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Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Defense Threat Reduction Agency **Date:** February 2020

Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 2: Applied Research	R-1 Program Element (Number/Name) PE 0602134BR / Counter Improvised-Threat Advanced Studies
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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	0.000	0.000	1.677	0.000	3.699	3.699	7.340	7.811	7.929	8.127	Continuing	Continuing
JC: Enable Rapid Capability Delivery	0.000	0.000	0.502	0.000	2.500	2.500	6.117	6.564	6.657	6.830	Continuing	Continuing
JS: Assist Situational Understanding	0.000	0.000	1.175	0.000	1.199	1.199	1.223	1.247	1.272	1.297	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Threat Reduction Agency (DTRA) Counter Improvised - Threat Advanced Studies program element (PE) funds technology outreach to produce studies that will drive earlier understanding of technologies and scientific theories for future programs to enhance the Department of Defense's ability to effectively counter asymmetric threats. Asymmetric threats are characterized by an environment in which an adversary employs a combination of conventional weapons, irregular tactics, and/or terrorism to obtain their objectives. The end-state of the PE is to evaluate the feasibility and practicality of research projects, taking the most promising proposals and translating them into practical prototypes for use against asymmetric threats.

Activities within this PE are driven by efforts to understand, anticipate, illuminate, isolate, and mitigate asymmetric threat networks and enable timely research that hastens the development of new capabilities for countering global asymmetric threats, their associated networks, and emerging technologies.

B. Program Change Summary (\$ in Millions)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Previous President's Budget	0.000	1.677	0.000	1.711	1.711
Current President's Budget	0.000	1.677	0.000	3.699	3.699
Total Adjustments	0.000	0.000	0.000	1.988	1.988
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Realignments	-	-	0.000	3.988	3.988
• Defense Wide Review (DWR) adjustments	-	-	0.000	-2.000	-2.000

Change Summary Explanation

The increase from FY 2020 to FY 2021 reflects the net impact of:

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<p>(1) a realignment of funds from PE 0604134BR (Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing) to increase investment in developing materials, devices, and methods for eventual transition to Advanced Technology Development, and</p> <p>(2) Defense-Wide Review (DWR) reduction of -\$2.000 million resulting from the transfer of C-IED programs to the Army to better align RDT&E efforts with the C-IED mission holder. The Army assumes executive agent responsibilities for C-IED R&D programs effective 1 October 2020.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2021 Defense Threat Reduction Agency										Date: February 2020		
Appropriation/Budget Activity 0400 / 2					R-1 Program Element (Number/Name) PE 0602134BR / Counter Improvised-Threat Advanced Studies				Project (Number/Name) JC / Enable Rapid Capability Delivery			
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
JC: Enable Rapid Capability Delivery	0.000	0.000	0.502	0.000	2.500	2.500	6.117	6.564	6.657	6.830	Continuing	Continuing

A. Mission Description and Budget Item Justification

Defense Threat Reduction Agency (DTRA) takes a deliberate, structured, and proactive approach to meet future capability gaps and requirements through continuous study. DTRA enables DoD, the U.S. Government, and International Partners to counter and deter Weapons of Mass Destruction and Improvised Threat networks. The mission is embodied in three capability areas: understand the environment, threats, and vulnerabilities; control, defeat, disable, and dispose of WMD and asymmetric threats; and safeguard the force and manage consequences.

Activities within this project are driven by current and anticipated asymmetric threats. The applied research enables the understanding and shaping of new theories and development of new technologies in support of Combatant Commands and the DoD. The applied research will drive programmatic action to anticipate, illuminate, isolate, and mitigate asymmetric threats.

This project will investigate emerging threat technologies as well as developing analysis support tools that identify emergent capability requirements and associated gaps. It provides timely acquisition and delivery of solutions to address evolving threats.

