

Department of Homeland Security

Science and Technology Directorate

Budget Overview



Fiscal Year 2027

Congressional Justification

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**Science and Technology Directorate
Appropriation Organization Structure**

	Level	Fund Type (* Includes Defense Funding)
Science and Technology Directorate	Component	
Operations and Support	Appropriation	
Mission Support	PPA	Discretionary - Appropriation
Laboratory Facilities	PPA	Discretionary - Appropriation
Acquisition and Operations Analysis	PPA	Discretionary - Appropriation
Procurement, Construction, and Improvements	Appropriation	
Construction and Facility Improvements	PPA	
Critical Repair/Replacement Requirement	Investment,PPA Level II	Discretionary - Appropriation
Plum Island Closure and Support	Investment,PPA Level II	Discretionary - Appropriation
Detection Sciences Testing and Applied Research Center	Investment,PPA Level II	Discretionary - Appropriation
Research and Development	Appropriation	
Research, Development and Innovation	PPA	
Border Security and Immigration	R&D Project,PPA Level II	Discretionary - Appropriation
Counter Terrorism and Threats	R&D Project,PPA Level II	Discretionary - Appropriation
Cyber, Infrastructure, and National Resiliency	R&D Project,PPA Level II	Discretionary - Appropriation
Innovative Research and Foundational Tools	R&D Project,PPA Level II	Discretionary - Appropriation
University Programs	PPA	
Centers of Excellence	R&D Project,PPA Level II	Discretionary - Appropriation

**Science and Technology Directorate
Budget Comparison and Adjustments**

Appropriation and PPA Summary
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
Operations and Support	\$369,811	\$369,811	\$372,273
Mission Support	\$163,718	\$163,718	\$143,644
Laboratory Facilities	\$128,373	\$128,373	\$136,826
Acquisition and Operations Analysis	\$77,720	\$77,720	\$91,803
Procurement, Construction, and Improvements	\$61,000	\$61,000	\$40,000
Construction and Facility Improvements	\$61,000	\$61,000	\$40,000
Critical Repair/Replacement Requirement	\$24,000	\$24,000	\$10,000
Plum Island Closure and Support	\$30,000	\$30,000	\$30,000
Detection Sciences Testing and Applied Research Center	\$7,000	\$7,000	-
Research and Development	\$310,823	\$310,823	\$341,449
Research, Development and Innovation	\$301,423	\$301,423	\$334,449
Border Security and Immigration	\$124,911	\$124,911	\$127,852
Counter Terrorism and Threats	\$39,054	\$39,054	\$82,867
Cyber, Infrastructure, and National Resiliency	\$11,000	\$11,000	\$73,900
Innovative Research and Foundational Tools	\$85,225	\$85,225	\$49,830
University Programs	\$9,400	\$9,400	\$7,000
Centers of Excellence	\$9,400	\$9,400	\$7,000
Total	\$741,634	\$741,634	\$753,722

Science and Technology Directorate
Comparison of Budget Authority and Request
(Dollars in Thousands)

	FY 2025 Full-Year CR			FY 2026 Annualized CR			FY 2027 President's Budget			FY 2026 to FY 2027 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Operations and Support	573	565	\$369,811	573	565	\$369,811	408	400	\$372,273	(165)	(165)	\$2,462
Procurement, Construction, and Improvements	-	-	\$61,000	-	-	\$61,000	-	-	\$40,000	-	-	(\$21,000)
Research and Development	-	-	\$310,823	-	-	\$310,823	-	-	\$341,449	-	-	\$30,626
Total	573	565	\$741,634	573	565	\$741,634	408	400	\$753,722	(165)	(165)	\$12,088
Subtotal Discretionary - Appropriation	573	565	\$741,634	573	565	\$741,634	408	400	\$753,722	(165)	(165)	\$12,088

Component Budget Overview

The FY 2027 Budget includes \$753.7M; 408 Positions; and 400 full-time equivalents (FTE) for the Science and Technology Directorate (S&T).

S&T’s Research, Development, Test, and Evaluation (RDT&E) efforts are critical to delivering cutting edge technology, enhancing threat awareness, and developing effective mitigation strategies for the Department of Homeland Security (DHS) Components and partners across the Homeland Security Enterprise (HSE).

The Budget provides \$127.9M for the Border Security and Immigration Mission Center, supporting DHS's mission to secure and manage air, land, and maritime borders; facilitate lawful trade and travel; administer the immigration system; enforce U.S. immigration laws; and counter transnational criminal organizations and other illicit actors. It also includes \$82.9M for investments in the Counter Terrorism and Threats Mission Center to combat human trafficking and child sexual exploitation, enhance Counter Unmanned Aircraft Systems, explosives threat assessment, and Probabilistic Analysis of National Threats, Hazards and Risks (PANTHR) opportunities to meet Component requirements.

To further advance the Department’s mission, \$29.9M is allocated to S&T’s Support Anti-terrorism by Fostering Effective Technologies (SAFETY) Act Implementation Office, enhancing application processing times and supporting Special Event Assessment Rating (SEAR) events, including the 2028 Olympics and Paralympics (LA28) in Los Angeles, California.

In addition, \$30.0M is designated for the Plum Island Closure and Support (PICS) Program, facilitating the transfer of all Plum Island assets to the U.S. Department of Agriculture’s National Bio and Agro-Defense Facility (NBAF). S&T remains committed to prioritizing laboratory capital investments to meet regulatory standards, maintain technological currency, and replace mission-critical equipment at the end of its lifecycle.

**Science and Technology Directorate
Personnel Compensation and Benefits**

Pay Summary
(Dollars in Thousands)

	FY 2025 Full-Year CR				FY 2026 Annualized CR				FY 2027 President's Budget				FY 2026 to FY 2027 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Operations and Support	573	565	\$134,511	\$229.16	573	565	\$134,511	\$229.16	408	400	\$103,022	\$244.67	(165)	(165)	(\$31,489)	\$15.51
Total	573	565	\$134,511	\$229.16	573	565	\$134,511	\$229.16	408	400	\$103,022	\$244.67	(165)	(165)	(\$31,489)	\$15.51
Subtotal Discretionary - Appropriation	573	565	\$134,511	\$229.16	573	565	\$134,511	\$229.16	408	400	\$103,022	\$244.67	(165)	(165)	(\$31,489)	\$15.51

Pay by Object Class
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
11.1 Full-time Permanent	\$85,899	\$85,899	\$61,776	(\$24,123)
11.3 Other than Full-time Permanent	\$6,962	\$6,962	\$7,136	\$174
11.5 Other Personnel Compensation	\$2,668	\$2,668	\$2,488	(\$180)
11.8 Special Personal Services Payments	\$5,033	\$5,033	\$5,153	\$120
12.1 Civilian Personnel Benefits	\$33,949	\$33,949	\$26,469	(\$7,480)
Total - Personnel Compensation and Benefits	\$134,511	\$134,511	\$103,022	(\$31,489)
Positions and FTE				
Positions - Civilian	573	573	408	(165)
FTE - Civilian	565	565	400	(165)

**Science and Technology Directorate
Non Pay Budget Exhibits**

Non Pay Summary
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
Operations and Support	\$235,300	\$235,300	\$269,251	\$33,951
Procurement, Construction, and Improvements	\$61,000	\$61,000	\$40,000	(\$21,000)
Research and Development	\$310,823	\$310,823	\$341,449	\$30,626
Total	\$607,123	\$607,123	\$650,700	\$43,577
Subtotal Discretionary - Appropriation	\$607,123	\$607,123	\$650,700	\$43,577

Non Pay by Object Class
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
21.0 Travel & Transportation of Persons	\$2,203	\$2,203	\$2,474	\$271
22.0 Transportation of Things	\$126	\$126	\$153	\$27
23.1 Rental Payments to GSA	\$1,955	\$1,955	\$1,955	-
23.2 Rental Payments to Others	\$196	\$196	\$36	(\$160)
23.3 Communications, Utilities, & Miscellaneous	\$1,554	\$1,554	\$1,500	(\$54)
24.0 Printing & Reproduction	\$382	\$382	\$387	\$5
25.1 Advisory & Assistance Services	\$193,843	\$193,843	\$239,666	\$45,823
25.2 Other Services from Non-Federal Sources	\$8,119	\$8,119	\$9,669	\$1,550
25.3 Other Purchases of Goods & Services	\$40,892	\$40,892	\$47,108	\$6,216
25.4 Operations & Maintenance of Facilities	\$23,698	\$23,698	\$40,294	\$16,596
25.5 Research & Development Contracts	\$247,575	\$247,575	\$241,589	(\$5,986)
25.7 Operation & Maintenance of Equipment	\$10,222	\$10,222	\$10,480	\$258
25.8 Subsistence & Support of Persons	\$4	\$4	\$5	\$1
26.0 Supplies & Materials	\$4,129	\$4,129	\$4,065	(\$64)
31.0 Equipment	\$33,214	\$33,214	\$24,141	(\$9,073)
32.0 Land & Structures	\$28,320	\$28,320	\$18,694	(\$9,626)
41.0 Grants, Subsidies, & Contributions	\$10,652	\$10,652	\$8,445	(\$2,207)
42.0 Insurance Claims & Indemnities	\$39	\$39	\$39	-
Total - Non Pay Budget Object Class	\$607,123	\$607,123	\$650,700	\$43,577

**Science and Technology Directorate
Supplemental Budget Justification Exhibits**

FY 2027 Counter Unmanned Aerial Systems (CUAS) Funding

Appropriation and PPA	<i>(Dollars in Thousands)</i>
Science and Technology Directorate Total	\$40,500
Research and Development	\$40,500
Research, Development and Innovation	\$40,500
Counter Terrorism and Threats	\$40,500

Science and Technology Directorate
FY 2025 – FY 2027 Cyber Security Funding
(Dollars in Thousands)

NIST Framework	FY 2025 Actual	FY 2026 Annualized CR	FY 2027 President's Budget
Detect	\$5,760	\$5,930	\$5,970
Govern	\$950	\$1,200	\$1,240
Identify	\$40,990	\$70,750	\$51,710
Protect	\$9,620	\$7,180	\$6,740
Recover	\$150	\$160	\$160
Respond	\$570	\$410	\$250
Grand Total	\$58,040	\$85,630	\$66,070

**Science and Technology Directorate
Supplemental Budget Justification Exhibits**

Proposed Legislative Language

Operations and Support

For necessary expenses of the Science and Technology Directorate for operations and support, including the purchase or lease of not to exceed 5 vehicles, [\$369,811,000] \$372,273,000, of which [\$206,093,000] \$228,629,000 shall remain available until September 30, [2027] 2028: Provided, that not to exceed \$10,000 shall be for official reception and representation expenses.

Language Provision	Explanation
... [\$369,811,000] \$367,273,000	Dollar change only. No substantial change proposed.
... [\$206,093,000] \$228,629,000	Dollar change only. No substantial change proposed.
... [2027] 2028	Fiscal year change; updated period of availability. No substantial change proposed.

Procurement, Construction, and Improvements

For necessary expenses of the Science and Technology Directorate for Procurement, Construction, and Improvements, [\$61,000,000] \$40,000,000, to remain available until September 30, [2030] 2031.

Language Provision	Explanation
... [\$61,000,000] \$40,000,000	Dollar change only. No substantial change proposed.
... [2030] 2031	Fiscal year change only. No substantial change proposed.

Research and Development

For necessary expenses of the Science and Technology Directorate for Research and Development, [\$310,823,000] *\$341,449,000*, to remain available until September 30, [2028] *2029*.

Language Provision	Explanation
... [\$310,823,000] <i>\$341,449,000</i>	Dollar change only. No substantial change proposed.
... [2028] <i>2029</i>	Fiscal year change. No substantial change proposed.

Department of Homeland Security

Science and Technology Directorate

Strategic Context



Fiscal Year 2027

Congressional Justification

Science and Technology Directorate Strategic Context

Component Overview

The Science and Technology Directorate (S&T) is the primary research and development arm of the Department. It provides Federal, state, and local officials with the technology and capabilities to protect the homeland.

The strategic context presents the performance budget by tying together programs with performance measures that gauge the delivery of results to our stakeholders. DHS has integrated a mission and mission support programmatic view into a significant portion of the Level 1 Program, Project, or Activities (PPAs) in the budget. A mission program is a group of activities acting together to accomplish a specific high-level outcome external to DHS, and includes operational processes, skills, technology, human capital, and other resources. Mission support programs are those that are cross-cutting in nature and support multiple mission programs. Performance measures support the President’s Management Agenda and are aligned to the Secretary’s priorities related to securing the border, enforcing and administering the immigration system, and safe-guarding national security. Performance measures associated with S&T’s mission support program are presented in two measure sets, strategic and management measures. Strategic measures communicate results delivered for our agency mission and are considered our Government Performance and Results Act Modernization Act (GPRAMA) measures. Additional supporting measures, known as management measures, are displayed to enhance connections to resource requests. The measure tables indicate new measures and those being retired, along with historical data if available.

Acquisition and Operations Analysis: The Acquisition and Operations Analysis program provides expert assistance to entities across the homeland security enterprise to ensure that the transition, acquisition, and deployment of technologies, information, and procedures improve the efficiency and effectiveness of operational capabilities. This program assists in testing and evaluation, standards development, requirements analysis, systems engineering, and supporting technology transition.

Management Measure

Measure Name:	Percent of completed studies that impacted customer policy, strategic, operational requirements, and/or capability assessments						
Description:	This measure captures the impact of S&T’s Operations and Requirements Analysis Division in applying operational analysis to enhance DHS Component operational areas of responsibility leading to informed decisions, therefore, improving operational efficiency across DHS. Essentially, it measures the percent of completed studies within the current fiscal year where customers used the outcomes of the study to improve their operational efficiency. In turn, the results of these analyses inform the respective DHS Component customer of their policy, strategic, operational requirements, and or, capability assessments in the current fiscal year.						
Fiscal Year:	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Targets:	---	---	---	80%	80%	80%	80%
Results:	---	---	---	92%	91%	TBD	TBD
Explanation of Result:	In FY 2025, a total of 14 studies were completed, successfully meeting the annual target, and three new studies were initiated. Of the completed studies, nine were funded by S&T and five were supported by customer funding. These included projects such as the ICE Fentanyl Measures Effectiveness Analysis, a Border Patrol Staffing Model and Checkpoint Modeling Staffing Model Phase 2, Operations and Requirements Analysis Division Prostaff Model Phase 2, S&T C-UAS Requirements Support, among others. The						

	completion of these studies provides customers with essential analyses that inform policy, strategy, operational requirements, and capability assessments, ultimately supporting more effective decision-making and enhancing operational outcomes.
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Measure Name:	Percent of Letters of Technical Assessments submitted in a timely manner						
Description:	This measure gauges the effectiveness of the Systems Engineering and Standards Division (SES) in delivering Letter of Technical Assessments (LOTAs) to Acquisition decision-makers prior to ADE-2A to support informed decision-making. The purpose of a Technical Assessment is to provide information on the technical maturity of planned technology, evaluate manufacturing capability, and provide an independent assessment of the maturity of a program’s planned technologies, evaluate manufacturing capability, and overall technical risk. Technical Assessments are conducted for DHS Acquisition programs that are required under Acquisition Instruction 102-01-001 and Technical Assessment Instruction 102-05-001 to have a Technical Assessment conducted by the S&T SES Division.						
Fiscal Year:	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Targets:	---	---	---	80%	80%	80%	80%
Results:	---	---	---	100%	100%	TBD	TBD
Explanation of Result:	SES conducts Technical Assessments on programs and delivers Letters of Technical Assessment (LOTAs) summarizing the results prior to Acquisition Decision Events (ADE)-2A, as required by Directive 102-05. In FY 2025, SES delivered one LOTA for a program proceeding to a combined ADE-2A/3. By completing and delivering this LOTA as required, SES met the program’s target, ensuring that decision-makers had the necessary technical insights to support informed acquisition decisions and maintain compliance with established directives.						

Measure Name:	Percent of program test and evaluation documentation processed within 30 days						
Description:	This measure tracks the promptness of the Test and Evaluation Division (TED) in processing critical program documentation. Documentation includes all Level 1 and Level 2 program requests for the designation of the independent test agent, approval of operational test and evaluation plans (OTEPs), test and evaluation master plans (TEMPs), and issuance of Letters of Assessment (LOAs). Requests are required to be completed within 30 days. This measure ensures TED's efficiency in supporting timely acquisitions and effective system evaluations, advising and assisting programs, and providing independent assessments to decision-makers.						
Fiscal Year:	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Targets:	---	---	---	---	80%	80%	80%
Results:	---	---	---	---	100%	TBD	TBD
Explanation of Result:	In FY 2025, the Test and Evaluation Division (TED) approved two Letters of Assessment—MGMT Financial System Modernization Trio and MGMT Next Generation Network Priority Services—as well as a Test and Evaluation Master Plan for the CBP Cross Border Tunnel Threat. By processing all test and evaluation documentation within the targeted timeframe for FY 2025, TED met its program goal. This timely approval enabled critical projects to move forward without delay, supporting program objectives and ensuring alignment with established schedules.						

Research, Development, and Innovation: The Research, Development, and Innovation program provides state-of-the-art solutions to meet the needs of DHS Components and the first responder community. This includes customer-focused and output-oriented Research, Development, Test, and Evaluation (RDT&E) programs that balance risk, cost, impact, and time to delivery.

Management Measures

Measure Name:	Percent of research, development, and innovation program milestones that are met						
Description:	This measure reflects the percent at which S&T meets its research, development, and innovation (RD&I) milestones planned for the fiscal year. A milestone is defined as a scheduled point or event in a project signifying the completion of a major deliverable or a phase of work. The RD&I program refers to the Program, Project, and Activity funding area for S&T within the DHS Common Appropriations Structure. RD&I provides state-of-the-art technology and/or solutions to meet the needs of DHS Components and the first responder community. Completing these milestones indicate satisfactory progress toward advancing technology within the Department and its stakeholders.						
Fiscal Year:	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Targets:	75%	75%	75%	75%	75%	70%	70%
Results:	76%	69%	75%	80%	43%	TBD	TBD
Explanation of Result:	In FY 2025, the programs completed 127 of 296 milestones. Policy updates and changes in strategic direction resulted in 49 of the milestones being reclassified as "No longer valid," which required modifications to schedules and resource allocation. 20 of these milestones have been delayed and are planned to be completed in FY 2026. These factors limited progress toward the original goals, leaving some milestones unfinished. As a result, S&T will assess program performance and may adjust future milestone targets to better reflect current priorities and resource availability.						
Corrective Action:	In FY 2025, S&T did not meet its goal of completing 222 research and development milestones due to delays in privacy assessments, changing leadership priorities, recipient schedule adjustments, and limited staff. Nevertheless, S&T delivered key knowledge products and introduced innovative technologies to DHS components and interagency partners, addressing emerging homeland security needs outside the original plan. S&T is reviewing internal processes to improve future planning and resource allocation, and continues to work with stakeholders, including Congress and OMB, to support effective R&D execution.						

Measure Name:	Percent of Research, Development, Test, and Evaluation funding executed at Science and Technology laboratories in support of DHS and first responders						
Description:	This measure gauges the percentage of project funding executed to support Research, Development, Test, and Evaluation (RDTE) within S&T laboratories in support of DHS components and first responders. Total funding for projects include those serving DHS components and first responders, as well as interagency, industry, or other non-governmental partners funded through interagency agreements and Work for Others (WFO) programs. Funding executed in support of DHS components and DHS first responders provide insight to the extent which laboratory resources are prioritizing DHS components and first responders versus interagency, industry, or other non-governmental partners. The ability to conduct DHS RDTE projects is limited by the capacity of personnel, equipment, and funding and competing stakeholder needs.						
Fiscal Year:	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Targets:	---	---	---	---	90%	90%	90%
Results:	---	---	---	---	98%	TBD	TBD
Explanation of Result:	The final results surpassed the target in FY 2025 due to the strategic focus on initiatives that directly supported DHS components, while minimizing activities not aligned with DHS priorities. This targeted approach allowed for more efficient allocation of resources, resulting in improved performance outcomes. As a result, we not only met but exceeded its annual target for FY 2025, demonstrating strong alignment with DHS objectives and a greater operational impact.						

Measure Name:	Percent of stakeholder counterdrug related requests fulfilled						
Description:	This measure reflects the percent at which S&T fulfills requests from its stakeholders for counterdrug-related research and development program outputs and accomplishments. Stakeholder requests are information, data, or technology needs related to the detection, identification, and investigation of narcotics, such as opioids/fentanyl, and trafficking networks. Outputs and accomplishments encompass the delivery, demonstration, transfer, or transition of knowledge or technology products. Knowledge products include, but are not limited to, standards, technology assessments, test and evaluation results, training, data, and documents for decision support. Technology product is a piece of equipment, system, or component of a system, such as an algorithm to be embedded into a piece of software. This measure reflects the value that S&T provides in delivering capabilities to meet critical needs to support and improve homeland counterdrug missions.						
Fiscal Year:	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Targets:	65%	65%	70%	75%	75%	75%	75%
Results:	100%	100%	100%	97%	85%	TBD	TBD
Explanation of Result:	In FY 2025, S&T completed 22 out of 26 counterdrug-related research requests in response to stakeholder needs, including delivering three reports to the field, one to HSI Miami, one to ICE ERO, developing a new tool for ICE HQ, and providing results and updates on Athena tools to both the field and HSI HQ. As a result of these targeted requests, the S&T Forensics and Criminal Investigations Program successfully supported the development of an unaccompanied alien children sponsor vetting analysis tool, produced two Athena Toolkit reports that provided evidence for local indictments and analysis of Tren de Aragua activity, and delivered three additional products focused on voter fraud identification, investigation of a potential illicit money service business, and DC targets. This direct alignment between stakeholder requests and program deliverables led to enhanced operational capabilities and informed decision-making across multiple agencies.						

Measure Name:	Percent of strategically aligned Department-wide research and development needs						
Description:	This measure captures the success of S&T's Operations Requirements Analysis Division (ORA) in ensuring strategic alignment of Department research and development (R&D) investments. In particular, this measure assesses the percent of validated R&D needs with strategic priorities of the homeland security enterprise (HSE) missions and/or external priorities such as administration executive orders, policies, and other guidance for the current fiscal year. The R&D Coordination initiative at S&T creates stronger partnerships and ensures alignment between the Department's R&D and acquisition communities by enhancing information sharing on priority needs that would benefit from R&D investment. By conducting outreach to develop and implement policy and procedures that increase DHS-wide collaboration and transparency during R&D planning, the results support optimized resourcing and mission impact.						
Fiscal Year:	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Targets:	---	---	---	80%	80%	80%	80%
Results:	---	---	---	100%	91%	TBD	TBD
Explanation of Result:	This measure reflects effectiveness in ensuring that R&D investments support strategic priorities, including the missions and external directives such as administration executive orders and policies. The cumulative alignment for FY 2025 reached 91%, allowing S&T to meet and exceed its annual target of 80%. This outcome demonstrates that the focus on strategic alignment directly contributed to the successful achievement of program goals.						

Measure Name:	Percent of technology or knowledge products transitioned to customers for planned improvements						
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Science and Technology Directorate

Strategic Context

Description:	This measure reflects the percent at which S&T meets its planned fiscal year transitions of technology or knowledge products for research and development funded programs/projects. A successful transition is the ownership and/or operation of a technology or knowledge product by a customer within the Homeland Security Enterprise. Technology product is a piece of equipment, system, or component of a system, such as an algorithm to be embedded into a piece of software. Knowledge products may be assessments, standards, training, or documents for decision support. The transition of technology or knowledge products reflects the value that S&T provides in delivering solutions to secure key assets, enhance operational efficiencies and effectiveness, and enable the Department and first responders to do their jobs safer, better, and smarter.						
Fiscal Year:	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Targets:	75%	75%	72%	72%	72%	70%	70%
Results:	72%	68%	83%	68%	48%	TBD	TBD
Explanation of Result:	In FY 2025, S&T did not achieve the goal of completing 67 research and development program transitions due to delays in privacy assessments, shifts in leadership priorities, adjustments in recipient schedules, and limited staff availability. However, S&T delivered various knowledge products and introduced innovative processes and technologies to DHS components and interagency partners, addressing new and evolving homeland security challenges not part of the original transition plan.						
Corrective Action:	S&T is actively reviewing internal processes to optimize future planning and resource allocation. S&T also remains committed to collaborating with stakeholders, including Congress and the Office of Management and Budget, to ensure effective regulations and processes support R&D execution.						

University Programs: University Programs supports critical homeland security-related research and education at U.S. colleges and universities to address high-priority DHS-related issues and to enhance homeland security capabilities over the long term. University Programs includes DHS Centers of Excellence and Minority Serving Institutions, creating a consortium of universities generating groundbreaking ideas for new technologies and critical knowledge for the homeland security enterprise.

Management Measure

Measure Name:	Percent of university programs milestones that are met						
Description:	This measure reflects the percent of university programs milestones that meet the programmatic and technical events, accomplishments, or intermediate goals in the life of programs and projects. A milestone is defined as a scheduled point or event in a project signifying the completion of a major deliverable or a phase of work. The Office of University Programs engages the academic community to conduct research and analysis, provides education and training to enhance homeland security capabilities, works closely with its stakeholders to identify requirements, set goals for milestones and deliverables, discuss the status of projects, and plan for the allocation of resources. The percent of milestones met reflects the programmatic and technical events, accomplishments, or intermediate goals in the life of projects and programs. These milestones indicate satisfactory progress toward achieving long-term ST performance goals and Department-wide goals and objectives.						
Fiscal Year:	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Targets:	75%	75%	75%	75%	75%	75%	75%
Results:	86%	71%	95%	89%	47%	TBD	TBD
Explanation of Result:	The efforts to streamline access to college and university expertise led to the completion of 14 of 30 fiscal year milestones in FY 2025. Key achievements included the graduation of the final MBA cohort, an internship program placing 85 interns across components, and						

	<p>Center of Excellence milestones such as approving proposals to boost Arctic resilience and formalizing protocols for technology management. However, due to the termination of most Centers of Excellence, S&T did not meet its full milestone target, impacting overall progress toward long-term goals. Looking ahead to FY 2026, the program will operate with two Centers of Excellence and will focus on achieving the 15 milestones aligned with its revised objectives.</p>
<p>Corrective Action:</p>	<p>S&T will realign FY 2026 milestones to reflect the reduced number of Centers of Excellence and focus efforts on achievable objectives. The program will enhance coordination, strengthen monitoring to address delays promptly, and seek opportunities to leverage external partnerships. These steps aim to ensure successful completion of the revised 15 milestones and continued progress toward long-term goals.</p>

Department of Homeland Security

Science and Technology Directorate

Operations and Support



Fiscal Year 2027

Congressional Justification

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Operations and Support

Budget Comparison and Adjustments

Comparison of Budget Authority and Request

(Dollars in Thousands)

	FY 2025 Full-Year CR			FY 2026 Annualized CR			FY 2027 President's Budget			FY 2026 to FY 2027 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Mission Support	441	433	\$163,718	441	433	\$163,718	315	307	\$143,644	(126)	(126)	(\$20,074)
Laboratory Facilities	132	132	\$128,373	132	132	\$128,373	93	93	\$136,826	(39)	(39)	\$8,453
Acquisition and Operations Analysis	-	-	\$77,720	-	-	\$77,720	-	-	\$91,803	-	-	\$14,083
Total	573	565	\$369,811	573	565	\$369,811	408	400	\$372,273	(165)	(165)	\$2,462
Subtotal Discretionary - Appropriation	573	565	\$369,811	573	565	\$369,811	408	400	\$372,273	(165)	(165)	\$2,462

The Operations and Support (O&S) appropriation for the Science and Technology Directorate (S&T) provides essential funding to deliver advanced technology solutions to Department of Homeland Security (DHS) components and first responders. This appropriation also supports Systems Engineering, Standards, and Test and Evaluation (T&E), ensuring that S&T and DHS components develop and deploy technologies that perform effectively in real-world operational environments. Funding covers all necessary operations and support activities, including salaries, benefits, and operating costs for five laboratory facilities.

The O&S appropriation is organized into three Programs, Projects, and Activities (PPAs):

Mission Support: This PPA funds all enterprise-level functions that enable S&T’s technical divisions to manage Research, Development, Test, and Evaluation (RDT&E) programs. It covers salaries and benefits, training, travel, financial management, facility planning, maintenance, and other administrative needs. Mission Support also finances offices such as the Office of the Under Secretary, Administration and Support Division, Chief Information Office, Communications and Outreach, Compliance Division, Contract Acquisition Program Support, Knowledge Management, Finance and Budget Division, and the Office of General Counsel, including intellectual property and trademark rights for DHS and its Components.

Laboratory Facilities: This PPA supports the operations and maintenance of S&T’s Office of National Laboratories, which oversees five laboratory facilities and their staff. These labs are vital national assets, serving as hubs for science, technology, engineering, and math expertise. They deliver essential technologies and knowledge for applied research, threat characterization, detection, mitigation, and response, helping to prevent terrorism, secure the homeland, and enhance national resilience. The Laboratory Facilities PPA ensures the development and delivery of long-term capabilities through a coordinated network of S&T and Department of Energy (DOE) national laboratories.

Acquisition and Operations Analysis: The Acquisition and Operations Analysis (AOA) PPA provides expert resources to support entities across the Homeland Security Enterprise (HSE). It ensures that the transition, acquisition, and deployment of technologies, information, and procedures improve the efficiency and effectiveness of operational capabilities throughout the HSE mission.

Operations and Support Summary of Budget Changes

(Dollars in Thousands)

	Positions	FTE	Pay Amount	Non-Pay Amount	Amount
FY 2025 Full-Year CR	573	565	\$134,511	\$235,300	\$369,811
FY 2026 Annualized CR	573	565	\$134,511	\$235,300	\$369,811
FY 2027 Base Budget	573	565	\$134,511	\$235,300	\$369,811
Total Technical Changes	-	-	-	-	-
Non-recur of Laboratory Facilities IT Investment	-	-	-	(\$73)	(\$73)
Total Annualizations and Non-Recurs	-	-	-	(\$73)	(\$73)
2025 Civilian Pay Raise Annualization	-	-	\$658	-	\$658
2024 Civilian Pay Raise Annualization	-	-	\$40	-	\$40
2026 Civilian Pay Raise and Annualization	-	-	\$1,404	-	\$1,404
Federal Employee Retirement System (FERS) Adjustment	-	-	(\$301)	-	(\$301)
Federal Protective Services Fee Adjustment	-	-	-	\$21	\$21
2026 Investment Adjustments	-	-	-	\$677	\$677
2026 Salary Adjustments	-	-	\$5,046	-	\$5,046
Capital Security Cost Sharing	-	-	-	\$58	\$58
Non-Major Investment Sustainment	-	-	-	\$173	\$173
Total Pricing Changes	-	-	\$6,847	\$929	\$7,776
Total Adjustments-to-Base	-	-	\$6,847	\$856	\$7,703
FY 2027 Current Services	573	565	\$141,358	\$236,156	\$377,514
Transfer for Financial Professionals Program (FPP)	-	-	(\$29)	-	(\$29)
Transfer for C-UAS Program Executive Office from OSEM/O&S/PLCY to S&T/O&S/MS	6	6	\$1,200	\$3,500	\$4,700
Transfer for Derived PIV Credential from S&T/O&S/MS to MGMT/O&S/OCSO	-	-	-	(\$17)	(\$17)
2026 Realignment for Partnerships Intermediary Agreements from AOA to RD&I	-	-	-	(\$1,000)	(\$1,000)
Total Transfers	6	6	\$1,171	\$2,483	\$3,654
2026 AOA-Federally Funded Research and Development Center	-	-	-	(\$142)	(\$142)
2026 Artificial Intelligence: AI Testing and Evaluation	1	1	\$260	\$31	\$291
2026 MS-Enterprise Shared Services	-	-	-	(\$6,900)	(\$6,900)
AOA - Acquisition Support	-	-	-	\$1,594	\$1,594
AOA - SAFETY Act	-	-	-	\$12,000	\$12,000
AOA - Technology Transition Support	-	-	-	\$1,573	\$1,573
Laboratory Operations and Maintenance	-	-	-	\$15,456	\$15,456
MS-Information Technology Operational Requirements	-	-	-	\$7,000	\$7,000
Workforce Transition Plan	(172)	(172)	(\$39,767)	-	(\$39,767)

Science and Technology Directorate**Operations and Support**

Total Program Changes	(171)	(171)	(\$39,507)	\$30,612	(\$8,895)
FY 2027 Request	408	400	\$103,022	\$269,251	\$372,273
FY 2026 TO FY 2027 Change	(165)	(165)	(\$31,489)	\$33,951	\$2,462

Operations and Support Justification of Pricing Changes

(Dollars in Thousands)

	FY 2027 President's Budget				
	Positions	FTE	Pay Amount	Non-Pay Amount	Amount
Pricing Change 1 - 2025 Civilian Pay Raise Annualization	-	-	\$658	-	\$658
Mission Support	-	-	\$523	-	\$523
Laboratory Facilities	-	-	\$135	-	\$135
Pricing Change 2 - 2024 Civilian Pay Raise Annualization	-	-	\$40	-	\$40
Mission Support	-	-	\$40	-	\$40
Pricing Change 3 - 2026 Civilian Pay Raise and Annualization	-	-	\$1,404	-	\$1,404
Mission Support	-	-	\$1,000	-	\$1,000
Laboratory Facilities	-	-	\$404	-	\$404
Pricing Change 4 - Federal Employee Retirement System (FERS) Adjustment	-	-	(\$301)	-	(\$301)
Mission Support	-	-	(\$238)	-	(\$238)
Laboratory Facilities	-	-	(\$63)	-	(\$63)
Pricing Change 5 - Federal Protective Services Fee Adjustment	-	-	-	\$21	\$21
Laboratory Facilities	-	-	-	\$21	\$21
Pricing Change 6 - 2026 Investment Adjustments	-	-	-	\$677	\$677
Mission Support	-	-	-	\$641	\$641
Laboratory Facilities	-	-	-	\$36	\$36
Pricing Change 7 - 2026 Salary Adjustments	-	-	\$5,046	-	\$5,046
Mission Support	-	-	\$4,773	-	\$4,773
Laboratory Facilities	-	-	\$273	-	\$273
Pricing Change 8 - Capital Security Cost Sharing	-	-	-	\$58	\$58
Acquisition and Operations Analysis	-	-	-	\$58	\$58
Pricing Change 9 - Non-Major Investment Sustainment	-	-	-	\$173	\$173
Mission Support	-	-	-	(\$413)	(\$413)
Laboratory Facilities	-	-	-	\$586	\$586
Total Pricing Changes	-	-	\$6,847	\$929	\$7,776

Pricing Change 1 – 2025 Civilian Pay Raise Annualization: This pricing change represents the cost of the fourth quarter of the calendar year 2025 2.0 percent civilian pay increase.

Pricing Change 2 – 2024 Civilian Pay Raise Annualization: This pricing change represents the amount needed to fully fund the calendar year 2024 5.2 percent civilian pay increase.

Pricing Change 3 - 2026 Civilian Pay Raise and Annualization: This pricing change represents the cost of four quarters of the calendar year 2026 1.0 percent civilian pay increase.

Pricing Change 4 – Federal Employee Retirement System (FERS) Adjustment: This pricing change reflects a decrease in the FY 2027 Employing Agency Contribution to FERS.

Pricing Change 5 – Federal Protective Services Fee Adjustment: This pricing change reflects increases in the cost of Federal Protective Service fees. This increase is a result of non-pay inflationary increases in basic security services at S&T's building-specific locations.

Pricing Change 6 – 2026 Investment Adjustments: This pricing change reflects an increase of \$36,000 associated with contractual non-pay inflation increases for Laboratory Facility Investments. This pricing change also reflects costs associated with contractual non-pay inflation increase of \$0.6M for Mission Support Investments.

Pricing Change 7 – 2026 Salary Adjustments: This pricing change fulfills unfunded salary requirements for vacancies onboarded during the 4th quarter of FY 2024 and authorized merit promotions within S&T's workforce which occurred in same period.

