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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Army **Date:** April 2022

Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 0203758A / Digitization
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	-	4.351	3.903	2.100	-	2.100	2.106	2.148	2.148	2.191	Continuing	Continuing
374: HOR Battlefield Digitizn	-	4.351	3.903	2.100	-	2.100	2.106	2.148	2.148	2.191	Continuing	Continuing

A. Mission Description and Budget Item Justification

As the Army Equipping methodology transitions to the Army Modernization Enterprise or AME the information technology used to support Army Equipping must grow and change. The development of an upgraded Army Equipping Enterprise System (AE2S) will integrate and share programming data (dollars and quantities) with information from IT systems that support the Army Futures Command (AFC), ASA(ALT), ASA(FM&C) and Army G3/5/7. This data sharing will allow the AME to provide Army Senior Leaders with a complete picture of how well programs are executing, the impacts of programming decisions on Army current and future readiness and modernization, and help develop a road map needed to transition the current force to a fully modernize Army. The AE2S next generation capability requirements include a flexible data and software architectures that allows the user to integrate disparate data from differing architectures in order to develop new information that can be turned into actionable knowledge by senior leaders. The software architecture must have data visualization capabilities that allow the user to display data in ways that can articulate how AME decisions made impact warfighting effectiveness and plans.

B. Program Change Summary (\$ in Millions)

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	4.351	3.936	0.000	-	0.000
Current President's Budget	4.351	3.903	2.100	-	2.100
Total Adjustments	0.000	-0.033	2.100	-	2.100
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	2.100	-	2.100
• FFRDC Transfer	-	-0.033	-	-	-

Change Summary Explanation

FY 2022 funding decreased due to FFRDC adjustments to Budget Years.
 FY 2023 funding decrease reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
374: HOR Battlefield Digitizn	-	4.351	3.903	2.100	-	2.100	2.106	2.148	2.148	2.191	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

As the Army Equipping methodology transitions to the Army Modernization Enterprise or AME the information technology used to support Army Equipping must grow and change. The development of an upgraded Army Equipping Enterprise System (AE2S) will integrate and share programming data (dollars and quantities) with information from IT systems that support the Army Futures Command (AFC), ASA(ALT), ASA(FM&C) and Army G3/5/7. This data sharing will allow the AME to provide Army Senior Leaders with a complete picture of how well programs are executing, the impacts of programming decisions on Army current and future readiness and modernization, and help develop a road map needed to transition the current force to a fully modernize Army. The AE2S next generation capability requirements include a flexible data and software architectures that allows the user to integrate disparate data from differing architectures in order to develop new information that can be turned into actionable knowledge by senior leaders. The software architecture must have data visualization capabilities that allow the user to display data in ways that can articulate how AME decisions made impact warfighting effectiveness and plans.

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

	FY 2021	FY 2022	FY 2023
<p>Title: Interoperability and Integration</p> <p>Description: Funds are to be used for the following efforts.</p> <p>FY 2022 Plans: Contractor continues to conduct independent analyses of Army, joint, and multinational interfaces, adherence to standards, implementation profiles, and interoperability baselines.</p> <p>FY 2023 Plans: Contractor will continue to conduct independent analyses of Army, joint, and multinational interfaces, adherence to standards, implementation profiles, and interoperability baselines.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Decrease is based on decrease in requirements.</p>	1.047	0.901	0.312
<p>Title: Operational Capability Analysis and Evaluation</p> <p>Description: Funds are to be used for the following efforts.</p> <p>FY 2022 Plans:</p>	1.011	0.866	0.301

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
<p>Contractor continues to conduct iterative capability analyses and assessments consistent with CJCSI 3170 (JCIDS) and 6212 (Net Readiness) to ensure Army and joint program technical and operational requirements are consistent. Efforts support Army and joint initiatives.</p> <p>FY 2023 Plans: Contractor will continue to conduct iterative capability analyses and assessments consistent with CJCSI 3170 (JCIDS) and 6212 (Net Readiness) to ensure Army and joint program technical and operational requirements are consistent. Efforts support Army and joint initiatives.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Decrease is based on decrease in requirements.</p>				
<p>Title: Systems Architecture Development</p> <p>Description: Funds are to be used for the following efforts.</p> <p>FY 2022 Plans: FFRDC contractor continues to conduct broad concept studies with emphasis on interoperability and joint coalition operations.</p> <p>FY 2023 Plans: FFRDC contractor will continue to conduct broad concept studies with emphasis on interoperability and joint coalition operations.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Decrease is based on decrease in requirements.</p>		0.770	0.633	0.508
<p>Title: AE2S Software</p> <p>Description: Procures AE2S software integration and enhancements for the single program language, single platform system that incorporates FDIIS, CEaVa, COP, and AFM.</p> <p>FY 2022 Plans: Contractor continues to incorporate the development of new applications to satisfy Strategic Portfolio Analysis Review (SPAR), Sustainment Program Evaluation Group (SS PEG), and Equipping PEG (EE PEG) Manpower.</p> <p>FY 2023 Plans: Contractor will continue to incorporate the development of new applications to satisfy Strategic Portfolio Analysis Review (SPAR), Sustainment Program Evaluation Group (SS PEG), and Equipping PEG (EE PEG) Manpower.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Increase is based on increase in requirements.</p>		0.558	0.566	0.596
<p>Title: Technical Reviews and Technical Performance Analysis</p>		0.825	0.686	0.241

