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Docket Operations, M-30
U.S. Department of Transportation
1200 New Jersey Avenue SE
Room W12-140, West Building Ground Floor
Washington, DC 20590-0001

Re: *FAA Docket Number FAA-2019-1100; Notice of Proposed Rulemaking for the Remote Identification of Unmanned Aircraft Systems*

The Aircraft Owners and Pilots Association (AOPA) is the world's largest aviation membership association representing individuals who collectively operate 85% of all general aviation aircraft in the United States, as well as tens of thousands of members who fly Unmanned Aircraft Systems (UAS), including several thousand members who solely pilot UAS both professionally and recreationally. AOPA respectfully submits this comment in response to the Notice of Proposed Rulemaking (NPRM) for the Remote Identification (RID) of UAS.

Since 1939, AOPA's mission has been to protect the freedom to fly while keeping aviation safe, fun, and affordable. While AOPA's mission has traditionally served the interests of manned general aviation owners and operators, with the rapid growth and interest in UAS, we realize the importance of supporting the development and safe integration of the UAS industry. Integration of unmanned aircraft (UA) will enable humanitarian, public safety, and commercial applications of this technology. This will, in turn, create many future career opportunities for the next generation of pilots and other aviation professionals who are inspired by flight early in their lives. Whether manned or unmanned, our mission remains the same: to advocate for policies and rules that grow and protect the freedom to fly.

With the rapid growth of UAS and its planned safe integration into the National Airspace System (NAS) with manned aircraft, comes the necessity of new policies, rules, and technology to maintain an equivalent level of safety without restricting access to incumbent operators. This RID NPRM is a long-awaited proposal that provides the foundation for Unmanned Traffic Management (UTM) development for complex operations; safe integration and situational awareness for UAS with manned incumbent operations; accountability of individual operators; the promotion of enforcement capabilities of the FAA; and the tools necessary for law enforcement (LE) to ensure local and national security.¹

¹ Remote Identification of Unmanned Aircraft Systems, 84 Fed. Reg. 72495

I. SIGNIFICANT ISSUES OF CONCERN TO AOPA

AOPA strongly supports these overall concepts of RID as proposed in the NPRM. We believe RID is necessary for the future safe integration of complex UAS operations in areas where manned aircraft operate, provide for operator accountability, and to provide the tools for LE to identify and mitigate non-compliant and nefarious operators. However, with any rule, how it is implemented to achieve its goals is most important to the stakeholders and public it will impact. AOPA, representing over 300,000 of these individual stakeholders, has the following concerns of the RID NPRM:

Issue 1: The proposed rules to establish, access, and maintain FAA-Recognized Identification Areas (FRIA) do not promote safety or security and do not provide flexibility to low-risk, line-of-sight operations that are not Remote ID equipped

Recommendation: Remove the 12-calendar month limitation to request the establishment of a FRIA under proposed 89.210 and allow for FRIA requests on an on-going basis

Operators of hobbyist remote controlled (RC) aircraft that cannot fly beyond the distance of its radio signal have had the flexibility for decades to request designated fixed sites with the FAA on an ongoing basis. This flexibility has allowed multiple generations of pilots to operate safely and freely within the NAS under established safety guidelines from organizations such as the Academy of Model Aeronautics (AMA). Most recently, non-RID UA operating within visual line-of-sight (VLOS) in established UAS Facilities Maps have also successfully been integrated in the NAS through the Low Altitude Authorization and Notification Capability (LAANC) mobile app. These flexible procedures have been instrumental in the growth and safe integration of UAS into the NAS and continue to provide opportunities for those interested in aviation as a hobby or career.

Unfortunately, the proposed 14 C.F.R. § 89 would take away this flexibility. According to the RID NPRM, applications for FRIAs will only be allowed for 12-calendar months after the effective date of the final rule. In addition, FRIAs are designed to phase out over time under the assumption that all UAS will become RID compliant. This will simply not be the case. Most traditional RC model aircraft and modern drones cannot comply with RID due to equipment and cost limitations. Therefore, under the proposed rule, operating in FRIAs will be their only option. A viable long-term option for areas or operational methodologies to promote safe aircraft operations will be required. Not doing so will devastate the recreational and hobby community, which has served as a pathway to deeper involvement in aviation, including manned aviation, for many people. For these reasons, AOPA strongly recommends the 12-calendar month limitation to request the establishment of a FRIA be removed and allow for FRIA requests on an on-going basis.

