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U.S. Department of Homeland Security  
U.S. Customs and Border Protection  
U.S. Transportation Security Administration



Transportation Security Administration Pilot with TVS Phase II  
Concept of Operations  
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## 1.0 Background

In 2013, Congress transferred the biometric exit mission from the Department of Homeland Security (DHS) to the U.S. Customs and Border 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 Transportation Security Administration (TSA) to collaborate and work together to streamline and strengthen passenger screening operations.

TSA's Office of Requirements and Capabilities Analysis (ORCA) and CBP's Office of Field Operations (OFO) is coordinating a facial recognition Proof of Concept pilot using CBP's Traveler Verification Service (TVS) at the TSA checkpoint. The TVS is a cloud-based facial biometric matching service that uses existing traveler data provided by airlines via the Advance Passenger Information System (APIS) to create temporary photo galleries for passengers on all departing and arriving U.S. flights. There will be three phases of the pilot:

- Phase I: Data collection in order to determine the feasibility of using biometric facial recognition technology for identity verification at the TSA checkpoint.
- Phase II: Incorporate "no match" adjudication by CBP Officers (CBPOs) assigned to a TSA checkpoint and the use of CBP's match response to eliminate the document check by TSA.

- (b) (5)  
[REDACTED]

The collaborative efforts between CBP and TSA support the ultimate goal of traveler facilitation with enhanced security. Biometric identity verification, once integrated into Secure Flight, has the potential to reduce the necessary number of TDCs and allows TSA to reallocate those resources to screening and behavior analysis.

## 2.0 Phase I

On October 11, 2017, CBP and TSA implemented a pilot in Terminal 7 at John F. Kennedy International Airport to evaluate the use of facial recognition at the TSA checkpoint for identity verification. The pilot lasted for 30 days, through November 10, 2017. The first phase of the pilot focused on data collection to determine the feasibility of capturing photos at the TSA checkpoint to biometrically identify travelers on international flights. During Phase I, the TSA TDC captured photos of in-scope travelers. The TSA document check procedures did not change. The TDC continued to check boarding passes and identity documents. If a traveler did not match a photo in the CBP-created photo gallery, no action was taken in real-time. There was no risk introduced because manual identity verification still occurred. CBP analyzed and evaluated photo capture, matching rate results, and "no matches" after the encounter.

Throughout the pilot, CBP processed 4,000 travelers identified as in-scope for biometric collection. In-scope travelers are comprised of international travelers falling within an age range of 14 to 79. The Technical Match Rate (TMR) for Phase I of the pilot was (b) (7) at the

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threshold CBP utilizes for biometric exit at departure gates. The image below depicts the passenger process for Phase I of the CBP/TSA pilot.

