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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2021 Office of the Secretary Of Defense **Date:** February 2020

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305310D8Z / <i>CWMD Systems: System Development &amp; Demonstration</i>
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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	8.214	16.385	12.854	20.585	-	20.585	20.859	21.447	21.904	22.144	Continuing	Continuing
813: <i>CWMD Systems: System Development &amp; Demonstration</i>	8.214	16.385	12.854	20.585	-	20.585	20.859	21.447	21.904	22.144	Continuing	Continuing

**Note**

Increase from FY 2020 to FY 2021 is the result of redistribution of funding from Countering Weapons of Mass Destruction (CWMD) Systems: Advanced Technology Development (PE# 0303310D8Z) to CWMD Systems: System Development and Demonstration (PE# 0305310D8Z) and CWMD Systems: Operational Systems Development (PE# 0607310D8Z). This redistribution supports the Department’s need to prioritize investment in fieldable capabilities to enhance Joint Force lethality in countering WMD proliferation and use.

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

The Countering Weapons of Mass Destruction (CWMD) Systems portfolio aligns with the National Defense Strategy objective of “dissuading, preventing, or deterring state adversaries and non-state actors from acquiring, proliferating, or using weapons of mass destruction.”

The CWMD Systems portfolio enhances warfighter lethality by developing capabilities to analyze and exploit critical nodes of nuclear, chemical, and biological weapons and ballistic missile programs and proliferation networks; and developing offensively-oriented capabilities to disrupt WMD proliferation networks and detect, disable, or defeat WMD and delivery systems. Investments result in capabilities fielded to the Joint Force, enabling it to reduce WMD threats and create options for the United States to prevent WMD use.

The Office of the Secretary of Defense uses the CWMD Systems 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 submitted by the Joint Force, yielding new fielded capabilities within one to two years.

The CWMD Systems: 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 counter WMD proliferation. This program accelerates and enables transition of mature technologies to fielded capabilities by leveraging significant science and technology (S&T) investments made by the Department of Defense, other Federal agencies, and industry. Fielded capabilities illuminate WMD networks; exploit vulnerabilities in networks, programs, facilities, and weapons systems; and disable or defeat WMD.

This appropriation 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.

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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>
Previous President's Budget	17.009	12.854	13.320	-	13.320
Current President's Budget	16.385	12.854	20.585	-	20.585
Total Adjustments	-0.624	0.000	7.265	-	7.265
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.621	-			
• Transfer from other CWMD System PEs	-	-	8.888	-	8.888
• Cancelled Acct	-0.003	-	-	-	-
• Economic Assumption	-	-	-0.023	-	-0.023
• Defense Wide Review Adjustment	-	-	-1.600	-	-1.600

**Change Summary Explanation**

Increase from FY 2020 to FY 2021 is the result of redistribution of funding from Countering Weapons of Mass Destruction (CWMD) Systems: Advanced Technology Development (PE# 0303310D8Z) to CWMD Systems: System Development and Demonstration (PE# 0305310D8Z) and CWMD Systems: Operational Systems Development (PE# 0607310D8Z). This redistribution supports the Department's need to prioritize investment in fieldable capabilities to enhance Joint Force lethality in countering WMD proliferation and use.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2021 Office of the Secretary Of Defense										<b>Date:</b> February 2020		
<b>Appropriation/Budget Activity</b> 0400 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0305310D8Z / CWMD Systems: System Development & Demonstration				<b>Project (Number/Name)</b> 813 / CWMD Systems: System Development & Demonstration			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
813: CWMD Systems: System Development & Demonstration	8.214	16.385	12.854	20.585	-	20.585	20.859	21.447	21.904	22.144	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

Increase from FY 2020 to FY 2021 is the result of redistribution of funding from Countering Weapons of Mass Destruction (CWMD) Systems: Advanced Technology Development (PE# 0303310D8Z) to CWMD Systems: System Development and Demonstration (PE# 0305310D8Z) and CWMD Systems: Operational Systems Development (PE# 0607310D8Z). This redistribution supports the Department’s need to prioritize investment in fieldable capabilities to enhance Joint Force lethality in countering WMD proliferation and use.

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

The Countering Weapons of Mass Destruction (CWMD) Systems portfolio aligns with the National Defense Strategy objective of “dissuading, preventing, or deterring state adversaries and non-state actors from acquiring, proliferating, or using weapons of mass destruction.”

The CWMD Systems portfolio enhances warfighter lethality by developing capabilities to analyze and exploit critical nodes of nuclear, chemical, and biological weapons and ballistic missile programs and proliferation networks; and developing clandestine, offensively-oriented capabilities to disrupt WMD proliferation networks and detect, disable, or defeat WMD and delivery systems. Investments result in capabilities fielded to the Joint Force, enabling it to reduce WMD threats and create options for the United States to prevent WMD use.

The Office of the Secretary of Defense uses the CWMD Systems 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 submitted by the Joint Force, yielding new fielded capabilities within one to two years.

The CWMD Systems: 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 counter WMD proliferation. This program accelerates and enables transition of mature technologies to fielded capabilities by leveraging significant science and technology (S&T) investments made by the Department of Defense, other Federal agencies, and industry. Fielded capabilities illuminate WMD networks; exploit vulnerabilities in networks, programs, facilities, and weapons systems; and disable or defeat WMD.

