Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Office of the Secretary Of Defense	Date: March 2024
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0605755D8Z / *Radiological and Nuclear Defense Modernization System Dev/Demo*

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	3.575	0.000	3.575	3.993	3.936	3.919	3.992	Continuing	Continuing
778: *Radiological and Nuclear Defense Mod Sys Dev/Demo*	-	-	-	3.575	0.000	3.575	3.993	3.936	3.919	3.992	Continuing	Continuing

Note

New Start (Y/N): No

This is a PE Name change from PE 0505167D8Z Domestic Prepare Against WMD in FY 2024 to PE 0605755D8Z / Rad/Nuc Defense Modernization Systems Dev/ Demo in FY 2025. The name and PE number was changed to more accurately reflect the prescribed purpose of the Program Element.

A. Mission Description and Budget Item Justification

As a FY 2024 new start, this program supports the Department's initiatives to Deter Aggression, Defend the Homeland, Provide Nuclear Deterrence and being prepared to prevail, and Build Sustainable and Long-Term Advantage.

The Radiological and Nuclear (R/N) Detection Gear Modernization and Procurement for the Joint Force research and development activities (RDAs) enhance DoD's capabilities to campaign across the domains of threats and spectrums of conflict by: improving the Department's capability to survive and operate in the Radiological and Nuclear environment – including in the information and early warning domain; reinforcing our own warfighting advantages by providing increased capability to detect and identify radiological and nuclear threats; and enhancing our interoperability and access to address acute forms of coercion. This program is specifically geared to provide modern improved networked R/N detection, indications and identification capability to the warfighter and to upgrade obsolete equipment and increase capability to continue to operate in the R/N environment (2022 National Defense Strategy and the 2023 CWMD Strategy).

RDAs provide enhanced R/N capabilities. The Radiological and Nuclear Defense Capability Development portfolio enables DoD to provide Joint force and National Guard capability development, acquisition and modernization funding to prepare for and respond to any emergency involving nuclear and/or radiological events in the United States; provide a capability for the joint force to withstand, operate through, and recover from an R/N event and will ensure DoD strategic direction aligns with the National Defense Strategy's priorities; is a necessary action to improve resilience; and promotes integrated deterrence of WMD with state, local and other federal agencies. This funding line is the only BA5 funding in the Department dedicated to providing improved R/N capability to the warfighter.

The Radiological and Nuclear Defense Capability Development portfolio is executing along cohesive lines of effort (LOEs) designed to prepare the Joint Force for a Future Operating Environment in which adversary pursuit or possession of WMDs pose threats ranging from existential to tactical, and limit U.S. strategic choices.

The Office of the Secretary of Defense uses the Radiological and Nuclear Defense Capability Development portfolio to invest strategically in projects across the Military Services, Combatant Commands, and Defense Agencies. Funding is prioritized for projects that close Joint Force warfighter capability gaps. An annual investment

strategy is used to meet emergent operational and capability needs validated by the Joint Force and the National Guard Bureau, yielding new fielded capabilities within one to two years.

The Radiological and Nuclear Defense Capability Development portfolio: Systems Development and Demonstration program invests in maturation of prototypes; integration of technologies, systems and components; developmental and operational test and evaluation; and transition to fielded capabilities that improve capability to detect and identify radiological and nuclear threats. This program bridges the gap between basic research to accelerate and enable transition of technologies to fielded capabilities by leveraging significant science and technology (S&T) investments made by the Department of Defense, other Federal agencies, and industry.

