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

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604289M / <i>Expeditionary Logistics</i>
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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	22.127	4.827	8.071	2.342	-	2.342	2.408	3.538	3.656	3.721	Continuing	Continuing
2741: <i>Additive Manufacturing</i>	7.646	0.000	1.071	2.342	-	2.342	2.408	3.538	3.656	3.721	Continuing	Continuing
9999: <i>Congressional Adds</i>	14.481	4.827	7.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	26.308

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

This program element supports cost associated with the research and development of Marine Corps Systems Command policy, acquisition process modifications, and prototyping to support the USMC Additive Manufacturing (AM) Initiative.

The USMC Additive Manufacturing Initiative is an initiative intended to give Marine units access to additive manufacturing techniques to allow them the opportunity to exercise innovation in the resolution of issues affecting unit combat readiness. This PE will support of the development of procedures to enable the approval and manufacturing of items requested from Marines. This involves the development of Marine Corps Policy, an approval process, engineering analysis and testing, establishment of facilities to produce prototype additive manufactured parts and development of training to support the Marine Corps use of additive manufacturing. This initiative incorporates development of strategic partnerships with other DoN Systems Commands and field activities to develop DoN standards, processes and other associated acquisition activities to support future use of additive manufacturing in DoN acquisition and readiness areas.

The Next Generation Logistics (NexLog) project supports cost associated with the research and development, experimentation and limited, rapid fielding of emerging logistics capabilities necessary to enable the Fleet Marine Forces to execute the Marine Corps Operating Concept and inform logistics policies. These emerging logistics capabilities include development of autonomous ground, surface and sub-surface materiel distribution systems; development of operational and tactical, in-field digital fabrication capabilities; and, the development of sensor-driven logistics information technology. This element also supports development of strategic partnerships with DoN Systems Commands and field activities in order to leverage their capabilities and align DoN standards and processes, while furthering the use of additive manufacturing, and other emerging logistics technologies, to increase warfighter readiness, capability, survivability and effectiveness.

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<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604289M / <i>Expeditionary Logistics</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	5.000	1.071	0.000	-	0.000
Current President's Budget	4.827	8.071	2.342	-	2.342
Total Adjustments	-0.173	7.000	2.342	-	2.342
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	7.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.173	0.000			
• Rate/Misc Adjustments	0.000	0.000	0.000	-	0.000
• Adjustments to Budget Year	-	-	2.342	-	2.342

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

**Project:** 9999: *Congressional Adds*

Congressional Add: *Alternative Tactical Power and Battery Research*

Congressional Add: *Automated Parts Screening and Selection Tool for Additive Manufacturing*

Congressional Add: *Hydrogen fuel cell technology*

Congressional Add: *Predictive maintenance for Navy and Marine Corps weapons systems*

Congressional Add Subtotals for Project: 9999

Congressional Add Totals for all Projects

	<b>FY 2021</b>	<b>FY 2022</b>
Congressional Add: <i>Alternative Tactical Power and Battery Research</i>	2.896	0.000
Congressional Add: <i>Automated Parts Screening and Selection Tool for Additive Manufacturing</i>	1.931	0.000
Congressional Add: <i>Hydrogen fuel cell technology</i>	0.000	2.000
Congressional Add: <i>Predictive maintenance for Navy and Marine Corps weapons systems</i>	0.000	5.000
<b>Congressional Add Subtotals for Project: 9999</b>	<b>4.827</b>	<b>7.000</b>
<b>Congressional Add Totals for all Projects</b>	<b>4.827</b>	<b>7.000</b>

**Change Summary Explanation**

Decrease of \$5.729M from FY 2022 to FY 2023 primarily due to the following Congressional Adds:

1) Decrease of \$2.0M from FY 2022 to FY 2023 due to Congressional Add in FY 2022 to initiate the development and evaluation of a hydrogen powered unmanned ground vehicle.

2) Decrease of \$5.0M from FY 2022 to FY 2023 was a result of a congressional plus-up for Predictive Maintenance for Navy and Marine Corps Weapons Systems.