Recommendation: Change the duration of FRIAs in 89.225(a) from 48 calendar months to 120 calendar months (10 years)

Recommendation: Change 89.225(b) to allow for requests to renew or relocate FRIAs at any time before or after the date of expiration

The proposed rule also adds additional complexity and burdens to those Community Based Organizations (CBO) who are approved FRIA sites. As proposed, FRIA site durations would be limited to 48-calendar months, without the ability to renew or relocate the FRIA after the date of expiration. With the FAA's proposed authority under the RID NPRM to terminate a FRIA at any time for cause, 48-calendar months with the opportunity to apply for renewal prior to expiration appears to be a brief duration that would only require additional resources for both the CBO and the FAA to review and renew the FRIA. In addition, not having the ability to renew or relocate after the termination of a FRIA would unnecessarily reduce the number of areas non-RID UAS can operate and will have the effect of seriously impacting the recreational and hobbyist UAS community and opportunities for the future generation of aviators. Therefore, AOPA highly recommends changing the duration of FRIAs from 48-calendar months to 120-calendar months (10 years) and to allow for requests to renew or relocate FRIAs at any time before or after the date of expiration.

Recommendation: Remove 89.230(d) *Inapplicability of part 13, subpart D*

Without any explanation, the FAA proposes 14 C.F.R. § 89.230(d), a rule that eliminates a party's ability to seek any administrative hearing concerning the FAA's decision to terminate a FRIA. Practically speaking, AOPA believes this rule will prevent impacted parties from requesting a fair and impartial administrative hearing concerning the FAA's decision to terminate a FRIA.

The ability of a party to request a hearing concerning the FAA's decision to terminate a FRIA is critical, as the proposed rules mandate that once a FRIA is terminated, a CBO cannot apply to have that flying site re-established as a FRIA again. Under the proposed rules, a party's only recourse to challenge the FAA's decision to terminate a FRIA is limited to merely asking the FAA to reconsider its own decision by filing a Petition for Reconsideration under proposed 14 C.F.R. § 89.230(c). Without the ability to request an administrative hearing, impacted parties have no guarantee that the relevant facts will be considered and an impartial decision on the matter will be reached.

If impacted parties are not afforded administrative review, their only recourse for a fair and impartial decision will be to petition a U.S. court of appeals to seek judicial review of the FAA's decision to terminate a FRIA. 49 U.S.C. § 46110 provides that a person disclosing a substantial interest in an order issued by the FAA Administrator may apply for review of the order by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit or in the court of appeals of the United States for the circuit in which the person resides or has its principal place of business.

AOPA believes the FAA can avoid costly litigation in the U.S. courts of appeals by removing proposed 14 C.F.R. § 89.230(d). Instead, if a party timely files a petition for reconsideration of

the FAA's decision to terminate a FRIA, and the FAA issues a final decision upholding its termination decision, then the petitioning party may seek an administrative hearing concerning the matter.

Implementing an inflexible and burdensome process to request and maintain FRIAs will not promote safety or security. As history has shown, these low-risk, line-of-sight operations have operated safely around the public and manned aircraft for decades. However, the proposed rule has the very real potential to create unsafe operations of UAS. The unintended consequences of creating burdensome and time-consuming processes only encourage individuals to not comply and follow the rules. When one considers the over 1,000,000 registered UAS in the country, it would only take a small percentage of non-compliant operators to create severe disruption to the NAS and to increase the collision risk with other aircraft. If the bar to enter is set too high, individuals will surely choose to disobey these proposed rules and operate in areas where air traffic control, manned pilots, and the public would not want them to fly.

AOPA is supportive of the use of FRIAs and the FAA making them easy to establish, access, and maintain. Increasing the awareness and usage of the FRIA will encourage compliance and ensure the safety and security of the public. Most importantly, it will provide situational awareness to manned pilots to be aware of those areas where non-RID equipped UAS are most likely to be.

Issue 2: **The proposed rule increases the cost to operators of multiple model aircraft² that are currently allowed to be registered under a single registration certificate**

Recommendation: **Retain the current registration requirements for model aircraft**

As proposed, the RID NPRM would require individual registration of each UA, model or otherwise, under a revision to 14 C.F.R. § 48. Those currently with multiple UAS under a single registration would be required to register each individually at a cost of \$5 per aircraft. According to AMA, their members alone would be required to register approximately 1.62 million individual aircraft at a cost of \$8.1 million, assuming the \$5 per aircraft registration fee does not increase in the future. This figure does not include the thousands of modern UAS that are used for model aircraft purposes.

