U.S. Department of Homeland Security
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Transportation Security Administration

ACTION

MEMORANDUM FOR: Russell Roberts 7/23/18
Assistant Administrator
Information Technology

FROM: Austin Gould 17 JUL 18
Assistant Administrator
Requirements and Capabilities Analysis

SUBJECT: Customs and Boarder Protection and Transportation Security Administration Phase II Travel Document Check Biometric Pilot Information Technology support

Purpose

The purpose of this memorandum is to memorialize roles and responsibilities between Transportation Security Administration (TSA) Information Technology (IT) and Requirements and Capability Analysis (RCA) in support of the biometric pilot at Los Angeles International Airport (LAX) at the Tom Bradley International Terminal (TBIT), planned for August 2018.

Background

In 2013, Congress transferred the biometric exit mission from the Department of Homeland Security to Customs and Boarder Protection (CBP). Working in partnership with the air travel industry, CBP is leading the transformation of air travel using biometrics as the key to enhancing security and improving the entire traveler experience from curb to gate. The use of facial recognition technology as the biometric exit mechanism presents an opportunity for CBP and the TSA to collaborate and work together to streamline and strengthen passenger screening operations.

RCA and CBP's Office of Field Operations coordinated a facial recognition proof of concept pilot using CBP Traveler Verification System (TVS) at the TSA checkpoint. The goal is to develop a seamless, efficient process to use biometrics to validate identity against all measures required by both CBP and TSA for international passengers. There will be three phases of the pilot:

- Phase I (completed): data collection in order determine the feasibility of using biometric facial recognition technology for identity verification at the TSA Checkpoint.

- Phase II (in progress): incorporate 'no match' adjudication by CBP officers assigned to a TSA checkpoint, and the use of CBP's match response to eliminate the document check by TSA.
- Phase III (TBD): Goal is to integrate the CBP TVS with passenger vetting status.

The collaborative efforts between CBP and TSA support the ultimate goal of traveler facilitation with enhanced security supports the joint memo signed by Administrator Pekoske and Commissioner McAleenan (memo attached for reference). Biometric identity verification, once integrated with Secure Flight data, has the potential to reduce the necessary number of Travel Document Checkers and allows TSA to reallocate those resources to screening and behavior analysis.

Phase II Operations

The current Integrated Master Schedule has the pilot starting early August 2018. The operations for this pilot will consist of CBP certified facial recognition equipment installed at TBIT checkpoint. The pilot will run for a 30-day period during non-peak hours at four (4) TDC podiums. The following process applies to passengers with confirmed international destinations:

1. Biometric Identity Validation

-TDC officer initiates passenger facial biometric capture by scanning a QR code and taking photograph at checkpoint

-CBP algorithm matches facial biometric capture against database gallery

-System pulls biographic information from CBP database associated with match

2. Biographic Information Displayed to TDC

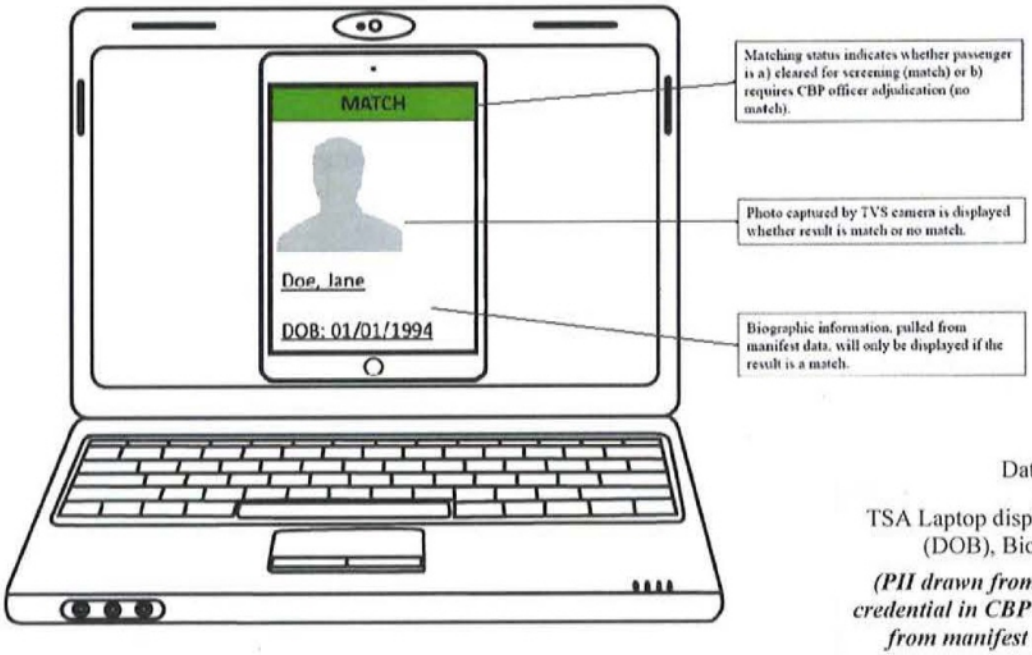
-TDC laptops, using CBP display platform, will present matching outcome and returned biographic information

