TESTIMONY OF

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BEFORE

U.S. House of Representatives
Committee on Transportation and Infrastructure
Subcommittee on Aviation

FAA Reauthorization Act of 2024: Stakeholder Perspectives on Implementation One Year Later

ON

June 4, 2025
Washington, DC

Introduction

Thank you, Subcommittee Chairman Nehls, Subcommittee Ranking Member Cohen, Full Committee Chairman Graves, Full Committee Ranking Member Larsen, and distinguished members of the Committee and Subcommittee for the opportunity to testify before this important hearing.

My name is Michael Robbins, and I am the President & CEO of the Association for Uncrewed Vehicle Systems International (AUVSI), the world's largest industry association representing the uncrewed systems, robotics, and autonomy industry. Our members create systems that operate in the air, on the ground, and in the water across the civil, commercial, and defense domains. Today, I am honored to appear before the Aviation Subcommittee representing our members in the Uncrewed Aircraft Systems (UAS or drones) and Advanced Air Mobility (AAM) industries, as well as the UAS Detection & Mitigation industry, and enabling and supporting technologies of these industries. On behalf of AUVSI, thank you for the opportunity to testify on the progress and implementation of the Federal Aviation Administration (FAA) Reauthorization Act of 2024 (P.L. 118-63) from the stakeholder perspective. We also commend this Committee, and your colleagues on the Senate Commerce, Science, and Transportation Committee, for recently holding hearings to receive testimony from government witnesses on the progress and implementation of P.L. 118-63.

We are at a pivotal moment in aviation history, with drones and AAM aircraft offering the potential to unlock significant benefits in both safety and technological leadership. With those benefits will come tremendous economic activity and workforce opportunities. Drones offer a safe, cost-effective solution for critical operations including public safety, precision agriculture, utilities maintenance, infrastructure inspections, medical and package delivery, and much more. AAM, which includes both regional and urban passenger and cargo carrying applications, is revolutionizing propulsion systems, battery technology, and flight controls, unlocking new opportunities in both metropolitan and rural areas not served by traditional aviation, and enhancing workforce productivity and safety. Companies are opening high-rate production facilities and creating thousands of high-quality manufacturing jobs at an increasing rate.

P.L. 118-63 was a landmark achievement for aviation policy and is helping to drive the drone and AAM industry forward. The law reflects a strong, bipartisan commitment to safety, innovation, and U.S. leadership in the rapidly evolving domains of drones and AAM. AUVSI is deeply grateful to Members of this Committee and your staff for your sustained leadership in crafting and passing this forward-looking legislation. Now, swift implementation of this legislation is critical to ensuring the meaningful integration of safe, secure, and scalable uncrewed and advanced aviation technologies into American skies. We are therefore grateful that the Committee is holding this hearing to gather stakeholder perspectives on implementation, executing its chief mandate of overseeing the FAA and Department of Transportation (DOT).

We are encouraged by the law's emphasis on risk-based, performance-oriented regulatory principles. This approach is essential to enabling innovation without compromising safety. The inclusion of dozens of key provisions, particularly throughout Titles IX and X, ensures the FAA is directed to modernize its rulemaking authority, accelerate integration of emerging technologies, and invest in workforce development. AUVSI is closely monitoring all of these provisions, as these

elements are critical to ensuring U.S. leadership in global aviation, and specifically in the drone and AAM industries, for decades to come.

As we evaluate implementation to date, however, we remain concerned by slow progress in several key areas that are vital to the future of uncrewed and autonomous flight.

Below are key P.L. 118-63 sections AUVSI urges the Aviation Subcommittee, and broader Transportation and Infrastructure Committee, and the FAA, to focus on as implementation continues:

Section 930 – Beyond Visual Line of Sight Operations (BVLOS) for Unmanned Aircraft Systems
Directs the FAA to issue notice of proposed rulemaking (NPRM) on BVLOS within four (4) months of enactment to establish a performance-based regulatory pathway for UAS to operate BVLOS. Section 930 also directs the Administrator to issue a final rule within sixteen (16) months of the draft rule.

The drone industry stands on the precipice of a new era. With the appropriate risk-based regulatory framework, the United States will lead the world in drone innovation, safety, and integration. Central to this opportunity is the timely issuance of an enabling rule for BVLOS operations, frequently referred to as Part 108. Studies project that drones will contribute billions to the U.S. economy over the next decade, enhance public safety, and create new, good-paying jobs. However, without the BVLOS rule in place, much of that potential remains unrealized.

Industry delivered to the FAA the FAA-chartered UAS BVLOS Aviation Rulemaking Committee (ARC) report in March of 2022 – thirty-nine (39) months ago – however, we do not yet have a draft rule from the FAA.[1] AUVSI appreciates the oversight of Congress on the Part 108 rulemaking, specifically Section 930 of P.L. 118-63.

This oversight is key, as, unfortunately, the Congressional statutory deadline to issue a BVLOS NPRM within four months of enactment was missed. Pursuant to Section 930, that deadline was September 16, 2024, or two hundred and sixty-one (261) days ago. Yes, we are counting. Every single day matters. This delay is impacting the industry's ability to scale critical operations in public safety, disaster response, infrastructure inspection, agriculture, delivery, and other critical missions, and make informed business decisions.