Furthermore, the individual registration would also require an aircraft serial number compliant with ANSI/CTA-2063-A as well as listing the manufacturer and model. This presumes that UAS are manufactured and standard in construction and equipment (similar in nature to a type certificated aircraft). This is an unnecessary and overly high threshold for low-risk, line-of-sight UAS, particularly so for model aircraft builders who do not build from kits but, rather, custom build their aircraft, and share many similarities with the experimental manned aircraft builders. Individuals who design and build their own model aircraft continue to advance innovation, which would be severely restricted by the proposed requirements. Restriction of innovation and evolutionary, iterative design in model aircraft stands in stark contrast to the same efforts that are encouraged and acknowledged as vital to the industry in manned experimental aircraft.

² 14 C.F.R. § 1

Requiring the individual registration of low-risk and low-cost model aircraft that are required to operate within line-of-sight (many which will presumably operate within a FRIA under the proposed rule), does not increase public safety or security. If there is a security or public safety threat, the FAA or LE can still locate the operator through operations occurring under VLOS. The information from the registration is not needed near real time. The current registration requirement has been in effect since 2015, and AOPA is not aware of any known safety or security issues that would have been prevented as a result of having individual UA registration information. This proposed rule will result in a significant financial burden to thousands of UAS owners and would be a detriment to the growth of the future pilot community.

Issue 3: **The proposed rule to require all standard and limited UAS to connect to a UAS Service Supplier (USS) through an internet connection will limit the locations a UAS can operate, resulting in higher costs to the operator, and privacy and safety concerns**

Recommendation: **Remove the requirement mandating connectivity to the internet from takeoff to landing**

Under the proposed NPRM, the FAA intends to create two categories of RID equipped UAS—standard and limited. Generally, both would require the UAS to be connected to a USS provider through an internet connection to operate from takeoff to landing. Although standard category UAS could still operate if no internet connection is available and the RID equipment could broadcast its message elements, a limited category would always require an internet connection transmitting to a USS, even though it can only be flown within 400 feet of the control station.

AOPA is supportive of RID as a tool for compliance and public safety. All UAS that are capable and/or operate beyond visual line-of-sight (BVLOS) should, at a minimum, broadcast their message elements for LE and FAA purposes only. AOPA believes it is important for both accountability and security that the FAA and LE can identify these UAS that are capable of going beyond the unaided sight of the operator.

However, AOPA is not convinced that the need for an internet connection transmitting to a USS should be required for all UAS operations. While an internet connection may be necessary for operations where a UA is flying well beyond distances that can be reached with a broadcast signal, a UA performing non-complex, lower-risk operations within line-of-sight should not be required to be connected to the internet from takeoff to landing. To require an added cost and operational requirement for low-cost, low-risk VLOS UAS operations is unnecessary for several reasons.

Internet Availability

Based on the most recent Federal Communications Commission’s 3G or Better Coverage map, there is still a lack of consistent and reliable internet coverage across the U.S., especially in rural areas.³ Under the proposed rule, this limitation in cellular infrastructure creates a definite barrier to those who live in rural areas as they would not be able to meet the internet connection

³ <https://www.fcc.gov/reports-research/maps/3gorbetter-number-providers-ye-2016/>

requirement. Many who operate UAS in these areas do so for recreation and/or within line-of-sight operations. They are not performing complex operations (e.g., BVLOS, operations over people, and at night) and are a low-risk safety and security threat. Creating a requirement in areas where it would be nearly impossible to comply would push individuals to operate in non-compliant ways and could prevent the opportunity to open the world of flight to someone who otherwise would not have had that opportunity. Broadcast alone would be enough for VLOS operations as LE can still obtain the message elements to determine the identity and location of the operator.

AOPA also wishes to point to the UAS Remote Tracking and ID Aviation Rulemaking Committee Report (ARC) of 2017, where a group of 74 industry stakeholders did not recommend a requirement for an internet connection.⁴ In addition, in Europe, EASA is employing a regulatory framework that envisions a broadcast e-identification solution for certain UAS.⁵ AOPA believes it is important the FAA reevaluates the ARC's recommendations, along with future ARC reports, and that appropriate discussions continue with foreign countries to ensure consistent standards.

