - a. When both methods are in place, they provide useful redundant Remote ID capabilities, a vital consideration for commercial aircraft use, especially in airspaces or in flight operations that require a higher level of performance capability, such as in beyond visual line of sight flight (BVLOS) operations.
 - b. Redundancy is a common and encouraged method in aircraft design and operations.
3. The Remote ID Rule must consider rapid technological developments and evolutions to the overall airspace and technology environment, including advances in the Internet of Things. The Remote ID Rule should not be restrictive of current or future technology evolutions that provide enhanced means of compliance for the future as the greater technology ecosystem evolves.
4. Pierce Aerospace supports expanding hobbyist methods of compliance with Remote ID, including lessening NPRM proposed restrictions on FRIAs and allowing options for Remote ID compliance via app-based UTM solutions that provide 4D volume based Remote ID capabilities built for the hobbyist market.
 - a. Pierce Aerospace intends to support those hobby users at low rates or, if viably possible, without charge if market dynamics allow. The lower the burden on the

hobbyist will offer a higher likelihood of hobbyist compliance with the rule, which is conducive to a safe and functional National Airspace System shared by hobbyist, commercial, and government stakeholders of both manned and unmanned aircraft.

General Ecosystem Overview

There are three infrastructure pillars needed to support the safe and secure scaling of the UAS ecosystem in the National Airspace System. They are:

1. Remote ID
2. Counter-UAS (C-UAS)
3. Unmanned Traffic Management (UTM)

Remote ID supports the healthy, secure, and safe scaling of the industry by providing both C-UAS and UTM with the identity assurance and information those pillars need to manage and secure the National Airspace System safely.

Not In Favor of the Naming Conventions of “Standard” and “Limited”:

1. Pierce Aerospace recommends that the FAA clarify the Remote ID types and definitions to specify “Network” or “Local Broadcast” capable or the combination “Network + Local Broadcast,” such as through the protocols outlined in the ASTM F38 Remote ID Standard. Overall terms alignment with the ASTM standard is encouraged.
2. The general public and hobby sectors are likely to understand the Remote ID rule better if the rule is A. performance-based and B. named for the actual performance requirement, such as “Network” or “Local Broadcast.” This may further ease rule understanding and adoption.
3. Pierce Aerospace further recommends simple, succinct, and clear language for use throughout the Remote ID Rule for aiding such a wide audience with understanding, adoption, and compliance.

In Consideration of Privacy:

1. Session ID
 - a. Pierce Aerospace proposes the default creation of Session IDs to protect the UAS pilot, owner, and/or operator privacy from general inquiries.
 - a. It is suggested that authorized public safety authorities be able to obtain reasonable information about the aircraft, owner, and operator, similar to running an automobile license plate.
 - a. As an option, operators should have the free choice to announce the Ground Control Station (GCS), pilot location, or other information should they choose, but

this is suggested only as an option and not the default rule, policy, or setting for Remote ID. By default, Pierce Aerospace favors keeping personally identifiable information and GCS information limited to authorized government (local, state, tribal, and federal) stakeholders to protect the privacy and safety of the UAS pilot and operators.

1. Stakeholder Permissions

- a. Pierce Aerospace proposes that only authorized stakeholders, such as law enforcement, can receive the details behind a session ID and access personally identifiable data of the pilot or operator of the UAS, including their location.
- a. The general public should be able to identify that UAS are authorized, but not whom they belong to or the operator of the aircraft unless that operator chooses to disclose that information. Privacy is vital for commercial flights. For example, privacy is vital for delivery based flights, especially if related to healthcare.

Interoperability:

1. Remote Identity is best served as a digital utility that can support UTM and C-UAS operations simultaneously. This fits the “Three Pillars” model outlined earlier in this document.
1. Interoperability is best executed when there is a Remote ID utility provider to service industry stakeholders (like UTM and C-UAS providers) and the government as an industry-based trusted broker of Remote ID. A trusted broker of Remote ID will be critical as Pierce Aerospace anticipates commercial UAS growth rates to reflect similar rates as internet growth rates after the internet was commercialized. Interoperability with a dedicated RID provider will be vital to supporting that rate of growth amongst various stakeholders.
2. Interoperability as a utility further lowers burdens of cost across the industry, airspace stakeholders, and end-users of Remote ID.

Concluding Remarks:

Pierce Aerospace is appreciative of all of the authors, contributors, and reviewers to the Remote ID Rule. This rule is historical and fundamental for the broad scope introduction and establishment of regular unmanned aircraft operations into the National Airspace System safely and securely. Pierce Aerospace has spent significant time in working with industry partners to help establish standards that the rule can adopt and intends to continue to work with both industry and government to help deploy our contributions to aid in standards evolution of this rule. Pierce Aerospace thanks OIRA and all other attending parties for their time and looks forward to the Remote ID rule publication in the near future.