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

	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Title: JC: Enable Rapid Capability Delivery	0.000	0.502	0.000	2.500	2.500
Description: This project will assess and understand current and emerging technologies that address the evolving asymmetric threat environment.					
FY 2020 Plans: - Identify and develop technologies to neutralize power sources (batteries) within improvised explosive devices or improvised threats through the Working Against Bomb Initiation Techniques project. - Disable power sources (batteries) through physical and chemical mechanisms in a standoff, non-contact manner via the Working Against Bomb Initiation Techniques project.					
FY 2021 Base Plans: N/A					
FY 2021 OCO Plans:					

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
<p>- Support the three U.S. Military Service Academies' CAPSTONE, research efforts, through guidance, mentoring, and funding projects associated with evolving asymmetric threats to foster next-generation research against these threats.</p> <p>- Support and facilitate exploration of progressive technology innovations in three to five white papers that address key asymmetric threats that directly support Combatant Commanders' requirements and grow the pipeline of potential capabilities to counter asymmetric threat networks.</p> <p><i>FY 2020 to FY 2021 Increase/Decrease Statement:</i> The increase from FY 2020 to FY 2021 reflects the net impact of: (1) a realignment of funds from PE 0604134BR (Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing) to increase investment in developing materials, devices, and methods for eventual transition to Advanced Technology Development, and (2) Defense-Wide Review (DWR) reduction of -\$2.000 million resulting from the transfer of C-IED programs to the Army to better align RDTE efforts with the C-IED mission holder. The Army assumes executive agent responsibilities for C-IED R&D programs effective 1 October 2020.</p>					
Accomplishments/Planned Programs Subtotals	0.000	0.502	0.000	2.500	2.500

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021 Base</u>	<u>FY 2021 OCO</u>	<u>FY 2021 Total</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 28/0603134BR/JC: <i>Counter Improvised-Threat Simulation</i>	13.648	49.528	0.000	3.861	3.861	59.179	60.803	61.661	63.394	Continuing	Continuing
• 97/0604134BR/JC: <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	158.660	103.793	0.000	9.841	9.841	29.146	19.430	18.803	18.641	Continuing	Continuing

Remarks

D. Acquisition Strategy
Competitive selection of most appropriate performers to fulfill science and technology development needs.

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Appropriation/Budget Activity 0400 / 2					R-1 Program Element (Number/Name) PE 0602134BR / Counter Improvised-Threat Advanced Studies				Project (Number/Name) JS / Assist Situational Understanding			
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
JS: Assist Situational Understanding	0.000	0.000	1.175	0.000	1.199	1.199	1.223	1.247	1.272	1.297	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project sponsors innovative studies that leverage expertise from academia and world-class research institutions in government and industry. It cultivates research community partnerships and is forward-looking to: help understand the environment, threats and vulnerabilities; anticipate and plan for emerging improvised threats; and leverage innovative approaches for future Counter Improvised Threat (C-IT) solutions to prevent or mitigate battlefield operational surprise in support of Combatant Commands (CCMDs) and deployed Warfighters.

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

	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Title: JS: Assist Situational Understanding	0.000	1.175	0.000	1.199	1.199
Description: This project conducts analytical research studies to counter emerging improvised threats.					
FY 2020 Plans: - Conduct up to five research studies to support counter threat networks and emerging improvised threat efforts. - Support collaborative relationships with the analytical community. - Conduct annual project reviews to ensure progress toward study objectives. - Assess the focus and scope of C-IT challenges within our internal portfolio and across the broader analytic community to synchronize efforts and ensure successful partnerships.					
FY 2021 Base Plans: N/A					
FY 2021 OCO Plans: - Conduct up to five research studies to support countering WMD and improvised threat networks. - Support collaborative relationships with the analytical community. - Conduct annual project reviews to ensure progress toward study objectives. - Assess the focus and scope of C-IT challenges within our internal portfolio and across the broader analytic community to synchronize efforts and ensure successful partnerships. - Focus on identifying and closing gaps in U.S. and Allies' technology vulnerabilities, developing methodologies to counter emerging threat networks, and in forming material solution investments.					
FY 2020 to FY 2021 Increase/Decrease Statement:					

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
No significant change.					
Accomplishments/Planned Programs Subtotals	0.000	1.175	0.000	1.199	1.199

C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• 97/0604134BR/JS: <i>Counter Improvised-Threat Technology Demonstration, Prototype Development, and Testing</i>	10.978	9.797	0.000	10.090	10.090	10.286	10.585	10.887	11.105	Continuing	Continuing

Remarks

D. Acquisition Strategy

Competitive selection of most appropriate performers to fulfill analytical development needs. Performer base includes best-of-breed researchers across the Department of Defense and other government agency laboratories, academia, industry, and international partner organizations.