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**Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319: Research, Development, Test & Evaluation, Navy / BA 7: Operational Systems Development	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	756.094	93.113	83.900	77.377	-	77.377	94.683	71.614	64.288	65.677	Continuing	Continuing
1555: Lt Armored Vehicle Prog	141.416	1.069	1.880	2.774	-	2.774	3.196	3.073	3.005	3.172	Continuing	Continuing
1901: MC Grnd Wpnry Prod Improvement	77.068	7.638	10.543	5.667	-	5.667	7.044	6.917	6.610	6.748	Continuing	Continuing
2086: Soldier/Marine Enhancement	42.944	1.907	2.357	2.293	-	2.293	2.171	2.209	2.253	2.300	Continuing	Continuing
2112: Lightweight 155mm Howitzer	8.670	0.014	0.015	0.013	-	0.013	0.013	0.012	0.012	0.012	Continuing	Continuing
2237: Amphibious Vehicle Test	23.161	2.681	3.246	2.731	-	2.731	2.740	2.800	2.856	2.916	Continuing	Continuing
2315: Training Devices/Simulators	60.340	34.069	27.494	17.711	-	17.711	31.187	21.804	16.733	16.881	Continuing	Continuing
2503: Initial Issue	72.343	5.435	5.850	13.628	-	13.628	14.027	10.221	10.466	10.688	Continuing	Continuing
2513: Body Armor	57.415	5.194	5.269	4.814	-	4.814	4.899	4.980	5.080	5.186	Continuing	Continuing
2530: Unmanned Expeditionary Systems	0.000	0.000	16.039	17.230	-	17.230	18.173	10.282	8.673	8.855	Continuing	Continuing
2928: Exp Indirect Fire Gen Supt Wpn Sys	49.991	0.487	0.521	0.478	-	0.478	0.565	0.565	0.556	0.567	Continuing	Continuing
3098: Fire Support System	176.452	1.566	3.335	4.415	-	4.415	3.953	3.701	3.395	3.601	Continuing	Continuing
3774: Marine Corps Ammo	14.085	9.077	5.100	3.713	-	3.713	4.960	3.257	2.818	2.878	Continuing	Continuing
3775: Family of Internally Transportable Vehicles (FITV)	6.137	1.877	0.383	0.340	-	0.340	0.252	0.257	0.262	0.268	Continuing	Continuing
4002: Family of Raid Reconnaissance	26.072	16.790	1.868	1.570	-	1.570	1.503	1.536	1.569	1.605	Continuing	Continuing
9999: Congressional Adds	0.000	5.309	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.309

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

This Program Element (PE) provides modification to Marine Corps Expeditionary Ground Force Weapon Systems to increase lethality, range, survivability and operational effectiveness. In addition, the PE provides for product improvements to the family of LAVs. The Amphibious Vehicle Test Branch (AVTB) provides facilities

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and personnel which perform a broad range of testing, repair and technical services to amphibious vehicles. This program is funded under Operational Systems Development PE because it encompasses engineering and manufacturing and manufacturing development for upgrades of existing systems.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Previous President's Budget	106.036	83.900	99.478	-	99.478
Current President's Budget	93.113	83.900	77.377	-	77.377
Total Adjustments	-12.923	0.000	-22.101	-	-22.101
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-9.700	0.000			
• SBIR/STTR Transfer	-3.222	0.000			
• Program Adjustments	0.000	0.000	-15.069	-	-15.069
• Rate/Misc Adjustments	-0.001	0.000	-7.032	-	-7.032

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

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

Congressional Add: *Integrated helmet system*

	<b>FY 2023</b>	<b>FY 2024</b>
Congressional Add Subtotals for Project: 9999	5.309	0.000
Congressional Add Totals for all Projects	5.309	0.000

**Change Summary Explanation**

FY 2025 funding decrease is primarily attributed to the following:

Training Devices/Simulator: the integration and consolidation of several capabilities into LVC-TE in addition to procuring GOTS/COTS solutions.

Fire Support System: the cancellation of the Moving Target Artillery Round (MTAR) project.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2025 Navy **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 1555 / Lt Armored Vehicle Prog
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
1555: Lt Armored Vehicle Prog	141.416	1.069	1.880	2.774	-	2.774	3.196	3.073	3.005	3.172	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

The Family of Light Armored Vehicles (FOLAV) consists of six fielded Light Armored Vehicle (LAV) configurations and one communications/intelligence-configured asset on an LAV chassis. The FOLAV provides a logistically self-contained, highly mobile, and lethal combined arms combat system to the Marine Air Ground Task Force (MAGTF). The LAV Product Improvement Program (PIP) funds modification and sustainment activities and the development and testing of modifications. These programs will ensure that the FOLAV is capable of conducting its assigned missions by enhancing lethality, survivability, reliability, availability, and maintainability in addition to reducing operations and support costs.

FY 2025 funds continued support to the fielded LAV fleet and future Engineering Change Proposals. RDTE allows for resolution of performance enhancing obsolescence, safety and any other unplanned issues that arise from the field.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<b>Title:</b> LAV MODIFICATIONS	1.069	1.880	2.774	0.000	2.774
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b> -Continue ongoing LAV MOD product development and Integrated Logistics Support (ILS) data development.					
<b>FY 2025 Base Plans:</b> -Continue ongoing LAV MOD product development and Integrated Logistics Support (ILS) data development.					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> The increase of \$0.894M from FY 2024 to FY 2025 supports continued resolution of performance enhancing obsolescence, safety, and any other unplanned issues that arise from the field.					
<b>Accomplishments/Planned Programs Subtotals</b>	1.069	1.880	2.774	0.000	2.774

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 1555 / Lt Armored Vehicle Prog

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2025</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• PMC/2038: LAV PIP	52.355	42.052	0.761	-	0.761	0.792	0.801	0.814	0.831	0.000	2,042.427

**Remarks**

**D. Acquisition Strategy**

The Light Armored Vehicle (LAV) Modification and Sustainment line is critical to keeping the 1983 built family of LAVs (FOLAV) operationally ready and effective through the projected sunset date of FY 2035. LAV Modification and Sustainment actions include maintenance of authority to operate (ATO), authority to connect (ATC), platform and C4ISR obsolescence management, safety modifications, support equipment/tool sustainment, end-item product data management, and technical and engineering data management. The LAV Modification and Sustainment resources a wide range of necessary vehicle/communications/weapon modifications essential to fleet life-cycle management and sustainment.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 1555 / Lt Armored Vehicle Prog
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<b>Product Development (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Product Development (MOD)	MIPR	Various : Warren, MI	1.912	0.690	Jan 2023	0.956	Jan 2024	1.373	Jan 2025	-		1.373	Continuing	Continuing	Continuing
ILS Data Development (MOD)	MIPR	Various : Warren, MI	0.457	0.142	Jan 2023	0.639	Jan 2024	0.937	Jan 2025	-		0.937	Continuing	Continuing	Continuing
Proj 1555: Prior Years Cumulative Funding	Various	Various : Various	101.963	0.000		0.000		0.000		-		0.000	0.000	101.963	-
<b>Subtotal</b>			104.332	0.832		1.595		2.310		-		2.310	Continuing	Continuing	N/A

**Remarks**  
FY 2024 to FY 2025 increase required to continue to support the fielded LAV fleet and future Engineering Change Proposals. RDTE allows for resolution of performance enhancing obsolescence, safety and any other unplanned issues that arise from the field.

<b>Support (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Program Mgmt (MOD)	MIPR	TACOM : Warren, MI	0.807	0.237	Dec 2022	0.285	Dec 2023	0.464	Jan 2025	-		0.464	Continuing	Continuing	Continuing
Proj 1555: Prior Years Cumulative Funding	Various	Various : Various	25.854	0.000		0.000		0.000		-		0.000	0.000	25.854	-
<b>Subtotal</b>			26.661	0.237		0.285		0.464		-		0.464	Continuing	Continuing	N/A

**Remarks**  
Increase from FY 2024 to FY 2025 required to continue to support the fielded LAV fleet and future Engineering Change Proposals. Includes salaries, supplies, and travel expenses.

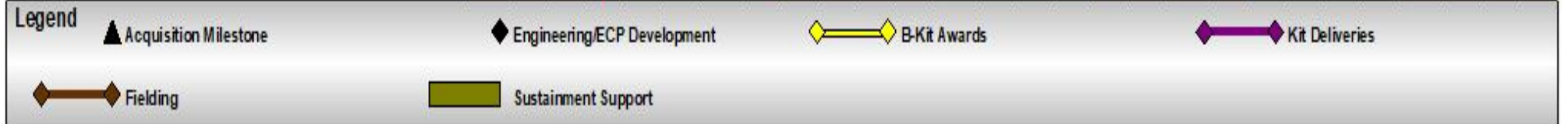
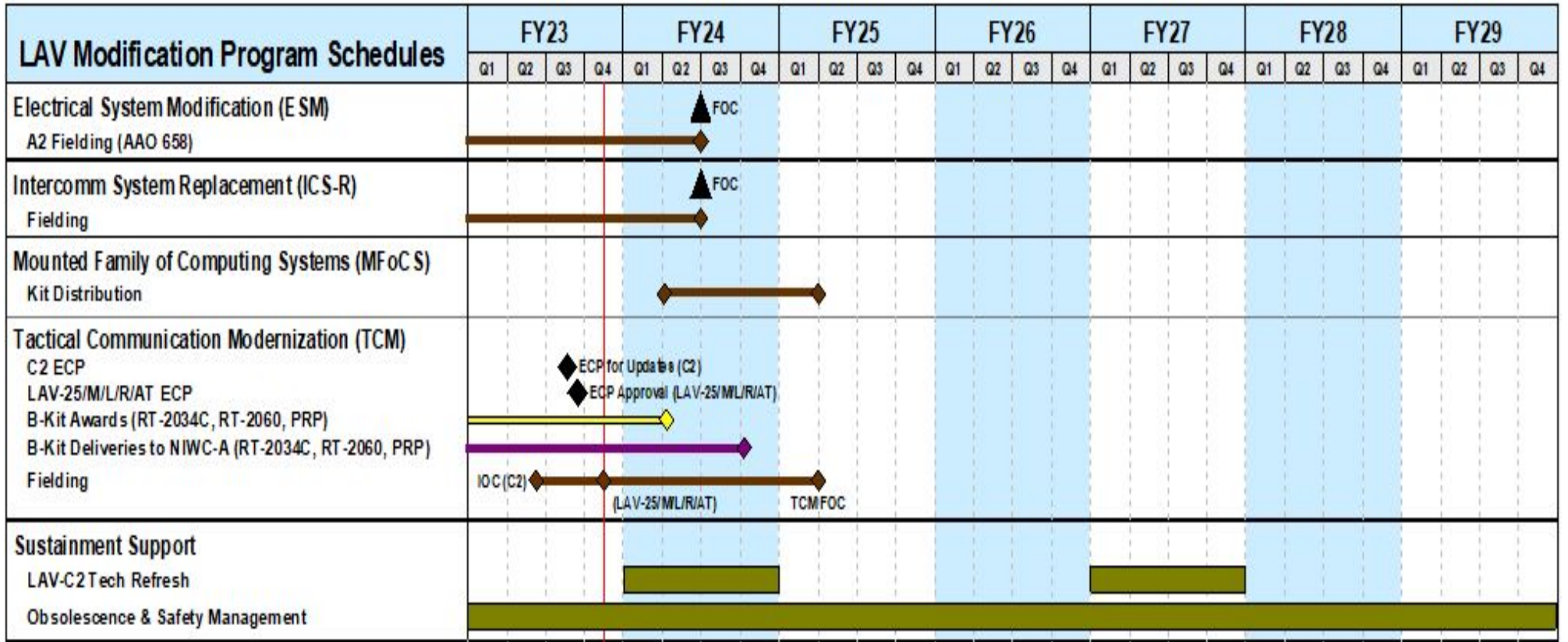
<b>Test and Evaluation (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation (DT&E)	MIPR	RTC : AL	9.252	0.000		0.000		0.000		-		0.000	0.000	9.252	-
<b>Subtotal</b>			9.252	0.000		0.000		0.000		-		0.000	0.000	9.252	N/A



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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 1555 / Lt Armored Vehicle Prog

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 1555</b>				
LAV MOD: LAV MOD Product/ILS Data Development	1	2023	4	2029

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys				<b>Project (Number/Name)</b> 1901 / MC Grnd Wpnry Prod Improvement			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
1901: MC Grnd Wpnry Prod Improvement	77.068	7.638	10.543	5.667	-	5.667	7.044	6.917	6.610	6.748	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

