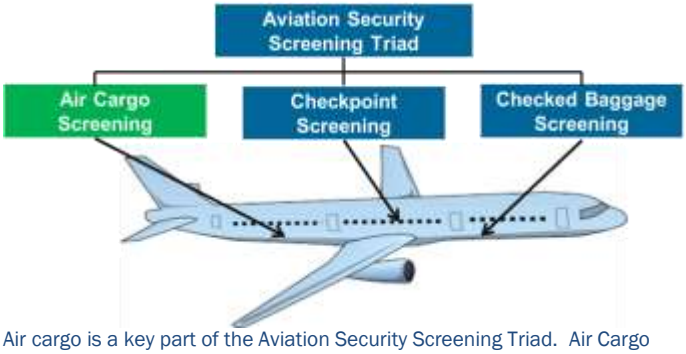
DHS Science and Technology Directorate
Air Cargo Screening Program

Air Cargo Screening and the evolving threat

In the United States, nearly all domestic commercial passenger flights carry air cargo. Air cargo makes up about 50% of the goods carried in passenger aircraft. Without effective screening of air cargo, passenger safety could be compromised. In 2007, Public Law 110-53 "Implementing Recommendations of the 9/11 Commission Act," mandated all cargo on passenger aircraft must be 100% screened for explosive and other threat devices, to at least checked baggage standards, before loading on passenger aircraft. To meet this mandate, TSA created the Certified Cargo Screening Program in which they certify private companies to screen air cargo using TSA approved screening equipment. Air cargo screening is an important part of the Aviation Security Screening Triad (see below) requiring new technologies to address evolving threats and maintain screening effectiveness.



Air cargo is a key part of the Aviation Security Screening Triad. Air Cargo Screening is carried out through private companies (not TSA).

The S&T Air Cargo Screening Program fulfills a vital part of S&T's mission to provide Aviation Security R&D to support the Transportation Security Administration's air cargo screening security mission.

Given the great variety of air cargo commodity types, achieving effective air cargo screening is a daunting task. The Air Cargo Screening Program addresses these challenges by developing new security technologies to enhance current operational air cargo screening capabilities, so that diverse and complex cargo can be effectively screened in a cost efficient manner. This broad, ongoing effort seeks to address the current and evolving air cargo security needs of our stakeholders (TSA, commercial air carriers, freight forwarders, etc.).

Complex and challenging air cargo commodity types include pallets of heavy industrial parts (electric motors (left)) and skids of consolidated homogenous parcels.

S&T develops advanced technology for improved detection and screening

The Air Cargo Screening Program is investing in a portfolio of next generation products for the cost effective screening of air cargo. This includes technologies to develop low cost computed tomography (CT) or CT-like systems for screening whole skids, advanced trace detection systems such as high sensitivity portable trace detectors, intelligent "Operator Assist" software tools to assist the operator in effective screening of complex commodities, and standardized graphical user interfaces to improve operator proficiency and ease the burden of training operators. Air cargo screening equipment is purchased by certified private screening companies, not by the TSA. The cost of air cargo screening equipment is important to the screening companies; hence, it is an important consideration in our development efforts.

S&T Customers/Partners

Though TSA is the primary stakeholder for S&T's Air Cargo Screening Program, our integrated product team includes members from other DHS components. Our research and development partners include the Transportation Security Laboratory, national laboratories, universities, and the air cargo private sector.

To learn more about EXD's Air Cargo Program, contact SandT.Explosives@hq.dhs.gov

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