

**SMALL UAV  
COALITION**  
*A Partnership for  
Safety & Innovation*

December 3, 2019

Honorable Daniel K. Elwell  
Deputy Administrator  
Federal Aviation Administration  
Designated Federal Official  
Drone Advisory Committee

Dear Deputy Administrator Elwell,

The Small UAV Coalition<sup>1</sup> strongly supports the recommendations from three Drone Advisory Committee (DAC) Task Groups adopted by the DAC at its meeting on October 17, 2019. The Coalition believes that implementing these recommendations will support more commercial unmanned aircraft systems (UAS) operations than would otherwise be authorized while the FAA moves ahead with new regulations and policies that will enable ubiquitous expanded operations. The Coalition urges the FAA to promptly consider, adopt, and implement these recommendations, as explained below.

### **Remote Identification – Tasking 1**

The Coalition previously submitted a letter in response to the invitation from the DAC at its June 6, 2019 meeting to submit suggestions as to (1) how manufacturers and operators could voluntarily equip UAS with remote identification (ID) technology ahead of a remote ID final rule; (2) what types of incentives the Federal Aviation Administration (FAA) could provide to encourage industry to voluntarily equip UAS with remote ID; and (3) whether there are any other drivers to promote widespread equipage.

As the FAA has recognized, the need to address remote ID requirements is foundational to further advance opportunities for UAS operations at scale. The Coalition has long advocated for a requirement that drones be equipped with remote ID technology. The sooner remote ID is implemented, the sooner safety, security, and privacy benefits can be realized. The Coalition is also keenly aware that the rulemaking process typically takes up to a year or more to get to final rule. For these reasons, the Coalition strongly supports the voluntary program developed by the Task Group and adopted by the DAC.

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<sup>1</sup> Members of the Small UAV Coalition are listed at [www.smalluavcoalition.org](http://www.smalluavcoalition.org).

### *Equipage Recommendations*

Remote ID technology is available now and in use by many UAS operators. The UAS industry is ready to demonstrate the effectiveness of the technology and its potential to deliver immediate safety, security, and privacy benefits at a reasonable cost.

The Coalition agrees with the Task Group recommendation that the ASTM standard serve as the equipage standard for voluntary program. We are pleased that the ASTM standard has now been approved.

The Coalition also agrees with the proposed initial Minimum Operational Performance Standard (MOPS). In particular, the Coalition supports the use of either broadcast (Bluetooth or Wi-Fi) or network technologies, which must function in the area of operation, and using all ASTM required fields.

### *Incentives Recommendations*

Waiver Application Preference. The Coalition agrees with the DAC recommendation that the FAA should provide priority consideration to Part 107 waiver and section 44807 exemption petitions filed by UAS operators that have implemented the ASTM remote ID standard to incentivize implementation. In addition to expedited processing, the Coalition believes that remote ID equipage should be considered favorably in evaluating the merits of a waiver or exemption request because it increases the margin of safety of the drone operations. Accordingly, we agree with the DAC conclusions that (1) remote ID should help mitigate security concerns arising from anonymous flying over people or beyond visual line of sight (BVLOS); and (2) that the FAA should issue blanket waivers to operate at night for operations with remote ID that comply with the requirements for night operations set forth in the Operations over People proposed rule.

Airspace Access. With respect to restricted airspace due to security concerns, including 14 CFR 91.141, the Coalition agrees with the DAC recommendation that the FAA should consider allowing remote ID-compliant UAS to operate closer than what is currently permitted. Given the ability of a small UAS to maneuver, it should not be necessary to require the same lateral distance required for manned aircraft. The Coalition also agrees with the DAC suggestion that the FAA consider raising the allowable altitude for automatic LAANC approvals for remote ID-equipped UAS from 0 feet up to 100 feet in those locations where such an increase would not materially reduce safety of manned aircraft operations.

Monetary Incentive. The Coalition urges the FAA to consider the DAC recommendation to offer a partial rebate of any equipage costs, if necessary, to incentivize compliance by recreational operators. There are also other fees and charges which could be waived or discounted if necessary to incentivize compliance.

*Other Drivers to Incentivize Equipage*

Enabling Local and State Privileges. The Coalition endorses the DAC suggestion that state and local governments would consider remote ID-equipped UAS as compliant with any required notice of takeoffs or landings, and that such UAS would be permitted to take off and land in additional locations. The Coalition agrees that state and local restrictions enacted before the development and widespread deployment of remote ID technology and the ASTM standard should be reevaluated and adjusted to take into account the benefits of remote ID technology.

Partnership with Federal agencies. UAS operations on and over Federal lands, including National Parks, are subject to a number of restrictions. We agree with the DAC that Federal agencies should consider easing these restrictions for remote ID-equipped UAS.

