



JPDO “Snap Shot” Series: NextGen: The Future of Aviation

Joint Planning and Development Office (JPDO)
1500 K Street, NW • Suite 500
Washington, DC 20005
202-220-3487 • www.jpdo.gov

Aviation is Vital to the U.S. Economy

When President Eisenhower signed the Federal-Aid Highway Act of 1956, little did we know that in less than 50 years, our aviation system would become just as essential to our nation as our highways. When the resulting interstate system was completed, it touched every aspect of American life—from the way we interact as a society to our economic strength and our national security.

Currently, our nation’s vitality depends not only on the highways on the ground, but also on the “highways of the air.” Our economy relies on an air transportation system that moves both people and goods from coast to coast and throughout the world safely and efficiently. With the Next Generation Air Transportation System (NextGen), we are in the process of transforming American life once again, and moving from the “Century of the Automobile” to the “Century of Aviation.”

750 Million Passengers and Growing

America’s air transportation system has grown dramatically. In 1980, the system carried 281 million passengers. In 2008, it handled nearly 750 million passengers. This number is expected to grow considerably. And while our nation’s air traffic system remains the safest in the world, it is beginning to reach the limits of its ability to handle additional capacity. Many of the core technologies used in today’s air transportation

system, such as radar and radio beacons, were first developed during World War II. If the system is to adjust to future demands—new aircraft types and changing business models—then it has to be updated and transformed to make it more scalable and flexible.

What is NextGen?

NextGen represents a substantial and long-term change in the management and operation of the national air transportation system. This is a complex and comprehensive initiative that will involve the development of new technologies and the use of existing technologies. This includes satellite navigation and surveillance, digital communications, and automation capabilities. The benefits are increased capacity and reliability, and improved safety and security.

Efficient and Green

The goal of NextGen is to make the air transportation system more efficient. By using existing air and ground space more resourcefully, NextGen will be able to increase the scalability and efficiency of the system. This will result in reduced delays, increased security and capacity (in terms of the number of flights), and a reduction in the environmental impact of aviation through improved operations, advanced engine design, and alternative fuels.

continued on reverse side

JPDO “Snap Shot” Series: NextGen: The Future of Aviation

Partnership Leads to Success

In 2003, the Congress mandated that the multi-agency Joint Planning and Development Office (JPDO) begin work on creating NextGen. The JPDO represents an unprecedented level of intergovernmental cooperation. The departments and agencies working on NextGen include the Departments of Commerce, Defense, Transportation, Homeland Security, the Federal Aviation Administration, National Aeronautics and Space Administration, and the White House Office of Science and Technology Policy.

Good Government

The NextGen initiative is a challenging undertaking. Never before have so many different departments and agencies of government been involved in an initiative of this scale, covering such a long period of time. Specifically, the JPDO’s role is to plan and align the work of the NextGen partners. This includes capital investments, research, and policy decisions. In addition, the JPDO is identifying opportunities to leverage technologies and capabilities within government, as well as with the private sector.

A New Relationship with Industry

The JPDO is not only an example of cooperation between government departments and agencies; it is also a model for collaboration with the private sector. Industry is an essential partner. To help facilitate the flow of information—and to involve companies, associations, and academia in the NextGen decision-making process—the JPDO created the NextGen Institute. The Institute provides the mechanism for industry to participate on equal footing with their government counterparts.



Currently, the Institute has approximately 300 members. Their principal involvement is through a series of joint public- and private-sector Working Groups. Each group has an industry and government co-chair. There are nine Working Groups covering Aircraft, Airports, Air Navigation Services, Environment, Global Harmonization, Net-Centric Operations, Safety, Security, and Weather. Ultimately, the NextGen Institute provides a continuing and active source of industry involvement in the future development of NextGen.

Transparency

The JPDO has demonstrated a record of success. In 2008, it developed a comprehensive Joint Planning Environment (JPE) that brings together all of the NextGen planning tools online. It is also partnering with the Department of Defense to develop the framework for net-centric operations, and at the same time, establishing a nationwide integrated surveillance strategy for aircraft. The JPDO is working with partner agencies to coordinate research and develop a comprehensive framework for providing advanced weather services. In 2009, the JPDO will continue these initiatives, while also focusing on advanced modeling, and working to better integrate NextGen into the planning processes for our nation’s airports.

