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**Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Army** **Date:** February 2020

<b>Appropriation/Budget Activity</b> 2040: Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development					<b>R-1 Program Element (Number/Name)</b> PE 0205412A / Environmental Quality Technology - Operational System Dev							
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	-	0.249	10.000	0.259	-	0.259	0.265	0.775	0.283	0.286	0.000	12.117
EE6: Environmental Information Tech Modernization	-	0.249	10.000	0.259	-	0.259	0.265	0.775	0.283	0.286	0.000	12.117

**A. Mission Description and Budget Item Justification**

The Environmental Information Technology Management (EITM) program includes support for the Defense Environment, Safety & Occupational Health Network Information Exchange (DENIX) defense business system, as well as its database and reporting application, the Knowledge Based Corporate Reporting System (KBCRS). This request for research, development, test and evaluation (RDTE) is to implement necessary enhancements to facilitate DENIX's Platform-as-a-Service capabilities, with additional modernizations that will improve the DoD's ESOH system of record and reporting tool set. This also includes upgrades to incorporate ongoing cybersecurity, cloud computing, and other information technology requirements.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>
Previous President's Budget	0.249	0.732	0.259	-	0.259
Current President's Budget	0.249	10.000	0.259	-	0.259
Total Adjustments	0.000	9.268	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-0.732			
• Congressional Rescissions	-	-			
• Congressional Adds	-	10.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

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

**Project:** EE6: Environmental Information Tech Modernization

Congressional Add: Securing the availability of green, enhanced coatings

	FY 2019	FY 2020
	-	10.000
Congressional Add Subtotals for Project: EE6	-	10.000
Congressional Add Totals for all Projects	-	10.000

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2021 Army										<b>Date:</b> February 2020		
<b>Appropriation/Budget Activity</b> 2040 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0205412A / <i>Environmental Quality Technology - Operational System Dev</i>				<b>Project (Number/Name)</b> EE6 / <i>Environmental Information Tech Modernization</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021 Base</b>	<b>FY 2021 OCO</b>	<b>FY 2021 Total</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
EE6: <i>Environmental Information Tech Modernization</i>	-	0.249	10.000	0.259	-	0.259	0.265	0.775	0.283	0.286	0.000	12.117
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The Environmental Information Technology Management (EITM) program includes support for the Defense Environment, Safety & Occupational Health Network and Information Exchange (DENIX) defense business system, as well as its database and reporting application, the Knowledge Based Corporate Reporting System (KBCRS). This request for research, development, test, and evaluation (RDTE) is to implement necessary enhancements to facilitate DENIX's Platform-as-a-Service (PaaS) capabilities, with additional modernizations that will improve the DoD's ESOH system of record and reporting tool set. This also includes upgrades to incorporate ongoing cybersecurity, cloud computing, and other information technology requirements.

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

	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>
<b>Title:</b> Environmental Information Technology Modernization	0.249	-	0.259
<b>Description:</b> Prototype, develop, and implement platform enhancements as required to meet data management requirements for the Defense Environment, Safety & Occupational Health Network and Information Exchange (DENIX) and its reporting application, the Knowledge Based Corporate Reporting System (KBCRS).			
<b>FY 2021 Plans:</b> The DENIX platform will continue to use machine learning algorithms to ?learn? the business processes and rules used by OSD for the environmental data calls (Defense Environmental Programs Annual Report to Congress and the Environmental Management Review). ?Learning? this information will pave the way for the prototyping of a tool that will allow KBCRS to predict anomalies and trends in data input, improving data quality.			
<b>FY 2020 to FY 2021 Increase/Decrease Statement:</b> The EITM program requests a steady state of funding each year to implement necessary enhancements to facilitate DENIX's Platform-as-a-Service capability. Every three years, the program requests additional funding to implement and modernize DENIX, the DoD's system of record and reporting tool st for environment, safety and occupation health.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.249	-	0.259

	<b>FY 2019</b>	<b>FY 2020</b>
<b>Congressional Add:</b> Securing the availability of green, enhanced coatings	-	10.000

