



Innovation Task Force

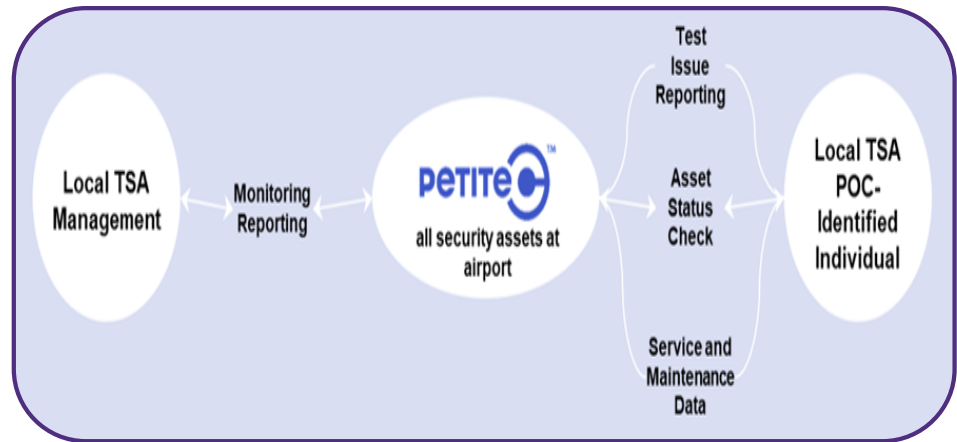


ITF DEMONSTRATION UPDATES

Curie Demonstration Close-Out

The Transportation Security Administration (TSA) Innovation Task Force (ITF) concluded the demonstration of the petiteC™ software solution developed by Curie Technologies Inc. in July. The software has the capability to enable seamless security asset management information sharing between TSA and relevant stakeholders to enhance cooperation and operational performance. The technology was demonstrated at Miami International Airport (MIA), George Bush Intercontinental Airport (IAH), and Harry Reid International Airport (LAS).

Human Factors conducted focus group assessments at all three sites to determine petiteC™'s efficiency of reporting asset maintenance concerns and status inquiries to Transportation Security Officers (TSOs), equipment manufacturers and maintenance technicians. ITF is currently preparing the demonstration close-out brief to key stakeholders to inform decision making for appropriate next steps.



petiteC™ graphic demonstrating its role in asset management information sharing.

Ironwood Demonstration Close-Out

Ironwood Enlight™ is an artificial intelligence (AI) product that provides automated on-demand cyber vulnerability risk assessments and penetration testing of Information Technology (IT) environments. ITF's demonstrations seek to evaluate Ironwood Enlight™ on a remote screening cross lane Computed Tomography (CT) checkpoint network, measuring its effectiveness for detecting security and compliance vulnerabilities while maintaining the operational integrity of the CT network. ITF conducted the assessment in June at the Analogic facility and will conclude the demonstration by transitioning the solution to the IT Information Assurance Division (IAD) for further development and potential procurement.

John Hopkins University Applied Physics Laboratory (JHU/APL) Update

The John Hopkins University Applied Physics Laboratory (JHU/APL) Swab Sampling Efficiency Assessment Tool (SSEAT) Demonstration Kick-Off commenced in August. This prototype was designed to offer a cost-effective, user-friendly approach to quantifying explosive trace detection (ETD) sampling efficiency, aimed at improving training and providing actionable feedback for TSOs. The solution seeks to standardize ETD sample collection techniques to enhance the quality of the sample collection process.

ITF completed Phase 1, which involved training TSOs. Phase 2 began on August 19, 2024, and focuses on collecting baseline assessment scores from participating operators. This progression will help evaluate the effectiveness of the SSEAT tool in standardizing efficient swabbing techniques.

Innovation Cloud Introduction

ITF is working with IT to build the Innovation Cloud, a secure virtual environment within TSA's agency-wide Amazon Web Services (AWS) that will allow TSA to rapidly demonstrate and assess cutting edge data processing technologies that aim to enhance security effectiveness, passenger experience, and the TSO workplace. The Innovation Cloud will enable the ITF to conduct demonstrations or proofs of concept with production and sensitive SSI data to provide stakeholders with relevant use cases and application of real-world scenarios. There are four active efforts addressing capability gaps which require the Innovation Cloud, including the RCA Data Transfer Hub, Mobile Staffing, Scheduling, Time and Attendance (SSTA) Optimization, Automated Field Data Collection, and DevTech Risk-Modulated Resource Screening (RiMS). The Innovation Cloud will be completed by Q3 FY 2025.

