



May 27, 2014

Mr. James Williams
Manager, UAS Integration office
Federal Aviation Administration
490 L'Enfant Plaza, SW
Washington, DC 20024

Dear Mr. Williams:

Your recent comments at the Association for Unmanned Vehicle Systems International's annual convention in Orlando, Florida, in which you said that the Agency plans to allow precision agriculture uses of Unmanned Aerial Vehicles (UAVs) prior to finalization of the small UAS rule concerns the agricultural aviation industry, should such an allowance not require certain sense-and-avoid technologies to enable our nation's agricultural pilots to know of these UAVs exact positions. As you know, ag pilots operate at the same low altitudes these nearly invisible UAVs performing crop sensing and other similar functions will likely be operating at. Allowing these UAVs to operate unlighted, unmarked and undetected under incomplete rules is simply not advisable from a safety standpoint. In an effort to address low-level, manned aviators' safety, we would like to reiterate our safety concerns, as well as introduce a number of solutions for you to consider as the Agency moves forward.

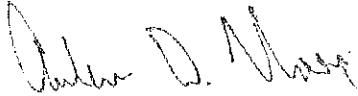
Agricultural pilots have a number of low-level obstacles to contend with that have cost ag aviators their lives. According to NAAA's statistics, between 2004 and 2013 there have been 39 fatalities as a result of ag aircraft collisions with obstructions, over 57 percent of all ag aircraft fatalities during that time period. This shows that unmarked, unlighted, low-level obstacles present a mortal hazard to ag aviators, and these obstacles are stationary. UAVs present similar risks but are highly mobile, thereby increasing, we believe, the likelihood of an incident. Fortunately, there are two clear technological solutions to mitigate the hazards presented by UAVs in the National Airspace utilizing technology that already exists for manned aircraft.

NAAA urges the FAA to require that UAVs be equipped with strobes so they are clearly visible both in the daytime and at night to low-level pilots. UAVs should also be equipped with technology similar to ADS-B Out technology, allowing nearby aircraft with the proper reading equipment to identify their exact location. This requirement, one which the FAA is going to require for all manned aircraft operating under Air Traffic Control in 2020, is feasible and cost-effective utilizing current technology. Furthermore, we believe the selection of the six test sites, especially, but not limited to, the North Dakota and Texas sites, which contain a strong agriculture presence, present the perfect opportunity to test safe UAV integration technology such as strobe lights and ADS-B Out transponders. As demonstrated by a recent near-miss between an air carrier aircraft and a UAV in Florida this month, UAVs do possess a safety threat to aircraft operating in both controlled and uncontrolled airspace.

Other secondary marking criteria to consider include painting UAVs in colors that clearly make them visible, such as aviation orange and white, which are already utilized for existing low-level obstacles such as towers. In addition, NAAA believes UAV operational activities should be made known to manned pilots of low-level aircraft via a similar database system as is already in use within the FAA for towers above 200 feet. The creation of this database would serve to mitigate low-level accidents by ensuring aerial applicators and other low-level NAS operators are aware of UAV operations. It also would ease the burden that currently exists on UAV operators to file NOTAMS when they fly.

We're confident that if the agency adopts NAAA's safety recommendations UAV integration can move forward briskly and safely. If you have any questions please feel free to contact me, or Sterling Wiggins, NAAA's Coordinator of Government and Public Relations, at 202-546-5722. Thank you.

Sincerely,

A handwritten signature in dark ink, appearing to read "Andrew D. Moore". The signature is fluid and cursive, with the first name "Andrew" being more prominent than the last name "Moore".

Andrew D. Moore
Executive Director

cc: The Honorable Michael Huerta, FAA Administrator

The Honorable Frank LoBiondo, Chairman, Aviation Subcommittee, U.S. House of Representatives

The Honorable Rick Larsen, Ranking Member, Aviation Subcommittee, U.S. House of Representatives

The Honorable Maria Cantwell, Chairwoman, Aviation Operations, Safety, and Security Subcommittee, U.S. Senate

The Honorable Kelly Ayotte, Ranking Member, Aviation Operations, Safety, and Security Subcommittee, U.S. Senate