Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Office of the Secretary Of Defense	Date: February 2020
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604161D8Z *I Nuclear and Conventional Physical Security/Countering Nuclear Threats*

COST ($ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
Total Program Element	73.500	8.185	11.276	7.173	-	7.173	6.164	6.267	6.356	6.489	Continuing	Continuing
163: *Nuclear and Conventional Physical Security*	61.782	3.853	7.855	7.073	-	7.073	6.164	6.267	6.356	6.489	Continuing	Continuing
042: *Countering Nuclear Threats (CNT) Prevention / System Development & Demonstration (SDD)*	11.718	4.332	3.421	0.100	-	0.100	0.000	0.000	0.000	0.000	Continuing	Continuing

Note

N/A

A. Mission Description and Budget Item Justification

This Program Element (PE) addresses the need to defend and deter against weapons of mass destruction threats and to safeguard personnel; prevent unauthorized access to equipment, installations, material, and documents; and to safeguard the foregoing against espionage, sabotage, damage, and theft. This program oversees advanced engineering development and rapid fielding throughout the DoD for an integrated and systemic approach for countering nuclear threats and the development of nuclear and conventional physical security material solutions. Public Law, Presidential and DoD-level guidance, and Combatant Command and Service requirements drive the priorities for these programs.

Under this PE, funding associated with nuclear and convention physical security material solution for the Department is broken down into seven capability areas: (1) Detection and Assessment; (2) Access Controls; (3) Installation and Transport Security; (4) Storage and Safeguards; (5) Prevention; (6) Decision Support Systems; and (7) Analytical Support. The material solutions either (a) lead to a Programs of Record transitioning to Program Element 0604161D8Z for Systems Development and Demonstration; (b) become technology insertions into existing programs; or (c) advance to being a certified Commercial/Government off-the-shelf product. The Physical Security Enterprise and Analysis Group is responsible for avoiding duplication of effort, ensuring systems integration, and promoting interoperability and sustainability.

This PE can fund travel to support the requirements of this program.

This appropriation will finance work, including staffing, performed by a government agency or by private individuals or organizations under a contractual or grant arrangement with the government who conduct research, development, and test and evaluation efforts.

Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Office of the Secretary Of Defense	Date: February 2020
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604161D8Z *I Nuclear and Conventional Physical Security/Countering Nuclear Threats*

B. Program Change Summary ($ in Millions)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Previous President's Budget	8.314	11.276	7.386	-	7.386
Current President's Budget	8.185	11.276	7.173	-	7.173
Total Adjustments	-0.129	0.000	-0.213	-	-0.213
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.128	-			
• Other Program Adjustments	-	-	-0.206	-	-0.206
• Cancelled Accounts	-0.001	-	-	-	-
• Economic Assumption	-	-	-0.007	-	-0.007

Change Summary Explanation

The decrease of $0.206 million is the result of planned program changes in OUSD(A&S).

Exhibit R-2A, RDT&E Project Justification: PB 2021 Office of the Secretary Of Defense			Date: February 2020
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	Project (Number/Name) 163 / *Nuclear and Conventional Physical Security*	

COST ($ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
163: *Nuclear and Conventional Physical Security*	61.782	3.853	7.855	7.073	-	7.073	6.164	6.267	6.356	6.489	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Physical Security Enterprise & Analysis Program (PSEAP) conducts Technology and Engineering and Manufacturing Development throughout the Department of Defense for an integrated and systemic approach for nuclear and conventional physical security technology and systems. Priorities are driven by Combatant Command and Service requirements. This program is also addressing the Unmanned Systems threat by developing technology solutions that address the entire Kill Chain (Detect, Track, Identify, and Defeat) that are interoperable.

