TSA's Innovation Task Force

ADSA Workshop 20

MAY 15, 2019

Transportation Security Administration

RCA | REQUIREMENTS & CAPABILITIES ANALYSIS

Table of Contents

Transportation
Security
Administration

RCA | REQUIREMENTS &
CAPABILITIES ANALYSIS

The Innovation Task Force

The Innovation Task Force

Founded in 2016, ITF was initiated and championed by TSA out of a need heard from industry to better understand the operational environment earlier in the development cycle and from TSA to better define requirements to close capability gaps in partnership with stakeholders.

Our Mission

Foster innovation by integrating key stakeholders to identify and demonstrate emerging solutions that increase security effectiveness and efficiency, improve passenger experience and the flow of commerce, and deliver solutions that secure the freedom of movement throughout the nation's transportation system.

Collaborate

Convene the aviation security ecosystem to identify and demonstrate solutions

Demonstrate

Establish the capability for TSA to quickly demonstrate innovative solutions

Assess

Measure solution effectiveness to achieve the optimized future state and provide vendors with data to improve solutions
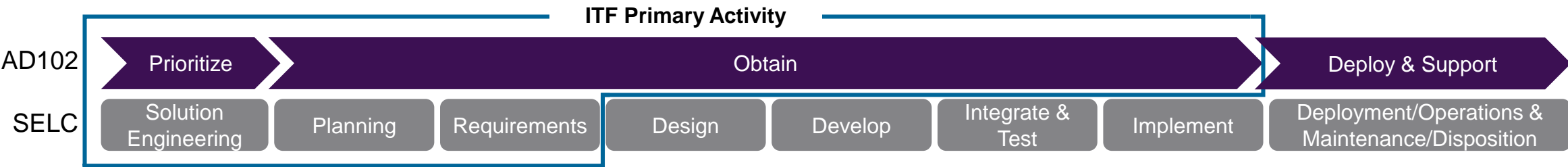
About ITF

ITF Responsibilities

To demonstrate emerging capabilities across the transportation security ecosystem in partnership with stakeholders and support TSA's broader goal to advance, innovate, and adapt.

To diversify the industrial base and provide industry increased access to operational data, which allows vendors to mature solutions that will meet TSA needs.

To solicit mature people, **process**, and **technology** solutions to be rigorously evaluated and demonstrated in a live operational environment, advancing security and driving requirements.

ITF Primary Activity

AD102	Prioritize	Obtain				Deploy & Support
SELC	Solution Engineering / Planning / Requirements	Design	Develop	Integrate & Test	Implement	Deployment/Operations & Maintenance/Disposition

ITF positions TSA to **better inform upgrades** to current solutions and future capabilities, **enhancements to processes and training delivery**, long-term **investment strategy**, and future requirements and acquisitions with a **system-of-systems approach**.

Transportation Security Administration

RCA | REQUIREMENTS & CAPABILITIES ANALYSIS

5

Identifying Solutions

ITF Solicitations…

Allow ITF to work with transportation security stakeholders to identify solutions for demonstrations that meet TSA's needs.

Enable selections based on potential solution benefit to TSA and feasibility of the proposed demonstration.

Have been executed through ITF-Led BAAs (3), RFI (1), and RFQ (1), in addition to other ITF solicitation support.

IDEA Broad Agency Announcement (BAA) Submission Goals

Align to the TSA Mission

Address TSA Capability Gaps

**Improve Security Effectiveness**

Improve Screening Efficiency

Enhance the Passenger Experience

IDEA BAA Process

Release BAA → White Paper Review → Request Capability Proposals (CDPs) → CDP Review & Selection → Demonstrate

Transportation Security Administration

RCA | REQUIREMENTS & CAPABILITIES ANALYSIS

Previous ITF Demonstrations

ITF-Led solution demonstrations allow vendors to pilot their solutions in the field, capture operational data, and refine their solution for potential future engagement with TSA.
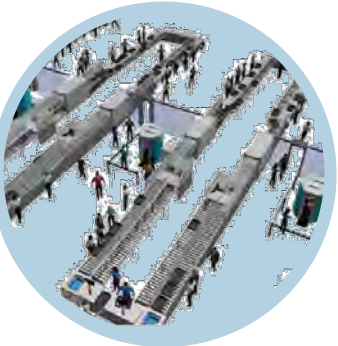
Computed Tomography (CT)
Analogic, IDSS, L3, Smiths Detection