Pricing Change 8 – Capital Security Cost Sharing: This pricing change reflects increases in the cost of Capital Security Cost Sharing agreements with the U.S. Department of State. S&T currently has regional attachés stationed in the U.S. Embassies in Canada, the United Kingdom and Singapore. The regional attachés coordinate with the host government to provide science and technology expertise, administer cooperative projects, and seek new technology opportunities.

Pricing Change 9 – Non-Major Investment Sustainment:

This pricing change includes cost savings in the Mission Support PPA from S&T's shared service for the Federal Financial Management System (FFMS). Efficiencies realized from FFMS directly correspond to S&T streamlining processes to ensure clean financial system records. This pricing change also includes cost increases on the classified standalone laptops for the five laboratories.

Operations and Support Justification of Transfer

(Dollars in Thousands)

	FY 2027 President's Budget				
	Positions	FTE	Pay Amount	Non-Pay Amount	Amount
Transfer 1 - Transfer for Financial Professionals Program (FPP)	-	-	(\$29)	-	(\$29)
Mission Support	-	-	(\$29)	-	(\$29)
Transfer 2 - Transfer for C-UAS Program Executive Office from OSEM/O&S/PLCY to S&T/O&S/MS	6	6	\$1,200	\$3,500	\$4,700
Mission Support	6	6	\$1,200	\$3,500	\$4,700
Transfer 3 - Transfer for Derived PIV Credential from S&T/O&S/MS to MGMT/O&S/OCFO	-	-	-	(\$17)	(\$17)
Mission Support	-	-	-	(\$17)	(\$17)
Transfer 4 - 2026 Realignment for Partnerships Intermediary Agreements from AOA to RD&I	-	-	-	(\$1,000)	(\$1,000)
Acquisition and Operations Analysis	-	-	-	(\$1,000)	(\$1,000)
Total Transfer Changes	6	6	\$1,171	\$2,483	\$3,654

Transfer 1 – Transfer for Financial Professionals Program: This transfer supports the cost of program management for the Financial Professional Program (FPP) in Management Directorate (MGMT)/ Office of the Chief Security Officer (OCFO) and this is a two-year professional development program that recruits, trains, and retains entry-level analysts to serve in critical financial management positions of accounting and budget across the DHS Components. The DHS OCFO will coordinate bringing the FPP cohort onboard annually and matching them to Components. The cohorts will follow a rigorous training and development plan, also coordinated through DHS OCFO.

Transfer 2 – Transfer for C-UAS Program Executive Office: The establishment of a dedicated Program Executive Office (PEO) within S&T represents a strategic effort to advance the Secretary’s vision for Air Dominance, respond to the evolving counter-unmanned aircraft systems (C-UAS) threat environment, and support key operational priorities. Serving as the Department’s central authority for C-UAS strategy, authorization oversight, incident monitoring, and event coordination, the new PEO will provide unified leadership and direction. This centralized structure will enable a coordinated and efficient approach to achieving Air Dominance objectives.

Transfer 3 – Transfer for Derived Personal Identify Verification (PIV) Credential: Transfers funds to the Management Directorate, Office of the Chief Security Officer Enterprise Security Services Division to support Derived PIV Credential Service, which are required for DHS issued mobile devices and provides data security. This transfer will reduce administrative workloads, leverage economies of scale, and ensure procurement lead times are met.

Transfer 4 – 2026 Realignment for Partnership Intermediary Agreements (PIA): Transfers the costs associated with this project to the Innovative Research and Foundational Tools mission area within the Research, Development, and Innovation PPA, based on DHS-updated guidance for 31 U.S.C. section 1301(a) to explicitly allow research and development activities to occur under PIA. This project will no longer have any AOA related costs.

Operations and Support Justification of Program Changes

(Dollars in Thousands)

	FY 2027 President's Budget				
	Positions	FTE	Pay Amount	Non-Pay Amount	Amount
Program Change 1 - 2026 AOA-Federally Funded Research and Development Center	-	-	-	(\$142)	(\$142)
Acquisition and Operations Analysis	-	-	-	(\$142)	(\$142)
Program Change 2 - 2026 Artificial Intelligence: AI Testing and Evaluation	1	1	\$260	\$31	\$291
Mission Support	1	1	\$260	\$31	\$291
Program Change 3 - 2026 MS-Enterprise Shared Services	-	-	-	(\$6,900)	(\$6,900)
Mission Support	-	-	-	(\$6,900)	(\$6,900)
Program Change 4 - AOA - Acquisition Support	-	-	-	\$1,594	\$1,594
Acquisition and Operations Analysis	-	-	-	\$1,594	\$1,594
Program Change 5 - AOA - SAFETY Act	-	-	-	\$12,000	\$12,000
Acquisition and Operations Analysis	-	-	-	\$12,000	\$12,000
Program Change 6 - AOA - Technology Transition Support	-	-	-	\$1,573	\$1,573
Acquisition and Operations Analysis	-	-	-	\$1,573	\$1,573
Program Change 7 - Laboratory Operations and Maintenance	-	-	-	\$15,456	\$15,456
Laboratory Facilities	-	-	-	\$15,456	\$15,456
Program Change 8 - MS-Information Technology Operational Requirements	-	-	-	\$7,000	\$7,000
Mission Support	-	-	-	\$7,000	\$7,000
Program Change 9 - Workforce Transition Plan	(172)	(172)	(\$39,767)	-	(\$39,767)
Mission Support	(133)	(133)	(\$31,445)	-	(\$31,445)
Laboratory Facilities	(39)	(39)	(\$8,322)	-	(\$8,322)
Total Program Changes	(171)	(171)	(\$39,507)	\$30,612	(\$8,895)

Program Change 1 – 2026 AOA-Federally Funded Research and Development Center:

<i>(\$ in thousands)</i>	Pos	FTE	Amount
Current Services + Transfers	-	-	\$5,405
Program Change	-	-	(\$142)

Description

The FY 2027 Budget includes a decrease for the Federally Funded Research and Development Center (FFRDC) Program Management Office (PMO).

Justification

The decrease in contract support will not impact the FFRDC PMO’s operations or it’s liaison role between DHS Components and the HSE for future FFRDC solutions.

Program Change 2 – 2026 Artificial Intelligence: AI Testing and Evaluation:

<i>(\$ in thousands)</i>	Pos	FTE	Amount
Current Services + Transfers	-	-	-
Program Change	1	1	\$291

Description

The FY 2027 Budget includes an increase of one GS-15 Artificial Intelligence (AI) subject matter expert to expand AI governance and support Chief AI Officers (CAIOs).

Justification

This increase funds a GS-15 Artificial Intelligence (AI) subject matter expert to strengthen AI governance and support Chief AI Officers (CAIOs) in meeting the requirements of Executive Order 14179 on the use of AI. Serving as a Science Advisor to the Department and S&T, this expert will ensure the responsible and safe integration of AI into DHS missions. Based in S&T’s Advanced Computing Technology Center, this position will oversee critical experimentation, assessment, and test and evaluation of safety-impacting, rights-impacting, and facial recognition AI systems, delivering solutions to meet the priority needs of DHS and the HSE.

Program Change 3 – 2026 MS-Enterprise Shared Services:

<i>(\$ in thousands)</i>	Pos	FTE	Amount
Current Services + Transfers	57	57	\$24,500
Program Change	-	-	(\$6,900)

Description

The FY 2027 Budget includes a decrease in contract support for the Chief Information Office (CIO) IT services and the contract services supporting the Contract Acquisition Program Support Office (CAPS).

Justification

Funding will continue essential IT infrastructure, technical maintenance services, and acquisition support services critical to S&T's R&D mission, such as assistance with procurement related documents, contract closeouts and processing of Interagency agreements.

Program Change 4 – AOA-Acquisition Support:

<i>(\$ in thousands)</i>	Pos	FTE	Amount
Current Services + Transfers	-	-	\$36,623
Program Change	-	-	\$1,594

Description

The FY 2027 Budget includes an increase of \$1.6M to prioritize advancing DHS's mission through Operational Analysis Services.

Justification

Funding restores a portion of contract support for the System of Systems Operational Analytics (SoSOA) program, which was significantly reduced in the FY 2026 Budget, as well as provides for systematic enhancements to maintain optimal functionality. The increase will allow DHS operations in border security, immigration enforcement, law enforcement, and intelligence to continue data analysis and collaboration across HSE.

Program Change 5 – AOA-SAFETY Act:

<i>(\$ in thousands)</i>	Pos	FTE	Amount
Current Services + Transfers	-	-	\$17,900
Program Change	-	-	\$12,000

Description

The FY 2027 Budget includes an increase of \$12.0M for the Office of SAFETY Act Implementation (OSAI).

Justification

Funds will improve application processing and address the anticipated rise in demand for liability protections due to upcoming high-threat profile special events, to include Special Event Assessment Rating (SEAR) events, notably the 2028 Los Angeles Olympics and Paralympics (LA28). The SAFETY Act supports the development and deployment of anti-terrorism technologies by providing private industry with litigation and risk management tools. By encouraging private sector innovation, the SAFETY Act strengthens the protection of critical infrastructure, such as large venues and other soft targets, and stimulates investment in cutting-edge solutions that bolster the resilience of the Nation's most vital assets.

Program Change 6 – AOA - Technology Transition Support:

<i>(\$ in thousands)</i>	Pos	FTE	Amount
Current Services + Transfers	-	-	\$11,492
Program Change	-	-	\$1,573

Description

The FY 2027 Budget includes an increase of \$1.6M for the Technology Scouting and Transition (TST) project within the Technology Transition Support program to centralize resources, streamline processes, and enhance research and development outcomes across S&T activities.

Justification

Funding will support the International Cooperative Program Office in strengthening cross-border law enforcement collaboration, countering China’s influence, and expanding trials to improve access to emerging security technologies with global partners. Additional resources will enable the National Urban Security Technology Laboratory (NUSTL) to broaden its field assessments, technology evaluations, and user engagement, facilitating the deployment of effective technologies for first responder agencies across the nation.

Program Change 7 – Laboratory Operations and Maintenance:

<i>(\$ in thousands)</i>	Pos	FTE	Amount
Current Services + Transfers	-	-	\$100,231
Program Change	-	-	\$15,456

Description

The FY 2027 Budget includes an increase of \$15.5M for Laboratory Operations and Maintenance. This increase will allow S&T to adequately fund operational and sustainment requirements to meet S&T and DHS priorities, as well as maintain operational capabilities, safety, and compliance with Federal Select Agent Program requirements at applicable labs.

Justification

This funding increase supports the Transportation Security Laboratory (TSL) and the National Bioforensics Analysis and Countermeasures Center (NBACC) by sustaining critical infrastructure, ensuring BioSafety Level 4 containment at NBACC, and maintaining essential test and evaluation capabilities at TSL. S&T manages all aspects of NBACC and TSL operations, including utilities, physical security, and regulatory compliance.

The Laboratory Operations budget has remained flat since the FY 2021 enacted level and has not accounted for inflationary cost increases, despite an average 2 percent annual rise in operating expenses for utilities, security services, and specialized laboratory equipment maintenance and replacement. Additional funding is urgently needed to address a backlog of deferred routine maintenance, which reduces the lifespan of critical assets. S&T has been operating at risk of equipment and infrastructure failure, which would be significantly more costly to replace than to maintain properly.

Furthermore, this increase provides funding for the Plum Island Animal Disease Center (PIADC) to maintain critical infrastructure, ensure BioSafety Level 3 containment, and support decontamination and decommissioning activities as scientific operations transition to the USDA National Bio and Agro-Defense Facility (NBAF) in Kansas.

Program Change 8 – MS-Information Technology Operational Requirements:

<i>(\$ in thousands)</i>	Pos	FTE	Amount
Current Services + Transfers	-	-	\$51,925
Program Change	-	-	\$7,000

Description

The FY 2027 Budget includes an increase of \$7.0M for the Chief Information Office (CIO) IT operational requirements.

Justification

This increase will consolidate and centralize reoccurring annual program charges for various software, hardware, licenses, etc. This will promote greater operational efficiency by eliminating the need for mid-year reallocations and allow for more streamlined financial planning and execution.

Program Change 9 – Workforce Transition Plan:

<i>(\$ in thousands)</i>	Pos	FTE	Amount
Current Services + Transfers	573	565	\$140,356
Program Change	(172)	(172)	(\$39,767)

Description

The FY 2027 Budget includes a decrease of \$39.8M for the Workforce Transition Plan, of which \$31.5M for Mission Support salaries and \$8.3M for Laboratory Facilities salaries.

Justification

The reduction in S&T federal positions from 573 to 408 positions is driven by S&T’s Workforce Transition Plan. S&T will prioritize the Administration’s priorities and continue mission objectives and operations.

**Operations and Support
Personnel Compensation and Benefits**

Pay Summary
(Dollars in Thousands)

	FY 2025 Full-Year CR				FY 2026 Annualized CR				FY 2027 President's Budget				FY 2026 to FY 2027 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Mission Support	441	433	\$106,369	\$237.82	441	433	\$106,369	\$237.82	315	307	\$82,453	\$257.23	(126)	(126)	(\$23,916)	\$19.42
Laboratory Facilities	132	132	\$28,142	\$200.79	132	132	\$28,142	\$200.79	93	93	\$20,569	\$203.22	(39)	(39)	(\$7,573)	\$2.43
Total	573	565	\$134,511	\$229.16	573	565	\$134,511	\$229.16	408	400	\$103,022	\$244.67	(165)	(165)	(\$31,489)	\$15.51
Subtotal Discretionary - Appropriation	573	565	\$134,511	\$229.16	573	565	\$134,511	\$229.16	408	400	\$103,022	\$244.67	(165)	(165)	(\$31,489)	\$15.51

Pay by Object Class
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
11.1 Full-time Permanent	\$85,899	\$85,899	\$61,776	(\$24,123)
11.3 Other than Full-time Permanent	\$6,962	\$6,962	\$7,136	\$174
11.5 Other Personnel Compensation	\$2,668	\$2,668	\$2,488	(\$180)
11.8 Special Personal Services Payments	\$5,033	\$5,033	\$5,153	\$120
12.1 Civilian Personnel Benefits	\$33,949	\$33,949	\$26,469	(\$7,480)
Total - Personnel Compensation and Benefits	\$134,511	\$134,511	\$103,022	(\$31,489)
Positions and FTE				
Positions - Civilian	573	573	408	(165)
FTE - Civilian	565	565	400	(165)

Operations and Support Non Pay Budget Exhibits

Non Pay Summary *(Dollars in Thousands)*

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
Mission Support	\$57,349	\$57,349	\$61,191	\$3,842
Laboratory Facilities	\$100,231	\$100,231	\$116,257	\$16,026
Acquisition and Operations Analysis	\$77,720	\$77,720	\$91,803	\$14,083
Total	\$235,300	\$235,300	\$269,251	\$33,951
Subtotal Discretionary - Appropriation	\$235,300	\$235,300	\$269,251	\$33,951

Non Pay by Object Class*(Dollars in Thousands)*

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
21.0 Travel & Transportation of Persons	\$1,259	\$1,259	\$1,335	\$76
22.0 Transportation of Things	\$126	\$126	\$153	\$27
23.1 Rental Payments to GSA	\$1,955	\$1,955	\$1,955	-
23.3 Communications, Utilities, & Miscellaneous	\$1,292	\$1,292	\$1,292	-
24.0 Printing & Reproduction	\$382	\$382	\$387	\$5
25.1 Advisory & Assistance Services	\$139,807	\$139,807	\$151,737	\$11,930
25.2 Other Services from Non-Federal Sources	\$6,373	\$6,373	\$7,471	\$1,098
25.3 Other Purchases of Goods & Services	\$36,346	\$36,346	\$40,518	\$4,172
25.4 Operations & Maintenance of Facilities	\$23,698	\$23,698	\$40,294	\$16,596
25.7 Operation & Maintenance of Equipment	\$9,103	\$9,103	\$9,068	(\$35)
25.8 Subsistence & Support of Persons	\$4	\$4	\$5	\$1
26.0 Supplies & Materials	\$1,470	\$1,470	\$1,487	\$17
31.0 Equipment	\$12,744	\$12,744	\$12,803	\$59
32.0 Land & Structures	\$20	\$20	\$25	\$5
41.0 Grants, Subsidies, & Contributions	\$682	\$682	\$682	-
42.0 Insurance Claims & Indemnities	\$39	\$39	\$39	-
Total - Non Pay Budget Object Class	\$235,300	\$235,300	\$269,251	\$33,951

Mission Support – PPA

Budget Comparison and Adjustments

Comparison of Budget Authority and Request

(Dollars in Thousands)

	FY 2025 Full-Year CR			FY 2026 Annualized CR			FY 2027 President's Budget			FY 2026 to FY 2027 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Mission Support	441	433	\$163,718	441	433	\$163,718	315	307	\$143,644	(126)	(126)	(\$20,074)
Total	441	433	\$163,718	441	433	\$163,718	315	307	\$143,644	(126)	(126)	(\$20,074)
Subtotal Discretionary - Appropriation	441	433	\$163,718	441	433	\$163,718	315	307	\$143,644	(126)	(126)	(\$20,074)

PPA Level I Description

Mission Support provides funding for financial management and procurement operations, IT management and critical infrastructure support, human capital and personnel security, real estate and facilities management, internal and external mission and research centric communications, and compliance support and oversight. Mission Support also funds compliance assurance, export controls, legal intellectual property services for R&D projects, and oversight of intellectual property and trademark rights for all of DHS. The administrative activities of non-laboratory personnel and offices have the important role of implementing Research Development Test & Evaluation (RDT&E) activities are supported by Mission Support resources.

Mission Support – PPA
Summary of Budget Changes
(Dollars in Thousands)

	Positions	FTE	Pay Amount	Non-Pay Amount	Amount
FY 2025 Full-Year CR	441	433	\$106,369	\$57,349	\$163,718
FY 2026 Annualized CR	441	433	\$106,369	\$57,349	\$163,718
FY 2027 Base Budget	441	433	\$106,369	\$57,349	\$163,718
Total Technical Changes	-	-	-	-	-
Total Annualizations and Non-Recurs	-	-	-	-	-
2025 Civilian Pay Raise Annualization	-	-	\$523	-	\$523
2024 Civilian Pay Raise Annualization	-	-	\$40	-	\$40
2026 Civilian Pay Raise and Annualization	-	-	\$1,000	-	\$1,000
Federal Employee Retirement System (FERS) Adjustment	-	-	(\$238)	-	(\$238)
2026 Investment Adjustments	-	-	-	\$641	\$641
2026 Salary Adjustments	-	-	\$4,773	-	\$4,773
Non-Major Investment Sustainment	-	-	-	(\$413)	(\$413)
Total Pricing Changes	-	-	\$6,098	\$228	\$6,326
Total Adjustments-to-Base	-	-	\$6,098	\$228	\$6,326
FY 2027 Current Services	441	433	\$112,467	\$57,577	\$170,044
Transfer for Financial Professionals Program (FPP)	-	-	(\$29)	-	(\$29)
Transfer for C-UAS Program Executive Office from OSEM/O&S/PLCY to S&T/O&S/MS	6	6	\$1,200	\$3,500	\$4,700
Transfer for Derived PIV Credential from S&T/O&S/MS to MGMT/O&S/OCSSO	-	-	-	(\$17)	(\$17)
Total Transfers	6	6	\$1,171	\$3,483	\$4,654
2026 Artificial Intelligence: AI Testing and Evaluation	1	1	\$260	\$31	\$291
2026 MS-Enterprise Shared Services	-	-	-	(\$6,900)	(\$6,900)
MS-Information Technology Operational Requirements	-	-	-	\$7,000	\$7,000
Workforce Transition Plan	(133)	(133)	(\$31,445)	-	(\$31,445)
Total Program Changes	(132)	(132)	(\$31,185)	\$131	(\$31,054)
FY 2027 Request	315	307	\$82,453	\$61,191	\$143,644
FY 2026 TO FY 2027 Change	(126)	(126)	(\$23,916)	\$3,842	(\$20,074)

**Mission Support – PPA
Personnel Compensation and Benefits**

Pay Summary
(Dollars in Thousands)

	FY 2025 Full-Year CR				FY 2026 Annualized CR				FY 2027 President's Budget				FY 2026 to FY 2027 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Mission Support	441	433	\$106,369	\$237.82	441	433	\$106,369	\$237.82	315	307	\$82,453	\$257.23	(126)	(126)	(\$23,916)	\$19.42
Total	441	433	\$106,369	\$237.82	441	433	\$106,369	\$237.82	315	307	\$82,453	\$257.23	(126)	(126)	(\$23,916)	\$19.42
Subtotal Discretionary - Appropriation	441	433	\$106,369	\$237.82	441	433	\$106,369	\$237.82	315	307	\$82,453	\$257.23	(126)	(126)	(\$23,916)	\$19.42

Pay by Object Class
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
11.1 Full-time Permanent	\$67,433	\$67,433	\$48,877	(\$18,556)
11.3 Other than Full-time Permanent	\$6,459	\$6,459	\$6,624	\$165
11.5 Other Personnel Compensation	\$2,128	\$2,128	\$2,102	(\$26)
11.8 Special Personal Services Payments	\$3,395	\$3,395	\$3,483	\$88
12.1 Civilian Personnel Benefits	\$26,954	\$26,954	\$21,367	(\$5,587)
Total - Personnel Compensation and Benefits	\$106,369	\$106,369	\$82,453	(\$23,916)
Positions and FTE				
Positions - Civilian	441	441	315	(126)
FTE - Civilian	433	433	307	(126)

Pay Cost Drivers
(Dollars in Thousands)

	FY 2025 Full-Year CR			FY 2026 Annualized CR			FY 2027 President's Budget			FY 2026 to FY 2027 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Mission Support Personnel	433	\$102,974	\$237.82	433	\$102,974	\$237.82	307	\$78,970	\$257.23	(126)	(\$24,004)	\$19.42
Other PC&B Costs	-	\$3,395	-	-	\$3,395	-	-	\$3,483	-	-	\$88	-
Total - Pay Cost Drivers	433	\$106,369	\$237.82	433	\$106,369	\$237.82	307	\$82,453	\$257.23	(126)	(\$23,916)	\$19.42

Explanation of Pay Cost Drivers

Mission Support Personnel: These costs support personnel compensation, benefits, and performance awards for non-laboratory personnel supporting S&T’s operations and mission. The FY 2027 Budget supports 315 positions and 307 FTE to maintain S&T’s current staffing.

Other PC&B Costs: These costs support subject matter experts that S&T uses from other government agencies on a reimbursable detailee basis.

**Mission Support – PPA
Non Pay Budget Exhibits**

Non Pay Summary
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
Mission Support	\$57,349	\$57,349	\$61,191	\$3,842
Total	\$57,349	\$57,349	\$61,191	\$3,842
Subtotal Discretionary - Appropriation	\$57,349	\$57,349	\$61,191	\$3,842

Non Pay by Object Class
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
21.0 Travel & Transportation of Persons	\$736	\$736	\$736	-
23.3 Communications, Utilities, & Miscellaneous	\$1,291	\$1,291	\$1,291	-
24.0 Printing & Reproduction	\$140	\$140	\$140	-
25.1 Advisory & Assistance Services	\$33,313	\$33,313	\$36,118	\$2,805
25.2 Other Services from Non-Federal Sources	\$1,700	\$1,700	\$2,200	\$500
25.3 Other Purchases of Goods & Services	\$4,202	\$4,202	\$4,291	\$89
25.4 Operations & Maintenance of Facilities	\$333	\$333	\$833	\$500
25.7 Operation & Maintenance of Equipment	\$8,507	\$8,507	\$8,455	(\$52)
26.0 Supplies & Materials	\$775	\$775	\$775	-
31.0 Equipment	\$6,352	\$6,352	\$6,352	-
Total - Non Pay Budget Object Class	\$57,349	\$57,349	\$61,191	\$3,842

Non Pay Cost Drivers*(Dollars in Thousands)*

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Total Changes
Contract Support Services	\$33,313	\$33,313	\$36,135	\$2,822
Other Costs	\$16,393	\$16,393	\$17,413	\$1,020
Information Technology Equipment	\$7,643	\$7,643	\$7,643	-
Total - Non-Pay Cost Drivers	\$57,349	\$57,349	\$61,191	\$3,842

Explanation of Non-Pay Cost Drivers

Contract Support Services: This cost driver reflects services supporting the execution of functions including financial management, acquisitions, facility planning, personal property, maintenance, and other administrative functions. This funding increase allows S&T to continue to provide various IT services to include engineering, information assurance, security and service delivery support.

Other Costs: This cost driver supports S&T's headquarters operational functions, including business utilities, travel, training, office supplies, printing services, legal services, consolidated subscriptions, government-wide mandated services, and non-major Investments.

Information Technology Equipment: This cost driver encompasses expenses related to data centers, security and compliance software, and the purchase, maintenance, and upgrade of IT equipment—including hardware such as laptops, monitors, and printers, as well as software like Microsoft Office and McAfee.

Laboratory Facilities – PPA

Budget Comparison and Adjustments

Comparison of Budget Authority and Request

(Dollars in Thousands)

	FY 2025 Full-Year CR			FY 2026 Annualized CR			FY 2027 President's Budget			FY 2026 to FY 2027 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Laboratory Facilities	132	132	\$128,373	132	132	\$128,373	93	93	\$136,826	(39)	(39)	\$8,453
Total	132	132	\$128,373	132	132	\$128,373	93	93	\$136,826	(39)	(39)	\$8,453
Subtotal Discretionary - Appropriation	132	132	\$128,373	132	132	\$128,373	93	93	\$136,826	(39)	(39)	\$8,453

PPA Level I Description

The Laboratory Facilities PPA funds operations, infrastructure, maintenance, and personnel at S&T’s laboratory facilities. Managed by the Office of National Laboratories (ONL), this program ensures the safe, secure, and efficient functioning of key labs—including NBACC, PIADC, TSL, NUSTL, and CSAC—to meet DHS mission requirements. ONL coordinates a network of S&T and DOE national laboratories, providing vital scientific expertise and technical infrastructure that supports RDT&E across all S&T mission areas. As a cornerstone of S&T’s organization, ONL delivers innovative solutions and maintains essential capabilities for DHS and the broader homeland security enterprise.

The following operations and facilities are supported in this PPA:

National Biodefense Analysis and Countermeasures Center Operations (NBACC): NBACC provides the capability to characterize current and future biological threats, assess their impacts, and inform the development of countermeasures and vaccines in response to events and identified threats. NBACC also provides the capability to conduct bio forensics analysis in support of the Federal Bureau of Investigation (FBI). Through its “Work for Others” program, NBACC is utilized across the Federal Government to conduct work for Federal agencies on a reimbursable basis. S&T operates NBACC as a FFRDC, which plans, manages, and executes the NBACC research programs and operates the facility.

Plum Island Animal Disease Center Operations (PIADC): While the Plum Island Animal Disease Center (PIADC) previously played a vital role, its mission will conclude in FY 2027. As the facility undergoes decontamination and final closure, only minimal operational funding is required. Continued operational support is essential to maintain biosafety within the laboratories throughout the decontamination and decommissioning process. S&T remains responsible for the management, operations, and maintenance of the complex, which includes laboratory facilities, security services, ferry operations, waste processing, warehousing, office space, and storage.

Transportation Security Laboratory Operations (TSL): TSL is responsible for researching, developing, testing, and evaluating technologies to detect and mitigate the threat of explosives and other weapons that may be used against our Nation's transportation systems and infrastructure. TSL supports Transportation Security Administration (TSA) as its primary customer and provides test and evaluation services to CBP, USCG, USSS, and other government organizations. TSL operates a remote test facility located at Tyndall Air Force Base, FL, to collect homemade explosive detection data for developmental and certification testing of transportation security equipment, as well as the Detection Technology Center at Redstone Arsenal in Huntsville, AL. This placement co-locates S&T with the Federal Bureau of Investigation's Terrorist Explosive Device Analytical Center Improvised Explosive Detection and Synthesis Center to conduct rapid home-made explosive characterization and assessment of detection system performance against emerging threats.

National Urban Security Technology Laboratory (NUSTL): As a federal laboratory, NUSTL bridges the gap between emerging technologies and frontline responders. NUSTL's mission empowers first responders through data-driven research, development, testing, and evaluation (RDT&E), ensuring that life-saving tools are effective and field-ready. NUSTL provides the technical foundation for unmanned aircraft systems (UAS) and counter-UAS (CUAS) missions, delivering evidence-based data to DHS Components and State, local, tribal and territorial (SLTT) partners to address illicit drone threats. Recognizing the importance of energy resilience, NUSTL leads RDT&E efforts to assess the public safety and national security implications of implementing innovative energy solutions. Through independent assessments and close collaboration with end-users, NUSTL transforms complex technical challenges into operational advantages for the men and women who protect our nation.

Chemical Security Analysis Center Operations (CSAC): CSAC conducts studies and analyses for assessing the threat and hazards associated with an accidental or intentional large-scale chemical event, or chemical terrorism event, as well as exploring AI/Machine Learning to efficiently fill critical data gaps for physical properties, toxicity, synthetic pathways, and detection signatures for priority compounds. CSAC is strategically co-located at the U.S. Army Combat Capabilities Development Command Chemical Biological Center at Aberdeen Proving Ground-Edgewood in Maryland and supports a variety of customers within the Federal Government and Homeland Security Enterprise, to include but not limited to S&T's Chemical and Biological work, Cybersecurity and Infrastructure Security Agency (CISA), USSS, TSA, Federal Emergency Management Agency (FEMA), Customs and Border Protection (CBP), United States Coast Guard, the National Security Council and other Federal agencies.

Laboratory Facilities – PPA Summary of Budget Changes

(Dollars in Thousands)

	Positions	FTE	Pay Amount	Non-Pay Amount	Amount
FY 2025 Full-Year CR	132	132	\$28,142	\$100,231	\$128,373
FY 2026 Annualized CR	132	132	\$28,142	\$100,231	\$128,373
FY 2027 Base Budget	132	132	\$28,142	\$100,231	\$128,373
Total Technical Changes	-	-	-	-	-
Non-recur of Laboratory Facilities IT Investment	-	-	-	(\$73)	(\$73)
Total Annualizations and Non-Recurs	-	-	-	(\$73)	(\$73)
2025 Civilian Pay Raise Annualization	-	-	\$135	-	\$135
2026 Civilian Pay Raise and Annualization	-	-	\$404	-	\$404
Federal Employee Retirement System (FERS) Adjustment	-	-	(\$63)	-	(\$63)
Federal Protective Services Fee Adjustment	-	-	-	\$21	\$21
2026 Investment Adjustments	-	-	-	\$36	\$36
2026 Salary Adjustments	-	-	\$273	-	\$273
Non-Major Investment Sustainment	-	-	-	\$586	\$586
Total Pricing Changes	-	-	\$749	\$643	\$1,392
Total Adjustments-to-Base	-	-	\$749	\$570	\$1,319
FY 2027 Current Services	132	132	\$28,891	\$100,801	\$129,692
Total Transfers	-	-	-	-	-
Laboratory Operations and Maintenance	-	-	-	\$15,456	\$15,456
Workforce Transition Plan	(39)	(39)	(\$8,322)	-	(\$8,322)
Total Program Changes	(39)	(39)	(\$8,322)	\$15,456	\$7,134
FY 2027 Request	93	93	\$20,569	\$116,257	\$136,826
FY 2026 TO FY 2027 Change	(39)	(39)	(\$7,573)	\$16,026	\$8,453

**Laboratory Facilities – PPA
Personnel Compensation and Benefits**

Pay Summary
(Dollars in Thousands)

	FY 2025 Full-Year CR				FY 2026 Annualized CR				FY 2027 President's Budget				FY 2026 to FY 2027 Total			
	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate	Pos.	FTE	Amount	Rate
Laboratory Facilities	132	132	\$28,142	\$200.79	132	132	\$28,142	\$200.79	93	93	\$20,569	\$203.22	(39)	(39)	(\$7,573)	\$2.43
Total	132	132	\$28,142	\$200.79	132	132	\$28,142	\$200.79	93	93	\$20,569	\$203.22	(39)	(39)	(\$7,573)	\$2.43
Subtotal Discretionary - Appropriation	132	132	\$28,142	\$200.79	132	132	\$28,142	\$200.79	93	93	\$20,569	\$203.22	(39)	(39)	(\$7,573)	\$2.43

Pay by Object Class
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
11.1 Full-time Permanent	\$18,466	\$18,466	\$12,899	(\$5,567)
11.3 Other than Full-time Permanent	\$503	\$503	\$512	\$9
11.5 Other Personnel Compensation	\$540	\$540	\$386	(\$154)
11.8 Special Personal Services Payments	\$1,638	\$1,638	\$1,670	\$32
12.1 Civilian Personnel Benefits	\$6,995	\$6,995	\$5,102	(\$1,893)
Total - Personnel Compensation and Benefits	\$28,142	\$28,142	\$20,569	(\$7,573)
Positions and FTE				
Positions - Civilian	132	132	93	(39)
FTE - Civilian	132	132	93	(39)

Pay Cost Drivers
(Dollars in Thousands)

	FY 2025 Full-Year CR			FY 2026 Annualized CR			FY 2027 President's Budget			FY 2026 to FY 2027 Total Changes		
	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate	FTE	Amount	Rate
Laboratory Personnel	132	\$26,504	\$200.79	132	\$26,504	\$200.79	93	\$18,899	\$203.22	(39)	(\$7,605)	\$2.43
Other PC&B Costs	-	\$1,638	-	-	\$1,638	-	-	\$1,670	-	-	\$32	-
Total - Pay Cost Drivers	132	\$28,142	\$200.79	132	\$28,142	\$200.79	93	\$20,569	\$203.22	(39)	(\$7,573)	\$2.43

Explanation of Pay Cost Drivers

Laboratory Personnel: These costs support personnel compensation, benefits, and performance awards for laboratory personnel overseeing the operations, core capabilities, and maintenance requirements at S&T’s laboratory facilities. The FY 2027 Budget supports 93 positions and 93 FTE to maintain S&T’s current staffing.

Other PC&B Costs: These costs support subject matter experts from other government agencies on a reimbursable detailee basis.

**Laboratory Facilities – PPA
Non Pay Budget Exhibits**

Non Pay Summary
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
Laboratory Facilities	\$100,231	\$100,231	\$116,257	\$16,026
Total	\$100,231	\$100,231	\$116,257	\$16,026
Subtotal Discretionary - Appropriation	\$100,231	\$100,231	\$116,257	\$16,026

Non Pay by Object Class
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
21.0 Travel & Transportation of Persons	\$226	\$226	\$226	-
22.0 Transportation of Things	\$17	\$17	\$17	-
23.1 Rental Payments to GSA	\$1,955	\$1,955	\$1,955	-
23.3 Communications, Utilities, & Miscellaneous	\$1	\$1	\$1	-
24.0 Printing & Reproduction	\$222	\$222	\$222	-
25.1 Advisory & Assistance Services	\$50,616	\$50,616	\$50,565	(\$51)
25.2 Other Services from Non-Federal Sources	\$2,316	\$2,316	\$2,316	-
25.3 Other Purchases of Goods & Services	\$14,355	\$14,355	\$14,376	\$21
25.4 Operations & Maintenance of Facilities	\$23,314	\$23,314	\$39,396	\$16,082
25.7 Operation & Maintenance of Equipment	\$528	\$528	\$528	-
26.0 Supplies & Materials	\$628	\$628	\$628	-
31.0 Equipment	\$6,053	\$6,053	\$6,027	(\$26)
Total - Non Pay Budget Object Class	\$100,231	\$100,231	\$116,257	\$16,026

Non Pay Cost Drivers*(Dollars in Thousands)*

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Total Changes
Laboratory Contract Support	\$50,616	\$50,616	\$50,543	(\$73)
Laboratory Facilities Operations and Maintenance	\$29,896	\$29,896	\$45,974	\$16,078
Other Goods and Services from Federal Sources	\$14,355	\$14,355	\$14,376	\$21
Other Costs	\$2,781	\$2,781	\$2,781	-
Rental Payments to General Services Administration	\$1,955	\$1,955	\$1,955	-
Laboratory Supplies and Materials	\$628	\$628	\$628	-
Total - Non-Pay Cost Drivers	\$100,231	\$100,231	\$116,257	\$16,026

Explanation of Non-Pay Cost Drivers

Laboratory Contract Support: This cost driver supports contractor staff required to assist in managing the execution of business operations including financial management, facility planning, engineering and technical services, and other administrative functions.

