



**February 11, 2026**

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United States Department of Transportation  
Docket Operations  
1200 New Jersey Avenue, SE  
Room W12-140, West Building Ground Floor  
Washington, DC 20590-0001

**Re: Comments in Response to “Normalizing Unmanned Aircraft Systems Beyond Visual Line of Sight Operations: Reopening of Comment Period” [Docket No. FAA-2025-1908]**

To Whom It May Concern:

The Commercial Drone Alliance (CDA) thanks the FAA for this additional opportunity to comment on the Normalizing Unmanned Aircraft Systems (UAS) Beyond Visual Line of Sight (BVLOS) Operations Notice of Proposed Rulemaking (NPRM), specifically focused on aircraft-to-aircraft deconfliction requirements. Electronic conspicuity (EC) is a critical issue not only for BVLOS drone integration but also for the overall safety of the national airspace system (NAS). EC also provides security advantages, including enabling airspace sovereignty, and lays a foundation for increased automation in the aviation ecosystem.

Our airspace system is at an inflection point. As policymakers wrestle with decisions around NAS modernization, the limits of visual separation standards, and the need to increase aircraft conspicuity, the FAA has an opportunity to take a decisive step toward enhancing the safety of our system. Creating a path for aircraft to use alternate EC devices in airspace where ADS-B Out is not required gives all aircraft operators enhanced safety options. The CDA applauds the FAA for seeking additional information to ensure EC is implemented in a measured, sustainable way so that the aviation ecosystem can reap the benefits of having EC alternatives to TSO-certified ADS-B.

**I. About the Commercial Drone Alliance**

The CDA is the leading U.S. non-profit organization focused on integration of commercial drones into the NAS. The CDA consists of key leaders in the commercial drone industry and actively participates in regulatory and policy efforts to promote U.S. leadership in drone technology and facilitate the safe and secure development and expansion of domestic commercial drone operations. The CDA collaborates with all levels

of government on policies for industry growth and educates on the safe and responsible use of commercial drones to achieve economic benefits and humanitarian gains. We bring together commercial drone end-users, manufacturers, service providers, drone security companies, and vertical markets including oil and gas, precision agriculture, construction, security, communications technology, infrastructure, newsgathering, filmmaking, package delivery and logistics, and more.<sup>1</sup>

## **II. The Need for Universal EC**

As we previously commented in response to the BVLOS NPRM, the CDA strongly urges the FAA to set consistent low altitude right-of-way rules that require all UAS to yield to all cooperative manned aircraft and require all manned aircraft operating below 500 feet to be fully conspicuous through the use of ADS-B Out or alternate EC devices.<sup>2</sup>

Universal EC is a foundational necessity for unlocking BVLOS operations under Part 108. Numerous aspects of the NPRM could be simplified and streamlined under the assumption of universal EC for manned aircraft. These changes would increase and accelerate drone operator compliance with Part 108, all while enhancing safety for the manned aviation community. Requiring drone operators to account for and mitigate against every feasible instance of manned aircraft ‘invisibility’ will inherently lead to over-regulation of drone operations. Incentivizing the use of alternate EC devices for manned aircraft operators is a more feasible and cost-effective solution, especially in the near-term. EC devices enable aircraft deconfliction in a way that complements the existing right-of-way schema and preserves the freedoms of today’s framework while still unlocking the low altitude airspace for new users through a cost-effective integration solution.

We would also like to address a few common misconceptions propagated by some NPRM commenters. Respectfully, the FAA’s ADS-B radar coverage maps are not a relevant data point in gauging the efficacy of EC devices for providing in-flight situational

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<sup>1</sup> Learn more at <https://www.commercialdronealliance.org>. Board members include: Amazon Prime Air, Choctaw Nation of Oklahoma, DoorDash, Florida Power & Light, Hidden Level, NUAIR, Ondas, Percepto Robotics, Skydio, SkySafe, Southern Company, uAvionix, Wing, Xelevate Solutions, and Zipline International, Inc. General members include: Aerolane, Airborne Response Corp., Airspace Defense, Inc., Airspace Link, Inc., American Fuel & Petrochemical Manufacturers (AFPM), ANRA Technologies, Ascent AeroSystems, AT&T, Aura Network Systems, Inc., AX Enterprises, Brinc Drones, Inc., DEDrone by Axon, DefendUAS, DEXA, Dominion Energy, Drone Service Providers Alliance, DRONERESPONDERS, DroneShield, LLC, Edison Electric Institute (EEI), End State Solutions LLC, Flock Safety, Flying Lion, Inc., GroWings Robotx, Halo, Honeywell, Kelly Hills Unmanned Systems, Lumenier, Matternet, Merlin Labs, Mid Atlantic Aviation Partnership (MAAP), Mitsubishi Electric Innovation Center, New York Power Authority, Pilot Institute, Pyka, Inc., Qualcomm Incorporated, Skyways, Sustainable Skylines, Syracuse Regional Airport Authority, Unusual Machines, USI, Verge Aero, Virginia Innovation Partnership Corporation (VIPIC), and Wingtra.

