



**Statement of Ed Bolen  
President and CEO  
National Business Aviation Association**

**Submitted to  
The Subcommittee on Aviation  
Committee on Transportation and Infrastructure  
U.S. House of Representatives**

**Regarding  
“Domestic Aviation Manufacturing:  
Challenges and Opportunities”**

**July 23, 2014**

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Chairman LoBiondo, Ranking Member Larsen, members of the subcommittee, on behalf of the more than 10,000 Member Companies of the National Business Aviation Association (NBAA), I am pleased to provide our views for this important hearing on "Domestic Aviation Manufacturing: Challenges and Opportunities."

**What Is Business Aviation?**

In the United States, tens of thousands of general aviation aircraft are owned and operated by businesses of all sizes in every industry imaginable. These aircraft are business tools used in ways too numerous to mention, but some examples include transporting teams of employees to communities with little or no scheduled service, transporting clients in to a company facility where they can see firsthand the production of a product and receive training on its use, or transporting on very short notice a replacement part for a broken machine that has shut down a factory's production line. All of this is done with the utmost of safety and with productivity levels and time savings simply unmatched by any other mode of transportation.

**Why Is Certification Important and an Issue?**

Certification is fundamental to aviation, and its impact is particularly significant for business aviation operators. The business aviation community shares three major concerns with respect to certification.

1. Operator Authorization
2. Operator Certification
3. Aircraft and Part Certification

**Operator Authorization**

First, Operator Authorizations remain one of the biggest issues for NBAA Members. While the equipment has already undergone certification by the FAA in the form of type certification or supplemental type certification in most cases, operators are often additionally required by FAA regulations or international Communications, Navigation and Surveillance (CNS) implementations to obtain a separate Letter of Authorization (LOA) in order to conduct a particular operation.

## Reduced Vertical Separation Minimum Airspace Authorizations

Likely the most widely required authorization from FAA is that for a flight in the airspace at and between 29,000 and 41,000 feet above sea level, known as Reduced Vertical Separation Minimum (RVSM) airspace.

NBAA Members have for years expressed concerns with the timelines and requirements to obtain an LOA for RVSM operations. NBAA approached the FAA in 2012 with a request to establish a joint FAA and Industry working group to identify ways to streamline the RVSM authorization process. Over a roughly 2 year period the RVSM Process Enhancement Team met and identified the challenges both parties were facing when processing RVSM LOA applications and then proposed solutions to address those challenges in the form of revised guidance to inspectors contained in FAA Order 8900.1.

The original guidance required inspectors to treat each authorization request or simple change to an existing authorization as though it was a brand new operator requesting an RVSM LOA. For example, a common simple change is a revision to an aircraft registration number, akin to changing the license plate on your car. Under the old guidance, this change required significant amounts of inspectors' time to review all of the information as though it was a brand new operator, often taking in excess of 60 days to process.

The revision to FAA Order 8900.1 was published in January 2014 and the new guidance includes a fundamental shift in the way that FAA inspectors review the applications. Contained in the new guidance are definitions of key elements related to the RVSM Authorization: RVSM Compliant Aircraft, Approved RVSM Maintenance Program, and RVSM Knowledgeable Pilots. To the extent that an applicant can demonstrate that one or more of the previously FAA reviewed and approved RVSM Authorization Elements remains unchanged, the FAA inspector can move forward in the process without again reviewing the items applicable to the unchanged element.

Having been released 6 months ago, FAA inspectors are still becoming familiar with the new procedures. As they continue to use the new procedures, we expect the overall timelines from an initial request being made to the issuance of a new or amended RVSM LOA will continue to decrease.

## Automatic Dependent Surveillance – Broadcast Authorizations

Just as the U.S. is upgrading its air traffic management infrastructure through the NextGen program, other countries around the world are doing the same. Part and parcel to this update is reliance on Automatic Dependent Surveillance – Broadcast (ADS-B) technology. While the FAA does not require a specific authorization for

ADS-B use in U.S. airspace, foreign civil aviation authorities are requiring operators to receive specific authorization for ADS-B operations from their respective civil aviation authorities. More than 60% of the U.S. business aviation operators responding to an NBAA survey indicated travel to a foreign region in 2012. What that means for the significant number of U.S. business aviation operators flying internationally is that they must also receive an LOA for ADS-B in order to fly above 28,000 feet in a number of Pacific Rim countries, or to receive optimal routing and traffic separation in airspace over the Hudson Bay in Canada.

In the last several years, FAA has issued LOAs for ADS-B to operators requesting them, but timelines to receive these authorizations are often measured in months. This was in part due to multiple levels of review and approval within the FAA. Recently the FAA announced that ADS-B approvals will be able to be granted by the Flight Standards District Offices (FSDO) directly, thereby decreasing approval times.

#### Impacts of Long Authorization Timelines

NBAA welcomes these improvements made to shorten the timelines and resources required to receive an LOA for RVSM and ADS-B. These long timelines have a direct affect on safety, the environment, and overall cost of operations.

First, these long timelines affect safety. Aircraft without authorization to fly in RVSM airspace are held below RVSM airspace, at altitudes that are often times in adverse weather including turbulence, icing and thunderstorms instead of above it. Similarly, U.S. aircraft operators flying in the Pacific Rim countries without ADS-B authorization from the FAA are being held at and below 28,000 feet, with the same adverse weather considerations and significant restrictions on routing. The ability to climb to higher altitudes is in a number of these cases the only way to get out of the adverse weather.