See True Demonstration Update

The SeeTrue Automatic Prohibitive Item Detection (APID) 3rd Party Algorithm is designed to integrate seamlessly with existing TSA Computed CT Original Equipment Manufacturing (OEM) systems, particularly International Defense & Security Solutions (IDSS), to enhance the overall efficiency of security screening processes. Its key objective is to identify Prohibited Items (PI) in passenger's carry-on luggage while achieving high detection rates and maintaining low false alarm rates. In May, the SeeTrue PI Detection Algorithm demonstration achieved a significant milestone using the IDSS CT Scanner at LAS, by showcasing the algorithm's effectiveness in prohibited item detection as well as enhancing operational efficiency.

ITF's focus has shifted to exploring opportunities to demonstrate SeeTrue on additional CT systems.



Self-Service Screening Technology at LAS.

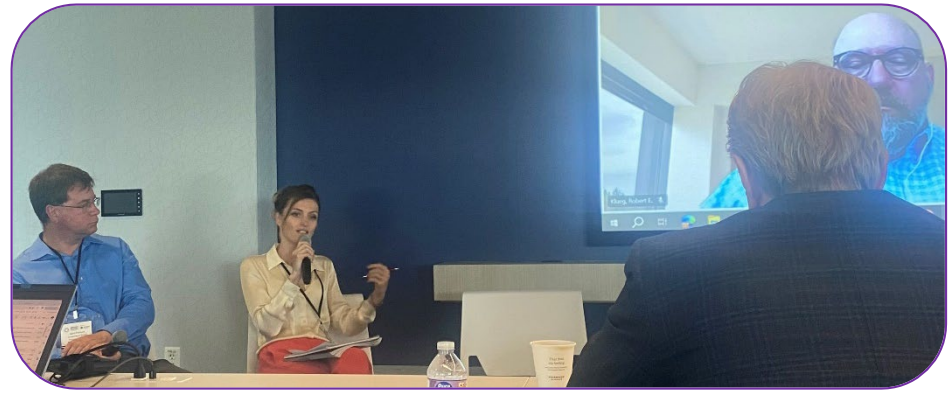
Self-Service Screening (SSS) Demonstration Update

The SSS effort that TSA is undertaking in partnership with the Department of Homeland Security Science & Technology Directorate (DHS S&T) includes system concept design, prototype design and development, system integration, subsystem maturation, and system demonstration. There are two prototype systems currently being explored. The first, the SSS Integrated System, initially intended for TSA PreCheck® Passengers, is installed at the Innovation Checkpoint at LAS. Operational, Functional, Safety, Cybersecurity, and Human Factors Assessments began in early 2024. The final assessments and briefings were completed in April 2024. These findings and feedback will inform the next steps, identify further research and development needs, refine requirements and shape future design and developmental iterations. The second system, the SSS prototype pod solution, was installed at the Transportation Security Laboratory (TSL) in early 2024 and is currently undergoing image qualification testing.

INDUSTRY EXCHANGE (iX) UPDATES

ITF Briefs Small Businesses

In June, ITF Division Director Anca Alexandrescu participated in a panel titled *Steps to Consider in Technology Transition* at the DHS Small Business Innovation Research (SBIR) Program Commercialization Workshop in Washington, D.C. Ms. Alexandrescu briefed industry stakeholders alongside John Fortune, DHS S&T Program Manager, and Robert Kleug from the TSL Test and Evaluation Division (TED). The dialogue included TSA's demonstration procedures, public sector solution intake methods, how industry can best reach government partners, and TSA's vision for technology solutions of the future. ITF works with DHS SBIR as an innovation partner in demonstrating some of its emerging technology solutions.



From Left: DHS S&T Program Manager John Fortune, Acting ITF Division Director Anca Alexandrescu, and Robert Kleug from the TSL Test and Evaluation Division (TED) at the DHS SBIR Program.

Global Security Exchange (GSX)

ITF is attending the (GSX) from September 23-25, 2024 in Orlando, FL to meet with aviation stakeholders who are leading key innovations in security technology and management. The conference includes panels that will discuss how to remain resilient against evolving cyber and physical threats and adapt to pivotal technological advancements in security. There will be GSX exhibitors displaying new products, technologies, and services that could advance TSA's cyber and physical security capabilities and help navigate risks.