The NPRM as drafted by the FAA was sent to DOT for review in late July of 2024 in an attempt to meet the Congressional deadline of September 16, 2024. AUVSI applauds the efforts of the FAA to stick to the timeline to the greatest extent possible. Unfortunately, despite aggressive efforts by AUVSI to unlock the rule from DOT, there it remained until mid-November 2024, an unusually long timeline, especially for a draft rule. Once released from DOT, the NPRM began interagency review by the White House Office of Management and Budget (OMB) Office of Information and Regulatory Affairs (OIRA) last year. AUVSI, alongside our member companies and other industry stakeholders, held multiple engagements with OMB and OIRA urging its immediate release.[2]

[1] https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/document/information/documentID/5424
[2] November 22, 2024 Meeting – AUVSI and Commercial Drone Alliance (CDA) Leadership; December 2, 2024 Meeting – Public Safety/Law Enforcement/Physical Security Sector Companies; December 3, 2024 Meeting – Third Party Service Providers; December 4, 2024 Meeting – Agriculture

Unfortunately, the previous Administration did not release the draft before the end of their term, the change in Administration, and the temporary moratorium on new rulemakings that followed.

Under the new Administration, and the leadership of acting FAA Administrator, Chris Rocheleau, and DOT Secretary, Sean Duffy, the NPRM was sent back to OIRA on May 13, 2025.[3] AUVSI urges its immediate release and is once again meeting with OIRA staff and the interagency team to make our case for releasing the draft rule quickly.

We have repeatedly reminded regulators that the NPRM represents only a step in the process and is by no means the end of the rulemaking. Accordingly, perfect should not be the enemy of the good in a draft, and instead, progress should continue to be made in the process allowing industry, government, and other stakeholders an opportunity to review the draft and offer feedback. Then, the FAA will have time to adjudicate the comments and edit the rule before the entire process of DOT, interagency, and OIRA review occurs again before publishing a final rule.

Section 930 allows for sixteen (16) months between the NPRM and the final rule for adjudication of comments received and for the interagency process ahead of final issuance. That timeline is now also off track, however, as this timeline assumed a four-month timeline to the NPRM, which is now more than eight and a half (8.5) months off track.

Next Steps: AUVSI asks Congress to maintain direct and regular oversight of the FAA, DOT, and the interagency to:

- Issue the Part 108 NPRM immediately.
- Maintain a tight timeline for NPRM comments with no extensions provided if requested.

We also request Congress embolden the FAA to make every effort to stick to the statutory deadline in Section 930 for final rule issuance to the greatest extent possible and to maintain the same encouragement of DOT, the interagency, and OIRA, as we appreciate that the FAA does not have full control over the final rule's release once they have completed their work. AUVSI believes that with a tight NRPM comment deadline, the incorporation of artificial intelligence (AI) tools to help sort comments for adjudication, and a streamlined interagency OIRA process, a two hundred and forty (240) day timeline from NPRM to final rule is feasible and should be the goal. This would put the final rule close to meeting Congress' original statutory deadline set in Section 930.

The continued stagnation on Part 108 threatens to stall broader innovation and economic growth. Current BVLOS operations require costly, time-consuming, case-by-case FAA approvals and rulemaking that hinder scalability and investment. That said, for now, these waivers and exemptions are the only way forward until the final rule is published. Accordingly, to maintain momentum, the FAA must continue issuing waivers and exemptions under the current framework to allow risk- and performance-based BVLOS operations in the interim. This is essential to enable planning, investment, and operational growth.

Sector Companies; December 5, 2024 Meeting – Critical Infrastructure/ Utilities/Energy Sector Companies; December 5, 2024 Meeting – Package Delivery/Healthcare Sector Companies; December 6, 2024 Meeting – Newsgathering/Filmmaking/Entertainment Sector Companies;

[3] https://www.reginfo.gov/public/do/eoDetails?rrid=944512

Positively, we have seen a dramatic increase in the rate and speed of these BVLOS waivers and exemptions for many types of operations, including infrastructure inspection, delivery, and public safety. This is a great example of FAA and DOT using their own flexibility to bring drone technology forward, which is having direct and tangible results in 2025. AUVSI and our members applaud the FAA for their great work in this area.

Section 202 – Assistant Administrator for Rulemaking and Regulatory Improvement
Creates an Office of Rulemaking and Regulatory Improvement, led by an Assistant Administrator, to enhance accountability and transparency in the FAA's rulemaking process.

Slow, opaque rulemaking has delayed critical UAS and AAM regulations, creating uncertainty and discouraging investment. Elevating the rulemaking function will help set clear priorities, track progress, and address systemic and bureaucratic bottlenecks within the FAA. Without regulatory agility, the U.S. risks falling behind in the race for aviation leadership, with countries like the People's Republic of China (PRC) moving aggressively to deploy and export UAS and AAM solutions.

Next Steps: AUVSI strongly supports the creation of the Office of Rulemaking and Regulatory Improvement and urges the FAA to:

- Fully stand up the office with adequate resources and staffing.
- Appoint a qualified Assistant Administrator with a clear mandate to prioritize UAS and AAM rules.
- Publicly track timelines for rulemakings and stakeholder engagement.

This reform is critical to restoring confidence in the FAA's ability to regulate at the speed of innovation.

Sections 229 and 916 – Advanced Aviation Industry Committees
Section 229 of the FAA Reauthorization Act establishes a leadership-level steering committee to coordinate across the FAA's lines of business and develop a cohesive strategy for integrating advanced aviation technologies. This steering committee is required to be in place by early 2025, yet to date, there has been no public update on its structure, priorities, or membership.

