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Highlights

HOMELAND SECURITY

DHS and TSA Acquisition and Development of New Technologies

Why GAO Did This Study

Within the Department of Homeland Security (DHS), the Transportation Security Administration (TSA) is responsible for developing and acquiring new technologies to address homeland security needs. TSA's acquisition programs represent billions of dollars in life-cycle costs and support a wide range of aviation security missions and investments including technologies used to screen passengers, checked baggage, and air cargo, among others. GAO's testimony addresses three key challenges identified in past work: (1) developing technology program requirements, (2) overseeing and conducting testing of new technologies, and (3) incorporating information on costs and benefits in making technology acquisition decisions. This statement also addresses recent DHS efforts to strengthen its investment and acquisition processes. This statement is based on reports and testimonies GAO issued from October 2009 through September 2011 related to TSA's efforts to manage, test, and deploy various technology programs.

What GAO Recommends

GAO is not making any new recommendations. In prior work, GAO made recommendations to address challenges related to deploying EDS to meet requirements, overseeing and conducting testing of new technologies, and incorporating information on costs and benefits in making technology acquisition decisions. DHS and TSA concurred and described actions underway to address the recommendations.

What GAO Found

GAO's past work has found that TSA has faced challenges in developing technology program requirements on a systemic and individual basis. Program performance cannot be accurately assessed without valid baseline requirements established at the program start. In June 2010, GAO reported that over half of the 15 DHS programs (including 3 TSA programs) GAO reviewed awarded contracts to initiate acquisition activities without component or department approval of documents essential to planning acquisitions, setting operational requirements, or establishing acquisition program baselines. At the program level, in July 2011, GAO reported that in 2010 TSA revised its explosive detection systems (EDS) requirements to better address current threats and plans to implement these requirements in a phased approach. However, GAO reported that some number of the EDSs in TSA's fleet are configured to detect explosives at the levels established in the 2005 requirements and TSA did not have a plan with time frames needed to deploy EDSs to meet the current requirements.

GAO has also reported DHS and TSA challenges in overseeing and testing new technologies. For example, in July 2011, GAO reported that TSA experienced challenges in collecting data on the physical and chemical properties of certain explosives needed by vendors to develop EDS detection software and needed by TSA before procuring and deploying EDSs to airports. TSA and DHS Science and Technology Directorate have experienced these challenges because of problems associated with safely handling and consistently formulating some explosives. The challenges related to data collection for certain explosives have resulted in problems carrying out the EDS procurement as planned. In addition, in October 2009, GAO reported that TSA deployed explosives trace portals, a technology for detecting traces of explosives on passengers at airport checkpoints, in January 2006 even though TSA officials were aware that tests conducted during 2004 and 2005 on earlier models of the portals suggested the portals did not demonstrate reliable performance in an airport environment. In June 2006, TSA halted deployment of the explosives trace portals because of performance problems and high installation costs.

GAO's prior work has shown that cost-benefit analyses help congressional and agency decision makers assess and prioritize resource investments and consider potentially more cost-effective alternatives, and that without this ability, agencies are at risk of experiencing cost overruns, missed deadlines, and performance shortfalls. GAO has reported that TSA has not consistently included these analyses in its acquisition decision making.

In June 2011, DHS reported that it is taking steps to strengthen its investment and acquisition management processes by implementing a decision-making process at critical phases throughout the investment life cycle. The actions DHS reports taking to address the management of its acquisitions and the development of new technologies are positive steps and, if implemented effectively, could help the department address many of these challenges.

_____ **United States Government Accountability Office**