This program funds labor, materials, and travel to support the requirements of this program, performed by a government agency or by private individuals or organizations under a contract with the government, for activities and acquisitions including RDT&E, assessments and analyses, research studies, education, and other activities related to capability development and fielding.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	3.575	0.000	3.575
Total Adjustments	0.000	0.000	3.575	-	3.575
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Realignment from PE 0505167D8Z	-	-	3.575	-	3.575

Change Summary Explanation

None.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense			Date: March 2024
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605755D8Z / *Radiological and Nuclear Defense Modernization System Dev/Demo*	Project (Number/Name) 778 / *Radiological and Nuclear Defense Mod Sys Dev/Demo*	

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
778: *Radiological and Nuclear Defense Mod Sys Dev/Demo*	-	-	-	3.575	0.000	3.575	3.993	3.936	3.919	3.992	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This is a PE Name change from PE 0505167D8Z Domestic Prepare Against WMD in FY 2024 to PE 0605755D8Z / Rad/Nuc Defense Modernization Systems Dev/ Demo in FY 2025. The name and PE number was changed to more accurately reflect the prescribed purpose of the Program Element.

A. Mission Description and Budget Item Justification

As a FY 2024 new start, this program supports the Department's initiatives to Deter Aggression, Defend the Homeland, Provide Nuclear Deterrence and being prepared to prevail, and Build Sustainable and Long-Term Advantage.

The Radiological and Nuclear (R/N) Detection Gear Modernization and Procurement for the Joint Force research and development activities (RDAs) enhance DoD's capabilities to campaign across the domains of threats and spectrums of conflict by: improving the Department's capability to survive and operate in the Radiological and Nuclear environment – including in the information and early warning domain; reinforcing our own warfighting advantages by providing increased capability to detect and identify radiological and nuclear threats; and enhancing our interoperability and access to address acute forms of coercion. This program is specifically geared to provide modern improved networked R/N detection, indications and identification capability to the warfighter and to upgrade obsolete equipment and increase capability to continue to operate in the R/N environment (2022 National Defense Strategy and the 2023 CWMD Strategy).

RDAs provide enhanced R/N capabilities. The Radiological and Nuclear Defense Capability Development portfolio enables DoD to provide Joint force and National Guard capability development, acquisition and modernization funding to prepare for and respond to any emergency involving nuclear and/or radiological events in the United States; provide a capability for the joint force to withstand, operate through, and recover from an R/N event and will ensure DoD strategic direction aligns with the National Defense Strategy's priorities; is a necessary action to improve resilience; and promotes integrated deterrence of WMD with state, local and other federal agencies. This funding line is the only BA5 funding in the Department dedicated to providing improved R/N capability to the warfighter.
The Radiological and Nuclear Defense Capability Development portfolio is executing along cohesive lines of effort (LOEs) designed to prepare the Joint Force for a Future Operating Environment in which adversary pursuit or possession of WMDs pose threats ranging from existential to tactical, and limit U.S. strategic choices.

The Office of the Secretary of Defense uses the Radiological and Nuclear Defense Capability Development portfolio to invest strategically in projects across the Military Services, Combatant Commands, and Defense Agencies. Funding is prioritized for projects that close Joint Force warfighter capability gaps. An annual investment strategy is used to meet emergent operational and capability needs validated by the Joint Force and the National Guard Bureau, yielding new fielded capabilities within one to two years.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605755D8Z / *Radiological and Nuclear Defense Modernization System Dev/Demo*	**Project (Number/Name)** 778 / *Radiological and Nuclear Defense Mod Sys Dev/Demo*

The Radiological and Nuclear Defense Capability Development portfolio: Systems Development and Demonstration program invests in maturation of prototypes; integration of technologies, systems and components; developmental and operational test and evaluation; and transition to fielded capabilities that improve capability to detect and identify radiological and nuclear threats. This program bridges the gap between basic research to accelerate and enable transition of technologies to fielded capabilities by leveraging significant science and technology (S&T) investments made by the Department of Defense, other Federal agencies, and industry.

