VIA ELECTRONIC SUBMISSION

April 24, 2015

Docket Operations, M-30
U.S. Department of Transportation (DOT)
1200 New Jersey Avenue SE, Room W12-140, West Building Ground Floor
Washington, DC 20590-0001

Re: RIN 2120-AJ60, Comments on the FAA's Proposed Regulations for the Operation and Certification of Small Unmanned Aircraft Systems

Dear Sir or Madam:

Associated Builders and Contractors, Inc. (ABC) submits the following comments to the U.S. Department of Transportation's (DOT) Federal Aviation Administration (FAA) in response to the above-referenced notice of proposed rulemaking published in the *Federal Register* on February 23, 2015, at, 80 Fed. Reg., at 9544.

About Associated Builders and Contractors, Inc.

ABC is a national construction industry trade association representing nearly 21,000 chapter members. ABC and its 70 chapters help members develop people, win work and deliver that work safely, ethically and profitably for the betterment of the communities in which they work. ABC member contractors employ workers, whose training and experience span all of the 20-plus skilled trades that comprise the construction industry. Moreover, the vast majority of our contractor members are classified as small businesses. Our diverse membership is bound by a shared commitment to the merit shop philosophy in the construction industry. The philosophy is based on the principles of nondiscrimination due to labor affiliation and the awarding of construction contracts through open, competitive bidding based on safety, quality and value. This process assures that taxpayers and consumers will receive the most for their construction dollar.

ABC member companies believe safety is a core value, above all others, and is the basis of their culture. ABC understands the importance of common-sense regulations based on sound evidence and scientific analysis with appropriate consideration paid to implementation costs and input from employers. Many ABC companies have implemented safety programs that are among the best programs in the industry, often far exceeding legal requirements.

Background

On February 23, 2015, the FAA posted proposals to amend its regulations to adopt specific rules to allow the operation of small unmanned aircraft systems (UAS) in the National Airspace System (NAS). In its notice of proposed rulemaking, the FAA offers this amendment to address the operation

of small UAS, certification of their operators, registration, and display of registration markings. The proposed rule intends to eliminate the requirement for certification of small UAS operations and to prohibit model aircraft from endangering the safety of the NAS. ABC welcomes the FAA's decision to codify rules affecting the operation of UAS. The use of this technology has an enormous positive impact on today's economy, and its potential for the future is astounding. Innovators continue to develop the capabilities of UAS that not only expand on their utility but also further ensure their safety. In fact, technology exists today that makes the operation of UAS as safe as any human piloted aircraft.

Below are suggested improvements on the FAA's current amendment that will allow the use of UAS without compromising the FAA's valid safety objectives.

ABC's Comments in Response to the FAA's Proposed Regulations for the Operation and Certification of Small Unmanned Aircraft Systems

Visual Line-of-Sight

The FAA's operational limits include a provision restricting the use of an unmanned aircraft to the visual line-of-sight of the operator or visual observer.[1] The FAA has proposed a visual line-of-sight requirement, explaining that collision avoidance technology is not sufficiently advanced. The FAA's goal here is safety. ABC shares that goal with the FAA and believes exceptional jobsite safety and health practices are inherently good for business. Safety is a core value for ABC members. However, the FAA's provision does not take into account the technology that exists today, which surpasses the safety benefits provided by any line-of-sight requirement. First-Person View technology, Visual and Inertial sensing technology, GPS, the use of multiple cameras and other advanced technologies allow operators to not only have better visual awareness of an aircraft's immediate environment, but also allow safe autonomous operation by the aircraft itself.[2]

In addition to being unnecessary, a line-of-sight restriction eliminates some of the most beneficial opportunities unmanned aircrafts provide. For example, these aircraft give their operators the opportunity to survey construction projects (e.g. underside of bridges, tall buildings, pipeline and power line inspections, and land surveying) that would otherwise be a physical challenge or cost prohibitive. Importantly, the use of unmanned aircraft would also allow companies to better protect the safety of their workers and use unmanned aircraft to provide visuals of areas that would place a human observer at a high risk of danger. Thus, avoiding this restriction is particularly important in the

[1] Members have noted a desire for further clarification on the operation/visual observer distinction. On April 9, 2015, at a Small Business Administration roundtable, the FAA indicated the operator of the UAS must maintain visual contact the entire time operating. A visual observer can be added but does not take away the requirement for the operator to maintain visual contact. This is unclear in the regulatory text as written.

