



## Charting a Course for the Future of Air Transportation: The Next Generation Air Transportation System

The nation's aviation system will be transformed by the Next Generation Air Transportation System (NextGen). The sweeping NextGen program ordered by the US Congress will use satellite technology and other aviation breakthroughs to improve safety and capacity of the nation's runways and skies—with the goal of tripling air traffic capacity by 2025 and saving billions a year in economic activity that would otherwise be lost to gridlock and delays. The Federal Aviation Administration (FAA) is overseeing NextGen and has turned to Booz Allen Hamilton to help define how NextGen will unfold.

### Reducing Gridlock in the Skies

Congress' 2003 NextGen Air Transportation System legislation established a Joint Planning and Development Office (JPDO) led by FAA and the Department of Transportation and including the National Aeronautics and Space Administration (NASA), the White House Office of Science and Technology Policy, and the Departments of Defense, Commerce, and Homeland Security.

Beginning in 2006, Booz Allen worked with the JPDO and NextGen stakeholders to incorporate policy and new processes into a baseline concept of operations for the entire program. The concept of operations sets up a dialogue among stakeholders—including government, industry, and the public—to begin laying

out priorities for the air transportation system of the future. In all, 4,500 comments were integrated into the initial concept of operations.

The next stage of the project was to work with the JPDO to develop the NextGen Enterprise Architecture (EA) that describes the future state operations of the air transportation system in 2025, as well as the strategic planning and program management activities necessary for the implementation of NextGen. The EA is intended to provide consistency in defining the future operational and system environments, and is a common reference for agencies to leverage as they coordinate their respective architectures, investments, and implementation plans as NextGen becomes a reality.

Building on the concept of operations and enterprise architecture, Booz Allen completed an Integrated Work Plan (IWP) for NextGen. The IWP is a planning tool outlining the activities that must come together in the right order to accomplish NextGen goals efficiently and on time. Like the blueprint for a building, the IWP is highly detailed and takes into account the many dimensions of NextGen, including trajectory and performance-based operations, airport operations, weather information, safety, and environmental management, all within the context of a net-centric infrastructure.

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delivering results that endure

Booz Allen also helped to develop a business case and comprehensive cost-benefit analysis for NextGen, evaluating its costs, benefits, and risks for government and industry stakeholders. This analysis provides stakeholders with the information they need to make sound planning, management, and investment decisions.

Throughout our work on NextGen, we have drawn on our broad experience in aviation, systems engineering and integration, operations and strategy, and economic and business analysis, as well as our work with agencies in civil government, defense, and homeland security. The General Accounting Office (GAO) has recognized our work on NextGen, and the JPDO has awarded Booz Allen its first Vision 100 award for outstanding contribution to leadership.

### **Helping the NextGen JPDO Be Ready for What's Next**

At the heart of our NextGen effort is the custom Joint Planning Environment (JPE) tool we developed for the JPDO. The Web-accessible application, which is available to all stakeholders involved in NextGen, is a foundation for product and program management, development, and integration as work on the program

progresses. The JPE allows NextGen partners to search work products and view data by agency, data type, or agency-specific framework. By integrating the concept of operations, enterprise architecture, and the integrated work plan into a Web-based interface, the JPE allows all the participants in NextGen to collaborate, gain new insights, and come to meaningful decisions more quickly than they would in a traditional, paper-based planning environment.

### **Ready to Help You**

Organizations in government and industry are finding themselves engaged in programs of similar magnitude and complexity to the NextGen initiative as they confront society's increasingly difficult challenges. To achieve their missions, defense and civil government agencies will need to work across many different departments, each with its own policy mandates and workforce issues. Our work on NextGen is an example of how we can help your agency integrate new technology and organizational change across your enterprise, creating a new framework for moving forward with your most complex initiatives. To learn more about how we can help your agency be ready for what's next, visit [www.boozallen.com](http://www.boozallen.com).

**contact:** David B. Davis, Principal  
**e-mail:** [davis\\_dave@bah.com](mailto:davis_dave@bah.com)  
**phone:** 703/902-5228

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