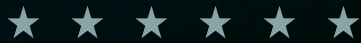


Checked Baggage

Walt Dickey
Director



ACC/TSA Security Capabilities Workshop

July 25, 2018



**Transportation
Security
Administration**



Key Topics

- Checked Baggage Overview
- Funding Priorities
- FY18-23 Funding Outlook
- FY18-20 Planned Funding Activities
- Airport Reimbursement
- Airport Projects Overview
- Path to False Alarm Reduction
- Cybersecurity Compliance

Checked Baggage Overview



EBSP Strategic Priorities

- 1 Comply with Congressional Mandates
- 2 Screen for Homemade Explosives (HME)
- 3 Enhance Detection Capabilities
- 4 Improve Operational Efficiency and Future Capabilities

1,633
deployed units

164
planned EDS
purchases in
FY18

2 improved
acquisition
processes piloted

1 Comply with Congressional mandates



Airport Reimbursement

Reimburse \$217.8M to 14 airports per the Reimbursement Funding Execution Plan



Cybersecurity

Define and map FISMA boundaries & applicable cyber controls, obtain ATO for legacy equipment in FY20, and manage compliance

2 Screen for Homemade Explosives (HME)



Algorithms

Complete testing and deploying enhanced algorithms



Upgrades

Develop and test enhanced algorithms capabilities



Recapitalization

Through OTAs, recap specific EDS unable to meet the next level of detection requirements



Streamlined Processes

Pursue delegated acquisition authority to TSA and decoupled Detection Functional Requirements Documents (DFRD) from Detection Standards



4 Improve Operational Efficiency and Future Capabilities



New in-line and airport efficiency projects

Installation of new in-line systems or CBIS improvements to meet PGDS requirements



Additional unplanned/unfunded requirements

Should resources become available, pursue projects including deep learning, imaging improvements, dynamic switching, common network, and new alarm resolution technology

3 Enable Full-time Enhanced Screening:



Algorithms

Develop and test algorithms based on threat preference



Machine Learning

Reduce false alarms to operate HME detection without increasing staffing levels



Common GUI & On-screen resolution in CBRA (OIC)

