Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Defense Threat Reduction Agency											Date: March 2019	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					**R-1 Program Element (Number/Name)** PE 0604775BR *I Advanced Component Development and Prototypes*							

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	14.021	-	14.021	12.564	6.800	6.800	6.700	Continuing	Continuing
RA: *CWMD Cross-Cutting Technical and Information Sciences*	-	0.000	0.000	14.021	-	14.021	12.564	6.800	6.800	6.700	Continuing	Continuing

Note

This program element is a new start.

A. Mission Description and Budget Item Justification

The CWMD Cross-Cutting Technical and Information Sciences project develops mature technologies tied to existing programs in the Defense Threat Reduction Agency's Budget Activity (BA) 3, Advanced Technology Development (ATD) portfolio. This investment helps bridge the developmental gap between science and technology and the advanced developers, effectively increasing the likelihood of transitioning capabilities to the warfighter. This project focuses on development and demonstration of high fidelity models and prototypes for testing in an operational environment, evaluation of integrated systems, technology transition, and rapid insertion of CWMD capabilities to meet critical national security and defense priorities. It specifically supports efforts to successfully transition capabilities from BA3 portfolio to advanced developers or into the hands of end-users for operational experimentation.

B. Program Change Summary ($ in Millions)

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	14.021	-	14.021
Total Adjustments	0.000	0.000	14.021	-	14.021
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Realignments	-	-	14.021	-	14.021

Change Summary Explanation

The change from the 2019 President's Budget is due to realignment of funds to develop prototypes and conduct testing in appropriate operational environments. The desired end-state is to increase the speed at which capabilities will ultimately be put to operational use.

Exhibit R-2A, **RDT&E Project Justification:** PB 2020 Defense Threat Reduction Agency										**Date:** March 2019	
Appropriation/Budget Activity 0400 *I* 4				**R-1 Program Element (Number/Name)** PE 0604775BR *I Advanced Component Development and Prototypes*					**Project (Number/Name)** RA *I CWMD Cross-Cutting Technical and Information Sciences*		

COST ($ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
RA: *CWMD Cross-Cutting Technical and Information Sciences*	-	0.000	0.000	14.021	-	14.021	12.564	6.800	6.800	6.700	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The CWMD Cross-Cutting Technical and Information Sciences project develops mature technologies tied to existing programs in the Defense Threat Reduction Agency's Budget Activity (BA) 3, Advanced Technology Development (ATD) portfolio. This project focuses on development and demonstration of high fidelity models and prototypes in appropriate operational environments, evaluation of integrated systems, technology transition, and rapid insertion of CWMD capabilities to meet critical national security and defense priorities. It specifically supports efforts to successfully transition capabilities from the BA3 portfolio to advanced developers or into the hands of end-users for operational experimentation.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: RA: CWMD Cross-Cutting Technical and Information Sciences *Description:* Project RA develops mature technologies tied to existing programs in the Defense Threat Reduction Agency's BA Advanced Technology Development portfolio for transition to advanced developers and rapid insertion into user communities for realistic operational feedback on efficacy. *FY 2019 Plans:* N/A *FY 2020 Base Plans:* - Mature and demonstrate advanced detection and response capabilities across the threat spectrum to respond to end user requirements. - Initiate mature development and prototyping of predictive models for insertion into partner modeling and simulation platforms. - Demonstrate required maturity and complete required data collection to successfully transition CMWD technologies to advanced development partners in response to specific Combatant Command and Service requirements.	0.000	0.000	14.021	0.000	14.021

Exhibit R-2A, RDT&E Project Justification: PB 2020 Defense Threat Reduction Agency		Date: March 2019
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604775BR / Advanced Component Development and Prototypes	**Project (Number/Name)** RA / CWMD Cross-Cutting Technical and Information Sciences

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
- Continue to demonstrate and transition targeting, analytic tools using machine learning, natural language processing, and statistical analytics supporting quick reaction and response capabilities across the CWMD enterprise.					
FY 2020 OCO Plans: N/A					
FY 2019 to FY 2020 Increase/Decrease Statement: The increase from FY 2019 to FY 2020 enables DTRA to further mature and demonstrate capabilities through development of prototypes and testing in appropriate operational environments. This investment helps bridge the developmental gap between science and technology and the advanced developers, effectively increasing the likelihood of transitioning capabilities to the warfighter. The desired end-state is to increase the speed at which capabilities will ultimately be put to operational use. This Project had no investment prior to FY 2020.					
Accomplishments/Planned Programs Subtotals	0.000	0.000	14.021	0.000	14.021

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• 20/0602718BR/RA: Counter Weapons of Mass Destruction Applied Research	40.189	30.603	46.317	0.000	46.317	48.032	49.312	49.896	58.703	Continuing	Continuing
• 28/0603160BR/RA: Counter Weapons of Mass Destruction Advanced Technology Development	17.732	11.286	34.825	0.000	34.825	30.722	32.739	35.660	37.254	Continuing	Continuing

Remarks

D. Acquisition Strategy

Assessment and down-selection of mature technologies to meet specific CWMD capability requirements.