This project develops joint and Marine Corps unique improvements to infantry weapons technology, non-lethal systems technology, improvements for Night Vision Equipment, Rifle Combat Optics, Family of Individual Optics, and monitors national and international weapons developments.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> Company and Battalion Mortars (CBM)	0.190	0.200	0.130	0.000	0.130
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> Company and Battalion Mortars is a program that provides for continuous monitoring, research and development, integration and qualification testing, certification and accreditation, assessment, and implementation of multi-service and USMC unique system modifications and improvements for mortar and mortar fire control systems. Efforts include advance capability extended range mortar systems and mortar fire control systems using Android operating systems capable of digital communications, mapping, and geo-location. This includes software updates and Authority to Operate (ATO) documentation and certification.					
<b>FY 2024 Plans:</b>					
- Initiated research to extend the range of the 81mm Mortars.					
- Continued development, prototypes, and testing of a new technology sight for the Mortars systems.					
- Continued the integration of Lightweight Hand-held Mortar Ballistic Computer (LHMBC) sight into a Command and Control (C2) architecture.					
<b>FY 2025 Base Plans:</b>					
- Continue research to extend the range of the 81mm Mortars.					
- Continue development, prototypes, and testing of a new technology sight for the Mortars systems.					
- Continue the integration of Lightweight Hand-held Mortar Ballistic Computer (LHMBC) sight into a Command and Control (C2) architecture.					
<b>FY 2025 OCO Plans:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 1901 / MC Grnd Wpnry Prod Improvement

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease from FY 2024 to FY 2025 reflects a reduction in the level of effort.					
<b>Title:</b> Combat Optics	2.737	3.836	3.655	0.000	3.655
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> Combat Optics is a program that provides for research and development, as well as, ammunition to support testing and assessment of optical systems and implementation of modifications for these systems, as well as, life-cycle management efforts. The research and development of future capabilities include, but are not limited to variable power day optics and fused/multi-spectral (e.g., combined image intensifier, thermal imaging, and short wave infrared) optical and laser systems. The Squad Aiming Laser (SAL) will provide a complimentary aiming solution with the Squad Binocular Night Vision Goggle to increase the engagement ranges and probability of first round hits out to 300m and beyond. Combat Optics is also assessing systems and technologies applicable to Long Range multi-spectral systems to support sensor development for handheld and weapon mounted optics.					
<b>FY 2024 Plans:</b>					
- Continued modernization of the Electro Optical Support Facility (EOSF) to support source selection evaluations, characterization of emerging optical technologies, and life cycle management efforts to include specialized equipment to accurately and properly characterize/assess commercial solutions for Squad Aiming Laser and thermal imaging technology.					
- Continued system test, surveillance troubleshooting, maintenance and maintenance management at the EOSF.					
- Initiated research of Long Range multi-spectral systems to support sensor development.					
- Characterizing systems and technologies applicable to Squad Aiming Laser.					
<b>FY 2025 Base Plans:</b>					
- Continue modernization of the Electro Optical Support Facility (EOSF) to support source selection evaluations, characterization of emerging optical technologies, and life cycle management efforts to include specialized equipment to accurately and properly characterize/assess commercial solutions for Squad Aiming Laser and thermal imaging technology.					
- Continue system test, surveillance troubleshooting, maintenance and maintenance management at the EOSF.					
- Continue extended research of Long Range Thermal multi-spectral technology and evaluate potential systems.					

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
- Conduct testing of the Squad Aiming Laser. <b>FY 2025 OCO Plans:</b> N/A <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease from FY 2024 to FY 2025 is due to the transition from development to test of the Squad Aiming Laser.					
<b>Title:</b> Family of Infantry Weapons Systems (FIWS) <b>Description:</b> Family of Infantry Weapons Systems (FIWS) is a program that provides for continuous monitoring, research and development, assessment of and implementation of Joint Service and USMC unique system modifications, as well as new acquisition efforts. Efforts such as: sustain weapon capability, and improve the performance, maintainability, supportability, service life, ergonomics, and safety enhancements of Infantry Weapons Systems. <b>FY 2024 Plans:</b> - Conducted Next Generation Squad Weapon (NGSW) testing/operational assessments to evaluate unique Marine Corps requirements. - Continued product development for improvement of small arms weapon systems, to include suppressors, sniper and special purpose systems, and their ancillary support equipment meet emerging requirements. - Continued small arms engineering and testing. - Continued Product Improvement Program (PIP) testing and evaluation for multiple requirements. - Continued the procurement of various types of ammunition for performance evaluation currently under development. - Initiated Lightweight Medium Machinegun (LMMG) testing and evaluation. <b>FY 2025 Base Plans:</b> - Continue product development for improvement of small arms weapon systems, to include suppressors, sniper and special purpose systems, and their ancillary support equipment meet emerging requirements. - Continue small arms engineering and testing. - Continue PIP testing and evaluation for multiple requirements. - Continue the procurement of various types of ammunition for performance evaluation currently under development.	4.711	6.507	1.882	0.000	1.882
<b>Articles:</b>	-	-	-	-	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
- Continue LMMG testing and evaluation.					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease from FY 2024 to FY 2025 is due to the completion of NGSW testing.					
<b>Accomplishments/Planned Programs Subtotals</b>	7.638	10.543	5.667	0.000	5.667

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PMC/2220-01: Family of Infantry Weapons Systems	9.585	10.605	9.264	-	9.264	39.433	48.867	49.843	49.376	Continuing	Continuing
• PMC/2220-02: Company and Battalion Mortars	3.210	3.278	3.157	-	3.157	3.219	3.285	3.350	3.421	Continuing	Continuing
• PMC/2220-03: Gunners Protection Kit	4.696	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	36.751
• PMC/4620-01: Combat Optics	126.127	92.943	169.984	-	169.984	188.899	130.272	99.783	130.194	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**  
These programs range from off-the-shelf modifications to developmental items for safety, reliability, and technology upgrades to meet Marine Corps requirements.

Family of Infantry Weapons Systems (FIWS):  
FIWS encompasses over 60 programs, efforts for improved weapon capability, operation, maintainability, supportability, service life, ergonomics, and safety enhancements by continuous monitoring, assessment, and implementation of joint service and United States Marine Corps (USMC)-unique weapon system modifications. The FIWS portfolio also includes support for various program/acquisition support activities, such as the procurement of ammunition related to those production verification activities.

Combat Optics:  
Combat Optics acquisition, management, and contracting strategies support the research, development, modification, and improvement of optics, night vision, and laser systems such as magnified day optics, thermal imagers, image intensifying (I2) systems, lasers, and illuminators.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
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**Company and Battalion Mortars:**

Acquisition, management, and contracting strategies support multiservice and USMC unique system modifications and improvements for the lightweight company and battalion mortars and mortar fire control systems to provide immediate indirect fires in support of mounted and dismounted forces to the company and battalion level.

**Gunners Protection Kit (GPK):**

Acquisition, management, and contracting strategies to support a USMC unique system requirement for the Reducible Height Gunners Protection Kit (RHGPK) in support of loading and unloading vehicles aboard amphibious carriers. The RHGPK enables Joint Light Tactical Vehicles (JLTV), Medium/Heavy Tactical Vehicle Replacement (MTVR), and Logistics Vehicle System Replacement (LVSr) to be transported in the lower vehicle stowage areas of Landing Platform/Dock (LPD 17) and Landing Helicopter Dock class ships.

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2025 Navy</b>											<b>Date: March 2024</b>				
<b>Appropriation/Budget Activity</b> 1319 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys					<b>Project (Number/Name)</b> 1901 / MC Grnd Wpnry Prod Improvement				

<b>Product Development (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Company and Battalion Mortars: Mortar Sight	MIPR	CC DEVCOM : Picatinny, NJ	0.000	0.090	Jan 2023	0.100	Jan 2024	0.050	Jan 2025	-		0.050	0.000	0.240	-
Combat Optics: Squad Aiming Laser (SAL)	MIPR	Various : Various	0.000	0.035	Jan 2024	2.104	Jun 2024	0.400	Mar 2025	-		0.400	0.000	2.539	-
Combat Optics: Long Range multi-spectral	Various	Various : Various	0.000	0.000		0.252	Mar 2024	1.790	Mar 2025	-		1.790	0.000	2.042	-
Combat Optics: Product Development	Various	Various : Various	0.000	0.000		0.050	Jan 2024	0.400	Jan 2025	-		0.400	0.000	0.450	-
Family of Infantry Weapons Systems	MIPR	NSWC : Various	1.076	0.000		0.550	Jan 2024	0.000		-		0.000	0.000	1.626	-
Family of Infantry Weapons Systems	Various	MCSC : Quantico, VA	0.013	0.000		0.479	Jan 2024	0.160	Mar 2025	-		0.160	0.000	0.652	-
Family of Infantry Weapons Systems	Various	Various : Various	1.153	0.050	Jan 2023	0.352	Jan 2024	0.220	Mar 2025	-		0.220	0.000	1.775	-
Proj 1901: Prior Years Cum Funding (Product Dev)	Various	Various : Various	25.872	0.000		0.000		0.000		-		0.000	0.000	25.872	-
<b>Subtotal</b>			28.114	0.175		3.887		3.020		-		3.020	0.000	35.196	N/A

**Remarks**  
The net decrease from FY 2024 to FY 2025 reflects completion of the Squad Aiming Laser development and the increase of the Long Range multi-spectral system.

<b>Support (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Combat Optics: Technical Engineering Support	MIPR	NSWC : Various	2.897	0.270	Jan 2023	0.265	Jan 2024	0.500	Jan 2025	-		0.500	0.000	3.932	-
Combat Optics: Technical Engineering Support	MIPR	SMDC : Huntsville, AL	0.000	0.565	Nov 2023	0.565	Nov 2023	0.565	Nov 2024	-		0.565	0.000	1.695	-
Proj 1901: Prior Years Cum Funding (Support)	Various	Various : Various	14.246	0.000		0.000		0.000		-		0.000	0.000	14.246	-

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 1901 / MC Grnd Wpnry Prod Improvement
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<b>Support (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
<b>Subtotal</b>			17.143	0.835		0.830		1.065		-		1.065	0.000	19.873	N/A

**Remarks**  
Overall increase from FY 2024 to FY 2025 reflects increased support required to continue research of Long Range multi-spectral technology and modernization of the EOSF.

<b>Test and Evaluation (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Developmental Test & Evaluation (DT&E)	MIPR	CC DEVCOM-Mortars : TBD	0.000	0.100	Jan 2023	0.100	Jan 2024	0.080	Jan 2025	-		0.080	0.000	0.280	-
Developmental Test & Evaluation (DT&E)	MIPR	DLA-EOSF Combat Optics : Philadelphia, PA	1.277	0.240	Apr 2023	0.200	Jan 2024	0.000		-		0.000	0.000	1.717	-
Developmental Test & Evaluation (DT&E)	MIPR	DLA-TA Combat Optics : Philadelphia, PA	0.203	1.059	Mar 2023	0.000		0.000		-		0.000	0.000	1.262	-
Developmental Test & Evaluation (DT&E)	Various	NHR-SAL Combat Optics : Naval Health Research	0.000	0.095	Mar 2023	0.400	Jan 2024	0.000		-		0.000	0.000	0.495	-
Developmental Test & Evaluation (DT&E)	MIPR	NSWC-Combat Optics : Dahlgren, VA	0.000	0.417	Mar 2023	0.000		0.000		-		0.000	0.000	0.417	-
Developmental Test & Evaluation (DT&E)	MIPR	ARDEC-FIWS : Picatinny, NJ	1.234	1.526	Jan 2023	2.391	Jan 2024	0.000		-		0.000	0.000	5.151	-
Developmental Test & Evaluation (DT&E)	MIPR	NSWC-FIWS : Crane, IN	5.609	1.969	Nov 2022	1.280	Dec 2023	0.548	Dec 2024	-		0.548	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	MIPR	DLA-FIWS : Philadelphia, PA	0.800	0.000	Mar 2023	0.200	Mar 2024	0.000		-		0.000	0.000	1.000	-
Developmental Test & Evaluation (DT&E)	C/FFP	MCSC-FIWS : Quantico, VA	0.960	0.266	Jun 2023	0.606	Jun 2024	0.954	Mar 2025	-		0.954	0.000	2.786	-
Developmental Test & Evaluation (DT&E)	C/FFP	DTIC-FIWS : Ft. Belvoir, VA	0.382	0.610	Apr 2023	0.300	Apr 2024	0.000		-		0.000	0.000	1.292	-

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 1901 / MC Grnd Wpnry Prod Improvement
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<b>Test and Evaluation (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Developmental Test & Evaluation (DT&E)	MIPR	NSWC-FIWS : Indian Head, MD	0.647	0.346	Feb 2023	0.349	Feb 2024	0.000		-		0.000	0.000	1.342	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	Various : Various	17.348	0.000		0.000		0.000		-		0.000	0.000	17.348	-
<b>Subtotal</b>			28.460	6.628		5.826		1.582		-		1.582	Continuing	Continuing	N/A

**Remarks**  
The decrease from FY 2024 to FY 2025 reflects the completion NGSW testing.

<b>Management Services (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Proj 1901: Prior Years Cum Funding (Mgmt Services)	Various	Various : Various	3.351	0.000		0.000		0.000		-		0.000	0.000	3.351	-
<b>Subtotal</b>			3.351	0.000		0.000		0.000		-		0.000	0.000	3.351	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	77.068	7.638	10.543	5.667	-	5.667	Continuing	Continuing	N/A

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 1901 / MC Grnd Wpny Prod Improvement
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Proj 1901	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
<b>Combat Optics</b>																												
Assess systems and technologies applicable to Squad Aiming Laser																												
EOSF system test, surveillance troubleshooting, maintenance																												
<b>FIWS</b>																												
Development, test and evaluation of Small Arms technology improvements test and enhancements																												
NGSW																												
<b>CBM</b>																												
Development, evaluation and integration of mortar systems technology advancements																												