Funding associated with nuclear and convention physical security material solution for the Department is broken down into seven capability areas: (1) Detection and Assessment; (2) Access Controls; (3) Installation and Transport Security; (4) Storage and Safeguards; (5) Prevention; (6) Decision Support Systems; and (7) Analytical Support. The material solutions either (a) lead to a Programs of Record; (b) become technology insertions into existing programs; or (c) advance to being a certified Commercial/Government off-the-shelf product. The Physical Security Enterprise and Analysis Group is responsible for avoiding duplication of effort, ensuring systems integration, and promoting interoperability and sustainability.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2019	FY 2020	FY 2021
Title: Detection and Assessment	2.076	3.585	4.073
Description: The ability to detect an adversary and assess their intentions is a basic physical security tenant. This capability area will design equipment to identify and warn of unauthorized access to a specified area or installation as well as equipment related to the notification and identification of explosive threats or hazards. Accomplishment: The PSEAP and the National Nuclear Security Administration are jointly developing a Portable Intrusion Detection System (PIDS) that addresses similar needs to protect nuclear weapons and special nuclear material. PIDS will provide a stable sensor platform that maintains the integrity of an existing secure perimeter in the event of sensor maintenance or system downtime. These include, but are not limited to, scheduled maintenance and upgrade activities for extended periods of time, or during emergency situations requiring the establishment of a National Defense Area; and mission requirements that dictate deployment of nuclear certified assets to locations that do not meet nuclear security requirements. ***FY 2020 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2021 Office of the Secretary Of Defense		Date: February 2020
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	**Project (Number/Name)** 163 / *Nuclear and Conventional Physical Security*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2019	FY 2020	FY 2021
• Continue to test and evaluate commercial-off-the-shelf Indoor Gunshot Detection technologies in applications within DoD facilities. • Continue to test and evaluate a Joint Interoperable Gateway for Security, Anti-terrorism and Warfighting command control display equipment capable of integrating/supporting the designated USAF physical security sensor and communication module. ***FY 2021 Plans:*** • Determine the ability of up to four commercially available handheld backscatter x-ray systems to detection improvised explosive devices, bulk explosives, and weapons. • Expand the test and evaluation of explosive detection equipment to detect trace and bulk explosives through new technology advancements to include vapor detection. ***FY 2020 to FY 2021 Increase/Decrease Statement:*** The increase $0.295 million in FY 2021 is the result of planned program changes in OUSD(A&S). Projects and project cost vary from year to year.			
Title: Access Controls	0.000	0.270	0.000
Description: Controlling access to safeguard personnel and their families and to prevent unauthorized access to critical infrastructure and materials is paramount. This capability area will focus on programs and processes related to the validity and verification of individuals entering or already within, a facility. Accomplishment: Defense Installation Access Control project enhances the Identity Matching Engine for Security & Analysis used at hundreds of DoD entry control points to compare Personal Identity Verification/Common Access Card holders against the National Crime Information Center and the Interstate Identification Index. Previous work developed a capability that compares DoD registered cardholders against the FBI's Wanted Persons File and against the Terrorist Screening Database. This capability prevents un-cleared people or potential terrorists from entering DoD installations. The updated system identified an individual with warrants for murder and aggravated assault with a deadly weapon trying to get installation access. ***FY 2020 Plans:*** • Evaluate application of radio-frequency identification technology to rapidly detect Biological Select Agents and Toxins (BSAT) in packages exiting Army BSAT laboratories' entry control points and shipping areas without opening the containers ***FY 2021 Plans:*** • The Combatant Commands and the Services did not identify any material needs for this Budget Activity/Capability Area. ***FY 2020 to FY 2021 Increase/Decrease Statement:***			

