

STATEMENT BY

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BEFORE THE

SENATE COMMERCE COMMITTEE

**SUBCOMMITTEE ON AVIATION OPERATIONS, SAFETY, AND
SECURITY**

SECOND SESSION, 111TH CONGRESS

ON

**INTEGRATION OF UNMANNED AERIAL SYSTEMS INTO THE
NATIONAL AIRSPACE**

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UNTIL RELEASED BY

THE SENATE COMMERCE COMMITTEE

Opening Remarks

Chairman Dorgan, Ranking Member DeMint, distinguished members of the subcommittee; I am grateful for the opportunity to appear before you today to discuss an issue of true National Security, the integration of remotely piloted aircraft (RPAs) into the National Airspace. The Air Force is working diligently to advance standardized, procedural and technical solutions that provide all families of RPAs safe and routine access to the National Airspace System.

Statement

Following 9/11, these aircraft were rushed to war and the vast majority of our experience and program development has resulted from combat operations in Iraq and Afghanistan. That experience has produced the most accomplished and combat capable RPA force in the world. In our effort to support the warfighter, the Air Force has been successful in providing training opportunities and operating space at selected sites. Our challenge now, as we expand and normalize the RPA force, is to provide these battle-tested operators local and regional test and training environments that will sustain and hone that combat edge so they remain available to our Combatant Commanders at a moment's notice. Concurrently, this will enable us to drive technology and improve safety.

Historically, new weapon systems have been developed and matured in parallel with the test and training space required to support the mission. That is currently progressing in such a way with the F-35 and F-22. Progress towards access for unmanned systems has been slower. As we have seen with the RQ-4 Global Hawk at Beale AFB and MQ-1 Predator at Cannon AFB, hard work and cooperation between the Air Force and Federal Aviation Administration has shown progress, in providing access for RPAs to Special Use Airspace and the National Airspace System. Nonetheless, I believe we all agree that collectively we have not achieved the normalized and routine access that was envisioned at the February 2009 Grand Forks meeting and underpins the mission of the Red River Operations Workgroup.

Since the 2009 Grand Forks meeting, the Air Force has worked with the FAA to develop new models of operations that challenge convention, explore procedural options, and leverage technology. Everyone understood it was a difficult task and that old paradigms were subject to challenge. To that end, the Air Force, in cooperation with the University of North Dakota, the National Air and Space Administration, the Air Force Weather Agency, and others, has diligently provided significant amounts of data and research to support the effort. As a result, the area west of Grand Forks Air Force Base is perhaps the most completely and accurately characterized airspace for developing processes and technologies that enable routine RPA access.

Admittedly, as with any new endeavor, there have been delays and difficulties. Air Force and Air National Guard struggled with completing a Concept of Employment

document. Used elsewhere in efforts to provide RPAs limited access to the National Airspace System, this document, by its nature and intent, relies on detailed descriptions and implementation strategies of mitigations and methodologies designed to achieve access at a specified location. In Grand Forks, our direction was to explore a wide range of solution sets and provide near term alternatives for effective training; as such, the Concept of Employment does not fit easily in that paradigm. We have delivered final draft to the FAA and continue to work with them and Air National Guard to craft a final product that meets the technical demands as well as the spirit of the Red River effort.

It has become apparent that the original vision for a wide-area solution that would enable independent operations in Military Operating Areas without technical mitigations is not immediately available. The technology components of the solution set routinely require years of analysis and provide an operating environment that is less than optimum for training. It is our recommendation that a system-wide, baseline certification of Air Traffic Control Radars for separation assurance combined with the data, analysis and other mitigations captured by the workgroup will provide North Dakota an exceptional degree of access to non-segregated airspace.

In the interim, there are a number of promising options that provide a target level of safety. We are exploring these options with the FAA.

We will continue to work with the Federal Aviation Administration, the Air National Guard and our political leaders to enable Remotely Piloted Aircraft operations throughout North Dakota.

Closing Remarks

This proposed standardized and templated solution for Air Force access to airspace in North Dakota represents an important step towards meeting the eventual needs of education, commercial and other governmental organizations as unmanned capabilities continue to expand.

Thank you for the opportunity to be here today. I look forward to your questions.