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

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605049A / <i>Missile Warning System Modernization (MWSM)</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	0.000	0.000	27.571	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	27.571
XT4: <i>Advanced Threat Detection System (ATDS)</i>	-	-	27.571	-	-	-	-	-	-	-	0.000	27.571

Note
Funding transitioned from XT4 (PE 0605049A): Advanced Threat Detection System (ATDS) in FY24 to ITD (PE 0605051A): Improved Threat Detection System (ITDS) in FY25.

A. Mission Description and Budget Item Justification
The ITDS (Improved Threat Detection System) budget line includes funding to support the development and integration of improved Aircraft Survivability Equipment (ASE) products onto current US Army Aviation platforms as well as Future Vertical Lift (FVL) future platforms. ITDS will use an incremental approach to align with PM ASE's System of Systems approach, including both detect and defeat capabilities, and integrate it onto an open system architecture digital backbone, improving full coverage against evolving threats in hostile environments.

ITDS is an FY2024 (PE 0605049A) new start program applying a Middle Tier of Acquisition (MTA) adaptive acquisition pathway. PM ASE is executing this ITDS MTA Rapid Prototyping effort under an Other Transactional Authority agreement with multiple phases. The result will be a residual operational capability that will detect, classify, cue, and declare on existing and emerging Electro-Optical/Infra-red (EO/IR) Guided Man-Portable Air Defense Systems (MANPADS), Rocket Propelled Grenades (RPG)/ unguided rockets, Anti-Tank Guided Missiles (ATGM), Ballistic munitions, Unmanned Aerial Vehicles (UAV), and Lasers.

Justification:
FY2024 BASE RDTE dollars in the amount of \$27.571 million will fund pathway initiation and oversee a robust development effort including program management, technical oversight for an ITDS milestone decision, and execution of contract(s) to initiate Product Development.

FY24 funding was placed on the XT4 (ATDS) funding line because none existed for ITDS.

References:
-Rescission of Advanced Threat Detection System Request for Materiel Development Decision, DCS, G-8, 17 December 2018.
-MDD Request for the ITDS Program of Record, Aviation Capability Development and Integration Directorate (Aviation CDID), 6 July 2021.
-MDD Request for the ITDS Program of Record, DCS, G-8, 14 March 2022.
-Assignment of an Army Office of Primary Responsibility (OPR) for the ITDS Capability, Assistant Secretary of the Army (Acquisition, Logistics and Technology) (ASA(ALT)), 18 April 2022.

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B. Program Change Summary (\$ in Millions)	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>
Previous President's Budget	0.000	27.571	0.000	-	0.000
Current President's Budget	0.000	27.571	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Army										Date: March 2024		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0605049A / <i>Missile Warning System M odernization (MWSM)</i>				Project (Number/Name) XT4 / <i>Advanced Threat Detection System (ATDS)</i>			
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
XT4: <i>Advanced Threat Detection System (ATDS)</i>	-	-	27.571	-	-	-	-	-	-	-	0.000	27.571
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

ITD: Improved Threat Detection System (ITDS).

The ITDS (Improved Threat Detection System) budget line includes funding to support the development and integration of improved Aircraft Survivability Equipment (ASE) products onto current US Army Aviation platforms as well as Future Vertical Lift (FVL) future platforms. ITDS will use an incremental approach to align with PM ASE's System of Systems approach, including both detect and defeat capabilities, and integrate it onto an open system architecture digital backbone, improving full coverage against evolving threats in hostile environments.

ITDS is an FY2024 (PE 0605049A) new start program applying a Middle Tier of Acquisition (MTA) adaptive acquisition pathway. PM ASE is executing this ITDS MTA Rapid Prototyping effort under an Other Transactional Authority agreement with multiple phases. The result will be a residual operational capability that will detect, classify, cue, and declare on existing and emerging Electro-Optical/Infra-red (EO/IR) Guided Man-Portable Air Defense Systems (MANPADS), Rocket Propelled Grenades (RPG)/ unguided rockets, Anti-Tank Guided Missiles (ATGM), Ballistic munitions, Unmanned Aerial Vehicles (UAV), and Lasers.