Exhibit R-2A, RDT&E Project Justification: PB 2021 Office of the Secretary Of Defense		Date: February 2020
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	**Project (Number/Name)** 163 / *Nuclear and Conventional Physical Security*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2019	FY 2020	FY 2021
The decrease in funding in FY 2021 is the result of planned program changes in OUSD(A&S). Projects and project cost vary from year to year.			
Title: Installation and Transport Security ***Description:*** Robust installation and transport security are vital to preventing a weapon of mass destruction attack or the unauthorized access to key assets such as nuclear weapons and special nuclear material. This capability area will focus on programs and equipment intended to improve the physical security profile of fixed sites and facilities, as well as critical items while in-transit. Accomplishment: Joint Active Shooter Protection and Response project will integrate sensors to automatically detect indoor gunshots; provides potential victims, responders and authorized personnel with information to enhance situational awareness; and enable automatic or manual control of the building - inhibiting the shooter - shortening the duration of an active shooter. US Military Academy agreed to be used as a test bed for this effort and the results have wide ranging potential to be incorporated into soft or high value facilities. ***FY 2020 Plans:*** • The Combatant Commands and the Services did not identify any material needs for this Budget Activity/Capability Area. ***FY 2021 Plans:*** • The Combatant Commands and the Services did not identify any material needs for this Budget Activity/Capability Area. ***FY 2020 to FY 2021 Increase/Decrease Statement:*** There was no change in funding from FY 2020 to FY 2021.	0.329	0.000	0.000
Title: Prevention ***Description:*** The security procedures taken to discourage an adversary from accessing weapons of mass destruction or gaining unauthorized access to critical assets are at the heart of prevention. This capability area will focus on broad spectrum, generic efforts which have the ability to influence multiple areas. Accomplishment: Develop a Stabilized Crew-Served Heavy Machine Gun Mount by reviewing requirements, performing suitability testing, implementing design improvements, and demonstrating a field-able stabilized crew-served heavy machine gun mount for naval applications. ***FY 2020 Plans:***	0.639	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2021 Office of the Secretary Of Defense		Date: February 2020
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	**Project (Number/Name)** 163 / *Nuclear and Conventional Physical Security*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2019	FY 2020	FY 2021
• The Combatant Commands and the Services did not identify any material needs for this Budget Activity/Capability Area. ***FY 2021 Plans:*** • The Combatant Commands and the Services did not identify any material needs for this Budget Activity/Capability Area. ***FY 2020 to FY 2021 Increase/Decrease Statement:*** There was no change in funding from FY 2020 to FY 2021.			
Title: Storage and Safeguards ***Description:*** Properly securing critical assets to prevent access by unauthorized persons and implementing control measures that ensure access is limited to authorized persons is the foundation of physical security. This capability area will focus on equipment (e.g., locks, doors, etc.) designed to delay or stop unauthorized entry/access to a specified/localized area. Accomplishment: Combatant Commands and Service requirements did not dictate the need for System Development and Demonstration. ***FY 2020 Plans:*** • The Combatant Commands and the Services did not identify any material needs for this Budget Activity/Capability Area. ***FY 2021 Plans:*** • The Combatant Commands and the Services did not identify any material needs for this Budget Activity/Capability Area. ***FY 2020 to FY 2021 Increase/Decrease Statement:*** There was no change in funding from FY 2020 to FY 2021.	0.000	0.000	0.000
Title: Decision Support Systems ***Description:*** Decision support systems serve the management, operations, and planning levels of the DoD physical security enterprise to help to make decisions, which may be rapidly changing and not easily specified in advance. This capability area will focus on command and control equipment and projects related to the creation and enhancement of common operating pictures, and the establishment of common architectures / interface standards. Accomplishment: Platform for Integrated Command, Control, and Communications and Responsive Defense (PICARD) project is developing the next generation security system using an open fusion annunciator, a secure cloud infrastructure and integration with a mobile Common Operating Picture, to create a cost-effective sensor platform. This capability will eventually replace	0.136	3.000	3.000

Exhibit R-2A, RDT&E Project Justification: PB 2021 Office of the Secretary Of Defense		Date: February 2020
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	**Project (Number/Name)** 163 / *Nuclear and Conventional Physical Security*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2019	FY 2020	FY 2021
antiquated security systems that are based on high cost sensor technology with low-cost sensors used in fields like the automotive industry. ***FY 2020 Plans:*** • Demonstrate the feasibility of the PICARD backbone architecture by integrating a small set of representative sensors through the fusion annunciator to a selected common operating picture. ***FY 2021 Plans:*** • Complete the initial development of the PICARD project by testing and evaluating in an operationally relevant environment. ***FY 2020 to FY 2021 Increase/Decrease Statement:*** There was no change in funding from FY 2020 to FY 2021.			
Title: Analytical Support ***Description:*** This capability area will focus on studies related to physical security topics and operational and management efforts related to day-to-day activities of the DoD Physical Security Enterprise RDT&E Program. Accomplishment: The Maritime Expeditionary & Transit Security project demonstrated and evaluated how advanced non-lethal weapons technology employed for extended range will enhance and improve response capabilities for the transit protection mission. This project also determined how a flexible and scalable precision fire weapons system capability enhances/augments the current use of crew served weapons to counter fast approaching surface threats during High Value Unit transits. ***FY 2020 Plans:*** • Complete research, development and test interoperability bridges for the Security Equipment Integration Working Group (PSEAG standard used by Air Force and Marine Corps) and Integrated Sensor Architecture (Army's standard) based interface standards to determine if they are interoperable. ***FY 2021 Plans:*** • The Combatant Commands and the Services did not identify any material needs for this Budget Activity/Capability Area. ***FY 2020 to FY 2021 Increase/Decrease Statement:*** The FY 2020 decrease from $1.000 million to $0.200 million in FY 2021 is the result of planned program changes in OUSD(A&S). Projects and project cost vary from year to year.	0.673	1.000	0.000
Accomplishments/Planned Programs Subtotals	3.853	7.855	7.073