In parallel, Section 916 directs the FAA to form a new "Unmanned and Autonomous Flight Advisory Committee," replacing the former Advanced Aviation Advisory Committee, which P.L. 118-63 directed the FAA to sunset, which happened in May 2024. This new advisory body is intended to serve as a formal mechanism for collaboration between the FAA and industry experts on policy and guidance for safe autonomous aircraft operations. Again, to date, there has been no public update on this new committee from the FAA. To ensure the two committees' effectiveness, we strongly recommend that the FAA engage with AUVSI and other industry stakeholders in advance to identify key issues and confirm that the group includes senior leaders with the authority to drive cross-agency alignment.

Next Steps: We respectfully urge the Committee to confirm the FAA's timeline for establishing the advisory committees and to ensure that adequate resources are committed to support their

formation and ongoing work. These two provisions and the industry advisory committees they mandate are essential for establishing a clear FAA direction and ensuring industry alignment as we enter the next phase of uncrewed aviation.

Section 745 – Electric Aircraft Infrastructure Pilot Program
Establishes guidance and eligibility under the Airport Improvement Program (AIP) for a pilot program to fund ground infrastructure and support equipment for AAM operations.

Some AAM aircraft require new ground support systems, including charging stations and maintenance facilities. Federal support through AIP ensures that smaller and regional airports can participate in AAM development opening access to more markets, users, and use cases. Pilot programs enable demonstration of emerging technologies while ensuring public investment aligns with community needs.

Next Steps: The FAA should issue clear program guidance and eligibility criteria, enabling airports to apply for funding and begin preparing for AAM integration.

Section 906 – Electronic Conspicuity (EC) Study
Directs the FAA to conduct a comprehensive study on EC technologies, with the goal of improving situational awareness, enabling safer UAS integration into the national airspace system (NAS), and supporting scalable, cooperative operations at low altitudes.

AUVSI supports a future where there are zero air or ground aircraft collisions. Universal adoption of EC is a way to bring this into reality by giving all users of the NAS situational awareness of other local users so that they can be detected and avoided.

Today, in the increasingly complex environment of the NAS, particularly at lower altitudes where both crewed and uncrewed aircraft routinely operate, the need for enhanced situational awareness is intensifying. ADS-B, however, is not mandated for all airspace users and in all airspace. While ADS-B Out is required in certain controlled airspace under 14 CFR 91.225, large portions of the NAS user community remain unequipped with ADS-B, with many general aviation (GA) aircraft, as well as gliders, balloons, parachuters, ultralights, and some aerial applicators, facing practical or technical limitations that make ADS-B Out installation impractical. To address these gaps, there is a pressing need for an FAA approved low-cost, low-power EC solution that enables aircraft to broadcast their position and be detected by others nearby, supporting safe operations across all airspace users.

Low-power, low-cost, portable EC solutions available on the marketplace now, but not yet FAA approved, could ensure all users can participate in a cooperative safety environment. It is noteworthy that portable low-power EC devices are approved in other nations, including the United Kingdom, Australia, South Africa, and New Zealand. Importantly, low-power EC supports pilot autonomy while protecting operator privacy and discouraging misuse of location data for enforcement or fees. This is a key issue for adoption among certain segments of the aviation community.

Universal EC offers a realistic, scalable path to eliminating air and ground collisions by enabling shared visibility and mutual situational awareness among all airspace users. As detailed in the BVLOS ARC, drone operators are committed to yielding right-of-way to manned aircraft broadcasting EC signals – but cannot avoid aircraft they cannot electronically "see."

Next Steps: AUVSI asks Congress to ensure the FAA:

- Expedites the Section 906 study and engage GA, UAS, and public safety stakeholders to ensure diverse operational needs are considered.
- Uses study findings to define performance-based EC standards that promote adoption, enhance safety, and support long-term scalability across the NAS.
- Adopts low-power, low-cost, portable EC technologies for use in the NAS and drives towards a universal adoption mandate.

Universal EC is a foundational enabler of safe, cooperative flight. Swift implementation of Section 906 will help deliver a more connected, collaborative, and collision-free future for American aviation.

Section 907 – Remote Identification (Remote ID) Alternative Means of Compliance
Requires the FAA to establish a process for accepting alternative methods of compliance with Remote ID regulations.

Remote ID compliance is presently hovering around 50%, which is a strong indication that the current model is not working as intended. Allowing alternative compliance pathways could promote technological innovation while maintaining safety and accountability. Clear guidance from the FAA on acceptable alternatives will reduce regulatory uncertainty, improve airspace awareness, and encourage compliance.

Next Steps: The FAA must develop, in coordination with stakeholders, a framework for evaluating and approving alternative compliance mechanisms, supported by clear, risk-based criteria. Furthermore, as it relates to the existing standard for broadcast Remote ID, industry, the FAA, and other U.S. government agencies have demonstrated through multiple test environments that broadcast Remote ID can be cost-effective tool for airspace awareness and safety. Improvements are required, however, including minimum broadcast power standards. Furthermore, the FAA should explore, with partner agencies like the Department of Justice (DOJ), enforcement actions for noncompliance.

Section 908 – Part 107 Waiver Improvements
Mandates improvements to the waiver process under Part 107 to ensure it is more efficient, transparent, and predictable.

This section was key, as lengthy and burdensome waiver reviews hinder commercial operations and discourage innovation. Many waiver requests are for common operations with well-understood risk profiles. These should be fast-tracked with past waiver data leveraged with the implementation of AI tools to improve the speed and predictability of approvals and reduce administrative burdens for industry and the FAA.