Laboratory Facilities Operations and Maintenance: These costs ensure that facilities are maintained to meet mission requirements while supporting safe, secure, compliant, and efficient operations. Operations and maintenance for laboratory facilities encompass labor, management, supervision, equipment, software, firmware, and materials necessary for all services required to sustain safe, reliable, effective, and compliant operations under normal, abnormal, and emergency conditions. This includes service contracts, equipment replacement, routine and unforeseen critical facility repairs, and land upkeep. PIADC must be maintained on a 24/7 basis to ensure continuous operational readiness.

Other Goods and Services from Federal Sources: These costs are driven by contractor services and interagency agreements for the purchase of goods and services for jointly funded projects. Examples include TSL's agreement with the Federal Aviation Administration (FAA) for the FAA to provide facility support services on a reimbursable basis for various activities, including utilities, building maintenance, emergency services, air shuttle services, and IT services. FPS provides security at PIADC.

Other Costs: These costs include operations and maintenance of the laboratories' IT systems, payments to vendors, utilities, fleet maintenance, travel, training, supplies, and other costs.

Rental Payments to General Services Administration: This cost driver is associated with facility rental payment to the General Services Administration for NUSTL.

Laboratory Supplies and Materials: These costs include business operations functions that pay for the purchase and maintenance of IT equipment, including hardware and software as well as upgrades of equipment. This cost driver also includes office supplies, materials, and vehicle maintenance.

Acquisitions and Operations Analysis – PPA

Budget Comparison and Adjustments

Comparison of Budget Authority and Request

(Dollars in Thousands)

	FY 2025 Full-Year CR			FY 2026 Annualized CR			FY 2027 President's Budget			FY 2026 to FY 2027 Total Changes		
	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount	Pos.	FTE	Amount
Acquisition and Operations Analysis	-	-	\$77,720	-	-	\$77,720	-	-	\$91,803	-	-	\$14,083
Total	-	-	\$77,720	-	-	\$77,720	-	-	\$91,803	-	-	\$14,083
Subtotal Discretionary - Appropriation	-	-	\$77,720	-	-	\$77,720	-	-	\$91,803	-	-	\$14,083

PPA Level I Description

The Acquisition and Operations (AOA) PPA provides funding to support expert assistance, including systems engineering, to entities across the HSE to ensure that the transition, acquisition, and deployment of technologies, information, and procedures improve the efficiency and effectiveness of the operational capabilities. This includes technological assessments of major DHS acquisition programs to ensure that technologies, concepts of operations (CONOPS), and procedures meet operational requirements, technology analysis and review of alternatives throughout an acquisition program’s lifecycle, the establishment of standards to support the homeland security mission, and administration of the SAFETY Act program.

The following programs are supported in this PPA:

Federally Funded Research and Development Centers Program Management Office (FFRDC PMO): The FFRDC PMO provides centralized oversight and support to ensure DHS’s ongoing access to mission-focused capabilities from its two federally funded research and development centers. The PMO manages a disciplined strategic monitoring process and multilevel governance plan, including regular status updates, key approval checkpoints, and active engagement from senior DHS leadership, program managers, and the PMO itself. Additionally, the PMO utilizes automated tools and dashboards for program and performance management, enabling data-driven decision-making and enhancing accountability. This robust oversight ensures the FFRDCs deliver timely expertise and solutions, allowing DHS to rapidly address emerging challenges and mission needs.

International Cooperative Programs Office (ICPO): ICPO forges technology partnerships that advance DHS goals and capabilities globally through a collaborative, cost-effective approach. By increasing access to innovative technologies and enabling joint development and operational trials, ICPO strengthens U.S. leadership in security innovation and maintains a global presence. Through targeted science and technology cooperation agreements with international partners, ICPO facilitates the exchange of personnel, resources, funding, and technical expertise. Leveraging its unique authorities and collaborative efforts, ICPO enhances solutions to counter transnational crime, improves cross-border law enforcement, and helps mitigate threats before they reach the United States.

Technology Forecasting for Operational Impact: In addition to operationalizing research for the Department, the Science and Technology Directorate is also responsible for ensuring the Department is prepared to deliver capabilities that address emerging threats while simultaneously harnessing scientific advancements to enhance operational effectiveness. Funding is used to analyze new technologies and research discoveries and predict how they can be leveraged to improve Departmental capabilities using rigorous and replicable methodologies.

Operations and Requirements Analysis (ORA): Through the S&T-managed DHS Integrated Product Team (IPT) process and coordination with DHS Joint R&D Requirements, ORA identifies common operational R&D needs across DHS components and delivers analyses that inform technical solutions to improve efficiency and effectiveness. ORA manages this process by translating capability gaps into actionable requirements, guiding R&D planning and resource allocation. Additionally, ORA leads S&T's implementation of the Foundations for Evidence-Based Policymaking Act of 2018, developing quadrennial learning agendas, annual evaluation plans, capacity assessments, and other products that support evidence-building and continuous improvement across DHS.

SAFETY Act: Mandated by Congress, the SAFETY Act program provides liability protections for sellers of qualified anti-terrorism technologies that can save lives during terrorist attacks. By enhancing national anti-terrorism capabilities, the program benefits both public and private stakeholders and encourages collaboration with industry and small businesses to accelerate the development of critical solutions for the HSE. The SAFETY Act program also supports key DHS initiatives, including the National Infrastructure Protection Plan, TSA's Certified Cargo Screening Program, and CBP's Customs-Trade Partnership Against Terrorism—by implementing streamlined procedures, such as Block Designations, to efficiently extend SAFETY Act coverage across federal anti-terrorism programs.

Mission Analysis and Strategic Partnerships: To effectively operationalize research outcomes and emerging technologies, S&T actively engages with interagency, international, and industry partners. These collaborations address critical homeland security science and technology needs through joint initiatives and cooperative efforts. This funding supports comprehensive mission analysis and the development of a strategic vision, enabling S&T to build and strengthen partnerships that advance DHS priorities.

Systems Engineering: Systems Engineering improves the efficiency of DHS programs by systematically translating component requirements into operational capabilities through a disciplined process that manages technical risk and ensures cost, schedule, and performance objectives are met from concept to deployment. S&T conducts technical assessments of DHS acquisition programs to identify and mitigate major risks, provide actionable recommendations, and support informed decision-making, ensuring technical integrity throughout program lifecycles. S&T also leads the development of the department’s Digital Engineering Strategy, leveraging digital tools and models to further enhance the systems development process. Additionally, S&T offers technical expertise to DHS acquisition oversight offices, including the Office of the Chief Information Officer and the Chief Procurement Office.

System of Systems Operational Analytics (SoSOA): This initiative advances SoSOA to an enterprise-level capability, significantly improving DHS’s data analytics and enabling comprehensive analysis of complex, interdependent systems across DHS Components, Headquarters Offices, the Program Analysis & Evaluation Office, and the Office of Homeland Security Statistics (OHSS). Building on previous proof-of-concept projects, SoSOA has developed versatile modeling and simulation tools to support these efforts. There is strong demand within the HSE for a fully mature, enterprise-wide SoSOA capability that provides standardized analytic frameworks, advanced tools, expert support in analytics, and robust training resources.

Test and Evaluation (T&E): T&E serves as the authority for providing programs with a comprehensive understanding of system capabilities and limitations in real-world operational environments with trained users. It also trains members of the DHS Acquisition Workforce in the Test & Evaluation Career Field. Through active engagement in major acquisition programs and R&D efforts, T&E plays a vital role in delivering enhanced capabilities to DHS operators and improving acquisition outcomes.

Technology Scouting and Transition: This function supports S&T’s strategic and tactical R&D investment decisions by identifying and evaluating new and emerging technologies, including those from the private sector. By providing innovative technology discovery, end-to-end transition support, and maintaining a knowledge repository for information sharing, Technology Scouting and Transition informs R&D decisions and facilitates the adoption of solutions that meet DHS requirements. These activities are carried out through Technology Transition, Technology Scouting, Operational Experimentation, and the DHS Technology Clearinghouse.

NUSTL First Responders Technology Support: NUSTL’s test, evaluation, and R&D capabilities enable first responders to better prepare for, protect against, respond to, and recover from homeland security threats and hazards. Its independent technology assessments support informed acquisition and deployment decisions, ensuring first responders have access to the most effective tools and technologies. As a trusted resource for agencies at all levels of government, NUSTL collaborates with end-users to promote the successful field deployment of commercial and emerging technologies for law enforcement, fire, and emergency response agencies.

Acquisitions and Operations Analysis – PPA
Summary of Budget Changes
(Dollars in Thousands)

	Positions	FTE	Pay Amount	Non-Pay Amount	Amount
FY 2025 Full-Year CR	-	-	-	\$77,720	\$77,720
FY 2026 Annualized CR	-	-	-	\$77,720	\$77,720
FY 2027 Base Budget	-	-	-	\$77,720	\$77,720
Total Technical Changes	-	-	-	-	-
Total Annualizations and Non-Recurs	-	-	-	-	-
Capital Security Cost Sharing	-	-	-	\$58	\$58
Total Pricing Changes	-	-	-	\$58	\$58
Total Adjustments-to-Base	-	-	-	\$58	\$58
FY 2027 Current Services	-	-	-	\$77,778	\$77,778
2026 Realignment for Partnerships Intermediary Agreements from AOA to RD&I	-	-	-	(\$1,000)	(\$1,000)
Total Transfers	-	-	-	(\$1,000)	(\$1,000)
2026 AOA-Federally Funded Research and Development Center	-	-	-	(\$142)	(\$142)
AOA - Acquisition Support	-	-	-	\$1,594	\$1,594
AOA - SAFETY Act	-	-	-	\$12,000	\$12,000
AOA - Technology Transition Support	-	-	-	\$1,573	\$1,573
Total Program Changes	-	-	-	\$15,025	\$15,025
FY 2027 Request	-	-	-	\$91,803	\$91,803
FY 2026 TO FY 2027 Change	-	-	-	\$14,083	\$14,083

**Acquisitions and Operations Analysis – PPA
Non Pay Budget Exhibits**

Non Pay Summary
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
Acquisition and Operations Analysis	\$77,720	\$77,720	\$91,803	\$14,083
Total	\$77,720	\$77,720	\$91,803	\$14,083
Subtotal Discretionary - Appropriation	\$77,720	\$77,720	\$91,803	\$14,083

Non Pay by Object Class
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
21.0 Travel & Transportation of Persons	\$297	\$297	\$373	\$76
22.0 Transportation of Things	\$109	\$109	\$136	\$27
24.0 Printing & Reproduction	\$20	\$20	\$25	\$5
25.1 Advisory & Assistance Services	\$55,878	\$55,878	\$65,054	\$9,176
25.2 Other Services from Non-Federal Sources	\$2,357	\$2,357	\$2,955	\$598
25.3 Other Purchases of Goods & Services	\$17,789	\$17,789	\$21,851	\$4,062
25.4 Operations & Maintenance of Facilities	\$51	\$51	\$65	\$14
25.7 Operation & Maintenance of Equipment	\$68	\$68	\$85	\$17
25.8 Subsistence & Support of Persons	\$4	\$4	\$5	\$1
26.0 Supplies & Materials	\$67	\$67	\$84	\$17
31.0 Equipment	\$339	\$339	\$424	\$85
32.0 Land & Structures	\$20	\$20	\$25	\$5
41.0 Grants, Subsidies, & Contributions	\$682	\$682	\$682	-
42.0 Insurance Claims & Indemnities	\$39	\$39	\$39	-
Total - Non Pay Budget Object Class	\$77,720	\$77,720	\$91,803	\$14,083

Non Pay Cost Drivers*(Dollars in Thousands)*

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Total Changes
Contract Support Services	\$55,878	\$55,878	\$65,054	\$9,176
Other Goods and Services from Federal Sources	\$18,760	\$18,760	\$23,068	\$4,308
Other Costs	\$3,082	\$3,082	\$3,681	\$599
Total - Non-Pay Cost Drivers	\$77,720	\$77,720	\$91,803	\$14,083

Explanation of Non-Pay Cost Drivers

Contract Support Services: Costs include contract services for business operations including financial management, studies, analyses, and evaluations in support of IT and R&D activities, as well as other administrative functions. S&T's AOA programs rely on contracting services to provide analyses, engineering, test expertise, and products for operational end users within DHS. Through streamlining its portfolio to gain efficiencies, funding enables S&T to support SAFETY Act application processing; Evidence Act Officer to analyze and execute the results of formal S&T program evaluations; support the FFRDC PMO with contract support necessary to handle the quantity of tasks related to the demands of FFRDC services; and provide OSAI with program, technical support and subject matter expertise to address demands.

Other Goods and Services from Federal Sources: Costs include Interagency agreements for contractual services for the purchase of goods and services for jointly funded projects. For example, OSAI relies heavily on the Institute of Defense Analyses and the RAND Corporation to provide studies, and analyses, in determining whether to designate a particular technology as a Qualified Anti-Terrorism Technology. Funding will allow S&T to support the program and analysis requirements for independent continuous evaluation of current policies, procedures, and processes.

Other Costs: Costs include operations and maintenance of the SAFETY Act Management System, travel, conferences, and direct support of major acquisitions and systems essential to planning, R&D, or maintenance of the acquisition or system. Through streamlining its portfolio to gain efficiencies, funding will enable S&T to support these services in 2027 for the Evidence Act Officer, the FFRDC PMO and the OSAI with their day-to-day operational requirements.

Department of Homeland Security

Science and Technology Directorate

Procurement, Construction, and Improvements



Fiscal Year 2027

Congressional Justification

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Procurement, Construction, and Improvements

Budget Comparison and Adjustments

Comparison of Budget Authority and Request

(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
Construction and Facility Improvements	\$61,000	\$61,000	\$40,000	(\$21,000)
Total	\$61,000	\$61,000	\$40,000	(\$21,000)
Subtotal Discretionary - Appropriation	\$61,000	\$61,000	\$40,000	(\$21,000)

S&T’s Procurement, Construction & Improvements (PC&I) appropriation provides resources to ensure the core capabilities of its laboratory infrastructure are operational in support of DHS mission requirements. PC&I funding allows S&T to make essential investments in construction, maintenance, modernization, and asset replacement or removal as necessary to support requirements generated by DHS Components. In addition, PC&I funding enables S&T to invest in equipment and information technology to ensure that S&T laboratories maintain operational readiness and associated accreditations.

Construction and Facilities Improvement Program, Project, or Activity (PPA): This PPA supports all major construction and improvements for S&T’s laboratories above the real property threshold of \$2.0M set for minor construction and above the Personal Property Threshold of \$250,000.

Procurement, Construction, and Improvements**Summary of Budget Changes***(Dollars in Thousands)*

	Positions	FTE	Amount
FY 2025 Full-Year CR	-	-	\$61,000
FY 2026 Annualized CR	-	-	\$61,000
FY 2027 Base Budget	-	-	-
Critical Repair/Replacement Requirement	-	-	\$10,000
Plum Island Closure and Support	-	-	\$30,000
Total Investment Elements	-	-	\$40,000
FY 2027 Request	-	-	\$40,000
FY 2026 TO FY 2027 Change	-	-	(\$21,000)

Procurement, Construction, and Improvements

Non Pay Budget Exhibits

Non Pay by Object Class

(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
21.0 Travel & Transportation of Persons	\$31	\$31	-	(\$31)
23.2 Rental Payments to Others	\$169	\$169	-	(\$169)
23.3 Communications, Utilities, & Miscellaneous	\$100	\$100	-	(\$100)
25.1 Advisory & Assistance Services	\$9,000	\$9,000	\$8,331	(\$669)
25.5 Research & Development Contracts	\$1,000	\$1,000	-	(\$1,000)
26.0 Supplies & Materials	\$2,200	\$2,200	\$2,000	(\$200)
31.0 Equipment	\$20,200	\$20,200	\$11,000	(\$9,200)
32.0 Land & Structures	\$28,300	\$28,300	\$18,669	(\$9,631)
Total - Non Pay Budget Object Class	\$61,000	\$61,000	\$40,000	(\$21,000)

**Procurement, Construction, and Improvements
Capital Investment Exhibits**

Capital Investments
(Dollars in Thousands)

	Acquisition Level	IT/ Non-IT	MAOL	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
N024_000008122 - Detection Sciences Testing and Applied Research Center	Level 3	Non-IT	Yes	\$7,000	\$7,000	-
N/A - Critical Repair/Replacement Requirement	Non-Major	Non-IT	No	\$24,000	\$24,000	\$10,000
N/A - Plum Island Closure and Support	Level 3	Non-IT	No	\$30,000	\$30,000	\$30,000

Procurement, Construction, and Improvements**Budget Comparison and Adjustments****Comparison of Budget Authority and Request***(Dollars in Thousands)*

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
Critical Repair/Replacement Requirement	\$24,000	\$24,000	\$10,000	(\$14,000)
Plum Island Closure and Support	\$30,000	\$30,000	\$30,000	-
Detection Sciences Testing and Applied Research Center	\$7,000	\$7,000	-	(\$7,000)
Total	\$61,000	\$61,000	\$40,000	(\$21,000)
Subtotal Discretionary - Appropriation	\$61,000	\$61,000	\$40,000	(\$21,000)

PPA Level I Description

The Construction and Facility Improvements (CFI) PPA supports all major construction and enhancements for S&T's laboratories. These facilities include:

- The National Biodefense Analysis and Countermeasures Center (NBACC) at Fort Detrick in Frederick, Maryland
- The Plum Island Animal Disease Center (PIADC) on Plum Island, New York
- The Transportation Security Laboratory (TSL) in Atlantic City, New Jersey
- The National Urban Security Technology Laboratory (NUSTL) in New York, New York
- The Chemical Security Analysis Center (CSAC) at Aberdeen Proving Ground in Maryland

These five laboratories are critical to the national homeland security mission, allowing America's top scientists and engineers to leverage their expertise in developing solutions to address the most dangerous threats and vulnerabilities facing homeland security.

The CFI PPA provides funding for construction, completing facility maintenance and repair, replacing outdated and end-of-life laboratory equipment, and investing in capital improvements – including Information Technology modernization – to meet evolving mission requirements. These investments support critical scientific and technical capabilities necessary for conducting research, development, testing and evaluation for DHS and the Homeland Security Enterprise.

This PPA is comprised of the following investments:

Critical Repair/Replacement Requirement: This capital investment program enables S&T laboratories to meet regulatory requirements, uphold modern technological standards, and replace mission-critical equipment that has reached the end of its lifecycle.

Plum Island Closure and Support (PICS): This investment supports the activities needed for the transition, closure, and conveyance of all Plum Island real property (including the Orient Point property) and all related personal property and transportation assets, after the PIADC science mission is fully transferred to the National Bio- and Agro-defense Facility (NBAF) in October 2026. The PICS deterministic finish is expected in March 2031.

Detection Sciences Testing and Applied Research (DSTAR) Center: A new facility to include partially automated, state-of-the-art laboratories to provide for the safe and effective validation of explosive screening devices. It also will include sterile areas for testing and evaluation of trace detection devices and modern computational infrastructure for analyzing and archiving threat images from computed tomography and millimeter wave threat screening devices.

Construction and Facility Improvements – PPA

Summary of Budget Changes

(Dollars in Thousands)

	Positions	FTE	Amount
FY 2025 Full-Year CR	-	-	\$61,000
FY 2026 Annualized CR	-	-	\$61,000
FY 2027 Base Budget	-	-	-
Critical Repair/Replacement Requirement	-	-	\$10,000
Plum Island Closure and Support	-	-	\$30,000
Total Investment Elements	-	-	\$40,000
FY 2027 Request	-	-	\$40,000
FY 2026 TO FY 2027 Change	-	-	(\$21,000)

Construction and Facility Improvements – PPA**Non Pay Budget Exhibits****Non Pay by Object Class***(Dollars in Thousands)*

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
21.0 Travel & Transportation of Persons	\$31	\$31	-	(\$31)
23.2 Rental Payments to Others	\$169	\$169	-	(\$169)
23.3 Communications, Utilities, & Miscellaneous	\$100	\$100	-	(\$100)
25.1 Advisory & Assistance Services	\$9,000	\$9,000	\$8,331	(\$669)
25.5 Research & Development Contracts	\$1,000	\$1,000	-	(\$1,000)
26.0 Supplies & Materials	\$2,200	\$2,200	\$2,000	(\$200)
31.0 Equipment	\$20,200	\$20,200	\$11,000	(\$9,200)
32.0 Land & Structures	\$28,300	\$28,300	\$18,669	(\$9,631)
Total - Non Pay Budget Object Class	\$61,000	\$61,000	\$40,000	(\$21,000)

Construction and Facility Improvements – PPA
Capital Investment Exhibits

Capital Investments

(Dollars in Thousands)

	Acquisition Level	IT/ Non-IT	MAOL	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
N024_000008122 - Detection Sciences Testing and Applied Research Center	Level 3	Non-IT	Yes	\$7,000	\$7,000	-
N/A - Critical Repair/Replacement Requirement	Non-Major	Non-IT	No	\$24,000	\$24,000	\$10,000
N/A - Plum Island Closure and Support	Level 3	Non-IT	No	\$30,000	\$30,000	\$30,000

**Critical Repair/Replacement Requirement– Investment
Capital Investment Exhibits**

Construction

(Dollars in Thousands)

	Acquisition Level	IT/ Non-IT	MAOL	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
N/A - Critical Repair/Replacement Requirement	Non-Major	Non-IT	No	\$24,000	\$24,000	\$10,000

Construction Description

This investment focuses on critical infrastructure upgrades and replacements for S&T's laboratory facilities operated by the Office of National Laboratories (ONL), including NBACC, TSL, NUSTL, PIADC, and CSAC. This program enables S&T laboratories to maintain compliance with regulatory requirements such as biological select agent regulations, operate according to modern technology standards, and perform end-of-life replacements for mission-critical equipment. FY 2027 planned projects focus on NBACC and TSL, two S&T ONL-owned and operated laboratories.

Justification

The FY 2027 Budget includes \$10.0M to support planned improvements and address facility deficiencies to include:

- \$6.6M – End-of-life laboratory equipment replacement at NBACC to support capabilities and improvements in bacteriology (\$0.3M), virology (\$1.0M), genomics (\$1.6M); security management system refresh (\$1.8M); and network and systems equipment to operate scientific instrumentation (\$1.9M).
- \$2.0M – Replacement of NBACC Bio Safety Level 3 (BSL3) lab airlock doors.
- \$0.8M – End-of-life laboratory equipment replacement at TSL, focusing on applied research/trace detection, including gas chromatography/mass spectrometry capabilities (\$0.55M) and quality control support instrumentation (\$0.25M).
- \$0.6M – Replacement of two NBACC autoclave control systems.

Project Schedule:

Activity	Actual (A) / Estimated Schedule
Replacement of end-of-life laboratory equipment at NBACC	FY 2027 Q2
Procurement of end-of-life laboratory equipment at TSL	FY 2027 Q2
NBACC Network Equipment Upgrades	FY 2027 Q3
NBACC System Management Refresh	FY 2027 Q4
Replacement of NBACC Bio Safety Level 3 (BSL3) lab airlock doors	FY 2027 Q4
Procurement of quality control support instrumentation at TSL	FY 2027 Q4
Replacement of NBACC Autoclave Control Systems	FY 2027 Q4

**Plum Island Closure and Support– Investment
Capital Investment Exhibits**

Construction

(Dollars in Thousands)

	Acquisition Level	IT/ Non-IT	MAOL	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
N/A - Plum Island Closure and Support	Level 3	Non-IT	No	\$30,000	\$30,000	\$30,000

Construction Description

The PICS Program involves the transition, closure, and conveyance of ‘Plum Island Assets’ after the PIADC mission is fully transferred to NBAF located in Manhattan, Kansas. The Program ultimately ensures the transfer of the 840-acre Plum Island Asset to a yet-to-be determined owner. The General Services Administration will initiate the process of identifying a new owner via the ‘Property Act’ when the mission transfers and DHS declare the island as excess.

Justification

The FY 2027 Budget includes \$30.0M to support closure activities, with the total program cost estimated at \$228.8M, and the new deterministic finish date is March 2031 with a potential late finish of March 2034. The PICS Program will utilize FY 2027 funding to start terminal decontamination and validation activities at PIADC Building 101 and 102 in FY 2026, and to begin physical contamination of Building 111. The work includes executing Building 101 decontamination and validation plans for sequential work areas. Decontamination activities include cleaning, sanitization, fumigation, and independent sampling.

This multi-year effort includes planning, decontamination, regulatory compliance, and asset disposition to ensure safe and efficient closure. The funding will enable S&T to continue transition and closure activities while O&S-funded PIADC operations continue through mission transition to NBAF in October 2026. After mission transition, PIADC funding will be reduced to solely support operations for closure activities.

Project Schedule:

Activity	Actual (A) / Estimated Schedule
Complete Building 101 new autoclaves install and validation (including regulatory approval)	FY 2025 Q3 (A)
Start Final Closure Activities for the Remaining WMAs	FY 2026 Q1 (A)
Start Building 102 HVAC mods, Electrical mods, and mobile shower unit install	FY 2026 Q1 (A)
Start Building 257 Sampling or Decontamination Plan Execution (pending regulatory approval)	FY 2026 Q3
Complete Building 102 HVAC mods, Electrical mods, and mobile shower unit install	FY 2026 Q4
Complete Building 257 Sampling or Decontamination Plan Execution	FY 2026 Q4
Implement Elements of Utilities Re-routing Physical Work	FY 2027 Q1
Complete Final Closure Activities for the Remaining WMAs	FY 2027 Q1
Start Building 102 Interior Surface Decontamination (pending regulatory approval)	FY 2027 Q2
Start Building 101 Physical Decontamination (pending regulatory approval)	FY 2027 Q2
Complete Building 102 Interior Surface Decontamination & Validation	FY 2028 Q1
End Building 101 Decontamination Planning (phased approach)	FY 2029 Q2
Start Building 111 Physical Decontamination (pending regulatory approval)	FY 2029 Q3
Complete Building 101 Decontamination & Validation	FY 2030 Q2
Complete Building 111 Decontamination & Validation	FY 2030 Q4

Department of Homeland Security

Science and Technology Directorate

Research and Development



Fiscal Year 2027

Congressional Justification

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Research and Development

Budget Comparison and Adjustments

Comparison of Budget Authority and Request

(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
Research, Development and Innovation	\$301,423	\$301,423	\$334,449	\$33,026
University Programs	\$9,400	\$9,400	\$7,000	(\$2,400)
Total	\$310,823	\$310,823	\$341,449	\$30,626
Subtotal Discretionary - Appropriation	\$310,823	\$310,823	\$341,449	\$30,626

The scope and diversity of the Department of Homeland Security’s (DHS) missions require the Science and Technology Directorate (S&T) to address a wide range of programs supporting DHS Components’ near-term needs for new operational capabilities, improved operational effectiveness, efficiency, and safety for the Homeland Security Enterprise (HSE). S&T’s Research, Development, Test, and Evaluation (RDT&E) responsibilities are critical to delivering cutting-edge technology, threat awareness, and mitigation strategies for DHS Components and Homeland Security Enterprise partners. These efforts support DHS’s mission to secure and manage borders; facilitate lawful trade and travel; administer and enforce immigration laws; and counter transnational criminal organizations, cyber threats, and other illicit actors. S&T’s RDT&E initiatives are prioritized to address the homeland’s highest threats, including human trafficking, child sexual exploitation, explosives, counter-unmanned aircraft systems, and biological, chemical, and asymmetrical threats. In addition, S&T’s capacity to engage Research and Development (R&D) activities worldwide is augmented by S&T’s university-based Centers of Excellence (COEs) and 14 bilateral international agreements.

The S&T R&D appropriation provides resources necessary to identify, explore, and demonstrate new technologies and capabilities that will help enable the DHS and its partners to succeed in our mission to safeguard the American people, our homeland, and our values. R&D funds are used to support the following Technology Readiness Levels (TRLs):

Basic Research		Applied Research		Technology Development	Technology Demonstration	System Development
TRL-1	TRL-2	TRL-3	TRL-4	TRL-5	TRL-6	TRL-7
Basic Principles Observed/Reported	Technology Concept/Application Formulated	Critical Function or Characteristic Proof of Concept	Validation in Lab Environment	Validation in Relevant Environment	System Prototypes in Relevant Environment	System Prototypes in Operational Environment

S&T has two Programs, Projects, and Activities (PPAs) in its R&D appropriation:

Research, Development, and Innovation (RD&I): Provides state-of-the-art technology and/or solutions to meet the needs of DHS Components and the First Responder community. RD&I includes partner-focused, near-term, and output-oriented RDT&E programs that balance risk, cost, impact, and timeline. S&T's enduring research supports scientific advances in collaboration with public and private sector research partners. In addition, S&T explores emerging science and technology areas and their potential threat or application to future DHS missions. S&T's research and development activities also include technology demonstrations, university and industry partnerships, technology transfer, and commercialization.

University Programs (UP): Supports critical homeland security related research and education at U.S. colleges and universities to address high-priority DHS-related issues and to enhance homeland security capabilities over the long-term generating groundbreaking ideas for new technologies and critical knowledge for the HSE.

Research and Development Summary of Budget Changes

(Dollars in Thousands)

	Positions	FTE	Amount
FY 2025 Full-Year CR	-	-	\$310,823
FY 2026 Annualized CR	-	-	\$310,823
FY 2027 Base Budget	-	-	-
Border Security and Immigration	-	-	\$127,852
Counter Terrorism and Threats	-	-	\$82,867
Cyber, Infrastructure, and National Resiliency	-	-	\$73,900
Innovative Research and Foundational Tools	-	-	\$49,830
Centers of Excellence	-	-	\$7,000
Total Research and Development Projects	-	-	\$341,449
FY 2027 Request	-	-	\$341,449
FY 2026 TO FY 2027 Change	-	-	\$30,626

Research and Development Non Pay Budget Exhibits

Non-Pay by Object Class *(Dollars in Thousands)*

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
21.0 Travel & Transportation of Persons	\$913	\$913	\$1,139	\$226
23.2 Rental Payments to Others	\$27	\$27	\$36	\$9
23.3 Communications, Utilities, & Miscellaneous	\$162	\$162	\$208	\$46
25.1 Advisory & Assistance Services	\$45,036	\$45,036	\$79,598	\$34,562
25.2 Other Services from Non-Federal Sources	\$1,746	\$1,746	\$2,198	\$452
25.3 Other Purchases of Goods & Services	\$4,546	\$4,546	\$6,590	\$2,044
25.5 Research & Development Contracts	\$246,575	\$246,575	\$241,589	(\$4,986)
25.7 Operation & Maintenance of Equipment	\$1,119	\$1,119	\$1,412	\$293
26.0 Supplies & Materials	\$459	\$459	\$578	\$119
31.0 Equipment	\$270	\$270	\$338	\$68
41.0 Grants, Subsidies, & Contributions	\$9,970	\$9,970	\$7,763	(\$2,207)
Total - Non Pay Budget Object Class	\$310,823	\$310,823	\$341,449	\$30,626

Research and Development
Research and Development Projects

Summary of Projects

(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
Border Security and Immigration	\$124,911	\$124,911	\$127,852
Chemical, Biological, and Explosive Defense	\$11,259	\$11,259	-
Counter Terrorism and Threats	\$39,054	\$39,054	\$82,867
Cyber, Infrastructure, and National Resiliency	\$11,000	\$11,000	\$73,900
First Responder / Disaster Resilience	\$6,444	\$6,444	-
Innovative Research and Foundational Tools	\$85,225	\$85,225	\$49,830
Physical Security and Critical Infrastructure Resilience	\$23,530	\$23,530	-
Centers of Excellence	\$9,400	\$9,400	\$7,000

Research, Development, and Innovation – PPA

Budget Comparison and Adjustments

Comparison of Budget Authority and Request

(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
Border Security and Immigration	\$124,911	\$124,911	\$127,852	\$2,941
Chemical, Biological, and Explosive Defense	\$11,259	\$11,259	-	(\$11,259)
Counter Terrorism and Threats	\$39,054	\$39,054	\$82,867	\$43,813
Cyber, Infrastructure, and National Resiliency	\$11,000	\$11,000	\$73,900	\$62,900
First Responder / Disaster Resilience	\$6,444	\$6,444	-	(\$6,444)
Innovative Research and Foundational Tools	\$85,225	\$85,225	\$49,830	(\$35,395)
Physical Security and Critical Infrastructure Resilience	\$23,530	\$23,530	-	(\$23,530)
Total	\$301,423	\$301,423	\$334,449	\$33,026
Subtotal Discretionary - Appropriation	\$301,423	\$301,423	\$334,449	\$33,026

PPA Level I Description

The RD&I PPA provides state-of-the-art technology and/or solutions to meet the needs of DHS Components and the First Responder community. This PPA supports partner-focused and output-oriented RDT&E programs that balance risk, cost, impact, and time-to-delivery, resulting in technology demonstrations and the transfer of new capabilities to DHS Components. It includes the following Mission Areas:

Border Security and Immigration Mission Center: Invests in technologies and solutions to secure U.S. borders, waterways, shorelines, and mass transit systems, enforce and administer immigration laws, counter transnational crime, facilitate lawful trade and travel, and manage the risk posed by people and goods in transit.

Chemical, Biological, and Explosive Defense: Included R&D technologies and solutions to support development of prevention and protective strategies and coordinated surveillance and detection to address CBE threats. This thrust has sunset and the programs within have moved into the Mission Centers.

Counter Terrorism and Threats Mission Center: Focuses on RDT&E efforts that directly support the DHS missions to collect, analyze, share, and act on intelligence that prevents and disrupts terrorists, criminals and nation state threats. Critical missions include counterterrorism, countering chemical, biological, and explosive threats, victim identification and support, perpetrator detection and apprehension, and protection of leaders and designated individuals, facilities, and events.

Cyber, Infrastructure, and National Resiliency Mission Center: Conducts and supports RDT&E and the transition of advanced cybersecurity and information assurance technologies to secure the Nation’s current and future cyber and critical infrastructures.

First Responder/Disaster Resilience: Invests in technologies and solutions, which reduce vulnerability of key leadership, critical infrastructure, and events from terrorist attacks and other hazards. It increases the level of preparedness of State, local, regional, tribal, territorial partners, non-governmental organizations, private sector, and public, while improving the capabilities of DHS to lead in emergency management. This thrust has sunset and the programs within have moved into the Mission Centers.

Innovative Research and Foundational Tools: Identifies gaps through analysis and requirements prioritization and focuses on identifying and analyzing potential solutions while working with DHS and Homeland Security Enterprise partners to select the best approach to delivering solutions, including knowledge and advice.

Physical Security and Critical Infrastructure Resilience: Focuses R&D technologies, methods, and procedures to enhance the physical security of the Nation’s critical infrastructure, which includes the Nation’s air travel system, mass transportation systems, and schools as well as soft targets such as mass public gatherings. This thrust has sunset and the programs within have moved into the Mission Centers.

