

The Higher Education UAS Modernization Act

Unmanned Aircraft Systems (UAS) are expected to be one of the fastest-growing industries in the nation. It is estimated that within the first three years of UAS integration into the National Airspace System, the industry will create more than 70,000 new jobs and have an economic impact of \$13.6 billion. By 2025, the benefit is expected to grow to 100,000 jobs and \$82 billion.¹ Today, professors and graduate and undergraduate students at our nation's colleges and universities are working to further develop UAS technology, incorporate UAS to enhance study in a variety of disciplines, and train the next generation of UAS operators, engineers, and technologists who will be in high demand once widespread integration of UAS is achieved. Students who graduate with UAS training will find career opportunities in a wide range of public and private industries, including military, first responder, law enforcement, oil and gas, engineering, traffic monitoring, broadcast news reporting, computer science, agriculture, and film.

Need for the Legislation: Unfortunately, current academic endeavors to further the development of UAS technology for use in a wide variety of research and educational applications, and to train student operators in connection with those applications, are being stunted by the Federal Aviation Administration's treatment of UAS flight for research and educational purposes. Rather than treating academic operators the same as recreational UAS users – who are largely unregulated and not required to obtain a pilot's license – the FAA instead treats academic UAS operators as commercial users. This means that in order for students and professors to fly UAS for research and educational purposes, the FAA must first grant the institution of higher education a Section 333 exemption – which only permits UAS flight using pre-designated UAS platforms, under specific circumstances, and after the operator has obtained a pilot's license. This restrictive exemption does not accommodate the iterative process that is at the heart of innovative research, which relies on the ability to customize devices and alter usage as needed. What's more, since it is costly and time-consuming to obtain a pilot's license, the exemption is impeding UAS workforce development at a time when widespread commercial UAS integration is expected in the next 1-2 years. The FAA has also largely excluded most UAS activities of institutions of higher education from its public, or government, UAS exemption – saying, “education is not a valid government function that supports the operation of an aircraft, whether manned or unmanned.”²

Summary of Legislation: Senator Peters' “Higher Education UAS Modernization Act” permits the operation of small unmanned aircraft for educational and research purposes, without specific FAA approval and without requiring specific registration of the UAS, if the institution of higher education meets the following requirements to ensure safe flight:

¹ *The Economic Impact of Unmanned Aircraft Systems Integration in the United States*. Accessed on February 9, 2016, <http://www.auvsi.org/auvsiresources/economicreport>.

² Memorandum from Mark W. Bury, Assistant Chief Counsel for International Law, Legislation and Regulations, FAA, to James Williams, Manager, UAS Integration Office, FAA (July 3, 2014), *available at* [http://www.faa.gov/about/office_org/headquarters_offices/agc/pol_adjudication/agc200/Interpretations/data/interps/2014/Williams-AFS-80%20education%20-%20\(2014\)%20Legal%20Interpretation.pdf](http://www.faa.gov/about/office_org/headquarters_offices/agc/pol_adjudication/agc200/Interpretations/data/interps/2014/Williams-AFS-80%20education%20-%20(2014)%20Legal%20Interpretation.pdf).

1. The institution of higher education adopts a **UAS policy** and designates a **UAS point of contact** that is charged with reviewing and approving all UAS operation.
2. **Any UAS flight:**
 - a. Must be approved by the institution of higher education's UAS point of contact as being for "educational and/or research purposes" and in compliance with the institution's UAS policy.
 - b. Must be overseen by an "operator in command" who has been trained in the safe operation of UAS; is present during the UAS operation; is prepared to take control of the UAS; and will take responsibility for the safety of the UAS operation and those under the operator in command's supervision.
 - c. Must be flown below 400 feet above ground; cannot cause hazard or harm to persons or property; must be identifiable; cannot survey or create a nuisance on private property; must give right of way to full scale aircraft; and must operate above sites that are sufficiently far from populated areas.
3. If the UAS is involved in an accident causing injury to a person or property, such accident must be reported to the FAA within 10 days.
4. If the UAS is to be flown within 5 miles of a major airport or within 2 miles of any other airport or heliport, the UAS operator in command must first obtain permission from Air Traffic Control or, in the case of a small airport or heliport, the airport manager.

Amends Subtitle B of title III of the FAA Modernization and Reform Act of 2012 (PL 112-95; 49 U.S.C. 40101 note).

Endorsements: Association of American Universities, Association of Public and Land-grant Universities, University of Michigan, Michigan State University, Michigan Technological University, Northwestern Michigan College, The University of Kansas, Wichita State University, Princeton University, University of Florida, Indiana University, Harvard University, The Pennsylvania State University, Duke University, Smith College, University of Missouri System and South Dakota State University.