Since passage of P.L 116-83, we have seen a significant acceleration in the FAA's approval of BVLOS waivers and exemptions, particularly for public safety operations, enabling broader adoption of drone technologies that are already contributing to crime reduction nationwide. This progress reflects the FAA and DOT's effective use of existing authorities. AUVSI commends Congress for the inclusion of Section 908 and the FAA for this positive shift, which demonstrates how regulatory flexibility can deliver real-world results.

Next Steps: The FAA should continue to develop and implement AI-powered automated workflows for routine waivers, publish clear approval criteria, and frequently engage stakeholders to continuously refine the process like the categorical exclusions (CATEXs) and summary grants already seen across other UAS operations.

Section 912 – Drone Infrastructure Inspection Grant (DIIG) Program
Establishes a grant program under DOT to support the use of drones for inspecting, repairing, and constructing critical infrastructure. Eligible recipients include state, tribal, and local governments, metropolitan planning organizations, or consortiums of such entities. Grants will help recipients use drones to increase operational efficiency, lower costs, enhance worker and community safety, reduce carbon emissions, and address other infrastructure priorities. DOT is required to report to Congress on the program's effectiveness within two (2) years of the first grant award. To date, funds have not been appropriated to allow DOT to make grants.

Drones can dramatically reduce inspection times and improve data accuracy, leading to more responsive and cost-effective infrastructure management. Replacing manual inspections with drones can reduce risks to workers, especially in hazardous or hard-to-reach environments. Further, by minimizing the need for heavy machinery and long field operations, drones can lower greenhouse gas emissions. The DIIG Program will be a winning program for drone manufacturers, drone operators, and governments that are in dire need of safer and more efficient infrastructure inspection – but Congress must fund the program to get it going now that it has been authorized.

Next Steps: AUVSI asks Congress to:

- Fund the program fully at $12 million for fiscal years 2026-2028 to maximize long-term cost savings and safety gains.
- Ensure timely program launch with early engagement of eligible entities and industry stakeholders.
- Promote UAS adoption in disaster-prone regions to bolster infrastructure resilience.

Section 913 – Drone Education and Workforce Training Grant Program
Directs the DOT to establish a Drone Education and Workforce Training Grant Program, authorizing $5 million annually from fiscal years 2025-2028 to support small UAS workforce development through grants to educational institutions.

As the UAS and AAM industries expand, there is a widening gap in skilled personnel, including maintenance technicians, data analysts, and systems engineers. Community colleges, universities, and credentialing organizations are poised to deliver UAS, AAM and autonomous operations-

specific training at scale, if provided the necessary resources. This grant program provides a vital pathway for underserved communities and young professionals to access high-paying, future-oriented jobs in aviation.

Next Steps: AUVSI asks Congress to hold the FAA to the intent of Section 913 and:

- Expedite program launch and deploy grant resources in close coordination with industry needs.
- Prioritize partnerships with institutions demonstrating inclusive access and strong job placement potential.

We urge Congress, through the House Transportation, Housing and Urban Development, and Related Agencies Appropriations bill, to fully fund Section 913 to ensure the success of this critical workforce development initiative.

AUVSI commends this Committee for previously holding a hearing on this topic on July 10, 2024, titled, "*Eliminating Bottlenecks: Examining Opportunities to Recruit, Retain, and Engage Aviation Talent,*" which AUVSI was honored to testify at.[4]

Section 914 – Drone Workforce Training Program Study
Directs the Government Accountability Office (GAO) to evaluate the effectiveness of the FAA's UAS Collegiate Training Initiative (CTI) program, originally authorized in the FAA Reauthorization Act of 2018 FAA (P.L. 115-254). The program recognizes educational institutions that prepare students for careers in uncrewed aviation through technical instruction and industry engagement.

Over one hundred and forty (140) colleges and universities, including four (4) Minority Serving Institutions, currently participate in the CTI program, making it a critical pipeline for building a skilled, diverse UAS workforce. CTIs align closely with employer needs, engaging with FAA, industry, and public safety agencies to ensure students are prepared for UAS careers with a strong foundation in operational safety and regulatory compliance**.** Programs like AUVSI's Trusted Operator align with CTIs to deliver advanced, standardized training and safety credentials valued by employers, and have already produced more than one thousand six hundred (1,600) certified operators.[5]

Next Steps: AUVSI asks Congress to insist that the FAA and GAO:

- Engage CTI institutions and industry stakeholders during the GAO review to identify successes, gaps, and opportunities for program improvement.
- Use the study to establish metrics and best practices that can be scaled nationally, ensuring consistency in safety, skills, and workforce readiness.

[4] https://transportation.house.gov/uploadedfiles/07-10-2024_aviation_hearing_-_michael_robbins_-_testimony.pdf
[5] https://www.auvsi.org/trusted-operator

- AUVSI also recommends Congress ensure sustained support and future investment in the UAS-CTI program as a foundational element of national workforce development and aviation innovation.

Section 922 – Know Before You Fly (KBYF)
Extends the KBYF initiative, which is now more important than ever. KBYF, established through a partnership between the FAA, AUVSI, the Academy of Model Aeronautics (AMA), and the Consumer Technology Association (CTA), is a Congressional Directive authorized by P.L. 115-254.[6] KBYF supports educational initiatives by providing drone kits and lesson plans to teachers for classroom and extracurricular use, fostering a culture of safety and innovation from a young age to ensure future generations are proficient in safe drone operations. KBYF-funded activities also focus on Public Service Announcements (PSAs), education, and outreach concerning safety topics such as drone registration, Remote ID compliance, the Recreational UAS Safety Test (TRUST), and drone participation in the Aviation Safety Reporting System (ASRS).

