

Biometric Concepts of Operation in the Airport Environment

International Biometrics Performance Conference



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Air Entry/Exit Re-engineering

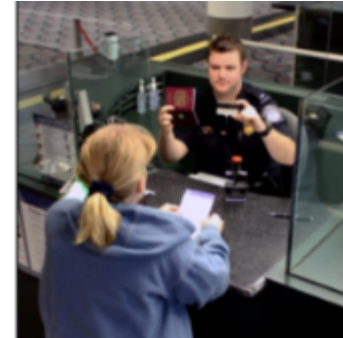


Mission

- S&T and CBP are collaborating to transform CBP operations by leveraging technologies, re-engineering current processes, and introducing new operational capabilities

Goals

- **Air Entry:** Identify and implement technologies and enhancements to existing airport operations for inspecting and examining travelers entering the U.S.
- **Air Exit:** Identity, test, and evaluate concepts of operations and approaches to inform acquisition planning and articulate the operational and economic tradeoffs



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The Biometric Air Exit Challenge



- Confirm identity of foreign travelers departing the United States
- Accurately match arrival and departure records
- Minimize impact to travel and trade
- Improve availability of data for decision makers
- Strengthen law enforcement capabilities
- Control costs



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The collage features several key elements:

- Top Left:** A man at a computer terminal and a group of people with facial recognition overlays.
- Top Center:** A diagram showing biometric data (fingerprint, eye, face) linked to "U.S. Citizens Boarding Passes".
- Top Right:** A diagram showing a person's silhouette linked to "U.S. Citizens Boarding Passes".
- Middle Left:** A person at a security checkpoint and a silhouette of a group of people.
- Center:** A circular diagram titled "Apex AEER Objectives" involving the "Executive Branch", "Air Industry", and "Legislative Branch". The objectives are: "Enhance current air entry operations", "Integrate into existing air operations", and "Develop a cost-effective biometric air exit solution".
- Middle Right:** A pie chart showing "Fail to Match 3%".
- Bottom Left:** A circular logo with an airplane and a person silhouette.
- Bottom Center:** A scale of justice labeled "BENEFITS" and "COSTS".
- Bottom Right:** A "Boarding Gate (CBP) Risk Analysis" heatmap and a radar chart for "MTC-C.3" metrics (MOE-A.1, MOE-A.2, MOE-A.3, MOE-B.1, MOE-B.2, MOE-B.3, MOE-C.1, MOE-C.2).

- Evaluated *concepts of operation* (CONOPs)

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Market and Laboratory Analyses



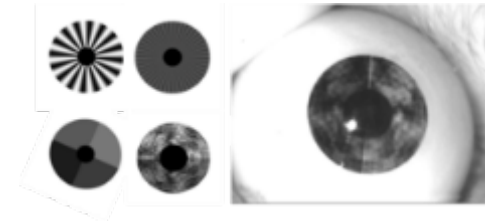
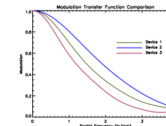
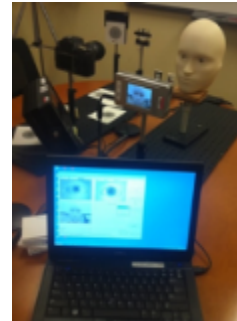
■ Biometric Technology Market Survey

- Canvassed commercially viable biometric devices
- Completed initial device capabilities and maturity report



■ Laboratory Analysis

- Test infrastructure assessment
- Data conformance assessment
- 3rd party reporting
- Device intra-operability
- Device inter-operability
- Capture conditions
- FTA and FTP assessment



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Concepts of Operation



- Technology
 - Modality + Capture Method
- Process
 - Centralized
 - Boarding Gate
 - Passenger Loading Bridge
 - Mobile



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Biometric Air Exit Roadmap



Build Phase

- ☒ Operational Survey →
- ☒ Tech Foraging 🖐
- ☒ Economic Impact →
- ☒ Business Case (Initial) →
- ☒ Maryland Test Facility → 🖐

Test & Evaluation Phase

- ☒ Lab Testing 🖐
- ☒ Notional Concept of Operation Development → 🖐
- ☒ Scenario-based Testing → 🖐

Transition to CBP

- ☐ S&T contributions to Operational Field Trial → 🖐
- ☐ S&T contribution to Business Case (Final) →

April 2013

Apex AEER Timeline

2016...



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→ *Air Industry Contributions*
🖐 *Biometric Industry Contributions*

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