Research, Development, and Innovation – PPA

Summary of Budget Changes

(Dollars in Thousands)

	Positions	FTE	Amount
FY 2025 Full-Year CR	-	-	\$301,423
FY 2026 Annualized CR	-	-	\$301,423
FY 2027 Base Budget	-	-	-
Border Security and Immigration	-	-	\$127,852
Counter Terrorism and Threats	-	-	\$82,867
Cyber, Infrastructure, and National Resiliency	-	-	\$73,900
Innovative Research and Foundational Tools	-	-	\$49,830
Total Research and Development Projects	-	-	\$334,449
FY 2027 Request	-	-	\$334,449
FY 2026 TO FY 2027 Change	-	-	\$33,026

**Research, Development, and Innovation – PPA
Non Pay Budget Exhibits**

Non Pay by Object Class
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
21.0 Travel & Transportation of Persons	\$913	\$913	\$1,139	\$226
23.2 Rental Payments to Others	\$27	\$27	\$36	\$9
23.3 Communications, Utilities, & Miscellaneous	\$162	\$162	\$208	\$46
25.1 Advisory & Assistance Services	\$44,836	\$44,836	\$79,398	\$34,562
25.2 Other Services from Non-Federal Sources	\$1,746	\$1,746	\$2,198	\$452
25.3 Other Purchases of Goods & Services	\$4,546	\$4,546	\$6,590	\$2,044
25.5 Research & Development Contracts	\$246,575	\$246,575	\$241,589	(\$4,986)
25.7 Operation & Maintenance of Equipment	\$1,119	\$1,119	\$1,412	\$293
26.0 Supplies & Materials	\$459	\$459	\$578	\$119
31.0 Equipment	\$270	\$270	\$338	\$68
41.0 Grants, Subsidies, & Contributions	\$770	\$770	\$963	\$193
Total - Non Pay Budget Object Class	\$301,423	\$301,423	\$334,449	\$33,026

**Research and Development
Research and Development Mission Areas**

Summary of Mission Areas

(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
Border Security and Immigration	\$124,911	\$124,911	\$127,852
Chemical, Biological, and Explosive Defense	\$11,259	\$11,259	-
Counter Terrorism and Threats	\$39,054	\$39,054	\$82,867
Cyber, Infrastructure, and National Resiliency	\$11,000	\$11,000	\$73,900
First Responder / Disaster Resilience	\$6,444	\$6,444	-
Innovative Research and Foundational Tools	\$85,225	\$85,225	\$49,830
Physical Security and Critical Infrastructure Resilience	\$23,530	\$23,530	-

**Border Security and Immigration Mission Center
Research and Development**

Technology Readiness Level Exhibit
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
Border Security and Immigration	\$124,911	\$124,911	\$127,852

R&D Description

Border Security and Immigration Mission Center: DHS secures and manages air, land, and maritime borders; expedites lawful trade and travel; administers the immigration system; enforces U.S. immigration laws; and counters transnational criminal organizations and other illicit actors. S&T invests in research and development to prevent illegal entry or exit of people, weapons, dangerous goods, and contraband, while ensuring the expedited flow of trade and travel. S&T also invests in capabilities to combat global transnational criminal organizations. The table that follows shows initiatives and funding levels for FY 2027 in this area.

Border Security and Immigration <i>(Dollars in Thousands)</i>				
Program	Project	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
Air, Land and Maritime Security (formerly 'Air, Land and Port of Entry (POE) Security')		\$31,225	31,225	\$49,310
	Air Security	\$18,656	\$18,656	\$18,716
	Enhanced Trade Technologies	-	-	\$4,494
	Ground Based Technologies	\$3,000	\$3,000	\$1,650
	Port of Entry Security	\$9,569	\$9,569	-
	Maritime Safety & Security (formerly a Program)	-	-	\$24,450
Baggage/Cargo/People Screening (realigned from Physical Security and Critical Infrastructure Resilience Thrust)		-	-	\$31,421
	Air Cargo Screening	-	-	\$2,750
	Checked Baggage Technology Development	-	-	\$3,300
	Next Generation Explosives Trace Detection	-	-	\$3,580

Border Security and Immigration <i>(Dollars in Thousands)</i>				
Program	Project	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President’s Budget
	POE Security (realigned from Air, Land and Maritime Security Program)	-	-	\$8,000
	Primary Screening for Carry-On Bags	-	-	\$4,871
	Primary Screening for Passengers	-	-	\$3,000
	Screening at Speed	-	-	\$5,920
Biometrics and Identity Management		\$5,845	\$5,845	\$16,000
	Biometric Emerging Concepts	\$1,345	\$1,345	\$6,000
	Biometrics and Identity Screening	\$4,500	\$4,500	\$10,000
Counter-Unmanned Aircraft Systems (C-UAS) (realigned to Counter Terrorism and Threats Mission Center)		\$22,741	\$22,741	-
	Counter Unmanned Aircraft Systems (C-UAS)	\$22,741	\$22,741	-
Forensics and Criminal Investigations		\$33,750	\$33,750	\$7,600
	Combatting Fentanyl/Opioid Abuse (realigned to new Program below)	\$7,250	\$7,250	-
	Countering Child Sexual Exploitation and Abuse	\$5,000	\$5,000	-
	Forensics Support (formerly ‘Digital Forensics’)	\$9,500	\$9,500	\$4,000
	Illegal Immigration Investigations (realigned to Immigration Enforcement and Administration Program)	\$2,000	\$2,000	-
	Transnational Criminal Organizations (formerly ‘Transnational Organized Crime and Counter Networks’)	\$10,000	\$10,000	\$3,600
Immigration Enforcement and Administration (formerly ‘Immigration Services’)		\$6,900	\$6,900	\$12,075
	Detention and Removal Operations (formerly ‘Immigration-Based Technologies’)	\$6,900	\$6,900	\$7,500
	Illegal Immigration & Fraud Operations (formerly ‘Illegal Immigration Investigations’ and realigned from Forensics and Criminal Investigations Program)	-	-	\$2,750
	Immigration Research and Analytics (formerly ‘Immigration Policy Research and Analytics’)	-	-	\$1,825
Maritime Safety & Security (realigned to a Project within Air, Land and Maritime Security Program)		\$24,450	\$24,450	-

Border Security and Immigration <i>(Dollars in Thousands)</i>				
Program	Project	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President’s Budget
	Enhanced Maritime Characterization	\$6,950	\$6,950	-
	Maritime Analytics and All Domain Sensors	\$5,320	\$5,320	-
	Port and Coastal Surveillance	\$3,000	\$3,000	-
	Port and Waterway Resiliency	\$1,500	\$1,500	-
	Remote Maritime Technologies	\$7,680	\$7,680	-
Opioid/Fentanyl Detection (new Program; formerly a Project in Forensics and Criminal Investigations Program)		-	-	\$11,446
	Combatting Fentanyl/Opioid Abuse	-	-	\$11,446
Total – Border Security and Immigration		\$124,911	\$124,911	\$127,852

Air, Land, and Maritime Security Program – This program advances and deploys cutting-edge technical capabilities to fortify the security and dominance of our national air, land, space, and maritime domains. By leveraging state-of-the-art technologies, it enhances our ability to detect, deter, and prevent illicit activities across these domains while ensuring the efficient facilitation and protection of lawful trade and travel. This program exemplifies the commitment to safeguarding America's borders and upholding national security.

Air Security

Description: The FY 2027 President’s Budget provides \$18.7M for the Air Security project, equipping DHS frontline personnel; including CBP, USCG, FEMA, and USSS—with on-demand aerial awareness through interconnected unmanned aerial systems (UAS) and reliable communications. This enables earlier detection of cartel and transnational criminal organization (TCO) activity, faster coordination, and safer operations in austere environments. Air Security transforms DHS from a reactive to proactive posture, delivering persistent coverage and enhanced situational awareness without increasing staffing or risk. The project replaces fragmented coverage along the southwest border with continuous, persistent, and extended-range UAS support, and enables isolated teams to function as coordinated units through enhanced situational awareness and interoperable overhead UAS feeds, without requiring proportional increases in staffing or risk exposure.

Justification: Funding will initiate the JUSTICE Program’s rigorous assessment and validation of secure manufacturing, production, and integration of UAS technologies, reinforcing American leadership in drone innovation and ensuring compliance with the Executive Order on Drone Dominance. It will also facilitate small UAS demonstrations to support domestic industry growth and the export of American-made UAS. Automated UAS surveillance will deliver technical and operational assessments of Group 2 UAS technologies at strategic locations along the southern border, enhancing the United States Border Patrol’s (USBP) ability to detect and interdict transnational criminal activity. The Direct to Cell initiative will determine the optimal satellite communications technology to provide reliable connectivity in austere border areas, increasing tactical-level situational awareness for USBP agents. Finally, the Big Wing milestone will kick off software development to enable simultaneous operation of multiple Unmanned Aircraft Vehicles (UAVs) through a single Ground Control Station for Customs and Border Protection’s Air Marine and Operations (CBP/AMO) agents.

This investment will yield a repeatable, field-tested C4ISR ecosystem free from adversarial effects, resulting in higher-quality interdictions, faster event classification, improved decision-making, and sustained operational effectiveness. Objective testing and operator-centered assessments will accelerate adoption and reduce funding waste on ineffective systems, ensuring that DHS deploys only those technologies that deliver measurable improvements to mission outcomes.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Installed the Collaborative Low Altitude UAS Integration Effort (CLUE) software in a DHS cloud environment in preparation for future Authority to Operate accreditation (beyond FY 2025) to assist with air domain awareness.	FY 2025 Q1	FY 2025 Q4	6
Integrated at least one State or non-Federal external sensor and/or data source into the CLUE system installed at the CBP Air and Marine Operations Center (AMOC) to assist with air domain awareness.	FY 2025 Q1	FY 2025 Q4	6
Air-Based ISR/Big Wing: Finalized the testing and evaluation of the integration of SeaVue MR maritime radar and Minotaur, an enterprise mission management software. The resulting increase in flight performance and surveillance capabilities for aerial intelligence operations will significantly assist both domestic and international partners by providing reliable access to highly sensitive geographies.	FY 2024 Q3	FY 2025 Q4	5-6
Air-Based ISR/HSD: Tested and evaluated the integration of hardware and software enabling Starlink, a high-speed data system, on a Multi-Role Enforcement Aircraft (MEA). Successful Starlink operation on an MEA will increase the operational impact of CBP by eliminating the geographic coverage limitations of current satellite communication systems.	FY 2025 Q4	FY 2025 Q4	5-6
Enabling UAS/JUSTICE: Kicked off the requirements gathering work for designing an open architecture, sensor-agnostic modular drone platform, ensuring complete USG ownership of the technical data package, while addressing SWAP requirements, sensor compatibility, project risks, and integration.	FY 2024 Q4	FY 2025 Q4	N/A

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	FY 2026		
Air-Based ISR/Big Wing: Complete System Integration Lab testing for high-speed satellite communications technology prior to flight testing.	FY 2026 Q4	FY 2026 Q4	4-5
Air-Based ISR/Big Wing: Finalize development and ground testing for high-speed satellite communications technology prior to flight testing.	FY 2026 Q4	FY 2026 Q4	1-3
Beyond Visual Line of Sight (BVLOS): Identify a solution for miniaturization of capabilities for small Unmanned Aerial Systems (sUAS) to provide local/organic and co-located Detect and Avoid (DAA) technology.	FY 2026 Q4	FY 2026 Q4	1-3
	FY 2027		
JUSTICE: Initiate the rigorous assessment and validation of secure manufacturing, production, and integration of Unmanned Aerial Systems (UAS) technologies, reinforcing American leadership in drone innovation and ensuring compliance with the EO Memo on Drone Dominance.	FY 2026 Q3	FY 2027 Q4	N/A
JUSTICE: Facilitate a small Unmanned Aerial System (sUAS) demonstration that supports the growth of the domestic drone industry and the export of American-made UAS, in alignment with the Executive Order on drone dominance and DHS mission objectives.	FY 2026 Q3	FY 2027 Q4	N/A
Automated UAS Surveillance: Deliver the technical and operational assessment of various Group 2 Unmanned Aircraft System (UAS) technologies at strategic locations on the southern border to the United States Border Patrol (USBP), enhancing USBP’s ability to detect and interdict the activity of transnational criminal organizations.	FY 2026 Q3	FY 2027 Q4	2-4
Direct to Cell: Determine the optimal satellite communications technology to provide reliable connectivity in austere areas along the southern border, increasing tactical-level situational awareness for United States Border Patrol (USBP) agents in pursuit of DHS mission objectives.	FY 2026 Q3	FY 2027 Q4	2-4
Big Wing: Kickoff the software development that will allow simultaneous operation of multiple Unmanned Aircraft Vehicles (UAVs) through a single Ground Control Station for Customs and Border Protection’s Air Marine and Operations (CBP/AMO) agents.	FY 2026 Q3	FY 2027 Q4	1-3

Enhanced Trade Technologies

Description: The FY 2027 President’s Budget provides \$4.5M for this project. This effort develops technologies that target international trade violators, supply chain vulnerabilities, high risk shipments, counterfeit, unsafe, and fraudulent goods, as well as goods made using forced labor. This research will reduce CBP’s long wait times for cargo processing and delivery to market.

Justification: Funding for this project will enable expedited processing of legitimate commerce that benefit American markets, enhanced ability to protect American consumers by targeting illegal or fraudulent cargo, reduce supply chain vulnerabilities, enhance the ability to efficiently collect duties, taxes, and tariffs, and improve the ability to enforce U.S. trade law and detect forced labor products entering American trade flows.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Forced Labor Detection: Kicked off studies with the FFRDC based on changing trade patterns in relation to forced labor detection to build datasets that can train large language models.	FY 2025 Q2	FY 2025 Q4	4
FY 2026			
Forced Labor Detection: Complete research and development of studies based on changing trade patterns in relation to forced labor detection to build datasets that can train large language models. Providing these studies to CBP’s Office of Trade (CBP/OT) will support their trade policy analytics AI tool.	FY 2026 Q1	FY 2026 Q4	1
Forced Labor Detection: Conduct an evaluation of the TERM-China model, a database that allows for detailed analysis of impacts in each region in China. An evaluation of this model would demonstrate how economic incentives could remove forced labor and assess other US policy impacts on the internal Chinese economy.	FY 2025 Q4	FY 2026 Q4	4-5
Forced Labor Detection: Deliver the final geopolitical events report summary and presentation of findings to Customs and Border Protection, Office of Trade. These results will bolster the contents of their trade database library, and reinforce their predictive analysis capabilities, allowing them to provide trade policy analysis, and develop responsive trade law enforcement strategies.	FY 2025 Q2	FY 2026 Q4	1
FY 2027			
Petroleum Sourcing: Complete comprehensive geochemical dataset of CBP reference oils, including country-of-origin samples,	FY 2026 Q3	FY 2027 Q3	3
Petroleum Sourcing: Develop automated system for oil-oil correlation and anomaly detection using machine learning, enabling the verification and production of forensic evidence proving country of origin.	FY 2026 Q3	FY 2027 Q3	6

Ground Based Technologies

Description: The FY 2027 President’s Budget provides \$1.7M for the Ground Based Technology (GBT) project to develop advanced solutions to address the persistent challenge of detecting and preventing illicit immigration and customs activities at U.S. borders. The goal is to enhance operational efficiency and threat response for DHS Components such as CBP, USSS, and ICE. This research equips frontline agencies with innovative tools to better secure the nation’s borders and critical assets.

Justification: Funding for this project will provide progress documentation and performance assessments of enhanced border detection technologies to key component partners, prioritizing integration into operational environments and informing improvements across DHS and the Homeland Security Enterprise. Additionally, GBT will initiate collaboration with Homeland Security Investigations and relevant partners to advance communications interoperability and network detection capabilities. These efforts collectively ensure DHS remains agile, protects critical assets, and increases law enforcement effectiveness in addressing evolving security challenges.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Communications Security: Completed the closeout process for the Communications Security project activity by ensuring full transition of any property, products, and reports to the partner customers, ICE and HSI.	FY 2025 Q1	FY 2025 Q3	N/A
GBT: Initiated S&T’s internal business process flow for the newly identified Ground Based Technologies work for FY25. Initiating the process ensures an identified gap by the customer partner culminates into a fully realized RDTE&I need.	FY 2024 Q4	FY 2025 Q3	N/A
GBT: Submitted the transition plans for Communications Security and Tunnels Detection to the partner customers (CBP/ICE/HSI and CBP/USBP) for signature. Finalizing the transition plans ensures all products, knowledge and physical, will be transferred to the appropriate customer for usage in their mission.	FY 2024 Q4	FY 2025 Q3	N/A
Tunnel Detection: Delivered the final Operational Use Period (OUP) testing report summary and presentation of findings to CBP’s U.S. Border Patrol (USBP). These results will inform CBP’s USBP how to identify areas of vulnerability strategically and effectively with potential tunnel activity.	FY 2024 Q1	FY 2025 Q4	1
FY 2026			
Authentication Vector Replay (AVR)/5G Network Detection: Initiate and kick-off the development of an advanced AVR/5G network detection toolkit upgrade in support of Homeland Security Investigations field operations with a relevant partner developing.	FY 2025 Q4	FY 2026 Q4	N/A
Enhance Border Detection: Identify, prioritize, and document updated border detection technologies and capabilities from at least two component partners with border detection needs.	FY 2026 Q1	FY 2026 Q4	N/A

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	FY 2027		
Advance Enhanced Border Detection Technologies: Submit progress documentation and a performance assessment of current border detection technologies to at least two component partners to prioritize and eventually integrate those technologies and capabilities into operational environments, informing and furthering border improvements across S&T and for the Homeland Security Enterprise.	FY 2027 Q1	FY 2027 Q4	N/A
Communications Security and Interoperability: Initiate and kick-off collaboration with Homeland Security Investigations and relevant partner to advance communications interoperability and network detection technologies.	FY 2027 Q1	FY 2027 Q4	N/A

Maritime Safety & Security

Description: The FY 2027 President’s Budget provides \$24.5M for this project to develop, evaluate, and transition technical capabilities to enhance U.S. maritime border safety and security. The program safeguards lawful trade and travel, prevents the illegal use of the maritime environment for transporting illicit goods or people, and enhances the safety and resilience of the Maritime Transportation System (MTS).

Justification: Funding for this project will enable S&T to conduct research to improve the efficiency and safety of the Maritime Transportation System. Key activities include creating and testing a Rescue 21 and Nationwide Automatic Identification System (NAIS) prototype configuration, developing three domain ontologies (Land, Maritime, and Air) for comprehensive situational awareness, and building infrastructure to integrate these ontologies into AI, ML, and data analytics tools. The effort will also transition the Contactless Vessel Stopping Capability to commercial partners, outline integration of the Bridge Permit Application System into U.S. Coast Guard IT systems, complete a Critical Design Review for Long Range Radar Maritime Domain Awareness, and mature prototype analytics for deployment in CBP’s FALCON environment. Additionally, the project will advance detection technologies to track undersea vehicles by establishing requirements and next steps. Collectively, these initiatives enhance U.S. maritime border safety and security by safeguarding lawful trade and travel, deterring illicit use of the maritime environment, and ensuring the safety and resilience of the Maritime Transportation System.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Delivered Fentanyl Transport Analytics into CBP’s Kestrel System.	FY 2025 Q1	FY 2025 Q4	7
Developed, mature, and deploy air analytics into CBP’s Kestrel system.	FY 2023 Q1	FY 2025 Q4	7
Transitioned KESTREL System sustainment responsibilities to CBP AMOC.	FY 2024 Q4	FY 2025 Q4	N/A
Delivered ontology library and support materials to CBP.	FY 2024 Q1	FY 2025 Q1	N/A

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Kicked off Minerva Visualization and Tasking project.	FY 2025 Q1	FY 2025 Q4	N/A
Established clearly defined requirements with USCG and any other stakeholders as necessary.	FY 2025 Q1	FY 2025 Q4	N/A
Identified promising environmental technologies to support USCG spill response and monitoring mission.	FY 2025 Q1	FY 2025 Q2	N/A
Conducted initial assessment of UAS-based sensors to conduct wide-area surveillance of maritime objects and vessels.	FY 2025 Q1	FY 2025 Q2	4-6
Conducted second assessment of UAS-based sensors to conduct wide-area surveillance of maritime objects and vessels.	FY 2025 Q3	FY 2025 Q4	4-6
Initiated extended evaluation and removal planning for maritime cable sensor system.	FY 2025 Q1	FY 2025 Q4	N/A
Conducted Non-Lethal Vessel Stopping Kick-Off.	FY 2025 Q2	FY 2025 Q2	N/A
Established requirements for non-stopping device with component partner.	FY 2024 Q2	FY 2025 Q4	N/A
Identified Non-Lethal Vessel Stopping Test Facility.	FY 2025 Q3	FY 2025 Q4	N/A
Completed Alternatives Analysis for on-orbit secondary payload / mission opportunities to support USCG SAR requirements in D17.	FY 2024 Q2	FY 2025 Q2	N/A
Completed Preliminary Design Review (PDR) for the USCG shipboard interior communications system.	FY 2024 Q2	FY 2025 Q3	N/A
Completed Test and Evaluation (T&E) Plan for the USCG shipboard interior communications system.	FY 2024 Q2	FY 2025 Q3	N/A
Initiated Market Study of Next Generation radio and communications technology in both government and commercial market to determine which technologies should be added to the Next Generation Maritime Public Communications system architecture.	FY 2025 Q2	FY 2025 Q2	N/A
Submitted PTA to Privacy team for Waterway Risk Assessment activity.	FY 2025 Q1	FY 2025 Q2	N/A
	FY 2026		
Develop and deliver new maritime data sources to CBP.	FY 2025 Q2	FY 2026 Q4	N/A
Develop prototype maritime analytics utilizing the new data sources.	FY 2026 Q2	FY 2026 Q3	6
Integrate new maritime data sources into CBP Kestrel Maritime Analytics.	FY 2026 Q2	FY 2026 Q3	N/A
Mature prototype analytics and promote into CBP’s Kestrel production environment.	FY 2026 Q2	FY 2026 Q4	7
Initiate integration and test of new sensor payload for USCG Maritime Object Detection.	FY 2026 Q3	FY 2026 Q4	6
Initiate procurement of maritime surveillance for suitability assessment as part of a tower-based maritime domain awareness system.	FY 2026 Q1	FY 2026 Q4	N/A
Begin development of an online Bridge Permit Application System, including an intuitive application form for use by federal, state, and local governments and private applicants.	FY 2026 Q1	FY 2026 Q2	N/A

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Conduct a kickoff meeting to identify key project personnel and how they plan to address the online Bridge Permit Application System application requirements.	FY 2026 Q1	FY 2026 Q2	N/A
Conduct a test and demo of the Contactless Vessel Stopping Capability prototype at Coastal Trident 2026.	FY 2026 Q1	FY 2026 Q4	N/A
Conduct a test and demo of the Contactless Vessel Stopping Capability prototype at the Joint Intermediate Force Capabilities (JIFCO) sponsored China Lake High-Powered Microwave Tech Demo / Test Event.	FY 2026 Q1	FY 2026 Q2	N/A
Create Hardware and Software Prototypes for the newly developed infrastructure for Rescue 21 and Nationwide Automatic Identification System (NAIS).	FY 2026 Q1	FY 2026 Q4	6
Deliver roadmap to transition R21 capabilities for space-based systems.	FY 2025 Q1	FY 2026 Q3	N/A
	FY 2027		
Create and test one Rescue 21 and Nationwide Automatic Identification System (NAIS) prototype configuration on NGMPC testbed.	FY 2027 Q2	FY 2027 Q4	5
Knowledge Engineering Mission Ontologies (KEMO): Develop three domain ontologies (Land, Maritime, and Air) across all US borders to achieve 100% Situational Awareness (SA).	FY 2027 Q2	FY 2027 Q4	5
Knowledge Engineering Mission Ontologies (KEMO): Develop the infrastructure and system architecture to incorporate ontologies (including SA) into AI, ML, and Data Analytics Tools.	FY 2027 Q2	FY 2027 Q4	5
Transition of Contactless Vessel Stopping Capability: Successfully transition Contactless Vessel Stopping Capability solution to the appropriate commercial partner or customer for usage in their mission.	FY 2027 Q1	FY 2027 Q4	6-7
Bridge Permit Application System: Outline an approach to integrate Bridge Permit Application System into the US Coast Guard selected IT system.	FY 2027 Q1	FY 2027 Q2	6-7
Complete Critical Design Review (CDR) for Long Range Radar Maritime Domain Awareness.	FY 2027 Q2	FY 2027 Q3	6-7
Mature prototype analytics and promote into CBP’s Forecasting and Analytics for Law enforcement Operations and Networks (FALCON) production environment.	FY 2027 Q1	FY 2027 Q4	7
Advance Detection Technologies to Track Undersea Vehicles: Conduct kick-off meeting for Detection Technologies to Track Undersea Vehicles to establish requirements, timeline, roles and responsibilities, and next steps.	FY 2027 Q1	FY 2027 Q1	2-3

Baggage/Cargo/People Screening Program – This program executes RDT&E activities to produce prototype solutions that address high priority technology capability gaps within the security screening processes for the Nation’s air travel and other mass transportation systems. This program delivers solutions that reduce security risks and expedite legitimate trade and travel.

Air Cargo Screening

Description: The FY 2027 President’s Budget provides \$2.8M for this project to support the Transportation Security Administration’s (TSA) requirements under P.L. 110-53 to screen air cargo to the same standards as checked baggage. The goals are to provide technologies and tools for effective security screening that are affordable by the private companies that perform this work under TSA oversight.

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Justification: Funding for this project will create software tools to enhance image-based screening and supports rigorous test and evaluation of cargo screening equipment prior to operational deployment. A critical milestone is the completion of a design review for a prototype system that integrates neutron imaging, Special Nuclear Material (SNM) detection using active interrogation with neutrons, and existing X-Ray imaging technology for comprehensive air cargo inspection. The prototypes and tools developed can also be adapted for screening opioids and other contraband for CBP, as well as for use in high-security areas for USSS, broadening their impact across DHS operational scenarios and requirements.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Added automated conveyance capability to the IDSS cargo scanner and perform a Factory Acceptance Test (FAT).	FY 2024 Q1	FY 2025 Q2	7
Completed pre-qualification test and evaluation of Astrophysics CT cargo skid scanner at the factory.	FY 2024 Q4	FY 2025 Q2	N/A
Delivered report detailing plans to implement Automatic Threat Resolution ATR on the IDSS and Astrophysics skid scanners. [TeleSecurity Sciences]	FY 2024 Q3	FY 2025 Q3	7
Evaluated at TSL Automatic Threat assessment software as applied to cargo images generated by IDSS and Astrophysics skid scanners. [TeleSecurity Sciences]	FY 2024 Q3	FY 2025 Q3	7
Performed Factory Evaluation Test of high-density cargo scanner prototype. [Lawrence Livermore National Laboratory]	FY 2024 Q2	FY 2025 Q4	N/A
FY 2026			
Complete building of initial laboratory prototype of High-Density Cargo Screening system. [Lawrence Livermore National Laboratory]	FY 2025 Q3	FY 2026 Q4	5
Complete initial software development that can compare air cargo manifests with associated cargo X-Ray based images and detect anomalies. (Physical Sciences, Inc.)	FY 2025 Q3	FY 2026 Q2	6
FY 2027			
Complete a critical design review of a prototype system that integrates neutron imaging capabilities, Special Nuclear Material (SNM) detection using active interrogation with neutrons, and existing X-Ray imaging technology to inspect air cargo.	FY 2026 Q1	FY 2027 Q1	4-6

Checked Baggage Technology Development

Description: The FY 2027 President’s Budget provides \$3.3M for this project in support of TSA’s goal to manage risks to the aviation transportation systems from terrorist attacks through enhanced detection of explosive materials. The project aims to develop and transition novel screening capabilities and methodologies to improve detection rates and lower the systemic cost of a high false alarm rate.

Justification: Funding for this project invests in screening technologies which will enhance existing X-ray systems, such as improved material discrimination and alarm resolution. Efforts include building and demonstrating advanced X-ray systems, developing algorithms, utilizing orthogonal screening techniques, prototyping advanced component detectors, and creating software tools to aid and train screening personnel. Key milestones include the delivery of operational prototype X-ray diffraction/computed tomography hybrid imaging systems and single gantry systems, each accompanied by comprehensive technical documentation, test reports, and performance analyses. These innovations provide TSA with enhanced threat detection capabilities, lower false alarm rates, improved alarm resolution, and reduced operational costs, strengthening the overall security and efficiency of baggage screening operations.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Completed Critical Design Review for a full engineering CT-XRD prototype, having a single rotating gantry system with both CT and XRD components collocated on a common gantry.	FY 2024 Q2	FY 2025 Q1	4-6
Completed TSA Detection Standard 8.0 Characterization Study for deployed Smiths Checked Baggage EDS systems.	FY 2024 Q4	FY 2025 Q3	N/A
Completed extended evaluation & deliver report on the single gantry CT-XRD system engineering prototype with specific focus on signal integrity at increasing rotational speed	FY 2024 Q2	FY 2025 Q3	4-6
Conducted Live Airport Data Collection utilizing hybrid CT-XRD Engineering Prototype to characterize realized Pfa of hybrid system over existing systems.	FY 2025 Q1	FY 2025 Q4	5-7
	FY 2026		
Complete development of officer evaluation and certification software for TSA EDS fleet, including training materials, integration testing, and live demonstration	FY 2024 Q2	FY 2026 Q2	5-7
Deliver final report and complete test and evaluation of operational prototype of hybrid X-Ray diffraction baggage scanner	FY 2025 Q1	FY 2026 Q3	6-7
	FY 2027		
Complete delivery of an operational prototype X-ray diffraction/computed tomography hybrid imaging system with a Technical Data Package including system level prototype drawings and operator’s manual, test reports, and performance analyses of multiple data collections, including stream of commerce.	FY 2026 Q1	FY 2027 Q2	7
Complete delivery of an operational prototype single gantry X-ray diffraction/computed tomography imaging system with a Technical Data Package including final report, commercialization plan, test reports, data analysis, and automatic threat recognition analysis.	FY 2026 Q2	FY 2027 Q3	7

Next Generation Explosives Trace Detection (NextGen ETD)

Description: The FY 2027 President’s Budget provides \$3.6M for this project to address critical operational needs from TSA, USSS, and CBP for explosives and illicit drugs detection focusing on the development of through-barrier detection technologies to detect and identify explosives and opioids concealed inside opaque sealed objects and electronics. Integrating artificial intelligence (AI)/machine learning (ML), robotics and screening automation, these technologies augment screening systems to increase overall speed and efficiency while defeating emerging threats at aviation and border checkpoints.

Justification: Funding provides rapid updates of detection libraries, improve sampling efficiency, and enhance the detection and identification of explosives and illicit drugs concealed within a wide range of stream-of-commerce objects, including electronics. It will deliver a software and algorithm report demonstrating the Alarm Resolution Enclosed Systems’ (ARES) capability to detect and identify concealed explosives and illicit chemical threats; conduct test and evaluation of an X-Ray Diffraction-based through-barrier detection technology for explosives and opioids hidden in opaque sealed objects and electronics; and provide a standalone report detailing the integration of the Pendar Automated Depth Scanning (ADS) system with TSA Enterprise Architecture, including the Application Programming Interface and a custom TSA interface layer for seamless transfer and interoperability with existing TSA systems.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Conducted preliminary design review of novel X-Ray Diffraction technologies that detect and identify explosives through metal, ceramic, and other dense materials.	FY 2023 Q4	FY 2025 Q2	3
Designed, developed, and built two decision analytics tools/prototypes that integrate alarm resolution tools for the enhancement of sampling efficiency.	FY 2025 Q1	FY 2025 Q4	4
Together with DHS Small Business Innovation Research, NextGen ETD developed Machine Learning-Based Decision Analytics Tools for Alarm Resolution. These tools integrate and enhance sampling efficiency across AR technologies while reduce cognitive loads on end-users.	FY 2023 Q3	FY 2025 Q4	3
Updated and expand the Detection Library of a Raman Based Bulk Resolution Technology (Through Barriers) to include Emerging Threats.	FY 2025 Q2	FY 2025 Q4	6
FY 2026			
Conduct the Second PDR, for Next Generation ETDs integrated with an Inorganic Explosives Detection module.	FY 2026 Q1	FY 2026 Q3	6
Developmental Test & Evaluation of a Bulk Resolution Technology (Through Barriers).	FY 2026 Q1	FY 2026 Q2	6
Test and evaluate the two decision analytics tools/prototypes for enhanced AR detection.	FY 2026 Q3	FY 2026 Q4	4
FY 2027			

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Deliver a software and algorithm report that demonstrates the Alarm Resolution Enclosed Systems' (ARES) capability to detect and identify explosives and illicit chemical threats concealed inside a range of packages, containers, bottles, and electronics.	FY 2027 Q2	FY 2027 Q3	6
Test and evaluation of an X-Ray Diffraction-based through barrier detection technology for the detection and identification of explosives and opioids concealed inside opaque sealed objects and electronics.	FY 2027 Q3	FY 2027 Q4	6
Deliver a standalone report detailing the integration of the Pendar Automated Depth Scanning (ADS) system with TSA Enterprise Architecture, including the Application Programming Interface and a custom TSA interface layer to enable seamless transfer and interoperability with existing TSA systems.	FY2027 Q1	FY 2027 Q2	7

POE Security

Description: The FY 2027 President's Budget provides \$8.0M for this project to improve CBP's inspection technologies for people and goods by developing next generation inspection technologies and integrating them into the Nation's ports of entry. These ports of entry protect national security through screening of people, vehicles, and cargo for threats including illegal border crossing, human smuggling, and narcotics trafficking.

Justification: Funding for this project will leverage AI for data analysis and aggregation, the project will improve operational decision-making and streamline the identification of potential threats. AI-driven enhancements to Non-Intrusive Inspection (NII) machine algorithms will further increase detection accuracy and efficiency to further strengthen CBP's inspection capabilities. Technology evaluations conducted through the Border Security Testbed for small-scale NII systems will inform evidence-based recommendations for technology development strategies, which will be delivered to relevant CBP stakeholders. This integrated approach will accelerate the adoption of innovative solutions, optimize resource utilization, and reinforce the nation's border security infrastructure.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Biometrics at Speed: Initiated and shepherd the newly identified Biometrics at Speed work through S&T's internal Business Process Flow, culminating in a fully realized RDTE&I need.	FY 2025 Q1	FY 2025 Q3	N/A
Ceramics for Radiation Portal Monitors (RPMs): Initiated and shepherd the newly identified work through S&T's internal Business Process Flow, culminating in a fully realized RDTE&I need.	FY 2025 Q1	FY 2025 Q3	N/A
National Targeting Center (NTC): Published a Request for Information (RFI) addressing the RDTE&I needs identified in the capabilities roadmap to inform an IDIQ award that will establish a continuing interagency partnership, empowering S&T to effectively adapt to and execute tasks against CBP's evolving threats.	FY 2024 Q4	FY 2025 Q2	N/A

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Pulsed Low Energy X-ray Interference of Radiation Portal Monitor: Awarded and kickoff the contract work for the development of a new linear accelerator (Linac) component that will operate at an energy level that was previously done by a constant potential source. In collaboration with other CBP activities, this new Linac will enable Low Energy Portal and Radiation Portal Monitor (LEP-RPMs) hardware to operate near each other with reduced nuisance alarms and interference, therefore improving the RPM’s capability to accurately identify a potential threat.	FY 2024 Q1	FY 2025 Q1	N/A
Pulsed Low Energy X-ray Interference of Radiation Portal Monitor: Directed a testing event with CBP's test management team of the fully integrated linear accelerator (Linac) Low Energy Portal (LEP) with the Radiation Portal Monitor (RPM) provided and developed by PNNL for CBP. Completing this test and evaluation will validate CBP’s operational use of the LEP-RPM system.	FY 2025 Q1	FY 2025 Q4	1-5
	FY 2026		
Biometrics at Speed: Identify vendor(s) and execute kick-off for biometric capability development that will capture traveler biometric data at ports of entry (POEs) while individuals walk through the POEs. This data will be used to track exits and combat visa overstays.	FY 2026 Q1	FY 2026 Q3	N/A
Border Security Testbed: Kickoff activities at the Terrorist Explosive Device Analytical Center (TEDAC) Improvised Explosives Detection and Synthesis (TIEDS) Center in Alabama, which will provide Customs and Border Protection with the infrastructure, test campaigns, and appropriate SMEs to conduct T&E at varying TRLs prior to deployment of equipment to the field.	FY 2026 Q3	FY 2026 Q3	N/A
Cryptocurrency: Identify and kick-off the Cryptocurrency Network Mapping and Seizure effort, which will create a cryptocurrency network tracking capability development and execute award and project kickoff	FY 2025 Q3	FY 2026 Q4	N/A
Organizational Diagnostic (OrgDiag): Award and kickoff the contract work that will map the process used by CBP to internally communicate counter-fentanyl operations, steering future collection, analysis, and dissemination of information methods within the Counter-network Division and to intelligence community stakeholders.	FY 2025 Q4	FY 2026 Q4	N/A
Pulsed Low Energy X-ray Interference of Radiation Portal Monitor: Complete Factory Acceptance Testing and deployment of the Low Energy Portal (LEP) prototype at the San Ysidro port of entry (POE) for operational testing and evaluation. Successful factory testing and accepted results from Customs and Border Protection will pave the road for a final System Acceptance Test (SAT).	FY 2025 Q1	FY 2026 Q4	6
	FY 2027		
Biometrics at Speed: Test and verify developed solution to ensure readiness for field deployment	FY 2026 Q4	FY 2027 Q4	6
Border Security Testbed: Conduct 2 – 3 testing campaigns of small-scale non-intrusive inspection (NII) technology key to CBP international mail screening. Testing will provide feedback on vendor system capabilities and inform CBP acquisitions.	FY 2026 Q3	FY 2027 Q4	1-6
Border Security Testbed: Deliver recommended technology development strategies, informed by technology evaluations from the Border Security Testbed for small-scale nonintrusive inspection (NII) systems, to relevant CBP stakeholders.	FY 2027 Q1	FY 2027 Q4	2 - 6
National Targeting Center (NTC) System Architecture Triage: Audit current IT systems, engage stakeholders to identify gaps, and set up project management and quality assurance plans.	FY 2026 Q3	FY 2027 Q3	1-4

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Develop dashboard and data analysis prototypes to guide modernization, ensuring future improvements align with operational needs and stakeholder input.			
Crypto: Develop final report on developed cryptocurrency capabilities and capability integration into NTC	FY2026 Q4	FY2027 Q1	6
Electronic Intelligence (ELINT) Tracing: Integrate advanced sensor technologies with legacy intelligence systems at ports of entry to enhance detection and tracing of electronic signatures. This fusion will boost CBP’s ability to identify and disrupt illicit activities, strengthening border security while maintaining proven intelligence processes.	FY 2026 Q4	FY 2027 Q4	5-6

Primary Screening for Carry-On Bags

Project Description: The FY 2027 President’s Budget provides \$4.9M for this project. The screening of carry-on bags and other personal items at airport checkpoints is labor-intensive and subject to significant variability due to operator performance and space constraints that limit the types of solutions that can be deployed to smaller airports. This project delivers to TSA new capabilities that meet increasing passenger volume, can detect new emerging threats, and are easier to operate and upgrade.