Justification:

FY2024 BASE RDTE dollars in the amount of \$27.571 million will fund pathway initiation and oversee a robust development effort including program management, technical oversight for an ITDS milestone decision, and execution of contract(s) to initiate Product Development.

FY24 funding was placed on the XT4 (ATDS) funding line because none existed for ITDS.

References:

- Rescission of Advanced Threat Detection System Request for Materiel Development Decision, DCS, G-8, 17 December 2018.
- MDD Request for the ITDS Program of Record, Aviation Capability Development and Integration Directorate (Aviation CDID), 6 July 2021.
- MDD Request for the ITDS Program of Record, DCS, G-8, 14 March 2022.
- Assignment of an Army Office of Primary Responsibility (OPR) for the ITDS Capability, Assistant Secretary of the Army (Acquisition, Logistics and Technology) (ASA(ALT)), 18 April 2022.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2023	FY 2024	FY 2025
Title: ITDS Product Development and Management Services	-	27.571	-
FY 2024 Plans:			

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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605049A / <i>Missile Warning System M odernization (MWSM)</i>	Project (Number/Name) XT4 / <i>Advanced Threat Detection System (ATDS)</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2023	FY 2024	FY 2025
FY2024 BASE RDTE dollars in the amount of \$27.571 million will fund program management and technical oversight for an ITDS milestone decision and execution of contract/s to initiate Product Development.				
FY 2024 to FY 2025 Increase/Decrease Statement: Funding transitioned from XT4 (PE 0605049A): Advanced Threat Detection System (ATDS) in FY24 to ITD (PE 0605051A): Improved Threat Detection System (ITDS) in FY25.				
Accomplishments/Planned Programs Subtotals		-	27.571	-
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy ATDS previously as FY2024 (PE 0605049A) new start program applying a Middle Tier of Acquisition (MTA) adaptive acquisition pathway moved to ITDS in FY2025 (PE 0605051A). PM ASE is executing this ITDS MTA Rapid Prototyping effort under an Other Transactional Authority agreement with multiple phases. The result will be a residual operational capability that will detect, classify, cue, and declare on existing and emerging Electro-Optical/Infra-red (EO/IR) Guided Man-Portable Air Defense Systems (MANPADS), Rocket Propelled Grenades (RPG)/ unguided rockets, Anti-Tank Guided Missiles (ATGM), Ballistic munitions, Unmanned Aerial Vehicles (UAV), and Lasers.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army **Date:** March 2024

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605049A / <i>Missile Warning System M odernization (MWSM)</i>	Project (Number/Name) XT4 / <i>Advanced Threat Detection System (ATDS)</i>
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Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
ITDS SEPM	TBD	Various : Various	-	-		14.647		-		-		-	0.000	14.647	Continuing
Subtotal			-	-		14.647		-		-		-	0.000	14.647	N/A

Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
ITDS Development Engineering	TBD	PM ASE : HSV, AL	-	-		12.924		-		-		-	0.000	12.924	Continuing
Subtotal			-	-		12.924		-		-		-	0.000	12.924	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
	Project Cost Totals		-	-	27.571	-	-	0.000	27.571

Remarks
 The breakdown for the FY24 PB was tentative based on the outcome of the Acquisition Shaping Panels and now, with the direction to pursue the MTA RP pathway, approximately 9% of the funding is allocated to SEPM, and the remaining funding is broken out between the vendors and testing. However, FY24 is locked and cannot be updated.

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605049A / <i>Missile Warning System M odernization (MWSM)</i>	Project (Number/Name) XT4 / <i>Advanced Threat Detection System (ATDS)</i>

Event Name	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				
ITDS MTA Initiation					1 ITDS MTA Initiation																											
ITDS Development Engineering																																
ITDS Residual Operational Capability (ROC)																																

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605049A / <i>Missile Warning System M odernization (MWSM)</i>	Project (Number/Name) XT4 / <i>Advanced Threat Detection System (ATDS)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
PEO Acquisition Decision Memorandum (ADM)	1	2019	1	2019
Enhanced Market Research	2	2019	2	2020
Enhanced Market Research Report	2	2020	2	2020
ITDS MTA Initiation	2	2024	2	2024
ITDS Development Engineering	2	2024	4	2029
ITDS Residual Operational Capability (ROC)	2	2029	2	2029