This program funds labor, materials, and travel to support the requirements of this program, performed by a government agency or by private individuals or organizations under a contract with the government, for activities and acquisitions including RDT&E, assessments and analyses, research studies, education, and other activities related to capability development and fielding.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Radiological and Nuclear Mod Sys Dev/Demo	-	-	3.575
Description: The Radiological and Nuclear Defense Capability Modernization: Systems Development and Demonstration program invests in maturation of prototypes; integration of technologies, systems and components; developmental and operational test and evaluation; and transition to R/N Defense fielded capabilities. Significant S&T investments in prototype development by the Department of Defense, other Federal agencies, and industry are leveraged, capitalizing on mature technologies to accelerate and enable transition to fielded capabilities. Resulting fielded capabilities protect the warfighter, support indications and early warning, command and control, defend vulnerabilities in networks, programs, facilities, and weapons systems; and enable the disablement or defeat of WMD and their delivery systems. ***FY 2025 Plans:*** • Develop, transition, and field operational R/N Detection, Identification, Early warning, and Command Control capabilities to the Joint Force and the National Guard Bureau. • Partner with the Military Services and Defense Agencies to mature and transition advanced prototypes to fielded R/N detection and identification capabilities. • Continue maturation of prototypes, systems, and components for test and evaluation by end-users and transition to fieldable R/N Detection and identification capabilities under other classified projects. • Continue development of Joint Incident Site Communications Capability Architecture for the National Guard CBRN Response Enterprise. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** This is a PE Name change from PE 0505167D8Z Domestic Prepare Against WMD in FY 2024 to PE 0605755D8Z / Rad/Nuc Defense Modernization Systems Dev/Demo in FY 2025. The name and PE number was changed to more accurately reflect the prescribed purpose of the Program Element.			
Accomplishments/Planned Programs Subtotals	-	-	3.575

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605755D8Z / *Radiological and Nuclear Defense Modernization System Dev/Demo*	**Project (Number/Name)** 778 / *Radiological and Nuclear Defense Mod Sys Dev/Demo*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A.

D. Acquisition Strategy

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605755D8Z / *Radiological and Nuclear Defense Modernization System Dev/Demo*	**Project (Number/Name)** 778 / *Radiological and Nuclear Defense Mod Sys Dev/Demo*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Develop, transition, and field operational R/N Detection, Indications and Early warning and Command Control capabilities to the Joint Force and the National Guard Bureau.	C/TBD	TBD : TBD	-	-		-		1.192	Jan 2025	-		1.192	Continuing	Continuing	-
Partner with the Military Services and Defense Agencies to mature and transition advanced prototypes to fielded R/N detection and identification capabilities.	C/TBD	TBD : TBD	-	-		-		1.192	Jan 2025	-		1.192	Continuing	Continuing	-
Continue maturation of prototypes, systems, and components for test and evaluation by end-users and transition to fieldable R/N Detection and identification capabilities under other classified program	C/TBD	TBD : TBD	-	-		-		1.191	Jan 2025	-		1.191	Continuing	Continuing	-
		Subtotal	-	-		-		3.575		-		3.575	Continuing	Continuing	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	-	-		-		3.575		-		3.575	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605755D8Z / *Radiological and Nuclear Defense Modernization System Dev/Demo*	**Project (Number/Name)** 778 / *Radiological and Nuclear Defense Mod Sys Dev/Demo*