2025PB - 0206623M - 1901

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 1901 / MC Grnd Wpnry Prod Improvement

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 1901</b>				
Combat Optics: Assess systems and technologies applicable to Squad Aiming Laser:	2	2024	4	2026
Combat Optics: EOSF system test, surveillance troubleshooting, maintenance:	1	2023	4	2029
FIWS: Development, test and evaluation of Small Arms technology improvements test and enhancements:	2	2023	4	2029
FIWS: NGSW:	1	2023	4	2024
CBM: Development, evaluation and integration of mortar systems technology advancements:	1	2023	4	2029

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys				<b>Project (Number/Name)</b> 2086 / Soldier/Marine Enhancement			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2086: <i>Soldier/Marine Enhancement</i>	42.944	1.907	2.357	2.293	-	2.293	2.171	2.209	2.253	2.300	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

Marine Expeditionary Rifle Squad (MERS) mission is to manage the infantry squad, "squad as a system", by conducting human systems integration, systems engineering, human factors, and modernization efforts across all the products that are worn, carried, and consumed by the rifle squad and integration of the squad in mobility platforms. The Marine Corps' Force Design reorganizes personnel and equipment across all infantry battalions injecting new capabilities in order to combat a near peer competitor and includes experimentation with Fleet Marine Force units. Experimentation will require an increased level of effort to influence integration and synergy of capabilities. Physical integration, capability analysis, modeling and simulation, ergonomics, and usability assessments are facilitated by this program in working with the various program managers and project officers in the development of their unique items that contribute to the squads' overall capabilities. MERS operates and manages the Gruntworks Squad Integration Facility in order to meet mission requirements to support integration and assessments of equipment. Human Systems Integration and Anthropometry are two key areas of expertise. MERS is engaging industry and academia in search of innovative technologies that can meet Force Design infantry capability initiatives. Mobility and power management are fundamental considerations in the insertion or modernization of any squad equipment. MERS works with Joint and North Atlantic Treaty Organization (NATO) soldier modernization programs to harvest new technologies to increase the capability of the rifle squad. The program also ensures the integration of the rifle squad into the various mobility platforms currently in service and being developed to ensure a Marine with equipment can operate effectively. This program is essential to ensure the combined synergistic equipment effects enhance the war-fighting functions of the Marine rifle squad towards the strategic Marine Corps warfighting vision for the future.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> Marine Expeditionary Rifle Squad (MERS)	1.907	2.357	2.293	0.000	2.293
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b>					
- Complete the data collection of the Anthropometry Survey.					
- Continue to coordinate with Marine Corps Warfighting Lab and other stakeholders on execution of Force Design Infantry Battalion as experimentation continues to evolve.					
- Continue to support all the Marine Corps Systems Command program offices that provide equipment to the Marine rifle squad or provide mobility platforms that support the squad.					
- Continue to conduct operational integration using designated Marines in order to assess near term and Force Design equipment integration in operational environments.					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2086 / Soldier/Marine Enhancement

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<ul style="list-style-type: none"> <li>- Continue to utilize the Gruntworks Squad Integration Facility as an asset to execute innovation and technology searches, R&amp;D integration projects, prototyping, human performance trials, rapid assessment of technologies, and usability trials.</li> <li>- Continue to conduct human performance trials utilizing Marine Corps Load Effects Assessment Program (MC-LEAP) and other data collection methodologies in order to develop mobility metrics to support Force Design.</li> <li>- Continue to conduct usability trials, requirements generation workshops, and limited user evaluations for digital interoperability, handheld devices, and applications at the infantry platoon and squad level.</li> <li>- Continue to support integration of body armor, load bearing systems, and Integrated Helmet System with human factors and operational expertise.</li> <li>- Continue to conduct R&amp;D on squad systems in conjunction with Army, Special Operations Command (SOCOM), and Close Combat Lethality Task Force in order to leverage new technologies and capabilities to the rifle squad to include Integrated Visual Augmentation System and Enhanced Night Vision Goggle Binocular.</li> <li>- Continue to conduct surveys with post deploying infantry battalions on usability and integration of equipment utilized during deployment.</li> <li>- Continue to conduct human performance testing of Marines utilizing current and prototype configurations of infantry rifle squad equipment.</li> <li>- Continue to seek weight and volume reduction replacements for current infantry equipment that support integration of components. Identify and analyze power solutions to support increased power demands of new capabilities within the rifle squad.</li> <li>- Continue to implement capability requirements from Force Design experimentation.</li> </ul> <p><b>FY 2025 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Complete the Anthropometry Survey of the Marine Corps.</li> <li>- Continue to coordinate with Marine Corps Warfighting Lab and other stakeholders on execution of Force Design Infantry Battalion as experimentation continues to evolve.</li> <li>- Continue to support all the Marine Corps Systems Command program offices that provide equipment to the Marine rifle squad or provide mobility platforms that support the squad.</li> <li>- Continue to conduct operational integration using designated Marines in order to assess near term and Force Design equipment integration in operational environments.</li> <li>- Continue to utilize the Gruntworks Squad Integration Facility as an asset to execute innovation and technology searches, R&amp;D integration projects, prototyping, human performance trials, rapid assessment of technologies, and usability trials.</li> </ul>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2086 / Soldier/Marine Enhancement

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<ul style="list-style-type: none"> <li>- Continue to conduct human performance trials utilizing Marine Corps Load Effects Assessment Program (MC-LEAP) and other data collection methodologies in order to develop mobility metrics to support Force Design.</li> <li>- Continue to conduct usability trials, requirements generation workshops, and limited user evaluations for digital interoperability, handheld devices, and applications at the infantry platoon and squad level.</li> <li>- Continue to support integration of body armor, load bearing systems, and Integrated Helmet System with human factors and operational expertise.</li> <li>- Continue to conduct R&amp;D on squad systems in conjunction with Army, Special Operations Command (SOCOM), and Close Combat Lethality Task Force in order to leverage new technologies and capabilities to the rifle squad to include Integrated Visual Augmentation System and Enhanced Night Vision Goggle Binocular.</li> <li>- Continue to conduct surveys with post deploying infantry battalions on usability and integration of equipment utilized during deployment.</li> <li>- Continue to conduct human performance testing of Marines utilizing current and prototype configurations of infantry rifle squad equipment.</li> <li>- Continue to seek weight and volume reduction replacements for current infantry equipment that support integration of components. Identify and analyze power solutions to support increased power demands of new capabilities within the rifle squad.</li> <li>- Continue to implement capability requirements from Force Design experimentation.</li> </ul> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease of \$0.064M reflects the completion of the Anthropometry Survey data collection.</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	1.907	2.357	2.293	0.000	2.293

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

N/A

**Remarks**

**D. Acquisition Strategy**

Non Developmental Item/Commercial off the Shelf (NDI/COTS).

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy												Date: March 2024				
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)								
1319 / 7				PE 0206623M / MC Ground Cmbt Spt Arms Sys				2086 / Soldier/Marine Enhancement								
<b>Product Development (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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	
Prior Years Cumulative Funding	Various	Marine Corps Systems Command : Quantico, VA	12.792	0.000		0.000		0.000		-		0.000	0.000	12.792	-	
<b>Subtotal</b>			12.792	0.000		0.000		0.000		-		0.000	0.000	12.792	N/A	
<b>Support (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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	
MERS Technical Support	C/IDIQ	Various : Various	0.932	0.000		0.043	May 2024	0.000		-		0.000	Continuing	Continuing	Continuing	
MERS Technical Support - AFRL Contract	MIPR	GSA : Not Specified	6.354	0.225	Dec 2022	0.315	Jan 2024	0.493	Feb 2025	-		0.493	0.000	7.387	Continuing	
MERS Technical Support	C/CPFF	MCSC : Quantico, VA	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-	
Prior Years Cumulative Funding	Various	Various : Various	9.527	0.000		0.000		0.000		-		0.000	0.000	9.527	-	
<b>Subtotal</b>			16.813	0.225		0.358		0.493		-		0.493	Continuing	Continuing	N/A	
<b>Test and Evaluation (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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	
Developmental Test & Evaluation (DT&E)	Various	MCSC : Quantico, VA	0.756	1.682	Mar 2023	1.999	Mar 2024	1.800	Dec 2024	-		1.800	0.000	6.237	-	
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	Various : Various	12.583	0.000		0.000		0.000		-		0.000	0.000	12.583	-	
<b>Subtotal</b>			13.339	1.682		1.999		1.800		-		1.800	0.000	18.820	N/A	



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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2086 / Soldier/Marine Enhancement
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<b>Proj 2086</b>	<b>FY 2023</b>				<b>FY 2024</b>				<b>FY 2025</b>				<b>FY 2026</b>				<b>FY 2027</b>				<b>FY 2028</b>				<b>FY 2029</b>			
	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
	MERS Research/Int of Infantry Squad																											
Marine Enhancement Prog Equipment																												
Empty grid for data entry																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2086 / Soldier/Marine Enhancement

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 2086</b>				
MERS research/integration of Infantry Squad - No major milestones	1	2023	4	2029
Marine Enhancement Program Equipment - No major milestones	1	2023	4	2029

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys				<b>Project (Number/Name)</b> 2112 / Lightweight 155mm Howitzer			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2112: <i>Lightweight 155mm Howitzer</i>	8.670	0.014	0.015	0.013	-	0.013	0.013	0.012	0.012	0.012	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

LW155 (also known as the M777A2 howitzer) provides all weather, day/night direct, reinforcing, and general support fires to maneuver forces as well as direct support artillery. It is a joint program between the Marine Corps and Army, which is additionally supporting various foreign military purchases of the weapon system. The M777A2 howitzer was first fielded by the Marine Corps in April 2005 and completed fielding in April 2013. The M777A2 howitzer is used significantly in support of Operation Inherent Resolve. This budget item supports system updates to maintain and increase performance and lethality. The M777A2 howitzer is the prominent weapon of the Marine indirect fires triad and currently the only cannon in the Service.

In FY 2025, the program will continue to focus on improving the Digital Fire Control System (DFCS) of the M777A2 while allowing for operation in a Global Positioning System (GPS) denied/ challenged environment. Continued operation in a GPS denied/ challenged environment is critical to the M777A2 ability to fire Precision Guided Munitions (PGM). The M777A2 will leverage the US Army's Assured Positioning, Navigation, and Timing (APNT) initiatives, such as Mounted APNT System (MAPS), as well as DFCS efforts by other US Army weapon system platforms, to help evaluate future modernization efforts for the M777A2.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> Lightweight 155mm Howitzer Product Improvements	0.014	0.015	0.013	0.000	0.013
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b> -Continue engineering studies to integrate the latest technologies for continued operation against peer threats.					
<b>FY 2025 Base Plans:</b> -Continue technical studies to integrate the latest technologies onto the howitzer for continued operation against peer threats.					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease from FY 2024 to FY2025 reflects the reduction of studies performed.					
<b>Accomplishments/Planned Programs Subtotals</b>	0.014	0.015	0.013	0.000	0.013

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2112 / Lightweight 155mm Howitzer

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

Line Item	FY 2023	FY 2024	FY 2025	FY 2025	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Cost To	Total Cost
			Base	OCO	Total					Complete	
• PMC/2185: 155MM Ltw Towed Howitzer	3.356	0.489	1.823	-	1.823	0.511	1.893	1.931	1.971	0.000	1,462.291

**Remarks**

**D. Acquisition Strategy**

RDTE efforts in FY 2025 will leverage existing technologies to integrate and evaluate to inform future modernization efforts in terms of hardware and software upgrades for M777A2 howitzer. Future upgrades will be evaluated based on cost and impact to operation.

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2025 Navy</b>											<b>Date: March 2024</b>				
<b>Appropriation/Budget Activity</b> 1319 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys					<b>Project (Number/Name)</b> 2112 / Lightweight 155mm Howitzer				

<b>Product Development (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
LW155 Product Improvements	MIPR	CCDC-AC : Picatinny Arsenal, NJ	8.667	0.014	Oct 2022	0.015	Oct 2023	0.013	Oct 2024	-		0.013	Continuing	Continuing	Continuing
<b>Subtotal</b>			8.667	0.014		0.015		0.013		-		0.013	Continuing	Continuing	N/A

**Remarks**  
Program will continue to perform engineering studies to integrate the latest technologies for continued operation against peer threats.