Training Simulator
ProDetect

Explosive Trace Detection
Rigaku

Automated Screening Lanes (ASL)
MacDonald Humfrey, Scarabee, Vanderlande

Passenger Communications
Synect

Identity Verificiation
Idemia

Planning & Staff Allocation
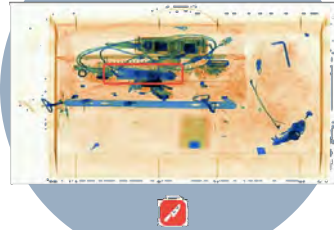Copenhagen Optimization

Upcoming ITF Demonstrations

ITF's upcoming solution demonstrations were sourced from the division's third annual Broad Agency Announcement (BAA).

Identity Verification

Explosive Trace Detection
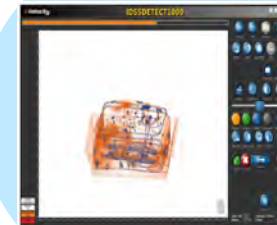
Officer Tools

On-Person Screening

Officer Tools

Shoe Analyzer

Passenger Communications
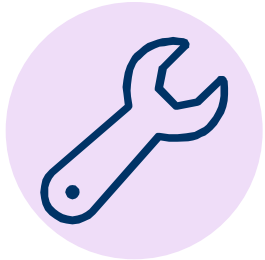
Continuous Process Improvement

Continuous Process Improvement (CPI), enabled by Lean Six Sigma (LSS), provides **process improvement, innovation, analysis, and training** to promote **problem solving**, TSA member **resources**, and **flexible infrastructure** aligned to strategic goals that drive measurable outcomes.

Performance Improvement Capabilities

Enterprise Project Management and Execution

Transportation Security Administration

RCA | REQUIREMENTS & CAPABILITIES ANALYSIS

Informing TSA's Future State

Biometrics Solutions

TSA continues to refine and execute its strategy to leverage biometrics to enhance security effectiveness, increase efficiency, and improve the passenger experience.

2015

Biometric Integrated Project Team (IPT) chartered

2017

May
Demonstration: Biometric Authentication Technology (BAT) at ATL and DEN

October
Pilot: TDC Biometrics (CBP/TSA Phase I) at JFK

.

2018

May
Demonstration: Travel Document Checker (TDC) process automation

August - October
Pilot: TDC Biometrics (CBP/TSA Phase II) at LAX

November 2019
Pilot: curb-to-gate biometrics in ATL Terminal F, coordination with CBP and Delta Airlines

Future

Late 2019
Pilot: TDC Biometrics system (CBP/TSA Phase III)
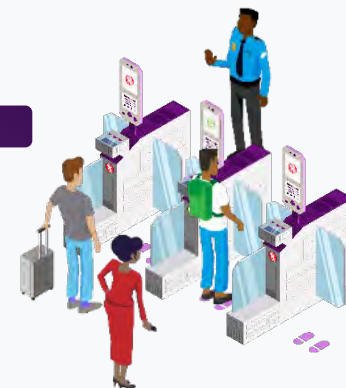
Integrated Identity Verification System for Aviation Travelers

TSA is developing front end solution requirements, designing back-end system architecture, and demonstrating innovative solutions to gain lessons learned from field operations and address capability needs.

Checkpoint Screening Solutions

Checkpoint CT

To meet emerging and evolving threats related to the aviation transportation sector, TSA must pursue sustained technology for checkpoint screening. The most impactful and suitable technology available today is the Computed Tomography (CT) technologies.

CT systems with a rotating x-ray gantry take helical scans of items to produce 3D images can be manipulated 360 degrees by the system operator.

On-Person

Requirements and Capabilities Analysis (RCA) is coordinating with various stakeholders and manufacturers to improve TSA's on-person screening capability for a future, diverse screening environment that may leverage multiple screening methods per passenger risk.

QPL Development

Next Generation Demonstrations

**Phase I:
QPS 200**

**Phase II:
QPS 201**

Transportation Security Administration

RCA | REQUIREMENTS & CAPABILITIES ANALYSIS

Innovative Checkpoint Design and ACE

Checkpoint Requirements and Planning Guide

The Checkpoint Requirements and Planning Guide (CRPG) provides information for airports to design and build for the future processes of screening, the improvement of today's passenger experience, and the flexibility to adapt to the checkpoint of tomorrow.