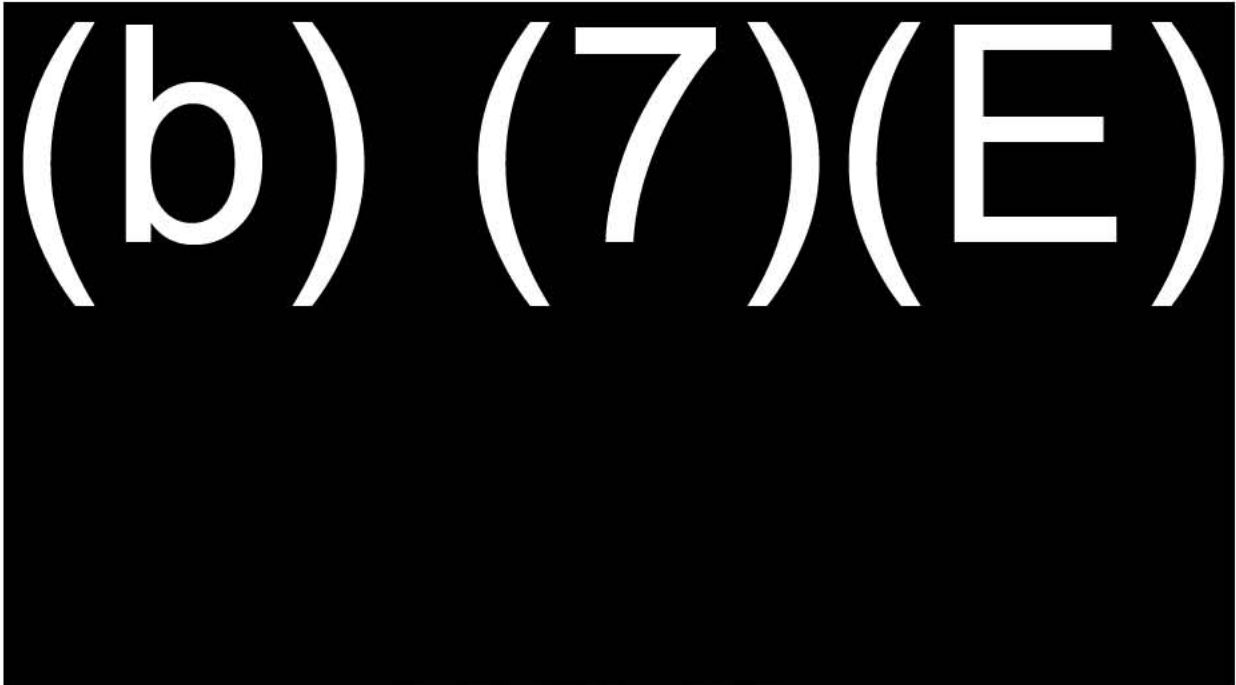


Figure 1. Phase I Pilot Process Overview

### 3.0 Phase II

Phase II provides an avenue for further collaboration between TSA and CBP to enhance security. Continuing the TSA/CBP partnership on biometric identity verification, CBP and TSA will deploy Phase II of the pilot at the Tom Bradley International Terminal at Los Angeles International Airport. The purpose of Phase II will be to collect additional data on the feasibility of biometric facial recognition technology for identity verification, as well as test the scalability of the technology by deploying it to a larger checkpoint. Phase II of the pilot introduces a CBPO response to adjudicate no matches, examining the impact of exception processing for travelers at the TSA checkpoint that do not match a photo in the gallery. Additionally, Phase II will eliminate the need for the TDC to perform a document check on all in-scope travelers who are a match to a photo in the gallery, potentially leading to efficiencies at the TDC checkpoint. CBP and TSA will have a jointly-approved Standard Operating Procedure (SOP) document that will detail passenger processing at the TDC. Phase II is currently planned to launch in August 2018 and will run initially for a period of 30 days. Additionally, Phase II processing will occur at four TDC podiums, which will operate Monday through Friday from 6:30 a.m. to 10:30 a.m. hours. The potential to expand the number of TDC podiums, the hours of operation, and the pilot's overall length will be reviewed by CBP and TSA based upon the initial operational results.

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### 3.1 TSA Procedures

During Phase II operations, the TDC will begin the process by examining the travelers' boarding pass to determine eligibility for the pilot. For all travelers whose flights depart to domestic destinations, the TDC process will not change; processing will occur in accordance with current TSA SOPs. Travelers whose flights depart to foreign destinations will be directed to the camera to have their photo captured. The TDC will scan a CBP provided Quick Response code on the camera to initiate the photo capture process. After the camera has captured the photo, the matching response, limited biographic information (b) (7)(E) and the captured photo will appear on a (b) (7)(E) provided to the TDC (see the below image for a representation of the TDC (b) (7)(E)). Based upon the response sent to the (b) (7)(E) the TDC will take the following actions:

- If the image is a match, the TDC will confirm that the biographic data returned by CBP matches the biographic data on the boarding pass. If the data matches, the TDC will scan the boarding pass to determine the (b) (7)(E) and the traveler will proceed to the appropriate screening lane.
- If the image is a match but the biographic data from CBP does not match the boarding pass, the TDC will process the traveler per TSA SOPs and the traveler will proceed to the appropriate screening lane.
- If the image is not a match, the TDC will process the traveler per TSA SOPs and refer the traveler to the CBP officer for adjudication.

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(b) (7)(E)



### 3.2 CBP Operations

During Phase II, CBPOs assigned to the TSA checkpoint will adjudicate TSA referrals originating from the TVS process. CBPOs will be equipped with Biometric Exit Mobile Application (BEMA) devices. All TVS no matches will be referred to BEMA for processing. The CBPO will request travel documents from the traveler and examine the documents to verify authenticity and determine identity and citizenship. For non-U.S. citizens, CBP will access the referral in BEMA. CBPOs will determine the appropriate Course of Action as outlined in this

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document for biometric capture or exemption.

**3.2.1 U.S. Citizens**

For the purpose of this pilot, U.S. citizens will have their photo captured for identity verification at the TDC. If a U.S. citizen does not match a photo in the TVS gallery and is referred to CBP for exception processing, the CBPO will:

- Request the travel document.
- Conduct a manual examination of the document to determine authenticity.
- Establish U.S. citizenship and verify identity.
- If satisfied the traveler is a U.S. citizen, allow the traveler to proceed to the appropriate screening lane.
- If at any time, the CBPO determines that the subject is an imposter, the passport was obtained through fraud, or there is any other reason that may require adverse or law enforcement action, the CBPO will follow current SOPs.

U.S. citizens may choose to opt out of the photo capture process. When this occurs, the TDC should process the traveler per TSA SOPs and refer the traveler to the CBPO for adjudication.

**3.2.2 Lawful Permanent Residents (LPR), Non-immigrants, Refugees, Asylees, Parolees**

If an LPR or other alien does not match a photo in the TVS gallery and is referred to CBP for exception processing, the CBPO will:

- Request the travel document, to include passport if applicable. In the case of LPRs, enroll the biographic data from the resident card.
- Verify validity and authenticity of the documents.

- (b) (7)(E) [REDACTED]
- (b) (7)(E) [REDACTED]
- (b) [REDACTED]

**3.2.3 Diplomats, Canadians, and Visa Exempt Countries**

For the purpose of this pilot, diplomats, Canadian citizens (traveling as non-immigrants), and visa exempt countries will provide photos for identity verification at the TDC, but are exempt from the collection of additional biometrics or biographic data. If the alien does not match a photo in the TVS gallery and is referred to CBP for exception processing, the CBPO will:

- Request the travel document.
- Conduct a manual examination of the document to determine authenticity.
- Establish citizenship and identity verification.
- If satisfied that the traveler is in lawful status, allow to proceed to the appropriate screening lane or gate depending on CBP's location at the checkpoint.
- (b) [REDACTED]

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(b) (7)(E)

### 3.2.4 Entry Without Inspection

(b) (7)(E)

### 3.3 Staffing Considerations

TSA is responsible for staffing related to normal TSA operations and the TDC staff, which includes TVS camera operations. CBP is responsible for staffing CBPOs during Phase II operations. CBP is also responsible for providing staffing for escorts, arrests, or other law enforcement responses.

### 3.4 Required Equipment

CBP will provide (b) cameras and signage at the TSA checkpoint. CBP Headquarters will provide BEMA or other mobile devices to the CBPO assigned to checkpoint operations. TSA will provide mobile devices to the TDCs at the TSA checkpoint.

### 4.0 Phase III and Future Pilots

Phase III timelines and procedures (b) (5)

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