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Developmental Test & Evaluation (DT&E)	MIPR	Yuma Proving Ground : Yuma, AZ	0.003	0.000		0.000		0.000		-		0.000	0.000	0.003	-
<b>Subtotal</b>			0.003	0.000		0.000		0.000		-		0.000	0.000	0.003	N/A

<b>Project Cost Totals</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
	8.670	0.014	0.015	0.013	-	0.013	Continuing	Continuing	N/A

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2112 / Lightweight 155mm Howitzer
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<b>Proj 2112</b>	<b>FY 2023</b>				<b>FY 2024</b>				<b>FY 2025</b>				<b>FY 2026</b>				<b>FY 2027</b>				<b>FY 2028</b>				<b>FY 2029</b>			
	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
Evaluation																												
Empty grid for data entry																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2112 / Lightweight 155mm Howitzer

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 2112</b>				
LW155 Modernization Research	1	2023	4	2029

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys				<b>Project (Number/Name)</b> 2237 / Amphibious Vehicle Test			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2237: Amphibious Vehicle Test	23.161	2.681	3.246	2.731	-	2.731	2.740	2.800	2.856	2.916	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

The mission of the Amphibious Vehicle Test Branch (AVTB) is to plan, execute, analyze, and report developmental and integrated test and evaluation events of amphibious, expeditionary, and combat vehicle systems, and other capabilities that operate in the littorals, to enable informed requirements development and acquisition decisions. The AVTB is a branch of the Marine Corps Tactical Systems Support Activity (in FY 2024, MCTSSA was designated a Science & Technology Reinvention Lab (STRL)). AVTB is responsible for the operation and management of Department of Defense's premier amphibious vehicle test facility to test the department's capabilities that operate in the littorals. The AVTB supports experimentation, develops test plans, executes test and evaluation, and provides analysis and reporting of developmental and integrated test and evaluation events of amphibious and littoral combat capabilities. The AVTB conducts and supports testing for Marine Corps System Command; Navy and other service Program Executive Offices and Program Management Offices; the Office of Naval Research; the Marine Corps Warfighting Laboratory; the Deputy Commandant for Plans, Policy, and Operations; and the Deputy Commandant for Capabilities Development and Integration.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> Contracts and Test and Evaluation Support Assets	2.681	3.246	2.731	0.000	2.731
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b>					
Amphibious Combat Vehicle (ACV) Family of Vehicles (FoV):					
- Continuation of ACV-P follow on testing as required - System upgrades and platform modifications.					
- Continuation of ACV-C follow on testing as required - System upgrades and platform modifications.					
- ACV-30 testing for the Engineering and Manufacturing Development (EMD) phase. Plan and conduct Reliability					
Growth Testing (RGT).					
- Continue testing for the ACV-R EMD phase. Plan and conduct RGT.					
Assault Amphibious Vehicle (AAV) Family of Vehicles (FoV):					
- Continuation of AAVP7/C7/R & ECP follow on testing as required - System upgrades and platform modification.					
Advanced Reconnaissance Vehicle (ARV):					
- Continuation of ARV testing for the Engineering and Manufacturing Development (EMD) phase - developmental and reliability testing of competitive vendors.					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2237 / Amphibious Vehicle Test

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<p>Light Armor Reconnaissance Vehicle (LAV) Family of Vehicles (FoV): -Continuation of LAV FoV ECP follow-on testing as required - system upgrades and platform modifications.</p> <p><b>FY 2025 Base Plans:</b> Support the management and execution of test and evaluation projects in support of Marine Corps Program Offices, to include: - Program Manager, Advanced Amphibious Assault (PM AAA) for continued development of the Amphibious Combat Vehicle (ACV) Family of Vehicles. - Program Manager, Light Armored Vehicles (PM LAV) for initial development of the Advanced Reconnaissance Vehicle - Program Manager Long Range Fires (PM LRF) and Program Manager Fire Support Systems.</p> <p>Support the management and execution of test and evaluation projects in support of emergent Force Design 2030 concepts and programs.</p> <p>Support the management and execution of demonstration and experimentation activities for the Department of Defense science and technology/research and development programs; to include the Office of Naval Research, Marine Corps Warfighting Laboratory, and Defense Advanced Research Projects Agency.</p> <p>Sustain and modernize the laboratory, fabrication and maintenance shops, and engineering facilities to keep pace with Department of Defense technological innovation needs to inform requirements development and acquisition decisions for the Department of Defense.</p> <p>Sustain and invest in the branch's field laboratory and test operations center, test support watercraft, and deployable test equipment to conduct safe and responsive test and evaluation at remote locations in support of Department of Defense requirements.</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b></p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2237 / Amphibious Vehicle Test

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
The decrease from FY 2024 to FY 2025 is due to higher Department of the Navy (DON) priorities, and reflects eliminated Lab tech support.					
<b>Accomplishments/Planned Programs Subtotals</b>	2.681	3.246	2.731	0.000	2.731

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

N/A

**Remarks**

**D. Acquisition Strategy**

The Amphibious Vehicle Test Branch supports the Department of Defense's amphibious and expeditionary combat vehicle systems developmental testing and evaluation through all stages of the acquisition life cycle. It is agile enough to conduct testing ranging from science and technology/research and development, demonstrations of prototype systems, product qualification for fielded systems, and validation and verification of engineering change proposals. AVTB sustainment and test support is conducted through a mix of military subject matter experts, federal civil service, support contracts, and support from Fleet Marine Forces.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2237 / Amphibious Vehicle Test
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<b>Product Development (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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	Various : Various	2.430	0.000		0.000		0.000		-		0.000	0.000	2.430	-
<b>Subtotal</b>			2.430	0.000		0.000		0.000		-		0.000	0.000	2.430	N/A

<b>Support (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Facility/Test Infrastructure	C/FFP	NAVFAC, SW : Camp Pendleton, CA	1.375	0.150	Oct 2022	0.350	Oct 2023	0.367	Oct 2024	-		0.367	Continuing	Continuing	Continuing
Test Assets//Operator Spprt	C/FFP	MCTSSA Camp Pend : Camp Pendleton, CA	6.016	1.232	Jan 2023	1.374	Jan 2024	1.159	Jan 2025	-		1.159	0.000	9.781	-
Vehicle Support	WR	RCO Camp Pendleton : Camp Pendleton, CA	0.571	0.123	Oct 2022	0.055	Oct 2023	0.057	Oct 2024	-		0.057	Continuing	Continuing	Continuing
Hazmat POL PPE	Various	MCTSSA Camp Pendleton : Camp Pendleton, CA	0.531	0.020	Oct 2022	0.045	Oct 2023	0.047	Oct 2024	-		0.047	0.000	0.643	-
Crane Test Support	C/IDIQ	MCTSSA Camp Pendleton : Camp Pendleton, CA	0.270	0.000		0.000		0.000		-		0.000	0.000	0.270	-
Test article fuel (J8)	Various	AVTB : Camp Pendleton, CA	1.096	0.052	Oct 2022	0.042	Oct 2023	0.040	Oct 2024	-		0.040	0.000	1.230	-
Test support Fuel (Diesel)	Various	AVTB : Camp Pendleton, CA	0.981	0.010	Oct 2022	0.008	Oct 2023	0.006	Oct 2024	-		0.006	0.000	1.005	-
Prior Years Cumulative Funding	Various	Various : Various	0.452	0.000		0.000		0.000		-		0.000	0.000	0.452	-
<b>Subtotal</b>			11.292	1.587		1.874		1.676		-		1.676	Continuing	Continuing	N/A

**Remarks**  
The decrease from FY 2024 to FY 2025 of \$0.198M reflects reduced Operator support.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2237 / Amphibious Vehicle Test
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<b>Test and Evaluation (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Developmental Test & Evaluation (DT&E)	Various	AVTB : Camp Pendleton, CA	2.049	0.102	Feb 2023	0.180	Oct 2023	0.189	Oct 2024	-		0.189	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	WR	AVTB : MCTSSA Camp Pendleton	0.861	0.200	Feb 2023	0.000	Oct 2023	0.000		-		0.000	0.000	1.061	-
<b>Subtotal</b>			2.910	0.302		0.180		0.189		-		0.189	Continuing	Continuing	N/A

**Remarks**  
The increase from FY 2024 to FY 2025 of \$0.009M is primarily attributed to inflation.

<b>Management Services (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Data Mgmt & T&E Service Supt	C/FFP	MCTSSA Camp Pendleton : Camp Pendleton	3.358	0.339	Mar 2023	0.354	Mar 2024	0.372	Apr 2025	-		0.372	Continuing	Continuing	Continuing
Lab and Tech Writer Supt.	C/FFP	MCTSSA Camp Pendleton : Camp Pendleton	3.171	0.453	Nov 2022	0.470	Nov 2023	0.494	Nov 2024	-		0.494	0.000	4.588	-
Comm Spt. and Lab Tech	C/FFP	MCTSSA Camp Pendleton : Camp Pendleton	0.000	0.000	Nov 2022	0.368	Nov 2023	0.000		-		0.000	0.000	0.368	-
<b>Subtotal</b>			6.529	0.792		1.192		0.866		-		0.866	Continuing	Continuing	N/A

**Remarks**  
The decrease from FY 2024 to FY 2025 of \$0.326M reflects eliminated Lab tech support.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	23.161	2.681	3.246	2.731	-	2.731	Continuing	Continuing	N/A

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2237 / Amphibious Vehicle Test
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Proj 2237	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				
	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	
<b>MARCORSYSCOM PM Office / PEO Land Systems Support</b>																													
	Developmental T&E																												
<b>AVTB Management Support</b>																													
	Developmental T&E																												
<b>OPFOR / FD 2030 Emergent Requirements Support</b>																													
	Demonstration and Experimentation																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2237 / Amphibious Vehicle Test

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 2237</b>				
MARCORSYSCOM PM Office / PEO Land Systems Support: MARCORSYSCOM PM Office / PEO Land Systems Support	1	2023	4	2029
AVTB Management Support: Sustainment, Investment and Modernization of Test Facilities and Equipment	1	2023	4	2029
OPFOR / FD 2030 Emergent Requirements Support: FMF / HQMC	1	2023	4	2029

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys				<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2315: Training Devices/Simulators	60.340	34.069	27.494	17.711	-	17.711	31.187	21.804	16.733	16.881	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

