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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2025 Air Force **Date:** March 2024

<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604287F / <i>Physical Security Equipment</i>
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	6.664	10.605	10.569	0.000	10.569	11.082	11.309	11.718	11.950	Continuing	Continuing
655120: <i>Physical Security Equipment - SD ED</i>	-	6.664	10.605	10.569	0.000	10.569	11.082	11.309	11.718	11.950	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Physical Security Equipment (PSE) program provides for Air Force (AF) Integrated Base Defense Security Systems (IBDSS) improvements and enhancements, to include the demonstration and testing of PSE systems related to Force Protection. This program supports the protection of tactical, fixed, and nuclear weapons systems, AF personnel and AF facilities in the homeland and overseas. The PSE program includes spectrum planning for radio frequency (RF), communication security (cyber), information assurance requirements, integration and interoperability Command Control & Communication (C3) platform & components and Tactical Sensor System to support the Force Protection implementation of expeditionary/AFFORGEN concept. This Program Element also includes funding for Force Protection Commercial Off the Shelf equipment, market research, evaluation and testing. Force Protection programs are inherently subject to rapid changes in the operational environment and will retain sufficient program flexibility to meet changes in location, scope and capability in order to protect AF people, facilities and warfighting assets. The Defender Multi-Domain Command, Control and Communications (DMDC3) is an initiative developing the foundational structure of IBDSS to provide a platform that integrates the computing power, the means of communication, and the tools for situational awareness. PSE efforts support Modular Open Source Architecture (MOSA) standards to enable faster installations and greater interoperability to address the Chief of Staff of the AF 'Fight the Base' goals.

IBDSS FY25 developmental efforts will continue to evaluate and test state-of-the-art technology to support integrated based defense systems installations worldwide, continue to improve and integrate COTS efforts into IBDSS physical security equipment, and further develop, integrate and test Defender Multi-Domain Command, Control and Communications (DMDC3) software applications. IBDSS-3 expands upon and scales IBDSS modernization efforts first developed under IBDSS-2. Capability improvements include zero-trust architecture, Machine Language (ML)/Artificial Intelligence (AI) integration, expanded sensor capabilities, Unmanned Aerial System(UAS)/Unmanned Ground Vehicle (UGV) integration, and improved mobile C3.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 \$1.324M forecasted for civilian pay expenses in this program element, and in FY24 \$1.515M is forecasted for civilian pay expenses in this program element.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.

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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Previous President's Budget	6.897	10.605	10.551	0.000	10.551
Current President's Budget	6.664	10.605	10.569	0.000	10.569
Total Adjustments	-0.233	0.000	0.018	0.000	0.018
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.233	0.000			
• Other Adjustments	0.000	0.000	0.018	0.000	0.018

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<b>Title:</b> IBDSS-3	6.664	10.605	10.569
<b>Description:</b> IBDSS-3 (Integrated Base Defense Security Systems) qualifies, demonstrates, and tests Physical Security Equipment (PSE) systems to include Force Protection.			
<b>FY 2024 Plans:</b> - Conduct market research, evaluation and testing to address capability gaps and obsolescence to include, but not limited to Force Protection Commercial Off The Shelf (COTS). - Integrate and test to qualify COTS equipment to provide essential upgrades/improvements and state-of-the-art technology to support integrated based security systems installations worldwide. - Integration and/or modification of COTS efforts to improve IBDSS physical security equipment. - Conduct integration and testing of DMDC3 software applications from either COTS suppliers or modified COTS systems. - Integration of DMDC3 with external systems in order to meet Advanced Battle Management System/Joint All Domain Command and Control (ABMS/JADC2) directive. - Expand upon and scales IBDSS modernization efforts first developed under IBDSS-2 to include, but not limited to, zero-trust architecture, ML/AI integration, expanded sensor capabilities, UAS/UGV integration, and improved mobile C3. - Conduct market research, testing and evaluation of COTS equipment to support Security Force's Tactical Sensor System (TSS) in support of AFFORGEN implementation.			
<b>FY 2025 Plans:</b> -Will continue to conduct market research, evaluation and testing to address capability gaps and obsolescence to include, but not limited to Force Protection COTS.			

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
-Will continue further integration and testing to qualify COTS equipment to provide essential upgrades/improvements and state-of-the-art technology to support integrated based security systems installations worldwide. -Will continue with the integration and/or modification of COTS efforts to improve IBDSS physical security equipment. -Will continue further integration and testing of Defender Multi-Domain Command, Control and Communications (DMDC3) software applications from either COTS suppliers or modified COTS systems. -Will continue integration of DMDC3 with external systems in order to meet ABMS/JADC2 directive. - Will continue to expand upon and scales IBDSS modernization efforts first developed under IBDSS-2 to include, but not limited to, zero-trust architecture, ML/AI integration, expanded sensor capabilities, UAS/UGV integration, and improved mobile C3. - Will continue market research, testing and evaluation of COTS equipment to expand the Security Force's Tactical Sensor System (TSS) in support of AFFORGEN implementation.  <b><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i></b> FY2025 program funding decreased by \$0.036M due to decreased TSS requirements.			
<b>Accomplishments/Planned Programs Subtotals</b>	6.664	10.605	10.569