ASL integrated with CT in the LAS security checkpoint

Currently installed at ACE are CT units, ASLs, WTMDs, and AITs, with more equipment to come.

Advancing the Checkpoint Environment

TSA is pioneering change in the transportation security ecosystem in collaboration with McCarran International Airport (LAS). LAS has dedicated an open checkpoint space to ITF for the purpose of **demonstrating innovative solutions.** This will be accomplished through collaboration with local TSA and LAS to house and accelerate the demonstration of multiple innovative capabilities.

Future Lane Experience (FLEx) Screening

Strategic Overview

Near Term

- **Dedicate** TSA Pre✓® lanes solely to KTN holders and meet other requirements of the TSA Modernization Act
- **Enhance** passenger queueing with the deployment of a new screening type
- **Demonstrate** and evaluate new screening equipment

Long Term

- **Integrate** checkpoint technologies to enable a seamless passenger screening experience
- **Introduce** dynamic switching algorithms to offer more tailored screening based on what is known about each passenger
- **Capitalize** on collaboration with industry and airport authorities to optimize FLEx

REQUIREMENTS & CAPABILITIES ANALYSIS

Concept of Operations

Known Traveler Number Differentiation - Spring 2019 (BOS & BNA)

Queue Differentiation - Summer/Fall 2019 (TBD)

TSA Pre✓® (modified) · Green Lane (new) · Gray (Standard)

CAT

TSA Pre✓®
Trusted Travelers

Green Lane Boarding Pass

Standard Population

Gray Lane (Standard)

New Signage → Gray

Green
Green Lane Boarding Pass

Standard Population

New Boarding Pass markings
- Green Lane Boarding Pass: "Green"
- Standard Lane Boarding Pass: "Gray"

