Air Entry/Exit Re-engineering (AEER)

Homeland Security Science & Technology Advisory Committee (HSSTAC)

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Bob Burns
Director, Apex AEER Project
Homeland Security Advanced Research Projects Agency
Science and Technology Directorate

Agenda

- Apex Air Entry/Exit Re-engineering (AEER)

- Apex AEER Framework

- Drivers for Entry/Exit Transformation

- Timeline

- Maryland Test Facility (MdTF)

- Results to Date

- Next Steps

- Challenges

Apex Air Entry/Exit Re-Engineering

What is Apex AEER?

- Joint effort between CBP and DHS S&T to enhance both Air Entry and Exit processes

What are the goals of AEER?

- **Air Exit**: Develop recommended approaches and implement technologies for cost-effective and integrated *biometric* capabilities

- **Air Entry**: Identify and implement technologies and enhancements to existing airport operations for inspecting and examining travelers entering the U.S.

What are the objectives of AEER?

- Enhance current air entry operations

- Develop a cost-effective biometric air exit solution

- Integrate into existing air operations

Apex AEER Framework

Strategy

- Build Phase
  - Execute air entry/exit operational survey and analysis
  - Identify operational requirements and capability gaps
  - Perform economic impact analysis
  - Identify biometric and non-biometric Solution sets

- Test and Transition Phase
  - Establish Maryland Test Facility (MdTF)
  - Technology qualification and process improvement
  - Solution development, testing and evaluation
  - Business case development

- CBP Ownership Phase
  - Conduct field trial of air entry and exit solutions
  - Transition solutions to operators

Stakeholders (AEER Team)

- Government
  - CBP Port of Entry Operators
  - Office of Biometric Identity Management (OBIM)
  - DHS Privacy Office
  - DHS Office of Policy
  - National Institute of Standards and Technology (NIST)

- Air Associations
  - Airlines for America (A4A)
  - Airports Council International-North America (ACI-NA)
  - International Air Transport Association (IATA)
  - US-Travel Association (USTA)

- Congress
  - House Committee on Homeland Security
  - Senate Committee on Homeland Security and Governmental Affairs
  - House and Senate Appropriations Committees

- **Issues**

  - Increased traveler volume and wait times

  - Incomplete information on traveler departures

  - Legislative mandate for biometric exit not met

  - Air threat remains a priority

Total air passenger volume is up over 21% compared to FY 09

Air travel expected to grow 4% - 5% annually for the next several years

Although current legislation focuses on biometric exit, improvements must be made to the end-to-end process, from entry to exit, in order to be most effective.

NOTE: This slide was converted from the original graphic to text only in order to meet 508 compliance. For the original graphic, contact Mary Hanson, mary.hanson@hq.dhs.gov

- The original slide for this location was a graphic that does not meet 508 compliance. It shows a timeline from April 2013 to April 2016 for three categories of activity: build (technology foraging, operational survey, economic impact, business case, and MdTF construction), test and transition (lab and scenario-based testing), and CBP ownership (operational field trials). For the original graphic, contact Mary Hanson, mary.hanson@hq.dhs.gov

Maryland Test Facility (MdTF)

- Maryland Test Facility (MdTF) - Controlled environment for laboratory and scenario-based testing to evaluate biometric technologies and other operational processes under simulated airport entry and exit conditions

  - Over 25,000 sq. ft. of office and laboratory space
  - Designed to support 3 tests and 50 test subjects concurrently

- # Stakeholder engagement
  - Formed Air Industry Working Group - Led industry working sessions and webinars
  - Engaged international stakeholders on biometrics - Co-chair IATA's Biometrics Management Working Group, Observed overseas airport biometric capture processes
  - Identified airport/air industry biometric exit-related issues

- # Operational Survey and Economic Impact Analysis
  - Analyzed air entry/exit operations at multiple airports
  - Formed the Port of Entry Experts Working Group
  - Estimated economic impacts of future air entry/exit capability enhancements
  - Identified air entry/exit capability needs for AEER analysis
  - Building business case with CBP, Air Industry Working Group and OBIM
  - Developed notional biometric exit CONOPS

- # Technology
  - Conducted biometric device qualification
  - Conducted technology foraging
  - Identified 3 biometric modalities to be evaluated (i.e. iris, facial, fingerprint)

- ## Test & Transition Phase
  - ### Laboratory Testing
    - Ensure biometric devices can perform with current air entry/exit operations
    - Determine biometric-device applicability for each CONOP
  - ### Scenario-based Testing
    - Validate technologies and CONOPs
    - Assess system performance
    - Mitigate impacts to operational processes
  - ### Human Factors Engineering
    - Assess human-to-system issues in air entry/exit processes
    - Scale and simulate air entry/exit CONOPs

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Apex AEER Challenges

- Need to identify solutions that minimize the impact to existing entry and exit operations

- Solutions will likely require changes to operational processes and infrastructure

- Need to remain transparent with program goals and objectives ensuring a consistent message

- The desire to work collaboratively with stakeholders while understanding the stakeholders have broader concerns beyond the program

- Legislative requirements can significantly impact project scope and schedule

- Need to ensure compliance with established processes and schedules for DHS acquisitions