Resolve alarms more efficiently without increasing staffing levels



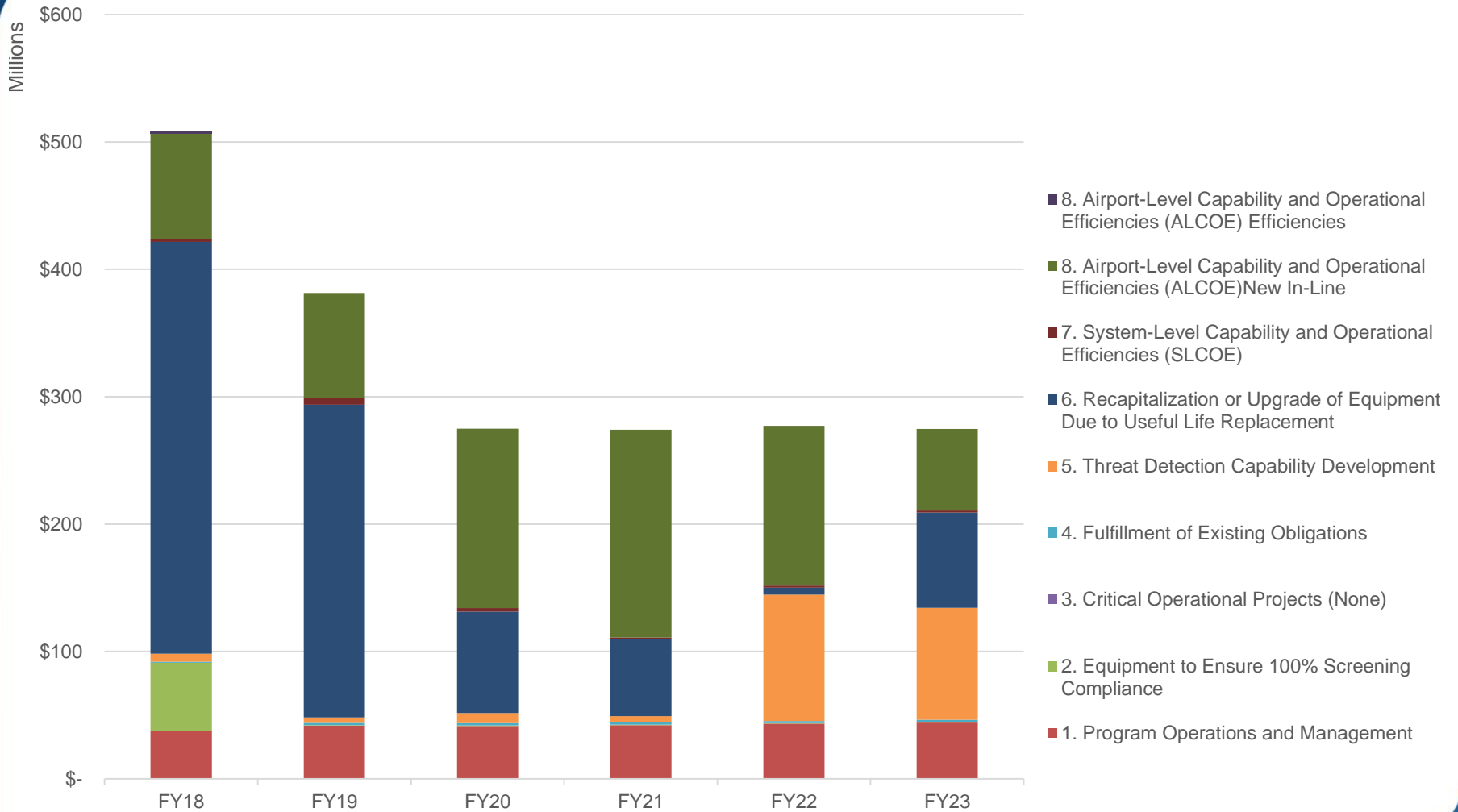
Non-Materiel Solutions

Utilize Tactics, Techniques, and Procedures (TTP) to more efficiently and effectively resolve alarms

Funding Priorities

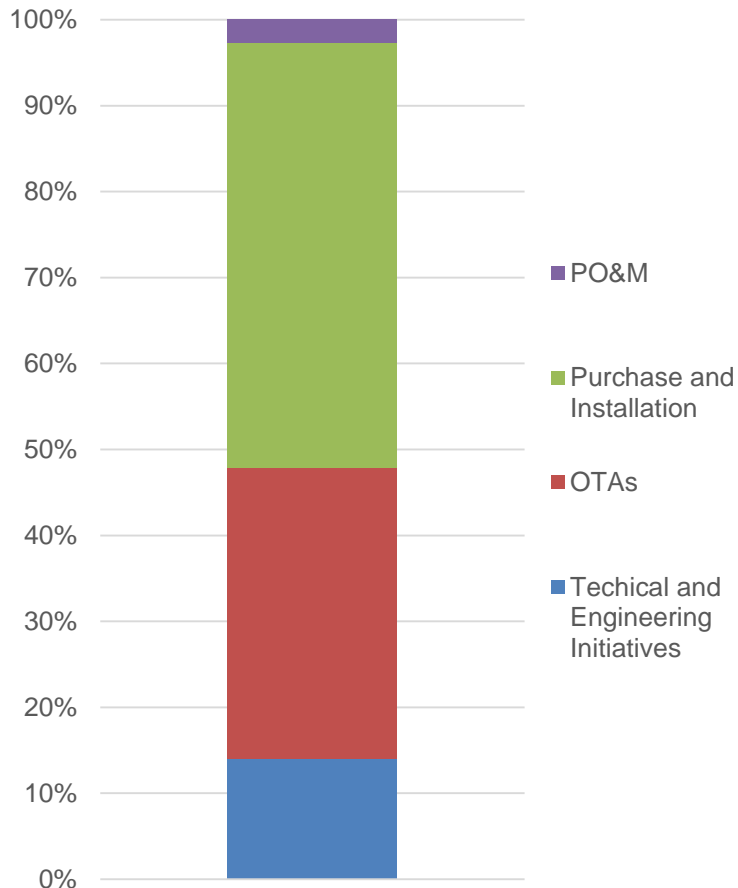
Priority	Description
1. Program Operations and Management	Managing the program including staffing, training, and other critical costs required to execute the program.
2. Equipment to Ensure 100% Screening Compliance	Procurement and deployment of TSE (including EDS and Explosives Trace Detection units) to maintain 100% screening compliance (exclusively limited to P&I).
3. Critical Operational Projects	Urgent projects funded by EBSP to quickly remedy issues which inhibit 100% screening compliance.
4. Fulfillment of Existing Obligations	Fulfillment of existing commitments to airport operators for projects with executed OTAs. This is limited to the purchase and installation of equipment required for those projects.
5. Threat Detection Capability Development	Development of threat detection capabilities in support of new threat detection standards. Such capabilities can be achieved through software and/or minor hardware field upgrades for currently deployed TSE. This does not include the deployment of these capabilities.
6. Recapitalization or Upgrade of Equipment Due for Useful Life Replacement	The replacement or upgrade of TSE which have reached end of useful life, based on technical obsolescence and other program drivers. This includes funding the design and construction associated with recapitalization, deployment of new threat detection capabilities, deployment of program milestone capabilities, and required network upgrades.
7. System-Level Capability and Operational Efficiencies (SLCOE)	Development and deployment of TSE system-level advancements, process improvement efforts, and operational efficiencies. This only includes TSE-related efficiencies.
8. Airport-Level Capability and Operational Efficiencies (ALCOE)	Installation of new in-line systems or CBIS improvements to meet PGDS requirements. CBIS improvements encompass the identification and implementation of screening efficiencies from both a system and resource perspective, which can include the removal and reinstallation of BHS components, consolidation of BHS and CBRA matrices, and increases to CBIS sizes.
9. Reimbursement of Systems Completed without a TSA Funding Agreement	Reimbursement to airport operators who had a reasonable expectation of reimbursement for costs with the construction and deployment of in-line screening systems incurred in the absence of a LOI or OTA with TSA. Requests for reimbursement must be evaluated and validated in accordance to the current EBSP Reimbursement Review and Validation Plan.