Transportation Security Administration

RCA | REQUIREMENTS & CAPABILITIES ANALYSIS

16
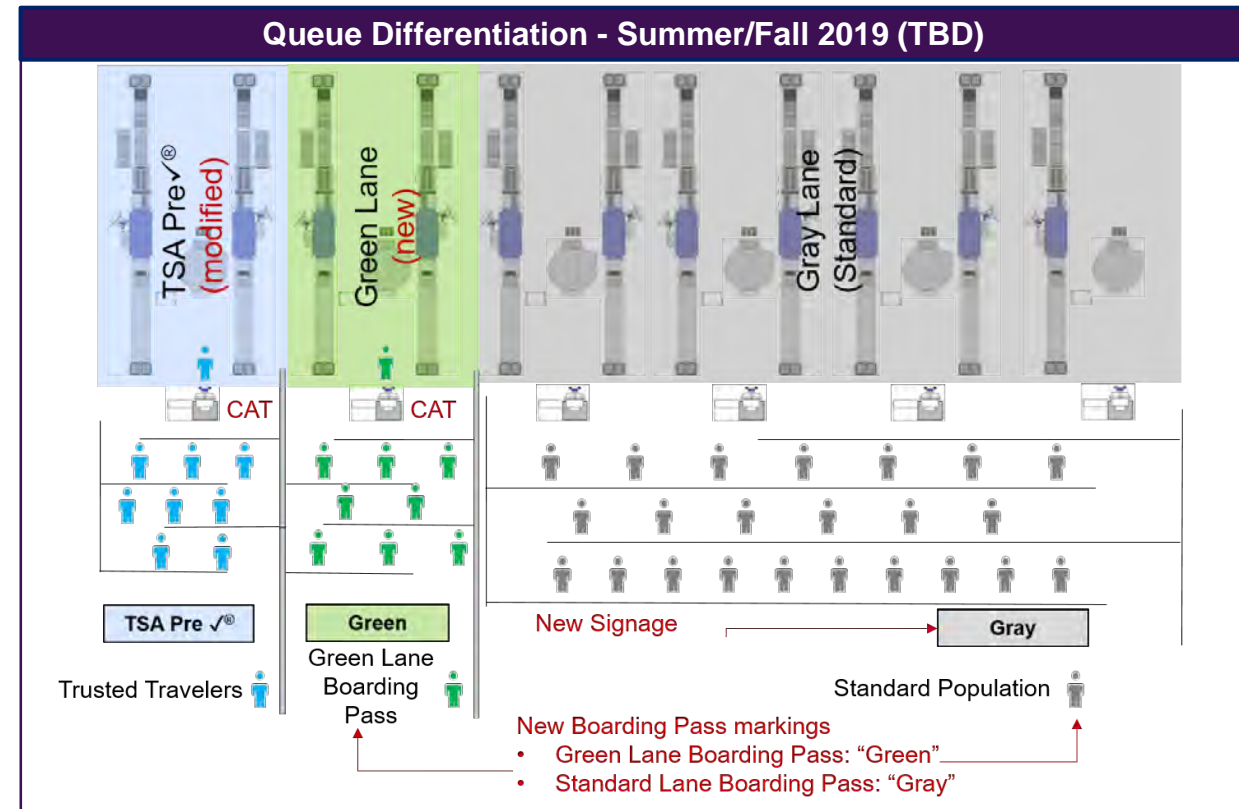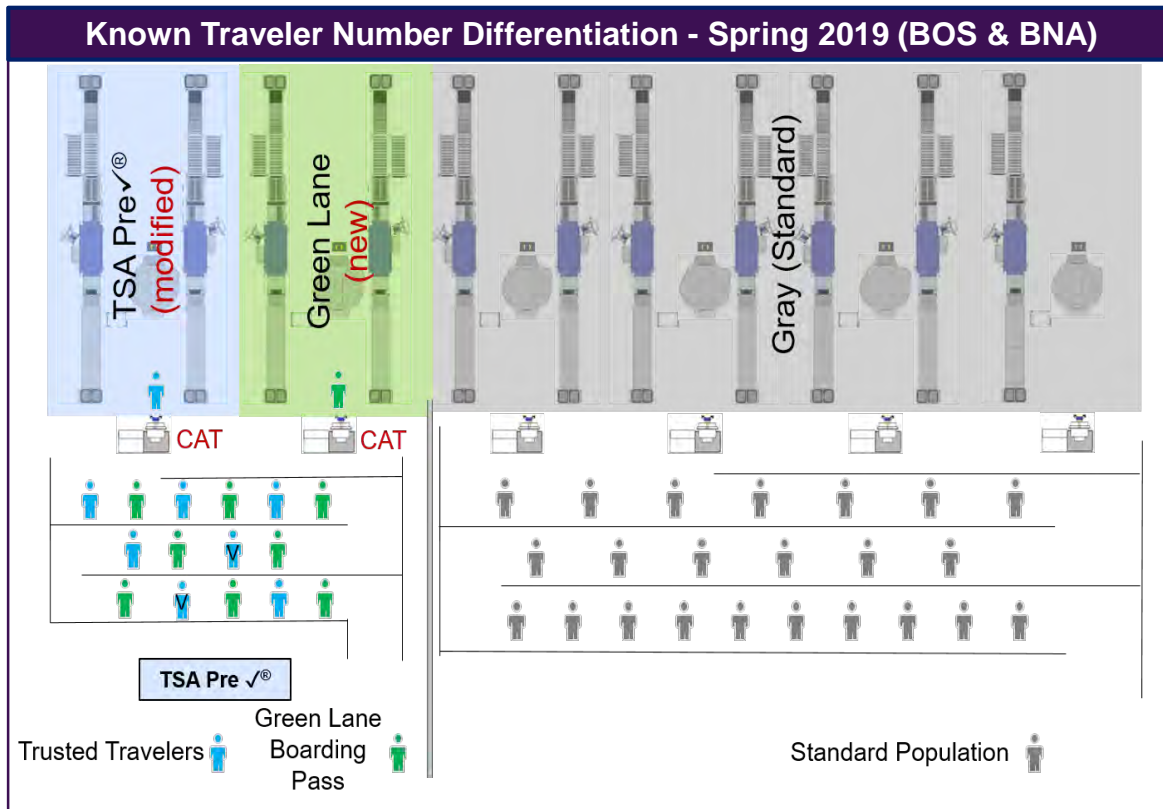
Thank you.

Accelerating smart solutions
for secure and seamless travel

TSA Innovation Task Force
TSA.gov/ITF