<sup>2</sup> See *CDA Comments in Response to Normalizing Unmanned Aircraft Systems Beyond Visual Line of Sight Operations* (Comment ID: FAA-2025-1908-2675), Change 1.4, p. 18, available at: [Regulations.gov](https://www.regulations.gov).

awareness. The standard for EC success should not be detection by ground-based surveillance equipment, but rather detection by systems supporting other airborne aircraft. Thus, ADS-B coverage data is a poor reference for gauging EC effectiveness.

Additionally, ample evidence exists to contradict commenter claims that visual conspicuity is “good enough” or equivalent to electronic conspicuity. NTSB Safety Alert S-058 notes:

*The ‘see-and-avoid’ concept has long been the foundation of midair collision prevention. However, the inherent limitations of this concept, including human limitations, environmental conditions, aircraft blind spots, and operational distractions, leave even the most diligent pilot vulnerable to the threat of a midair collision with an unseen aircraft.<sup>3</sup>*

FAA AC 90-48E further details the limitations of the human eye, highlighting the effects of complicating factors like “atmospheric conditions, glare, lighting, windshield deterioration and distortion, aircraft design, cabin temperature, oxygen supply (particularly at night), and acceleration forces” on in-flight vision.<sup>4</sup> While there is no doubt that ‘see and avoid’ is a critical layer of deconfliction between manned aircraft, years of NTSB investigations and findings point to the reality that collision avoidance technologies can truly be the difference between life and death. Thus, EC offers an opportunity for improving the overall safety of the NAS.

Finally, while it is critical to have a firm understanding of the capabilities and limitations of any new technology, the CDA cautions the FAA against treating EC as inherently “new”. These solutions are already approved for use in other countries for the purpose of in-flight situational awareness, and the existence of an approved industry consensus standard provides a tried and true foundation on which to build. Further, the FAA’s safety continuum is strong justification that the same level of research, engineering, and testing validation rigor used for certified safety technologies is not appropriate for EC technology. The CDA fully supports the FAA conducting any further validation testing as to the efficacy of EC solutions, but urges the FAA to adopt a learn-as-you-go mentality and not subject EC to the same degree of engineering and research rigor as technology needed for air traffic surveillance and transport category aircraft deconfliction. This would be a fast-track to stifling innovation that is fundamental for the modernization of low altitude airspace.

In fact, universal EC is a foundational element for a modernized NAS. It will pave the path to future automation-based operating concepts and complement the FAA’s BNATS

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<sup>3</sup> NTSB Safety Alert SA-058, *Prevent Midair Collisions: Don’t Depend on Vision Alone* (November 2016, Revised April 2021), available at: [NTSB.gov](https://www.ntsb.gov).

<sup>4</sup> FAA Advisory Circular 90-48E, *Pilots’ Role in Collision Avoidance* (October 20, 2022), Section 8.1.1, available at: [FAA.gov](https://www.faa.gov).

effort by creating a digital framework for low-risk aircraft-to-aircraft deconfliction that is not predicated on a pilot's ability to see and avoid. This will ultimately be necessary for near-term integration of increasingly advanced and autonomous aviation solutions, including advanced air mobility (AAM) aircraft being developed for use in the next 3-5 years. This rule presents an opportunity for the FAA to set baseline requirements for tomorrow's low altitude airspace, positioning the United States for not only drone dominance, but global leadership in advanced aviation in the coming decades.

### **III. Comments and Recommendations**

The CDA's specific comments regarding the FAA's request for comments are as follows:

#### Questions 2 & 4

The purpose of alternate EC devices should remain limited to improving safety and situational awareness between aircraft in flight. It is critical that the FAA not conflate EC with technologies designed to provide for positive separation of aircraft, ATC surveillance, or regulatory compliance and enforcement. This expansion of intent would not only increase costs and time to market but would also decrease voluntary compliance and use of this safety-enhancing technology. The CDA considers EC as complementary to ADS-B Out, not a replacement, and the regulatory path for alternate EC devices should keep them affordable, optionally battery-powered, and swappable between aircraft.