Justification: Funding will enable the deployment of advanced primary and secondary X-ray screening systems and sophisticated detection algorithms, empowering TSA to meet most challenging detection requirements while significantly reducing operator cognitive load and improving passenger throughput. The enhancements will equip TSA with the capability to detect prohibited items in over 600 bags per hour, eliminating the need for passengers to divest electronics, liquids, aerosols, powders, or gels. The technologies and algorithms developed and transitioned through this initiative will deliver greater throughput, enhanced security, reduced operator burden, and improved lifecycle and operational costs. Additionally, the project will advance certification of a detection algorithm for a self-service miniature CT screening system to identify threats and minimize false alarms, as well as readiness testing for a combined CT X-ray system augmented with advanced X-ray technologies (such as X-ray diffraction or Phase Contrast Imaging) to further improve detection capabilities and reduce false alarms.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Completed a technical design review for a Photon Counting Computed Tomography (CT) X-ray detector array for integration with deployed X-ray screening systems.	FY 2024 Q4	FY 2025 Q2	3
Integrated an automated data labeling tool into the TSA-approved Common Graphical User Interface to demonstrate the capability to perform real-time labeling of stream of commerce X-ray images at a checkpoint to support AI/ML algorithm development.	FY 2023 Q1	FY 2025 Q3	7
Submitted for technical assistance characterization a small form-factor CT X-ray equipped with a prototype automated threat recognition algorithm capable of detecting explosives and prohibited items.	FY 2024 Q3	FY 2025 Q4	5

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Submitted for technical assistance testing a small form-factor Computed Tomography (CT) X-ray equipped with a prototype automated threat recognition algorithm capable of detecting explosives and prohibited items.	FY 2024 Q3	FY 2025 Q4	5
	FY 2026		
Conclude an operational pilot of a mobile CT system and complete a report with user and operational feedback and lessons learned.	FY 2024 Q2	FY 2026 Q4	7
Deliver a final report on the development of a radio frequency-based screening system that is safer to operate than X-ray based screening systems, can be used by multiple Components to screen packages and baggage, can be developed into smaller configurations than X-ray screening systems, and also may have applications in screening people as well.	FY 2026 Q1	FY 2026 Q2	7
Deliver a final report on the effectiveness of 1,000 synthetic X-ray and millimeter wave images to train detection algorithms without the need for sensitive or classified data.	FY 2026 Q1	FY 2026 Q3	7
	FY 2027		
Submit for certification at TSL a detection algorithm for a self-service screening miniature CT system to identify threats and reduce false alarms.	FY 2027 Q1	FY 2027 Q4	6
Submit for certification readiness testing a combined CT X-ray system with an augmenting X-ray technology (e.g., X-ray diffraction or Phase Contrast Imaging) to improve detection capabilities while reducing false alarms.	FY 2027 Q1	FY 2027 Q4	6

Primary Screening for Passengers

Description: The FY 2027 President’s Budget provides \$3.0M for this project. High false alarm rates and extensive divestiture requirements associated with passenger screening create significant bottlenecks at aviation checkpoints that increase operational costs and negatively impacts the experience of the traveling public. This project delivers to TSA new capabilities that address the increasing passenger volume and new emerging threats.

Justification: Funding advances the development and refinement of on-person screening systems and automated detection algorithms to meet TSA’s most challenging detection standards and throughput requirements for primary passenger screening. The project will complete certification readiness testing with a Real-Time Advanced Imaging Technology (AIT) system capable of achieving TSA’s highest detection standards while delivering passenger throughputs comparable to metal detectors. These technologies improve the passenger experience, reduce the need for pat-downs and other secondary screening, and mitigate insider threat risks through employee screening. When integrated with other advanced checkpoint technologies, these systems will provide faster, less invasive, and less costly passenger screening.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Delivered a certification readiness testing report that demonstrates a real-time AIT system with an automatic threat recognition algorithm is capable of meeting TSA’s most challenging detection standards while enabling passenger throughputs like a metal detector.	FY 2023 Q4	FY 2025 Q4	6
Demonstrated a screening solution for passengers with limited mobility (e.g., passengers with disabilities or elderly passengers) that is compatible with existing checkpoint screening concept-of-operations.	FY 2024 Q3	FY 2025 Q4	5
Kicked off coordination with TSA for a shoe scanner airport demonstration to identify potential locations and plan the appropriate method to gather feedback from users.	FY 2024 Q1	FY 2025 Q3	5
FY 2026			
Conduct a large-scale demonstration of a shoe scanner system that detects threats in footwear without having to remove them for screening to gather feedback from passengers and officers.	FY 2024 Q1	FY 2026 Q4	6
Integrate an Automatic Threat Recognition algorithm into a handheld screening wand to detect and identify threats.	FY 2024 Q1	FY 2026 Q2	5
Kickoff the next phase of development to mature an automatic threat recognition algorithm to screen passengers with limited mobility at airport checkpoints.	FY 2026 Q1	FY 2026 Q3	6
FY 2027			
Complete certification readiness testing with a Real-Time Advanced Imaging Technology (AIT) system capable of meeting TSA’s most challenging detection standards while enabling passenger throughputs like a metal detector.	FY 2024 Q3	FY 2027 Q4	6

Screening at Speed

Description: The FY 2027 President’s Budget provides \$5.9M for this project to address the need to modernize and streamline airport screening to stay ahead of emerging threats, increase screening capacity, and reduce screening time. The project delivers to the TSA next-generation screening technologies, algorithms, and concepts, such as self-service screening systems, remote image processing, integrated curb-to-gate solutions, seamless travel, and offsite screening of airport passengers.

Justification: Funding for this project will deliver three self-service screening pod-style systems for feasibility testing and feedback collection from Transportation Security Officers (TSOs) and mock passengers, advancing the implementation of passenger self-service screening. It will also support the development and demonstration of a scalable data labeling software tool capable of ingesting, labeling, storing, and curating large volumes of screening sensor data, which is essential for machine learning and algorithm improvement. In addition, the funding will facilitate the integration of independent sensing tools, such as real-time and walk-by screening, wide-area surveillance, risk-based screening, and advanced video analytics into a cohesive curb-to-gate security environment. This system-of-systems approach will enhance threat detection, increase screening capacity, reduce screening time, and minimize false alarms that lead to unnecessary secondary inspections. The resulting improvements will lower per-passenger screening costs, enable rapid and cost-effective system upgrades, and reduce overall security risk at airports and other operational areas, including soft targets, national events, and borders and ports of entry. Overall, the funding will ensure TSA remains prepared to address evolving security challenges while optimizing operational efficiency and passenger experience.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Demonstrated a small footprint, “pod-style” passenger self-service screening capability that enables checkpoint screening concept-of-operations with limited TSO engagement.	FY 2024 Q1	FY 2025 Q2	5
Demonstrated interconnected sensor systems that automatically fuse data from both sensors to improve overall detection performance while reducing false alarm rates.	FY 2024 Q1	FY 2025 Q4	5
Published a fully synthetic, non-sensitive dataset to support third-party development of on-person screening and property screening algorithms.	FY 2023 Q1	FY 2025 Q4	1-7
	FY 2026		
Deliver a final assessment of the performance of a 360-degree camera and a video analytics capability demonstrated at the 2026 World Cup or other large scale public event.	FY 2026 Q1	FY 2026 Q3	4
Deliver a final report for a demonstration of a self-service screening system with standard passengers at the Innovation Checkpoint in Las Vegas, Nevada.	FY 2026 Q1	FY 2026 Q2	4-7
Deliver a final report on the performance of a self-service screening video analytics capability that monitors compliance with detection screening processes.	FY 2026 Q1	FY 2026 Q2	4-7
Kickoff planning events with DHS Components to develop and deliver innovative screening concepts for the 2028 Olympics, such as off-site screening.	FY 2026 Q1	FY 2026 Q3	4-7
	FY 2027		
Deliver a cluster of three self-service screening pod-style systems to evaluate feasibility and collect feedback from TSOs and mock passengers.	FY 2025 Q4	FY 2027 Q4	5
Demonstrate data labeling to scale through a software tool that can ingest, label, store, and curate large amounts of on-person and accessible property screening sensor data to facilitate machine learning.	FY 2025 Q2	FY 2027 Q2	4

Biometrics and Identity Management Program – This program identifies, assesses, and accelerates the development of more accurate biometric and identity technologies for integration into DHS operational systems to increase the Nation’s security at ports of entry while expediting legitimate travel and improving passenger experiences. This program helps DHS Components to evaluate and understand the feasibility of new and emerging capabilities that could support operational activities and inform future acquisition. The program will enhance identity verification capability across the DHS enterprise to prevent illegal entry into the country, detect imposters, combat human trafficking, and improve traveler experiences.

Biometric Emerging Concepts

Description: The FY 2027 President’s Budget provides \$6.0M for this project to support DHS, specifically CBP, TSA, and Office of Biometrics and Identity Management (OBIM) by leading proofs-of-concepts, demonstrations, and the development of prototype operational capabilities to advanced biometric identity capabilities that will be used across DHS Components. The goal is to deliver accurate, timely, scalable, and versatile biometric capabilities that enhance frontline decision-making, improve biometric identification and verification during encounters, and strengthen information sharing across DHS operations.

Justification: Funding will be used to deliver a final assessment on the development of a longitudinal biometric dataset for face template re-enrollment, establishing age boundaries for face matching algorithms and improving the reliability of facial recognition. It will also facilitate the assessment of component requirements, identification and decommissioning of capability gaps, and delivery of a strategic pitch deck to guide the development of solutions for critical advanced identity recognition needs. Additionally, the funding will support the transition of next-generation software capabilities focused on reliable identity confirmation, tailored to the unique needs of DHS components. By ensuring compatibility and seamless integration of emerging technologies—such as data fusion and artificial intelligence—across existing systems, this investment will enhance interoperability, strengthen security, and enable DHS components to operate with future-ready biometric capabilities. The outcome will be a robust, adaptable, and effective identification system that supports diverse DHS missions and improves operational effectiveness throughout the enterprise.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Biometric Gathering and Ingest: Performed testing of integrated multimodal Biometric collection systems, to include fly-away kits, that can be deployed quickly at large scale, and interoperate with DHS Enterprise Biometric systems, like IDENT and/HART. Testing was a proof of concept test plan and procedure which will validate future systems for procurement.	FY 2025 Q2	FY 2025 Q4	N/A
FY 2026			
Face Template Re-Enrollment: Initiate and guide the identified follow-on Face Template Re-Enrollment work through S&T’s internal Business Process Flow, driving the effort toward delivering a solution that addresses a critical OBIM need.	FY 2026 Q1	FY 2026 Q2	N/A
Face Template Re-Enrollment: Kickoff the follow-on work for Face Template Re-Enrollment Activity.	FY 2026 Q1	FY 2026 Q3	N/A
FY 2027			
Face Template Re-Enrollment: Deliver a final assessment on the development of a longitudinal biometric dataset that supports the establishment of age boundaries for face matching algorithms to enhance the reliability of facial recognition.	FY 2026 Q4	FY 2027 Q1	4
Biometric Emerging Concept: Assess component requirements and initiate the decommissioning of identified gaps. Deliver a pitch deck outlining the proposed approach for the selected gap, guiding the effort toward a solution that addresses a critical advanced identity recognition component need.	FY 2027 Q1	FY 2027 Q1	N/A
Biometric Emerging Concept: Based on identified Component biometric area of focus, transition to next-generation software capabilities related to reliable identity confirmation.	FY 2027 Q2	FY2027 Q4	4-6

Biometrics and Identity Screening

Description: The FY 2027 President’s Budget provides \$10.0M for this project to support CBP by identifying, evaluating, and implementing advanced biometric solutions and operational improvements to strengthen traveler vetting, enhance security, and streamline travel processes. This project addresses the need for more effective identity and biometric capabilities to improve screening and inspection of people arriving in, departing from, and traveling within the U.S.

Justification: Funding for this project will enable S&T to deliver tailored software and hardware solutions to DHS Components. The project will ensure efficient, real-time screening and verification while maintaining operational efficiency and supporting lawful travel, all within interoperable and scalable systems that meet evolving operational requirements. These solutions support the deployment of state-of-the-art solutions that improve the accuracy and speed of identity verification for individuals entering, exiting, and traveling within the U.S., reduce the risk of fraudulent identities, and enable confirmation of familial relationships to combat human trafficking of minors. The software and hardware will minimize processing delays and maintain efficient port operations.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Incorporated Facial Recognition into Vetting Capabilities: S&T's Biometric and Identity Technology Center (BI-TC) delivered a planning document and capabilities roadmap that informs the future of facial matching capabilities and potential collaborations for the next 5 years.	FY 2025 Q1	FY 2025 Q3	N/A
Vehicles at POEs: Provided a 5-year capability roadmap on acquiring or developing biometrics technologies for capturing biometrics at speed at POEs and checkpoints.	FY 2025 Q1	FY 2025 Q4	N/A
	FY 2026		
Biometrics and Identity Screening: Initiate the research and development of the 'Identity Screening at Borders and Checkpoints' need for DHS Components.	FY 2026 Q1	FY 2026 Q4	N/A
	FY 2027		
Biometrics and Identity Screening: Based on previous findings and identified Component biometric area of focus, deliver software and hardware solutions that facilitate rapid identification and verification of individuals entering and exiting at ports of entry.	FY 2026 Q4	FY 2027 Q4	4-6

Forensic and Criminal Investigations Program – Assists DHS and other law enforcement partners with research and development of advanced technological solutions that can be applied across multiple mission and application areas for federal, state, and local law enforcement. It is imperative for DHS and other law enforcement partners to have the crosscutting capabilities to automatically recognize, collect, ingest, process, analyze, and share information to disrupt and dismantle criminal activity quickly and to safeguard U.S. citizens and the Nation from threats.

Forensics Support

Description: The FY 2027 President’s Budget provides \$4.0M for this project to deliver advanced, enterprise-level forensic tools and cloud-based evidence solutions, enabling DHS investigators to rapidly access, acquire, and analyze digital evidence across a wide range of devices, applications, and cloud environments. The project directly addresses urgent mission needs stemming from surging data volumes, evolving Internet of Things (IoT) technologies, and increasing encryption, all of which currently slow investigations and impede the disruption of criminal organizations.

Justification: Funding will support the creation of scalable forensic server analytics capabilities for the HSI Cyber Crimes Center, enabling ingestion and normalization of data from multiple sources, and the development of automated analytics and information-sharing tools for historical crime data, such as seized evidence, to generate validated, risk-scored lead packages. Additionally, the project will initiate research on standardized, enterprise-level cloud data acquisition and analysis methods, replacing fragmented manual workflows with efficient, repeatable, and defensible processes. These enhancements will significantly improve investigation speed and quality, reduce analyst workload, and strengthen case outcomes, enabling DHS Components to confront increasingly sophisticated criminal threats, respond to surging data volumes and evolving technologies, and enhance national security.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Developed Dynamic Scripting Solutions for Computer Forensics.	FY 2025 Q1	FY 2025 Q4	4-7
Developed and integrate software and hardware reverse engineering for Computer Forensics.	FY 2025 Q1	FY 2025 Q4	5-6
Developed bulk-vetting evaluation capabilities to Identify Evasion of US Foreign Investment Screening and Export Controls.	FY 2025 Q1	FY 2025 Q4	4-7
	FY 2026		
Deliver Dynamic Scripting Solutions to improve Computer Forensics capabilities.	FY 2026 Q1	FY 2026 Q4	4-7
Deliver solutions that facilitate decryption in digital investigations.	FY 2026 Q1	FY 2026 Q4	4-7
Transition dynamic software capabilities related to gain access to lawfully seized evidence.	FY 2026 Q1	FY 2026 Q4	4-7
	FY 2027		

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Develop a scalable forensic server analytics capability for HSI Cyber Crimes Center that ingests and normalizes data from multiple sources.	FY 2027 Q1	FY 2027 Q4	4-7
Develop an automated capability for analytics and information-sharing of historical crime data, such as seized data, to generate validated, risk-scored lead packages.	FY 2027 Q1	FY 2027 Q4	4-7
Initiate research on an enterprise-level cloud data acquisition and analysis capability to standardize the approach for scalable and clear case analysis.	FY 2027 Q1	FY 2027 Q4	4-7

Transnational Criminal Organizations

Description: The FY 2027 President’s Budget provides \$3.6M for this project to deliver advanced technologies, actionable insights, and innovative training solutions to DHS Components and law enforcement partners. By enhancing workforce capabilities and enabling more effective disruption of transnational criminal organizations, this project directly supports DHS’s core mission to protect communities and dismantle criminal enterprises, as well as Executive Order 14157 “Designating Cartels and Other Organizations as Foreign Terrorist Organizations.”

Justification: Funding for this project will allow S&T to research and development efforts to deepen understanding of transnational criminal organizations’ structures, operations, and vulnerabilities, including the creation of talent profiles for mission-critical positions within these organizations to identify disruption opportunities. The project will also provide toolkits that integrate legal authorities associated with the designation of transnational criminal organizations as foreign terrorist organizations and Specially Designated Global Terrorists, enhancing counterterrorism and counter-transnational crime efforts. Additionally, targeted toolkits on behavioral patterns and indicators will equip law enforcement with practical resources to improve investigations and operational interdiction, ultimately strengthening DHS’s capacity to confront sophisticated criminal threats, secure systems from intrusion, and achieve core mission outcomes in accordance with Executive Order 14157.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Implemented research and development conducted by intelligence agencies into digital forensics tools and apply AI/ML to increase tool performance.	FY 2025 Q1	FY 2025 Q4	5-7
Integrated AI and ML technology into digital media exploitation capabilities on existing tools.	FY 2025 Q1	FY 2025 Q4	5-7
Integrated and use computer vision for object and activity detection, voice semantic analytics, natural language processing of unstructured text documents, and information fusion for entity resolution.	FY 2025 Q1	FY 2025 Q4	5-7
FY 2026			
Deliver an analytics tool that can automate data schema generation and tagging to move into the operational environment and place tools in a central platform for interagency collaboration.	FY 2026 Q1	FY 2026 Q4	4-7
Develop and deliver a digital framework that enables digital media exploitation capabilities designed to automate and augment current manual processes to combat transnational organized crime.	FY 2026 Q1	FY 2026 Q4	4-7
Develop and deliver an analytics tool that can leverage digital forensic tools and apply AI/ML to investigations into criminal Dark Web activities.	FY 2026 Q1	FY 2026 Q4	4-7
FY 2027			
Develop a talent profile of mission-critical positions within one transnational criminal organization (TCOs) that identifies skills, abilities, and characteristics which can be used to identify vulnerabilities to disrupt these criminal networks.	FY 2025 Q4	FY 2027 Q3	3-4
Deliver a toolkit to DHS personnel that enhance counterterrorism and counter-transnational crime efforts through the integration of legal authorities triggered through the designation of transnational criminal organizations as foreign terrorist organization (FTO) and Specially Designated Global Terrorists (SDGTs).	FY 2025 Q4	FY 2027 Q4	3-4
Deliver targeted toolkits on patterns and indicators of criminal terrorist behaviors that will aide law enforcement investigations and operational interdiction opportunities.	FY 2025 Q4	FY2027 Q4	3-4

Immigration Enforcement and Administration Program – This program develops technologies and delivers research support for DHS immigration-focused Components in their missions to administer the nation’s lawful immigration system and enforce immigration laws. This program enhances DHS’s ability to streamline immigration custody, case processing, and removal operations; prevent immigration fraud; and improve mission data management, analysis, visualization, and sharing across the Homeland Security Enterprise. These outputs strengthen DHS’s efficient enforcement of U.S. immigration laws and effective administration of the immigration system.

Detention and Removal Operations

Description: The FY 2027 President’s Budget provides \$7.5M for this project to develop critical technologies, analytic tools, and data systems to strengthen DHS’s ability to encounter, transport, detain, and remove individuals who are in the U.S. unlawfully. The project will also identify and address system interdependencies and limitations, such as improving coordination during transfers from CBP to ICE and enhancing integration with ICE Enforcement and Removal Operations (ERO).

Justification: Funding will support research and development of new data analytics methods and automated systems to improve the accuracy, timeliness, and actionability of information across DHS components, facilitating seamless coordination between CBP and ICE during custody transfers and enhancing integration with ICE Enforcement and Removal Operations. The project will deliver innovative hardware, such as operational prototypes of smart glasses, to equip agents with real-time access to information and biometric identification capabilities in the field. Additionally, enhanced tools and processes will streamline case management, automate data collection and validation, and improve contracting efficiencies related to custody operations. These improvements will directly efficient and effective immigration enforcement, removal operations, and fulfillment of Executive Orders and Administration priorities, while ensuring public safety and operational excellence.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Developed an end-to-end digital interview technology and process for liveness detection, identity verification, digital signatures, and document authentication internally and externally for adjudication officers and immigration benefits applicants.	FY 2025 Q3	FY2 2025 Q4	5-6
Executed high priority activities identified in the USCIS Technology and Process Roadmap.	FY 2025 Q1	FY2 2025 Q4	5-6
Pushed Pull Modeling of Unauthorized Migration Flows.	FY 2025 Q1	FY2 2025 Q4	5-6
FY 2026			
Enhance ICE ERO capabilities to identify and remove illegal criminal aliens by improving data capabilities, specifically improving the ability	FY 2026 Q1	FY 2026 Q4	4-6
Improve ICE’s transportation, detention and removal of illegal aliens through the assessment of current technology, processes and system, develop a prototype capability to support streamlined alien movement.? Leverage AI to optimize flight routing for planning of domestic transfer and removal flights.	FY 2026 Q1	FY 2026 Q4	4-6
FY 2027			
Establish enhanced methods for assessing CBP and ICE custody-related contracting efficiencies.	FY 2027 Q1	FY 2027 Q4	4-7
Automate data collection, validation, and information sharing on systems utilized in the immigration lifecycle.	FY 2027 Q1	FY 2027 Q4	4-7
Develop an operational prototype of smart glasses that enables biometric identification of illegal aliens.	FY 2027 Q1	FY 2027 Q4	4-7

Illegal Immigration & Fraud Operations

Description: The FY 2027 President’s Budget provides \$2.8M for this project to deliver research and analytic capabilities to combat known immigration threat vectors (e.g., document fraud, false identity claims) and to explore advanced technologies and automated systems to detect deception and counter illegal immigration. By enhancing DHS’s ability to identify fraud and mitigate threats, the project safeguards the integrity of the nation’s lawful immigration system.

Justification: This investment will support the creation of tools to project detention facility capacity, incorporating temporary and non-government-owned sites, allowing DHS to visualize the impact of new facilities, improve bedspace planning, and optimize resource allocation. By integrating enhanced modeling and forecasting into operational decision-making, the project will streamline facility management, anticipate emerging challenges, and ensure more effective responses to evolving demands. These improvements will strengthen DHS’s capacity to uphold border security and immigration laws, safeguard the integrity of the lawful immigration system, and mitigate threats posed by document fraud and false identity claims.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
N/A			
	FY 2026		
N/A			
	FY 2027		
Deliver detention facility modeling capability to integrate new detention facilities including temporary and non-government owned facilities.	FY 2027 Q1	FY 2027 Q4	4-7

Immigration Research and Analytics

Description: The FY 2027 President’s Budget provides \$1.8M for this project to evaluate and apply advanced analytical techniques and digital tools to improve how DHS collects, manages, analyzes, visualizes, and shares operational information across its components.

Justification: This investment will support research, development, and integration of new technology solutions for ICE and CBP, streamlining the delivery of critical operational information to officers at ports of entry and enabling faster and more accurate determinations regarding periods of admission for nonimmigrant F-Visa holders. By targeting improvements to systems such as Duration of Status for F-1 and F-2 visa holders, the project will reduce fraud, ensure program compliance, and improve oversight of international students and exchange visitors who may overstay their visas. These enhancements will optimize resource allocation, strengthen decision-making, and enable DHS to respond effectively to migrant surges caused by natural disasters or regional instability, supporting national security and the integrity of the immigration system.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Pushed Pull Modeling of Unauthorized Migration Flows	FY 2025 Q1	FY 2025 Q4	5-6
	FY 2026		
Update the Discrete Event Simulation deliverable through a standalone model refinement to enhance input forecasts, update dashboard visualizations, and capture actual holding capacity of facilities.	FY 2026 Q1	FY 2026 Q4	4-6
	FY 2027		
Identify new technology solutions to overhaul the Student and Exchange Visitor Information System (SEVIS), specifically targeting Duration of Status for F-1 and F-2 visa holders, to reduce fraud, ensure compliance with the program, and monitor for overstays of international students and exchange visitors.	FY 2027 Q1	FY 2027 Q4	4-6

Opioid/Fentanyl Detection Program – This program provides DHS Components and law enforcement partners with advanced, operationally effective detection and investigation capabilities, to include the collection and analysis of complex evidence, to enable interdiction of opioids, and other narcotics, being trafficked across U.S. borders without disrupting the flow of legitimate commerce.

Combatting Fentanyl/Opioid Abuse

Description: The FY 2027 President’s Budget provides \$11.4M for this project to support DHS components and law enforcement partners with advanced tools to detect opioids and precursors moving within the legitimate flow of commerce, as well as tools to assist in the disruption of transnational organized criminal groups (i.e. cartels) responsible for the manufacturing and distribution of illicit fentanyl.

Justification: Funding for this project supports the development, evaluation, and operational deployment of innovative solutions such as stand-off vapor detection systems and portable AFT-MS prototype devices, enabling investigators to collect and analyze evidence more effectively and prosecute criminal drug distribution networks and supply chains. By transitioning these technologies into operational environments and verifying their performance against established standards, the project will significantly enhance DHS’s ability to counter opioid and narcotics trafficking, empower investigations, and dismantle narcotics operations, directly supporting national security and public safety priorities.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Completed data collection using seized narcotic samples for an advanced non-intrusive screening technology.	FY 2024 Q4	FY 2025 Q2	4-6
Delivered CT/XRD alternative system designs for CBP-specific operational environments.	FY 2025 Q2	FY 2025 Q4	2-3
Delivered initial data repository and architecture report to key stakeholders describing design of an end-to-end fentanyl activity model.	FY 2024 Q4	FY 2025 Q3	3-4
Demonstrated Measures of Effectiveness/Measures of Performance (MOE/MOP) modelling for counter-fentanyl DHS Component field operations.	FY 2024 Q3	FY 2025 Q4	6-7
Demonstrated static model architecture for an end-to-end fentanyl activity model to key stakeholders.	FY 2024 Q4	FY 2025 Q4	4-5
Kicked off a new award to continue and expand the development of Quality of Evidence (QE)/Value of Target (VoT) investigative analytics.	FY 2024 Q2	FY 2025 Q1	3-4
Reported summarizing AFT-MS performance with samples from operational settings.	FY 2025 Q1	FY 2025 Q4	3-4
Tested and validated Value of Target (VoT) analytics tools.	FY 2025 Q2	FY 2025 Q4	5-7
Transitioned Value of Target (VoT) analytics tools.	FY 2025 Q3	FY 2025 Q4	5-7
FY 2026			
Deliver a project plan to establish whether AFT-MS is an effective tool for evaluating canine training aids.	FY 2026 Q2	FY 2026 Q2	4-5
Deliver a summarized final report on quantifying and validating fentanyl vapor emitted from canine training aids.	FY 2026 Q1	FY 2026 Q4	4-7
Deliver architecture report to key stakeholders describing design of the dynamic end-to-end fentanyl activity model.	FY 2026 Q1	FY 2026 Q2	3-4
Deliver dynamic model for an end-to-end fentanyl activity model.	FY 2026 Q1	FY 2026 Q4	4-5
Deliver report on Measures of Effectiveness/Measure of Performance (MOEs/MOPs) using data from Fusion Cells	FY 2026 Q1	FY 2026 Q3	4-5
Deliver the final prototype breadboard design report, precursors and drugs of interest project plan and vapor collection materials report.	FY 2026 Q1	FY 2026 Q3	7
Deliver the prototype breadboard system design and program parameters report to inform future prototype development.	FY 2026 Q2	FY 2026 Q2	6-7
For cargo and other site samples evaluated, deliver a summarized report of AFT-MS performance.	FY 2026 Q1	FY 2026 Q2	3
Test and validate Value of Target (VoT) analytics tools.	FY 2026 Q1	FY 2026 Q3	5-7

Research, Development, and Innovation – PPA**Border Security and Immigration Mission Center**

Transition Value of Target (VoT) analytics tools.	FY 2026 Q2	FY 2026 Q4	5-7
	FY 2027		
Deliver analytic investigative tools	FY 2027 Q1	FY 2027 Q4	5-7
Evaluate a stand-off vapor detection system against seized samples and precursors in an operational environment.	FY 2027 Q1	FY 2027 Q4	4-5
Conduct a portable AFT-MS prototype system field evaluation in an operational environment.	FY 2027 Q1	FY 2027 Q4	4-5
Initiate verification and validation of prototypes against standards.	FY 2027 Q1	FY 2027 Q4	4-5

**Counter Terrorism and Threats Mission Center
Research and Development**

Technology Readiness Level Exhibit
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
Counter Terrorism and Threats	\$39,054	\$39,054	\$82,867

R&D Description

Counter Terrorism and Threats Mission Center: S&T invests in research, development, test, and evaluation efforts that directly supports the DHS missions to collect, analyze, share, and act on intelligence that prevents and disrupts terrorists, criminals, and nation state threats. Critical missions include counterterrorism, countering chemical, biological, and explosive threats, victim identification and support, perpetrator detection and apprehension, and protection of leaders and designated individuals, facilities, and events.

Counter Terrorism and Threats <i>(Dollars in Thousands)</i>				
Program	Project	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
Chem-Bio Detection (realigned from Chemical, Biological, and Explosive Defense Thrust Area)		-	-	\$1,000
	Agriculture Screening and Surveillance	-	-	\$1,000
Combatting Crimes of Exploitation and Terrorism (New Program)		-	-	\$12,700
	Counter Human Trafficking/Child Sexual Exploitation and Abuse (New Project)	-	-	\$4,000
	Illicit Network Detection, Interdiction and Mitigation (New Project)	-	-	\$4,000
	Preventing Mass Attacks (New Project)	-	-	\$4,700
Counter-Unmanned Aircraft Systems (C-UAS) (realigned from Border Security and Immigration Mission Center)		-	-	\$40,500
	Counter-Unmanned Aircraft Systems (C-UAS)	-	-	\$30,000
	National Security Special Event (NSSE) Support (formerly '2026 World Cup & America250 Support')	-	-	\$10,500
Emerging Technologies		\$897	\$897	-

Counter Terrorism and Threats (Dollars in Thousands)				
Program	Project	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President’s Budget
	USST Initiatives	\$897	\$897	-
Explosives Threat Assessment		\$15,565	\$15,565	\$19,600
	Aircraft Vulnerability	\$1,185	\$1,185	\$2,500
	Explosives Characterizations (formerly ‘Homemade Explosives Identification, Detection and Mitigation (HEID&M’)	-	-	\$4,000
	Explosives Risk Assessment	\$500	\$500	\$2,000
	Technology Explosives Assessment	\$10,880	\$10,880	\$11,100
Probabilistic Analysis of National Threats, Hazards and Risks (PANTHR)		\$22,592	\$22,592	\$9,067
	Agricultural Threat Characterization (AgTC)	\$500	\$500	\$515
	Biological Threat Characterization (BTC) (Core Laboratory Funds realigned to Foundational Tools Program)	\$11,859	\$11,859	-
	Chemical Threat Characterization (CTC) (Core Laboratory Funds realigned to Foundational Tools Program)	\$4,393	\$4,393	-
	Hazard Knowledge Center (HKC) (formerly ‘Biodefense Knowledge Center’)	\$340	\$340	\$400
	Tools for Integrated Evaluation of Risk (TIGER)	\$5,500	\$5,500	\$8,152
Total – Counter Terrorism and Threats		\$39,054	\$39,054	\$82,867

Chem-Bio Detection Program – This program conducts research to assess, prevent, detect, prepare for, respond to, and recover from incidents involving chemical and biological threats and hazards. This program supports DHS, its Components Partners, and the HSE with risk-awareness, knowledge products, and technical solutions needed to protect the Nation from incidents involving chemical and biological hazards by executing and enhancing a portfolio of capabilities and supporting activities to counter chemical and biological threats.

Agriculture Screening and Surveillance

Description: The FY 2027 President’s Budget provides \$1.0M for this project. This initiative will strengthen the security and resilience of the nation’s food and agriculture sector by advancing RDT&E of biological threat detection, screening technologies, and mitigation solutions.

Justification: Funding will support the evaluation and deployment of innovative tools, such as biogenic volatile organic compound detection technologies and AI/ML classifiers, to enhance prevention, early detection, and rapid response capabilities against high-consequence threat agents

and catastrophic events, whether intentional or natural. Additionally, the project will deliver treatment protocols to mitigate diseases like Chagas in DHS working canines, further safeguarding operational assets. By accelerating the development and integration of next-generation countermeasures for transboundary animal diseases and other threats, DHS will strengthen the sector’s security, resilience, and economic stability, enduring rapid recovery from disruptions and maintaining public confidence in the nation’s food supply.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Conducted R&D to assess strategies for Chagas diagnosis and countermeasures.	FY 2025 Q1	FY 2025 Q4	2-3
Conducted R&D to develop point-of-need detection technology for transboundary swine diseases.	FY 2025 Q1	FY 2025 Q4	5-7
Conducted R&D to identify biogenic volatile organic compound (BVOC) detection platforms appropriate to points of entry. Identify priority agricultural detection targets and assess BVOC signatures initial target subset.	FY 2025 Q1	FY 2025 Q4	2-4
Conducted analysis of agricultural Depopulation, Disposal, and Decontamination (3D) tools and technologies.	FY 2025 Q1	FY 2025 Q4	2-4
Conducted landscape assessments using the requirements established by the OHS to address threats to the food and agricultural sector.	FY 2025 Q1	FY 2025 Q4	N/A
FY 2026			
Conduct landscape assessments using the requirements established by the Office of Health Security (OHS) to address threats to the agricultural sector.	FY 2026 Q1	FY 2026 Q4	N/A
Conduct research, development, and testing of biogenic volatile organic compound detection system, plus evaluation in a relevant environment.	FY 2026 Q1	FY 2026 Q4	3-6
Conduct testing and evaluation of pharmacological interventions for working canines infected with Chagas disease.	FY 2026 Q1	FY 2026 Q4	N/A
Deliver report on the demonstration of enhanced decontaminating capacity of integrated biofoam solutions compared to commercial-off-the-shelf (COTS) options.	FY 2026 Q1	FY 2026 Q4	N/A
FY 2027			
Evaluation of prototype biogenic volatile organic compound technology in an operationally relevant environment and deliver performance metrics and interim test and evaluation data.	FY 2027 Q1	FY2027 Q4	3-7
Develop and deliver AI/ML scripts and classifier for biogenic volatile organic compound technology, including performance evaluation data and metrics of success.	FY 2027 Q1	FY2027 Q4	3-7
Deliver a finalized treatment protocol and plan to mitigate Chagas Disease in DHS working canines.	FY 2027 Q1	FY2027 Q4	N/A

Combating Crimes of Exploitation and Terrorism Program – This program will analyze data and develop capabilities that will protect Americans from the scourge of some of the worst criminals, from human traffickers to those that perpetuate mass violence. This research will provide evidence,

technology, and analyses to inform and improve operational tactics, techniques, and procedures to combat crime and terrorism. This program supports DHS and HSE with risk-awareness, knowledge products, and technical solutions.