We are encouraged that P.L. 118-63 extends the KBYF program through 2028 and encourage Congress to appropriate full funding for the program to ensure that ongoing education, particularly as it relates to key issues like airspace awareness, drone registration, and Remote ID compliance are well understood and adhered to. Examples of recent KBYF PSAs include:

- Remote ID – Are You Compliant?[7]
- Remote ID – What is a FRIA?[8]
- How do I Register My Drone?[9]
- Register It – Don't Regret It[10]

Section 929 – Fixed-Site Facility UAS Restrictions
Section 2209 of the FAA Extension, Safety, and Security Act of 2016 (P.L. 114-190) mandated the establishment of a process allowing operators of fixed-site facilities – such as critical infrastructure, oil refineries, chemical plants, stadiums, and amusement parks – to petition the FAA to restrict or prohibit UAS operations in close proximity to their facilities. Despite the statutory requirement for the FAA to implement this process within one hundred and eighty (180) days of the Act's enactment, the agency has yet to even release a draft of the regulation nearly a decade later. Section 929 of P.L. 118-63 reinforces Congress' desire to see this provision from the 2016 law implemented with tight timelines for action, the first deadline of which has already been missed again, and direction to also include state prisons in the rulemaking.

This delay has led to a fragmented regulatory landscape, with various states enacting their own drone restrictions, resulting in a patchwork of laws that complicates compliance for drone operators and infrastructure stakeholders. AUVSI has worked to mitigate this patchwork of state rules through its Drone Prepared campaign at the state and local level.[11]

[6] https://knowbeforeyoufly.org/home
[7] https://youtu.be/5_a-5prhiBM?si=RhB6XRVSzt_w1Myu
[8] https://youtu.be/-_ijZAIHCnI?si=ecpWANj3xrNl3SGk
[9] https://youtu.be/pkEjAamki80?si=MA0X8Plre1aRaPsw
[10] https://youtu.be/aOxe_e6hjXg?si=NM5DCV_7HNRTMrOP
[11] https://droneprepared.org/home

The Section 2209 rulemaking has been tied to the BVLOS rulemaking, and like the Part 108 NPRM, is currently at OIRA for review. We believe this rule may move from NPRM direct to Interim Final Rule (IFR), though that is still yet unconfirmed as of the timing of this hearing.

Section 932 – Third-Party Service Approvals
Directs the FAA to develop a streamlined process for approving third-party service providers that support UAS, AAM, and autonomous air operations, such as Remote ID providers, UAS Traffic Management (UTM) systems, ground-based detect and avoid (DAA), secure command and control (C2) links, and other critical digital infrastructure services. The statutory deadline for action on this section passed earlier this month on the one-year anniversary of the bill being signed into law.

The future of advanced aviation depends on a healthy ecosystem of third-party services to deliver core safety, navigation, and compliance functions. Today, many service providers stand ready to support operations, but FAA approval bottlenecks are stalling deployment. Meanwhile, other countries, including the PRC, are rapidly institutionalizing such ecosystems. Delayed action will cede leadership in this fast-evolving domain.

Next Steps: The FAA must publish a clear and accelerated approval process for third-party service providers, with transparent criteria, defined timelines, and ongoing industry consultation to ensure scalability and safety.

Section 934 – Operations Over High Seas
Directs the FAA to issue regulations enabling UAS operations over international waters, consistent with U.S. obligations under the Chicago Convention.

This is an issue AUVSI has been working on with the FAA for many years to resolve, as U.S.-based UAS operators need clear authority to conduct long-range and maritime operations in international airspace. Prior to a change in FAA posture and interpretation of International Civil Aviation Organization (ICAO) rules, these operations were occurring safely and routinely from the U.S. over the High Seas. That changed when FAA overturned past precedent and ended operations over the High Seas for U.S.-based operators; however, not all nations made that same decision, putting U.S. companies at a competitive disadvantage.

Enabling operations over the High Seas supports critical missions including border patrol, maritime domain awareness, search and rescue, shipping logistics, offshore energy, and environmental monitoring. This is a high priority mission set for key U.S. government agencies, including the U.S. Coast Guard (USCG) and Customs and Border Protection (CBP), as well as for industry. By implementing Section 934, the U.S. can shape global norms and standards for UAS operations in international airspace, showcasing leadership and ensuring our priorities are at forefront of global aviation policy.

Next Steps: Congress should encourage the FAA to authorize UAS operations over the High Seas in circumstances where the aircraft already operate in U.S. sovereign airspace under existing approvals. This would be straightforward, especially considering that third-party risk in these areas can be demonstrated to be even lower than in domestic operations where flights are occurring safely and routinely now.

We are encouraged by the FAA's understanding of two important distinctions:

- First, between UAS certificated under a Special Airworthiness Certificate (SAC) and those not required to hold any certificate of airworthiness (such as those operating under Part 107 or a 44807 exemption).
- Second, between UAS used for commercial operations and those operating for experimental purposes, including research and development (R&D) and market surveys.