The training devices and simulators in this project support all live, virtual, and constructive training requirements for the United States Marine Corps. Current Programs of Record are: Training Simulation Support (TSS) (program name to change to Live, Virtual, and Constructive Training Environment (LVC-TE) in FY 2024), Force on Force Training Systems (FoFTS), Combined Arms Command & Control Training Upgrade System (CACCTUS), Deployable Virtual Training Environment (DVTE), Marine Air-Ground Task Force (MAGTF) Tactical Warfare Simulation (MTWS) Enhancements, Ranges and Training Area Management (RTAM) (Formerly Range Modernization/Transformation), Supporting Arms Virtual Trainer (SAVT), Immersive Training Range Support (ITRS), Indoor Simulated Marksmanship Trainer (ISMT), the Family of Egress Trainers (FET), and Marine Corps Training Information Management System (MC-TIMS). These training systems provide tactical weapons and decision-making skill training for entry level Marines through MAGTF staff level. Marine Corps Force Design 2030 is driving changes to the operating forces that require training system integration with LVC-TE. LVC-TE modernization realigns CACCTUS, MTWS, and SAVT capabilities within TSS to promote joint training, education, and development of doctrine and tactics that meet the needs of the current and future warfighter. Interoperability with LVC-TE improves Marines' ability to conduct mission planning, mission rehearsal, and concept evaluation in valid synthetic and live environments to promote better global outcomes.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> Combined Arms Command and Control Trainer Upgrade System (CACCTUS)	0.000	5.276	0.000	0.000	0.000
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> Combined Arms Command and Control Trainer Upgrade System (CACCTUS) is a Combined Arms Command and Control (C2) Training System that enables comprehensive Marine Corps staff, unit, and team training both at home station Combined Arms Staff Training (CAST) facilities and through distributed training involving CAST facilities across the Marine Corps. CACCTUS is an upgrade to the USMC's CAST that provides fire support training for the Marine Air-Ground Task Force (MAGTF) elements up to and including the Marine Expeditionary Brigade (MEB) level. Using the system components and simulation capabilities, two dimensional (2D) and three dimensional (3D) visuals, interfaced Command, Control, Communications, Computers and Intelligence (C4I), synthetic terrain, and an After Action Review (AAR), the concept of operations for the CACCTUS system is to immerse the trainees in a realistic, scenario-driven environment to enable commands and their battle staffs to train or rehearse combined arms tactics, techniques, and procedures for decision-making processes. CACCTUS is a threshold requirement constituent system of Live Virtual Constructive-Training Environment (LVC-TE). CACCTUS will begin the initial steps of merging functional baselines and					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p>training capabilities with MTWS to achieve the goals of the Battle Staff Training System through MAGTF Warfare Simulation (MTWS) Modification to Re-engineer Key Improvements (MRKI), modification, and re-engineering of key infrastructure participation.</p> <p><b>FY 2024 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue development to retain currency of training and readiness tasks and tactics, techniques, and procedures with combined arms effort.</li> <li>- Continue program office support of government and contractor labor and travel for related research, development, and test support for ground training systems</li> <li>- Continue interoperability activities with training systems that support the full range of military operations.</li> <li>- Continue development, test, integration &amp; interoperability efforts to retain federate position within LVC-TE</li> <li>- Continue test and integration efforts for Office of Naval Research transition programs and efforts with operational gear (C4I)</li> <li>- Continue cyber related testing and system development to retain authority to operate/connected to new networks</li> </ul> <p><b>FY 2025 Base Plans:</b></p> <p>CACCTUS program capabilities and resources are being realigned to the TSS/LVC-TE (Training and Simulation/ Live, Virtual, Constructive - Training Environment).</p> <ul style="list-style-type: none"> <li>- Continue development, test, integration &amp; interoperability efforts to retain federate position within LVC-TE</li> <li>- Continue cyber related testing and system development to retain authority to operate/connected to new networks</li> </ul> <p><b>FY 2025 OCO Plans:</b></p> <p>N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b></p> <p>Decrease of \$5.276M from FY2024 to FY2025 is due to the integration and consolidation of CACCTUS into LVC-TE.</p>					
<p><b>Title:</b> Deployable Virtual Training Environment (DVTE)</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> DVTE is a laptop Personal Computer (PC) based simulation system capable of emulating organic and supporting infantry battalion weapons systems and other scenarios that facilitate readiness based training. It is a portable configuration that allows Marines to train in areas where there are few options for training in</p>	0.000	0.365	1.478	0.000	1.478
	-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy			<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators			
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>					
garrison, for example: aboard ship, at remote reserve locations, or deployed. DVTE training includes language and culture training, platoon and squad level tactics, employment of supporting arms, and various Recognition of Combatants (ROC) packages, as well as support all efforts under Project Tripoli. DVTE is part of a Commander's "training toolkit" contributing to the building block approach to standards based training that focuses on achieving an improved level of combat readiness. DVTE will be renamed the Marine Common Virtual Platform (MCVP) in FY2024. MCVP capabilities and resources will transition to LVC-TE in FY2025.					
<b>FY 2024 Plans:</b>					
<ul style="list-style-type: none"> <li>- Continue integration of technology products transitioned from the Office of Naval Research (ONR)</li> <li>- Continue program office support of government and contractor labor /travel for related research, development, and test support for ground training systems</li> <li>- Continue interoperability activities with ground and air training systems</li> <li>- Continue development, test, and integrate interoperability efforts to retain a federate within LVC-TE</li> <li>- Initiate procurement of Lab assets hardware and software and perform the necessary integration and testing requirements. Design validation, analyzing the design limits of the product to better understand how it's likely to perform in the real world and provide feedback on any areas of potential design optimization before the final revision of the design gets produced.</li> </ul>					
<b>FY 2025 Base Plans:</b>					
<ul style="list-style-type: none"> <li>- Continue integration of technology products transitioned from ONR</li> <li>- Continue program office support of government and contractor labor /travel for related research, development, and test support for ground training systems</li> <li>- Continue interoperability activities with ground and air training systems</li> <li>- Continue development, test, and integrate interoperability efforts to retain a federate within LVC-TE</li> </ul>					
<b>FY 2025 OCO Plans:</b>					
N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b>					
Increase of \$1.113M from FY2024 to FY2025 is due to Marine Corps Virtual Platform (MCVP) additional capabilities and requirements leveraged in FY2023 requiring significant development efforts to meet those requirements.					
<b>Title:</b> Force on Force Training Systems (FoFTS)					
<b>Articles:</b>					
	7.644	3.305	2.820	0.000	2.820
	-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p><b>Description:</b> Force on Force Training Systems (FoFTS) provides realistic, non-live fire capabilities to perform force on force training using personnel, combat vehicles, and weapons surrogate devices as part of a suite of tactical engagement capabilities that enhance training around the world and across the range of military operations. The program includes tactical training systems such as the Special Effects Small Arms Marking System (SESAMS) and advanced, instrumented, laser-based tactical engagement systems such as the FoFTS-Next that provide realistic weapons effects, position locating, and enhanced After Action Review (AAR) capability to support Live-Virtual-Constructive (LVC) events in the MAGTF Training Program curriculum. This program is critical to enabling Marines to train in a realistic, force on force environment in lieu of live-fire training and allows for training against a peer and near peer threat in a more authentic, multisensory environment. This capability improves training realism through Force on Force training capabilities, and is a line of effort in the Marine Corps Range Training Area Management Campaign Plan, which was developed to address the specific challenges articulated in the Commandants Planning Guidance. To that end, the program's production and fielding of the FoFTS-Next Marine Corps Tactical Instrumentation System - Personnel (MCTIS-P), comprises a complete replacement and increased capability of the in-service I-TESS II system. Additionally, through integration of combat vehicle (MCTIS-V) and weapons surrogates (MCTIS-WS) capabilities, the FoFTS-Next program will field an entirely new realistic and immersive Force on Force training capability. Funding supports procurement of FoFTS-Next MCTIS-P, MCTIS-V, MCTIS-WS, and enhanced networking capability to provide a more robust and comprehensive AAR. The program is on schedule to achieve initial operational capability (IOC) by FY 2024 and FOC by FY 2026.</p> <p><b>FY 2024 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue development of the Weapons Surrogates (MCTIS-WS) for integration into the FoFTS-Next system and training environment.</li> <li>- Continue MCTIS-V development for the integration of the LAV and ACV combat vehicles into the FoFTS-Next system and training environment.</li> <li>- Travel to support evaluation and testing.</li> </ul> <p><b>FY 2025 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue development of the Weapons Surrogates (MCTIS-WS) for integration into the FoFTS-Next system and training environment.</li> <li>- Continue MCTIS-V development for the integration of the LAV and ACV combat vehicles into the FoFTS-Next system and training environment.</li> </ul>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Travel to support evaluation and testing.					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease of \$0.485M from FY2024 to FY2025 is a result of completing several subcomponents of the Marine Corps Tactical Instrumentation Systems - Weapon Surrogate (MCTIS-WS).					
<b>Title:</b> Marine Air-Ground Task Force (MAGTF) Tactical Warfare Simulation (MTWS) Enhancements	7.597	4.262	0.000	0.000	0.000
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> The MAGTF Tactical Warfare Simulation (MTWS) is the Marine Corps's only constructive, aggregate-level simulation system used to support the training of Marine commanders and their battle staffs in MAGTF war-fighting principles, concepts, and associated command and control procedures. Using complex computer-simulated behavior models, MTWS provides an interactive, decision-based, real-time, war game representing the six war-fighting functional areas of fires, command and control, force protection, logistics, maneuver, and intelligence. Its modeling breadth and flexibility enables users to represent and exercise a wide variety of combat scenarios to prepare leaders to face the military challenges of today's world. MTWS is designed to support the training of commanders and their staffs in exercises involving live and simulated land, air, and naval forces at all operational command levels. The system supports all levels of command throughout the Marine Expeditionary Force (MEF) and Joint Task Force (JTF). MTWS can be used as a multi-sided war game, including red, blue, civilian, and non-aligned sides. The system can also be used to validate specific operational plans against a variety of enemy and environmental situations. Thus command personnel may examine alternative tactical solutions on a "what if" basis. MTWS is an objective requirement constituent system of LVC-TE and is undergoing a re-engineering effort via the MTWS Modification to Re-engineer Key Improvements (MRKI) program.					
<b>FY 2024 Plans:</b>					
- Continue JLVC Federation annual release.					
- Continue to develop new software capabilities to meet changing operational environment.					
- Continue to develop Joint Live, Virtual and Constructive (JLVC) Federation capabilities.					
- Continue effort to re-engineer the MTWS software baseline.					
- Continue training system interoperability to include additional C4I devices.					

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<ul style="list-style-type: none"> <li>- Continue program office support of government and contractor labor /travel for related research, development, and test support for ground training systems.</li> <li>- Continue cyber related testing and system development to retain authority to operate/connected to current and new networks.</li> <li>- Continue development, testing, and integration efforts for system re- engineering effort (MRKI).</li> <li>- Continue interoperability activities with training systems that support the full range of military operations.</li> <li>- Continue development, test, integration &amp; interoperability efforts to retain a federate within LVC-TE and JLVC</li> <li>- Continue LVC-TE constituents development, test, and integration support.</li> <li>- Initiate Battle Staff Training System (BSTS) development, test, and integration support.</li> </ul> <p><b>FY 2025 Base Plans:</b> Capabilities and resources are being realigned to the TSS/LVC-TE (Training and Simulation/Live, Virtual, Constructive - Training Environment).</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease of \$4.262M from FY2024 to FY2025 is due to the integration and consolidation of MTWS into LVCTE.</p> <p><b>Title:</b> Marine Corps Training Information Management System (MCTIMS)</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> Marine Corps Training Information Management System (MCTIMS) is the enterprise training system for the Marine Corps. The unit training modules allows the Total Force to meet their requirement to record, track, and report training. MCTIMS maintains training and readiness manuals, curricula, MOS manuals/ road maps, course schedules, and seat allocations. In addition, MCTIMS is used to input and track student registrations, test scores, class standings, and course completions. The training resource module gives small unit leaders access to curriculum materials to support training.</p> <p><b>FY 2024 Plans:</b> N/A</p> <p><b>FY 2025 Base Plans:</b> N/A</p> <p><b>FY 2025 OCO Plans:</b></p>	3.466	0.000	0.000	0.000	0.000
	-	-	-	-	-