<b>D. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• OPAF 03 834130: <i>Air Force Physical Security System</i>	49.842	83.628	124.852	-	124.852	104.847	71.821	73.217	74.664	Continuing	Continuing

**Remarks**

**E. Acquisition Strategy**  
 Air Force Security Force Center (AFSFC) and Force Protection program office investigates requirements to include new and/or obsolete items. COTS sub-systems, equipment and components are competitively acquired from industry after thorough market research. Equipment for testing is purchased via competitive selection processes via direct purchase orders. For security systems COTS that are required to be qualified for nuclear security environments where industry COTS sources may not be mature, consideration is given to replacement of new items or COTS modification through the competitive selection procedure as well.  
  
 Delivery Orders on Indefinite Delivery/Indefinite Quantity contract vehicles or other approved purchase methods are utilized to acquire equipment.  
  
 The Force Protection program office is developing new capabilities, updating existing capabilities, exploring and fielding COTS capabilities, using both a Middle Tier of Acquisition program and other transactional authorities.

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**Appropriation/Budget Activity**  
3600: *Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)*

**R-1 Program Element (Number/Name)**  
PE 0604287F / *Physical Security Equipment*

Notional strategy to deploy DMDC3 and IBDSS of the future by integrating COTS equipment, such as Lenel, Hirsch, and Genetic equipment, with Vindicator and Advantor IDS systems through a single software solution at various bases to establish a single common operating picture for the Defender community.

Supports MOSA standards to enable faster installations and greater interoperability to enable Chief of Staff of the Air Force 'Fight the Base' goals.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												Date: March 2024			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)						Project (Number/Name)					
3600 / 5				PE 0604287F / Physical Security Equipment						655120 / Physical Security Equipment - SD ED					
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Base Defense Security Systems (IBDSS-3)	Various	Various : Various	-	3.610	Dec 2022	4.324	Apr 2024	4.324	Mar 2025	-		4.324	Continuing	Continuing	-
<b>Subtotal</b>			-	3.610		4.324		4.324		-		4.324	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Base Defense Security Systems (IBDSS-3)	Various	Various : Various	-	1.554	Jul 2023	2.000	Jun 2024	2.221	May 2025	-		2.221	Continuing	Continuing	-
<b>Subtotal</b>			-	1.554		2.000		2.221		-		2.221	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Base Defense Security Systems (IBDSS-3)	Various	Various : Various	-	1.500	Dec 2022	4.281	Mar 2024	4.024	Apr 2025	-		4.024	Continuing	Continuing	-
<b>Subtotal</b>			-	1.500		4.281		4.024		-		4.024	Continuing	Continuing	N/A
<b>Project Cost Totals</b>			-	6.664		10.605		10.569		-		10.569	Continuing	Continuing	N/A
<b>Remarks</b>															
Various delivery orders will be awarded throughout the fiscal year for numerous projects.															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Air Force</b>		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 3600 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604287F / <i>Physical Security Equipment</i>	<b>Project (Number/Name)</b> 655120 / <i>Physical Security Equipment - SD ED</i>

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
<b>FY23 Events</b>																																
Integrated Base Defense Security Systems (IBDSS-3)																																
<b>FY24 Events</b>																																
Integrated Base Defense Security Systems (IBDSS-3)																																
<b>FY25 Events</b>																																
Integrated Base Defense Security Systems (IBDSS-3)																																
<b>FY26 Events</b>																																
Integrated Base Defense Security Systems (IBDSS-4)																																
<b>FY27 Events</b>																																
Integrated Base Defense Security Systems (IBDSS-4)																																
<b>FY28 Events</b>																																
Integrated Base Defense Security Systems (IBDSS-4)																																
<b>FY29 Events</b>																																
Integrated Base Defense Security Systems (IBDSS-5)																																

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Air Force		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 3600 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0604287F / <i>Physical Security Equipment</i>	<b>Project (Number/Name)</b> 655120 / <i>Physical Security Equipment - SD ED</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>FY23 Events</i></b>				
Integrated Base Defense Security Systems (IBDSS-3)	1	2023	4	2024
<b><i>FY24 Events</i></b>				
Integrated Base Defense Security Systems (IBDSS-3)	1	2024	4	2025
<b><i>FY25 Events</i></b>				
Integrated Base Defense Security Systems (IBDSS-3)	1	2025	4	2026
<b><i>FY26 Events</i></b>				
Integrated Base Defense Security Systems (IBDSS-4)	1	2026	4	2027
<b><i>FY27 Events</i></b>				
Integrated Base Defense Security Systems (IBDSS-4)	1	2027	4	2028
<b><i>FY28 Events</i></b>				
Integrated Base Defense Security Systems (IBDSS-4)	1	2028	4	2029
<b><i>FY29 Events</i></b>				
Integrated Base Defense Security Systems (IBDSS-5)	1	2029	4	2029