



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Office of the Administrator

800 Independence Ave., S.W.  
Washington, DC 20591

May 22, 2023

The Honorable Patty Murray  
Chair, Committee on Appropriations  
United States Senate  
Washington, DC 20510

Dear Chair Murray:

This letter is the Federal Aviation Administration's (FAA) report to Congress in response to the Fiscal Year 2022 Consolidated Appropriations Act (Public Law 117-103), Joint Explanatory Statement, which states:

*The agreement directs the FAA to report to the House and Senate Committees on Appropriations within 180 days of enactment of this act on potential solutions to expand the use of part 135 operations of UAS deliveries, and whether these operations could be conducted through the low altitude authorization and notification capability program or the unmanned aircraft systems traffic management as the best way to ensure safe operations.*

As unmanned aircraft systems (UAS), commonly referred to as drones, are introduced into the National Airspace System (NAS), the FAA's number one priority remains safety. The FAA encourages innovation and works with industry and state, local, tribal, and territorial governments to realize the benefits of drones and inform future rules and regulations. FAA programs such as BEYOND and its predecessor, the UAS Integration Pilot Program (IPP), allow testing and evaluation of operations that address the challenges of drone integration, including beyond visual line of sight (BVLOS) operations; explore the potential and realized societal and economic benefits of drone operations; and promote robust community engagement on drone-related issues and operations.<sup>1 2</sup> Participants in these programs are among the first to prove their concepts, including package delivery by drone through 14 Code of Federal Regulations part 119 certification for part 135 operations. Part 135 operations are the only path for drones to carry the property of another for compensation in BVLOS operations.

As participants in these programs move to prove their concepts, they must use the FAA's existing air carrier certification process. All part 135 applicants, including drone operators, must go through the full certification process. Drone operators must obtain airspace authorizations and

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air carrier or operating certificates before they can begin operations.<sup>3</sup> The FAA issues air carrier certificates to applicants based on the type of services they plan to provide and the location of their operations. For rules that do not apply to drones, such as two-way radio communications equipment on board the aircraft, the FAA grants exemptions.

The FAA issued the first part 119 air carrier certificate for single pilot operations of drones under part 135 to Wing Aviation, LLC in April 2019. The FAA later issued Wing Aviation a standard part 119 air carrier certificate with approval to operate drones in October 2019. Wing Aviation was part of the IPP, delivering food and over-the-counter pharmaceuticals directly to homes in Christiansburg, Virginia. Wing Aviation has since expanded its operations to include Frisco and Little Elm, Texas.

UPS Flight Forward, Inc., another IPP participant, was the first company to receive a standard air carrier certificate with approval to operate drones under part 135. On September 27, 2019, UPS Flight Forward conducted its first package delivery by drone with its part 135 certification when it flew medical supplies at the WakeMed hospital campus in Raleigh, North Carolina. UPS Flight Forward has since expanded its operations to include Winston-Salem, North Carolina, and The Villages, Florida.

Amazon is the first company to operate a drone larger than 55 pounds under a standard air carrier certificate. Amazon began commercial operations in August 2020. It currently delivers Amazon products in Oregon and Northern California and recently expanded to College Station, Texas.

On June 17, 2022, Zipline became the fourth drone operator to receive a standard air carrier certificate. Zipline began working on this certification in the IPP and continues its work through the BEYOND program. Zipline is the first operator under part 135 approved to operate a fixed-wing drone. Zipline conducts delivery operations in North Carolina.

On January 27, 2023, Causey Aviation Unmanned, Inc. received the fifth standard air carrier certificate. Causey Aviation partners with Flytrex to deliver packages in North Carolina as part of the BEYOND program. Causey Aviation and Flytrex were also participants in the IPP.

The FAA has used lessons learned from the issuance of these five air carrier certificates that allow drone operations to normalize the part 135 certification process for drone operator applicants.

The BEYOND program has also been working with its Lead Participants to expand BVLOS operations for drone package deliveries without the use of visual observers.<sup>4</sup> This work includes research and development of layered technological mitigations for the detection of other aircraft and obstacles, including on-board and ground-based cameras, radar, and other systems. Other research involves testing the use of Automatic Dependent Surveillance-Broadcast as the primary

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detection system within the Mode-C veil. In addition, work on strategic mitigations includes masking and shielding and the use of Notice to Air Missions. Currently, operators need to use multiple mitigations in a layered approach to achieve the requisite level of safety, as no one overall solution to drone integration has yet been identified.

As the FAA works on drone rulemaking to integrate UAS into the NAS and help expand part 135 UAS package delivery and other operations, the FAA is also working towards greater normalization of the issuance of type certificates, which will replace exemptions under 49 United States Code § 44807 currently being utilized by part 135 air carrier certificate holders.<sup>5</sup> This will increase the number of drone package deliveries in the NAS.

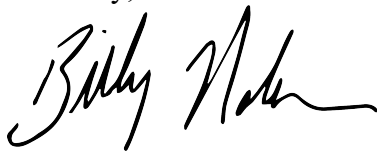
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The FAA will continue working with industry, as well as state, local, tribal, and territorial governments, to expand the use of part 135 for drone deliveries while ensuring safe operations.

A similar letter has been sent to the Vice Chair of the Senate Committee on Appropriations, and the Chairwoman and Ranking Member of the House Committee on Appropriations.

Sincerely,

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Billy Nolen  
Acting Administrator

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800 Independence Ave., S.W.  
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May 22, 2023

The Honorable Susan Collins  
Vice Chair, Committee on Appropriations  
United States Senate  
Washington, DC 20510

Dear Vice Chair Collins:

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Billy Nolen  
Acting Administrator

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May 22, 2023

The Honorable Kay Granger  
Chairwoman, Committee on Appropriations  
House of Representatives  
Washington, DC 20515

Dear Chairwoman Granger:

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May 22, 2023

The Honorable Rosa L. DeLauro  
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Dear Ranking Member DeLauro:

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