Exhibit R-2A, RDT&E Project Justification: PB 2021 Office of the Secretary Of Defense		Date: February 2020
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	**Project (Number/Name)** 163 / *Nuclear and Conventional Physical Security*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

NA

D. Acquisition Strategy

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Office of the Secretary Of Defense		Date: February 2020
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	**Project (Number/Name)** 163 / *Nuclear and Conventional Physical Security*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2019 Cost	FY 2019 Award Date	FY 2020 Cost	FY 2020 Award Date	FY 2021 Base Cost	FY 2021 Base Award Date	FY 2021 OCO Cost	FY 2021 OCO Award Date	FY 2021 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Physical Security - Product Development Prior Years	Various	Various : Various	52.256	-		-		-		-		-	-	-	-
Indoor Gunshot Detection System	MIPR	SPAWAR Atlantic : Charleston, SC	0.718	0.208		-		-		-		-	-	-	-
Trace Explosive Detection System Improvement	MIPR	EOD Tech Division : Indian Head, MD	0.526	0.826		-		-		-		-	-	-	-
Stablized Crew-Served Heavy Machine Gun Mount	MIPR	NSWC Crane : Crane, IN	-	0.329		-		-		-		-	-	-	-
JIGSAW - TASS Integration	MIPR	Multiply Performers : Multiple Locations	0.776	0.607		-		-		-		-	-	-	-
Platform for Integrated C3 and Responsive Defense	MIPR	Air Force Technical Applications : Patrick AFB, Florida	-	-		3.000		3.000		-		3.000	Continuing	Continuing	-
		Subtotal	54.276	1.970		3.000		3.000		-		3.000	Continuing	Continuing	N/A

Remarks

NA

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2019 Cost	FY 2019 Award Date	FY 2020 Cost	FY 2020 Award Date	FY 2021 Base Cost	FY 2021 Base Award Date	FY 2021 OCO Cost	FY 2021 OCO Award Date	FY 2021 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Physical Security - Test & Evaluation Prior Years	Various	Multiple : Multiple	3.600	-		-		-		-		-	-	-	-
PSEAG T&E	MIPR	SPAWAR Atlantic : Charleston, SC	0.773	0.123		-		-		-		-	-	-	-
Comparative Colorimetric	MIPR	EOD Tech Division : Indian Head, MD	1.150	0.937		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Office of the Secretary Of Defense		Date: February 2020
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	**Project (Number/Name)** 163 / *Nuclear and Conventional Physical Security*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2019 Cost	FY 2019 Award Date	FY 2020 Cost	FY 2020 Award Date	FY 2021 Base Cost	FY 2021 Base Award Date	FY 2021 OCO Cost	FY 2021 OCO Award Date	FY 2021 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Stand-Off Weapon Defeat IPT	MIPR	NSWC Dahlgren Division : Dahlgren Division	1.231	0.203		-		-		-		-	-	-	-
C-UAS in the Homeland	MIPR	Multiple Performers : Multiple Locations	0.752	0.620		-		-		-		-	-	-	-
PSEAG Test & Evaluation	MIPR	TBD : TBD	-	-		1.270		4.073		-		4.073	Continuing	Continuing	-
Enhancing Biosecurity Surveillance	MIPR	USAMRIID : Fort Detrick, MD	-	-		0.270		-		-		-	-	-	-
Conventional X-ray for EOD Applications T&E	MIPR	EOD Tech Division : Indian Head, MD	-	-		0.569		-		-		-	-	-	-
Handheld Backscatter X-ray T&E	MIPR	EOD Tech Division : Indian Head, MD	-	-		0.798		-		-		-	-	-	-
Bulk Standoff T&E	MIPR	EOD Tech Division : Indian Head, MD	-	-		0.663		-		-		-	-	-	-
Surface Enhanced Raman Spectroscopy T&E	MIPR	EOD Tech Division : Indian Head, MD	-	-		0.856		-		-		-	-	-	-
Millimeter-Wave Onsite Evaluation	MIPR	EOD Tech Division : Indian Head, MD	-	-		0.429		-		-		-	-	-	-
		Subtotal	7.506	1.883		4.855		4.073		-		4.073	Continuing	Continuing	N/A

