



**ASSOCIATION OF
AMERICAN UNIVERSITIES**

**ASSOCIATION OF
PUBLIC AND
LAND-GRANT
UNIVERSITIES**



MEMORANDIUM

December 5, 2014

TO: Office of Information and Regulatory Affairs, Office of Management and Budget

From: Association of American Universities

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Re: December 8, 2014 Meeting on DOT/FAA NPRM on Operation and Certification of Small Unmanned Aircraft Systems (sUAS) (RIN: 2120-AJ60)

The Association of American Universities (AAU) and the Association of Public and Land-grant Universities (APLU) appreciate the opportunity to meet with OIRA as it conducts its review of the Federal Aviation Administration's NPRM on Operation and Certification of Small Unmanned Aircraft Systems (sUAS) and to explain the critical importance of this NPRM to higher education and the scientific research community.

AAU and APLU together represent over 200 higher education institutions in the United States, including public and private universities with comprehensive graduate and professional education programs. Our members educate a substantial number of American baccalaureate and graduate students and conduct most of the nation's basic research.

The university community has a significant interest and stake in this rulemaking, because universities conduct a wide range of research and instructional activities involving sUAS. Significantly, much of this research is funded by federal research agencies. Examples of this diverse and important work include research in the fields of animal health, plant toxicology, entomology, engineering, architecture, aviation, sustainable nutrient management, soil science, biogeochemistry, and aerospace engineering. The federal agencies which support this research include NASA, the Bureau of Land Management, the U.S. Department of Agriculture, the Defense Advanced Research Projects Agency, the Army, the Navy, the Air Force, the National Oceanic and Atmospheric Administration, the Department of Energy, the National Science Foundation and the FAA itself.

Unfortunately, universities are currently experiencing difficulty obtaining FAA approval to undertake such research and educational work. In brief, there is no timely, workable mechanism for both public and private universities to secure FAA approval to conduct important research and instructional activities utilizing sUAS technology. These issues are further outlined below.

Certificates of Authorization (COAs) for Public Universities

In June and July 2014, the FAA issued a succession of legal interpretations to clarify allowable sUAS operations under the auspices of a state university's COA.¹ These memoranda have, however, created even more uncertainty and confusion in the public university community over the nature and scope of authorized research activities under sUAS COAs.

In a June 13, 2014 memo, the FAA declared that COAs only permit holders to conduct "aeronautical research" and that research that only "incidentally" uses sUAS will not qualify as aeronautical research. Any other research uses must come within one of the other core government functions set out in the statute.² On July 3, 2014, the FAA released a follow-up memo, explaining that it "did not mean to imply...that no other research may be conducted using UAS as a public aircraft" and noting that it only intended to caution that "the governmental functions in the statute not be artificially manipulated in meaning so that they include all desired research activities."

In a separate July 3, 2014 memo, the FAA addressed the question of whether a state university may use its COA to train university students to fly sUAS. The FAA concluded that education is not a "valid governmental function for purposes of the operation of public aircraft." Accordingly, the FAA asserted, a state university may not, under cover of its COA, conduct sUAS operations to provide education "as part of any curriculum that does not otherwise qualify as a government function."

In this context, our public universities report that they are finding it increasingly challenging to secure COAs, characterizing the process as a series of delays and moving targets. Some frustrated universities have responded—to the detriment of their scholarly and economic opportunities—by banning all sUAS research at their institutions.

Section 333 Exemptions for Private and Public Universities

Encouragingly, the FAA has demonstrated that it is willing to use its limited powers under Section 333 of FMRA ("Special Rules for Certain Unmanned Aircraft Systems") to authorize certain low-risk sUAS operations on a case-by-case basis, as an interim policy until the sUAS rule is finalized.

Both public and private universities may be able to utilize this exemption to carry out certain academic and research activities. However, because the interim Section 333 policy is *ad hoc* and will be superseded by future regulations, including the sUAS NPRM currently under consideration by OIRA, universities cannot rely on it when developing, implementing, and applying for funding for sUAS-related research.

Importance of University sUAS Research and Instruction

Universities acknowledge that safety is paramount in the operation of sUAS and, indeed, our member institutions have a long record of safe use of sUAS to conduct important, often federally funded research. But the FAA's existing system for regulating the use of sUAS places serious constraints on and, in some cases, impedes such university activities. As discussed above, in the current regulatory environment, university researchers are increasingly hesitant to start working on proposals or new projects and sometimes even abandon constructive projects already underway. Federal funding for research projects is allocated under specific

¹ Under 49 U.S. Code § 40125, in order to qualify for public aircraft status - and thus be eligible for a COA to operate a UAS - a public entity must fulfill certain "commercial purpose" and "governmental function" criteria.

² 49 U.S. Code § 40125 defines "government function" as an "activity undertaken by a government, such as national defense, intelligence missions, firefighting, search and rescue, law enforcement (including transport of prisoners, detainees, and illegal aliens), aeronautical research, or biological or geological resource management."

timeframes. The long, uncertain and mostly unsuccessful process of obtaining FAA approval to operate sUAS is incompatible with these timelines.

We look forward to discussing with OIRA and the FAA possible options for universities, such as the creation of a unitary, streamlined mechanism by which both public and private universities may seek expedited approval for their educational uses of sUAS. Another possible form of relief might be an exemption, or some kind of special consideration, for university-based research and education-related activities. At the same time, recognizing the very real safety concerns that the FAA is trying to address with this new rule, we are also interested in exploring steps the university community might take to create uniform operating procedures across university campuses that would better ensure that important safety standards established by the FAA are met when using sUAS for research and educational purposes.

A clearly delineated, transparent, timely process that enables university researchers to secure FAA approval to conduct sUAS-related research activities will allow the higher education community to continue to fulfill its mission to discover and disseminate groundbreaking new knowledge for the benefit of society and to educate future leaders who will play important roles in advancing general aviation, aeronautical science and many other important scientific, engineering and technical fields.

University research and teaching are essential to our country's innovation economy, our national security, and our international competitiveness, among many other public goods. The view of the higher education community is that there is a reasonable balance to be struck between concerns about safety and the need to ensure that federal research dollars from the FAA's sister agencies do not languish or go to waste.

Finally, we want to take this opportunity to emphasize that we recognize and appreciate the fact that the FAA and other government entities are working as quickly and rigorously as possible to address the challenging – indeed, unprecedented – issues that sUAS present for our National Airspace System.