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FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Navy										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 1319 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0604289M / <i>Expeditionary Logistics</i>				<b>Project (Number/Name)</b> 2741 / <i>Additive Manufacturing</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2741: <i>Additive Manufacturing</i>	7.646	0.000	1.071	2.342	-	2.342	2.408	3.538	3.656	3.721	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

This project supports costs associated with the research and development of Marine Corps Systems Command acquisition process modifications, prototyping, and future logistics innovations to support the USMC Additive Manufacturing (AM) Initiative under the direction of Marine Corps Systems Command. This PE is the DoN's sole investment in the 3D printing of buildings, bridges and metal landing crafts and other large scale constructs. The USMC Additive Manufacturing Initiative is an initiative intended to give Marine units access to additive manufacturing techniques to allow them the opportunity to exercise innovation in the resolution of issues affecting unit combat readiness.

This effort supports the development of procedures to enable the approval and manufacturing of items requested from Marines. This involves the development of Marine Corps Policy, the digital data repository required to share equipment technical data and part designs, a part approval process, engineering analysis and testing, establishment of facilities to produce prototype additive manufactured parts and development of training to support the Marine Corps use of additive manufacturing. This initiative incorporates development of strategic partnerships with other DoN Systems Commands and field activities to develop DoN Standards, Processes and other associated acquisition activities to support future use of additive manufacturing in DoN Acquisition and Readiness areas.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
<b>Title:</b> Additive Manufacturing	0.000	1.071	2.342	0.000	2.342
<b>Articles:</b>	-	-	-	-	-
<b>FY 2022 Plans:</b>					
- Initiate the design and development of the digital data repository that is critical to sharing technical data across the Marine Corps and with other Department of Defense (DoD) Services and the Defense Logistics Agency (DLA).					
<b>FY 2023 Base Plans:</b>					
- Continue the development and implementation of the digital data repository that is critical to sharing technical data across the Marine Corps and with other DoD Services and the DLA.					
- Continue the development of the additive manufacturing qualification and certification processes.					
- Continue the development of additive manufacturing technical data from legacy platforms and systems in order to increase readiness and assist with modernization efforts					
- Initiate the design and development of large scale battlefield decoys using additively manufactured designs and tooling.					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Navy	<b>Date:</b> April 2022
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<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604289M / <i>Expeditionary Logistics</i>	<b>Project (Number/Name)</b> 2741 / <i>Additive Manufacturing</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>- Initiate the development of large scale printed Unmanned Surface Vehicle (USV) and Unmanned Underwater Vehicle (UUV) hulls to enable rapid reconstitution of forces and highly tailorable designs or craft.</p> <p>- Initiate the use of additive manufacturing and advanced manufacturing in the use of fabricating circuit boards in expeditionary environments.</p> <p><b><i>FY 2023 OCO Plans:</i></b> N/A</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> Increase of \$1.271M from FY 2022 to FY 2023 reflects initiation of efforts to build novel systems and increased capability around large scale additive manufacturing - Unmanned Surface and Unmanned Underwater Vehicle bodies as well as battlefield decoys. In addition, the increase reflects the building of automated software to identify AM part candidates and the initiation of field repair of ground electronics circuitry using additive manufacturing.</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	1.071	2.342	0.000	2.342

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

N/A

**Remarks**

**D. Acquisition Strategy**

The AM program utilizes a non-traditional acquisition strategy, due to AM being a set of enabling technologies vice a conventional platform for milestone-driven acquisition. It will incorporate strategic partnerships with other DoN activities, as well as the Joint Staff and services. For that reason, these AM investments are designed to explore future capabilities where AM may resolve gaps in logistical readiness, provide a warfighting solutions, and to mitigate AM-related risk within existing programs of record.

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

<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604289M / <i>Expeditionary Logistics</i>	<b>Project (Number/Name)</b> 2741 / <i>Additive Manufacturing</i>
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<b>Product Development (\$ in Millions)</b>				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			
Prior Years Cumulative Funding	Various	NA : NA	3.953	0.000		0.000		0.000		-		0.000	0.000	3.953	-
AM Digital Data Repository Prototype	MIPR	GSA : O'Fallon, IL	0.000	0.000		0.500	Mar 2022	0.545	Mar 2023	-		0.545	0.000	1.045	-
Digital Manufacturing Data Vault development	WR	NIWC PAC : San Diego, CA	0.000	0.000		0.545	Mar 2022	0.500	Mar 2023	-		0.500	Continuing	Continuing	Continuing
AM of expendable UUV/ USV hull	RO	NIWC PAC : San Diego, CA	0.000	0.000		0.000		0.800	Mar 2023	-		0.800	0.000	0.800	-
AM of large scale battlefield decoys	MIPR	NSWC-CD : Carderock, MD	0.000	0.000		0.000		0.250	Feb 2023	-		0.250	0.000	0.250	-
AM of circuit cards and electronics	MIPR	NSWC-CR : Crane, IN	0.000	0.000		0.000		0.100	Jan 2023	-		0.100	0.000	0.100	-
<b>Subtotal</b>			3.953	0.000		1.045		2.195		-		2.195	Continuing	Continuing	N/A

