

The United States: An Aerospace Nation
Remarks of Ambassador Duane E. Woerth
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After 40 years of piloting aircraft and working on aerospace policy issues, I am grateful for this opportunity to speak to those responsible for building and developing aerospace technology. This innovation forum highlights the tremendous depth and breadth of the aerospace industry and its global strategic importance. Passengers and consumers may take for granted the tremendous collaboration, expertise, and innovation that go into every component of every aircraft. But pilots are your number one fans.

The United States and the airplane have been inseparable from birth. In 1783, four years before we had our Constitution, Benjamin Franklin and Thomas Jefferson witnessed a hot air balloon flight in France. Both were extremely interested in the technology and the balloon was brought to the United States shortly thereafter. However, Benjamin Franklin noted one serious flaw. “These Machines must always be driven by Winds. Perhaps Mechanic Art may find easy means to give them progressive Motion,” he wrote to Sir Joseph Banks at the Royal Society of London.

Mechanic Art indeed. Although I am not so sure about the “easy” part. For the last two hundred and thirty years, our country has been applying itself to this mechanic art, seeking to develop safer, more secure, and more sustainable air travel. And our country has reaped tremendous rewards as a result. Today, the United States is an aerospace nation in every sense of the word. Aerospace is a driver of our economy, it is a driver of our international partnerships, and it is a driver of our innovation. Let me speak about each of these in turn.

Economy

First, aerospace is a driver of our economy. Approximately 500,000 Americans are directly employed in aerospace, with another 700,000 employed in related fields. And aerospace supports more jobs through exports than any other industry. The industry’s positive trade surplus of \$70.5 billion in 2012 is the largest of any manufacturing industry in the country. Our supply chains are integrated throughout the country, and the industry’s benefits are keenly felt in states such as

Washington, California, Texas, Kansas, Connecticut, Florida, Arizona, and South Carolina.

The future economic outlook for this sector is also promising. In 2012, the U.S. aerospace industry shipped aircraft and parts worth \$184.3 billion, a 12.6 percent increase over 2011. And with industry estimates that the number of large commercial airplanes will increase 3.5 percent annually for the next twenty years, you can be sure that our aerospace sector will be partaking in that growing market.

Beyond the numbers, aerospace contributes to our economy in other vital ways. Aerospace strengthens our national defense. It is an important source of tax revenue for local and state governments. And aerospace companies provide training and expertise to our workforce, strengthening our entire manufacturing sector.

International Partnerships

Second, aerospace contributes importantly to our international partnerships. Nothing signifies more our integrated global community than the approximately 90,000 flights that take off every day throughout the world. In important ways, the aerospace industry is one of those critical links that bind countries and regions together.

Coordinating diverse standards, regulations, and perspectives concerning global civil aviation has been a major part of my responsibilities during the last three years as the U.S. representative to the International Civil Aviation Organization. And I am pleased with the progress we have been able to make as an international aviation community. Many of the decisions we reached during the recently concluded triennial Assembly of ICAO will strengthen the global aviation world for years to come.

Our cooperation at the policy level is mirrored at the industry level as well. As you are all acutely aware, today's aerospace supply chain is global, integrated, and complex. Aircraft assembly lines span borders and manufacturers must work with governments and local communities throughout the process. Public and private cooperation in aerospace thus strengthens communities through developing international networks. And perhaps nowhere in the world is this as apparent as between the United States and Canada.

I note, for instance, that suppliers from 19 U.S. states are contributing to Bombardier's new CSeries aircraft. Likewise Boeing has a strong presence throughout Canada, directly employing more than 1,600 here. These are the types of partnerships that are essential in today's aerospace industry.

On the subject of international partnerships, let me say a few words regarding U.S. export controls as they relate to the aerospace industry. The United States is committed to keeping our most sensitive technologies from falling into the wrong hands, and at the same time facilitating the transfer of defense articles to close partners and allies working with us to address shared security challenges around the world.

This year, the Department of State and the Department of Commerce implemented their first set of final rules under President Obama's Export Control Reform Initiative. These changes—which apply to aircraft and associated equipment—allow us to be more flexible in terms of licensing authorizations to allies by moving less sensitive items that no longer merit controls under the U.S. Munitions List to the Commerce Control List.

In doing so, we are making better use of available resources by focusing the time and attention of our enforcement officials on safeguarding against illicit attempts to procure sensitive technologies. Over the longer term, the Administration remains committed to the fundamental reform of the U.S. export control system, including the consolidation of export licensing functions under a single control agency and the creation of a single export control list.

Innovation

Finally, aerospace is a driver of innovation in the United States. We see this from the very beginning in Benjamin Franklin's comments that I began with—as soon as the balloon was in the air, he was already thinking about the new opportunities and the new challenges that the technology represented. There is something about air travel that inspires and encourages us to look at old problems in new ways.

Initiative and innovation are cornerstones of the American experience. For over 300 years, immigrants, pioneers, and the intellectually curious have found harbor in the Americas. They have tested out new ideas, developed new solutions to complex problems, and broken new ground—both literally and figuratively. This history of innovation and initiative is in our cultural DNA and a major source of our economic prosperity.

That DNA is still there, but it must be marshaled in new ways. Simply having a good idea is not sufficient; we must also find supply chain partners who can help bring ideas to market. Simply producing for a domestic market is not sufficient; with less trade protection at national borders, products have to stand up against any global competitor.

This forum's theme is therefore entirely appropriate: "Innovation powers sustainability for the aerospace industry." The United States government could not agree more. So, we are actively exploring how we can better look into the future and support innovative technologies that will sustain tomorrow's aerospace companies.

For example, President Obama has proposed the creation of a National Network for Manufacturing Innovation within the United States. This network would accelerate innovation and support technology commercialization by bridging the gap between the laboratory and the market. The National Additive Manufacturing Innovation Institute, established in 2012, is the first such institute in this network and is already promoting and developing potential new applications of additive technology within the aerospace industry.

One other critical area of innovation is air navigation. For six decades, we have relied on World War II era technology to traverse the skies, using indirect routes over radar towers. The United States has begun the monumental task of modernizing its air navigation system through its Next Generation program. NextGen promises to provide significant improvement in the world's ability to effectively and more safely handle substantial increases in air traffic. In this endeavor we continue to working closely to ensure that we harmonize with Europe's Sesar program and ensure global standards for a global system.

Finally, aerospace—and, in fact, our global environment—depend critically on innovations in fuel efficiency and carbon emissions. I am pleased that the 38th Assembly of ICAO succeeded in adopting a comprehensive climate change resolution just last month. In addition to important technical work, this resolution includes a commitment to develop a global market-based measure to address greenhouse gas emissions from international aviation.

Industry is responding innovatively too, with lifecycle management approaches that emphasize efficient engines, lighter components, and renewable energy. Today, jets are 70 percent more fuel efficient than they were forty years ago. But

as this forum will make abundantly clear, innovation is not about patting ourselves on the back for a job well done. It is about moving the conversation forward.

I know I may be somewhat biased, having spent my career within the U.S. aerospace sector. Nonetheless, I strongly believe that aerospace plays an important and critical role in our economy, in our international relations, and in our innovation. From Benjamin Franklin to the Wright Brothers, to today, we have looked to the skies as an invitation and for inspiration. We will continue to be that way going forward too.

The United States is grateful to be the country of honor at this year's forum. Venues such as this highlight our strong and abiding relationship with Canada, with Montreal, and with the aerospace industry. There are nearly 50 U.S. firms represented at this forum, and I urge you all to speak with them, to learn about their products and services, and to strengthen our economic and commercial ties even further.

Thank you.