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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 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0605038A / <i>Nuclear Biological Chemical Reconnaissance Vehicle (NBCRV) Sensor Suite</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	0.000	7.340	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.340
EQ7: <i>NBC Reconnaissance Vehicle (NBCRV) Sensor Suite</i>	-	7.340	-	-	-	-	-	-	-	-	0.000	7.340

A. Mission Description and Budget Item Justification

Nuclear Biological Chemical Reconnaissance Vehicle Sensor Suite Upgrade (NBCRV SSU) modernizes the legacy NBCRV sensor suite and provides maneuver formations the ability to conduct mounted reconnaissance and surveillance missions of Chemical Biological Radiological and Nuclear (CBRN) named areas of interest (NAIs). NBCRV SSU is being procured because a modern and capable NBCRV SSU is a critical component for Joint Force success when operating in the complex CBRN environment. Additionally, operating with combat vehicles fighting against increasingly capable and determined enemies requires like capability with regard to protection, mobility, and lethality. NBCRV SSU will accomplish this by integrating the capability for command and control of unmanned systems with CBRN payload. NBCRV SSU will provide a CBRN detection, tipping and queueing to accomplish desired standoff distances to keep the warfighter out of harm's way and reduce sustainment costs over the current system.

B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	7.618	0.000	0.000	-	0.000
Current President's Budget	7.340	0.000	0.000	-	0.000
Total Adjustments	-0.278	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.278	-			
• SBIR/STTR Transfer	-	-			

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

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605038A / Nuclear Biological Chemical / Reconnaissance Vehicle (NBCRV) Sensor Suite	Project (Number/Name) EQ7 / NBC Reconnaissance Vehicle (NBCRV) Sensor Suite
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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
EQ7: NBC Reconnaissance Vehicle (NBCRV) Sensor Suite	-	7.340	-	-	-	-	-	-	-	-	0.000	7.340
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Nuclear Biological Chemical Reconnaissance Vehicle Sensor Suite Upgrade (NBCRV SSU) provides maneuver formations the ability to conduct mounted Chemical Biological Radiological and Nuclear (CBRN) reconnaissance and surveillance. The NBCRV SSU will answer the commander's priority intelligence requirements & facilitate proactive risk-based decisions, to ensure freedom of action and maintain maneuver momentum in Large Scale Combat Operations. NBCRV SSU is an ACAT II modification work order (MWO) effort to modernize the current NBCRV Sensor Suite to increase maintainability, reliability, maneuverability of the force, and standoff distance from the threat, via enhanced CBRN standoff capabilities & integrating onto robotics for manned unmanned teaming.

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

	FY 2022	FY 2023	FY 2024
Title: Product Development and Unmanned Platform Integration	6.775	-	-
Description: Development of CSD, radiological detectors, standoff chemical vapor detector, unmanned platform identification and integration, Government strategic planning, system engineering, logistics, training, and Integrated Product Team (IPT) support.			
Title: Program Management and Oversight	0.565	-	-
Description: Program Management and Oversight			
Accomplishments/Planned Programs Subtotals	7.340	-	-

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

N/A

Remarks

D. Acquisition Strategy

Nuclear Biological Chemical Reconnaissance Vehicle Sensor Suite Upgrade (NBCRV SSU) is an upgrade for the Stryker NBCRV. The Army Requirements Oversight Council (AROC) Review Board (ARB) decided on 1 FEB 2022 to continue a Modification Work Order (MWO) pathway for Capability Set 2.1 (CS2.1) (initial SSU capability) as a bridge to CS2.2 (full SSU capability). The NBCRV SSU program received prototype CS2.1 systems via Other Transaction Authority (OTA) in March 2022, and will continue testing through October 2023, to inform a Conditional Materiel Release Decision in FY24. An In Progress Review (IPR) will be held starting

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in FY23 to execute an MWO for CS2.1 production and fielding, starting in FY24. The NBCRV SSU program will receive prototype CS2.2 systems via another OTA in August 2024, followed by testing in FY24 through early FY26 to inform the CS2.2 MWO Full Materiel Release Decision in FY26.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army												Date: March 2023			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
2040 / 5				PE 0605038A / Nuclear Biological Chemical / Reconnaissance Vehicle (NBCRV) Sensor Suite				EQ7 / NBC Reconnaissance Vehicle (NBCRV) Sensor Suite							
Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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
Project Management Personnel	MIPR	JPEO-CBRND : Edgewood, MD	3.114	0.565	Nov 2021	-		-		-		-	Continuing	Continuing	Continuing
Subtotal			3.114	0.565		-		-		-		-	Continuing	Continuing	N/A
Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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
Product Development and Sensor Integration	C/Various	Various : Various	21.440	3.421	Nov 2021	-		-		-		-	Continuing	Continuing	Continuing
Subtotal			21.440	3.421		-		-		-		-	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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
Test and Evaluation	MIPR	ECBC : Edgewood, MD	1.483	3.354	Nov 2021	-		-		-		-	Continuing	Continuing	Continuing
Subtotal			1.483	3.354		-		-		-		-	Continuing	Continuing	N/A
Project Cost Totals			26.037	7.340		-		-		-		-	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605038A / Nuclear Biological Chemical / Reconnaissance Vehicle (NBCRV) Sensor Suite	Project (Number/Name) EQ7 / NBC Reconnaissance Vehicle (NBCRV) Sensor Suite

Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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
Design and Fabrication Phase 2 (CS2.1)	█																											
Component Test & System Level Test 1	█				█																							
Limited User Test (LUT)									█																			
Modification Work Order IPR									█																			

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army		Date: March 2023
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605038A / <i>Nuclear Biological Chemical / Reconnaissance Vehicle (NBCRV) Sensor Suite</i>	Project (Number/Name) EQ7 / <i>NBC Reconnaissance Vehicle (NBCRV) Sensor Suite</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Design and Fabrication Phase 2 (CS2.1)	2	2020	2	2022
Component Test & System Level Test 1	4	2021	1	2024
Limited User Test (LUT)	4	2023	1	2024
Modification Work Order IPR	3	2023	3	2024