Cost

Aviation is an expensive hobby and profession. Keeping costs low while ensuring equivalent levels of safety is important to ensure access for individuals of all backgrounds to grow the next generation of pilots, mechanics, and engineers. The proposed requirement to transmit to a USS through an internet connection would add an unnecessary cost to many UAS operators who operate VLOS while not adding safety or security benefits. This is not to say an individual who is operating VLOS cannot take advantage of the benefits a specific USS may offer. However, this should not be a requirement for VLOS and recreational operations.

The majority of the more than 1,000,000 registered UAS are being used for VLOS and recreational purposes. If you use the FAA's \$2.50 per month subscription cost, we could reasonably assume a potential of over \$30,000,000 per year in fees collected. AOPA is mindful of the need for a funding source. However, requiring unmanned recreational and hobbyist (including manned general aviation) users to be a funding source in the form of a user fee to a third-party vendor for access to airspace is an unacceptable restriction, cost, and disincentive to comply with the regulations.

Security and Privacy

AOPA fully supports the need for the FAA and LE to identify those who operate UAS in careless, reckless, and nefarious ways. However, the need for the public to know an operator's exact location is unnecessary and can lead to operational safety issues and physical confrontations between a remote pilot and the public. If an individual of the public is concerned about the operation of a UAS- whether a security or privacy concern- the proper authorities should be notified immediately. From there, the appropriate entity can identify the UAS through a RID broadcast transmission (whether it is operating BVLOS or VLOS) and can then determine

⁴https://www.faa.gov/regulations_policies/rulemaking/committees/documents/media/UAS%20ID%20ARC%20Final%20Report%20with%20Appendices.pdf

⁵ <https://www.easa.europa.eu/sites/default/files/dfu/Opinion%20No%2001-2018.pdf>

the location and identity of the operator. Those who are not RID equipped would presumably be located within an approved FRIA.

Issue 4: The proposed rule to require USS retention of RID message elements for six-months is unnecessary and is not consistent with other FAA retention policies

Recommendation: Remove the 6-month record retention requirement in 89.135, and replace with 45-days

In response to the FAA's specific request for comments on whether six-months should be the retention period for RID message elements by USSs, AOPA believes there is no compelling reason to retain this data beyond the established 45-day retention period that the FAA uses for ATC data.

Under proposed 14 C.F.R. § 89.135, the FAA would contractually require that RID USS retain message elements for no more or less than six months from the date of receiving the message elements. In the comments accompanying the proposed rule, the FAA reflected that “[f]or enforcement actions against certificate holders ... the Administrator has six-months to notify the respondent that the FAA will be pursuing enforcement action against him or her” under the NTSB's stale complaint rule, and therefore, the “FAA believes that a six-month retention period is the minimum amount of time the FAA needs to access” the data.

AOPA disagrees that the FAA requires a minimum six-month retention period of this data since the FAA typically uses a 45-day retention period for audio, written, and recorded ATC data, a time period that the agency has determined is suitable for all required purposes, including investigations in potential deviations, and is recognized as a uniform standard. In 2016, the FAA stated the following when it revised the retention periods in FAA Order JO7210.3ZCHG 2, *Facility Operation and Administration*, which provides direction and guidance for the day-to-day operation of ATC facilities and offices:

Extending the retention parameters of audio, written and recorded data to 45 days, would ensure a uniform standard within air traffic and enable the ATO to provide necessary and timely communication recordings requested by the National Transportation Safety Board (NTSB) and the FAA's Flight Standards/Chief Counsel's offices. The NTSB has long requested this change as necessary for their agency to gather all pertinent information needed to conduct investigations into accidents, incidents and trends in degradation of aviation safety. This change is also necessary to provide information required to properly conduct investigations into potential pilot enforcement actions. The additional days of retention will also assist the FAA in the recovery of evidence that may be requested by pilots under the Pilots Bill of Rights

FAA Order JO7210.3ZCHG 2 at BG-18. The current version of this order, JO 7210.3BB, effective August 15, 2019, retains this 45-day retention period.

Furthermore, AOPA notes that a six-month retention period will not provide the FAA any additional time to notify an airman about an enforcement action, since the six-month time period to provide this notification begins on the date the offense actually occurs, not from the date the

FAA happens to discover it. (“Rule 33 clearly states the six-month timeframe commences on the date of the offense not the date when the FAA possessed all the necessary evidence to prosecute the violation.” *Adm. v. Armstrong*, NTSB Order EA-5629 at 6 (2012) *recon. denied* EA-5660 (2013).

