

Highlights of [GAO-05-896T](#), a testimony before the Subcommittee on Economic Security, Infrastructure Protection, and Cybersecurity, Committee on Homeland Security, House of Representatives

Why GAO Did This Study

Mandated to screen all checked baggage using explosive detection systems at airports by December 31, 2003, the Transportation Security Administration (TSA) deployed two types of screening equipment: explosives detection systems (EDS), which use computer-aided tomography X-rays to recognize the characteristics of explosives, and explosives trace detection (ETD) systems, which use chemical analysis to detect traces of explosive material vapors or residues. This testimony discusses (1) TSA’s deployment of EDS and ETD systems and the impact of initially deploying these systems, (2) TSA and airport actions to install EDS machines in-line with baggage conveyor systems, and the federal resources made available for this purpose, and (3) actions taken by TSA to optimally deploy checked baggage screening systems.

What GAO Recommends

In a prior report, GAO recommended that TSA systematically evaluate baggage screening needs at airports, including identifying the costs and benefits of installing in-line EDS systems or stand-alone EDS machines in lieu of ETD machines, and prioritizing those airports where TSA would benefit by such actions. DHS generally concurred with the recommendations and described its corrective actions to address the issues identified.

www.gao.gov/cgi-bin/getrpt?GAO-05-896T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Cathleen A. Berrick at (202) 512-3404 or berrickc@gao.gov.

AVIATION SECURITY

Better Planning Needed to Optimize Deployment of Checked Baggage Screening Systems

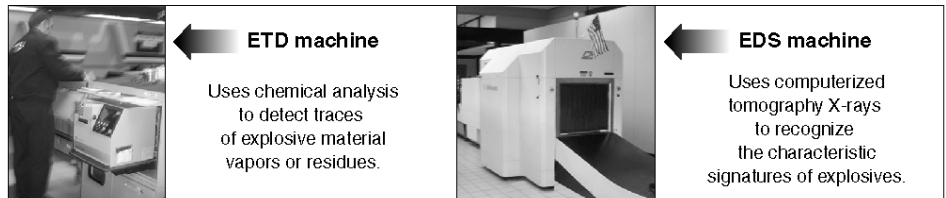
What GAO Found

TSA has made substantial progress in installing EDS and ETD systems at the nation’s more than 400 airports to provide the capability to screen all checked baggage using explosive detection systems, as mandated by Congress. However, in initially deploying EDS and ETD equipment, TSA placed stand-alone ETD and the minivan-sized EDS machines—mainly in airport lobbies—that were not integrated in-line with airport baggage conveyor systems. TSA officials stated that the agency’s ability to initially install in-line systems was limited because of the high costs and the time required for airport modifications. These interim lobby solutions resulted in operational inefficiencies, including requiring a greater number of screeners, as compared with using EDS machines in-line with baggage conveyor systems.

TSA and airport operators are taking actions to install in-line baggage screening systems to streamline airport and TSA operations, reduce screening costs, and enhance security. Eighty-six of the 130 airports we surveyed either have, are planning to have, or are considering installing full or partial in-line systems. However, resources have not been made available to fund these capital-intensive systems on a large-scale basis. Also, the overall costs of installing in-line baggage screening systems at each airport are unknown, the availability of future federal funding is uncertain, and perspectives differ regarding the appropriate role of the federal government, airport operators, and air carriers in funding these systems.

TSA has not conducted a systematic, prospective analysis to determine at which airports it could achieve long-term savings and enhanced efficiencies and security by installing in-line systems or, where in-line systems may not be economically justified, by making greater use of stand-alone EDS systems rather than relying on the labor-intensive and less efficient ETD screening process. However, at nine airports where TSA has agreed to help fund the installation of in-line baggage screening systems, TSA conducted a retrospective cost-benefit analysis which showed that these in-line systems could save the federal government about \$1 billion over 7 years. TSA further estimated that it could recover its initial investment in the in-line systems at these airports in a little over 1 year.

EDS and ETD Machines Used by TSA to Screen Checked Baggage



Source: GAO.