FY18-23 Lifecycle Cost Estimate



FY18 Planned Activities

FY18 Planned Funding



PO&M

- Travel, Training and Supplies
- Project Management Support Services
- Contract Support
- Engineering Support

Purchase and Installation

- Planned Purchases: 164 EDS
 - Recap of Reduced-Size EDS
 - Recap of CTX-9000/9400s
- Recap of ETD: 1898

Facility Modifications (OTAs)

New In-line and Recap Projects

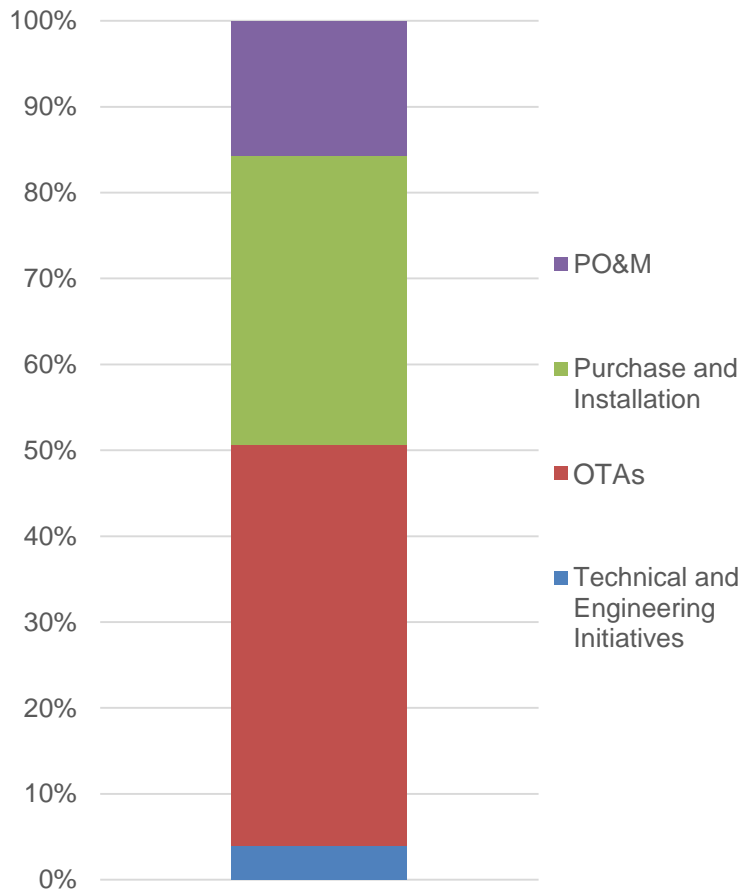
- Planned Designs: 21
- Planned Facility Modifications: 15
- Planned Design/Facility Modifications: 2

Technical and Engineering Initiatives

- Develop/deploy EDS upgrade kits
- Develop and deploy enhanced threat detection algorithms
- Enhance alarm resolution capabilities
- Develop and deploy Reduced-Size EDS Upgrade Kits

FY19 Planned Activities

FY19 Planned Funding



PO&M

- Travel, Training and Supplies
- Project Management Support Services
- Contract Support
- Engineering Support

Purchase and Installation

- Planned Purchases: 51 EDS
 - Recap of CTX-9000/9400s

Facility Modifications (OTAs)

