

Testimony of Dr. Gregory S. McNeal:
*“Up in the Air: Examining the Commercial Applications of
Unmanned Aircraft for Small Businesses”*

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Unmanned Aircraft for Small Businesses***

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INTRODUCTION

American entrepreneurs, students & educators, journalists, and volunteers are ready to use unmanned aircraft to save lives and generate significant economic activity, yet they have been held back, unable to operate even the smallest of devices because they are not considered hobbyists. Every moment spent without freeing these individuals to use unmanned aircraft results in avoidable deaths and injuries from falls, missed moments to educate students about technology, foregone moments of free expression, and lost chances to find missing people.

Since the FAA Modernization and Reform Act of 2012, one thing has been clear, only Congressional action ensured individuals were able to use unmanned aircraft.

- In Section 332, Congress called for UAS operations in the Arctic and we have seen those operations take place.
- In Section 333 Congress created an exemption process and we have seen some operations take place (albeit limited by the burdens of airman certification and other restrictive regulations).
- In Section 334 Congress directed that public safety officials may operate unmanned aircraft weighing 4.4 lbs and less and we have seen those operations take place.
- In Section 336 Congress carved out protections for hobby and recreational use of unmanned aircraft weighing up to 55 pounds, and we have seen such hobby and recreational uses.

The trend line is clear, when Congress acts innovation takes flight. But despite the Congressionally directed progress of 2012, there is more work to be done. Entrepreneurs, students & educators, journalists and volunteers have been left on the sidelines, and it appears they will continue to be left out. The only way to secure the benefits of unmanned aircraft flight for these important constituents is to create a micro classification that prioritizes safety while promoting open innovation.

RECOMMENDATIONS

1) CONGRESS SHOULD CREATE A MICRO UAS CLASSIFICATION:

Congress should create a MicroUAS classification that empowers those who have been left out of the process. The MicroUAS category should be focused on simple and straightforward requirements that are minimally burdensome and streamlined. Specifically, the MicroUAS category should be for:

- registered devices,
- weighing 4.4 pounds or less,
- which are operated within line of sight,
- less than 400 feet above the ground, and
- which coordinate prior to operating within 5 miles of airports.

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2) CONGRESS SHOULD BUILD UPON ITS RECORD OF SUCCESS FROM PRIOR CONGRESSIONAL ACTION:

When Congress has acted to promote unmanned aircraft, innovation has taken flight. But where Congress has been silent, we have seen little to no progress. Congress can prioritize safety, promote innovation, and cut through bureaucratic red tape by creating a common sense MicroUAS classification. By eliminating the distinction between recreational and commercial use for the smallest and safest classification of UAS, it cuts red tape for entrepreneurs and encourages a safety culture based on rules that all users can easily understand. It also relieves the FAA from the burden of licensing and exemption grants for low risk operations, allowing the agency to focus its resources on more challenging UAS integration efforts

3) CONGRESS SHOULD PROMOTE COMPLIANCE AND A CULTURE OF SAFETY BY PROMOTING EASY TO UNDERSTAND RULES:

Fostering a Culture of Safety: Easy-to-understand micro rules would promote safety better than the current exemption framework or the proposed sUAS commercial rule. Under a micro classification, compliance would be easy to promote and easy to achieve. People strive for compliance when rules make sense. However, overly burdensome requirements including pilot certification, aeronautical knowledge testing, traveling to test facilities, and re-testing every two years will create high barriers for low-risk users, increasing the potential for non-compliance.

4) A MICRO UAS CLASSIFICATION IS A SIMPLE AND NARROW REFORM

A MicroUAS classification is a narrow reform that would allow for operations on terms similar to those already allowed for recreational and hobbyist uses. It would allow entrepreneurs, educators, and volunteers to operate unmanned aircraft by removing the restrictive “recreational or hobbyist” purpose limitation, focusing instead on the already accepted limitations enacted in 2012. FAA data indicates that there has never been a fatal aircraft bird strike involving a bird comparable in size to a micro UAS (4 pounds) more than five miles from an airport and below 400 feet. Research indicates that the odds of a collision in this location are extraordinarily low, and the consequences are limited. Furthermore, in the estimated tens of millions of operational hours around the world by hobbyists operating the smallest systems in these specified locations, there has never been a single reported fatality.

CONCLUSION

American entrepreneurs, students & educators, journalists, and volunteers need the support of Congress. History has proven that the best way to foster innovation is for Congress to take action to empower innovation and protect entrepreneurs. Now is the time for Congress to act again by creating a MicroUAS classification.

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PROPOSED MICRO UAS LANGUAGE

(a) MICRO UAS CLASSIFICATION.—There is hereby established a micro UAS classification of unmanned aircraft systems, the aircraft component of which may not weigh more than 4.4 pounds, including payload.

(b) MICRO UAS OPERATIONAL RULES.—A micro UAS and its operator qualify for the exemptions described under subsection (c) if such micro UAS is operated—

- (1) below 400 feet above ground level;
- (2) at an airspeed of not greater than 40 knots;
- (3) within the visual line of sight of the operator;
- (4) between the hours of sunrise and sunset; and
- (5) at least 5 statute miles from the geographic center of a tower-controlled airport or airport denoted on a current FAA-published aeronautical chart, except that a micro UAS may be operated closer than 5 statute miles to the airport if the operator—
 - (A) provides prior notice to the airport operator; and
 - (B) receives, for a tower-controlled airport, prior approval from the air traffic control facility located at the airport.

(c) EXEMPTIONS FOR MICRO UAS.—

- (1) Notwithstanding sections 44703 and 44711 of title 49, United States Code, part 61 of title 14, Code of Federal Regulations, and any other law, rule, or regulation pertaining to airman certification, an operator of a micro UAS operated in accordance with subsection (b) of this section is not required to pass any aeronautical knowledge test or meet any age or experience requirement or to have airman or medical certificates.
- (2) Notwithstanding any other law, rule, or regulation pertaining to the certification of an aircraft or aircraft parts or equipment, a micro UAS and the component parts and equipment of such micro UAS are not required to meet airworthiness certification standards or to obtain certificates of airworthiness.
- (3) The operator of a micro UAS operated in accordance with subsection (b) of this section is exempt from sections 91.7(a), 91.119(c), 91.121, 91.151(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), 91.417(a) and (b) of title 14, Code of Federal Regulations, and does not require a certificate of authorization or waiver from the Federal Aviation Administration.
- (4) A micro UAS operated in accordance with subsection (b) of this section, and its operator, shall be exempt from any additional requirements that may be promulgated pursuant to Subtitle B of the FAA Modernization and Reform Act of 2012 (Public Law 112–95). A micro UAS may alternatively be operated pursuant to any form of authorization, operational rules or exemptions pertaining to unmanned aircraft systems legislated by the Congress or promulgated by the Administrator, except that a micro UAS and its operator shall be exempt from any airman or medical certificate requirement.