EC devices also have the ability to preserve the privacy of the aircraft owner/operator. This makes EC an appropriate solution for aircraft in which ADS-B cannot be installed, or as safety alternatives for operators with waivers to fly ADS-B off for security or privacy reasons like law enforcement or the military. To ensure the EC market develops appropriately in the U.S., the FAA should provide a path to EC device approval that is performance-based, standards-informed, and supported by guidance, rather than through prescriptive requirements or Technical Standard Order (TSO) certification. This will keep costs down and increase market options for operators. The CDA further supports rebates and subsidies to reduce barriers to adoption for manned aircraft operators.

#### Questions 1 & 3

The FAA's historical prohibition on the use of non-TSO certified EC devices on many manned aircraft has impeded market development in the U.S. However, the success of portable ADS-B In devices coupled with phone or tablet-based Electronic Flight Bags (EFBs) in recent years has proven that the widespread adoption of lower-cost, non-TSO solutions can have a substantial impact on improving safety for otherwise under-equipped or unequipped aircraft. This same low-cost "safety through scale" approach can and should drive the development and acceptance of sufficiently accurate and reliable EC

devices that are suitable for use in virtually all types of aircraft. In theoretical terms, a safety-enhancing technology that is 97% accurate and adopted by 90% of a population contributes more to overall safety than a solution that is 99.999% accurate but only adopted by 50% of a population.<sup>5</sup>

We are aware of several manufacturers that are either actively developing potential EC solutions or offering existing products that could potentially be adapted to fit this need without lengthy lead times, especially if the FAA does not use a TSO as the means for the equipment approval and factors in the safety continuum when specifying the appropriate equipment requirements. The uAvionix SkyEcho is the likely market frontrunner once standards are developed. However, manufacturers like Garmin, Freeflight, FLARM/LXNAV, and ForeFlight all produce devices with EC potential. The CDA encourages the FAA to continue setting aggressive implementation deadlines for safety enhancing technologies, as producers have shown a remarkable ability to meet market demand spurred by regulatory necessity.<sup>6</sup>

### Question 5 & 7

The CDA supports the use or adaptation of existing standards to meet the need for alternate EC adoption, but encourages the FAA to create a regulatory framework for which more than one standard can meet the requirement, provided all standards result in interoperable devices, as discussed further below. Additionally, acceptable standards should ensure that EC devices broadcast at distances sufficient for UAS to both detect and maneuver to avoid conflict.

As the FAA considers performance-based EC specifications, it is critical that devices be interoperable. Unfortunately, Europe has created an EC framework akin to the early cellphone environment, where each new cellphone had a unique charging input/output and necessitated bespoke charging accessories. The CDA strongly encourages the FAA to ensure interoperability between EC devices and EC receivers—akin to electronic devices having universally compatible USB-C charging ports—as EC will only achieve its intended safety outcomes if EC signals are generally detectable by all drones without requiring bespoke receiver equipment. This is similar to the standard applied in Part 89 for UAS Remote Identification, whereby the rule states that RID broadcasts must use

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<sup>5</sup> Percentages used are for exemplar purposes only and are not meant to imply the actual measured accuracy or adoption rates of any specific technologies or populations.

<sup>6</sup> For example, the industry responded to the FAA's quick compliance deadline on 5G C-band tolerant radio altimeters. On January 9, 2023, the FAA issued an Airworthiness Directive (AD) requiring aircraft in the U.S. after February 1, 2024 to be equipped to safely operate in the vicinity of 5G C-Band wireless signals. By the end of September 2023, the entire U.S. airline fleet had upgraded their altimeter equipment and the risk of 5G interference was mitigated.

radio frequency spectrum compatible with personal wireless devices in accordance with 47 CFR part 15. UAT provides a reasonable methodology for achieving this.

#### **IV. Conclusion**

This is a pivotal moment in the history of our NAS. The airspace is only getting busier and more complex. Technology is advancing around the world, and maintaining our leadership in global aviation depends on our collective ability to safely but expediently integrate new technologies, whether they are drones, eVTOLs, or alternate EC, into our system.

EC is a fundamental tenet of our future right-of-way construct. The CDA appreciates the FAA's efforts to get this rule right. Gathering additional information reflects the thoughtfulness and gravity with which the FAA is approaching this policy.

The CDA appreciates the opportunity to provide feedback to the FAA on this aspect of the NPRM. Our members look forward to continuing our critical work with the federal government to ensure that BVLOS drone operations can scale here in the United States, for the benefit of the American public.

Signed:

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