New In-line and Recap Projects

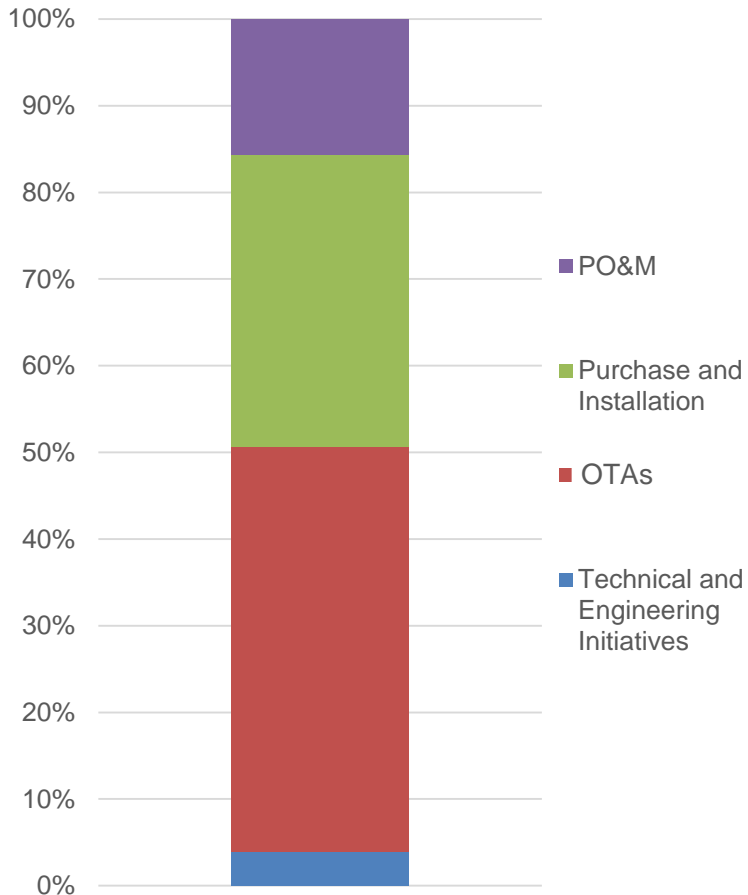
- Planned Designs: 11
- Planned Facility Modifications: 12

Technical and Engineering Initiatives

- Develop enhanced threat detection algorithms
- Upgrade In-line EDS networks
- Deploy information technology security enhancements

FY20 Planned Activities

FY20 Planned Funding



PO&M

- Travel, Training and Supplies
- Project Management Support Services
- Contract Support
- Engineering Support

Purchase and Installation

- Planned Purchases: 54 EDS
 - Recap of CTX-9000/9400s

Facility Modifications (OTAs)

- New In-line and Recap Projects
- Projects Planned Designs: 12
 - Planned Facility Modifications: 13

Technical and Engineering Initiatives

- Develop and deploy enhanced threat detection algorithms
- Deploy EDS upgrade kits and network upgrades
- Enhance alarm resolution capabilities

Airport Reimbursement

TSA will provide funds equivalent to \$217.8M to reimburse the allowable and allocable validated costs to the 16 eligible projects at 14 airports.