E. Performance Metrics

Percentage of completed demonstrations transitioning each year both into and from Budget Activity (BA) 4, Advanced Component Development and Prototypes (ACD&P) portfolio in support of Strategic Objective 4.1, "Preserve investments to maintain our decisive technological superiority."

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Defense Threat Reduction Agency											Date: March 2019		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604775BR / Advanced Component Development and Prototypes					Project (Number/Name) RA / CWMD Cross-Cutting Technical and Information Sciences			

Product Development ($ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
Advanced Predictive Model Maturation	FFRDC	TBD : TBD	-	-		-		3.200	Jan 2020	-		3.200	Continuing	Continuing	-
Threat Detection Technology Maturation	FFRDC	TBD : TBD	-	-		-		3.021	Jan 2020	-		3.021	Continuing	Continuing	-
Maturation of Targeting and Target Assessment Capabilities	C/CPFF	TBD : TBD	-	-		-		2.800	Jan 2020	-		2.800	Continuing	Continuing	-
Counter-Terrorism Response Capability Development	FFRDC	TBD : TBD	-	-		-		2.800	Jan 2020	-		2.800	Continuing	Continuing	-
Analytic Toolkit Maturation and Transition	C/CPFF	TBD : TBD	-	-		-		2.200	Jan 2020	-		2.200	Continuing	Continuing	-
Subtotal			-	-		-		14.021		-		14.021	Continuing	Continuing	N/A

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	0.000	14.021	-	14.021	Continuing	Continuing	N/A

Remarks

In the first budget year for Budget Activity (BA) 4, Advanced Component Development and Prototypes (ACD&P) funding, the application of funds to technologies within the existing Defense Threat Reduction Agency (DTRA) portfolio will prioritize those technologies that meet the following criteria:
1) Meet a validated, current requirement from a Combatant Command or Service.
2) Are approaching an appropriate level of maturity to transition to either an end-user for operational use and feedback or an advanced development partner.
3) Require a finite amount of additional developmental work required to meet transition needs.
4) Will provide operational capabilities to the warfighter community that enable efforts to counter threat networks.
Appropriate technologies will receive investment to meet these transition requirements and provide improved or new capabilities to the warfighter.

Exhibit R-4, **RDT&E Schedule Profile:** PB 2020 Defense Threat Reduction Agency		**Date:** March 2019
Appropriation/Budget Activity 0400 *I* 4	**R-1 Program Element (Number/Name)** PE 0604775BR *I Advanced Component Development and Prototypes*	**Project (Number/Name)** RA *I CWMD Cross-Cutting Technical and Information Sciences*

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Cross-Cutting Research and Development: Technology Transition																												
Cross-Cutting Research and Development: Technology Transition									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Advanced Predictive Model Maturation									■	■	■	■	■	■														
Threat Detection Technology Maturation									■	■	■	■	■	■	■													
Maturation of Targeting and Target Assessment Capabilities									■	■	■	■	■															
Counter-Terrorism Response Capability Development									■	■	■	■	■	■	■	■												
Analytic Toolkit Maturation and Transition									■	■	■																	

Exhibit R-4A, RDT&E Schedule Details: PB 2020 Defense Threat Reduction Agency		Date: March 2019
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604775BR / *Advanced Component Development and Prototypes*	**Project (Number/Name)** RA / *CWMD Cross-Cutting Technical and Information Sciences*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Cross-Cutting Research and Development: Technology Transition				
Cross-Cutting Research and Development: Technology Transition	2	2020	4	2024
Advanced Predictive Model Maturation	2	2020	2	2021
Threat Detection Technology Maturation	2	2020	3	2021
Maturation of Targeting and Target Assessment Capabilities	2	2020	1	2021
Counter-Terrorism Response Capability Development	2	2020	4	2021
Analytic Toolkit Maturation and Transition	2	2020	4	2020