TSA Requirements and Capabilities Analysis (RCA) Executive Director for Capability Management and Innovation (CM&I) Melissa Conley speaking on a panel at FTE 2023.

Come see us at Future Travel Experience (FTE) 2024!

From October 28-30, 2024, ITF will host an exhibition booth at the FTE Global Conference at the Long Beach Convention Center in CA to collaborate with potential solution providers. The conference has multiple educational tracks focused on all aspects of airport operations, security processes, and defining tomorrow's end-to-end passenger experience. Its audience aligns directly with TSA and ITF's mission spaces and will provide a valuable opportunity for the agency to engage directly with key stakeholders across the aviation ecosystem.

TSA senior leaders are slated to speak on five panels covering topics such as digital identity and biometrics, next generation strategies for tomorrow's airports, transforming the ways airports and airlines operate and serve passengers, technology innovation, and a collaborative workshop with U.S. Customs and Border Protection (CBP).

AIRPORT INNOVATION FORUM

FY24 Q4 Airport Innovation Forum (AIF) – September 5th from 2:00 – 3:30 PM EST

On September 5, 2024, the AIF brought together ITF Innovation Sites to facilitate dialogue on Q4 of FY 2024. The meeting included briefings on Synect's ReadySeeGo Digital Signage, NotLost's Lost Property/Confiscated Item Software Tool, the Denver International Airport (DEN) Terminal West upgrades, and the Capability Acceptance Program (CAP) process. ITF also provided updates on two demonstrations that are in the closeout process: Curie Technologies (Asset Maintenance Software) and Ironwood (Cyber Vulnerability Risk Assessment Tool).

ITF UPDATES

Automated Field Data Collection Activities – Commercial Solutions Opening Pilot (CSOP)

The objective of this project is to increase the level of automation and reduce the manual effort required to collect data element standards in the field, across the various screening configurations. A prototype solution to this problem statement should produce a set of automated data collection tools to provide cycle time, throughput, and processing time data for the checkpoint and checked baggage areas. ITF utilized the DHS CSOP process to competitively procure innovative solutions to this problem statement.

Phase I Evaluations were completed in July 2024, and invitations to Phase II were sent shortly after. Phase II Proposals were due in August 2024 and the CSOP will be awarded to the selected vendor(s) in September 2024.

Mobile Staffing, Scheduling, Time and Attendance (SSTA) Optimization – HSWERX

In August 2022, ITF's Problem Statement Intake program received three problem statements from across the RCA program office, which were later compiled into one and titled "Mobile Staffing, SSTA Optimization". HSWERX is supporting ITF through the proof-of-concept and will assist with the transition to low-rate production as determined based on available resources to scale the solution. In June 2024, ITF finalized the business-to-business agreement between HSWERX and IBM, and ITF commenced the Phase I Mobile Proof of Concept. The Phase II Projected Beta Testing for both the Mobile and Plan of Day (PoD) pieces can be demonstrated once the Innovation Cloud has been established in 2025.

RCA Data Transfer Hub (RDTH)

In response to a problem statement ITF received, ITF is collaborating with Pacific Northwest National Laboratories (PNNL) to develop a secure file sharing capability that would enable sharing large amounts of data (i.e., X-ray and Computed Tomography (CT) images) to authorized third-party stakeholders, such as vendors, OEMs, academia, federally funded research and development centers (FFRDC), and other U.S. federal agencies. This solution would leverage the TSA/ITF Innovation Cloud environment by replicating similar systems PNNL designed for CBP to securely communicate with outside entities who do not have government furnished equipment (GFE) and do not typically have access to the TSA network. Phase I User Acceptance Testing is planned to be completed in PNNL's environment by September 30, 2024. Follow-on testing for RDTH will leverage the ITF Innovation Cloud environment for Phase 2 in FY25 and Phase 3 in FY26.

Upcoming FY24 iX Events

- Global Security Exchange: September 23-25, 2024 – Orlando, FL
- Future Travel Experience: October 28-30, 2024 - Long Beach, CA

Please visit our website and social media accounts below to learn more about how TSA is accelerating new technologies and solutions at checkpoints around the country.