Accomplishments

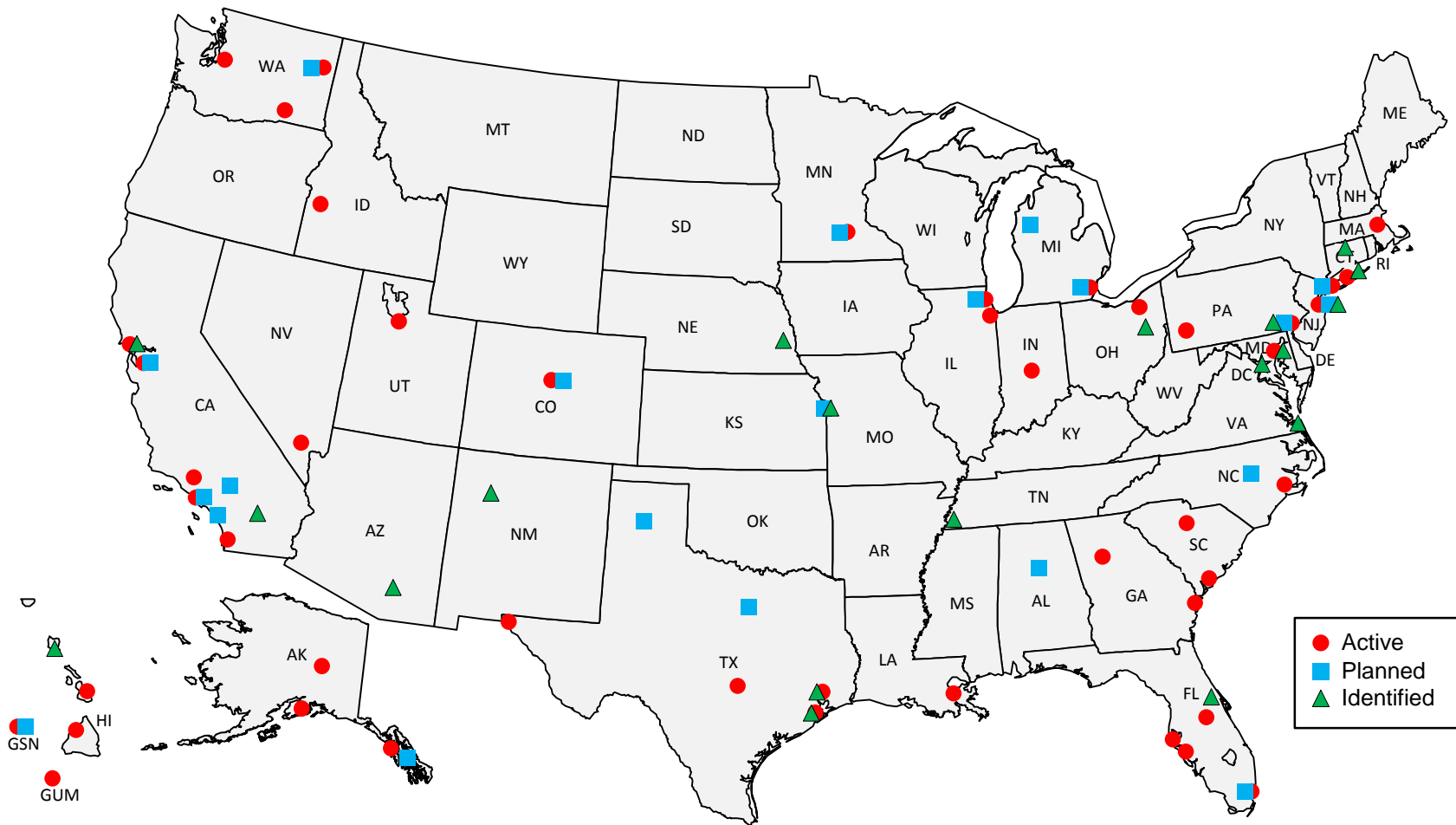
1. Distributed letters notifying airports of eligible reimbursement amount
2. Finalized airport reimbursement list with costs, received no appeals from airports
3. Omnibus Appropriations provided \$50M toward reimbursement in FY18
4. Developed an execution plan to equitably divide funding across the 14 airports as funding becomes available

Reimbursement Review and Validation Plan

Phase	FY16				FY17				FY18			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Solicit Airports for Reimbursement Justification Request				■								
Review Requests to Determine if Projects Meet Initial Eligibility Criteria					■							
Notify Airports of Project Reimbursement Qualification Results						■						
Update Airport Reimbursement List							■					
Validate Detailed Project Cost Information								■				
Notify Airports of Project Cost Evaluation Results									■			
Finalize Airport Reimbursement List and Finalize Execution Plan									■	■		

Key
| Current Date

Airport Projects Map



Airport Projects Detail

New In-Line Screening Systems

From FY18-23, 108 EDS units will be purchased for new in-line systems.

New In-Line Projects

1. Airport projects typically require a Design and Facility Modification (FacMod) OTA and take approximately 3-5 years to complete. Thus, obligated funds may not be fully expended until 3-5 years after obligation
2. Design OTAs fund the design review process which defines project scope in five stages
3. FacMod OTAs fund the construction of the CBIS infrastructure