3. Personal Identification Information (PII)/Boarding Pass Comparison

-TSO compares information displayed on TSA laptop to boarding pass

4. Boarding Pass Validation

- Boarding pass scanned to confirm passenger vetting status
- If cleared, passengers proceed to screening checkpoint



Data Displayed

TSA Laptop displays: Name, Date of Birth (DOB), Biometric Match Status

(PII drawn from passenger's most recent credential in CBP database - PII NOT drawn from manifest data or entry interview)

If the pilot is successful, based on high match performance (i.e., 90%+ match rate) and processing time (i.e., no operational impact), then a determination is required by CBP and TSA to extend the pilot in 30-day increments. Operational suitability and scalability will be key factors to stress the system to see how it performs with a larger photo gallery.

Information Technology Support

Phase II will require support from the following entities:

TSA

- Provide four (4) TSA laptops, actively connected to the TSA network, that can access the following link: https://atsm.cbp.dhs.gov/tsa.
- The TSA laptops must also be able to:
  - Support multiple TSA officer accounts on the same laptop in a checkpoint environment
  - Support rotating officers at the TDC on the same laptop
  - Support Personal Identity Verification enabled log-in to maintain TSA IT security requirements
- If the initial 30-day pilot is successful, TSA IT will provide an additional twelve (12) laptops to enable the entire checkpoint to be biometrically operational for an extended pilot duration
- Evaluate cybersecurity measures of the CBP TVS

CBP

- Develop a display platform for biometric matching result and associated biographic data to TSA officers accessible on a TSA laptop
- Provide facial recognition cameras
- Provide facial recognition matching system (i.e. CBP TVS) in the backend
- Provide super user account information or have another log in mechanism for display platform
- Support the network connection

Los Angeles International Airport

- Provide required infrastructure for hardwired connection to CBP cameras

Concurrence

Request concurrence with the IT requirements to support Phase II TDC Biometric Pilot at LAX.

Approve [signature] 7/23/18 Disapprove _____ / _____
R. Fortner for R. Roberts Date Date

Modify _____ / _____ Needs more discussion _____ / _____
Date Date

Attachment
Joint TSA/CBP Policy on Use of Biometric Technology

TSA Biometrics Overview

House Committee on Oversight and Reform Staff-

May 17, 2019

Why Biometrics?

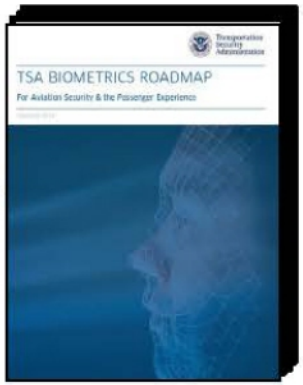
Identity verification is a cornerstone of TSA's operational landscape in the commercial aviation sector. In order to meet the challenges of evolving security threats, rising air travel volumes, resource constraints, and limits on operational footprint, TSA and aviation security regulators around the globe must look to automate manual and paper-based identity verification processes through smart technology investments.

Security Effectiveness

Operational Efficiency

Biometrics has the potential to enhance both security & efficiency without sacrificing either.