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<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
N/A					
<p><b>Title:</b> Ranges and Training Area Management (RTAM)</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> Ranges and Training Area Management (RTAM) developments are associated with modernizing live training ranges at major USMC bases and stations. This development effort enhances After Action Review (AAR) with ground truth feedback, realistic representation of Opposing Forces (OPFOR), and will upgrade the range and exercise control capabilities. RTAM integrates Live, Virtual, and Constructive training technologies, thereby, enhancing fielded live-fire, force-on-target, and force-on-force training capabilities.</p> <p><b>FY 2024 Plans:</b></p> <ul style="list-style-type: none"> <li>- Complete developmental enhancements of Targetry Range Automated Control and Recording (TRACR) software for Friend-and-Foe target control and scenario development, to include integration with Range Instrumentation System Controller (RISCon-T).</li> <li>- Continue development of Targetry Range Automated Control and Recording II (TRACR II) software for Friend-and-Foe target control and scenario development, to include integration with Range Instrumentation System Controller (RISCon-T).</li> <li>- Continue Electronic Warfare Ground Instrumented Ranges (EWGIR) development with devices that can be activated to deny, degrade, and disrupt electromagnetic spectrum operations as the unit undergoing training operates within the area.</li> <li>- Initiate evaluation and development of Known Distance Automated Scoring (KDAS) system.</li> <li>- Initiate development of Live Fire Evaluation Tool (LFET) that increases shooters recognition, decision making and battlefield skill proficiency.</li> <li>- Initiate Range 100 at MIRAMAR tech data package (TDP) development of target framing system.</li> <li>- Travel to support evaluation and testing.</li> </ul> <p><b>FY 2025 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue development of Targetry Range Automated Control and Recording II (TRACR II) software for Friend-and-Foe target control and scenario development, to include integration with Range Instrumentation System Controller (RISCon-T).</li> <li>- Continue Electronic Warfare Ground Instrumented Ranges (EWGIR) development with devices that can be activated to deny, degrade, and disrupt electromagnetic spectrum operations as the unit undergoing training operates within the area.</li> <li>- Continue evaluation and development of Known Distance Automated Scoring (KDAS) system.</li> </ul>	0.102	3.747	3.620	0.000	3.620
	-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<ul style="list-style-type: none"> <li>- Continue development of Live Fire Evaluation Tool (LFET) that increases shooters recognition, decision making and battlefield skill proficiency.</li> <li>- Complete Range 100 at MIRAMAR tech data package (TDP) development of target framing system.</li> <li>- Travel to support evaluation and testing.</li> </ul> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease of \$0.127M is due to completion of developmental enhancements of TRACR software and reduced level of effort supporting Electronic Warfare Ground Instrumented Ranges development.</p>					
<p><b>Title:</b> Supporting Arms Virtual Trainer (SAVT)</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> Supporting Arms Virtual Trainer (SAVT) advances the training capability, operational readiness, and tactical proficiency of USMC Joint Terminal Attack Controllers (JTACS), Joint Fires Observers (JFOs), Forward Observers (FOs), and Forward Air Controllers (FACs). Personnel will use training scenarios that require the placement of simulated tactical ordnance on selected targets using Joint Close Air Support (JCAS) procedures and observed fire procedures for Naval Surface Fire Support (NSFS), artillery and mortar fire to perform destruction, neutralization, suppression, illumination/coordinated illumination, interdiction and harassment fire missions.</p> <p><b>FY 2024 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue Server Virtualization for the FO, FAC, Instructor, IOS, JSAF, and IG Computer Hardware to reduce required Hardware footprint and optimize system performance while using Thin Clients.</li> <li>- Continue cyber related testing and system development to retain authority to operate/connected to current and new networks</li> <li>- Continue test and integration efforts with operational gear (C4I)</li> <li>- Continue interoperability activities with ground and air training systems</li> <li>- Continue development, test, integration, and interoperability efforts to support a federate within LVC-TE</li> <li>- Continue Analysis of Alternatives (AOA) and begin development and integration of SAVT increment 2 solution(s) to Supporting Arms Training System (SATS)</li> </ul>	0.000	0.740	0.000	0.000	0.000
	-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p>- Continue to provide Engineering and Project Management support</p> <p><b>FY 2025 Base Plans:</b> Capabilities and resources are being realigned to the TSS/LVC-TE (Training and Simulation/Live, Virtual, Constructive - Training Environment).</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease in funding of \$0.740M from FY2024 to FY2025 is due capabilities and resources being realigned to the TSS/LVC-TE (Training and Simulation/Live, Virtual, Constructive - Training Environment).</p>					
<p><b>Title:</b> Immersive Training Range Support (ITRS)</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> Immersive Training Range Support (ITRS) provides and sustains innovative technologies and programs that enhance the effectiveness of training and education at home stations. Innovative technologies incorporate high-fidelity training environments with enhanced battlefield realism including exposure to operational complexities and mental and physical stressors that challenge tactical, moral, and ethical decision making. Develops small unit leader decision making and hone small unit collective skills in realistic, replicative, and rapidly repeatable venues. Ensures Marines first encounter their tactical and ethical dilemmas in a simulated battlefield rather than actual combat.</p> <p><b>FY 2024 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue CGF OTA prototype for available enhanced instrumentation for immersive training capabilities that directly support the Infantry T&amp;R.</li> <li>- Continue MITE development to bring immersive training capabilities to units in support of peer-near-peer training.</li> <li>- Travel to support evaluation and testing.</li> </ul> <p><b>FY 2025 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue CGF OTA prototype for available enhanced instrumentation for immersive training capabilities that directly support the Infantry T&amp;R.</li> <li>- Continue MITE development to bring immersive training capabilities to units in support of peer-near-peer training.</li> </ul>	3.962	2.155	0.561	0.000	0.561
	-	-	-	-	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
- Travel to support evaluation and testing.  <b>FY 2025 OCO Plans:</b> N/A  <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease of \$1.594M from FY2024 to FY2025 is due to FMBs DON25 RDTEN Under Execution which rephased an amount of FY25 funds to FY26 and FY27.					
<b>Title:</b> Training Simulation Support (TSS)  <b>Description:</b> Training Simulation Support (TSS) provides greater combat readiness and enhanced operational execution to support a training continuum that features planning, preparation, exercise, and assessment capabilities for the Marine Air Ground Task Force (MAGTF) commander in both Joint and Service venues, as well as support all efforts under Project Tripoli. TSS replicates a Contemporary Operational Environment (COE) and allows units to interact as though they are physically located in the same Operational Environment (OE). It also enables interoperability between diverse training programs to meet warfighting requirements and supports standards-based training from small unit events to large unit exercises. TSS supports continued constituent integration efforts into the Live, Virtual, and Constructive Training Environment (LVC-TE) and use of the Joint Live Virtual Constructive (JLVC), as well as the Joint Training Tool (JTT). LVC-TE is the tool that provides a persistent/consistent common operational training environment by which units can work together as though they are physically located in the same operational space with legacy and emerging training systems. TSS supports the LVC-TE timeline to deliver minimum viable product between the 1st and 2nd Quarter of FY 2023. Additional minimum viable capability releases are scheduled for every 6 months thereafter. This software intensive product is using the new Software Acquisition Pathway (DODI 5000.87), a transformational process that champions agile methods and fleet involvement to deliver what is most important to the fleet first.  <b>FY 2024 Plans:</b> - Continue development of Live, Virtual, Constructive functionality among constituents to include front end analysis for constituent and enterprise services. - Continue development of enterprise services to include Cross Domain Solution (CDS), Exercise Control Tool (ECT), Exercise Design Tool (EDT), After Action Review (AAR) solution, Data Repository, and Simulation Infrastructure Translation Services (SITS). - Continue transition of ONR products into the enterprise services	9.487	7.644	9.232	0.000	9.232
<b>Articles:</b>	-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
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**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<ul style="list-style-type: none"> <li>- Continue development of additional integration gateways and testing</li> <li>- Continue program office support of government and contractor labor /travel for related research, development, and test support for ground training systems</li> <li>- Continue cyber related testing and system development to retain authority to operate/connected to current and new networks</li> <li>- Continue test and integration efforts with operational gear (C4I)</li> <li>- Continue interoperability activities including gateway development with ground and air training systems</li> <li>- Continue the Development of MRKI to begin to field in late FY2024.</li> <li>- Labor support to Hill AFB for development efforts for MRKI</li> <li>- Complete planning/development of Leader Focus Decision Game (LFDG)</li> <li>- Initiate planning and development for Project Tripoli</li> <li>- Initiate development, testing, and prototyping of new and emerging technologies that support LVC training</li> <li>- Initiate Front End Analysis for emerging requirements</li> </ul> <p><b><i>FY 2025 Base Plans:</i></b></p> <ul style="list-style-type: none"> <li>- Continue development of Live, Virtual, Constructive functionality among constituents to include front end analysis for constituent and enterprise services.</li> <li>- Continue development of enterprise services to include Cross Domain Solution (CDS), Exercise Control Tool (ECT), Exercise Design Tool (EDT), After Action Review (AAR) solution, Data Repository, and Simulation Infrastructure Translation Services (SITS).</li> <li>- Continue transition of ONR products into the enterprise services</li> <li>- Continue development of additional integration gateways and testing</li> <li>- Continue program office support of government and contractor labor /travel for related research, development, and test support for ground training systems</li> <li>- Continue cyber related testing and system development to retain authority to operate/connected to current and new networks</li> <li>- Continue test and integration efforts with operational gear (C4I)</li> <li>- Continue interoperability activities including gateway development with ground and air training systems</li> <li>- Complete planning/development of Leader Focus Decision Game (LFDG)</li> <li>- Continue planning and development for Project Tripoli</li> <li>- Continue development, testing, and prototyping of new and emerging technologies that support LVC training</li> <li>- Continue Front End Analysis for emerging requirements</li> <li>- Initiate integration of Marine Corps Tactical Instrumentation System (MCTIS)</li> </ul>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy			<b>Date:</b> March 2024		
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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>					
<ul style="list-style-type: none"> <li>- Initiate research and development of the Aviation Distributed Virtual Training Environment (ADVTE) Command Aviation Command and Control System (CAC2S) capability</li> <li>- Initiate development of the Sim to Sim gateway into the LVC Core</li> <li>- Initiate development of the Sim to IS gateway into the LVC Core</li> <li>- Begin analysis on the Contested Logistics Simulation</li> <li>- Analysis on Multi Domain Fires capability to determine materiel solution</li> </ul>					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> The increase of \$1.588M from FY2024 to FY2025 is primarily due to: the integration of MCTIS and the increase in labor to support this requirement, research and development of the Aviation Distributed Virtual Training Environment (ADVTE) CAC2S capability, the development of the Sim to Sim gateway into the LVC Core, development of the Sim to IS gateway into the LVC Core, analysis of the Contested logistics simulation, and analysis of the Multi Domain Fires capability to determine materiel solution.					
<b>Title:</b> Indoor Simulated Marksmanship Trainer (ISMT)					
<b>Articles:</b>					
<b>Description:</b> Indoor Simulated Marksmanship Trainer (ISMT) provides basic and advanced marksmanship, shoot/no-shoot judgment scenarios, combat marksmanship, and weapons employment tactics. The ISMT provides infantry squad members with the ability to gain proficiency in multiple weapon platforms. Force Design 2030 will ensure small units, especially infantry squads, are led by the most well-trained and capable infantry Marines. The ISMT provides infantry squad members with the ability to gain proficiency in multiple weapon platforms while simulating live weapons training without the expenditure of expensive live ammunition. The system has five (5) firing positions and is capable of operating simulated weapons such as: rifles, pistols, machine guns, shotguns, mortars, and anti-tank weapons. ISMT also provides multiple courses of fire to include the Annual Rifle Qualification (ARQ) which is used to score Marines proficiency with service rifles. ISMT provides direct impact on the lethality of our infantry units.					
<b>FY 2024 Plans:</b> N/A					
<b>FY 2025 Base Plans:</b>					
	0.928	0.000	0.000	0.000	0.000
	-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
N/A					
<b>FY 2025 OCO Plans:</b> N/A					
<b>Title:</b> Family of Egress Trainers (FET)	0.883	0.000	0.000	0.000	0.000
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> The Family of Egress Trainers (FET) is comprised of the Underwater Egress Training (UET) and the Dry Rollover Egress Training (DRET). The UET consists of the Modular Amphibious Egress Trainer (MAET) a modular training device designed to train Marines to egress a downed aircraft; the Submerged Vehicle Egress Trainer (SVET) designed to train egress from ground tactical vehicles; and the Shallow Water Egress Trainer (SWET) which is a procedural trainer used prior to SVET and MAET. The trainers and associated training programs are conducted by contractors. The program is directed toward non-crew passengers aboard these vehicles. The DRET is comprised of the HMMWV Egress Trainer (HEAT), the MRAP Egress Trainer (MET), and the JLTV Egress Trainer (JET). All of these devices have the ability to train egress principles that can be applied to increase survivability during a catastrophic event. This type of training can only be conducted by the use of these systems.					
<b>FY 2024 Plans:</b> N/A					
<b>FY 2025 Base Plans:</b> N/A					
<b>FY 2025 OCO Plans:</b> N/A					
<b>Accomplishments/Planned Programs Subtotals</b>	34.069	27.494	17.711	0.000	17.711

<b>C. Other Program Funding Summary (\$ in Millions)</b>							<b>Cost To</b>				
<b>Line Item</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Complete</b>	<b>Total Cost</b>
• PMC/6532-02: <i>Training Devices, DVTE</i>	1.791	1.630	1.970	-	1.970	0.000	0.000	1.987	2.458	Continuing	Continuing
• PMC/6532-03: <i>Training Devices, FoFTS</i>	40.764	44.982	33.372	-	33.372	9.844	9.995	10.263	10.479	Continuing	Continuing

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**Exhibit R-2A, RDT&E Project Justification:** PB 2025 Navy **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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**C. Other Program Funding Summary (\$ in Millions)**

<b>Line Item</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PMC/6532-04: <i>Training Devices, MTWS</i>	0.000	2.245	0.473	-	0.473	0.000	0.000	0.000	0.000	Continuing	Continuing
• PMC/6532-05: <i>Training Devices, RTAM</i>	6.082	27.209	36.582	-	36.582	32.604	30.944	33.261	34.207	Continuing	Continuing
• PMC/6532-06: <i>Training Devices, TSS</i>	10.147	0.000	18.648	-	18.648	20.046	19.599	19.971	14.079	Continuing	Continuing
• PMC/6532-07: <i>Training Devices, FET</i>	0.000	13.888	5.405	-	5.405	5.514	5.626	2.312	2.361	Continuing	Continuing
• PMC/6532-09: <i>Training Devices, ISMT</i>	0.000	6.216	6.818	-	6.818	10.402	7.010	7.176	7.359	Continuing	Continuing
• PMC/6532-10: <i>Operator Driving Simulator, ODS</i>	0.000	0.000	1.763	-	1.763	0.619	0.631	0.643	0.656	0.000	4.312

**Remarks**

**D. Acquisition Strategy**

CACCTUS - Transitioning legacy battle staff and fire simulation capabilities to a multi-domain fires simulation capability within LVC-TE in FY 2024.

DVTE - Continuing to develop task orders on electronics and communication services for system development, test, and integration efforts. Program will expand in FY2024 to improve fires training and generate commonality across the Marine Corps LVC-TE enterprise as the Marine Common Virtual Platform (MCVP).

FoFTS - Successfully awarded OTA for Marine Corps Tactical Instrumentation Systems - Vehicles (MCTIS-V). Developing OTAs for Marine Corps Tactical Instrumentation Systems - Weapon Surrogate (MCTIS-WS) award in FY 2025.

MTWS - Transitioning legacy battle staff training to LVC-TE. MIPRs to Hill AFB for labor supporting modernization efforts, service support contact labor, and reimbursable work request.

RTAM - MIPR to the Army-PEO STRI planned for award on existing Consolidated Product-line Management Contract.