Since the 45-day retention period for ATC data is the current uniform standard adopted by the FAA for ATC data retention, AOPA believes that there is no justification for retention period for the message elements by RID USS to deviate from this established standard. Furthermore, AOPA believes that straying from this uniform standard in favor of a six-month retention period will negatively impact prosecutorial diligence in matters involving this data.

In addition to the 45-day retention period for message elements by RID USSs, AOPA also encourages the FAA to adopt a regulation that explicitly recognizes that the message elements by RID USS are included within the definition of “air traffic data” under the Pilots Bill of Rights (Public Law No.112–153). This would ensure the ability of certificate holders who are the subject of an investigation relating to certificate action are entitled to access this data, which will facilitate their ability to productively participate in a proceeding relating to the investigation.

II. SIGNIFICANT ISSUES OF AGREEMENT BY AOPA

Issue 1: AOPA supports excluding UAS from ADS-B Out and transponder equipage

The FAA’s proposed rule clarifies the FAA’s intention that UAS operators must not equip with ADS-B Out or transponder systems. As the NPRM articulates, there are spectrum and safety concerns if large portions of the small UAS fleet were to equip with these systems. AOPA has consistently voiced our opposition to small UAS aircraft having ADS-B Out equipage, except for a few exceptional cases, as the traffic information could be overwhelming for pilots using systems like TIS-B and TCAS. The cost to the UAS fleet could be greater to equip with ADS-B systems than alternative RID technology.

We appreciate that the FAA states these regulations do not affect a UAS operator’s ability to have ADS-B In, which is a purely voluntary capability. AOPA has long supported UAS companies, like DJI, that have incorporated ADS-B In into the remote pilot’s information display. This increased situational awareness of where manned aircraft are flying nearby improves safety and enhances the remote pilot’s ability to meet their regulatory obligation of giving way to manned aircraft.

The FAA does identify an exception for when a transponder and ADS-B Out would be necessary:

“The FAA proposes to require UAS to operate ADS–B Out in transmit mode when the person operating UAS is engaged in two-way radio communication with air traffic control and the operation is conducted under a flight plan.”

The FAA should clarify that “flight plan” is referring to solely IFR flight plans. IFR flight plans are normally associated with UAS flying within the air traffic system today, while VFR flight plans are used for search and rescue purposes and their filing does not require two-way radio

communication with air traffic control. We believe this clarification is important to ensure there is no misunderstanding, as we have seen the adverse impact of ambiguity and misunderstanding of the term “flight plan” in the ADS-B rule. Specifically, AOPA filed a petition for exemption with the FAA (Docket No. FAA-2018-0978; Exemption No. 18282) because of the ambiguity of the term “flight plan” in 14 C.F.R. § 91.227, which led to a clarification from the FAA indicating flight plan in this context only related to IFR flight plans.

As indicated in the FAA’s 2019 response letter to AOPA, 91.227 would be revised in the future to eliminate any confusion. We believe this regulatory action for RID could be used as the vehicle to make that change, along with revising the proposed 91.215 and 91.225 language to change “flight plan” to “IFR flight plan.” This clarification will remove ambiguity and the potential for confusion later on.

Finally, we do believe ADS-B Out and transponder equipage to be appropriate for larger UAS aircraft that will fly at higher altitudes where routine manned aircraft operations take place. ADS-B Out and transponder systems promote situational awareness and traffic avoidance, which is important at higher altitudes and for larger aircraft, which we believe is consistent with this NPRM. For safety and operational efficiency, requiring cooperative systems makes sense in this case.

AOPA appreciates the hard work and dedication of the FAA towards the safe integration of UAS into the NAS. AOPA, along with the tens of thousands of others who have weighed in on this very important matter, hopes the FAA will continue this hard work by carefully considering all of these comments with safety and the future growth of the next generation of pilots and aviation professionals in mind.

AOPA appreciates the FAA’s consideration of our comment on this important issue. Please feel free to contact me at 202-737-7950 if you have any questions.

Sincerely,



Christopher J. Cooper
Director, Regulatory Affairs

The Aircraft Owners and Pilots Association (AOPA) is a not-for-profit individual membership organization of General Aviation and UAS Pilots and Aircraft Owners. AOPA’s mission is to effectively serve the interests of its members and establish, maintain and articulate positions of leadership to promote the economy, safety, utility, and popularity of flight in General Aviation aircraft and UAS. Representing two-thirds of all pilots in the United States including several thousand UAS operators, AOPA is the largest civil aviation organization in the world.