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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 3: Advanced Technology Development (ATD)</i>	R-1 Program Element (Number/Name) PE 0603920A / <i>Humanitarian Demining</i>
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	-	18.684	21.000	9.068	-	9.068	9.253	9.357	9.363	9.465	0.000	86.190
CD5: <i>Humanitarian Demining</i>	-	18.684	21.000	9.068	-	9.068	9.253	9.357	9.363	9.465	0.000	86.190

A. Mission Description and Budget Item Justification

This Program Element (PE) develops, demonstrates and validates cost-effective technologies for use in humanitarian demining via Outside Continental United States (OCONUS) operational field evaluations. This PE's low-cost and highly effective technology reduces the landmine and unexploded ordnance (UXO) / improvised explosive device (IED) threat to deployed United States (US) forces and the local population. This PE coordinates with the Department of State's Weapons Removal and Abatement Program, the Department of Defense (DoD) Humanitarian Mine Action (HMA) programs of the Combatant Commands (CCMDs), and international mine action organizations and foreign militaries. New technology requirements and areas of emphasis are identified and validated at annual Requirements Workshop and UXO/IED Working Group Meetings. Technology investments are prioritized using the results of these meetings and CCMD security cooperation and theater campaign plan HMA objectives. This PE advances the state-of-the-art of demining technologies and evaluates these technologies utilizing host nation humanitarian demining partners.

This PE supports and bolsters the CCMD stability operations mission as directed under Department of Defense Instruction (DODI) 3000.05 to foster mil-to-mil engagement, and bolster economic security and development with partner nations worldwide. Additionally, this PE fosters nations' mine action capacity while improving DoD's visibility and access, generating long-term positive perceptions of DoD and the US, and fostering collaborative relationships with host nation governments. It also directly supports the National Defense Strategy through ensuring common domains remain open and free.

This PE utilizes a research and development plan based on operational test data gained through Operational Field Evaluations (OFEs). These OFEs provide this PE a unique capability to collect this data against live mines/UXO in actual minefields around the world. This data is unavailable to any other DoD organization. This OFE data drives future humanitarian demining investment decisions and is shared and leveraged by the U.S. Army's Army Futures Command programs to further improve U.S. forces' technologies. In addition, this PE provides mine and UXO detector training to the CCMDs at the Humanitarian Demining Training Center (HDTC) in support of Military to Military training and partnerships. Since 1995 the program has fielded technologies for 234 evaluations in 43 countries, including Afghanistan, Angola, Cambodia, Colombia, Iraq, Kosovo, Ukraine, and Vietnam. This program's technologies have cleared 71.2 million square meters of the world's toughest minefields, and found or destroyed 213,220 mines and UXO.

This PE supports the DoD's strategic guidance to address instability and reduce the demand for significant US force commitments to stability operations; with DOD) 3000.05 (Stability Operations) and Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3207.01C (Department of Defense Support to Humanitarian Mine Action) to reduce the social, economic and environmental impact of landmines and unexploded ordnance.

This PE will be executed by the Army Futures Command (AFC).

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B. Program Change Summary (\$ in Millions)	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024 Base</u>	<u>FY 2024 OCO</u>	<u>FY 2024 Total</u>
Previous President's Budget	19.000	8.933	9.028	-	9.028
Current President's Budget	18.684	21.000	9.068	-	9.068
Total Adjustments	-0.316	12.067	0.040	-	0.040
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	12.067			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.316	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	0.040	-	0.040

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: CD5: *Humanitarian Demining*

Congressional Add: *Program Increase*

	<u>FY 2022</u>	<u>FY 2023</u>
Congressional Add Subtotals for Project: CD5	10.351	12.067
Congressional Add Totals for all Projects	10.351	12.067

Change Summary Explanation

Increased funding due to revised economic assumptions.

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Appropriation/Budget Activity 2040 / 3					R-1 Program Element (Number/Name) PE 0603920A / Humanitarian Demining				Project (Number/Name) CD5 / Humanitarian Demining			
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
CD5: Humanitarian Demining	-	18.684	21.000	9.068	-	9.068	9.253	9.357	9.363	9.465	0.000	86.190
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project develops, demonstrates and validates cost-effective technologies for use in humanitarian demining via Outside Continental United States (OCONUS) operational field evaluations. This Project's low-cost and highly effective technology reduces the landmine and unexploded ordnance (UXO) / improvised explosive device (IED) threat to deployed United States (US) forces and the local population. This Project coordinates with the Department of State's Weapons Removal and Abatement Program, the Department of Defense (DoD) Humanitarian Mine Action (HMA) programs of the Combatant Commands (CCMDs), and international mine action organizations and foreign militaries. New technology requirements and areas of emphasis are identified and validated at annual Requirements Workshop and UXO/IED Working Group Meetings. Technology investments are prioritized using the results of these meetings and CCMD security cooperation and theater campaign plan HMA objectives. This Project advances the state-of-the-art of demining technologies and evaluates these technologies utilizing host nation humanitarian demining partners.

