

**BEFORE THE  
DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
WASHINGTON, D.C.**

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**IN THE MATTER OF**

**Petition of UPS Flight Forward, Inc. for Exemption**

**Docket No. FAA-2019-0628**

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**COMMENTS OF THE SMALL UAV COALITION**

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The Small UAV Coalition<sup>1</sup> is pleased to provide comments in support of the petition by UPS Flight Forward (“UPS FF”) for an exemption pursuant to 49 U.S.C. §44807 and from multiple provisions of Parts 91 and 135 to operate the Matternet M2 unmanned aircraft system (“UAS”) to conduct package delivery, initially blood and medical samples, for compensation or hire under a Part 135 air carrier operator certificate. UPS FF is a participant in the North Carolina Integration Pilot Program (“IPP”) in partnership with Matternet and WakeMed Hospital. UPS FF will operate the Matternet M2 between WakeMed facilities in the Raleigh metropolitan area. UPS FF intends to expand the scope of its Part 135 operations upon receipt of necessary FAA regulatory approvals and waivers.

Members of the Small UAV Coalition support advancing regulatory and policy changes to permit UAS operations beyond visual line of sight (“BVLOS”), with varying degrees of autonomy, for commercial and other civil purposes. In particular, the Coalition has long advocated for a UAS air carrier rule to provide a performance-based certification process tailored to the different risk profile of small drones. Currently, the FAA does not permit a waiver for BVLOS commercial package delivery under Part 107, and therefore a Part 135 operator certificate is necessary.

However, there is clear congressional intent that the FAA should begin this initiative as soon as possible. Section 348 of the FAA Reauthorization Act of 2018, signed into law in October 2018, directs the FAA to within one year update its rules to authorize small UAS operators to carry property for compensation or hire. This rulemaking shall, *inter alia*,

- (1) Use performance-based requirements.
- (2) Consider varying levels of risk to other aircraft and to persons and property on the ground . . . and tailor performance-based requirements to appropriately mitigate risk.

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<sup>1</sup> Members of the Small UAV Coalition may be found on the Coalition’s website: [www.smalluavcoalition.org](http://www.smalluavcoalition.org)

- (3) Consider the unique characteristics of highly automated, small unmanned aircraft systems.

49 U.S.C. §44808(b).

The Coalition believes that granting UPS FF's petition will assist the FAA in developing a UAS air carrier rule consistent with congressional intent that will obviate such petitions in the future.

The Matternet M2, which weighs 29.1 lbs. with a payload capacity of 4.4 lbs., will operate routes pre-planned and approved by the FAA following completion of UPS FF's Route Approval Process, which functions as a Safety Management System ("SMS"). Once approved, routes are loaded into the Matternet Flight Control System and geo-fencing is used to ensure the UAS remains within the route volume. Visual observers will be used, as necessary. The remote pilot in command will coordinate with WakeMed's Helicopter Emergency Medical Services ("HEMS") to ensure safe separation between UAS and HEMS operations.

Among the safety features of the M2 is a transport layer security system protecting communications between the remote pilot and the UAS, a parachute recovery system, in compliance with ASTM F-3322-18, with an audible warning, and a flight termination system.

UPS FF states that Matternet is seeking type and airworthiness certification for the M2 "in accordance with established guidelines." The manuals that support certification are proprietary, and the Coalition therefore defers to the FAA with respect to the airworthiness of the M2. Congress required the FAA in Section 345 of the FAA Reauthorization Act to establish a process for "accepting risk-based consensus safety standards related to the design, production and modification of small unmanned aircraft systems." Subsection 345(e) provides that such a process may obviate type and airworthiness certification. The Coalition is mindful that several companies are going through the existing type, production, and airworthiness certification processes, and believes that the experience from these certification processes should inform the development of consensus safety standards.

UPS FF seeks exemptions from several operating rules in Parts 91 and 135. The FAA has granted section 333 exemptions from minimum safe altitude, altimeter setting, and fuel requirements; similar relief is warranted here. Given that UPS FF will operate its UAS only in Class G airspace above 300 feet AGL (except for vertical takeoff and landing) and below 400 feet AGL, relief from altimeter and other requirements is also warranted.

With respect to pilot certification, UPS FF's remote pilots will hold a commercial pilot certificate with a class II medical certificate, as well as a Part 107 remote pilot certificate. The Coalition believes that a Part 61 certificate will be more than adequate. As a matter of policy, the FAA granted section 333 exemptions from the commercial pilot certification requirements and the Coalition urges the FAA to grant UPS FF's petition for exemption from the applicable Part 135 requirements (500 hours, 100 hours of cross-country flight time, and 25 hours at night), in consideration of UPS FF's UAS training program for its pilots described in its petition and the nature of UPS FF package delivery operations.

UAS package delivery promises untold societal benefits, including reducing stress on transportation infrastructure and transporting goods with lower environmental impact than traditional surface or airborne transportation methods. The Coalition considers granting UPS FF's petition an additional step towards developing a mature certification and regulatory framework for integrating all types of UAS operations in the navigable airspace.

For the above reasons, the Coalition supports granting UPS FF's petition in full.

Respectfully submitted,



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