



Highlights of [GAO-08-1078](#), a report to congressional requesters

## Why GAO Did This Study

The Joint Planning and Development Office (JPDO), an interagency organization within the Federal Aviation Administration (FAA), was created to plan and coordinate research and development for the next generation air transportation system (NextGen). Transitioning to NextGen will require FAA to continue to acquire new air traffic control (ATC) systems on schedule and on budget. GAO's concerns about the size, complexity, and cost of FAA's acquisition of ATC systems led GAO to designate this issue as high-risk in 1995. NextGen includes system acquisitions but is a significantly larger initiative involving multiple federal agencies, such as the National Aeronautics and Space Administration (NASA), which conducts aeronautics research and development for NextGen, and nonfederal aviation stakeholders, such as aviation equipment manufacturers, airports, and aircraft operators.

GAO addressed (1) FAA's ATC systems acquisition activities, (2) key NextGen planning and transition issues, and (3) key challenges that FAA faces in implementing NextGen. GAO reviewed FAA's management processes and cost and schedule data for acquiring ATC systems, interviewed senior FAA, JPDO, and NASA officials, and 24 aviation stakeholders involved in NextGen. This report is also based on recent GAO products. The Department of Transportation (DOT) and NASA provided technical corrections, which GAO included.

To view the full product, including the scope and methodology, click on [GAO-08-1078](#). For more information, contact Gerald Dillingham at (202) 512-2834 or [dillingham@gao.gov](mailto:dillingham@gao.gov).

# NEXT GENERATION AIR TRANSPORTATION SYSTEM

## Status of Systems Acquisition and the Transition to the Next Generation Air Transportation System

### What GAO Found

The majority of FAA's key ATC acquisition programs are currently being managed within the established cost and time estimates since FAA created the performance-based Air Traffic Organization (ATO) in 2004 and improved its management of acquisitions. The agency has demonstrated executive-level commitment to addressing systemic factors that have contributed to historic cost overruns and schedule delays. FAA's response to over 45 recommendations by GAO contributed to significantly improved acquisition management. While FAA has implemented numerous acquisition management practices, areas remain that need further improvement, such as ensuring transparency on rebaselined programs. FAA plans to address this issue by reporting annually to Congress the original budget and schedule baselines and the reasons for the rebaselining. FAA needs to continue its progress in managing acquisitions, since it will be acquiring billions of dollars of new systems as part of the NextGen transformation.

JPDO has completed the initial versions of three basic planning documents for NextGen, but many aviation stakeholders felt the documents, which focus on a 2025 time frame, lack the information that industry needs to make near-term business decisions to support NextGen. The next version of the NextGen work plan, scheduled to be issued in September 2008, will address some of these concerns. ATO recently reorganized to facilitate the transition to NextGen, but it is too early to tell if the reorganization addresses concerns about the fragmented management structure for NextGen, since multiple offices in ATO and FAA continue to have responsibility for NextGen.

FAA's ability to implement NextGen will be affected by how it addresses research and development, human capital, and infrastructure challenges. Although research and development are critical for NextGen, research gaps exist because of a recent decline in NASA's aeronautical research funding and the expanded requirements of NextGen. FAA faces a human capital challenge of having the necessary knowledge and skills, such as contract management and system engineering expertise, to implement NextGen. In response to GAO's prior recommendation, in September 2008, FAA expects to complete an analysis comparing the skills needed for NextGen with its current staff resources. However, it may take considerable time to hire what FAA estimates could be up to 200 more staff with the needed skills. FAA also faces the challenge of maintaining and repairing existing ATC infrastructure, such as radar stations, while consolidating or realigning its facilities to accommodate NextGen technologies and operations. An additional infrastructure challenge is increasing airport runway capacity to handle the expected increases in traffic. While FAA's plans call for building or expanding runways at the nation's 35 busiest airports, its analyses indicate that 14 more airports will still need additional runway capacity. These efforts to expand capacity by means of runway development could be delayed without significant reductions in emissions and noise around some airports.