Counter Human Trafficking/Child Sexual Exploitation and Abuse

Description: The FY 2027 President’s Budget provides \$4.0M for this project to bolster DHS’s efforts to detect, prevent, and interdict child sexual exploitation and human trafficking threats through cutting-edge research and technology. Leveraging AI and ML, this project will empower Homeland Security Task Forces and law enforcement with real-time insights and rapid investigative tools to rescue victims and apprehend perpetrators, delivering stronger protection for vulnerable Americans.

Justification: This new effort will strengthen DHS’s ability to interdict child exploitation and human trafficking threats as early as possible, including prevention efforts, by discovering indicators, risk factors, and modus operandi. Funding will support the Homeland Security Task Forces and law enforcement operators, through a detailed understanding of the evolving nature of exploitative crimes that impact Americans. S&T will develop unified picture of the evolving risks and threats as they occur in the U.S. to improve detection and interdiction.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
N/A			
	FY 2026		
N/A			
	FY 2027		
Compile a dataset of global nihilistic violent extremism cases to identify perpetrator characteristics which will be used to examine engagement, recruitment, and mobilization pathways.	FY 2026 Q4	FY27 Q4	N/A
Initiate development of trainings and guidance documents to inform and enhance threat assessment approaches for FLSTT law enforcement partners related to online child extortion.	FY 2026 Q4	FY27 Q4	4
Develop forensic capabilities that take advantage of multiple sources of law enforcement information to provide investigative leads that would otherwise go unidentified due to the massive volume of data.	FY 2026 Q4	FY27 Q4	4-5

Illicit Network Detection, Interdiction, and Mitigation

Description: The FY 2027 President’s Budget provides \$4.0M for this project to conduct research, development, evaluation, and analysis to improve DHS and state, local, tribal, and territorial capabilities to efficiently and effectively detect, interdict, and mitigate illegal criminal activities through enhanced information sharing, standards, and frameworks.

Justification: This new effort will support Homeland Security Task Forces by enabling rapid threat mitigation using the terrorist designation placed on drug trafficking organizations. The distributed and federalized nature of the response to homeland threats hinges on timely and accurate information sharing between law enforcement and intelligence. The tools developed through this line of effort will ensure rapid and accurate intelligence for law enforcement.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
N/A			
	FY 2026		
N/A			
	FY 2027		
Develop the requirements from FLSTT partners to understand the needed capability to ingest and find illegal criminal activities and content (images, videos, speech & language) of emerging threats.	FY 2026 Q4	FY 2027 Q4	3-4
Deliver an analysis of current state of the art algorithms that will allow law enforcement to automate current manual processes.	FY 2026 Q4	FY 2027 Q4	4-5
Create a standards-based framework that allows organizations to efficiently and consistently share forensic information under National Information Exchange Model (NIEMOPEN).	FY 2026 Q4	FY 2027 Q4	3-4

Preventing Mass Attacks

Description: The FY 2027 President’s Budget provides \$4.7M for this project to conduct research, development, evaluation, and analysis to enhance standards, training, and capabilities of law enforcement to improve planning and prevention of mass casualty events.

Justification: This new effort will support DHS policy and operations in the planning and prevention of mass causality events. The development of advanced tools and products will enable S&T to provide clear guidance on how to respond to the ever-changing nature of threat vectors and actors. Funding will improve decision-making capabilities at the local level and maximize accuracy and effectiveness in screening for people, places, and belongings to best protect leaders, facilities, and events.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
N/A			
	FY 2026		
N/A			
	FY 2027		
Create initial national standards and guidance for law enforcement threat assessment and management that aim to improve Suspicious Activity Reporting (SAR) processes and improvements for stopping mass attacks.	FY 2026 Q4	FY 2027 Q4	3-4

Counter-Unmanned Aircraft Systems (C-UAS) – The U.S. faces growing threats from unmanned aircraft systems (UAS), which can be exploited by adversaries for surveillance, smuggling, and potential attacks on critical infrastructure and public safety. Investing in C-UAS research and development is essential to advancing detection, mitigation, and neutralization technologies that address these evolving risks. These efforts will enhance national security, protect critical assets, and ensure the safety of the American public in an increasingly drone-reliant world.

Counter-Unmanned Aircraft Systems (C-UAS)

Description: The FY 2027 President’s Budget provides 30.0M for C-UAS to conduct research, development, test, and evaluation activities. This initiative aims to enhance and optimize C-UAS technologies to meet current DHS operators’ needs and future threats.

Justification: Funding is essential to advance the full Detect, Track, Identify, and Mitigate (DTI-M) chain to ensure rapid, accurate, and effective countermeasures against unauthorized UAS in diverse operational environments. Project activities will include test and evaluation events to assess C-UAS systems against emerging threat profiles, integration of GovCloud Common Operating Picture (COP) into component systems, and support for the rapid transition of new and existing technologies. The project will also focus on identifying, evaluating, and developing DTI-M technologies to counter evolving UAS tactics, techniques, and procedures, including research on technologies capable of detecting and mitigating “dark targets” that do not use traditional Radio Frequency (RF) command and control signals. The project directly addresses statutory requirements under 6 U.S.C. 124n and align with Administration priorities outlined in Executive Orders 14161, 14165, and 14305. The Department has prioritized the urgent need to counter UAS threats to national security, public safety, and critical infrastructure as adversaries increasingly exploit UAS technology for malicious purposes.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Conducted a C-UAS event focused on the World Cup 2026 scenario involving C-UAS authorized DHS Components.	FY 2025 Q1	FY 2025 Q4	6
Executed test of innovative technologies focused on emerging threats such as those that use cellular communications links.	FY 2025 Q1	FY 2025 Q4	5
Executed test to evaluate drone detection, tracking, and identification from an airborne platform.	FY 2025 Q1	FY 2025 Q4	6
Integrated drone remote identification data feed into C-UAS situational awareness tool, Team Awareness Kit (TAK).	FY 2025 Q1	FY 2025 Q4	6
Integrated long-range passive radar into C-UAS situational awareness tool, Team Awareness Kit (TAK).	FY 2025 Q1	FY 2025 Q4	6
Tested and evaluated integrated system with data fusion of disparate C-UAS data feeds.	FY 2025 Q1	FY 2025 Q4	5
FY 2026			

Research, Development, and Innovation – PPA

Counter Terrorism and Threats Mission Center

Assess GovCloud Common Operating Picture (COP) deployment to the NCR in support of PMO/Components.	FY 2026 Q1	FY 2026 Q4	6
Complete at least one research activity to develop (1) multi-modal C-UAS detection and tracking capabilities, leveraging a combination of sensor modalities such as radar, RF analysis, electro-optical/infrared (EO/IR) imaging, and acoustic detection to enhance accuracy, reliability, and performance in diverse operational environments, and (2) low-collateral kinetic mitigation capabilities that include but are not limited to directed energy, munitions, capture/entanglement technologies, and interceptor UAS	FY 2026 Q1	FY 2026 Q4	5
Conduct a Test and Evaluation event to assess current CUAS systems against representative emerging threat profiles and scenarios.	FY 2026 Q1	FY 2026 Q4	6
Conduct a Test and Evaluation event to validate that defined system and performance thresholds meet DHS components requirements	FY 2026 Q1	FY 2026 Q4	6
Identify, prioritize, and document updated C-UAS research and development requirements from five Component partners with C-UAS authorities.	FY 2026 Q1	FY 2026 Q2	5
Provide C-UAS capabilities to DHS HQS and Components in support of upcoming National Special Security Event (NSSE) and Special Event Assessment Rating (SEAR) events for identified World Cup 2026 venues.	FY 2026 Q1	FY 2026 Q4	6
	FY 2027		
Conduct a Test and Evaluation event to assess current CUAS systems against representative emerging threat profiles and scenarios.	FY 2027 Q1	FY 2027 Q4	5-6
Integrate GovCloud Common Operating Picture (COP) into Component systems and support the rapid transition of new and existing technologies.	FY 2027 Q1	FY 2027 Q4	7-8
Conduct a Test and Evaluation event to validate that defined system and performance thresholds meet DHS components requirements.	FY 2027 Q1	FY 2027 Q4	5-6
Identify, evaluate, and/or develop detect, track, identify, and mitigate (DTI-M) technologies that address emerging UAS threat tactics, techniques, and procedures (TTPs).	FY 2027 Q1	FY 2027 Q4	1-5
Execute at least two research activities focused on developing technologies that can detect, track, identify, and/or mitigate dark targets that do not use traditional RF command and control signals.	FY 2027 Q1	FY 2027 Q4	1-3

Description: The FY 2027 President’s Budget provides \$10.5M to advance C-UAS research, development, test, and evaluation to address the unique operational challenges of National Security Special Events and Special Event Assessment Rating events, such as lessons learned from the 2026 World Cup and expectations for the 2028 Olympic Games.

Justification: Funding will provide operational support to Component partners during NSSE/SEAR events, utilizing tested C-UAS technologies in real-world applications. This increase will support ongoing RDT&E activities to optimize defense chain effectiveness, interoperability, and operational coordination. Activities under this project directly address statutory requirements under 6 U.S.C. 124n and align with Administration priorities outlined in Executive Orders 14161, 14165, and 14305, ensuring rapid and effective countermeasures against evolving UAS threats in complex environments and continued investment is essential to safeguard public safety, national security, and critical infrastructure during these events.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
N/A			
	FY 2026		
N/A			
	FY 2027		
Identify lessons learned from C-UAS support to World Cup 2026 and execute RDT&E in preparation for future NSSE/SEAR events, including the LA28 Olympic Games.	FY 2027 Q1	FY 2027 Q4	7-9
Advise and provide operational support to Component NSSE/SEAR events utilizing tested C-UAS technologies in real world applications, including the LA28 Olympics Games.	FY 2027 Q1	FY 2027 Q4	8-9

Explosives Threat Assessment Program – Advances technologies, methodologies, and processes to detect, assess, and mitigate explosive threats to public safety, critical infrastructure, and aviation. The program delivers risk-based threat characterization, predictive tools, and improved security procedures to enhance national resilience. By improving detection and prevention capabilities and fostering partnerships with industry, the program helps DHS stay ahead of emerging explosive threats and strengthens homeland security.

Aircraft Vulnerability

Description: The FY 2027 President’s Budget provides \$2.5M for this project with a focus on Commercial Aircraft Vulnerability Mitigation (CAVM) and to develop a comprehensive understanding of the threat posed to aircraft by explosives. CAVM provides expert knowledge supported by full-scale aircraft testing to determine how detonation conditions such as location, size, configuration, identity, and cargo affect the risk posed to aircraft. These test data provide real-world feedback, support a robust modeling and simulation capability, and inform the development of aircraft blast mitigation technologies.

Justification: Funding for this project continues live-fire testing, high-fidelity modeling, and rapid-response explosive testing to address emerging risks and improve aviation security. The project will conduct a gap analysis on collected aircraft vulnerability test data, perform live-fire testing of a full-scale A321 narrow body aircraft cargo hold to determine vulnerability to internal explosive blasts, and deliver data summary on explosive equivalence and vulnerability of a high-interest homemade explosive (HME) to TSA by FY 2027 Q4. By leveraging decades of test data, the program informs future protective measures, ensuring the safety and resilience of the aviation sector against evolving threats.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Collected sufficient narrow body aircraft cargo hold live fire test data, analyze results, and provide data to TSA.	FY 2023 Q3	FY 2025 Q4	6-7
Completed design, development, and fully populate the Aircraft Vulnerability Explosive Database, a central archive of 35+ years of live fire commercial aircraft vulnerability and mitigation data.	FY 2024 Q1	FY 2025 Q4	6-7
FY 2026			
Deliver data summary on explosive equivalence (in reference to spherical C-4 baseline threat) explosive damage and vulnerability of an HME of interest to TSA by FY 2026 Q4.	FY 2025 Q1	FY 2026 Q4	4-6
Deliver recommendations on explosive equivalence (in reference to spherical C-4 baseline threat) approach for explosive damage and vulnerability of commercial aircraft to TSA by FY 2026 Q1.	FY 2024 Q2	FY 2026 Q2	4-6
FY 2027			
Complete gap analysis on collected aircraft vulnerability test data.	FY2027 Q1	FY2027 Q4	7

Research, Development, and Innovation – PPA

Counter Terrorism and Threats Mission Center

Conduct live fire test of a full scale A321 narrow body aircraft cargo hold to determine vulnerability to internal explosive blast	FY 2026 Q1	FY 2027 Q4	4-6
Deliver data summary on explosive equivalence (in reference to spherical C-4 baseline threat) explosive damage and vulnerability of an HME of interest to TSA by FY 2027 Q4.	FY 2026 Q1	FY 2027 Q4	4-6

Explosives Characterizations

Description: The FY 2027 President’s Budget provides \$4.0M for this project. The Explosive Threat Characterization (ETC) project is the Explosives Threat Assessment (ETA) program's primary explosives laboratory research effort, focusing on the collection, organization, and dissemination of explosives-related data for the HSE. The outputs from this project add to S&T's body of explosives knowledge and serve as foundational reference material for the development of new explosive-related technologies and policies. The project includes the following areas: characterization of chemical and physical properties, detonation performance properties, characterization of detection signatures, system testing and evaluation, detection and quality control procedures for materials and devices, emerging threat responses, and domestic and international collaboration and harmonization.

Justification: Funding for this project will complete a HME Tabletop Exercise with stakeholders and DHS components, initiating the next phase of Detection Standards support for TSA and USSS, delivering test methods and parameters for UAV-based HME devices, complete physical, chemical, and X-ray/CT characterization for three explosive formulations, deliver a report on preliminary detection standards for FPS operations, upload HME reports from two Federal partners into the Explosives Research and Planning Tool, and complete tests on two detection technologies of interest to USSS. This project is critical to advancing our understanding of explosive properties that challenge current detection and mitigation capabilities. Information gathered enables the development of innovative screening technologies, vulnerability assessments, and decision support tools for Department of War, DHS Components, and Federal partners. These efforts increase the effectiveness of detection technologies, improve operational safety, and ensure a proactive response to emerging threats. By expanding S&T’s body of explosives knowledge and supporting standards development, the ETC project enhances the homeland’s resilience against evolving explosive threats.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Completed and submitted region of responsibility memos for (2) materials to TSA to support their data needs for detection standards development.	FY 2025 Q1	FY 2025 Q4	5
Completed performance characterization for (2) explosive formulations to support data needs for risk assessments, modeling tools, and TSA detection standards development.	FY 2025 Q1	FY 2025 Q4	5
Completed physical, chemical, and x-ray/CT characterization for (2) additional explosive formulations to support TSA’s data needs for detection standards development.	FY 2025 Q2	FY 2025 Q4	5

Research, Development, and Innovation – PPA

Counter Terrorism and Threats Mission Center

Completed physical, chemical, and x-ray/CT characterization for (2) explosive formulations to support TSA’s data needs for detection standards development.	FY 2025 Q1	FY 2025 Q1	5
Delivered final report of Gas Forming Reaction analysis to TSA.	FY 2021 Q2	FY 2025 Q1	7
Delivered technical report to Cybersecurity Infrastructure Security Agency (CISA) on metal powders for (7) elements of interest to inform subsequent experimental testing on explosivity.	FY 2024 Q4	FY 2025 Q3	2
	FY 2026		
Achieve 250 documents to be uploaded into the ExPRT system.	FY 2026 Q1	FY 2026 Q4	5
Collect X-Ray CT data for (3) explosive materials obtained from foreign sources for comparison to domestic materials.	FY 2026 Q1	FY 2026 Q4	5
Complete (3) x-ray material analysis for threat scenarios relevant to FPS concerns.	FY 2026 Q1	FY 2026 Q4	5
Complete and submit region of responsibility memos for (2) materials to TSA to support their data needs for detection standards development.	FY 2026 Q1	FY 2026 Q4	5
Complete performance characterization for (2) explosive formulations to support data needs for risk assessments, modeling tools, and TSA detection standards development.	FY 2026 Q1	FY 2026 Q4	5
Complete performance testing for (3) metals of interest, providing experimental data to support security policy development relating to metal powders as a class of threat materials.	FY 2026 Q1	FY 2026 Q4	5
Complete physical, chemical, and x-ray/CT characterization for (2) additional explosive formulations to support TSA’s data needs for detection standards development.	FY 2026 Q3	FY 2026 Q4	5
Complete physical, chemical, and x-ray/CT characterization for (2) explosive formulations to support TSA’s data needs for detection standards development.	FY 2026 Q1	FY 2026 Q2	5
Complete vapor component analysis for (4) explosives and x-ray material analysis for (3) threat scenarios relevant to USSS concerns.	FY 2026 Q1	FY 2026 Q4	5
	FY 2027		
Complete and document one HME Tabletop Exercise with stakeholders and DHS components.	FY2026 Q3	FY2027 Q4	7
Initiate next phase of Detection Standards support for TSA and USSS, that accounts for new technologies.	FY2026 Q2	FY2027 Q4	6-7
Deliver test methods and parameters for unmanned aerial vehicle (UAV) based HME and devices.	FY2027 Q1	FY2027 Q4	6-7
Complete physical, chemical, and X-ray/CT characterization for three (3) explosive formulations to support TSA’s data needs for detection standards development.	FY2027 Q1	FY2027 Q4	5
Deliver report on preliminary detection standards for FPS operations.	FY2027 Q1	FY2027 Q4	7
Upload HME reports from two (2) Federal partners into the Explosives Research and Planning Tool.	FY2026 Q3	FY2027 Q4	7
Complete tests on two (2) detection technologies of interest to USSS.	FY2027 Q1	FY2027 Q4	5-6

Explosives Risk Assessment

Description: The FY 2027 President’s Budget provides \$2.0M for this project which leverage data collected across the ETA program to develop products that enable DHS components and stakeholders to assess their risk to explosives threats. These products provide robust, accessible risk assessments for DHS components, local law enforcement, and other partners across the Homeland Security Enterprise.

Justification: Funding is essential to develop advanced tools and models to assess explosives risk and inform effective mitigation strategies. Specifically, extending the Homeland Explosives Consequence Assessment Tool (HEXCAT) to model specific facilities such as airports and transit centers, delivering expanded Explosives Risk Assessment (ExRA) capabilities, and completing development of the next-generation Explosive Threat Prioritization tool. These tools deliver comprehensive risk reports and integrate critical analytical models to enhance decision-making for DHS Components and local law enforcement. These efforts optimize resource allocation, improve detection and mitigation plans, and strengthen national security by tailoring detection technology solutions to diverse operational scenarios.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Completed Red Team Indexing study and deliver final report to TSA to support improvements to covert testing procedures in airports.	FY 2023 Q1	FY 2025 Q1	3
Completed the minimum viable product of integrated ExRA, perform a demonstration to the interested DHS Components, and receive feedback to aid in next phase of development.	FY 2025 Q1	FY 2025 Q4	5
Developed FOUO version of HEXCat, perform a demonstration to stakeholders, and transition the product to OBP for deployment.	FY 2022 Q4	FY 2025 Q4	5-7
	FY 2026		
Complete minimum viable product of next-generation Explosives Threat Prioritization tool	FY 2026 Q1	FY 2026 Q4	3
	FY 2027		
Extend HEXCAT to be able to model specific facilities such as airports or other transit facilities.	FY2027 Q1	FY2027 Q4	5-6
Deliver expanded ExRA capabilities.	FY2027 Q1	FY2027 Q4	5-6
Complete development of the next-generation Explosive Threat Prioritization tool.	FY2027 Q1	FY2027 Q4	6-7

Description: The FY 2027 President’s Budget provides \$11.1M to develop cost-effective tools that analyze emerging aviation threats while conducting test and evaluation with modern screening technologies, which is necessary to quickly and accurately identify methods appropriate to analyze evolving threats faced by the HSE. Effort shall develop rapid characterization of homemade explosive (HME) materials; to include development of simulants and innovative detection methods, which is critical in developing and operationalizing capabilities that enhance the effectiveness of modern screening technologies.

Justification: Funding for this initiative will be used to develop simulant validation methods for machine learning algorithms; develop drug detection methods and test articles; expand scale up procedures for HME materials; develop new simulants for millimeter wave (MMW) and x-ray technologies; develop testing methodologies and test articles for cargo skid screening systems; and conduct test and evaluation activities in support of the HSE and provides for core laboratory capabilities in support of these applied research areas, as well as support to other functions within the Transportation Security Laboratory (TSL) mission.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Developed characterization (i.e. Karl Fischer, Headspace Analysis, and Purity Assessment) procedure for two (2) HME threats.	FY 2025 Q1	FY 2025 Q4	3
Developed measurement techniques to support MMW simulant development below 10 GHz.	FY 2025 Q1	FY 2025 Q4	3
Developed quality control criteria for two (2) new HME threats.	FY 2025 Q1	FY 2025 Q4	3
Expanded scale up and characterization procedures for two (2) new HME threats for test and evaluation.	FY 2025 Q1	FY 2025 Q4	3
Performed quality control on all synthesized HME products requested for T&E.	FY 2025 Q1	FY 2025 Q4	3
Performed small- and large-scale safety testing on two (2) new novel HME threats.	FY 2025 Q1	FY 2025 Q4	4
Synthesized and characterize two (2) new HME threats.	FY 2025 Q1	FY 2025 Q4	3
	FY 2026		
Add one new material to the trace solution catalog in support of alarm resolution-based test teams.	FY 2026 Q1	FY 2026 Q4	3
Collect extended stability data for two (2) trace solutions.	FY 2026 Q1	FY 2026 Q4	3
Collect transfer efficiency data for one (1) trace threats.	FY 2026 Q1	FY 2026 Q4	3

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Complete data collection activities for threat materials in support of test and evaluation.	FY 2026 Q1	FY 2026 Q4	4-6
Complete development of stability and shelf-life studies for two (2) trace threats.	FY 2026 Q1	FY 2026 Q4	3
Complete sample production and quality control support of one alarm resolution-based one (1) IT&E and one (1) DT&E test event (as applicable).	FY 2026 Q1	FY 2026 Q4	5
Complete small- and large-scale safety testing for two novel homemade explosive threats by Q2 FY26 and two additional threats by Q4 FY26.	FY 2026 Q1	FY 2026 Q4	3
Continue development of new simulants for X-ray technologies.	FY 2026 Q1	FY 2026 Q4	3-5
Continue development of synthetic data verification and validation methods and test tools for machine learning algorithm used in MMW and X-ray technologies.	FY 2026 Q1	FY 2026 Q4	4
Continue development of texture measurement tools and simulants with appropriate texture properties for X-ray technologies.	FY 2026 Q1	FY 2026 Q4	
Demonstrate XCAT’s ability to generate synthetic data for the SureScan X-ray CT system by Q2 FY26. Apply verification and validation methods to ensure alignment between XCAT synthetic data and SureScan system outputs by Q4 FY26	FY 2026 Q1	FY 2026 Q4	3
Demonstrate waveguide measurements supporting millimeter wave simulant development in the 4–12 GHz range by Q4 FY26.	FY 2026 Q1	FY 2026 Q4	3
Develop and finalize an updated verification procedure for analyzing and comparing image texture of bulk X-ray simulants. Complete pilot studies by Q2 FY26 and finalize the texture verification SOP by Q4 FY26.	FY 2026 Q1	FY 2026 Q4	3
Develop and validate expanded scale-up and characterization procedures for two novel homemade explosive threats, ensuring readiness for testing and evaluation in alignment with stakeholder requirements. Complete one procedure by Q2 FY26 and the second by Q4 FY26.	FY 2026 Q1	FY 2026 Q4	3
Develop characterization procedures (e.g., Karl Fischer, Headspace Analysis, and Purity Assessment) for two homemade explosive threats by Q2 FY26 and one additional threat by Q4 FY26.	FY 2026 Q1	FY 2026 Q4	3
Establish a robust quality control methodology for explosive trace detection substrate batches by Q4 FY26, ensuring spectral response consistency through ion-mobilization spectra comparison against an established baseline.	FY 2026 Q1	FY 2026 Q4	3
Expand the Trace Test Support quality control process by adding one new threat by Q2 FY26. Add one new threat, along with required composites and internal standards, to the Production Catalog by Q4 FY26.	FY 2026 Q1	FY 2026 Q4	3
Provide materials characterization support for four novel homemade explosive threats by Q4 FY26, ensuring readiness for testing and evaluation in alignment with stakeholder requirements and operational timelines.	FY 2026 Q1	FY 2026 Q4	3
	FY 2027		
Conduct small- and large-scale safety testing for four novel homemade explosive threats, adhering to established safety protocols and generating comprehensive risk assessment data.	FY 2027 Q1	FY 2027 Q4	3

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Develop and validate expanded scale-up and characterization procedures for two novel homemade explosive threats, ensuring readiness for testing and evaluation in alignment with stakeholder requirements.	FY 2027 Q1	FY 2027 Q4	3
Provide materials characterization support for four novel homemade explosive threats, ensuring readiness for testing and evaluation in alignment with stakeholder requirements and operational timelines.	FY 2027 Q1	FY 2027 Q4	3
Develop alternative bulk quality control approach to validate X-ray Test and Evaluation test articles reducing cost and ensuring DHS and its partners can ensure test validity.	FY 2027 Q1	FY 2027 Q4	3
Develop characterization procedures (e.g., Karl Fischer, Headspace Analysis, and Purity Assessment) for three homemade explosive threats.	FY 2027 Q1	FY 2027 Q4	3
Expand the Trace Test Support quality control process by adding one new threat by Q2 FY27. Add one new threat, along with required composites and internal standards, to the Production Catalog by Q4 FY27.	FY 2027 Q1	FY 2027 Q4	3
Complete millimeter wave waveguide measurements for simulant development of four threats.	FY 2027 Q1	FY 2027 Q4	3
Generate synthetic data for training machine learning algorithms used in millimeter wave technology for two threats.	FY 2027 Q1	FY 2027 Q4	3
Generate synthetic data for training machine learning algorithms used in x-ray based technology for two threats.	FY 2027 Q1	FY 2027 Q4	3

Probabilistic Analysis of National Threats, Hazards, and Risks (PANTHR) Program – This program conducts applied research to understand the characteristics and risk posed by chemical and biological hazards that may affect the Homeland. The efforts develop and provide accurate, useful, and defensible knowledge and tools to stakeholders to enable risk-informed decision-making pertinent for defense against weapons of mass destruction threats to the Homeland. The program will execute chemical, biological, radiological, nuclear, and explosive (CBRNE) risk analysis capabilities to support national assessments, characterize biological and chemical hazards to support HSE biological and chemical defense, and coordinate hazard awareness and characterization activities across S&T, DHS Components, and the HSE.

Agricultural Threat Characterization (AgTC)

Description: The FY 2027 President’s Budget provides \$0.5M for this project to provide critical support in safeguarding the U.S. Homeland from agricultural threats and hazards, particularly those with catastrophic economic and infrastructure consequences or national security implications. AgTC enables the execution of characterization research that generates scientific data and knowledge products for the priority traditional, emerging, and advanced threats facing U.S. agriculture to fill critical knowledge gaps on these hazards. The outcomes and data informational agricultural defense and preparedness and support sector risk assessments across the U.S. government.

Justification: Funding for this effort will provide scientific data and information to decision makers across the U.S. government, including DHS components. The data will feed into an array of activities such as sector risk assessments, hazard modeling for operational prioritization and planning, response and mitigation countermeasures, and policy development. AgTC will expand threat characterization knowledge of priority agents which will be used to provide practical insight and strategic guidance to DHS components, other federal agencies, and SLTT to strengthen

national security policies and activities that proactively inform response strategies to prevent and reduce economic impact, specifically significant losses related to food and livestock.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Conducted AgTC annual portfolio review on FY 2024 activities.	FY 2025 Q1	FY 2025 Q2	1-3
Delivered at least five (5) agricultural threat agent studies, results, and findings to DHS components and the U.S. biodefense community.	FY 2025 Q1	FY 2025 Q4	3
Delivered the AgTC data for risk results to be incorporated into TIGER’s CBRNE and Food & Agriculture (FASRAC) annual risk assessments.	FY 2025 Q2	FY 2025 Q3	3
Met with internal S&T/ MCS team, specifically the PANTHR team, and DHS matrix and component partners to discuss priorities and conduct next year planning (for FY 2026).	FY 2025 Q3	FY 2025 Q4	1-3
Uploaded at least five (5) new knowledge products to the HKMS and continue to upload AgTC reports and publications.	FY 2025 Q1	FY 2025 Q4	3
FY 2026			
Conduct AgTC annual portfolio review on FY 2025 activities.	FY 2026 Q1	FY 2026 Q2	1-3
Deliver at least three (3) agricultural threat agent studies, results, and findings to DHS components and the U.S. biodefense community.	FY 2026 Q1	FY 2026 Q4	3
Deliver the AgTC data for risk results to be incorporated into TIGER’s CBRNE and Food & Agriculture (FASRAC) annual risk assessments.	FY 2026 Q2	FY 2026 Q4	3
Meet with internal PANTHR team, specifically BTC and TIGER/FASRAC teams, and DHS matrix and component partners to discuss priorities and conduct next year planning (for FY 2027).	FY 2026 Q1	FY 2026 Q4	1-3
Upload at least three (3) new knowledge products to the HKMS and continue to upload AgTC reports and publications.	FY 2026 Q1	FY 2026 Q4	3
FY 2027			
Conduct AgTC annual portfolio review on FY 2026 activities.	FY 2027 Q1	FY 2027 Q2	1-3
Deliver at least two (2) agricultural threat agent studies, results, and findings to DHS components and the biodefense community.	FY 2027 Q1	FY 2027 Q4	3
Upload at least two (2) new knowledge products to the HKMS and continue to upload AgTC reports and public actions.	FY 2027 Q1	FY 2027 Q4	3
Deliver the AgTC data for risk results to be incorporated into TIGER's CBRNE and Food and Agriculture (FASRAC) annual risk models.	FY 2027 Q2	FY 2027 Q4	3

Description: The FY 2027 President’s Budget provides \$0.4M to support the administrative costs of building, deploying, hosting, and maintaining the Hazard Knowledge Management System (HKMS) environments. HKMS is an information-sharing platform available at both For Official Use Only and Top-Secret classification levels, designed to host data, technical reports, risk analysis software, and modeling tools from the PANTHR program. This system provides federal, state, local, tribal, and territorial partners with critical resources to support decision-making and enhance preparedness and response for Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) events.

Justification: Funding for this project will enhance, sustain, and modernize the cloud-based HKMS, which currently serves over 200 active users across HSE. This initiative will provide secure, on-demand access to critical information and tools for federal, state, local, tribal, and territorial stakeholders at multiple classification levels. By maintaining up-to-date chemical and biological data sets, knowledge products, and analytical tools, the project ensures operational security and maximizes system usability. HKMS will offer access to a comprehensive repository of more than 3,000 knowledge products and eight advanced decision-support analysis tools, supporting hazard prioritization, efficient resource allocation, and informed strategic and operational decision-making. These capabilities are vital for strengthening national resilience and safeguarding public safety.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Conducted outreach across the HSE to five DHS components and USG departments and agencies to gain users and advertise the capability across both TS and FOUO cloud networks.	FY 2025 Q1	FY 2025 Q4	6-7
Updated and maintain TS secure cloud data, tools, and applications.	FY 2025 Q1	FY 2025 Q4	6-7
Updated and maintain unclassified/FOUO cloud data, tools and applications.	FY 2025 Q1	FY 2025 Q4	6-7
FY 2026			
Conduct further outreach across the HSE to DHS components and USG departments and agencies to gain users and advertise the capability across both TS and FOUO cloud networks by providing five (5) targeted demonstrations to end users and decision makers.	FY 2026 Q1	FY 2026 Q4	7
Update and maintain seven (7) secure tools/applications and DHS associated databases on the Top-Secret network.	FY 2026 Q1	FY 2026 Q4	7
Update and maintain three (3) unclassified/CUI tools/applications and DHS associated databases.	FY 2026 Q1	FY 2026 Q4	7
FY 2027			
Conduct eight (8) targeted outreach and training demonstrations across the Homeland Security Enterprise (HSE), DHS components, and U.S. Government (USG) departments and agencies to increase awareness, adoption, and utilization of critical capabilities.	FY 2027 Q1	FY 2027 Q4	7-9

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Update and maintain data and software to ensure reliability, security, and operational readiness of seven (7) tools and applications hosted on the Top Secret (TS) network for DHS Components and Interagency to provide decision support for high-stakes missions and classified CBRN defense operations.	FY 2027 Q1	FY 2027 Q4	7-9
Update and maintain data and software to ensure the functionality, security, and accessibility of three (3) tools and applications hosted on the Controlled Unclassified Information network for DHS Component and Interagency partners to provide support day-to-day operations and sensitive but unclassified CBRN defense activities.	FY 2027 Q1	FY 2027 Q4	7-9

Tools for Integrated Evaluation of Risk (TIGER)

Description: The FY 2027 President’s Budget provides \$8.2M for this project for the execution of the annual CBRNE risk analyses for the Human Health and Food and Agricultural sectors, and advances risk analysis approaches and capabilities to address emerging and evolving threats. The tailored strategic, operational, and tactical assessment capabilities generated from TIGER are required by, and provided to, various stakeholders (e.g., DHS Components, HHS, DoW) to better enable and inform an array of activities and decisions for CBRNE preparedness and response.