These distinctions present a meaningful opportunity for near-term progress. Specifically, we believe the FAA can approve UAS operations over the High Seas within U.S.-delegated Flight Information Regions (FIRs), airspace over the High Seas where the U.S. has been delegated responsibility by ICAO to provide air traffic control and flight information services, even though that airspace is outside U.S. territorial limits, under a Special Airworthiness Certificate – Experimental Category (SAC-EC) and Certificate of Waiver or Authorization (COA), consistent with the purpose authorized in those approvals. This step would:

- Directly benefit operators that currently are unable to operate over the High Seas out of the U.S. but can do so in some case out of other nations.
- Provide clear national security advantages.
- Demonstrate publicly that the FAA is taking a safe, incremental approach, setting an example for other nations.

AUVSI also wants to emphasize the critical importance of U.S. leadership at ICAO and in bilateral and multilateral efforts to develop comprehensive frameworks for UAS operations over the High Seas. Continued FAA engagement and leadership at the key ICAO panels, within relevant ICAO forums, and in collaboration with international partners at the ICAO Assembly is essential to progress.

Section 936 – Covered Drone Prohibition
Prohibits DOT from entering into, renewing, or extending contracts or awarding grants involving the operation, procurement, or contracting of UAS, related systems, or counter-UAS technologies manufactured by covered foreign entities, including those from the PRC. These prohibitions apply across all DOT offices and programs.

UAS systems from covered foreign entities pose significant cybersecurity, data privacy, and supply chain risks.[12] Section 936 promotes the transition to trusted domestic or allied technology suppliers for critical infrastructure and aviation applications and supports broader federal efforts to reduce reliance on adversarial technology in sensitive government operations.

More can be done by DOT to better educate grant recipients on the ban on grant funds being used in connection with PRC drones, and associated replacement of existing covered drones that are owned and operated by the agency. The full implementation of this section will undoubtedly support these goals.

[12] https://www.cisa.gov/news-events/news/release-cybersecurity-guidance-chinese-manufactured-uas-critical-infrastructure-owners-and-operators

Next Steps: AUVSI asks Congress to uphold the intent of Section 936 and:

- Support DOT in identifying and transitioning to secure, U.S.-based or allied alternatives.
- Fund the authorized replacement program to ensure continued operational capability during the transition.
- Encourage transparency in exemption and waiver processes to prevent unintended loopholes.

Section 952 – U.S. Global Leadership in AAM
P.L. 118-63 expressed the sense of Congress that the United States should establish itself as a global leader in AAM, and directed the FAA to work collaboratively with manufacturers, prospective operators, and other relevant stakeholders to ensure the safe integration of AAM aircraft into the NAS.

Since the enactment of P.L. 118-63, over the last year the AAM industry has made significant progress. Leading companies have demonstrated that this technology is already capable of safely and effectively operating within the NAS, conducting real-world missions nationwide. These flights validate both the performance and operational readiness of this emerging technology. Maintaining America's global leadership in aerospace requires that innovation be brought to market efficiently and safely.

In recent years, however, the FAA has taken on excessive, under resourced direct oversight responsibilities for aircraft certification, overwhelming the agency and causing significant delays for innovative U.S. companies in the drone, AAM, and autonomy industries. The FAA is well-intentioned but not resourced to adequately conduct an ever-expanding aircraft certification mission. The FAA does not have the personnel and expertise necessary to certify these new aircraft within a timeframe that aligns with industry needs for the United States to maintain global leadership. Companies building aircraft as diverse as sub fifty-five (55) pound drones to electric vertical takeoff and landing (eVTOL) craft to autonomous flight systems that enables aircraft to be remotely operated by a pilot on the ground are all funding and expanding a modernized and scalable scope of aviation (while maintaining safety), but are at risk of losing ground to international competitors because the FAA does not have the ability to certify the aircraft in a timely manner.

Next Steps: The FAA must work transparently with industry and adhere to clear certification timelines to ensure that AAM technologies are developed, produced, and deployed here in the United States – before our competitive advantage is lost to global rivals.

To keep pace with emerging technologies, the FAA should delegate routine approvals and compliance findings to respected industry experts and establish a right-sized enabling regulation for approval or certification rather than expanding its own workforce. With strong leadership and clear guardrails, enhanced delegation authority is essential for maintaining U.S. competitiveness. Confidence in the Organization Designation Authorization (ODA) Program must be fully restored and its use expanded for aircraft certification. By properly utilizing and expanding the ODA Program, the FAA can streamline its processes, improve efficiency, and significantly reduce taxpayer costs, ensuring timely certification without compromising safety and scaling the success

of similar programs operated under the FAA designated test sites.

In addition, the FAA should continue with and build on its approach to airworthiness approvals for drones using the Criteria for Making Determinations (CMD) process under its Section 44807 authority. This process has proven to be a successful tool in addressing changes and updates to drone platforms.

Section 953 – Application of National Environmental Policy Act (NEPA) CATEXs for Vertiport Projects
Requires the FAA to apply or establish CATEXs under NEPA to expedite environmental reviews for vertiports. This is key, as lengthy environmental reviews could stall critical AAM infrastructure projects. Just as certain road and rail projects benefit from CATEXs, vertiport development should similarly be streamlined to encourage sustainable, multimodal transportation**.** Vertiports will drive jobs and connectivity, especially in urban and underserved regions – delays in approvals undermine these benefits.