**Remarks**  
The AM program utilizes a non-traditional acquisition strategy, due to AM being a set of enabling technologies vice a conventional platform for milestone-driven acquisition. The funding distribution above reflects research and development efforts for additive manufacturing enabling technologies.

<b>Support (\$ in Millions)</b>				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			
Travel	Various	Various : Various	0.081	0.000		0.026	Jun 2022	0.065	Jun 2023	-		0.065	0.000	0.172	-
Prior Years Cumulative Funding	Various	NA : NA	3.612	0.000		0.000		0.000		-		0.000	0.000	3.612	-
AM Identify Cases for Prototypes	MIPR	NSWC : Dahlgren	0.000	0.000		0.000		0.082	Jan 2023	-		0.082	0.000	0.082	-
<b>Subtotal</b>			3.693	0.000		0.026		0.147		-		0.147	0.000	3.866	N/A

**Remarks**  
The AM program utilizes a non-traditional acquisition strategy, due to AM being a set of enabling technologies vice a conventional platform for milestone-driven acquisition. The funding distribution above reflects research and development efforts for additive manufacturing enabling technologies.



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

<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604289M / <i>Expeditionary Logistics</i>	<b>Project (Number/Name)</b> 2741 / <i>Additive Manufacturing</i>
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Proj 2741	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Develop USMC Fleet Wide Repository																												
												AM of expendable UUV/USV hull																
												AM of large scale battlefield decoys																
												AM of circuit cards and electronics																
												AM Digital Data Repository Prototype																

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

<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604289M / <i>Expeditionary Logistics</i>	<b>Project (Number/Name)</b> 2741 / <i>Additive Manufacturing</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 2741</b>				
Develop USMC Fleet Wide Repository	1	2023	4	2025
AM of expendable UUV/USV hull	1	2023	4	2024
AM of large scale battlefield decoys	1	2023	3	2024
AM of circuit cards and electronics	1	2023	3	2024
AM Digital Data Repository Prototype	1	2023	2	2024

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Navy										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 1319 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0604289M / <i>Expeditionary Logistics</i>				<b>Project (Number/Name)</b> 9999 / <i>Congressional Adds</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
9999: <i>Congressional Adds</i>	14.481	4.827	7.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	26.308
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

This project supports the costs associated with the research and development of expeditionary logistics capabilities such as the Expeditionary Fabrication (XFAB) Facility and Tactical Fabrication (TACFAB) suite in support of Expeditionary Advanced Base Operations and Distributed Operations. The project supports the investment to develop the digital infrastructure required to support the implementation of 3D printing; the 3D printing of expeditionary capabilities such as buildings, bridges, ship-to-shore landing crafts and other large scale constructs; the characterization of material that can be used for repair parts and potential feedstock to include the use of discarded materials on the battlefield; engineering analysis and testing; and innovation/problem solving training to enable Marines to leverage advanced manufacturing technologies. The Expeditionary Logistics Initiative will give Marine units access to additive manufacturing techniques to allow them the opportunity to exercise innovation to resolve issues affecting unit combat readiness in austere environments. This effort supports the development of procedures to enable the approval and manufacturing of items requested from Marines and incorporates the development of strategic partnerships with other DoN Systems Commands and field activities to exploit additive manufacturing technologies in support of our Naval Forces.

The Predictive Maintenance for Navy and Marine Corps Weapons Systems initiative supports the Condition-Based Maintenance (CBM+). CBM+ is a collaborative DoD readiness initiative focused on the development and implementation of data analysis and sustainment technology capabilities to improve weapon system availability and achieve optimum costs across the enterprise. CBM+ is the application and integration of processes, technologies, and knowledge-based capabilities to improve the reliability and maintenance effectiveness of DoD systems and components. CBM+ includes both hardware and software components or the Military Equipment (ME) to be capable of monitoring, collecting, and transferring system data.