Justification: Funding for TIGER will provide risk assessments that will inform operational and response planning, medical countermeasure development and acquisition, research and development, hazard prioritization, resource optimization and innovation to prevent or mitigate CBRNE threats to the Homeland. Specifically, deliver updated National Risk Data for CBRNE and Food and Ag Sector analyses, executing at least five development activities to expand core risk analysis capabilities, identifying modeling and risk analysis priorities for FY 2028, identifying priority technical hazard data gaps for BTC, CTC, and AgTC, and generating 20 tailored assessments to address stakeholder needs. This work produces actionable analyses and knowledge products in response to FSLTT requests, supporting risk-informed decision-making, identifying emerging threats, and informing targeted mitigation strategies. TIGER develop and improve models and tools to bolster core risk analysis capabilities that enable annual strategic risk assessments and ad hoc, tailored risk assessments for HSE stakeholders to support preparedness and mitigation efforts. Through a collaborative engagement with TSA and USSS, TIGER will also develop and improve tools to help prioritize hazards to guide resourcing and budget decisions.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Delivered updated National Risk Data for CBRN, Food and Ag Sector, BioEconomy and Biotechnology analyses to leverage for national assessments, tailored assessments, and decisions support tools to the Homeland Security Enterprise.	FY 2025 Q1	FY 2025 Q4	3
Executed development activities to improve and expand capabilities to support the food and agriculture risk assessment framework.	FY 2025 Q1	FY 2025 Q4	3

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Counter Terrorism and Threats Mission Center

Executed development activities to improve and expand capabilities to support the risk assessment framework to integrate biotechnological threats.	FY 2025 Q1	FY 2025 Q4	3
Executed development activities to improve and expand core computational risk analysis capabilities.	FY 2025 Q1	FY 2025 Q4	3
Generated 20 tailored assessments to address stakeholder needs.	FY 2025 Q1	FY 2025 Q4	3
Identified development priorities for modeling and risk analysis capabilities.	FY 2025 Q1	FY 2025 Q4	N/A
Identified priority technical hazard data gaps for BTC, CTC, and AgTC.	FY 2025 Q1	FY 2025 Q3	N/A
	FY 2026		
Deliver updated National Risk Data for CBRN, Food and Ag Sector, Bioeconomy and Biotechnology analyses to leverage for national assessments, tailored assessments, and decisions support tools to the Homeland Security Enterprise.	FY 2026 Q1	FY 2026 Q4	3
Execute at least five (5) development activities to improve and expand core computational risk analysis and modeling capabilities.	FY 2026 Q1	FY 2026 Q4	3
Generate 20 tailored assessments to address stakeholder needs.	FY 2026 Q1	FY 2026 Q4	3
Identify modeling and risk analysis capabilities development priorities for FY 2027.	FY 2026 Q1	FY 2026 Q4	N/A
Identify priority technical hazard data gaps for BTC, CTC, and AgTC.	FY 2026 Q1	FY 2026 Q4	N/A
	FY 2027		
Deliver updated National Risk Data for CBRNE and the Food and Ag Sector analyses to leverage for national assessments, tailored assessments, and decisions support tools to the Homeland Security Enterprise.	FY 2027 Q1	FY 2027 Q4	3
Execute at least five (5) development activities to expand and enhance core risk analysis capabilities by implementing new models and data in response to stakeholder requests.	FY 2027 Q1	FY 2027 Q4	3
Identify modeling and risk analysis capabilities development priorities for FY 2028.	FY 2027 Q3	FY 2027 Q4	3
Identify priority technical hazard data gaps for BTC, CTC, and AgTC.	FY 2027 Q2	FY 2027 Q3	3
Generate 20 tailored assessments to address stakeholder needs.	FY 2027 Q1	FY 2027 Q4	3

**Cyber, Infrastructure, and National Resiliency Mission Center
Research and Development**

Technology Readiness Level Exhibit
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
Cyber, Infrastructure, and National Resiliency	\$11,000	\$11,000	\$73,900

R&D Description

Cyber, Infrastructure, and National Resiliency Mission Center: DHS strengthens the security and resilience of critical infrastructure; assesses and counters evolving cyber and emerging technology risks; combats cybercrime; supports cybersecurity and federal civilian networks; coordinates federal responses to incidents; strengthens national resilience; and enhances training and readiness of first responders. S&T invests in research and development to transition advanced cybersecurity and information assurance technologies, which secure the Nation’s current and future cyber and critical infrastructures. These solutions include AI security and assurance technologies, data security and analytics capabilities, systems security and supply chain assurance techniques, network and systems security for information and operational technologies, and digital forensics for law enforcement. S&T focuses on research and development to enhance national resilience, including the training and preparedness of first responders and the advancement of domestic canine capabilities.

Cyber, Infrastructure, and National Resiliency <i>(Dollars in Thousands)</i>				
Program	Project	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President’s Budget
Cybersecurity		\$11,000	\$11,000	\$51,000
	Critical Infrastructure (CI)/Cyber Physical Systems (New Project)	-	-	\$10,000
	Cyber Data Analytics (AI and Data Security)	\$9,000	\$9,000	\$23,000
	Cybersecurity for Law Enforcement	\$2,000	\$2,000	\$3,000
	Systems Security and Supply Chain Assurance (New Project)	-	-	\$15,000

Cyber, Infrastructure, and National Resiliency <i>(Dollars in Thousands)</i>				
Program	Project	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President’s Budget
Detection Canine (realigned from Chemical, Biological, and Explosive (CBE) Defense Thrust Area)		-	-	\$6,300
	Detection Canine	-	-	\$6,300
Infrastructure Resilience (formerly ‘Community and Infrastructure Resilience’)		-	-	\$16,600
	Communications Technology Resilience (New Project)	-	-	\$4,500
	Integrated Disaster Resilience (New Project)	-	-	\$7,000
	Operational Training and Mission Readiness (New Project)	-	-	\$2,000
	Physical Security (realigned from Physical Security Program)	-	-	\$3,100
Total – Cyber, Infrastructure, and National Resiliency		\$11,000	\$11,000	\$73,900

Cybersecurity Program – This program conducts research, analysis, and development of technologies aimed at strengthening defensive cybersecurity capabilities across strategic technical areas, including the use of AI, to understand and mitigate risk to the Nation’s critical infrastructure. The increasing reliance on complex data, technology, communication, and interconnectivity has expanded vulnerabilities and heightened risks to governmental operations, citizen services, and critical infrastructure continuity. This program will address these challenges by measuring and enhancing cybersecurity defenses and resilience for federal, state, local, tribal, and territorial organizations.

Critical Infrastructure (CI)/Cyber Physical Systems

Description: The FY 2027 President’s Budget provides \$10.0M to advance research and development that supports DHS’s mission to ensure the availability, security, and resilience of the nation’s critical infrastructure and cyber-physical systems. As these systems become more advanced and integrate technologies such as AI and the Internet of Things, the risk of sophisticated cyberattacks increases. This project focuses on securing cyber-physical systems to protect public safety and ensure the reliability of critical national infrastructure, in alignment with DHS’s mission and statutory requirements under Title 6 U.S.C. 665n.

Justification: Funding for this new project will support the development of mitigation strategies and tools to help critical infrastructure owners and operators to increase cyber resiliency across the transportation sector, advance the rapid development of digital twins for critical infrastructure to strengthen cross-sector cyber-physical system resilience, and explore generative AI Threat Emulation Models to simulate adversary tactics within digital twin environments. The project will develop solutions to mitigate disruptions caused by positioning, navigation, and timing failures, as well as electromagnetic pulse events, helping to protect the electrical grid and communication networks from cascading impacts and significant economic losses across all critical infrastructure sectors. This investment is essential to maintaining national security and ensuring the resilience of vital services.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
N/A			
	FY 2026		
N/A			
	FY 2027		
Develop mitigation strategies and tools for critical infrastructure owners and operators to increase the baseline for cyber resiliency across the transportation system sector.	FY 2027 Q1	FY 2027 Q4	4
Explore approaches for using generative AI Threat Emulation Models to mimic adversary tactics, techniques, and procedures within digital twin environments to support threat simulations.	FY 2027 Q1	FY 2027 Q4	1
Advance the rapid development of digital twins for critical infrastructures, exploring cross-sector applications and vulnerabilities to strengthen cyber-physical system resilience.	FY 2027 Q1	FY 2027 Q4	5

Cyber Data Analytics (AI and Data Security)

Description: The FY 2027 President’s Budget provides \$23.0M for this project to assist the advancement of CISA in securing cyberspace assets and missions by advancing risk analysis methodologies and leveraging data analytics, machine learning, large language model, and other AI-based capabilities to detect, mitigate, and prevent cyber-attacks and measure cyber resilience. These efforts will enhance critical infrastructure cyber resilience and protect the Nation’s most vulnerable networks.

Justification: Funding will enable critical research in computational analytics and information sharing to strengthen homeland security cyber security risk analysis and mitigation across government, the sixteen Critical Infrastructure Sectors, and the 55 National Critical Functions. Investments will support the development and integration of advanced computation and automation technologies to accelerate the effective integration of efficient data into next-generation architectures for CISA. By maturing and delivering cybersecurity research datasets, secure data analytics, machine learning, and AI capabilities, this project will increase cyber resilience and mitigate adversarial uses of the same, improving real-time network defense and advancing risk analysis capabilities for federal networks and the Nation’s critical infrastructure.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Transitioned the Multi-Cloud Analytics and Prototyping Laboratory Environment (MAPLE) to CISA.	FY 2025 Q1	FY 2025 Q2	7
Transitioned software vulnerability-focused tools and techniques to enhance CISA's cyber threat analysis, recognition, identification, and mitigation capabilities.	FY 2025 Q1	FY 2025 Q4	1-5
Provided results of initial landscape analysis on natural language processing tools for large unstructured datasets.	FY 2025 Q1	FY 2025 Q4	1-2
Provided analysis on best practices, tools, and capabilities to enhance the security and resiliency of elections.	FY 2025 Q1	FY 2025 Q4	1-3
Delivered targeted models, techniques, and methodologies in risk analysis to enhance CISA's capability to assess and mitigate cybersecurity risks to critical infrastructure.	FY 2025 Q1	FY 2025 Q4	1-3
Delivered initial models, tools, and techniques to improve the software understanding ability of critical infrastructure stakeholders and increase their resilience to software-based threats through "secure by design" principles.	FY 2025 Q1	FY 2025 Q4	1-3
Delivered final studies and prototype plans for software assurance and integrity approaches utilizing machine learning capabilities and environments.	FY 2025 Q1	FY 2025 Q4	5
Delivered final analyses of software supply chain protection techniques, software bill of materials validation approaches, and operational software test and evaluation tools.	FY 2025 Q1	FY 2025 Q4	5
Conducted targeted assessments of Generative AI technologies, capabilities, and risks.	FY 2025 Q1	FY 2025 Q4	2
Conducted initial analysis and testing of source and binary code quality and maturity in specialized systems using ML-enabled hierarchical software quality assurance models.	FY 2025 Q1	FY 2025 Q4	1-3
	FY 2026		
Investigate methods to improve the security and integrity of AI systems and capabilities.	FY 2026 Q1	FY 2026 Q4	1-3
Evaluate AI/ML capabilities to support secure software development.	FY 2026 Q1	FY 2026 Q4	1-3
Evaluate AI-based capabilities and approaches to improve software understanding.	FY 2026 Q1	FY 2026 Q4	1-3

Research, Development, and Innovation – PPA**Cyber, Infrastructure, and National Resiliency Mission Center**

Conduct initial investigation of capabilities to improve IT/OT systemic risk posture in critical infrastructure.	FY 2026 Q1	FY 2026 Q4	1-3
Conduct initial assessment of tools and techniques supporting translation of cloud log and telemetry data.	FY 2026 Q1	FY 2026 Q4	1-3
	FY 2027		
Demonstrate a Natural Language Processing and Large Language Model prototype to ingest, triage, analyze, summarize, and/or report on cyber incident data in a relevant environment.	FY 2026 Q1	FY 2027 Q4	6
Develop a large-scale dataset labeling, curation, and generation pipeline proof-of-concept to support cyber defense research.	FY 2026 Q3	FY 2027 Q3	3
Deliver initial analysis on developing, training, and using AI/ML models, in conjunction with a unified/interoperable cyber threat intelligence framework, to enable real-time detection, analysis, and automated response to counter Advanced Persistent Threats.	FY 2026 Q4	FY 2027 Q4	4

Cybersecurity for Law Enforcement

Description: The FY 2027 President’s Budget provides \$3.0M for this project to assist law enforcement in training, prevention against cyber-attacks, cyber-crime investigations, and the forensic analysis of technologies used in criminal activity. It will evaluate current technologies and develop and test procedural designs and practices that provide options for secure open-source software supply chain validation. Additionally, this project will develop low-to-no cost exportable cyber forensics tools and process training, as well as enhance capabilities to mitigate current and anticipated cyber threats against vehicles used by DHS Components.

Justification: Funding for this project will assist law enforcement organizations in countering adversary exploitation of advanced technology to manipulate information technology devices, Internet of Things devices, and AI as digital platforms to attack, exploit, and compromise the security of vulnerable populations. These efforts will better prepare law enforcement personnel and give them the training and tools required to protect against an ever-evolving adversary.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Selected, in coordination with the Federal Law Enforcement Training Centers (FLETC), tools, algorithms, and techniques for conducting open-source research for data and evidence collection to support development of new forensic solutions.	FY 2024 Q1	FY 2025 Q4	1-4
Delivered results of research and analysis on threats, vulnerabilities, applicable policies, and sustainment infrastructure recommendations to improve the cybersecurity and resiliency of component vehicle fleets.	FY 2024 Q1	FY 2025 Q2	1-3
FY 2026			
Evaluate material and non-materiel solutions to improve the cybersecurity of fleet vehicles.	FY 2026 Q1	FY 2026 Q4	3-5
FY 2027			
Identify the target, make, and model of the vehicles most commonly rented/acquired for the Cyber Mitigations for Connected Vehicles project.	FY 2026 Q4	FY 2027 Q2	1
Provide a device/software proof-of-concept to completely disable software/cellular/WiFi/Bluetooth connectivity in targeted vehicles.	FY 2026 Q4	FY 2027 Q4	4

Systems Security and Supply Chain Assurance

Description: The FY 2027 President’s Budget provides \$15.0M for this project to provide critical research capabilities that protect systems, data, and infrastructure from supply chain threats that pose severe consequences for critical infrastructure operations and national security. The work directly supports CISA’s statutory mission and the Administration's cybersecurity priorities by addressing critical gaps in supply chain security assessment, moving beyond identification and towards the development of actionable mitigation strategies that bolster system resilience.

Justification: Funding will expand current research beyond open-source software to include proprietary software, firmware, hardware components, and emerging technology risks across the entire system lifecycle, the project fosters more secure and resilient supply chains. The development of a comprehensive supply chain security assessment and analyst of the current state of supply chain security, creating mitigation strategies for , vulnerabilities and threats caused by open-source software use in critical infrastructure, developing an integrated toolset for understanding software (including source code, firmware, and binary) in critical infrastructure, delivering a field-programmable gate array that integrates obfuscated hardware into representative systems, and developing a proof-of-concept tool to reduce the manual burden of malware and software vulnerability analysis. Prevalent research provided foundational visibility into software dependencies. This expanded effort will encompass proprietary software, firmware, hardware components, and emerging technology risks across the complete system lifecycle, fostering more secure and resilient supply chains against a variety of threat scenarios. These efforts minimize the impact of disruptions to the delivery of vital goods and services essential to national security and public safety, ensuring the continued protection and resilience of critical infrastructure.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
N/A			
	FY 2026		
N/A			
	FY 2027		
Develop a Comprehensive Supply Chain Risk Assessment and analysis of the current state of Supply Chain Security.	FY 2027 Q1	FY 2027 Q3	2
Develop mitigation strategies of identified vulnerabilities, threats, and impacts caused by open-source software use in critical infrastructure.	FY 2027 Q1	FY 2027 Q4	2
Develop integrated toolset for understanding software (source code, firmware, and binary) in critical infrastructure.	FY 2024 Q2	FY 2027 Q2	4
Deliver a field-programmable gate array that successfully integrates obfuscated hardware into representative or simulated specialized systems.	FY 2024 Q2	FY 2027 Q2	4
Develop a software understanding proof-of-concept tool to reduce the manual burden of current malware and software vulnerability analysis techniques.	FY 2026 Q4	FY 2027 Q4	3

Detection Canine Program – This program conducts research to develop tools, techniques, and knowledge that enhance the operational proficiency of domestic detection canines, ensuring their effectiveness in safeguarding the nation. It provides a resource to fill critical gaps in canine training and mission performance, enhance canine proficiency detection in operational environments, respond to emerging threats, and address the growing threat and operational concerns of securing soft target venues and large public crowd events more efficiently and effectively. The program supports DHS Components and state, local, tribal, territorial, and campus agencies that rely on detection canines to protect transportation hubs, borders, public venues, and critical infrastructure.

Detection Canine

Description: The FY 2027 President’s Budget provides \$6.3M for this project to develop tools, techniques, and knowledge that enhance the operational proficiency of domestic detection canines, ensuring their effectiveness in safeguarding the nation.

Justification: Funding will advance comprehensive research across canine-related disciplines, including odor chemistry and the development and evaluation of training tools to build domestic capacity for detecting explosives, narcotics, and other threats. The project will deliver odor generalization studies to reduce training burdens, conduct independent field assessments to validate operational strengths and limitations of the mobile canine sensing platform, and expand a breeding initiative to improve the supply of domestic working dogs. Specific activities include independent testing and analysis of law enforcement officer-led Explosive Detection Canine teams for both aviation and surface environments, independent testing and analysis of Person-borne Explosives Detection teams inside and outside checkpoints, and the development of a training paradigm using non-detonable training aids based on the headspaces of C4 or TNT. By supporting DHS Components and state, local, tribal, territorial, and campus law enforcement agencies, this investment will enhance the operational effectiveness of detection canines, thereby strengthening public safety and national security in an increasingly complex threat environment.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Conducted independent testing and analysis of LEO-led EDC (Aviation and Surface) teams.	FY 2025 Q1	FY 2025 Q4	6
Conducted independent testing and analysis of TSA-led Passenger Screening (PSC) teams both inside and outside the checkpoint.	FY 2025 Q1	FY 2025 Q4	6
Conducted testing on series of odor simulants in which live explosive trained canines spontaneously generalize to target odor of interest.	FY 2025 Q3	FY 2025 Q4	5
Delivered final report to TSA on multiple K9 Training Aid Contamination Tests (K9 TACT) with results that will provide information regarding the vapors associated with each explosive training aid.	FY 2024 Q1	FY 2025 Q1	7
Delivered final report to TSA regarding canine handler best practices (including knowledge, skills, abilities and other characteristics)	FY 2024 Q1	FY 2025 Q2	7

Research, Development, and Innovation – PPA

Cyber, Infrastructure, and National Resiliency Mission Center

Delivered report to include unrestricted database of volatile profiles for 20 explosives materials and canine threshold for the volatiles associated with two categories of explosives.	FY 2024 Q3	FY 2025 Q3	5-6
Delivered polydimethylsiloxane "odor capture and release" material composition platform with tunable porosity, requisite thermal stability, and tunable chemical affinity.	FY 2022 Q4	FY 2025 Q3	3-6
	FY 2026		
Conduct independent testing and analysis of LEO-led EDC (Aviation and Surface) teams.	FY 2026 Q1	FY 2026 Q4	6
Conduct independent testing and analysis of LEO-led PSC teams both inside and outside the checkpoint.	FY 2026 Q1	FY 2026 Q4	6
Expand the Domestic Breeding Initiative to produce a domestic breeding program that will support the needs of the TSA Canine Training Center for the procurement of detection canines.	FY 2026 Q1	FY 2026 Q4	7
Release the first update of a non-detonable training aid market survey report that will assist state and local law enforcement to identify non-detonable training aids for explosive detection canines.	FY 2025 Q3	FY 2026 Q4	7
	FY 2027		
Conduct independent testing and analysis of law enforcement officer-led Explosive Detection Canine (Aviation and Surface) teams.	FY 2027 Q1	FY 2027 Q4	7
Conduct independent testing and analysis of law enforcement officer-led Person-borne Explosives Detection teams both inside and outside the checkpoint.	FY 2027 Q1	FY 2027 Q4	7
Develop a training paradigm where dogs will be trained to detect a series of non-detonable training aids developed based on the headspaces of C4 or TNT	FY 2026 Q4	FY 2027 Q2	6

Infrastructure Resilience Program – This program conducts research into new and emerging technologies to strengthen the security and resilience of the nation’s critical infrastructure, networks, and systems. It focuses on optimizing incident response operations, enhancing physical security measures, and improving protections for soft targets and public gatherings. Additionally, the program works to secure communications technology and deliver operational training that addresses the evolving needs of homeland security personnel. These efforts are vital to ensuring the nation can effectively respond to and recover from disruptive events in an increasingly complex threat environment.

Communications Technology Resilience

Description: The FY 2027 President’s Budget provides \$4.5M for this project to advance research and development in support of the HSE mission by ensuring that mission-critical communication remains consistently available, resilient, and secure for DHS users. Reliable networks are essential for emergency response coordination, e-commerce, and the execution of DHS operations, including information sharing and access to databases such as the National Crime Information Center.

Justification: In alignment with the Presidential Memorandum (NSPM-8) establishing U.S. leadership in 6G development, funding will support the development of 6G network standards for joint communications and sensing in critical infrastructure, as well as research into network configuration and security requirements to maintain session persistence across multiple 5G networks during operational activities. This project will leverage advanced communications technologies and interoperable standards to deliver secure, always-available, and cost-effective solutions that meet DHS’s mission objectives and statutory requirements outlined in Title 6 U.S.C. 194-195a.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
N/A			
	FY 2026		
N/A			
	FY 2027		
Develop 6G network standards for joint communications and sensing in critical infrastructure.	FY 2027 Q1	FY 2027 Q4	3
Research network configuration and security requirements to maintain session persistence across multiple 5G networks during operational activities.	FY 2027 Q1	FY 2027 Q4	6

Integrated Disaster Resilience

Description: The FY 2027 President’s Budget provides \$7.0M for this project to provide incident responders with tools, techniques, and expertise that support a comprehensive and coordinated approach to disaster preparedness, response, recovery, and mitigation.

Justification: Funding will invest in capabilities that enable individuals, systems, and infrastructure across all sectors, levels of government, private organizations, and communities to adapt to and withstand adverse events. Specific activities include a final report on landslide-specific remote sensing analysis, demonstrating a Mass Fatality Tracking System, showcasing a low-head dam hydraulic simulation tool to prevent future loss of life, initiating studies of new flood protection I-wall designs with the USACE Risk Management Center, and transitioning comprehensive training materials to earthquake response and recovery stakeholders. This work provides grounds for innovative solutions, fostering stronger, more adaptive communities that can safeguard lives, infrastructure, and economies. This investment is essential to ensure our nation’s resilience against the evolving disaster challenges and to strengthen preparedness and response capabilities across the HSE.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
N/A			
	FY 2026		
N/A			
	FY 2027		
Deliver final report providing overview of the landslide-specific remote sensing analysis conducted.	FY 2027 Q2	FY 2027 Q2	7
Deliver Final Mass Fatality Tracking System Demonstration Report.	FY 2027 Q3	FY 2027 Q4	5-7
Demonstrate low-head dam hydraulic simulation tool, preventing future loss of life.	FY 2027 Q2	FY 2027 Q3	7
Initiate studies of new flood protection I-wall designs with the USACE Risk Management Center.	FY 2027 Q2	FY 2027 Q3	7
Transition comprehensive training materials to earthquake response and recovery stakeholders.	FY 2027 Q2	FY 2027 Q3	7

Operational Training and Mission Readiness

Description: The FY 2027 President’s Budget provides \$2.0M for this project to implement advanced training technologies that improve the skills, performance, and response capabilities of DHS personnel in protecting the homeland and saving lives. It will focus on bolstering operational training and mission readiness by leveraging innovative tools and methods tailored to evolving frontline needs.

Justification: Funding for this effort will support the development and transition of advanced training methods and tools, including immersive environments, AI, and game and electronic-based learning, to enhance the capabilities of DHS training entities and Components. These technologies are critical to sustaining skills, improving operational performance, and addressing the evolving needs of frontline homeland security personnel. By addressing high-priority needs, conducting field assessments of next-generation technologies, and developing prototypes, this project will strengthen the response community’s field operations ability to protect the homeland, respond to critical incidents and disasters, and save lives.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
N/A			
	FY 2026		
N/A			
	FY 2027		
Deliver a Strategic evaluation, tradeoff assessment and Implementation strategy for virtual immersive training simulation training for Law Enforcement.	FY 2027 Q1	FY 2027 Q4	6
Evaluate selected enhanced operational training simulation technologies for Law Enforcement.	FY 2027 Q4	FY 2028 Q2	6
Develop a new state of the art fire shelter attachment technology to enhance wildland fire shelters to enhance wildland firefighting capabilities.	FY 2027 Q2	FY 2028 Q2	6

Physical Security

Description: The FY 2027 President’s Budget provides \$3.1M for this project to enhance the development of next-generation tools, technologies, and methodologies to safeguard permanent and temporary individuals under protection, National Special Security Events, Special Event Assessment Rating events, and the general public during large-scale special events. In response to the increasing complexity of modern threats, this effort will focus on mitigating risks posed by airborne, vehicle, chemical/biological, radiological/nuclear, explosive weapons, ballistics, and blast impacts.

Justification: Funding for this project will enhance capabilities in perimeter security, border protection, and large event venue defense, directly supporting the critical missions of DHS Components and SLTT law enforcement partners. These missions include preventing terrorism and enhancing security, securing and managing U.S. borders, safeguarding and securing critical infrastructure, and ensuring effective emergency response. Improved perimeter security technologies will prevent unauthorized access to sensitive sites and large event venues, protecting individuals, National Special Security Events, and the general public. Enhanced perimeter tools enable more effective detection and interdiction of illicit activities, increasing preparedness and resilience. These measures support rapid, coordinated responses to threats and directly advance the mission to secure the nation and protect the public.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
N/A			
	FY 2026		
N/A			
	FY 2027		
Complete live testing, application development and validation for Wall Assessment Hazard Level (WAHL) application.	FY 2027 Q1	FY 2027 Q2	5-6
Complete ability to add DHS specific need in modeling or assessing critical infrastructure, public spaces, or crowded places to Vulnerability Assessment Protection Option (VAPO) tool.	FY 2027 Q1	FY 2027 Q4	5-6
Complete Special Event Impact Data Analysis for Special Event Impact Measurement Tool.	FY 2026 Q4	FY 2027 Q2	3-4
Continue to maintain Video Analytics Testbed for Alert Generation and Exploitation (VANTAGE) testbeds and deploy to additional fixed sites	FY 2026 Q2	FY 2027 Q4	5-6
Develop user’s guide of best practices and deliver one hostile vehicle barrier system	FY 2027 Q1	FY 2027 Q4	6-7
Deliver report with recommendations for algorithm implementation and rules for alerting on abnormal crowd movements.	FY 2026 Q3	FY 2027 Q4	N/A

**Innovative Research and Foundational Tools
Research and Development**

Technology Readiness Level Exhibit
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
Innovative Research and Foundational Tools	\$85,225	\$85,225	\$49,830

R&D Description

Innovative Research and Foundational Tools: Focuses on S&T’s core research hubs, which conduct foundational research in high-impact, cross-cutting technology areas such as AI, data analytics, and biometrics. The insights and innovations generated are leveraged across multiple missions. S&T is committed to understanding the highest-priority homeland security capability needs and gaps, and to identifying optimal strategies for delivering solutions and expertise that address those needs.

S&T’s R&D investments support the identification and analysis of capability gaps through rigorous requirements prioritization, enabling us to evaluate potential solutions and collaborate with stakeholders to select the most effective approaches—whether through technology, knowledge, or advisory support. This also encompasses IT investments in advanced computing research and the Office of Industry Partnership Portal (OIPP), which facilitates collaboration across multiple programs, including the Small Business Innovation Research (SBIR) program.

Innovative Research and Foundational Tools <i>(Dollars in Thousands)</i>				
Program	Project	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President’s Budget
Foundational Tools		\$13,061	\$13,061	\$38,907
	Aligning Departmental R&D with DHS Goals (Integrated Product Teams)	\$3,700	\$3,700	\$3,700
	CORE ONL Biological Threat Awareness (BTA) (realigned from PANTHR)	-	-	\$12,000
	CORE ONL Chemical Threat Awareness (CTA) (realigned from PANTHR)	-	-	\$4,393
	Core Research Hubs (realigned from Technology Centers Program)	-	-	\$10,223
	First Responder Technologies-System Assessment and Validation for Emergency Responders (SAVER)	\$1,064	\$1,064	\$1,064

Innovative Research and Foundational Tools <i>(Dollars in Thousands)</i>				
Program	Project	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President’s Budget
	Technology Clearinghouse	\$842	\$842	\$842
	Technology Scouting	\$4,003	\$4,003	\$4,003
	Technology Transition	\$3,452	\$3,452	\$2,682
Partnerships		\$17,628	\$17,628	\$10,923
	Bi-National Cooperative	\$100	\$100	\$1,000
	Coordination, Engagement, and Outreach	\$2,551	\$2,551	\$1,248
	Partnerships Intermediary Agreements (PIA)	-	-	\$1,000
	Rapid Prototyping Innovation (New Project)	-	-	\$3,000
	Silicon Valley Innovation Program (SVIP)	\$9,702	\$9,702	-
	Small Business Innovation Research (SBIR) Management	\$2,175	\$2,175	\$2,175
	Technology Transfer and Commercialization (T2C)	\$3,100	\$3,100	\$2,500
Technology Centers (redistributed across Mission Centers and Innovative Research and Foundational Tools)		\$54,536	\$54,536	-
	Advanced Computing Technology Centers	\$22,890	\$22,890	-
	Enduring Sciences Technology Centers	\$13,518	\$13,518	-
	Innovative Systems Technology Centers	\$18,128	\$18,128	-
Total – Innovative Research and Foundational Tools		\$85,225	\$85,225	\$49,830

Foundational Tools Program – A vital aspect of S&T’s role as the science advisor to DHS is to ensure the organization remains at the forefront of emerging technologies, especially those with cross-cutting applications and significant impact across the Department. Through its core research hubs, S&T advances capabilities and expertise in key technology areas critical to DHS’s mission.

S&T is responsible for identifying, collecting, and prioritizing R&D capability gaps and needs across DHS, while minimizing duplication of efforts and pinpointing cost-effective solutions to enhance Component operations and address process inefficiencies. Leveraging its scientific, technical, and mission expertise, S&T conducts technology scouting and analysis, sharing insights with DHS Components and stakeholders to support the identification, development, and transition of solutions that address high-priority capability gaps.

Aligning Departmental R&D with DHS Goals (Integrated Product Teams)

Description: The FY 2027 President’s Budget provides \$3.7M for this project to work with DHS operational components to collect, identify, and prioritize RDT&E needs to inform S&T investment strategies. This will also enable S&T to conduct DHS-wide strategic planning and analysis to identify cross-cutting solution capabilities, avoid duplications, ensure complimentary investments, and ensure all components leverage each other’s innovation and research capabilities.

Justification: Funding for this project will address validated and prioritized R&D needs of DHS operational and support Components and partners. Funding will enable S&T to successfully deliver effective and impactful solutions that meet partner needs to help them fulfill their missions.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Conducted FY 2025 IPT process to identify and prioritize R&D capability gaps/needs.	FY 2025 Q1	FY 2025 Q4	N/A
Conducted the FY 2025 Innovation, Research, and Development Coordination process to report on DHS overall innovation and R&D status and strategic alignment.	FY 2025 Q1	FY 2025 Q4	N/A
Established IPT Charters: review and update IPT Charters with existing customers as needed and establish IPT Charters or agreements with new customers as appropriate.	FY 2025 Q1	FY 2025 Q4	N/A
Identified new technology requirements for our Nation’s State, local, tribal and territorial (SLTT) first responders.	FY 2025 Q1	FY 2025 Q4	N/A
Implemented the DHS Innovation, Research, and Development Strategic Plan through development of strategic investment roadmaps by cross-Departmental working groups for a set of the strategic priority research areas in the Plan to inform future resource planning.	FY 2025 Q1	FY 2025 Q4	N/A
Informed S&T prioritization and alignment of long-term innovation and R&D with the DHS Quadrennial Homeland Security Review and the DHS Innovation, Research, and Development Strategic Plan.	FY 2025 Q1	FY 2025 Q4	N/A
FY 2026			
Conduct the FY 2026 Innovation, Research, and Development Coordination process to report on DHS overall innovation and R&D status and strategic alignment.	FY 2026 Q1	FY 2026 Q4	N/A
Conduct the FY 2026 IPT process to identify and prioritize the efficient intake of component partner RDT&E Needs to ensure optimal delivery of solutions to end users across the Department.	FY 2026 Q1	FY 2026 Q4	N/A
Establish and update IPT Charters between DHS Component partners and S&T to facilitate efficient identification and prioritization of component RDT&E Needs to enable planning of required RDT&E resources in a timely manner.	FY 2026 Q1	FY 2026 Q4	N/A

Research, Development, and Innovation – PPA

Innovative Research and Foundational Tools

Identify new technology requirements for our Nation’s State, local, tribal and territorial (SLTT) first responders.	FY 2026 Q1	FY 2026 Q4	N/A
Inform future innovation and R&D resource planning through development of recommendations by cross-Departmental working groups to efficiently and expeditiously utilize these resources to address the Administration priorities.	FY 2026 Q1	FY 2026 Q4	N/A
Inform S&T prioritization and alignment of innovation and R&D with Administration priorities.	FY 2026 Q1	FY 2026 Q4	N/A
	FY 2027		
Conduct the FY 2027 Innovation, Research, and Development Coordination process to report on DHS overall innovation and R&D status and strategic alignment.	FY 2027 Q1	FY 2027 Q4	N/A
Conduct the FY 2027 IPT process to identify and prioritize the efficient intake of component partner RDT&E Needs to ensure optimal delivery of solutions to end users across the Department.	FY 2027 Q1	FY 2027 Q4	N/A
Establish and update IPT Charters between DHS Component partners and S&T to facilitate efficient identification and prioritization of component RDT&E Needs to enable planning of required RDT&E resources in a timely manner.	FY 2027 Q1	FY 2027 Q4	N/A
Identify new technology requirements for our Nation’s State, local, tribal and territorial (SLTT) first responders.	FY 2027 Q1	FY 2027 Q4	N/A
Inform future innovation and R&D resource planning through development of recommendations by cross-Departmental working groups to efficiently and expeditiously utilize these resources to address the Administration priorities.	FY 2027 Q1	FY 2027 Q4	N/A
Inform S&T prioritization and alignment of innovation and R&D with Administration priorities.	FY 2027 Q1	FY 2027 Q4	N/A

CORE ONL Biological Threat Awareness (BTA)

Description: The FY 2027 President’s Budget provides \$12.0M for this project to generate technical reports developed by the National Biodefense Analysis and Countermeasure Center (NBACC) by conducting intelligence-driven and threat-focused foundational research on traditional, new, and emerging biological threat agents, including development and validation of required analytic methods on the fundamental properties of hazardous biological agents, materials, and related technologies in order to support hazard awareness and the development of strategies. BTA activities are executed in coordination and collaboration with the PANTHR program and the Hazard Awareness and Characterization Technology Center (HAC-TC).

Research, Development, and Innovation – PPA

Innovative Research and Foundational Tools

Justification: Funding will enable the execution of intelligence-driven and threat-focused characterization research at NBACC’s National Biological Threat Characterization Center (NBTCC) to generate mission-critical data that address knowledge gaps on biological hazards and emerging technologies supporting national risk assessments across the federal government. This research will develop and execute capability subprojects to refine laboratory techniques, improve standard methodologies, and grow technical capacities for threat characterization, as well as conducting laboratory studies to fill critical knowledge gaps based on priorities set by the BTC program office in collaboration with DHS Components and U.S. stakeholders. NBTCC is a unique U.S. biodefense asset that generates scientific data for S&T’s PANTHR program, informing stakeholders across the HSE and US interagency. This data supports decisions-makers in hazard modeling, medical countermeasure prioritization, and policy development to strengthen biodefense preparedness. NBTCC also fills critical gaps for priority biological threats, improving risk and consequence modeling to help DHS components and planners prioritize capabilities, reduce costs, and enhance biological risk mitigation.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Developed and executed capability subprojects across assigned capability areas to refine laboratory techniques, improve standard methodologies, and/or grow technical capacities for threat characterization	FY 2024 Q2	FY 2025 Q2	3
Developed and execute seven laboratory studies across assigned capability areas to fill critical knowledge gaps on biological threat agents and hazards based on priorities set by the BTC program office in collaboration with DHS Components and U.S.	FY 2024 Q2	FY 2025 Q2	3
FY 2026			
Develop and execute capability subprojects across assigned capability areas to refine laboratory techniques, improve standard methodologies, and/or grow technical capacities for threat characterization	FY 2025 Q2	FY 2026 Q4	3
Develop and execute laboratory studies across assigned capability areas to fill critical knowledge gaps on biological threat agents and hazards based on priorities set by the BTC program office in collaboration with DHS Components and U.S.	FY 2025 Q2	FY 2026 Q4	3
FY 2027			
Develop and execute capability subprojects across assigned capability areas to refine laboratory techniques, improve standard methodologies, and/or grow technical capacities for threat characterization	FY 2026 Q4	FY 2027 Q4	3
Develop and execute laboratory studies across assigned capability areas to fill critical knowledge gaps on biological threat agents and hazards based on priorities set by the BTC program office in collaboration with DHS Components and U.S.	FY 2026 Q4	FY 2027 Q4	3

Description: The FY 2027 President’s Budget provides \$4.4M for this project to generate and provide scientific data to inform an array of activities such as hazard modeling for operational planning, medical countermeasure development, chemical threat detection and interdiction, safety and security of the Nation’s food supply, and policy development that greatly improves the U.S. government’s preparedness and chemical defense capabilities. CSAC activities provide DHS with data and knowledge products which improve pre-event planning, event-specific operational response, and strategic chemical defense preparedness decisions.

