

San Diego International Airport



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Overview

- Aviation Threats
- Recent Threats
- Post 9/11
- Pressing Challenges
- Today's Environment
- Technological Solutions
- Summary



Threats to Aviation

- Threats to airports—all the same...vulnerabilities different
 - Targets: No. 1—*aircraft*...No.2 *terminals*
- Threats x 2
 - Forceful takeover
 - Explosives...IED or VBIED
- Threat vectors—multiple directions



Recent Threats

- London, August 2006...
 - Terrorist plot to assemble “liquid compound” IED aboard numerous US flag air carriers
 - Highly motivated...shows innovation
- Glasgow Airport, June 2007...
 - Terrorists drive vehicle bomb into terminal building
 - Patterned after similar attacks



September 11, 2001

- ATSA—major initiatives
 - transitioned screening to federal government – TSA
 - mandated 100% EDS screening for checked baggage
- Passenger & property screening
 - Slightly better than pre 9/11...due to better human performance
 - But, no “new” equipment has emerged!



Three Greatest Challenges

Conventional Threats

- *Threat to Terminals*—vehicle-borne improvised explosive device (VBIED)
- *Threat to Aircraft*—IED or IED components in carry-on baggage

Asymmetric Threats

- *Threats to both Terminals & Aircraft*—chemical, nuclear, biological, and radiological (CNBR)



Today's Environment

Vehicle-born Improvised Explosive Device (VBIED)

- *No* technological detection capability

Explosives in Carry-on Baggage

- *Limited* technological detection capability
 - backscatter x-ray machine

Chemical, Nuclear, Biological and Radiological

- *Limited* technological detection capability



Technological Solutions

VBIED

- Video analytics coupled with data comparison
- Chemical detection sensors

Carry-on IED

- Computer Tomography (CT)

CNBR

- Enhanced detection sensors



Summary

- Must do research and develop advanced technologies to counter these potential threats
- Embrace, nurture, and practice collaboration...it's the pathway to success
- Continue outreach...the more you know, the more you can accomplish
- Work with a sense of urgency...there is a great deal at stake