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

	<b>FY 2021</b>	<b>FY 2022</b>
<b>Congressional Add:</b> Alternative Tactical Power and Battery Research	2.896	0.000
<b>FY 2021 Accomplishments:</b> - Initiate the exploration and exploitation of alternative power sources, greater autonomy in the air and surface domains and seek to inject commercial logistics technologies into Force exercises for evaluation.		
<b>FY 2022 Plans:</b> N/A		
<b>Congressional Add:</b> Automated Parts Screening and Selection Tool for Additive Manufacturing	1.931	0.000
<b>FY 2021 Accomplishments:</b> - Initiate efforts to develop software to analyze Additive Manufacturing (AM) candidate parts and screen and select viable AM candidates in an automated manner.		
<b>FY 2022 Plans:</b> N/A		
<b>Congressional Add:</b> Hydrogen fuel cell technology	0.000	2.000

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Navy	<b>Date:</b> April 2022
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<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604289M / <i>Expeditionary Logistics</i>	<b>Project (Number/Name)</b> 9999 / <i>Congressional Adds</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>
<b><i>FY 2021 Accomplishments:</i></b> N/A		
<b><i>FY 2022 Plans:</i></b> - Initiate the design, development, test and evaluation of a hydrogen powered unmanned ground vehicle.		
<b><i>Congressional Add:</i></b> Predictive maintenance for Navy and Marine Corps weapons systems	0.000	5.000
<b><i>FY 2021 Accomplishments:</i></b> N/A		
<b><i>FY 2022 Plans:</i></b> Initiate the procurement of test equipment and personnel to establish the systems integration lab supporting the transition of DoD mandated CBM+ capabilities from reliability centered maintenance. The procurement of test equipment will support developmental testing to validate collection, store and transfer capabilities of CBM+ across multiple Mission Essential Equipment platforms to align with FD2030 initiatives.		
<b>Congressional Adds Subtotals</b>	4.827	7.000

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

N/A

**Remarks**

**D. Acquisition Strategy**

The Additive Manufacturing program utilizes a non-traditional acquisition strategy, due to Additive Manufacturing being a set of enabling technologies vice a conventional platform for milestone-driven acquisition. It incorporates strategic partnerships with other DoN activities, as well as the Joint Staff, other Services, and government laboratories. For that reason, these Additive Manufacturing investments are designed to explore future capabilities where it may resolve gaps in logistical readiness, provide warfighting solutions, establish the digital infrastructure required to share the technical data required to exploit Additive Manufacturing across the DoD, and to mitigate related risk within existing programs of record.

Currently, the CBM+ program utilizes a non-traditional acquisition approach, due to CBM+ being a set of enabling technologies vice a conventional platform for milestone-driven acquisition. CBM+ will utilize other transaction authorities to explore partnerships with DON and commercial activities to pursue full CBM+ capabilities.

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

<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604289M / <i>Expeditionary Logistics</i>	<b>Project (Number/Name)</b> 9999 / <i>Congressional Adds</i>
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<b>Product Development (\$ in Millions)</b>				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			
AM Large-Scale Expendable landing craft - CR	Reqn	NIWC PAC : San Diego, CA	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	-
AM Construction Structure Design - CR	MIPR	Army / ERDC : Vicksburg, MS	0.450	0.000		0.000		0.000		-		0.000	0.000	0.450	-
AM Construction Materiel Development Research - CR	MIPR	DIU / WHS : Washington, DC	0.750	0.000		0.000		0.000		-		0.000	0.000	0.750	-
PTC Windchill Phase II - CR	MIPR	GSA : O'Fallon, Illinois	0.820	0.000		0.000		0.000		-		0.000	0.000	0.820	-
Mobile Large-Scale Additive Manufacturing System - RS	Reqn	NIWC PAC : San Diego, CA	5.000	0.000		0.000		0.000		-		0.000	0.000	5.000	-
Develop USMC Digital Repository - RS	WR	NIWC PAC : San Diego, CA	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	-
Digital Repository - MBE Environment - RS	Reqn	NAWC-TSD : Orlando, FL	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	-
Automated AM Part Screening and Selection Software Development	Reqn	NIWC PAC : San Diego, CA	0.000	1.072	Sep 2021	0.000		0.000		-		0.000	0.000	1.072	-
TrustedAM - Trusted Endpoint	Reqn	NIWC PAC : San Diego, CA	0.000	0.456	Aug 2021	0.000		0.000		-		0.000	0.000	0.456	-
CBM+ Development Direct Cite	C/FFP	NSWC Crane : Crane, IN	0.000	0.000		1.250	Aug 2022	0.000		-		0.000	0.000	1.250	-
CBM+ Development Reimbursable	WR	NSWC Crane : Crane, IN	0.000	0.000		1.250	Aug 2022	0.000		-		0.000	0.000	1.250	-
CBM+ Collection Development	C/FFP	NAVSEA : Washington, DC	0.000	0.000		1.250	Dec 2022	0.000		-		0.000	0.000	1.250	-
CBM+ Collection - Transfer Development	WR	NSWC Crane : Crane, IN	0.000	0.000		1.250	Dec 2022	0.000		-		0.000	0.000	1.250	-
LIO - Hydrogen Power Technology	C/FFP	WHS : Washington, DC	0.000	0.000		2.000	May 2022	0.000		-		0.000	0.000	2.000	-
<b>Subtotal</b>			11.520	1.528		7.000		0.000		-		0.000	0.000	20.048	N/A