As well, aircraft flying at these lower altitudes have higher fuel burn rates because the engines are optimized for higher altitudes. Higher fuel burn rates often require an additional stop for fuel to accomplish a particular trip. An aircraft having to make a fuel stop for a given trip is exposed to more risk than an aircraft able to fly directly to the intended destination. This additional risk is comprised of the greater risk of an accident during approach and landing and during takeoff and initial climb out when compared to cruise flight. An additional landing and subsequent takeoff also increases the exposure to other risk such as aircraft not communicating with or visible to other aircraft or air traffic control when compared to cruise operations in positive control airspace.

A second impact of the long authorization timelines is environmental. As we explained, the higher fuel burn rates for aircraft flying at less than optimal altitudes

translate to additional carbon dioxide emissions in the atmosphere. NBAA Members are cognizant of the environmental impacts of their operations; striving to reduce their emissions footprint. However, inefficient routing and lower than necessary altitudes because of a lengthy approval process create an unnecessary environmental impact.

Third, additional fuel burn translates into additional cost for the operator, which is undoubtedly a consideration in an era where the world is trying to do more with less. Our operators aim to be more environmentally responsible while also reducing overall operating costs.

### Suggestions for Further Improvements

Two key suggestions for further improving FAA authorization processes include:

NBAA believes that more emphasis or priority needs to be given to Part 91 operators, given the overall effect these organizations have on the U.S. economy. An acknowledgement of business aviation operators, and the impact these companies have on commerce domestically and internationally, would be ideal to ensure that authorization requests are high on the priority list for inspectors.

NBAA recommends and is fully willing to support the creation of one or more FAA and Industry process enhancement teams to review and streamline the authorization processes applicable to each of those authorizations. We had great success with the RVSM Process Enhancement Team and believe we can again be successful with each of these teams.

### **Operator Certification**

Second, Operator Certification concerns remain an issue. There are many operators of business aviation aircraft that, in order to comply with FAA regulations, must have an operating certificate. Two common examples include a Part 135 Air Carrier Certificate<sup>i</sup> in order to conduct passenger or cargo charter operations and another example includes obtaining a Part 125 Air Operator Certificate<sup>ii</sup>, commonly needed by companies operating a corporate shuttle to regularly transport many employees between cities in which the company has a corporate presence.

In both of these cases, operators are often told it will take a year or more before the FAA will begin the application and review process. Limited FAA inspector resources have been identified as the challenge here. NBAA fully supports Congress' continued commitment to increase the inspector workforce at FAA.

## **Aircraft and Part Certification**

Third, NBAA Members see the disproportionately rising cost of Aircraft and Part Certification as a concern. While this rising cost directly affects the aircraft or part manufacturer, ultimately this cost is transferred to the end user of the aircraft or part.

Safety is paramount for NBAA Members and where a reasonable economic safety or operations case can be made, our Members have shown that they are more than willing to make the investment in newer, more technologically advanced and environmentally friendly aircraft and equipment. It is a harmonious situation, where improvements in safety and operational efficiency occur, and all parties – operators, manufacturers, FAA, and the public – benefit.

Limited FAA Certification resources and arcane certification standards translate into longer product certification times and costs for aviation manufacturers. This, in turn, necessitates higher costs to the customers as operators, which may take the form of costly upgrades to an aircraft, more costly purchases of a replacement aircraft with the same performance characteristics, or costs associated with continuing to operate the aircraft as-is.

Ultimately, these concerns could best be addressed by ensuring adequate FAA resources for aircraft and part certifications and by modifying certification standards to be a systemically reviewed consensus-based standard developed with input from all stakeholders of aircraft and part certification – the FAA, manufacturers, operators, and the public – ensuring that efficiency, timeliness, and quality are all optimized without an adverse impact on safety.

## **Key Takeaways**

1. Business aviation supports the evolution of our Air Traffic Management System through programs such as NextGen. We need to proceed forward ensuring that the costs to operate in the NextGen system are in line with the benefits the system offers.
2. Operator Authorizations play a key role in the overall certification process. They need more adequate FAA inspector support, and further improvements to these processes would reduce required resources while improving operational safety.
3. In the area of Operator Certifications, all parties stand to benefit from increased inspector resources for both new and current operators, thus reducing cost, increasing business, and improving safety.

## Conclusion

In conclusion, certification is critical to business aviation in terms of time, cost, efficiency, and safety. NBAA appreciates the improvements that the FAA has made to certification and authorization processes and standards to date. We look forward to continuing this constructive dialog with the FAA, industry members, and with Congress for further improvements to Operator Authorization, Operator Certification, and Aircraft and Parts Certification standards and processes.

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<sup>i</sup> 14 CFR Part 135 includes rules applicable to commercial operators holding out to the public the conduct of on-demand common carriage of passengers and/or cargo.

<sup>ii</sup> 14 CFR Part 125 includes rules applicable to the passenger- or cargo-carrying operation of aircraft with 20 or more passenger seats or with a maximum payload capacity of 6,000 pounds or more when common carriage is not involved.