This Project supports and bolsters the CCMD stability operations mission as directed under Department of Defense Instruction (DODI) 3000.05 to foster mil-to-mil engagement, and bolster economic security and development with partner nations worldwide. Additionally, this Project fosters nations' mine action capacity while improving DoD's visibility and access, generating long-term positive perceptions of DoD and the US, and fostering collaborative relationships with host nation governments. It also directly supports the National Defense Strategy through ensuring common domains remain open and free.

This Project utilizes a research and development plan based on operational test data gained through Operational Field Evaluations (OFEs). These OFEs provide this Project a unique capability to collect this data against live mines/UXO in actual minefields around the world. This data is unavailable to any other DoD organization. This OFE data drives future humanitarian demining investment decisions and is shared and leveraged by the U.S. Army's Army Futures Command programs to further improve U.S. forces' technologies. In addition, this Project provides mine and UXO detector training to the CCMDs at the Humanitarian Demining Training Center (HDTTC) in support of Military to Military training and partnerships. Since 1995 the program has fielded technologies for 234 evaluations in 43 countries, including Afghanistan, Angola, Cambodia, Colombia, Iraq, Kosovo, Ukraine, and Vietnam. This program's technologies have cleared 71.2 million square meters of the world's toughest minefields, and found or destroyed 213,220 mines and UXO.

This Project supports the DoD's strategic guidance to address instability and reduce the demand for significant US force commitments to stability operations; with DOD 3000.05 (Stability Operations) and Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3207.01C (Department of Defense Support to Humanitarian Mine Action) to reduce the social, economic and environmental impact of landmines and unexploded ordnance.

This Project will be executed by the Army Futures Command (AFC).

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

	FY 2022	FY 2023	FY 2024
Title: Humanitarian Demining Technologies	8.333	8.607	9.068

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Appropriation/Budget Activity 2040 / 3	R-1 Program Element (Number/Name) PE 0603920A / Humanitarian Demining	Project (Number/Name) CD5 / Humanitarian Demining		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>Description: This effort adapts commercial-off-the-shelf equipment, integrates mature technologies, and leverages research and development activity within the Army, particularly the AFC CCDC Command, Control, Communications, Computers, Combat Systems, Intelligence, Surveillance, and Reconnaissance (C5ISR) Tactical Countermining mission area. This effort supports the DoD HMA programs of the CCMDs and aims to improve existing technologies for mine/UXO detection, technical survey/area reduction, mechanical mine/UXO clearance, vegetation clearance, and mechanical mine neutralization.</p> <p>FY 2023 Plans: Develop and mature technologies to improve mine/UXO detection, vegetation clearance, and mechanical mine neutralization capabilities. Demonstrate and validate emerging mine/UXO defeat technologies and capabilities in live threat environments. Continue execution of threat surveys and site assessments. Execute annual HD R&D requirements workshop to define global technology needs for humanitarian mine action. Continue the ongoing successful operational evaluations from FY22.</p> <p>FY 2024 Plans: Will develop and mature technologies to improve mine/UXO detection, vegetation clearance, and mechanical mine neutralization capabilities in support of Geographic Combatant Command humanitarian mine action priorities. Will demonstrate and validate emerging mine/UXO defeat technologies and capabilities in live threat environments. Will continue operational field evaluations from FY2023 of emerging mine / UXO defeat technologies. Will transition new detection and mechanical clearance technologies to six additional countries for use in clearance operations. Will continue execution of threat surveys and site assessments. Will conduct biannual Humanitarian Demining R&D UXO Working Group Meeting to prioritize global needs for UXO detection and clearance technologies.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Funding change reflects planned lifecycle of this effort.</p>				
<p>Title: SBIR/STTR Transfer</p> <p>Description: Funding transferred in accordance with Title 15 USC §638.</p> <p>FY 2023 Plans: Funding transferred in accordance with Title 15 USC §638.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Funding transferred in accordance with Title 15 USC §638.</p>		-	0.326	-
Accomplishments/Planned Programs Subtotals		8.333	8.933	9.068
		FY 2022	FY 2023	
Congressional Add: Program Increase		10.351	12.067	

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	FY 2022	FY 2023
<i>FY 2022 Accomplishments:</i> Congressional Interest Item funding provided		
<i>FY 2023 Plans:</i> Congressional Interest Item funding provided		
Congressional Adds Subtotals	10.351	12.067

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A