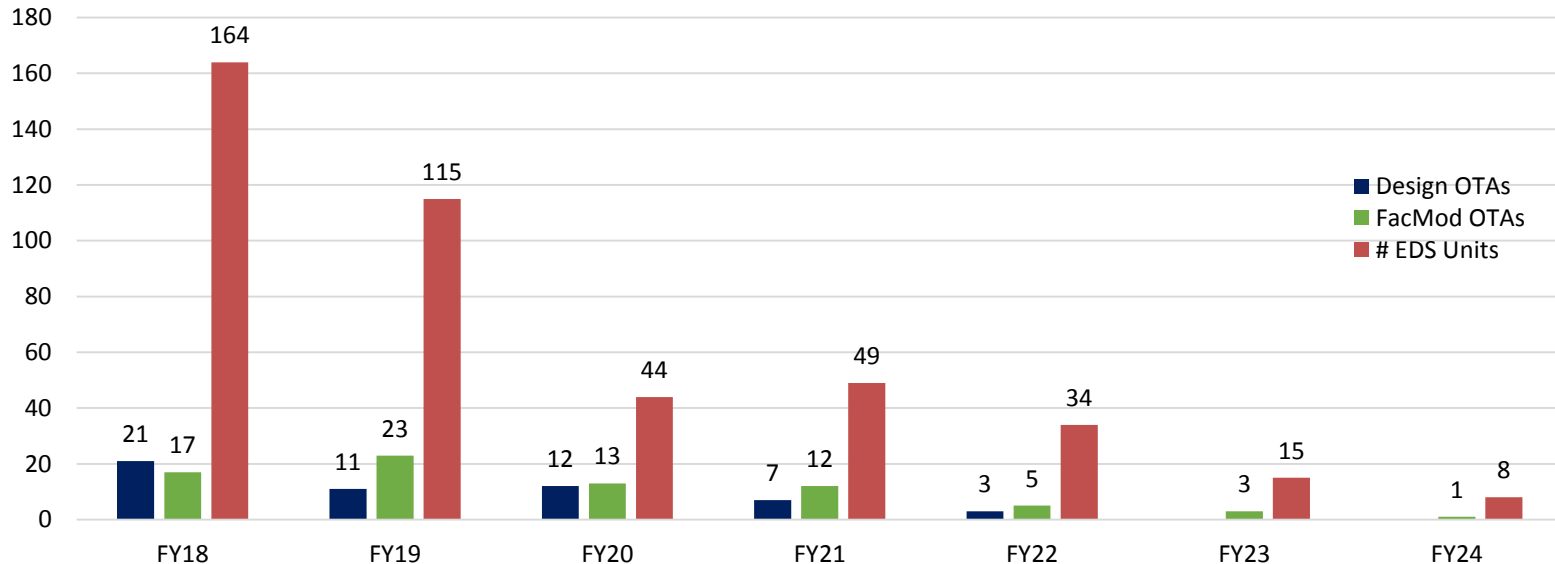
EDS and ETD Recapitalization

From FY18-23, 348 EDS units will be purchased for recapitalization and 1898 ETD units.

Recap Guiding Principles

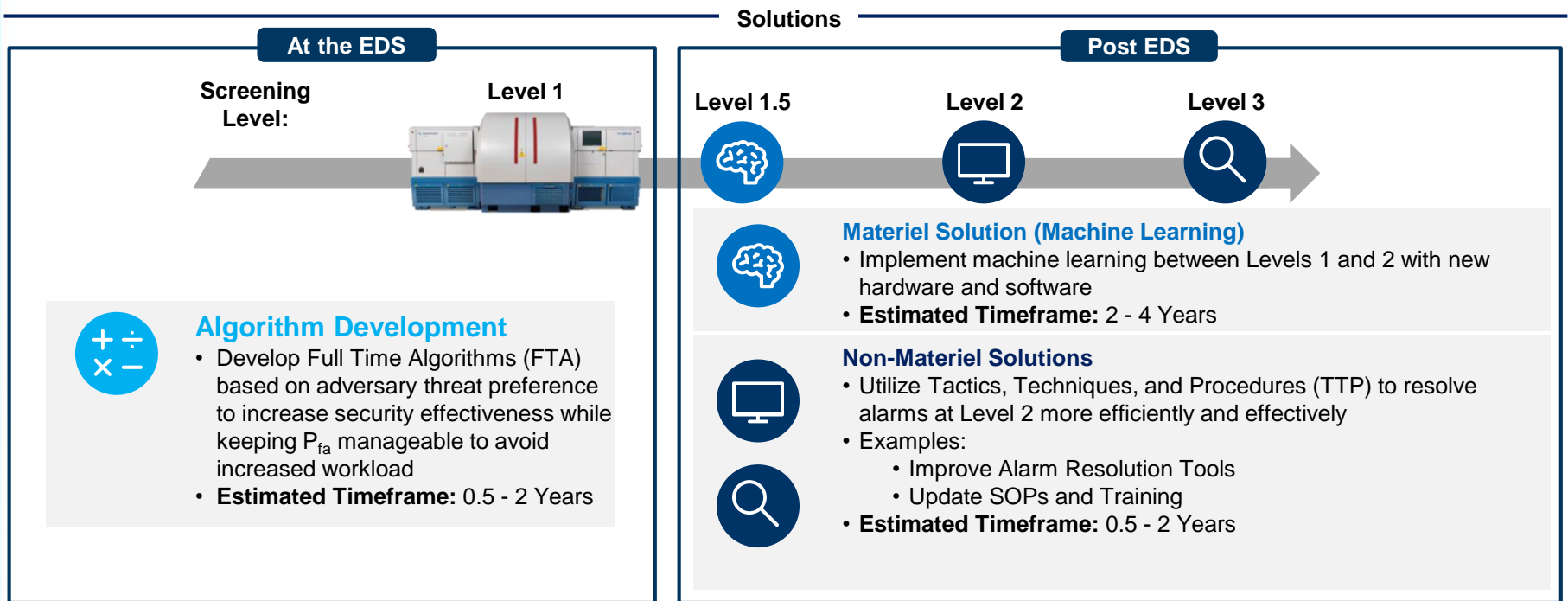
1. Replace technically obsolete or non-serviceable EDS and ETD
2. Ensure no negative impact to existing operations and capabilities
3. Maintain current system's designed footprint
4. Use competitive bidding by qualified vendors, where applicable, to reduce costs and improve performance of checked baggage screening systems

