



Department of Homeland Security Office of Inspector General

Evaluation of Screening of Air Cargo Transported on Passenger Aircraft

(Unclassified Summary)





**Homeland
Security**

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Preface

The Department of Homeland Security (DHS) Office of Inspector General (OIG) was established by the *Homeland Security Act of 2002* (Public Law 107-296) by amendment to the *Inspector General Act of 1978*. This is one of a series of audit, inspection, and special reports prepared as part of our oversight responsibilities to promote economy, efficiency, and effectiveness within the department.

This report addresses the strengths and weaknesses of the Transportation Security Administration's screening measures to prevent the introduction of explosives into air cargo shipped on passenger aircraft. It is based on interviews with employees and officials of relevant agencies and institutions, direct observations, field testing, and a review of applicable documents.

We judgmentally selected nine airports based on the high volume of passenger air cargo and locations with participants in the certified cargo screening program. At each location, we selected entities to test based on collaboration with the local inspectors' knowledge of the facilities and the technologies employed.

The recommendations herein have been developed to the best knowledge available to our office, and have been discussed in draft with those responsible for implementation. We trust this report will result in more effective, efficient, and economical operations. We express our appreciation to all of those who contributed to the preparation of this report.

A handwritten signature in cursive script that reads "Richard L. Skinner".

Richard L. Skinner
Inspector General

Background

Approximately 7.6 million pounds of cargo are transported aboard passenger aircraft every day. Air cargo ranges in size from one pound to several tons and can include items such as electronic equipment, automobile parts, clothing, medical supplies, fresh produce, and human remains.

The *Aviation and Transportation Security Act of 2001 (PL 107-71)* established the requirement that the Transportation Security Administration (TSA) provide for the screening of cargo carried aboard passenger aircraft. *Implementing Recommendations of the 9/11 Commission Act of 2007 (PL 110-53)* mandated that TSA ensure the screening of 100 percent of cargo transported on passenger aircraft beginning August 2010. To meet this requirement, TSA developed the certified cargo screening program,

Screening is defined as a physical examination or non-intrusive method of assessing whether cargo poses a threat to transportation security.

Source: Public Law 110-53

under which shippers tender cargo for transport on passenger aircraft via a cargo screening facility that use TSA approved air cargo screening methods. Once screened, the cargo is forwarded to an air carrier for transport. According to TSA, currently over 75% of cargo transported on passenger aircraft is screened.

Each piece of cargo must be screened using one of the following methods approved by TSA.

- Explosive Trace Detection (ETD) is a device used to detect explosive particles. The ETD compares the chemical composition of the sample to the signature of known explosive materials. For cargo screening, the samples are usually taken from the outside of the box.
- X-ray is a device that captures computer images of the cargo content, which is displayed on a monitor for the screener to detect any anomalies that could be threat items.
- Physical search requires the screener to open the box or crate and examine the contents to prevent the introduction of any explosive, incendiary, or other destructive substance on to the aircraft. The contents are also matched to the description on the airway bill or manifest.

- TSA-certified canine teams locate and identify dangerous materials and alert their handlers when dangerous materials are present.

TSA provides mandatory air cargo security requirements to the air cargo industry through procedures contained in the Aircraft Operator Standard Security Program, and the Certified Cargo Screening Program Order. To ensure compliance with the screening procedures, TSA relies on transportation security inspectors (inspectors) who conduct comprehensive, supplemental, and special emphasis inspections of certified cargo screening facilities and air carriers. The inspectors provide compliance enforcement, on-the-spot counseling and educational outreach for these entities.

Our prior audit work¹ identified several vulnerabilities with air cargo security, including access controls to cargo holding areas and background checks for individuals handling air cargo. This audit evaluates the effectiveness of three of the cargo screening methods: 1) ETD, 2) x-ray, and 3) physical screening.

¹ (U) OIG-07-57 TSA's Oversight of Passenger Aircraft Cargo Security Faces Significant Challenges, issued July 2007 and OIG-10-09 Security of Air Cargo During Ground Transportation, issued November 2009.

Results of Audit

The number of tests conducted, the names of airports tested, and the quantitative and qualitative results of our testing are classified. We have shared the information with the department, the Transportation Security Administration (TSA), and appropriate congressional committees.

We identified vulnerabilities in the cargo screening procedures employed by air carriers and cargo screening facilities to detect and prevent explosives from being shipped in air cargo transported on passenger aircraft. As a result of our testing, we made five recommendations that, when implemented, should improve the agency's screening and security measures to prevent the introduction of explosives into air cargo shipped on passenger aircraft.

We gave a copy of our draft report to TSA for review and comment. The unclassified portion of TSA's response to our draft report is summarized below.

TSA's Response

TSA appreciated our work and will consider our audit results as part of its ongoing efforts to assess and improve air cargo screening for passenger aircraft. TSA provided general and specific comments to the report and recommendations. The agency acknowledged that improvements can be made in the air cargo screening process to prevent the introduction of explosives into air cargo on passenger aircraft.

Appendix A
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Appendix B
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