This appropriation 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.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2021 Office of the Secretary Of Defense		<b>Date:</b> February 2020		
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0305310D8Z / CWMD Systems: System Development & Demonstration	<b>Project (Number/Name)</b> 813 / CWMD Systems: System Development & Demonstration		
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
<p><b>Title:</b> P*813 / CWMD Systems: System Development &amp; Demonstration</p> <p><b>Description:</b> The CWMD Systems: 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 counter WMD proliferation. Significant science and technology (S&amp;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. Fielded capabilities illuminate WMD networks; exploit vulnerabilities in networks, programs, facilities, and weapons systems; and disable or defeat WMD.</p> <p><b>FY 2020 Plans:</b></p> <ul style="list-style-type: none"> <li>• Transitioned six prototypes into fielded capabilities, providing significant improvements to the capability of Special Operations Forces to operate in WMD environments and counter WMD threats</li> <li>• Matured, integrated, and fielded technologies under a number of classified projects to enable new capabilities to detect, disrupt, and defeat WMD and WMD networks</li> <li>• Completed and transitioned 88% of technology projects to fielded capabilities</li> </ul> <p><b>FY 2021 Plans:</b></p> <ul style="list-style-type: none"> <li>• Transition hand-held alpha-beta particle monitor device to the Joint Program Executive Office for Chemical, Biological, Radiological, and Nuclear Defense (JPEO CBRND) for integration and procurement, supporting U.S. Marine Corps Explosive Ordnance Disposal units.</li> <li>• Continue maturation of prototypes, systems, and components for test and evaluation by end-users and transition to fieldable capabilities.</li> </ul> <p><b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> Increase from FY 2020 to FY 2021 is the result of redistribution of funding from Countering Weapons of Mass Destruction (CWMD) Systems: Advanced Technology Development (PE# 0303310D8Z) to CWMD Systems: System Development and Demonstration (PE# 0305310D8Z) and CWMD Systems: Operational Systems Development (PE# 0607310D8Z). This redistribution supports the Department's need to prioritize investment in fieldable capabilities to enhance Joint Force lethality in countering WMD proliferation and use.</p>		16.385	12.854	20.585
<b>Accomplishments/Planned Programs Subtotals</b>		16.385	12.854	20.585
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2021 Office of the Secretary Of Defense	<b>Date:</b> February 2020
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<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0305310D8Z / <i>CWMD Systems: System Development &amp; Demonstration</i>	<b>Project (Number/Name)</b> 813 / <i>CWMD Systems: System Development &amp; Demonstration</i>
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**C. Other Program Funding Summary (\$ in Millions)**

**Remarks**

N/A

**D. Acquisition Strategy**

The Office of the Deputy Assistant Secretary of Defense for Threat Reduction and Arms Control (TRAC) establishes annual priorities based on national and DoD strategies and senior leader guidance. Based on those priorities, TRAC solicits project proposals from Combatant Commands, Military Services, and Defense Agencies, and interagency partners. To be selected, a proposed project must have a validated requirement, an engaged requirement champion, a viable acquisition strategy, and a qualified program management office. A technology project must identify its starting and desired end-state Technology Readiness Level. Likewise, the end-user for any proposed project must demonstrate a long-term plan for acceptance and sustainment of a fieldable capability. Project period of performance is typically 12-18 months.

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2021 Office of the Secretary Of Defense **Date:** February 2020

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Product Development (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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
Engineering & manufacturing development of information systems & components	C/T&M	TBD : TBD	4.107	8.193	Jan 2020	6.427	Jan 2021	10.293	Jan 2022	-		10.293	Continuing	Continuing	-
Systems development & demonstration, and initial operational test & evaluation	C/T&M	TBD : TBD	3.286	6.553	Jan 2020	5.142	Jan 2021	7.706	Jan 2022	-		7.706	Continuing	Continuing	-
Program management support	C/T&M	TBD : TBD	0.821	1.639	Jan 2020	1.285	Jan 2021	2.586	Jan 2022	-		2.586	Continuing	Continuing	-
<b>Subtotal</b>			8.214	16.385		12.854		20.585		-		20.585	Continuing	Continuing	N/A

**Remarks**  
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
<b>Project Cost Totals</b>	8.214	16.385	12.854	20.585	-	20.585	Continuing	Continuing	N/A

**Remarks**  
NA

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2021 Office of the Secretary Of Defense **Date:** February 2020

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**CWMD Systems: System Development & Demonstration  
BA 5 / PE 0305310D8Z**

FY18				FY19				FY20				FY21				FY22				FY23				FY24				FY25			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Engineering &amp; manufacturing development of information systems &amp; components</b>																															
<b>Systems development &amp; demonstration, and initial operational test &amp; evaluation</b>																															
<b>Program management support</b>																															

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2021 Office of the Secretary Of Defense		<b>Date:</b> February 2020
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0305310D8Z / CWMD Systems: System Development & Demonstration	<b>Project (Number/Name)</b> 813 / CWMD Systems: System Development & Demonstration

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Engineering &amp; Manufacturing Development</b>				
Develop information systems & components	2	2021	4	2025
<b>Operational Test &amp; Evaluation</b>				
Perform initial operational Test & Evaluation (T&E)	2	2021	4	2025
<b>Program Management Support</b>				
Provide Program Management (PM) support for development and Test and Evaluation (T&E)	2	2021	4	2025