Next Steps: The FAA should publish clear NEPA guidance, identify common low impact vertiport scenarios suitable for CATEXs, and collaborate with local authorities to streamline siting and permitting. AUVSI's AAM Prepared initiative is designed to serve as a model for state and local officials.[13]

Section 955 – Rules for Operation of Powered-Lift Aircraft
AUVSI applauds the FAA for finalizing the Special Federal Aviation Regulation (SFAR) to integrate powered-lift aircraft into the NAS, including establishing pilot certification and operational requirements. The SFAR established an initial path forward, but long-term performance-based rules are needed to support certification, operations, and training at scale – especially for autonomous and remotely piloted AAM aircraft. Accordingly, Section 955 also mandates long-term rulemaking and a dedicated ARC to guide future regulation of both piloted and autonomous powered-lift aircraft, including commercial and cargo operations. This is essential, as countries like the PRC are already deploying autonomous AAM systems. Accordingly, delayed regulatory pathways for powered-lift aircraft risks ceding U.S. leadership in this critical aviation sector, which we cannot allow to happen.

Next Steps: AUVSI asks Congress to urge the FAA to:

- Fully implement the Powered-Lift SFAR while accelerating the permanent rulemaking process informed by real-world experience, ICAO standards, and international best practices.
- Ensure the regulatory framework supports both near-term piloted operations and the transition to autonomy, including standards for remote pilot training and certification.

Section 1044 – FAA UAS and AAM R&D
Directs the FAA, in coordination with the National Aeronautics and Space Administration (NASA) and other federal agencies, to conduct and support R&D, testing, and demonstration activities to enable the safe integration of drones and AAM technologies into the NAS. Focus areas include

[13] https://www.auvsi.org/aam-prepared

BVLOS operations, C2 links, UTM, DAA systems, vehicle-to-vehicle standards, and the societal and environmental impacts of AAM and UAS. A report to Congress was required within nine (9) months of the law's enactment, which is now overdue by over one hundred (100) days, unless reported to Congress and not released publicly.

UAS and AAM technologies require robust risk-based evaluation frameworks to inform future FAA regulations, certification, and operational approvals. Research outputs are essential to updating current regulations and practices or establishing new ones that accommodate complex operations like autonomous BVLOS flight and large UAS integration. Section 1044 allows for concurrent deployment and research, ensuring that innovation is not delayed while safety research continues. Timely execution of Section 1044 will help align regulatory policy with technological advancement, ensuring the U.S. maintains global leadership in uncrewed and advanced aviation systems.

Next Steps: AUVSI urges the FAA to:

- Accelerate research in collaboration with industry and academia, especially in areas that inform near-term BVLOS, large UAS, and AAM certification guidance.
- Utilize ongoing research to update regulatory frameworks and operational standards without delaying deployment of safe, commercially ready technologies.
- Submit the required report to Congress and release it publicly, providing transparency on costs, progress, and plans for expanded operational approvals.

Airspace Modernization, Air Traffic Control Investments for Advanced Aviation, and UAS Detection and Mitigation Authorities

Modern Skies

On a related subject not directly relevant to the topic of this hearing but nonetheless very important to the future of the NAS, AUVSI also offers our thoughts on the challenges and opportunities that exist on airspace modernization efforts.

AUVSI is a proud member of the Modern Skies Coalition, a group of more than fifty (50) wide-ranging aviation and aerospace industry organizations, which is highlighting the urgent need across the U.S. to hire and retain more air traffic controllers, upgrade FAA technology and infrastructure, and further modernize the NAS in a way that ensures an equitable and safe airspace for all. [14] We applaud this Committee, along with Secretary Duffy and Administrator Rocheleau, for moving boldly to upgrade the nation's dated air traffic control (ATC) system. AUVSI urges Congress to act swiftly in response to modernization plans by leveraging the budget reconciliation process, appropriations process, and standalone legislation as needed to keep this modernization effort on track.

Specific to the advanced aviation segment of the industry, AUVSI believes that advancements in technology integration and investments in modern low altitude awareness systems should be part of the near-term implementation plan. As noted, AAM aircraft have the potential to transform how people and goods move by enabling safer, faster, more efficient transportation within and between urban and rural areas. AAM aircraft can reduce congestion, cut

[14] https://modernskies.com

commute times, and lower emissions – making transportation safer, cleaner, and more accessible. AAM also supports new economic opportunities by creating high-tech manufacturing jobs, expanding aviation services to underserved communities, and fostering innovation in energy storage, automation, and aerospace engineering. Yet, while we are confident that AAM aircraft can be integrated into the NAS now with existing ATC technology, to truly scale the industry to meet the promise of the technology, advancements in technology integration will be needed. Many AAM operators envision high-frequency, low-altitude operations, often in dense urban areas, which existing ATC systems are not equipped to manage. Traditional airspace management relies on fixed routes and voice communications, but integrating AAM at scale demands dynamic, data-driven systems capable of real-time coordination across both crewed, and in the future, uncrewed aircraft. It also requires seamless transitions between low-altitude and controlled airspace, greater automation, and predictive tools to manage complex traffic patterns safely and efficiently. Without these improvements, AAM operations will remain constrained, and the broader societal and economic benefits of this next-generation aviation will go unrealized.

With respect to drones, we encourage Congress to ensure the FAA is implementing **Section 911** of P.L. 118-63, which requires DOT to initiate a pilot program to supplement the department's oversight and inspection activities using UAS, including the inspection of ground-based aviation infrastructure, to increase employee safety, enhance data collection, improve the accuracy of inspections, and reduce the costs associated with such inspections. A great way to modernize our ATC system is to ensure the new infrastructure lasts longer and using drones for inspection is a proven method for cost reduction and improved safety.