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
<p>Description: Funds are to be used for the following efforts.</p> <p>FY 2022 Plans: Contractor continues to provide technology maturity assessments, prepare technical recommendations in support of Army Transformation and specific technologies of interest, including test and evaluate network systems, and infrastructure modeling and simulations to the G-8.</p> <p>FY 2023 Plans: Contractor will continue to provide technology maturity assessments, prepare technical recommendations in support of Army Transformation and specific technologies of interest, including test and evaluate network systems, and infrastructure modeling and simulations to the G-8.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Decrease is based on decrease in requirements.</p>				
<p>Title: Academic Research</p> <p>Description: Apply university academic and research resources to the integration of Army complex modeling, simulation, and training in support of modernized forces.</p> <p>FY 2022 Plans: Contractor continues to apply university academic and research resources to the integration of Army complex modeling, simulation, and training in support of modernized forces.</p> <p>FY 2023 Plans: Contractor will continue to apply university academic and research resources to the integration of Army complex modeling, simulation, and training in support of modernized forces.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Increase is due to inflation.</p>		0.140	0.107	0.142
<p>Title: FY22 SBIR/STTR Transfer</p> <p>Description: FY22 SBIR/STTR Transfer in accordance with Title 15 USC ?638</p> <p>FY 2022 Plans: Funding transferred in accordance with Title 15 USC ?638</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement:</p>		-	0.144	-

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
Funding transferred in accordance with Title 15 USC ?638			
Accomplishments/Planned Programs Subtotals	4.351	3.903	2.100

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

N/A

Remarks

D. Acquisition Strategy

The AE2S development will be done through either a competitive Cost Plus or Fixed Price Incentive contracts that will deliver capabilities in increments, recognizing up front the need for future improvements. The objective of the strategy is to develop and optimize system capabilities while reducing risk and streamlining business and engineering processes.

FFRDC requirements will be accomplished by competitive contract.

Other efforts will be accomplished by various contract methods and types.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army **Date:** April 2022

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Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Digitization Technical Integration	Various	Various : Various	5.556	-		-		-		-		-	0.000	5.556	-
Joint & Coalition Interoperability	Various	Various : Various	5.091	-		-		-		-		-	0.000	5.091	-
FY 2018 NDAA SEC 825 MDAP Cost Overrun	TBD	FY 2018 NDAA SEC 825 MDAP Cost Overrun : FY 2018 NDAA SEC 825 MDAP Cost Overrun	0.028	-		-		-		-		-	0.000	0.028	-
FY22 SBIR/STTR Transfer	TBD	Various : Various	-	-		0.144	Mar 2022	-		-		-	0.000	0.144	-
Subtotal			10.675	-		0.144		-		-		-	0.000	10.819	N/A

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Army Equipping Enterprise SYstem (AE2S) Software	C/CPFF	TBD : TBD	11.096	0.558		0.566		0.596		-		0.596	Continuing	Continuing	Continuing
Cross-Platform Development	Various	TBD : TBD	3.605	-		-		-		-		-	0.000	3.605	-
Subtotal			14.701	0.558		0.566		0.596		-		0.596	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Interoperability and Integration	Various	Various : Various	8.998	1.047		0.901		0.312		-		0.312	0.000	11.258	-
Operational Capability Analysis and Evaluation	Various	VAR : VAR	8.338	1.011		0.866		0.301		-		0.301	0.000	10.516	-
Academic Research	Various	Various : Various	3.371	0.140		0.107		0.142		-		0.142	0.000	3.760	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army **Date:** April 2022

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Event Name	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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
Interoperability and Integration																												
Operational Capability Analysis and Evaluation																												
Systems Architecture Development 5.0																												
Army Equipping Enterprise System (AE2S) Software SW 5.0																												
Technical Reviews and Technical Performance Analysis																												
Academic Research																												

Note
None.

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Army **Date:** April 2022

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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Interoperability and Integration	1	2016	4	2023
Operational Capability Analysis and Evaluation	1	2016	4	2022
Systems Architecture Development 1.0	2	2015	2	2016
Systems Architecture Development 2.0	3	2016	3	2017
Systems Architecture Development 3.0	4	2017	4	2018
Systems Architecture Development 4.0	1	2019	1	2020
Systems Architecture Development 5.0	2	2020	4	2021
Army Equipping Enterprise System (AE2S) Software SW 1.0	2	2015	2	2016
Army Equipping Enterprise System (AE2S) Software SW 2.0	3	2016	3	2017
Army Equipping Enterprise System (AE2S) Software SW 3.0	4	2017	4	2018
Army Equipping Enterprise System (AE2S) Software SW 4.0	1	2019	1	2020
Army Equipping Enterprise System (AE2S) Software SW 5.0	2	2020	4	2021
Technical Reviews and Technical Performance Analysis	1	2015	4	2022
Academic Research	3	2015	4	2022