Project Forecast



Path to False Alarm Reduction

Enhanced detection capabilities have resulted in increases to false alarms and an increased workload for Transportation Security Officers (TSOs). TSA is working to identify methods to increase security effectiveness, reduce false alarms, and improve operational efficiency.



Next Steps

1. Optimize EBSP-specific detection requirements based on threat preference and Requirements Capability Analysis feedback
2. Modify current contracts to incorporate false alarm reduction requirements
3. Implement modeling and simulation platforms to augment algorithm testing efforts

Related Projects

- Imaging Improvements: Differential phase contrast, image standards, and common image formats
- Deep Learning: Object classification, anomaly identification, and stream of commerce analysis

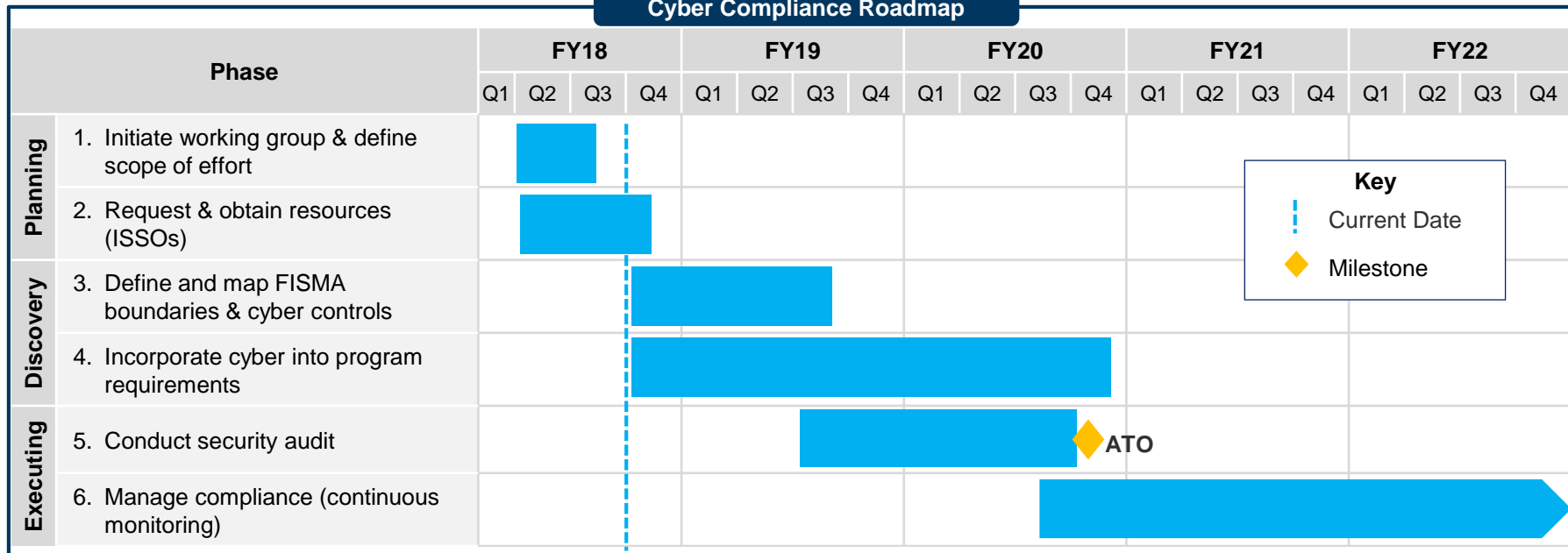
Cybersecurity Compliance

TSA is working to manage cyber compliance under the Federal Information Technology Acquisition Reform Act (FITARA) and ensure IT investments of the TSA meet the requirements of applicable cybersecurity laws, policies, and directives.