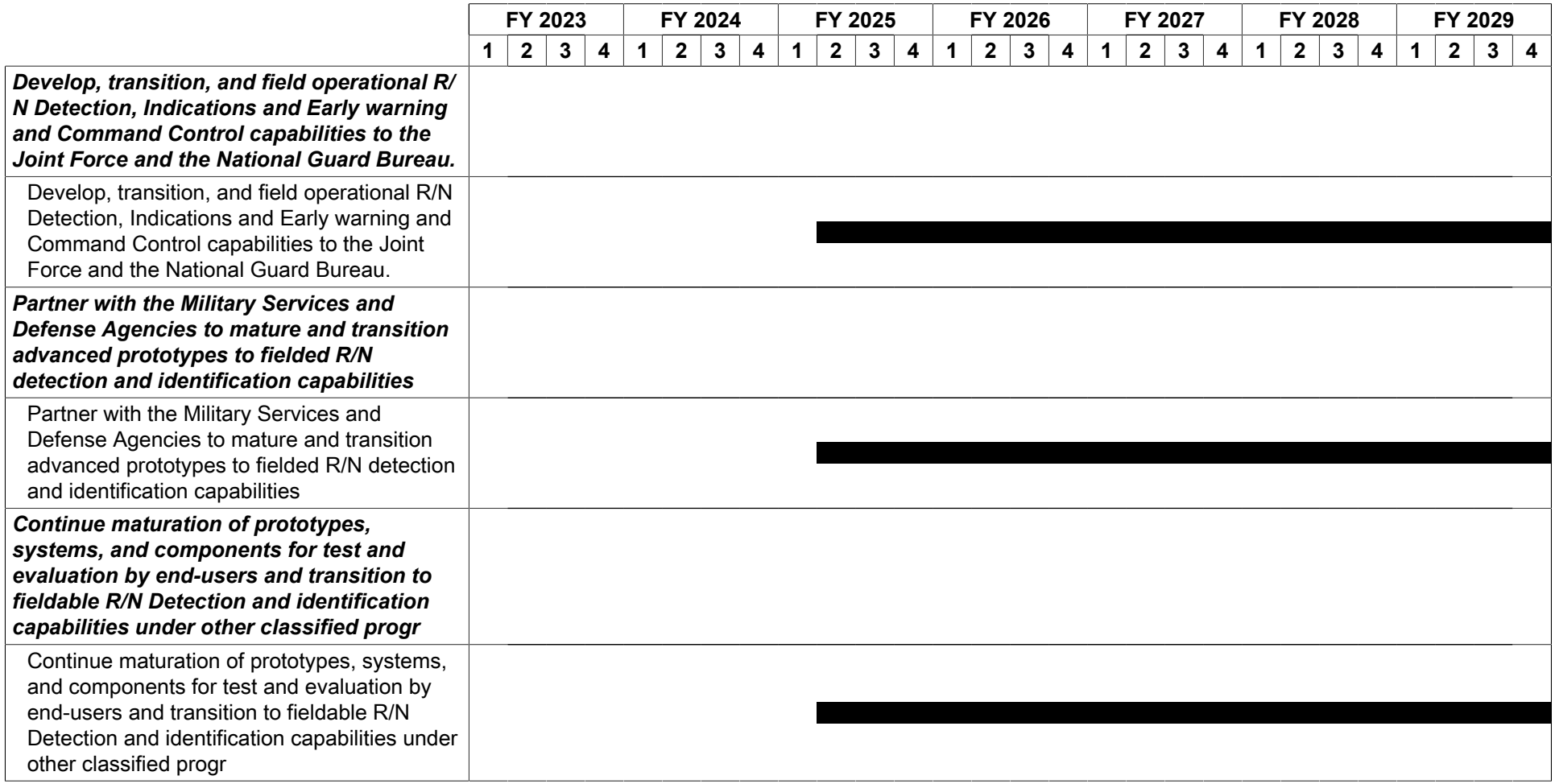

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0605755D8Z / *Radiological and Nuclear Defense Modernization System Dev/Demo*	**Project (Number/Name)** 778 / *Radiological and Nuclear Defense Mod Sys Dev/Demo*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Develop, transition, and field operational R/N Detection, Indications and Early warning and Command Control capabilities to the Joint Force and the National Guard Bureau.				
Develop, transition, and field operational R/N Detection, Indications and Early warning and Command Control capabilities to the Joint Force and the National Guard Bureau.	2	2025	4	2029
Partner with the Military Services and Defense Agencies to mature and transition advanced prototypes to fielded R/N detection and identification capabilities				
Partner with the Military Services and Defense Agencies to mature and transition advanced prototypes to fielded R/N detection and identification capabilities	2	2025	4	2029
Continue maturation of prototypes, systems, and components for test and evaluation by end-users and transition to fieldable R/N Detection and identification capabilities under other classified progr				
Continue maturation of prototypes, systems, and components for test and evaluation by end-users and transition to fieldable R/N Detection and identification capabilities under other classified progr	2	2025	4	2029