SAVT - MIPR funds to Warfare Center to conduct a Front End Analysis (FEA) to enable transition of fire support simulation training and certification requirements to a multi-domain fires simulation capability within LVC-TE in FY2024.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
<p>ITRS - MIPR to the ACC-Orlando planned for award on existing Consolidated Product-line Management Contract. MIPR to ACC-Orlando planned for OTA award to CGF.</p> <p>TSS - To be renamed LVC-TE in FY 2024. Transitioning multiple legacy capabilities and resources to LVC-TE to eliminate stove-piping and promote joint integration. MIPR to Army-PEO STRI Consolidated Product-line Management Contract to continue development effort for LVC-TE functionality. Funding will support service support contact labor and reimbursable work request. Planned award for the LVC Enterprise (LVC-E) product line management and software development effort.</p> <p>MCTIMS - Modernization efforts to utilize reimbursable work request(s) to NIWC Atlantic planned for both Navy and contractor support.</p> <p>ISMT - Pursuing the Advanced Small Arms Lethality Trainer (ASALT) which will provide advanced marksmanship training and alignment to Force Design 2030. Weapons concurrency and technology refresh of all software and hardware are planned for upcoming fiscal years. Newly fielded tactical systems like M3A1 Multi-Role Anti-Armor Anti-Personnel Weapons System (MAAWS) will be simulated on ISMT. System upgrades and new capabilities will be pursued via prototype OTAs. Upon successful completion of those prototype efforts, items will be procured separately on either a production OTA or another FAR based type of contract vehicle. RDT&amp;E are centered on human performance data capture and improved simulator ballistics. Future integration requirements will align ISMT capabilities with LVC-TE training goals and Small Unit Tactical Training Systems (SUTTS) Requirements.</p> <p>FET - The acquisition strategy is designated for the design and test of the next generation of Submerged Vehicle Egress Trainer (SVET) and the Multi-Use Egress Trainer (MUET).</p> <p>MCDT - Transition to emerging Ground Vehicle Training Systems (GVTS) requirement. Enabling LVC-TE integration and modernization of Operator Driver Simulator (ODS) capability required to sustain Marine Corps driver's license programs.</p>		

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2025 Navy</b>												<b>Date: March 2024</b>			
<b>Appropriation/Budget Activity</b> 1319 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys				<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators					

<b>Product Development (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
CACCTUS - Development/Integration/Interoperability	C/CPFF	Eng. and Comp. Sim : Orlando, FL	0.610	0.000		3.776	Feb 2024	0.000		-		0.000	0.000	4.386	-
DVTE - Development/Integration/Interoperability	Various	Various : Various	0.438	0.000		0.215	Feb 2024	1.478	Feb 2025	-		1.478	0.000	2.131	-
MCTIMS	WR	NIWC-LANT : Charleston, SC	3.586	3.466	Apr 2023	0.000		0.000		-		0.000	0.000	7.052	-
MTWS - Reengineering	MIPR	Hill AFB : Utah	16.294	3.571	Mar 2023	3.500	Jan 2024	0.000		-		0.000	Continuing	Continuing	Continuing
MTWS - Development/Integration/Interoperability	C/CPFF	Envision Innovative Solution : Orlando, FL	1.172	1.250	Apr 2023	0.549	Apr 2024	0.000		-		0.000	0.000	2.971	-
MTWS - Front End Analysis	C/FFP	MCSC : Orlando, FL	0.000	2.223	Jun 2023	0.000		0.000		-		0.000	0.000	2.223	-
FoFTS MCTIS-WS Development	Various	MCSC : TBD	0.114	1.444	May 2023	3.290	Feb 2024	1.260	Apr 2025	-		1.260	0.000	6.108	-
FoFTS MCTIS-V Development	Various	MCSC : Quantico, VA	0.338	6.180	Mar 2023	0.000		1.535	Mar 2025	-		1.535	0.000	8.053	-
RTAM RISCon-T/PDSS SW/TRACR II Dev	MIPR	ACC-Orlando : Orlando, FL	11.562	0.000		1.050	Jun 2024	0.376	May 2025	-		0.376	Continuing	Continuing	Continuing
RTAM LFET	C/FFP	NSWC Dahlgren : Dahlgren, VA	0.207	0.000		0.000		1.618	Jun 2025	-		1.618	0.000	1.825	-
RTAM Electronic Warfare	TBD	NSWC Dahlgren : Dahlgren, VA	2.100	0.000		1.488	Jun 2024	0.200	Jun 2025	-		0.200	0.000	3.788	-
RTAM KDAS efforts	SS/FFP	ACC-Orlando : Orlando, FL	0.651	0.000		0.734	Mar 2024	1.386	Mar 2025	-		1.386	0.000	2.771	-
RTAM Front End Analysis	C/BA	MCSC : Orlando, FL	0.000	0.000		0.425	Feb 2024	0.000		-		0.000	0.000	0.425	-
ITRS Computer Generated Forces	MIPR	ACC-Orlando : Orlando, FL	1.148	2.722	May 2023	0.964	May 2024	0.000		-		0.000	0.000	4.834	-
ITRS - CPM MITE	MIPR	ACC-Orlando : Orlando, FL	10.448	1.240	Mar 2023	1.171	Mar 2024	0.561	Mar 2025	-		0.561	Continuing	Continuing	Continuing
FET MUET Trainer ACV	TBD	NAWC-TSD : Orlando, FL	0.000	0.882	Sep 2023	0.000		0.000		-		0.000	0.000	0.882	-

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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<b>Product Development (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
SAVT - Development/Integration/Interoperability	Various	Various : Various	2.911	0.000	Feb 2023	0.740	Feb 2024	0.000		-		0.000	0.000	3.651	-
Training Simulation Support TSS	TBD	Various : Orlando, FL	0.802	7.639	Mar 2023	6.821	Dec 2023	6.309	Mar 2025	-		6.309	0.000	21.571	-
ISMT Ballistics Testing and Data Capture	MIPR	ONR : San Diego, CA	0.000	0.590	Apr 2023	0.000		0.000		-		0.000	0.000	0.590	-
ISMT Weapons Development SIM	MIPR	NSWC TSD : Orlando, FL	0.000	0.308	Apr 2023	0.000		0.000		-		0.000	0.000	0.308	-
<b>Subtotal</b>			52.381	31.515		24.723		14.723		-		14.723	Continuing	Continuing	N/A

**Remarks**  
Overall FY 2024 to FY 2025 decrease is primarily attributed to consolidation of several capabilities into LVC-TE and reduced level of effort supporting CGF, MITE, and Electronic Warfare Ground Instrumented Ranges.

<b>Support (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
ITRS Corona Spt	WR	NSWC Corona : Corona, CA	0.918	0.000		0.000		0.000		-		0.000	0.000	0.918	-
TSS LVC-TE Corona Spt	WR	NSWC Corona : Corona, CA	0.000	0.000		0.000		2.000	Nov 2024	-		2.000	0.000	2.000	-
RTAM Corona Spt	WR	NSWC Corona : Corona, CA	1.125	0.000		0.000		0.000		-		0.000	0.000	1.125	-
RTAM LFET	WR	NSWC Dahlgren : Dahlgren, VA	0.231	0.000		0.000		0.000		-		0.000	0.000	0.231	-
ISMT Prototype Support	MIPR	NSWC TSD : Orlando, FL	0.000	0.030	Apr 2023	0.000		0.000		-		0.000	0.000	0.030	-
<b>Subtotal</b>			2.274	0.030		0.000		2.000		-		2.000	0.000	4.304	N/A

**Remarks**  
Overall FY24 to FY25 increase is due to TSS/LVCTE increased Corona system engineer and project officer support.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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<b>Test and Evaluation (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Operational Test & Evaluation (OT&E)	MIPR	RTAM LFTS ATO V&V - NSWC Corona : Corona, CA	0.000	0.097	Jan 2023	0.000		0.000		-		0.000	0.000	0.097	-
<b>Subtotal</b>			0.000	0.097		0.000		0.000		-		0.000	0.000	0.097	N/A

<b>Management Services (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
CACCTUS - Program Support	Various	Various : Various	2.349	0.000		1.500	Oct 2023	0.000		-		0.000	0.000	3.849	-
DVTE - Program Support	Various	Various : Various	0.888	0.000		0.150	Oct 2023	0.000		-		0.000	0.000	1.038	-
FoFTS - Travel	Various	DTS : Various	0.016	0.022	Dec 2022	0.015	Oct 2023	0.025	Oct 2024	-		0.025	0.000	0.078	-
MTWS - Program Support	Various	Various : Various	0.718	0.552	Oct 2022	0.213	Oct 2023	0.000		-		0.000	0.000	1.483	-
RTAM - Travel	Various	DTS : Various	0.137	0.005	Oct 2022	0.050	Oct 2023	0.040	Oct 2024	-		0.040	0.000	0.232	-
ITRS - Travel	Various	DTS : Various	0.175	0.000		0.020	Sep 2024	0.000		-		0.000	0.000	0.195	-
TSS/LVCTE - Program Support	Various	Various : Various	1.402	1.848	Oct 2022	0.823	Oct 2023	0.923	Oct 2024	-		0.923	0.000	4.996	-
<b>Subtotal</b>			5.685	2.427		2.771		0.988		-		0.988	0.000	11.871	N/A

**Remarks**  
Overall FY 2024 to FY 2025 decrease is due to the consolidation of several capabilities into TSS/LVC-TE.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	60.340	34.069	27.494	17.711	-	17.711	Continuing	Continuing	N/A

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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<b>Combined Arms Command &amp; Control Training Upgrade System (CACCTUS)</b>	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
CACCTUS Software Development Integration			◆																									
LVC-TE Pre Development	◆																											

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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Deployable Virtual Training Environment (DVTE)	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Software Development Integration				◆				◆				◆				◆				◆				◆				◆

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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<b>Marine Air/Ground Task Force (MAGTF) Tactical Warfare Simulation (MTWS)</b>	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Software Development Integration			◆				◆																					
SW Re-Engineering MIPR	◆					◆				◆				◆					◆				◆				◆	

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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Ranges and Training Area Management	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
KDAS Efforts						◆																						
Electronic Warfare (EW)			◆				◆				◆																	
CPM RISCon-T Development				◆			◆				◆				◆					◆								

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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Supporting Arms Virtual Trainer (SAVT)	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029							
	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				
SW Development and Integration		◆				◆																										

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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Immersive Training Range Support	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Computer Generated Forces (CGF)		◆				◆				◆																		
ITRS Mobile Immersive Training Enviormnet (MITE)		◆				◆				◆																		
CPM			◆				◆				◆				◆					◆								

2025DON - 0206623M - 2315

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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Force on Force Training Systems (FoFTS)	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029							
	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				
FoFTS MCTIS-V Development		●	●																													
FoFTS MCTIS-WS Development			●			●				●																						

2025DON - 0206623M - 2315

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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Training Simulation Support	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029							
	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				
LVC-TE System Development Increment 1			◆				◆			◆				◆				◆				◆								◆		
LVC-TE System Development Front End Analysis		◆																														
Minimum Viable Capability Release (MVCR):	◆		◆		◆		◆		◆		◆		◆		◆		◆		◆		◆		◆									

2025DON - 0206623M - 2315



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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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Family of Egress Trainers (FET)	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029							
	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				
Contract Award FY23				▲																												

2025DON - 0206623M - 2315

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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<b>Indoor Simulated Marksmanship Trainer</b>	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Ballistic Testing			■																									
Data Capture			■																									
Weapons Development																												

2025DON - 0206623M - 2315

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<b>Exhibit R-4A, RDT&amp;E Schedule Details: PB 2025 Navy</b>		<b>Date: March 2024</b>
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Combined Arms Command &amp; Control Training Upgrade System (CACCTUS)</b>				
CACCTUS Software Development Integration: FY23 CACCTUS Software Development Integration	3	2023	3	2023
LVC-TE Pre Development: System Integration (FY23)	2	2023	2	2023
<b>Deployable Virtual Training Environment (DVTE)</b>				
Software Development Integration: FY23 Software Development Integration	4	2023	4	2023
Software Development Integration: FY24 Software Development Integration	3	2024	3	2024
Software Development Integration: FY25 Software Development Integration	2	2025	2	2025
Software Development Integration: FY26 Software Development Integration	2	2026	2	2026
Software Development Integration: FY27 Software Development Integration	2	2027	2	2027
Software Development Integration: FY28 Software Development Integration	2	2028	2	2028
Software Development Integration: FY29 Software Development Integration	2	2029	2	2029
<b>Marine Air/Ground Task Force (MAGTF) Tactical Warfare Simulation (MTWS)</b>				
Software Development Integration: FY23 Software Development Integration	3	2023	3	2023
Software Development Integration: FY24 Software Development Integration	3	2024	3	2024
SW Re-Engineering MIPR: FY23 SW Re-Engineering MIPR	2	2023	2	2023
SW Re-Engineering MIPR: FY24 SW Re-Engineering MIPR	2	2024	2	2024
SW Re-Engineering MIPR: FY25 SW Re-Engineering MIPR	2	2025	2	2025
SW Re-Engineering MIPR: FY26 SW Re-Engineering MIPR	2	2026	2	2026
SW Re-Engineering MIPR: FY27 SW Re-Engineering MIPR	2	2027	2	2027
SW Re-Engineering MIPR: FY28 SW Re-Engineering MIPR	2	2028	2	2028
SW Re-Engineering MIPR: FY29 SW Re-Engineering MIPR	2	2029	2	2029

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**Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Ranges and Training Area Management (RTAM)</i></b>				
KDAS Efforts: FY24 KDAS Efforts	2	2024	1	2029
KDAS Efforts: FY25 KDAS Efforts	2	2025	2	2025
Electronic Warfare (EW): FY23 Electronic Warfare (EW)	2	2023	2	2023
Electronic Warfare (EW): FY24 Electronic Warfare (EW)	3	2024	3	2024
Electronic Warfare (EW): FY25 Electronic Warfare (EW)	3	2025	3	2025
CPM RISCon-T Development: CPM RISCon-T SW Integration FY23	2	2023	2	2023
CPM RISCon-T Development: CPM RISCon-T SW Integration FY24	3	2024	3	2024
CPM RISCon-T Development: CPM RISCon-T SW Integration FY25	3	2025	3	2025
CPM RISCon-T Development: CPM RISCon-T SW Integration FY26	3	2026	3	2026
CPM RISCon-T Development: CPM RISCon-T SW Integration FY27	3	2027	3	2027
CPM RISCon-T Development: CPM RISCon-T SW Integration FY28	3	2028	3	2028
<b><i>Supporting Arms Virtual Trainer (SAVT)</i></b>				
SW Development and Integration: FY23 Task Order Award	2	2023	2	2023
SW Development and Integration: FY24 Task Order Award	2	2024	2	2024
<b><i>Immersive Training Range Support</i></b>				
Computer Generated Forces (CGF): FY23 Computer Generated Forces (CGF)	3	2023	3	2023
Computer Generated Forces (CGF): FY24 Computer Generated Forces (CGF)	3	2024	3	2024
Computer Generated Forces (CGF): FY25 Computer Generated Forces (CGF)	3	2025	3	2025
ITRS Mobile Immersive Training Enviormnet (MITE): FY23 Mobile Immersive Training Enviormnet (MITE)	2	2023	2	2023
ITRS Mobile Immersive Training Enviormnet (MITE): FY24 Mobile Immersive Training Enviormnet (MITE)	2	2024	2	2024
ITRS Mobile Immersive Training Enviormnet (MITE): FY25 Mobile Immersive Training Enviormnet (MITE)	2	2025	2	2025
<b><i>Force on Force Training Systems (FoFTS)</i></b>				

