



Highlights of [GAO-08-756](#), a report to congressional requesters

Why GAO Did This Study

In fiscal year 2008, the Federal Aviation Administration (FAA) plans to spend over \$2 billion on information technology (IT) investments—many of which support FAA’s air traffic control modernization. To more effectively manage such investments, in 2005 the Office of Management and Budget required agencies to use earned value management (EVM). EVM is a project management approach that, if implemented appropriately, provides objective reports of project status, produces early warning signs of impending schedule delays and cost overruns, and provides unbiased estimates of a program’s total costs.

Among other objectives, GAO was asked to assess FAA’s policies for implementing EVM on its IT investments, evaluate whether the agency is adequately using these techniques to manage key IT acquisitions, and assess the agency’s efforts to oversee EVM compliance. To do so, GAO compared agency policies with best practices, performed four case studies, and interviewed key FAA officials.

What GAO Recommends

GAO is making recommendations to the Secretary of Transportation to improve FAA’s acquisition policies governing EVM, contractor data reliability on a key system, and the process for overseeing major systems. The Department of Transportation generally agreed with the recommendations and provided technical comments, which GAO incorporated as appropriate.

To view the full product, including the scope and methodology, click on [GAO-08-756](#). For more information, contact David A. Powner, (202) 512-9286, pownerd@gao.gov.

AIR TRAFFIC CONTROL

FAA Uses Earned Value Techniques to Help Manage Information Technology Acquisitions, but Needs to Clarify Policy and Strengthen Oversight

What GAO Found

FAA has established a policy requiring the use of EVM on its major IT acquisition programs, but key components of this policy are not fully consistent with best practices of leading organizations. Specifically, FAA fully met four and partially met three components of an effective EVM policy (see table). For example, FAA requires its program managers to obtain EVM training, but it does not enforce completion of this training or require other relevant personnel to obtain this training. Until FAA expands and enforces its policy, it will be difficult for the agency to gain the full benefits of EVM.

FAA is using EVM to manage IT acquisition programs, but not all programs are ensuring that their earned value data are reliable. Case studies of four programs demonstrated that all are using or planning to use EVM systems. However, of the three programs currently collecting EVM data, only one program is adequately ensuring that its earned value data are reliable. Another program is limited in its ability to ensure data reliability because it was initiated before earned value was required. The third program did not adequately validate contractor performance data. For example, GAO found anomalies in which the contractor reported spending funds without accomplishing work and others in which the contractor reported accomplishing work while crediting funds to the government. Until programs undertake a rigorous validation of their EVM data, FAA faces an increased risk that managers may not be getting the information they need to effectively manage the programs.

FAA has taken important steps to oversee program compliance with EVM policies, but its oversight process lacks sufficient rigor. Through its recurring assessments, FAA has reported that most programs have improved their earned value capabilities over time, and that 74 percent of the programs were fully compliant with national standards. However, FAA’s assessments are not thorough enough to identify anomalies in contractor data, and its progress reports do not distinguish between systems that collect comprehensive data and those that do not. As a result, FAA executives do not always receive an accurate view of the quality of a program’s EVM data when making investment decisions on that program.

Seven Key Components of an Effective EVM Policy

Policy component	Assessment of FAA policy
Establish clear criteria for which programs are to use EVM	Fully met
Require programs to comply with national standards	Fully met
Require programs to use a standard structure for defining the work products that enables managers to track cost and schedule by defined deliverables (e.g., hardware or software component)	Partially met
Require programs to conduct detailed reviews of expected costs, schedules, and deliverables (called an integrated baseline review)	Fully met
Require and enforce EVM training	Partially met
Define when programs may revise cost and schedule baselines (called rebaselining)	Partially met
Require system surveillance—routine validation checks to ensure that major acquisitions continue to comply with agency policies and standards	Fully met

Sources: GAO *Cost Guide, Exposure Draft* (GAO-07-1134SP) and analysis of FAA data.