Industry Recognition. In our August 26 letter to the DAC, we urged the DAC to implore the UAS industry publicly to commit to remote ID equipage before the rulemaking is complete. Thus, the Coalition supports the two industry recognition DAC recommendations. Further, we support the DAC recommendation to the FAA to create and publicize a database of manufacturers that have equipped their drones with remote ID and a database of self-certified remote ID service providers. We also believe the FAA should create and publicize a database of operators that self-declare they use only remote ID-equipped UAS.

*Additional Coalition Recommendations*

FAA Statement in Support of ASTM Standard. While not included in the list of DAC recommendations, the Coalition believes that a statement from the FAA that its proposed rule will be based on and consistent with the ASTM standard would encourage the UAS industry to begin equipage in compliance with this standard.

Live Demonstrations. Finally, the Coalition reiterates its recommendation that the FAA, through the UAS Integration Pilot Program (IPP), sponsor and support live remote ID demonstrations to show the potential of remote ID to address a number of concerns with UAS operations. These demonstrations should be made to key interest groups, such as Congress, Federal law enforcement and homeland security agencies, State and local law enforcement officials, and the general public. Live remote ID demonstrations are critical to public acceptance of commercial drone operations in a range of use cases, including over people and BVLOS in both remote and urban environments. Coalition members are prepared to explore such presentations with the FAA to help ensure they are conducted safely.

**Security – Tasking 2**

As a general matter, the Coalition supports the six recommendations developed the Security Task Group. The objective is to address the risk caused by UAS operators who are “careless or clueless” and is not intended to address nefarious actors, although we agree with the Task Group that its recommendations “will, if implemented, contribute to an overall improved UAS security environment, including nefarious and ill-intentioned UAS operators[.]” We also agree fully with

the statement that each of these recommendations will promote safety as well as security. Indeed, a mature, integrated, safe, and reliable UAS ecosystem will include UAS equipped with geo-fencing, return-to-home, and other features, as well as a detect and avoid system to provide strategic and tactical deconfliction. These capabilities will support scalable unmanned traffic management (UTM) systems.

We note that most of these recommendations rely on voluntary actions by original equipment manufacturers (OEMs) and do not suggest they be imposed by rulemaking. Nonetheless, the FAA's cooperation will be needed, especially to maintain an updated database of critical infrastructure (recommendation II). The FAA's Advanced Notice of Proposed Rulemaking on Safe and Secure Operations addressed some of these issues. The Coalition supports voluntary equipage by OEMs of the safety enhancements included in these recommendations. Voluntary equipage is likely to result in safety improvements, as well as cost reductions, so that, if the FAA requires any of these enhancements in a rulemaking (or conditions certification or other approvals on such enhancements), the cost-benefit analysis should support these requirements.

*Recommendation I: OEM geo-fencing equipage*

Commercial and recreational drones have utilized geo-fencing technology for years. Assuming accurate critical infrastructure and TFR data are available in a timely manner, the Coalition believes geo-fencing should be a standard feature in UAS manufactured for both commercial and recreational users.

*Recommendation II: FAA single database of up to date information on critical infrastructure and TFRs*

The Coalition strongly agrees that TFR and critical infrastructure information should be subject to a standard format to allow for public access through an application program interface (API). The FAA should work with other interested Federal departments and agencies to consolidate this information into a single database and institute controls to ensure this information is kept up to date.

*Recommendation III: OEMs should create alerts when UAS approaches sensitive flight areas*

The Coalition agrees with the set of recommendations for OEMs to provide UAS operators with alerts of newly adopted TFRs and when the flight is nearing critical infrastructure. FAA cooperation will be needed to agree upon standard performance-based distances, which may vary based on the operational environment, from sensitive flight areas that will trigger an alert.

*Recommendation IV: OEM ADS-B In receiver equipage*

The Coalition agrees that UAS equipped with ADS-B In receivers will alert operators to nearby manned aircraft as such aircraft are required to be equipped with ADS-B Out by January 1, 2020. The Coalition understands that the FAA and FCC have expressed concern with whether existing spectrum for ADS-B is broad enough to accommodate the numbers of drones at scale.

We address the recommendation for OEMs to equip UAS with an Airborne Collision Avoidance System (ACAS), or an ADS-B In conflict resolution system, below with regard to recommendation VI.

*Recommendation V: OEM enablement of automated UAS flight performance limitations*

The Coalition generally supports the objective of voluntarily enabling “automated UAS performance limitations - such as altitude limitations, return-to-home features, and decrease in UAS speed or maneuverability - while in or near sensitive flight areas.” These performance limitations will also benefit safety in all airspace. The Coalition agrees that care must be taken so that these automated limitations do not prevent the UAS operator from taking another action necessary to avoid a collision. Thus, the Coalition agrees that FAA should work with industry to develop performance limitation standards.