Remarks

NA

	Prior Years	FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	61.782	3.853		7.855		7.073		-		7.073	Continuing	Continuing	N/A

Remarks

NA

Exhibit R-4, RDT&E Schedule Profile: PB 2021 Office of the Secretary Of Defense		Date: February 2020
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	**Project (Number/Name)** 163 / *Nuclear and Conventional Physical Security*

Exhibit R-4A, RDT&E Schedule Details: PB 2021 Office of the Secretary Of Defense		Date: February 2020
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	**Project (Number/Name)** 163 / *Nuclear and Conventional Physical Security*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Detection & Assessment				
Detection & Assessment	1	2012	4	2025
Decision Support				
Decision Support	1	2012	4	2025
Storage & Safeguards				
Storage & Safeguards	1	2012	4	2025
Installation & Transport Security				
Installation & transport Security	1	2012	4	2025
Prevention				
Prevention	1	2012	4	2025
Access Control				
Access Control	1	2012	4	2025
Analytical Support				
Analytical Support	4	2018	4	2025

Exhibit R-2A, RDT&E Project Justification: PB 2021 Office of the Secretary Of Defense			Date: February 2020
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	Project (Number/Name) 042 / *Countering Nuclear Threats (CNT) Prevention / System Development & Demonstration (SDD)*	

COST ($ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
042: *Countering Nuclear Threats (CNT) Prevention / System Development & Demonstration (SDD)*	11.718	4.332	3.421	0.100	-	0.100	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Countering Nuclear Threats (CNT) Program is the integrated and layered program across the full range of the Department of Defense (DoD) to prevent, detect, respond to, and recover from radiological or nuclear (RN) incidents delivered through unconventional means, regardless of origin. It is also the only DoD Budget Activity 5 RDT&E Program Element focused on focused on improving CNT capabilities which addresses capability gaps identified by the Services, Combatant Commands, and the Joint Staff. These capabilities are necessary for the DoD to plan and execute effective operations against rogue regimes that pursue nuclear weapons.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2019	FY 2020	FY 2021
Title: CNT Rad/Nuc Passive Defense	4.332	3.421	0.100
Description: Development of the Radiological Detection System (RDS) which will replace DoD's legacy radiological survey meters and provide DoD's first Joint solution to increase capability and reduce life-cycle costs and address OPERATION TOMODACHI lessons learned. Currently, the Army, Air Force, Marines, Navy, and Coast Guard are planning to procure in excess of 50,000 RDS units. The first systems will be fielded starting in FY2020 to support an Army Operational Needs Statement. ***FY 2020 Plans:*** - Continue the development of RDS systems and achieve a Full Rate Production decision and material release to support procurement by Services. ***FY 2021 Plans:*** - Complete the development of RDS and transition to Service Component procurement plans (~$15.0 million). - Identify maturing RDT&E projects that support the development of improved DoD CNT capabilities and transfer to Service Components. ***FY 2020 to FY 2021 Increase/Decrease Statement:*** The FY 2021 decrease from $3.421 million to $0.100 million is based on funding fluctuation and availability.			
Accomplishments/Planned Programs Subtotals	4.332	3.421	0.100