Justification: Funding will support CSAC's core capabilities, enabling 24/7 response and technical assistance to the HSE. Key activities include modeling and simulation, characterization of current and emerging chemical threats, threat scenario planning support for federal and SLTT agencies, development of chemical threat knowledge tools for DHS Components and the HSE, and laboratory experimentation aligned with DHS priorities. These CTA activities are coordinated with the PANTHR program.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Completed CARD V19.0 that will include new high threat chemicals and expanded taxonomy.	FY 2025 Q1	FY 2025 Q2	7
Updated Non-Traditional Agent (NTA) Library by adding more data points to advanced technical data matrices pertaining to all classes of NTAs, for the following research areas: toxicology, medical countermeasures, physical properties, detection, decontamination, and personal protective equipment.	FY 2025 Q1	FY 2025 Q4	3
Delivered final test report that captures Jack Rabbit chamber test results, including the effects of environmental factors on ammonia vapor cloud behavior.	FY 2025 Q1	FY 2025 Q4	3
Carried out characterization studies for a minimum of two (2) potential threat agents in two matrices to fill critical data gaps that will support and inform planning, preparedness, mitigation activities and the strategic risk assessment.	FY 2025 Q1	FY 2025 Q4	5
Developed machine learning methodology for chemical detection with multi-gas detection in multicomponent mixtures.	FY 2025 Q1	FY 2025 Q4	3
Determined the experimental conditions for the detection of cyanide in blood plasma samples.	FY 2025 Q2	FY 2025 Q4	3
Completed CARD V20.0 that will enhance search protocols to continue to increase efficiency of the user experience.	FY 2025 Q3	FY 2025 Q4	1-7
FY 2026			

Research, Development, and Innovation – PPA

Innovative Research and Foundational Tools

Carry out characterization studies for a minimum of two (2) potential threat agents in two matrices to fill critical data gaps that will support and inform planning, preparedness, mitigation activities, and the strategic risk assessment.	FY 2026 Q1	FY 2026 Q4	5
Analyze and complete Jack Rabbit-Phase III testing of ammonia deposition in controlled chamber environments, including soil and plant interaction studies and then deliver final CSAC technical report summarizing findings and data analysis	FY 2026 Q1	FY 2026 Q4	5
Complete CARD V21.0 which will include new high threat chemicals and expanded taxonomy.	FY 2026 Q1	FY 2026 Q2	7
Complete CARD V22.0 which will enhance search protocols to continue to increase efficiency of the user experience.	FY 2026 Q3	FY 2026 Q4	7
Add five (5) technical or programmatic documents to the NTA Library to keep up to date with the latest published information.	FY 2026 Q1	FY 2026 Q4	3
Update NTA Library by adding more data points to advanced technical data matrices pertaining to all classes of NTAs, for the following research areas: toxicology, medical countermeasures, physical properties, detection, decontamination, and personal protective equipment.	FY 2026 Q1	FY 2026 Q4	3
Develop machine learning methodology for chemical detection with Multi-Gas detection in complex food mixtures.	FY 2026 Q1	FY 2026 Q4	3
	FY 2027		
Research and Analysis (Research Study): Carry out characterization studies for a minimum of two (2) potential threat agents in two matrices to fill critical data gaps that will support and inform planning, preparedness, mitigation activities, and the strategic risk assessment.	FY 2027 Q1	FY 2027 Q4	5
Software and Digital Capabilities (Software Tool): Complete CARD V23.0 which will include new high threat chemicals and expanded taxonomy.	FY 2027 Q1	FY 2027 Q2	7
Software and Digital Capabilities (Software Tool): Complete CARD V24.0 which will enhance search protocols to continue to increase efficiency of the user experience.	FY 2027 Q3	FY 2027 Q4	7
Research and Analysis: Add five (5) technical or programmatic documents to the NTA Library to keep up to date with the latest published information.	FY 2027 Q1	FY 2027 Q4	3
Research and Analysis: Update NTA Library by adding more data points to advanced technical data matrices pertaining to all classes of NTAs, for the following research areas: toxicology, medical countermeasures, physical properties, detection, decontamination, and personal protective equipment.	FY 2027 Q1	FY 2027 Q4	3

Core Research Hubs

Description: The FY 2027 President’s Budget provides \$10.2M for this project to provide subject matter expertise and capabilities in chemical and biological defense, data analytics, AI, and biometrics to enhance DHS R&D efforts. This project ensures DHS continues to ensure science and technology advancements are harnessed for cutting-edge solutions to DHS operational challenges, and we identify and counter the risks of our adversaries using these same technologies.

Justification: Funding will support Core Research Hubs, each with distinct contributions:

- Chemical and Biological Defense Hub - Funds emerging hazard awareness and pursues next-generation deterrence tools for chemical and biological threats by developing agent-agnostic bio detection systems, leveraging AI/ML to monitor and counter hazards from dual-use biotechnology, and evaluating innovative approaches such as robotic laboratory production of chemicals using optimized synthetic pathways.
- The Advanced Computing Hub - Enables informed decision-making and risk mitigation by leveraging real-time computation, advanced analytics, and cloud environments, while delivering knowledge products and demonstrations that shape future computational architectures and emerging concepts.
- The Biometrics Hub - Provides innovation, standardization, and integration of biometric and identity technologies to meet DHS needs and reduce costs, while conducting cooperative evaluations with solution developers to inform and minimize technical risks for DHS acquisition programs.
- The Artificial Intelligence Hub - Establishes an AI testbed to ensure trustworthy and secure AI use, develops robust frameworks and validation tools for reliable AI deployments, and assesses evolving risks of AI/ML in biotechnology to proactively counter emerging threats.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
N/A			
	FY 2026		
N/A			
	FY 2027		
Develop and deliver reports to DHS Components and the HSE on the analysis of threats, hazards, risks, vulnerabilities, characterizations, and other assessments.	FY 2027 Q1	FY 2027 Q4	1-3
Assess and evaluate the evolving risks of AI/ML developments in biotechnology and leverage, as appropriate, AI/ML to monitor and counter emerging hazards arising from dual use biotechnology.	FY 2027 Q1	FY 2027 Q4	2-4
Evaluation of the feasibility and development of a test plan of the robotic laboratory production of 1 chemical of interest using an LLM optimized synthetic pathway	FY 2027 Q1	FY 2027 Q4	2-4
Develop and refine datasets, algorithms or technologies to further the development of agent agnostic bio detection systems.	FY 2027 Q1	FY 2027 Q4	3-5
AI milestone: Develop a Framework and a Generalized AI Model Validation Tool Based on the findings from FY2026, develop a validation framework and a generalized AI model validation tool.	FY 2027 Q1	FY 2027 Q4	3

Research, Development, and Innovation – PPA**Innovative Research and Foundational Tools**

Advanced computing milestone: Deliver at least one knowledge product or demonstration that informs future computational architectures, analytics and emerging concepts.	FY 2027 Q1	FY 2027 Q4	3-5
Biometrics Milestone: DI&T: Perform cooperative evaluations with innovation solution developers of biometric technologies to inform and reduce technical risks to DHS acquisition programs.	FY 2027 Q1	FY 2027 Q4	6

First Responder Technologies-System Assessment and Validation for Emergency Responders (SAVER)

Description: The FY 2027 President’s Budget provides \$1.1M for this project to provide federal, state, local, tribal, and territorial first responders with independent market research and product assessments to guide the procurement of technologies, equipment, and tools that enhance homeland security capabilities. SAVER assessments enable public safety agencies to make informed, data-driven decisions, ensuring efficient use of taxpayer dollars on solutions that work. By delivering critical analysis and comparative assessments across a wide range of commercially available technologies including unmanned systems (air, ground, and underwater), counter-unmanned aircraft systems, radiation detection systems, AI-based video analytics, and other emergency response tools SAVER helps public safety agencies nationwide protect the communities they serve.

Justification: Funding for this project will enable the SAVER program to deliver independent market research and technology assessments that guide first responders and DHS components in making informed procurement decisions. Key deliverables include evaluations of commercially available technologies such as thermal imaging cameras, unmanned systems and integrated counter drone technology that demonstrate how critical emerging homeland security technology performs in the field and can meet high priority operational missions including event security, infrastructure protection, and law enforcement activities. This funding ensures SAVER continues to provide emergency responders with actionable information on how technology performs, enabling efficient use of resources and the procurement of effective tools to safeguard communities and enhance homeland security.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Delivered knowledge product reports on a comparative assessment of equipment and tools for law enforcement, fire, and emergency medical services.	FY 2025 Q1	FY 2025 Q4	N/A
Obtained and document responder operational requirements and equipment evaluation criteria for usability, maintainability, capability, and affordability resulting from focus groups to determine the assessment criteria weights for products for law enforcement and rescue personnel equipment.	FY 2024 Q4	FY 2025 Q4	N/A
Identified current market availability of technologies to help inform procurement agents of options for law enforcement, emergency medical services personnel, and radiation response personnel.	FY 2025 Q1	FY 2025 Q4	N/A
Planned and conducted assessment events comparing equipment and tools for law enforcement, fire, and emergency medical services.	FY 2025 Q1	FY 2025 Q4	N/A
	FY 2026		
Publish unmanned systems market survey reports	FY 2025 Q2	FY 2026 Q4	N/A
Conduct comparative assessments of first responder technologies	FY 2026 Q1	FY 2026 Q4	N/A
Publish market survey report on AI-based public safety technology	FY 2025 Q3	FY 2026 Q4	N/A
Obtain and document responder operational requirements and equipment evaluation criteria for public safety technology	FY 2026 Q1	FY 2026 Q2	N/A
Publish market survey reports on radiation detection instrumentation for public safety	FY 2025 Q2	FY 2026 Q3	N/A
	FY 2027		
Publish comparative assessment report of firefighter technology	FY 2026 Q1	FY 2027 Q2	N/A
Publish comparative assessment report of communications technology for emergency response	FY 2026 Q3	FY 2027 Q4	N/A
Obtain and document responder operational requirements and equipment evaluation criteria for emergency responder technology	FY 2027 Q1	FY 2027 Q4	N/A
Publish assessment reports on unmanned systems for law enforcement and fire personnel	FY 2026 Q4	FY 2027 Q4	N/A
Conduct comparative assessments of first responder technologies	FY 2027 Q1	FY 2027 Q4	N/A

Description: The FY 2027 President’s Budget provides \$0.8M for this project to continue a centralized information repository for DHS research and development investments and enable all DHS Components, other U.S. Government, and industry entities the ability to leverage current and past technology investments. It will ensure that governance practices, ongoing technical development considerations, and content remain relevant while continuing to meet the requirements of the Homeland Security Act of 2002.

Justification: Funding for this project will assist with the discovery of ongoing research and development and helps identify existing innovative technology solutions. This enables decision makers to save time and resources by avoiding duplication of efforts. This funding will allow DHS to fulfill a congressional requirement for DHS as defined in the Homeland Security Act of 2002.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Considered options and alternatives for a low-cost technical solution that will provide external access to sensitive content in the Technology Clearinghouse in accordance with DHS policies, procedures, and guidelines.	FY 2025 Q1	FY 2025 Q4	N/A
Identified additional authoritative data sources that can be discovered from a Clearinghouse search query to expand access to the final R&D results from the broader homeland security community.	FY 2025 Q1	FY 2025 Q4	N/A
Maintained the capability for S&T and other DHS Components to share and access knowledge products and innovative technology solutions.	FY 2025 Q1	FY 2025 Q4	N/A
	FY 2026		
Identify a solution to incorporate content from other authoritative data sources into a consolidated list of search results generated from a single search query in the Technology Clearinghouse.	FY 2026 Q1	FY 2026 Q4	N/A
Maintain the capability for S&T and other DHS Components to share and access knowledge products and innovative technology solutions.	FY 2026 Q1	FY 2026 Q4	N/A
Provide a mechanism for Technology Clearinghouse Content Owners to update published content in the Technology Clearinghouse and indicate how long content should remain discoverable.	FY 2026 Q1	FY 2026 Q4	N/A
	FY 2027		
Maintain portal hosted by DHS OCIO at minimal capability.	FY 2027 Q1	FY 2027 Q4	N/A

Technology Scouting

Description: The FY 2027 President’s Budget provides \$4.0M for this project with a focus on supporting Presidential Executive Orders and DHS Mission Critical operations, identifying commercially available and emerging state-of-the-market capabilities to inform internal S&T decisions to invest in RDT&E. Technology Scouting is a critical step in determining the best approach for conducting R&D and identifying partner opportunities to eliminate unnecessary investments in duplicative R&D and when available expedites the delivery and operational use of existing or adaptable solutions.

Justification: Funding will deliver actionable insights that assist DHS Components and S&T programs to make-vs-buy decisions, ensuring resources are directed toward high-impact solutions and expediting the operational use of existing or adaptable technologies. This investment is essential to maintain DHS’s ability to rapidly respond to evolving threats and operational needs while maximizing the value of R&D expenditures.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Conducted four rapid tech scouting engagements to provide customers with information on readily available commercial or government off-the-shelf solutions to allow for faster technology adoption and reducing risk for unnecessary research and development expenditures.	FY 2025 Q1	FY 2025 Q4	N/A
Conducted 47 tech scouting engagements to provide customers information on relevant potential commercial, government, academia, or international technology solutions to inform research and development decision making and reduce risk for unnecessary expenditures.	FY 2025 Q1	FY 2025 Q4	N/A
FY 2026			
Establish a new capability to conduct technology scouting in alignment with priorities of DHS and S&T, at the request of DHS Components and S&T PPA’s.	FY 2026 Q1	FY 2026 Q4	N/A
FY 2027			
Tech Scouting: Maintain capability to conduct market research.	FY 2027 Q1	FY 2027 Q4	N/A

Description: The FY 2027 President’s Budget provides \$2.7M for this project to lead the execution of an integrated transition management and oversight process of research and development projects for the successful delivery and adoption of technologies and knowledge products to DHS partners and other government agencies; improves the probability of realized project outcomes and operational benefits; and applies a systematic approach to determine the feasibility and/or potential failure points associated with the transition of an research and development solution so that resources can be quickly allocated to address issues or reallocated to priority projects.

Justification: Funding will provide R&D transition planning and management services capability to DHS Program Managers; offer tools and services to track S&T’s and DHS’s project transitions; collect and analyze post-transition data for the purpose of reporting on the impact of DHS sponsored R&D; share guidance to standardize collection and reporting of R&D indicators of success by S&T and DHS in support of the FY 2017 National Defense Authorization Act (NDAA) R&D annual report to Congress; provide R&D program managers and staff technology transition education and coaching; and improve strategic communication channels to enhance transition coordination, management, and reporting.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Communicated and provide guidance to support transition planning, management, and reporting for S&T program managers using job aids, training material, and regular working group discussions. Deliver the annual FY 2024 DHS Research and Development Projects Report to Congress as required in the 2017 National Defense Appropriations Act.	FY 2025 Q1	FY 2025 Q4	N/A
Delivered transition management services for the documentation of transition feasibility analysis, transition planning, and transition execution for up to 30 FY 2025 S&T R&D activities.	FY 2025 Q1	FY 2025 Q4	N/A
FY 2026			
Communicate transition feasibility considerations, planning, management, and reporting guidance for S&T program managers and Component partners using job aids, templates, training material, and regular working group discussions.	FY 2026 Q1	FY 2026 Q4	N/A
Deliver the annual FY 2025 DHS Research and Development Projects Report to Congress as required in the 2017 National Defense Appropriations Act.	FY 2026 Q1	FY 2026 Q4	N/A
Execute an integrated transition management program for the documentation of transition feasibility analysis, transition planning, and transition execution of S&T’s Mission Centers and its priority FY 2026 R&D activities to support homeland security mission operations.	FY 2026 Q1	FY 2026 Q4	N/A
FY 2027			
Execute an integrated transition management program for the documentation of transition feasibility analysis, transition planning, and transition execution of S&T’s Mission Centers and its priority FY 2027 R&D activities to support homeland security mission operations.	FY 2027 Q1	FY 2027 Q4	N/A
Deliver the annual FY 2026 DHS Research and Development Projects Report to Congress as required in the 2017 National Defense Appropriations Act.	FY 2027 Q1	FY 2027 Q4	N/A
Communicate transition feasibility considerations, planning, management, and reporting guidance for S&T program managers and Component partners using job aids, templates, training material, and regular working group discussions.	FY 2027 Q1	FY 2027 Q4	N/A

Research, Development, and Innovation – PPA

Innovative Research and Foundational Tools

Partnerships Program – S&T Partnerships build and sustain relationships with industry to advance the development and delivery of innovative technology solutions to homeland security operators. Funding will support the two primary focus areas of innovative technology development and solution delivery.

Bi-National Cooperative

Description: The FY 2027 President’s Budget provides \$1.0M for this project. The Israel – U.S. Bi-National Industrial Research and Development Homeland Security (BIRD HLS) program promotes collaboration between U.S. and Israeli technology companies for joint product development for the HSE. This DHS partnership with the Israeli government leverages technical resources and expertise in both countries and shares costs for technology research, development and assessment. BIRD contributes to building a global homeland security industrial base, and, most importantly, helps generate cutting-edge technologies in support of public safety and the larger homeland security mission.

Justification: Funding will allow S&T to continue to participate in the bilateral relationship with Israel governing BIRD Cyber and BIRD HLS, expanding cooperative research and development and supporting high-impact cybersecurity solutions for resilient critical infrastructure. BIRD solicitations are focused on Cybersecurity and other Homeland Security priority areas and can be scoped to address the administration’s highest priority areas.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Released a new call for proposals addressing homeland security priority areas for technical development.	FY 2025 Q1	FY 2025 Q4	4-7
	FY 2026		
Release a new call for proposals addressing homeland security priority areas for technical development.	FY 2026 Q1	FY 2026 Q4	4-7
	FY 2027		
Release a new call for proposals addressing homeland security priority areas for technical development.	FY 2027 Q1	FY 2027 Q4	4-7

Description: The FY 2027 President’s Budget provides \$1.2M for this project to provide outreach and training events to educate stakeholders on the technology needs of DHS Components and opportunities for industry to partner to provide solutions. The funding allows for the development of a comprehensive and thoughtful strategy to maximize resources and participation for the highest value activities. Coordination, engagement and outreach to industry allows S&T to more efficiently and effectively identify, inform, and encourage potential partners who can provide commercial solutions that meet, or more closely meet, the critical mission needs of the agency.

Justification: Funding will support coordination engagement efforts with the private sector, which will allow S&T to forge connections with technology developers and operational end users, enabling joint R&D and energizing a diverse group of research communities to address Homeland Security challenges.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Facilitated 20 events to educate stakeholders on the activities of DHS Components, current technology capabilities, and technology needs.	FY 2025 Q1	FY 2025 Q2	4-6
Facilitated 20 events to educate stakeholders on the activities of DHS Components, current technology capabilities, and technology needs.	FY 2025 Q2	FY 2025 Q3	4-6
Facilitated 20 events to educate stakeholders on the activities of DHS Components, current technology capabilities, and technology needs.	FY 2025 Q3	FY 2025 Q4	4-6
	FY 2026		
Facilitate 20 events to educate stakeholders on the activities of DHS Components, current technology capabilities, and technology needs.	FY 2026 Q1	FY 2026 Q2	4-6
Facilitate 20 events to educate stakeholders on the activities of DHS Components, current technology capabilities, and technology needs.	FY 2026 Q2	FY 2026 Q3	4-6
Facilitate at least five events to educate stakeholders on the activities of DHS Components, current technology capabilities, and technology needs.	FY 2026 Q3	FY 2026 Q4	4-6
	FY 2027		
Facilitate 10 events to educate stakeholders on the activities of DHS Components, current technology capabilities, and technology needs.	FY 2027 Q1	FY 2027 Q2	4-6
Facilitate 10 events to educate stakeholders on the activities of DHS Components, current technology capabilities, and technology needs.	FY 2027 Q2	FY 2027 Q3	4-6
Facilitate at least five events to educate stakeholders on the activities of DHS Components, current technology capabilities, and technology needs.	FY 2027 Q3	FY 2027 Q4	4-6

Description: The FY 2027 President’s Budget provides \$1.0M for this project. S&T utilizes its network of qualified Partnership Intermediaries to advance the maturity and market readiness of DHS-funded technologies, supporting their transfer and commercialization for DHS and the broader HSE. This program expands S&T’s Technology Transfer and Commercialization efforts by promoting DHS technologies, building partnerships with business and academia, gathering industry insights, and increasing the impact of research outcomes.

Justification: Funding will support ongoing use of the Partnership Intermediary Agreement with MilTech and advance DHS mission priorities. DHS Mission Centers and Components will utilize the Partnership Intermediary to support a wide range of projects to develop market intelligence and advance DHS funded technologies for transition to the HSE in line with DHS and S&T mission.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
N/A			
	FY 2026		
N/A			
	FY 2027		
Manage at least five projects through the MilTech partnership intermediary agreement to develop market intelligence and assessments of DHS-relevant technologies, supporting their successful transfer, commercialization, or transition.	FY 2027 Q1	FY 2027 Q4	1-7

Rapid Prototyping Innovation

Description: The FY 2027 President’s Budget provides \$3.0M for this project to accelerate and provide cutting edge technology solutions for Component and HSE requirements that can be used in operations in as little as 24-36 months. Rapid Prototype Innovation (formerly SVIP) attracts innovative startup companies through other transaction authorities that may not have previously engaged with the Government. These projects adapt existing technologies, develop new capabilities and validate a solution’s ability to address long-standing issues, as well as emerging needs.

Justification: This project will complete phased funding of existing projects, including transitioning capabilities to DHS Components and other stakeholders, such as soft target security capabilities, software supply chain visibility tools, flood data analytics, and privacy enhancing capabilities. In addition, funds will also generate one to two new topics to address Component innovation requirements. New topics supporting Component innovation interests include agent safety and machine learning technologies.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
N/A			
	FY 2026		
N/A			
	FY 2027		
Continue development of technologies that provide USCG with enhanced maritime object tracking technologies and unattended maritime sensors with improved satellite communications capabilities.	FY 2027 Q1	FY 2027 Q4	6-7
Continue development and operational testing of technologies that provide USCG with offline language translation capabilities for operational use.	FY 2027 Q1	FY 2027 Q4	6-7

Small Business Innovation Research (SBIR) Management

Description: The FY 2027 President’s Budget provides \$2.2M for this project to provide advancement of the portal that supports multiple programs: SBIR, Rapid Prototype Innovation (formerly SVIP) and Broad Agency Announcements (including the Long-Range Broad Agency Announcement (LRBAA)). The portal provides functionality that optimizes the efficiency for both government and industry of the receipt, evaluation, record keeping and award tracking for the pursuit of solutions developed or tailored commercial technology solutions, increasing potential industry/commercial organization’s participation. The portal also facilitates the execution of due diligence activities to identify and mitigate malicious/nefarious foreign influence or impacts, as well as other congressionally mandated activities/reporting.

Research, Development, and Innovation – PPA**Innovative Research and Foundational Tools**

Justification: Funds will provide added functionality to support the internal requirements gathering and tracking for the IQT and Prize programs. In addition, funds will be used to ensure the outreach efforts are being done most effectively. SBIR supports maintenance and advancement of the portal to facilitate congressionally mandated data reporting for the SBIR program and facilitate proposal submission to reduce submission errors which lead to unresponsive proposals.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Conducted five engagement events to support SBIR program execution with emphasis on underserved communities.	FY 2025 Q1	FY 2025 Q4	N/A
Continued refinement and security updates for SBIR Portal.	FY 2025 Q1	FY 2025 Q4	N/A
Updated for Due Diligence Legislative Requirement.	FY 2025 Q1	FY 2025 Q4	N/A
	FY 2026		
Conduct five engagement events to support SBIR program execution with emphasis on underserved communities.	FY 2026 Q1	FY 2026 Q4	N/A
Continue technical updates to ensure necessary functionality and compliance with legislative requirements, such as Due Diligence implementation.	FY 2026 Q1	FY 2026 Q4	N/A
Identify vulnerabilities to portal software/processes and apply necessary patches and improvements.	FY 2026 Q1	FY 2026 Q4	N/A
	FY 2027		
Conduct five engagement events to support SBIR program execution to include underserved states and rural communities.	FY 2027 Q1	FY 2027 Q4	N/A
Continue refinement and security updates for SBIR Portal.	FY 2027 Q1	FY 2027 Q4	N/A
Update for Due Diligence Legislative Requirement.	FY 2027 Q1	FY 2027 Q4	N/A

Technology Transfer and Commercialization (T2C)

Description: The FY 2027 President’s Budget provides \$2.5M for the successful transfer and commercialization of S&T capabilities to DHS components and the broader HSE.

Research, Development, and Innovation – PPA

Innovative Research and Foundational Tools

Justification: Funding will prioritize key initiatives such as Homeland Security (HS) WERX, Commercialization Accelerator Program (CAP), and Homeland Security Startup Studio (HSSS), and enable completion of required activities, including participation in the Federal Laboratory Consortium. Additionally, funding will continue to support cooperative R&D and operational T&E with industry, academia, and other agencies through CRADAs and MOAs. Sustaining established T2C programs is essential to meet statutory requirements for the Office of Research and Technology Applications and to support DHS mission priorities.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
	FY 2025		
Continued the seminar series to raise awareness and educate the DHS workforce on issues impacting R&D and successful technology transfer and commercialization and to encourage the development and identification of suitable DHS intramural inventions for the Homeland Security Startup Studio.	FY 2025 Q3	FY 2025 Q4	N/A
Executed the development of at least two follow-on projects in partnership with the CAP cohort of performing laboratories by collaborating with non-profit and private sector partners focused on transfer of CAP-supported technologies to the HSE.	FY 2025 Q1	FY 2025 Q4	N/A
Managed at least 10 projects through the DHS Innovation Hub and document technology development, technology transfer, commercialization and/or transition outcomes.	FY 2025 Q1	FY 2025 Q4	1-7
	FY 2026		
Manage at least 10 projects through the DHS Innovation Hub and document technology development, technology transfer, commercialization and/or transition outcomes.	FY 2026 Q2	FY 2026 Q4	1-7
Monitor CAP funded research projects to accelerate the transfer and commercialization of the CAP supported technologies to homeland security end users in partnership with the CAP performer.	FY 2026 Q1	FY 2026 Q4	N/A
	FY 2027		
Identify, accelerate, and deliver commercial applications of technologies from U.S. laboratories and research centers to support the DHS mission through the Homeland Security Startup Studio and ScaleUp, providing entrepreneurial training and support.	FY 2027 Q1	FY 2027 Q4	4-7
Plan at least two follow-on projects with the CAP cohort by collaborating with non-profit and private sector partners to transfer CAP-supported technologies to the HSE.	FY 2027 Q1	FY 2027 Q4	1-7
Manage at least 10 projects through HSWERX and document technology development, technology transfer, commercialization and/or transition outcomes.	FY 2027 Q1	FY 2027 Q4	1-7

University Programs – PPA

Budget Comparison and Adjustments

Comparison of Budget Authority and Request

(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
Centers of Excellence	\$9,400	\$9,400	\$7,000	(\$2,400)
Total	\$9,400	\$9,400	\$7,000	(\$2,400)
Subtotal Discretionary - Appropriation	\$9,400	\$9,400	\$7,000	(\$2,400)

PPA Level I Description

University Programs (UP) funds innovative research, development, and education, led by America’s colleges and universities, to address high priority mission needs across the Homeland Security Enterprise (HSE). One of the Department’s most forward-looking programs, University Programs supports the HSE by identifying emerging trends and pursuing groundbreaking research through the DHS Centers of Excellence and by developing current and future homeland security talent via workforce development initiatives.

UP includes the following program:

Centers of Excellence (COE): The DHS COEs are university-led, nationwide consortia of leading experts in the public- and private-sectors that work with DHS Components and HSE operators to research, develop and transition mission-relevant solutions. In an operationally driven department, the DHS COEs play a unique and pivotal role by creating strategic partnerships that enable rigorous, objective research, development and solutions that directly contribute to the DHS mission. The DHS COEs also work to educate the current and next generation of highly skilled homeland security science and engineering professionals.

University Programs – PPA
Summary of Budget Changes
(Dollars in Thousands)

	Positions	FTE	Amount
FY 2025 Full-Year CR	-	-	\$9,400
FY 2026 Annualized CR	-	-	\$9,400
FY 2027 Base Budget	-	-	-
Centers of Excellence	-	-	\$7,000
Total Research and Development Projects	-	-	\$7,000
FY 2027 Request	-	-	\$7,000
FY 2026 TO FY 2027 Change	-	-	(\$2,400)

**University Programs – PPA
Non Pay Budget Exhibits**

Non Pay by Object Class
(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget	FY 2026 to FY 2027 Change
25.1 Advisory & Assistance Services	\$200	\$200	\$200	-
41.0 Grants, Subsidies, & Contributions	\$9,200	\$9,200	\$6,800	(\$2,400)
Total - Non Pay Budget Object Class	\$9,400	\$9,400	\$7,000	(\$2,400)

**Research and Development
Research and Development Projects**

Summary of Projects

(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
Centers of Excellence	\$9,400	\$9,400	\$7,000

**Centers of Excellence
Research and Development**

Technology Readiness Level Exhibit

(Dollars in Thousands)

	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President's Budget
Centers of Excellence	\$9,400	\$9,400	\$7,000

Centers of Excellence (COE): S&T’s COE program focuses on building homeland security expertise in the academic community; creating strategic partnerships among universities, commercial interests, and public agencies; and developing a new science and engineering workforce dedicated to homeland security. COE program priorities are developed by DHS Components, based on their long-term mission needs.

Centers of Excellence <i>(Dollars in Thousands)</i>			
Project	FY 2025 Full-Year CR	FY 2026 Annualized CR	FY 2027 President’s Budget
Arctic Domain Awareness Center: Addressing Rapid Changes through Technology, Innovation and Collaboration (ADAC-ARCTIC)	\$4,700	\$4,700	\$3,500
National Counterterrorism Innovation, Technology and Education (NCITE)	\$4,700	\$4,700	\$3,500
Total – Centers of Excellence	\$9,400	\$9,400	\$7,000

Arctic Domain Awareness Center: Addressing Rapid Changes through Technology, Innovation and Collaboration (ADAC-ARCTIC)

Description: The FY 2027 President’s Budget provides \$3.5M for this project. The ADAC-ARCTIC Center of Excellence advances America’s security and prosperity in the Arctic through research and development, training, and education to support DHS missions and operations. The Center addresses complex challenges such as maritime safety, infrastructure protection, and emergency response. The Center's research and education programs engage stakeholders across the HSE to address changes in the Arctic region due to increasing sea ice, coastal erosion, hazards, and other challenges.

Justification: Funding will be used to conduct research and education to enable a secure and resilient Arctic region. This will include interdisciplinary basic and applied research, education, and technology transition across four related research and education themes: (1) Advance All-Domain Situational Awareness, (2) Improve Understanding of Risks and Potential Impacts, (3) Enable Adaptation for Resilience, and (4) Expand Collaboration and Cooperation across the HSE.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Developed a strategic plan and milestones for the Center’s research and education portfolio.	FY 2024 Q4	FY 2025 Q1	N/A
Recruited and train students through Arctic Summer Internship Program.	FY 2025 Q3	FY 2025 Q4	N/A
Solicited proposals and implemented research activities focused on increasing resilience in the Arctic.	FY 2025 Q1	FY 2025 Q2	N/A
FY 2026			
Conduct land and satellite surveys at priority locations to fill a threat assessment gap in land subsidence data; share findings with Arctic operators from the U.S. Border Patrol, the U.S.CG, and the CISA to enable planning and response.	FY 2026 Q1	FY 2026 Q3	N/A
Develop an emergency operations playbook, focused on critical infrastructure in and around the Port of Alaska, to enable DHS operators and State and Local responders to conduct planning and emergency response activities.	FY 2026 Q1	FY 2026 Q3	N/A
Lead an Arctic exercise, in partnership with the U.S. Coast Guard, to inform Coast Guard’s strategic priorities and planning for the Arctic region.	FY 2026 Q1	FY 2026 Q2	N/A
FY 2027			
Work with relevant DHS Components and DHS Operators in the Arctic to identify mission needs and research questions to inform the FY27 Request for Proposals.	FY 2027 Q1	FY 2027 Q4	N/A
Hold at least one tabletop exercise with DHS Components and State and Local stakeholders related to advancing domain awareness in the Arctic.	FY 2027 Q1	FY 2027 Q4	N/A
Conduct workforce development initiatives aimed at building a pipeline of skilled workers in the Homeland Security Enterprise with experience operating in remote and harsh regions of the Arctic.	FY 2027 Q1	FY 2027 Q4	N/A

National Counterterrorism, Innovation, Technology and Education (NCITE)

Description: The FY 2027 President’s Budget provides \$3.5M for this project. The NCITE Center of Excellence provides access to innovation, technology, and education for counterterrorism professionals in the Homeland Security Enterprise (HSE) and intelligence community. The center supports the HSE counterterrorism mission space with research and analysis dedicated to the study of novel and emerging terrorism threats, counterterrorism technology initiatives, and workforce development mission.

Justification: Funding for NCITE will advance research and technical expertise that directly supports DHS’s counterterrorism mission. The center will focus on identifying and analyzing persistent and emerging threat actors, understanding the misuse of technology for malicious purposes, and enhancing the protection of the homeland, borders, and critical infrastructure. By investing in these research priorities, DHS will gain deeper insights into evolving terrorist threats and the exploitation of new technologies, informing more effective strategies and solutions. NCITE will analyze the counterterrorism landscape in collaboration with DHS Components and operators to identify mission needs and research questions for future proposals, develop transition plans for new technologies to enhance operational capabilities, and facilitate stakeholder collaboration through the Law Enforcement Partnerships Program to ensure mission alignment and improve community safety nationwide. The result of this investment is essential for strengthening national security and safeguarding the public against evolving threats.

Project Schedule

Research & Development Description	Planned Start Date	Planned Completion	TRL Level(s)
FY 2025			
Conducted market research and established transition plans for the technologies resulting from at least two NCITE projects. S&T PMs will utilize these reports to help inform the research portfolio.	FY 2025 Q1	FY 2025 Q4	N/A
Exposed students to homeland security challenges by funding at least 20 students within research, education, and core management activities at the Center.	FY 2025 Q1	FY 2025 Q3	N/A
Worked with relevant DHS Components to create homeland security challenge areas, draft and release request for proposal for potential research projects.	FY 2025 Q1	FY 2025 Q2	N/A
FY 2026			
Advance the operational capabilities of DHS personnel by developing transition plans for resulting technologies, enabling operators to improve U.S. defense against novel and emerging threats.	FY 2026 Q1	FY 2026 Q4	N/A
Analyze the counterterrorism landscape and work with relevant DHS Components and DHS counterterrorism operators to identify mission needs and research questions to inform the FY27 Request for Proposals	FY 2026 Q1	FY 2026 Q4	N/A
Implement recommendations received on all research, education and management efforts as a result of the second NCITE Biennial Review.	FY 2026 Q1	FY 2026 Q4	N/A
Strengthen the impact of NCITE’s research on the Law Enforcement community by launching the Law Enforcement Partnerships Program, to ensure mission alignment and improve safety in communities across the U.S.	FY 2026 Q1	FY 2026 Q4	N/A
FY 2027			
Analyze the counterterrorism landscape and work with relevant DHS Components and DHS counterterrorism operators to identify mission needs and research questions to inform the FY28 Request for Proposals.	FY 2027 Q1	FY 2027 Q3	N/A
Advance the operational capabilities of DHS personnel by developing transition plans for resulting technologies, enabling operators to improve U.S. defense against novel and emerging threats.	FY 2027 Q1	FY 2027 Q4	N/A
Enable stakeholder collaboration throughout the year through the Law Enforcement Partnerships Program, to ensure mission alignment and improve safety in communities across the U.S.	FY 2027 Q1	FY 2027 Q4	N/A