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

<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604289M / <i>Expeditionary Logistics</i>	<b>Project (Number/Name)</b> 9999 / <i>Congressional Adds</i>
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<b>Support (\$ in Millions)</b>				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			
Ship-to-Shore landing craft modeling and simulation - CR	MIPR	DTIC : Omaha, NB	0.061	0.000		0.000		0.000		-		0.000	0.000	0.061	-
Digital Repository - DLA JAMMEX - RS	MIPR	DTIC : Omaha, NB	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	-
Interim Digital Repository (8Wire) - RS	Reqn	NIWC Lant : Charleston, SC	0.300	0.000		0.000		0.000		-		0.000	0.000	0.300	-
AM Fleet Support - 3D printing, construction, and Ship-to-Shore connectors - RS	WR	NIWC PAC : San Diego, CA	0.250	0.250	Sep 2021	0.000		0.000		-		0.000	0.000	0.500	-
AM Fleet Support - 3D printing training and integration - RS	WR	NSWC CD : Carderock, MD	0.400	0.000		0.000		0.000		-		0.000	0.000	0.400	-
AM Fleet Support - Materiel characterization and prototype eval - RS	Reqn	NAVSEA : Washington, DC	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	-
AM Identification Advanced Prototyping Lab/Workspace - RS	Reqn	NAVSEA : NAVSEA	0.150	0.000		0.000		0.000		-		0.000	0.000	0.150	-
CSAM CBA/CONOP/ICD/CDD	Reqn	TBD : TBD	0.600	0.000		0.000		0.000		-		0.000	0.000	0.600	-
HP Parmatech	MIPR	WHS : Washington, DC	0.200	0.000		0.000		0.000		-		0.000	0.000	0.200	-
RESTORE Lab	WR	NIWC PAC : San Diego, CA	0.000	0.049	Aug 2021	0.000		0.000		-		0.000	0.000	0.049	-
(LIO) Program Support	WR	NRL : Washington, DC	0.000	0.230	Mar 2021	0.000		0.000		-		0.000	0.000	0.230	-
(LIO) Capabilities Development	C/FFP	WHS : Washington, DC	0.000	2.770	Apr 2021	0.000		0.000		-		0.000	0.000	2.770	-
<b>Subtotal</b>			2.461	3.299		0.000		0.000		-		0.000	0.000	5.760	N/A



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

<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604289M / <i>Expeditionary Logistics</i>	<b>Project (Number/Name)</b> 9999 / <i>Congressional Adds</i>
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Proj 9999	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
(LIO) Capabilities Development Contract (CTMA)	Automated AM Part Screening and Selection Software Development																											
	TrustedAM - Trusted Endpoint																											
	AM Fleet Support																											
	LIO Capabilities Development																											

2023DON - 0604289M - 9999

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

<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604289M / <i>Expeditionary Logistics</i>	<b>Project (Number/Name)</b> 9999 / <i>Congressional Adds</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Proj 9999</i></b>				
Automated AM Part Screening and Selection Software Development	3	2021	4	2022
TrustedAM - Trusted Endpoint	2	2021	4	2022
AM Fleet Support	3	2021	4	2022
RESTORE Lab	2	2021	3	2022
(LIO) Capabilities Development Contract (CTMA): Contract Award	3	2021	3	2022
CBM+: CBM+ Development	3	2022	4	2023