[2] This was demonstrated on January 6, 2015 at the Consumer Electronics Show (CES). Ascending Technologies using Intel Real Sense processing, demonstrated the autonomous collision avoiding systems by navigating complex, controlled and uncontrolled environments without human control. The demonstration included successful travel through a man-made obstacle course and through the unpredictable terrain of a forest with ease. (http://www.cnet.com/videos/intel-shows-drones-that-sense-and-avoid-obstacles/) More of this technology will be on display at the Silicon Valley Drone Show in San Francisco on April 29, 30, and May 1, 2015.

construction industry where UAS will enhance the safety of workers. Foregoing a line-of-sight restriction will allow the regulatory process to keep pace with the exponentially developing technology while satisfying the safety concerns of both the FAA and ABC.

Daylight-only Operations

"Daylight-only" operations place severe limitations on the use of small UAS in the construction industry. For example, thermal imaging is a necessary tool especially for roof inspections. Heat is absorbed during the day and at night it is released allowing thermal imaging. Wet areas release heat slower than dry areas showing needed repairs. Using small UAS to conduct this imaging is economical and reaches areas which could not be previously imaged or where human observation was dangerous. In contrast, the UAS operator can safely perform the thermal imaging from the ground or a single location as opposed to traversing dangerous heights especially at night. Additionally, a "daylight-only" limitation is unnecessary if the construction site is heavily lighted. Small UAS operating at night would be equipped with appropriate lighting, would operate at very low altitudes or near structures (space already avoided by manned aircraft), and if necessary could be physically observed with night vision or other similar technologies. Furthermore, most of the collision avoidance technology referred to above is not dependent on daylight.

Micro UAS Classification

ABC welcomes the FAA's designation of a micro UAS classification. ABC agrees that it makes good sense to regulate unmanned aircrafts differently based on their size and utility. ABC would like to see even more relaxed rules for unmanned aircraft under 4.4 pounds. ABC supports the FAA's proposal to allow operations of micro unmanned aircrafts over people not involved in the operation. Construction sites are finite areas of land and air that are already strapped with numerous safety processes to limit risks to both the public and workers who are on-site. Further, for the reasons outlined in this comment, line-of-sight and daylight restrictions are even more unnecessary and burdensome in the context of micro UAS.

Operation Over People

The FAA also restricts operating an unmanned aircraft over a human being who is not directly participating in the operation of small unmanned aircraft. This restriction is overly burdensome, particularly to those in the construction industry, where vertical structures in various stages of the construction process can more than adequately protect workers from potential UAS equipment failure. ABC proposes lifting this restriction as long as all those working on the construction site where an unmanned aircraft will be utilized are required to wear hard hats and have been provided an orientation regarding the equipment prior to entering the work site, as well as notification of UAS operations prior to commencement of these operations while on site.

Operator Certification

The FAA's operator certification proposal requires operators to pass a recurrent aeronautical knowledge test every 24 months. ABC considers this requirement burdensome. Currently, and under the proposal, an applicant must travel to one of FAA's testing locations to take the exam. The agency missed a number of factors when looking at the economic impact on businesses and individuals. ABC suggests allowing a supervised online option for test takers to mitigate associated costs. Additionally, ABC recommends extending the recertification timeline to 36 months to spread out costs and to coordinate with the amendment's three year registration timeline.

Also, ABC suggests allowing a two-year compliance period for groups who have received FAA exemptions prior to the implementation of this amendment.

Seek Input from Industry as Technology Evolves

In addition to the above, as the technology on the UAS evolves FAA should seek guidance from the construction industry. If the agency pursues further rulemakings in the future, it should consider an advisory committee or negotiated rulemaking. Given the already developed role for small unmanned aircraft in the construction industry, a committee or subcommittee focused on the construction industry could be invaluable. ABC would welcome the opportunity to work with the agency in evaluating the operation of small UAS as the technology advances.

Thank you for the opportunity to submit comments on this matter.

Respectfully submitted,

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