The TSA Biometrics Roadmap communicates our approach to capitalizing on this environment.



Industry Adoption

TSA must innovate alongside aviation security partners as they continue to pursue advanced biometrics solutions and technologies in airports *(e.g., mobile driver's license and biometric bag drop solutions).*

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TSA Biometrics Roadmap | Executive Summary

The TSA Biometrics Roadmap was signed and published in October 2018 and highlights how TSA plans to pursue and deploy biometric solutions for the aviation ecosystem

Vision: A biometrics capability, built with strategic partners, that enhances aviation security, streamlines operations, and simplifies the user experience.

Goal 1: Partner with CBP on Biometrics for International Travelers

- **Objective 1.1:** Prove Operational Feasibility
- **Objective 1.2:** Develop Interagency Policies and Procedures
- **Objective 1.3:** Simplify and Streamline Operations

Goal 2: Operationalize Biometrics for TSA Pre✓®Travelers

- **Objective 2.1:** Update TSA Pre✓® Data Holdings
- **Objective 2.2:** Modernize the TSA Pre✓® Passenger Experience

Goal 3: Expand Biometrics to Additional Domestic Travelers

- **Objective 3.1** Perform Business Case Analysis for Domestic Traveler Biometrics
- **Objective 3.2:** Evaluate Biometric Solutions for Domestic Travelers
- **Objective 3.3:** Effectively Use Existing and Available Traveler Data
- **Objective 3.4:** Establish Partnerships to Implement Scalable Solutions

Goal 4: Develop Infrastructure to Support Biometric Solutions

- **Objective 4.1:** Develop, Maintain, and Manage to a Strategic Roadmap
- **Objective 4.2:** Integrate Capabilities with DHS and Industry Partners
- **Objective 4.3:** Capture Requirements and Standards for Industry
- **Objective 4.4:** Implement Assessment Processes

Guiding Principles: Security Effectiveness & Operational Efficiency, Privacy, Cyber Security, DHS Unity of Effort, Public-Private Partnerships, Usability, Passenger Experience, Interoperability, and Future Proofing

Desired TSA End State – Automation of Travel Document Checker (TDC) Functions via Biometrics

Prior to physical screening, TSA must:

1. Verify the authenticity of the presented form of identification
2. Verify the passenger and his/her form of identification are a match
3. Validate passenger flight reservation status
4. Verify passenger's secure flight vetting status
5. Segment/access the passenger to the appropriate screening lane
6. Resolve any non-matches and security issues manually

Solution Space	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Current Process: Manual + boarding pass scanner (BPS)	Manual	Manual	▭	▭	Manual	Manual
Near Term: Credential Authentication Technology (CAT)	✓	Manual	✓	✓	Manual	Manual
Interim: Biometric ID Verification w/ SF integration	✓	✓	✓	✓	Manual	Manual
Future: Biometric ID Verification System w/ SF integration and Checkpoint Access Mechanism	✓	✓	✓	✓	✓	Manual

Key: ✓ Automated ▭ Partially Automated

By developing an architecture that supports the automation of TDC functions, TSA can better control access to the sterile environment, improve the traveler experience, and reallocate resources to mitigate screening inefficiencies.

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CBP/TSA Pilots Series Overview

TSA – CBP Phase I

Location: JFK Terminal 7

Dates: October 2017

Key Questions:
- Can TVS support international outbound traveler processing?

Objective:
- Test functional capability of biometric matching for international outbound passengers at the TSA checkpoint.

TSA – CBP Phase IIA

Location: LAX TBIT

Dates: August – October 2018

Key Questions:
- Can TSA and CBP operationally integrate at the TSA checkpoint?

Objective:
- Test operational feasibility of co-located TSA / CBP officers as the checkpoint.