Greater attention from the FAA should also be directed toward the development and approval of ground-based safety and security systems, which depend on robust physical and digital infrastructure, as noted above related to Section 932 implementation. This infrastructure is critical to supporting the growth of certain BVLOS drone and autonomous aircraft operations, as it will provide the ground locations for safe and secure launch and recovery, maintenance, temporary operations, and public safety missions such as drone as a first responder (DFR) programs. These designated areas will serve both routine and off-nominal needs, helping to ensure operational reliability and public trust. In sensitive or high-risk environments, ground-based sensors can provide critical situational awareness by detecting all aircraft operating in low-altitude airspace, regardless of whether they are broadcasting their position electronically.

As noted, drones deliver tremendous value to society – enhancing public safety, enabling efficient infrastructure inspection, and driving economic growth. They support first responders with real-time situational awareness during emergencies, aid in disaster recovery, and help maintain critical infrastructure like bridges, power lines, and pipelines. Across sectors such as agriculture, logistics, and media, drones are also creating high-skill jobs and fostering technological innovation. Yet, recent high-profile drone activity, such as the reported drone sights in New Jersey, which have now largely been discredited and demonstrated to be aircraft other than drones, has spotlighted significant gaps in low-altitude airspace awareness.[15] This surge in attention has underscored how low Remote ID compliance, limited investment in low altitude airspace awareness capabilities, and outdated regulations make it difficult for authorities to differentiate between authorized operations, negligent behavior, and potential threats. This uncertainty jeopardizes public trust and

[15] https://reason.com/2025/05/09/what-the-feds-knew-about-the-new-jersey-drone-scare/

risks constraining a rapidly growing industry. Accordingly, AUVSI believes that innovation and security must advance in lockstep.

Our current ATC system is not designed for low altitude airspace awareness. Plainly speaking, most U.S. ground-based radar is good at tracking things at high altitude going very fast. Most UAS operate at low attitude at much lower speeds, which current FAA ATC infrastructure is not optimized for. Accordingly, as investments are made to upgrade ATC technologies, addressing this gap will require investment in modern, ground-based and networked surveillance systems – including radar, acoustic sensors, and cooperative data-sharing platforms – as well as support for digital infrastructure such as Remote ID, UTM, and real-time telemetry integration. Without a foundational layer of airspace awareness at low altitudes, efforts to enable safe, routine, and secure drone operations in the United States will remain constrained.

AUVSI's *Blueprint for Autonomy* calls on Congress and federal agencies to prioritize these investments as part of a national strategy for airspace modernization.[16] The Blueprint outlines the need to accelerate FAA's efforts to establish a regulatory and operational framework for digital airspace services, enable certification of airspace service providers, and fund infrastructure that supports safe and scalable integration of autonomous aircraft. Without decisive action, the U.S. risks falling behind global competitors that are already investing in the digital infrastructure needed to lead in autonomous aviation.

UAS Detection and Mitigation

The current UAS detection and mitigation framework presents many critical gaps that limit our ability to respond effectively to malicious or reckless drone activity, and, as noted, can lead to misunderstanding and falsely identified "drone sightings" due to a lack of low altitude airspace awareness. Many federal agencies, as well as all state, local, tribal, and territorial (SLTT) law enforcement, and National Guard units, lack statutory authority to deploy and operate UAS detection and mitigation equipment. This absence of authority hampers timely response to drone threats at large public events, near critical infrastructure, or in emergency situations – gaps repeatedly identified by national security stakeholders, including the White House and the National Football League (NFL), which has emphasized the urgency of enabling local response during major sporting events and other significant gatherings.

Select federal agencies currently operating under temporary authorities granted by Section 124n of the fiscal year 2018 National Defense Authorization Act (NDAA) still lack permanent statutory authority. Without enduring authorization, these agencies face uncertainty in planning and operational continuity, limiting proactive threat mitigation efforts. As AUVSI has noted, sustained and predictable authority is essential to building an effective national UAS detection and mitigation architecture. Further, the FAA has also not yet taken sufficient steps to evaluate detection and mitigation technologies which offer a promising solution for identifying, and in very extreme cases, mitigating malicious drones in congested airspace, including without kinetic force. Testing such technologies is essential to determine their safety, effectiveness, and compatibility with the broader airspace ecosystem, and has been called for in White House and Department of Homeland Security (DHS) counter-drone strategy documents.

[16] https://www.auvsi.org/sites/default/files/Blueprint-for-Autonomy-Building-Blocks-for-Our-Collective-Future.pdf

This Committee has previously worked on legislation to address these gaps, and AUVSI encourages work to continue to pass legislation in 2025 which moves the UAS detection and mitigation policy landscape forward in a meaningful way. Security, like safety, it not a barrier to integration – it is a foundation of it.

To address these challenges and seize opportunities, the United States must act decisively. Low altitude airspace awareness, air traffic control modernization, the incorporation of digital flight rules, and expanded UAS detection and mitigation authorities are all essential to building the ATC and NAS of the future and ensuring situational awareness at all altitudes.

Conclusion

P.L 118-63, is a bold, comprehensive roadmap for the future of American aviation. Yet legislation alone is not enough. Congress must continue exercising strong, regular oversight to ensure that the FAA delivers on the mandates in a timely, transparent, and accountable manner.

AUVSI and our members stand ready to support the FAA, DOT, and this Committee in ensuring that the promise of UAS and AAM technologies is fully realized, and the U.S. maintains the gold standard of aviation safety and global aviation leadership. We are committed to a future where U.S. innovation leads the world – where safety, security, performance, and progress go hand in hand.

Thank you for your leadership and the opportunity to appear before you today.