

Oral Statement

Capt. Lee Moak

President, Air Line Pilots Association Int'l

Before the Aviation Subcommittee

of the U.S. House of Representatives Committee on Transportation and Infrastructure

"U.S. Unmanned Aircraft Systems—Integration, Oversight, and Competitiveness"

December 10, 2014

Thank you, Chairman LoBiondo, Ranking Member Larsen, and members of the subcommittee for the opportunity to provide our perspectives on the critical importance of *safely* integrating Unmanned Aircraft Systems into the National Airspace System.

Our country's national airspace is the most dynamic and diverse on the planet and also the safest. We need to protect it and maintain it to deliver the safest, most efficient air transportation possible.

UAS and Remotely Piloted Aircraft Systems include aircraft ranging in size from as small as a bird to as large as an airliner. Some UAS aircraft are operated completely autonomously.

Their flight route is computer programmed, and the device operates without a pilot. Other UAS aircraft are flown remotely by pilots from an operational center or control stations that can be located at the launch and recovery site or thousands of miles away.

ALPA supports the *safe* use of Unmanned Aircraft Systems. We recognize the potential benefit to our nation's economic competitiveness, but we also recognize the potential for a safety risk if we don't treat them as what they are—airplanes in the airspace.

We have all seen photos of the damage that can be caused to an airplane by a bird strike in flight. Unmanned aircraft can be much smaller or much larger than birds, but they harbor added risk in that they carry batteries, motors, and other hard, metal components.

Please take a look at this photo of a bird strike on a commercial airplane and this of a military airplane's encounter with a UAS. We *must not* allow pressure to rapidly integrate UAS into the NAS to rush a process that must be *solely* focused on safety. Standards and technologies must be in place to ensure the same high level of safety as is currently present in the NAS before a UAS/RPA can be authorized to occupy the same airspace as airlines or operate in areas where it might inadvertently stray into airspace used by commercial flights.

We also need to make certain the UAS pilots are properly trained and understand the consequences of possible malfunctions. I knew I would be speaking before you today, and I went online last Thursday and purchased this quadcopter for a few hundred dollars. I received it two days later, and, as the marketing promised, it was ready to fly in just minutes.

This UAS can carry a camera and it has GPS, which, with the purchase of additional software, can be used to pre-program a flight plan. It has the capability to fly as high as 6,600 feet for 15 minutes. That means it could easily end up in the same airspace I occupy when I am on approach to land at Newark, Seattle, or any other airport.

If we took this aircraft out into the courtyard of this building, it has the capability to fly from here to the final approach path at Reagan National Airport. From the park at the end of the runway, for example, it would be that much easier.

A well-trained and experienced flight crew is the most important safety component of the commercial air transportation system.

A pilot in the cockpit of an aircraft can see, feel, smell, and hear indications of a problem and begin to formulate a course of action long before even the most sophisticated indicators verify the trouble.

Without a pilot on board, we lose this advantage. As a result, it's essential that UAS pilots are highly trained, qualified, and monitored to meet the equivalent standards of pilots who operate manned aircraft.

We also need to make certain that a UAS aircraft can't stray into areas where it poses a hazard if the operator loses control, that it behaves like it's supposed to, and that if there's a failure, the aircraft doesn't endanger other aircraft or people on the ground.

If UAS are intended to be operated in civil airspace or could unintentionally be flown into our airspace, airline pilots need to be able to see them on our cockpit displays. Controllers need the ability to see them on their radar scopes. UAS aircraft also need to be equipped with collision-avoidance capability.

Finally, the FAA's resources are limited, and the agency must have a long-term, sustained source of funding, as well as realistic time lines and a systematic approach that builds the path of UAS integration based on safety.

We appreciate the opportunity to testify today. We look forward to working with Congress to ensure that safety is held paramount in bringing UAS into the national airspace.