TSA – CBP Phase IIB *(Current)*

Location: ATL International Terminal F

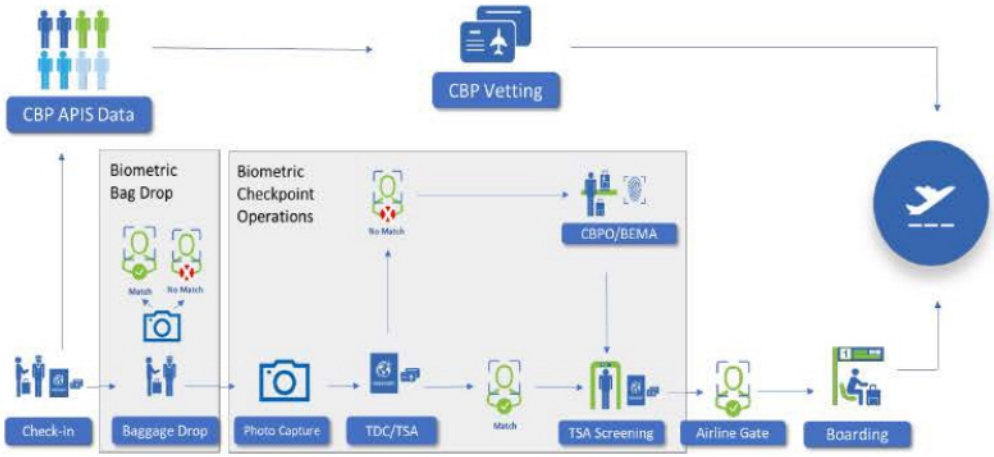
Dates: Ongoing

Key Questions:
- Can TVS support non-checkpoint ID verification touchpoints?

Objective:
- Test viability of non-checkpoint biometrics in the aviation passenger journey.

PHASE IIB CONOPs OVERVIEW

Five touchpoints are connected to CBP TVS to receive match results: 1) Check-in Kiosks; 2) Bag Drop; 3) TSA Checkpoint; 4) Boarding Exit; 5) Entry



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Privacy

TSA is committed to protecting passenger privacy and ensuring the traveling public's trust as it seeks to improve the passenger experience through its exploration of opt-in biometric technology.

TSA'S PRIVACY APPROACH

Travelers will be notified of the use of biometric technology and have the ability to voluntarily opt-in to various biometric procedures.	TSA will incorporate privacy considerations into each phase of biometric solution development.	In these efforts, TSA will be transparent and proactively mitigate privacy risks identified in the use of biometric technology.

- In any such use of biometric technology with potential privacy impacts, TSA is committed to protecting personally identifiable information (PII).
- TSA will comply with the Department of Homeland Security's privacy policies and procedures. This includes conducting appropriate Privacy Threshold Analyses (PTAs), Privacy Impact Assessments (PIAs), and System of Record Notices (SORNs) to ensure that TSA's biometrics capabilities uphold important privacy protections.
- DHS's Fair Information Practice Principles (FIPPs) regarding transparency, individual participation, purpose specification, data minimization, use limitation, data quality and integrity, security, and accountability and auditing will inform TSA's privacy considerations.

TSA Modernization Act – Reporting Requirements and Implementation

The *TSA Modernization Act* was enacted on October 5, 2018. Section 1919 requires the Secretary of Homeland Security to submit to Congress within 270 days of enactment, a report, with assessments from TSA and CBP relating to biometric technologies.

Summary of Section 1919

As applied **jointly to CBP and TSA**, Section 1919 ("Biometrics Expansion") of the *TSA Modernization Act of 2018* –

1. Requires the TSA Administrator and Commissioner of CBP to consult with each other on the deployment of biometric technologies.
2. Requires **submission of a report** to appropriate committees of Congress (and to any member of Congress upon request) that includes assessments of:
   - The **operational and security impact** of using biometric technology to identify travelers
   - The potential **effects on privacy** of the expansion of biometric technologies, including methods proposed or implemented to mitigate privacy risks related to the active or passive collection of biometric data
   - The methods to **analyze and address matching errors related to race, gender, or age** with respect to the use of biometric technology, including facial recognition technology.
3. Requires TSA and CBP to publish a public version of the joint assessment on their agency websites, if practicable.
4. Requires an assessment of the biometric entry-exit system (CBP-specific).

TSA is coordinating with key agency partners, including CBP and DHS' Science & Technology (S&T) Directorate, to comply with the requirements of Section 1919.