

Highlights of [GAO-12-1011T](#), a testimony to the Subcommittee on Aviation, Committee on Transportation and Infrastructure, House of Representatives

Why GAO Did This Study

To prepare for forecasted air traffic growth, FAA is planning for and implementing NextGen in partnership with other federal agencies and the aviation industry. NextGen is a complex undertaking that requires acquiring new integrated air traffic control systems; developing new flight procedures, standards, and regulations; and creating and maintaining supporting infrastructure to create a more automated aircraft-centered, satellite-based air transportation system. GAO has made recommendations to address delays in NextGen's acquisitions, improve FAA's processes, and focus on accountability and performance, which FAA is implementing.

This statement discusses five key challenges that GAO and others have previously identified that affect NextGen implementation, as well as steps FAA has taken to address these challenges. These challenges are (1) delivering and demonstrating NextGen's near-term benefits; (2) developing a cost-effective mechanism to encourage operators to equip with NextGen technologies; (3) maintaining timely delivery of acquisitions; (4) clearly defining NextGen leadership roles and responsibilities; and (5) balancing the needs of the current radar-based systems and NextGen systems through the transition. This statement is based on GAO's previous reports and testimonies, ongoing work for the committee, and updates on FAA's responses to these challenges through a review of FAA documents and interviews with FAA officials.

View [GAO-12-1011T](#). For more information, contact Gerald L. Dillingham at (202) 512-2834 or dillingham@gao.gov.

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NEXT GENERATION AIR TRANSPORTATION SYSTEM

FAA Faces Implementation Challenges

What GAO Found

Delivering and demonstrating the Next Generation Air Transportation System's (NextGen) benefits: The Federal Aviation Administration (FAA) must deliver capabilities that provide aircraft operators with a return on their investments in NextGen avionics to convince operators to continue making equipment investments. However, operators have expressed concerns that FAA has not produced the navigational procedures needed to achieve benefits from existing avionics, such as reduced fuel burn and flight time. To help produce more beneficial procedures, FAA is, among other things, involving air traffic controllers and other stakeholders in the design of new procedures.

Encouraging acquisition of NextGen equipage: For some technologies, realizing NextGen benefits requires a critical mass of properly equipped aircraft. Reaching that critical mass is a significant challenge because the first aircraft operators to purchase and install NextGen avionics will not obtain a return on their investment until many other operators are similarly equipped. FAA has begun to solicit industry input about how to design and implement a public-private financing program for equipment but has yet to make decisions about how to incentivize the airline operators' transition to NextGen.

Maintaining timely delivery of key systems: NextGen has significantly increased the number, cost, and complexity of FAA's acquisition programs, which must remain on time and within budget, particularly given current budget constraints and the interdependencies of many NextGen-related acquisitions. While these acquisitions are generally proceeding on time and within budget, previous challenges with the En Route Automation Modernization (ERAM) program—a critical program for NextGen—illustrate how delays can increase the costs and schedules of other acquisitions as well as the maintenance costs of the system that is meant to be replaced. Overall, NextGen implementation will be affected by how well FAA manages program interdependencies.

Clearly defining NextGen leadership roles and responsibilities: Although FAA has made organizational changes to increase visibility and accountability for NextGen, it has not made management changes called for by the FAA Modernization and Reform Act of 2012. According to FAA, those changes will not occur until a permanent FAA Administrator is in place. Further, FAA has not clearly defined the relationships among the Deputy Administrator (responsible for NextGen implementation and also the current Acting Administrator); the new Chief NextGen Officer position; and the Director of the Joint Planning and Development Office (responsible for NextGen planning and coordination).

Managing the transition to the NextGen system: Particularly in light of constrained budget resources, FAA will have to balance its priorities to help ensure that NextGen implementation stays on course while sustaining the current legacy infrastructure that will continue to be the core of the national airspace system for a number of years. For example, while FAA has an initial plan to consolidate facilities, the agency will need to keep long-term plans in mind so that it does not invest unnecessarily in facilities that may not be needed for NextGen.