Guiding Principles

1. Define Federal Information Security Management Act (FISMA) boundaries and applicable cyber requirements
2. Obtain Authority to Operate (ATO) and manage compliance

Cyber Compliance Roadmap



Related Projects

- Airport High Availability Level (HAL) Study
- OEM Network Asset & Inventory Reviews
- OEM Network Remediation
- Connectivity through TSA Security Technology Integrated Program

EDS-Competitive Procurement 2 (CP2) Requirements and Schedule

CP2 is a new procurement strategy, which will update functional requirements by transitioning from EDS speed and size designators to Type 1 (Inline) and Type 2 (Stand-alone and Mini-Inline) functional categories. CP2 will focus on improving security effectiveness through incremental capability enhancements. CP2 is not a new acquisition program.

Requirements

Track 0: *Baseline*

CP2 encompasses the existing CP1 requirements by establishing thresholds and objectives and includes the following changes:


- Elimination of Non-min Shalls
- Removal of Shoulds, obsolete items, and ambiguity

Future Tracks

Future capability enhancements:

- | | | | |
|------------------------------|--|---|-------------------------|
| 1 ANSI N42.45-2011 | 3 Common GUI | 5 Reduced False Alarm Capabilities | 7 Cyber Security |
| 2 OSARP in CBRA (OIC) | 4 Enhanced Detection Algorithms | 6 STIP Connectivity | |

Planned Solicitation Windows

EDS-CP2 Type & Track		FY18				FY19			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Type II (Stand-alone & Mini-Inline)	Track 0				Industry Day 				
Type I (In-Line)	Track 1								

Key

-  Current Date
-  Milestone

Way Ahead

1

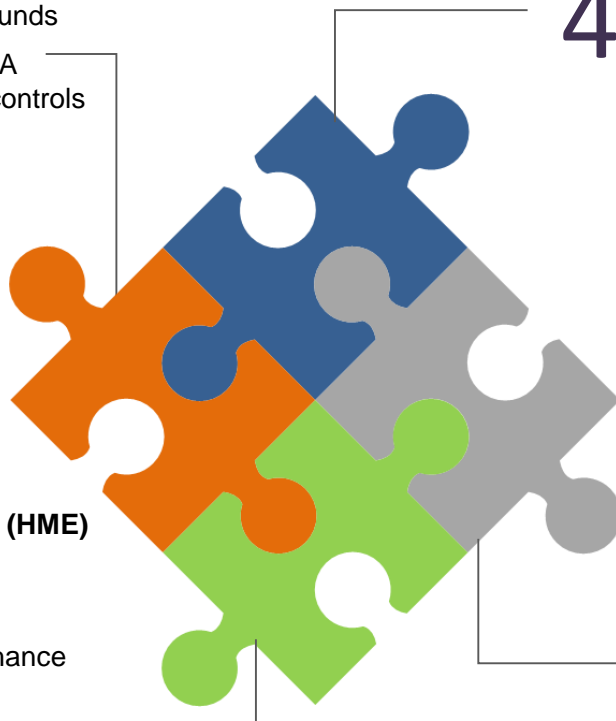
Comply with Congressional Mandates

- Disburse Airport Reimbursement funds
- Collaborate with IT to define FISMA boundaries and applicable cyber controls

2

Screen for Homemade Explosives (HME)

- Complete testing and deploying enhanced security capabilities
- Develop and test upgrades to enhance detection capabilities
- Recap specific EDS unable to meet the next level of detection requirements
- Pursue delegated acquisition authority to TSA and decoupled DFRD from Detection Standards



4

Improve Operational Efficiency and Future Capabilities

- Install new in-line systems or CBIS improvements to meet PGDS requirements
- Pursue projects including deep learning, imaging improvements, dynamic switching, common network, and new alarm resolution technology, as funding is available

3

Enhance Detection Capabilities

- Develop and test algorithms based on threat preference
- Reduce false alarms without increasing staffing levels
- Resolve alarms more without increasing staffing levels
- Utilize Tactics, Techniques, and Procedures (TTP) to more efficiently and effectively resolve alarms at Level 2

Questions?