



Highlights of [GAO-05-331](#), a report to congressional requesters

## NATIONAL AIRSPACE SYSTEM

# FAA Has Made Progress but Continues to Face Challenges in Acquiring Major Air Traffic Control Systems

### Why GAO Did This Study

The Federal Aviation Administration's (FAA) multibillion-dollar effort to modernize the nation's air traffic control (ATC) system has suffered from cost, schedule, and/or performance shortfalls in its system acquisitions for more than two decades and has been on our list of high risk programs since 1995. FAA's performance-based Air Traffic Organization (ATO) was created in February 2004, in part, to address these legacy challenges.

In this report, GAO examined (1) FAA's experience in meeting cost, schedule, and performance targets for major ATC system acquisitions; (2) steps taken to address legacy problems with the program and additional steps needed; and (3) the potential impact of the constrained federal budget on this program.

### What GAO Recommends

GAO recommends that the Secretary of Transportation direct FAA to provide detailed information to Congress about the impact of planned funding cuts on the agency's ability to modernize the ATC system, and the National Airspace System (NAS).

In commenting on a draft of this report, the Department of Transportation (DOT), FAA, and ATO said they generally agreed with the report. They did not comment on the recommendation.

[www.gao.gov/cgi-bin/getrpt?GAO-05-331](http://www.gao.gov/cgi-bin/getrpt?GAO-05-331).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Gerald L. Dillingham, (202) 512-2834, [dillinghamg@gao.gov](mailto:dillinghamg@gao.gov).

### What GAO Found

The ATO met its acquisition goal for fiscal year 2004. However, prior to the establishment of the ATO, FAA had experienced more than two decades of cost, schedule, and/or performance shortfalls in acquiring major systems under its ATC modernization program. For example, 13 of the 16 major system acquisitions that we reviewed in detail have experienced cost, schedule, and/or performance shortfalls when assessed against their original milestones. These 13 system acquisitions experienced total cost growth from \$1.1 million to about \$1.5 billion; schedule extensions ranging from 1 to 13 years; and performance shortfalls, including safety problems. We found that one or more of four factors—funding, requirements growth and/or unplanned work, stakeholder involvement, and software complexity—have contributed to these legacy challenges. While FAA met its recent acquisition goal, it is important to note that this goal is based on updated program milestones and cost targets for system acquisitions, not those set at their inception. Consequently, they do not provide a consistent benchmark for assessing progress over time. Also, as indicators of annual progress, they cannot be used in isolation to measure progress over the life of an acquisition.

Although additional steps are warranted, FAA has taken some positive steps to address key legacy challenges it has had with acquiring major systems under the modernization program. For example, the ATO has cut funding for some major systems that were not meeting their goals and is reassessing all capital investments to help ensure that priority systems receive needed funding. The ATO has improved its management of software-intensive acquisitions and information technology investments and begun to more actively involve stakeholders. As we recommended, the ATO plans to establish an overall policy to apply its process improvement model to all software-intensive acquisitions. However, additional steps could be taken to improve its management of system acquisitions. For example, the ATO could use a knowledge-based approach to managing system acquisitions, characteristic of best commercial practices, to help avoid cost, schedule, and performance problems.

The ATO will also be challenged to modernize the ATC system under constrained budget targets, which would provide FAA with about \$2 billion less than it planned to spend through 2009. To fund its major system acquisitions and remain within these targets, the ATO has eliminated planned funding to start new projects and substantially reduced planned funding for other areas. However, when forwarding its budget submission for review by senior officials at FAA, DOT, the Office of Management and Budget, and Congress, the ATO provides no detail on the impact of the planned funding reductions on ATC modernization and related activities to modernize the NAS. Our work shows that the ATO should provide these decisionmakers with detailed information in its budget submissions about the impact of funding decisions on modernization efforts. Without this type of information, decision-makers lack important details when considering FAA's annual budget submissions.