Exhibit R-2A, RDT&E Project Justification: PB 2021 Office of the Secretary Of Defense		Date: February 2020
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	**Project (Number/Name)** 042 / *Countering Nuclear Threats (CNT) Prevention / System Development & Demonstration (SDD)*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Office of the Secretary Of Defense			Date: February 2020
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	**Project (Number/Name)** 042 / *Countering Nuclear Threats (CNT) Prevention / System Development & Demonstration (SDD)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2019 Cost	FY 2019 Award Date	FY 2020 Cost	FY 2020 Award Date	FY 2021 Base Cost	FY 2021 Base Award Date	FY 2021 OCO Cost	FY 2021 OCO Award Date	FY 2021 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Radiological Detection System	Sub Allot	JPEO CBD : Aberdeen, MD	1.901	4.332		3.421		0.100		-		0.100	Continuing	Continuing	-
Joint Personal Dosimeter	Sub Allot	JPEO CBD : Aberdeen, MD	9.817	-		-		-		-		-	Continuing	Continuing	-
Active Prevention System	TBD	TBD : TBD	-	-		-		-		-		-	Continuing	Continuing	-
		Subtotal	11.718	4.332		3.421		0.100		-		0.100	Continuing	Continuing	N/A

	Prior Years	FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	11.718	4.332		3.421		0.100		-		0.100	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2021 Office of the Secretary Of Defense		Date: February 2020
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	**Project (Number/Name)** 042 / *Countering Nuclear Threats (CNT) Prevention / System Development & Demonstration (SDD)*

Radiological Detection System

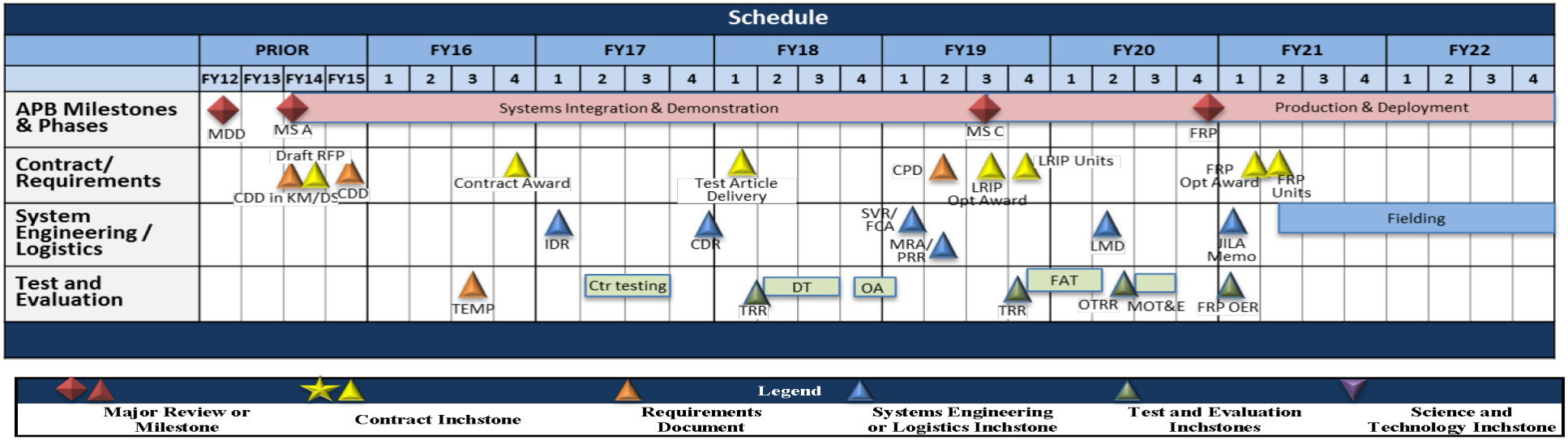

Exhibit R-4A, RDT&E Schedule Details: PB 2021 Office of the Secretary Of Defense		Date: February 2020
Appropriation/Budget Activity 0400 / 5	**R-1 Program Element (Number/Name)** PE 0604161D8Z / *Nuclear and Conventional Physical Security/Countering Nuclear Threats*	**Project (Number/Name)** 042 / *Countering Nuclear Threats (CNT) Prevention / System Development & Demonstration (SDD)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Radiological Detection System				
Radiological Detection System	1	2018	4	2021
Joint Personal Dosimeter				
Joint Personal Dosimeter	4	2014	1	2018
Active Prevention System				
Active Prevention System	1	2019	4	2025