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**Exhibit R-2A, RDT&E Project Justification:** PB 2021 Army **Date:** February 2020

<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0205412A / <i>Environmental Quality Technology - Operational System Dev</i>	<b>Project (Number/Name)</b> EE6 / <i>Environmental Information Tech Modernization</i>
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	<b>FY 2019</b>	<b>FY 2020</b>
<b>FY 2020 Plans:</b> Securing the availability of green, enhanced coatings		
<b>Congressional Adds Subtotals</b>	-	10.000

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

<u>Line Item</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u> <u>Base</u>	<u>FY 2021</u> <u>OCO</u>	<u>FY 2021</u> <u>Total</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• OMA - 432612000: <i>Information Mgmt - Automation</i>	-	-	-	-	-	-	-	-	-	-	

**Remarks**

Information Mgmt - Automation 43261200 - This is the associated OMA line that provides daily support for the DoD Environment, Safety & Occupational Health Network Information Exchange and associated applications. EITM is managed as a Defense Business System #3180.

**D. Acquisition Strategy**

The Deputy Assistant Secretary of the Army for Environment, Safety & Occupational Health is the designated Executive Agent for the Environmental Information Technology Management (EITM) program. Defined by the DoD Directive 4715.1E, the EITM mission is to ensure efficient use of enterprise environment, safety, and occupational health (ESOH) corporate information management processes by providing and sustaining requirement-driven ESOH corporate data management, Congressional-reporting, and public outreach tools to the DoD, and other DoD stakeholders. Funding provided for this program will allow EITM to continue to develop and modernize the platform to meet Army and DoD policy-driven cloud computing and cybersecurity requirements. Prior to funding being committed, DoD ESOH stakeholders and authoritative information technology organizations were consulted to determine necessary system interface upgrades to be incorporated. Expanding DENIX's architecture to create a Level 2 container separate from the current Level 4 container will not only provide a more secure, cybersecurity risk-adverse environment, but it will also optimize performance, capabilities, and mandatory reporting for ESOH stakeholders using a PaaS delivery model. This phased solution begins in FY 2018 by prototyping of system architecture optimization that improves user experience, enabling web conferencing in FY 2019 and applying machine learning concepts to improve data quality in FY 2020-2022.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Army** **Date:** February 2020

<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0205412A / <i>Environmental Quality Technology - Operational System Dev</i>	<b>Project (Number/Name)</b> EE6 / <i>Environmental Information Tech Modernization</i>
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<b>Product Development (\$ in Millions)</b>				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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			
System enhancements for required network interfaces to support EITM mission.	C/FFP	Delta Resources : Alexandria, VA	0.457	0.249		-		0.259		-		0.259	0.000	0.965	-
Congressional Add - securing the availability of green, enhanced coatings	TBD	TBD : TBD	-	-		10.000		-		-		-	0.000	10.000	-
<b>Subtotal</b>			0.457	0.249		10.000		0.259		-		0.259	0.000	10.965	N/A
<b>Project Cost Totals</b>			0.457	0.249		10.000		0.259		-		0.259	0.000	10.965	N/A

**Remarks**  
The \$10,000 from FY20 is a congressional addition. The \$10,000 is misaligned into this PE/PROJ.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2021 Army</b>		<b>Date:</b> February 2020
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0205412A / <i>Environmental Quality Technology - Operational System Dev</i>	<b>Project (Number/Name)</b> EE6 / <i>Environmental Information Tech Modernization</i>

Event Name	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025			
	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
Split architecture prototype																												
User experience and containerization																												
Webinars/virtual conferencing prototype and development																												
Machine learning algorithms																												
Machine learning prototype																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2021 Army		<b>Date:</b> February 2020
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0205412A / <i>Environmental Quality Technology - Operational System Dev</i>	<b>Project (Number/Name)</b> EE6 / <i>Environmental Information Tech Modernization</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Split architecture prototype	2	2019	2	2020
User experience and containerization	3	2019	3	2021
Webinars/virtual conferencing prototype and development	1	2020	4	2020
Machine learning algorithms	1	2020	4	2021
Machine learning prototype	4	2020	4	2022