*Recommendation VI: OEM performance-based detect and avoid equipage*

Detect and avoid technology will enable large scale BVLOS and autonomous operations. There is ground-based and airborne deconfliction technology in development. This recommendation (including part of recommendation IV) addresses airborne technology and the Coalition agrees that this is the superior and more useful technology. Implementing detect and avoid technology has contributed to the FAA granting Part 135 certificates and BVLOS waivers without requiring visual observers. The Coalition is confident that in the near future, this technology will be readily available and generally affordable, at least for commercial operators, and supports voluntary OEM equipage. We expect that technology will evolve and will be supported by safety standards.

**Part 107 Improvements – Tasking 3**

Coalition supported the Part 107 transparency and technology improvements requirements in section 352 of the FAA Reauthorization Act of 2018. Some of the recommendations from this Task Group are responsive to section 352.

*Recommendation 1: Expiring waivers should auto-renew*

The Coalition strongly agrees that waivers should be considered renewed unless there is a reason to require resubmission. This will alleviate an otherwise considerable administrative burden on the FAA without any adverse impact on safety. The FAA can issue a blanket waiver extension in a single document adding two years to the expiration date, requiring UAS waiver holders to attach that extension document to its grant of waiver document.

*Recommendation 2: Modify Drone Zone to allow nonconsequential information updates without having to file for an amendment*

Amendments to a waiver should be limited to substantive, material changes, such as removing or revising a condition or limitation, or adding a regulation from which a waiver is sought. For minor

changes, such as a change in responsible person, adding or removing a pilot, adding or removing a UAS of the same type, and changing an address or other contact information, the Coalition agrees that the FAA should modify the Drone Zone so minor changes can be made and considered effective when submitted.

*Recommendation 3: FAA should develop an inventory of examples of satisfying safety cases for complex waiver approvals, or an online test for automatic approvals*

Section 352 of the FAA Reauthorization Act of 2018 required the FAA “to publish on its website a representative sample of the safety justifications” that have been accepted as part of a waiver or airspace authorization. The Task Group recommends that the FAA should also consider an online test and guidelines for automatic waiver approvals. The Coalition supports this recommendation, which could result in expeditious grants of authority in routine situations where safety mitigations are adequate.

*Recommendation 4a: Streamlined approval process for applicants (1) trained by operator that has flown under waiver and complies with all FAA-imposed conditions and limitations; and (2) that have received an Experimental Category Special Airworthiness Certificate from a UAS test site*

The Coalition reads this recommendation to suggest that the FAA should consider a streamlined process for applicants who are trained by a waiver holder and who agree to comply with the same conditions and limitations as those imposed on the waiver holder. The Coalition supports this recommendation, as well as the similar recommendation 5.

The Coalition believes that applicants who are trained by an Experimental Category Airworthiness Certificate holder should be eligible for expedited consideration, whether or not the experimental certificate was received from a UAS test site or the FAA.

*Recommendation 4b: Automated approval for applicants who leverage work of programs in UAST, TOP, and industry standards*

The Coalition supports FAA consideration of this recommendation.

*Recommendation 5: Streamlined process for groups of operators seeking the same relief for the same type of operations for a business use case*

The Coalition endorses the recommendation that the FAA explore how waiver applications that are seeking the same type of relief for the same business use can be grouped together to streamline the approval process. FAA practice is to focus on the operator (waiver holder) rather than the UAS or the projected use case. However, experience with section 333 exemptions and later with Part 107 waivers demonstrates that the conditions and limitations imposed by the FAA with respect to a particular regulation and use case are very similar from operator to operator. The FAA should consider granting automatic relief to an applicant who demonstrates the capacity to comply with all the conditions and limitations the FAA has imposed in similar situations.

*Recommendation 6: Improve transparency and responsiveness*

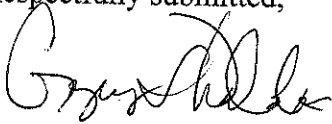
Section 352 also required the FAA to provide real time confirmation that an application has been received and to give an applicant an opportunity to review the status of an application. The recommendation, which the Coalition supports, also suggests that the FAA inform applicants of the personnel who reviewed the application and why it was not approved. The reason the FAA gives for denying a waiver application is often stated in generic terms that do not support the applicant in revising the waiver request.

*Recommendation 7: Train waiver inspectors*

The Coalition supports the recommendation that the FAA require its waiver inspectors to undergo training, building on existing inspector training programs, to reduce inconsistencies in waiver evaluations.

Thank you for the opportunity to comment on the DAC's recommendations, which will support additional UAS deployment as the FAA moves ahead with additional regulations and policies that will enable ubiquitous commercial operations. The Small UAV Coalition and its members stand ready to assist the FAA in evaluating and implementing these recommendations.

Respectfully submitted,



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