wiley

ALERT

Micro UAS Aviation Rulemaking Committee Report Released

April 6, 2016

The Federal Aviation Administration (FAA) announced today that it is currently reviewing the report and recommendations of the Micro Unmanned Aircraft Systems (UAS) Aviation Rulemaking Committee (the ARC). The FAA chartered the ARC, which began meeting March 8, to provide recommendations to the FAA Administrator on a regulatory framework for the classification and operation of micro UAS. The FAA will use the information in the report to develop a flexible, performance-based proposed rule. Once the FAA develops its proposed rule, the public will have an opportunity to comment.

The ARC's consensus report recommends establishing four small UAS categories, defined primarily by risk of injury to people below the flight path. Category 1 includes aircraft weighing 250 grams or less. Category 2 includes aircraft weighing more than 250 grams, but still presenting a 1% or less chance of "serious" injury (Abbreviated Injury Scale (AIS) level 3 or greater) to a person in the event of impact. Category 3 includes aircraft presenting a 30% or lower chance of causing an AIS level 3 or greater injury upon impact with a person. Finally, Category 4 includes aircraft having the same risk of serious injury as Category 3 (less than a 30% chance of AIS level 3 or greater injury) but involves sustained flight over people beyond what is permitted in Category 3, specifically flight over crowds and/or dense gatherings of persons.

The ARC report prescribes the following proposed performance standards and operational restrictions to minimize the risks associated with each category.

- Under Category 1, a small UAS may operate over people if the weight (including accessories/payload, *e.g.*, cameras) is 250

Practice Areas

Telecom, Media & Technology
Uncrewed Aircraft Systems (UAS)

grams or less.

- Under Category 2, a small UAS may operate over people if the manufacturer of the UAS certifies to the FAA that the UAS does not, in the most probable failure modes, exceed the typical or likely impact energy threshold, and if it complies with industry consensus performance standards. The operator must also comply with the operator instruction manual, must maintain minimum set-off distances of 20 feet above people's heads, or 10 feet laterally away from people, and may not operate so close to people as to create an undue hazard to those people.
- Under Category 3, a small UAS may operate over people if the manufacturer of the UAS certifies to the FAA that the UAS does not, in the most probable failure modes, exceed the typical or likely impact energy threshold, and if it complies with industry consensus performance standards. Flight over crowds or dense concentrations of people is never permitted under this category. In addition to that restriction, Category 3 UAS may only operate over people if: (1) the operation is conducted over a closed- or restricted-access work site with the permission of the site's owner or operator; or (2) overflight of people is limited to those who are transient or incidental to the operation, *i.e.*, the overflight of people is incidental to the operation and is not sustained. Additionally, the performance standards and operational restrictions that apply to Category 2 operations also apply to Category 3.
- Under Category 4, a small UAS may operate over people, including flights over crowds or dense concentrations of people prohibited in Category 3, if the manufacturer of the UAS certifies that the UAS does not, in the most probable failure modes, exceed the typical or likely impact energy threshold, if the UAS complies with industry consensus performance standards, and if the operation is conducted in compliance with a documented, risk mitigation plan, which was developed and adopted in accordance with industry consensus standards for conducting risk mitigation. The performance standards and operational restrictions that apply to Category 2 operations also apply to Category 4.

To demonstrate that a small UAS qualifies for Categories 2, 3, or 4 operations over people, the manufacturer of the UAS must: (1) declare that the small UAS meets industry consensus standards applicable to the category; (2) submit that declaration to the FAA in a form and manner acceptable to the FAA; (3) label the product or product retail packaging in accordance with industry consensus standards; and (4) provide an operating manual to the operator that includes operator instructions for flight over people. The operator is responsible for knowing what category of operations his or her UAS qualifies for, and what operational limitations he or she must follow.

The ARC disagreed on the process for certifying UAS operators found in the FAA's proposed small UAS rule. The overwhelming majority of ARC members stated their belief that an in-person test requirement and TSA background check would be unduly burdensome for operators of Category 1 UAS, and could be detrimental to safety by discouraging compliance for operators of such small UAS. The majority of the ARC members asserted that the same or higher level of safety and compliance could be reached by allowing online knowledge testing and eliminating or reconsidering the TSA vetting process. Dissenting members of the ARC asserted that operators of all size UAS should comply with the currently proposed operator certification process.