

Congress of the United States  
Washington, D.C. 20515

September 9, 2022

The Honorable Billy Nolen  
Acting Administrator  
U.S. Department of Transportation  
Federal Aviation Administration  
800 Independence Avenue, SW  
Washington, DC 20591

Dear Acting Administrator Nolen:

Among the most valuable use cases for small Uncrewed Aircraft Systems (UAS) are those closest to structures and the ground. Today electric utilities use small UAS and other uncrewed vehicles to inspect various pieces of critical infrastructure with new levels of safety and precision. Additionally, railroad operators patrol train tracks looking for defects and construction companies survey complex and dangerous construction worksites using these craft. We write to encourage the Federal Aviation Administration (FAA) to issue guidance enabling low-risk shielded operations at scale in a safe and efficient manner even before issuing a beyond visual line of sight (BVLOS) rulemaking.

Shielded operations offer high levels of value with lower levels of risk. Consider infrastructure inspection—forty-nine of fifty states have begun to use drones to inspect expensive, complex, aging infrastructure. Drone inspections can be safer than manual methods, enabling human inspectors to see confined or difficult spaces—like bridge trusses to power plant smokestacks—without placing themselves in danger. And drone inspections can be more efficient and cost effective. The American Association of State Highway and Transportation Officials (AASHTO) estimates that drone-based bridge inspections may offer up to 73 percent cost savings.

According to the Bureau of Labor Statistics Census of Fatal Occupational Injuries, there were 4,764 fatal work injuries recorded in the United States in 2020.<sup>1</sup> Of those fatal work injuries, "workers in transportation and material moving occupations and construction and extraction occupations accounted for nearly half of all fatal occupational injuries (47.4 percent), representing 1,282 and 976 workplace deaths, respectively."<sup>2</sup> Increased usage of small UAS for these types of operations stand to significantly reduce this fatality rate. With the advent of advanced cameras and obstacle avoidance technology, those shielded operations can be conducted in very close proximity to structures, significantly reducing the risk of encountering crewed aircraft. However, under the current rules, flying drones BVLOS requires a waiver—even in these low risk, high value scenarios.

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<sup>1</sup> <https://www.bls.gov/news.release/cfoi.nr0.htm>

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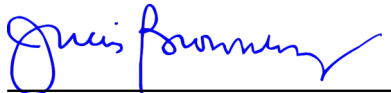
In light of the relatively low levels of risk, the FAA has granted many waivers for shielded operations. But the waiver process remains time-consuming, expensive, and uncertain—factors that may favor deep-pocketed applicants over small-to-medium-sized businesses that would benefit considerably from shielded operations.

In February 2022, the FAA informed the Advanced Aviation Advisory Committee that it was considering issuing waiver guidance to enable shielded operations. In March 2022, the Aviation Rulemaking Committee on BVLOS endorsed that objective, recommending that the FAA “issue waiver guidance in the form of Standard Scenarios or Pre-Defined Risk Assessments” before releasing a BVLOS rule.

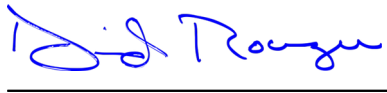
The United States is not the only country to see the value of shielded operations. Other nations, including the European Union, Australia, and New Zealand have established regulatory frameworks to enable shielded operations with low levels of regulatory friction and high levels of safety. The U.S. should be a leader in the adoption of guidance—such as Standard Scenarios or Pre-Defined Risk Assessments—to enable shielded BVLOS operations in a manner consistent with our commitment to safety.

We appreciate your attention to this issue and urge you to publish guidance on this topic by the end of the year.

Sincerely,



Julia Brownley  
Member of Congress



David Rouzer  
Member of Congress



Dina Titus  
Member of Congress



Ted Budd  
Member of Congress



André Carson  
Member of Congress



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Sheila Jackson Lee  
Member of Congress



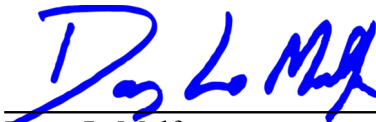
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Seth Moulton  
Member of Congress



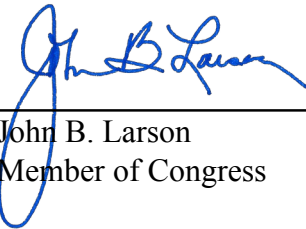
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Nancy Mace  
Member of Congress



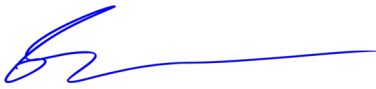
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Doug LaMalfa  
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