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**Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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<b>Events by Sub Project</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
FoFTS MCTIS-V Development: FY23 FoFTS MCTIS-V Development	2	2023	2	2023
FoFTS MCTIS-V Development: FY24 FoFTS MCTIS-V Development	3	2024	3	2024
FoFTS MCTIS-WS Development: FY23 FoFTS MCTIS-WS Development	3	2023	3	2023
FoFTS MCTIS-WS Development: FY24 FoFTS MCTIS-WS Development	2	2024	2	2024
FoFTS MCTIS-WS Development: FY25 FoFTS MCTIS-WS Development	2	2025	2	2025
<b>Training Simulation Support</b>				
LVC-TE System Development Increment 1: FY23 LVC-TE System Development Increment 1	3	2023	3	2023
LVC-TE System Development Increment 1: FY24 LVC-TE System Development Increment 1	3	2024	3	2024
LVC-TE System Development Increment 1: FY25 LVC-TE System Development Increment 1	2	2025	2	2025
LVC-TE System Development Increment 1: FY26 LVC-TE System Development Increment 1	2	2026	2	2026
LVC-TE System Development Increment 1: FY27 LVC-TE System Development Increment 1	2	2027	2	2027
LVC-TE System Development Increment 1: FY28 LVC-TE System Development Increment 1	2	2028	2	2028
LVC-TE System Development Increment 1: FY29 LVC-TE System Development Increment 1	2	2029	2	2029
LVC-TE System Development Front End Analysis: Front End Analysis FY23	2	2023	2	2023
Minimum Viable Capability Release (MVCR):: Minimum Viable Capability Release (MVCR):1st FY23	1	2023	1	2023
Minimum Viable Capability Release (MVCR):: Minimum Viable Capability Release (MVCR):3Qtr FY23	3	2023	3	2023
Minimum Viable Capability Release (MVCR):: Minimum Viable Capability Release (MVCR):1st FY24	1	2024	1	2024

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy			Date: March 2024	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)		Project (Number/Name)	
1319 / 7	PE 0206623M / MC Ground Cmbt Spt Arms Sys		2315 / Training Devices/Simulators	
Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Minimum Viable Capability Release (MVCR):: Minimum Viable Capability Release (MVCR):3Qtr FY24	3	2024	3	2024
Minimum Viable Capability Release (MVCR):: Minimum Viable Capability Release (MVCR):1st FY25	1	2025	1	2025
Minimum Viable Capability Release (MVCR):: Minimum Viable Capability Release (MVCR):3Qtr FY25	3	2025	3	2025
Minimum Viable Capability Release (MVCR):: Minimum Viable Capability Release (MVCR):1st FY26	1	2026	1	2026
Minimum Viable Capability Release (MVCR):: Minimum Viable Capability Release (MVCR): 3Qtr FY26	3	2026	3	2026
Minimum Viable Capability Release (MVCR):: Minimum Viable Capability Release (MVCR):1st FY27	1	2027	1	2027
Minimum Viable Capability Release (MVCR):: Minimum Viable Capability Release (MVCR): 3Qtr FY27	3	2027	3	2027
Minimum Viable Capability Release (MVCR):: Minimum Viable Capability Release (MVCR):1st FY28	1	2028	1	2028
Minimum Viable Capability Release (MVCR):: Minimum Viable Capability Release (MVCR): 3Qtr FY28	3	2028	3	2028
<b>Marine Corps Training Information Management Systems (MCTIMS)</b>				
Training System Domain Deployments: MCTL MVP Deployment to Production Environment	1	2024	1	2024
Training System Domain Deployments: MCTL Deployed to Users	4	2024	4	2024
Training System Domain Deployments: Standards Domain MVCR	4	2024	4	2024
Training System Domain Deployments: Student Registrar Domain Deployment	3	2026	3	2026
Training System Domain Deployments: Curriculum Mgmt Domain Deployment	3	2027	3	2027
Training System Domain Deployments: Unit Training Domain Deployment	3	2028	3	2028
Engineering Event: Software Release FY23 4Q	4	2023	4	2023
Engineering Event: Software Release FY24 2Q	2	2024	2	2024

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**Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2315 / Training Devices/Simulators
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<b>Events by Sub Project</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
Engineering Event: Software Release FY25 4Q	4	2025	4	2025
Engineering Event: Software Release FY26 2Q	2	2026	2	2026
Engineering Event: Software Release FY27 4Q	4	2027	4	2027
Contracting Event: Contract Award FY23	3	2023	3	2023
Contracting Event: Contract Award FY24	3	2024	3	2024
<b>Family of Egress Trainers (FET)</b>				
Contract Award FY23: Contract Award FY23	4	2023	4	2023
<b>Indoor Simulated Marksmanship Trainer</b>				
Ballistic Testing: Ballistic Testing	3	2023	3	2023
Data Capture: Data Capture	3	2023	3	2023
Weapons Development: Weapons Development (Javelin)	3	2023	3	2023
Weapons Development: Weapons Development (M27)I	3	2023	3	2023
Weapons Development: Weapons Development (M240)	3	2023	3	2023

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys				<b>Project (Number/Name)</b> 2503 / Initial Issue			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2503: <i>Initial Issue</i>	72.343	5.435	5.850	13.628	-	13.628	14.027	10.221	10.466	10.688	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

This funding provides research, development, test, and evaluation (RDT&E) on low cost items with an emphasis on Non-Developmental Items/Commercial-Off-the-Shelf (NDI/COTS) available items. Much of the RDT&E is conducted in coordination/concert with other services and joint organizations, and in consideration of RDT&E efforts being pursued by the other Services. Items approved for procurement will transition into Operation and Maintenance Marine Corps accounts for Marine Corps Uniforms, Cold Weather Mountaineering, and Load Bearing and Pack Systems, Family of Shelters, Combat Field Feeding Systems, and Family of Field Medical Equipment. Family of Field Medical Equipment items approved for procurement will also transition to the Procurement, Marine Corps account. The benefits will be reduced logistics, less weight, improved combat effectiveness, better echelon I and II care for Marines, improved individual and unit protection, expeditionary feeding platforms, tactical mobility, calibration and maintenance, etc. The employment of state of the art equipment will ensure Marines are equipped and supported with the best items that technology can offer.

Infantry Clothing, Equipment, and Armor includes Marine Corps Uniforms; Cold Weather and Mountaineering; Load Bearing and Pack Systems: and Individual Warfighting Equipment. Load Bearing and Pack Systems now includes the waterproof bag efforts previously included under Individual Warfighting Equipment. The continual research development and testing of technological advancements leads to performance enhancements, upgrades and modifications to legacy systems and new developments. Funding for this capability area leverages other Services' and governmental partners' efforts to maximize returns on investment and promote coordination and cooperation for same or similar requirements and capabilities. The objective is to equip individual Marines with uniforms and combat equipment to maximize effectiveness in every environment across the full range of military operations and includes support to the basic recruit issue seabag.

The Family of Field Medical Equipment (FFME) focus is to provide state of the art medical equipment and emerging medical technology that will improve the clinical outcomes for casualties. The objective is to replace obsolete items with those that fulfill the requirements and needs while increasing performance characteristics in the areas of energy efficiency, durability, reliability, and survivability while reducing weight and size in austere environments of a variety of climes. The focus is also to update and promote new supporting technologies and joint interoperability of operational medical equipment in support of Force Design 2030 Littoral Operation in a Contested Environment and Expeditionary Advanced Base Operations (EABO).

The Family of Shelters and Shelters Equipment (FSSE) and The Family of Combat Field Feeding Systems (CFFS) portfolio focus is to provide scalable expeditionary capabilities to the warfighter, with specific emphasis on supporting Expeditionary Advanced Base Operations (EABO) and austere base establishment in the littorals. The FSSE funding will be used to improve legacy material solutions and develop new solutions that protect the Fleet Marine Force from observation, detection, adverse climatic conditions, and combat hazards. Furthermore, continuation of camouflage research which is vital to provide both cover and concealment in visual, signature reduction, and infrared and radar spectrums against near peer adversaries in support of the Commandant's Planning Guidance. Continuation of shelter research and development is required to design more reliable systems, lighten current shelters and shelter systems and minimize power requirements for environmental systems in support of EABO.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue

The Family of CFFS funding seeks to maximize fuel efficiency, reduce size and weight, and improve transportability of equipment used to provide nutrition on the go to Marines conducting training and contingency operations in future EABO and forward operating environments.

The Calibration and Maintenance Program (CAMP) calibrates the majority of tools and test equipment that ensure the safe and accurate operation of the ground weapon systems required to conduct Expeditionary Advanced Base Operations. The entire ground maintenance effort relies on CAMP activities to maintain combat effectiveness. This funding will be used to identify and assess the latest technology in calibration equipment, which is necessary to replace obsolete equipment, increase performance and reduce the footprint of deployable calibration sets.

Family of Expeditionary Water Systems (FEWS) is a family of systems line that contains purification, storage, distribution, hygiene, and test systems for water. This capability is necessary to provide safe and potable water to Marines in expeditionary environments. The family contains individual Table of Allowance Material Control Numbers which supports Fleet Marine Force (FMF), Marine Air-Ground Task Force (MAGTF) operations, and Expeditionary Advanced Base Operations (EABO) by providing all aspects of land-based water support to include test analysis, purification, reuse, storage, transfer, dispensing, and field hygiene support.

Family of Expeditionary Fuel Systems (FEFS) is a family of systems that contains highly versatile fuel systems in support of FMF operations. The family contains individual Table of Allowance Material Control Numbers which support FMF, MAGTF operations, and Expeditionary Advanced Base Operations (EABO) by providing all aspects of land and littoral-based fuel support to include receiving, test, additization, storage, sensors and metering, transfer and dispensing of fuel and the critical pacing commodity.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> Marine Corps Uniforms (MCU)	1.069	0.940	0.870	0.000	0.870
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b>					
- Continue test and evaluation of signature mitigation and flame resistant (FR) properties and other prioritized attributes resulting in a NexGen MCCUU and/or a Close Combat Uniform. Test and evaluation includes follow-on user evaluations of NexGen MCCUUs, Close Combat Uniform along with material property tests in the laboratory.					
- Continue research and development for lighter uniforms, and footwear, and develop upgraded specifications for sustainment by DLA that leverage emerging technologies in durability, design, and development. Includes efforts in the Marine Corps Uniform Certification Program.					
- Continue research and development for Marine clothing efforts, to include field and dress uniform certification improvements to maternity service and dress uniforms, and associated accoutrements which includes badges, ribbons, and devices. Includes efforts in the Marine Corps Uniform Certification Program.					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<ul style="list-style-type: none"> <li>- Continue research, development, and testing to enhance appearance and service life of recruit initial seabag issue items, which consists of initial basic training allowance of clothing, footwear, and associated individual uniform items resulting in upgraded specifications for sustainment by DLA.</li> <li>- Continue to conduct research, development, and testing of emergent initiatives as requested.</li> </ul> <p><b>FY 2025 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue test and evaluation of signature mitigation and flame resistant (FR) properties and other prioritized attributes resulting in a NexGen MCCUU and a Close Combat Uniform. Test and evaluation includes follow-on user evaluations of NexGen MCCUUs, Close Combat Uniform development, and material property tests in the laboratory.</li> <li>- Continue research and development for lighter uniforms, and footwear, and develop upgraded specifications for sustainment by DLA that leverage emerging technologies in durability, design, and development. Includes efforts in the Marine Corps Uniform Certification Program.</li> <li>- Continue research and development for Marine clothing efforts, to include field and dress uniform certification improvements to maternity service and dress uniforms, and associated accoutrements which includes badges, ribbons, and devices. Includes efforts in the Marine Corps Uniform Certification Program.</li> <li>- Continue research, development, and testing to enhance appearance and service life of recruit initial seabag issue items, which consists of initial basic training allowance of clothing, footwear, and associated individual uniform items resulting in upgraded specifications for sustainment by DLA.</li> <li>- Continue to conduct research, development, and testing of emergent initiatives as requested.</li> </ul> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> The decrease from FY 2024 to FY 2025 is due to reduced efforts in Marine Corps Uniforms.</p>					
<p><b>Title:</b> Cold Weather and Mountaineering (CWM)</p> <p align="right"><b>Articles:</b></p>	0.184 -	0.130 -	0.000 -	0.000 -	0.000 -
<p><b>FY 2024 Plans:</b></p> <ul style="list-style-type: none"> <li>- Conduct material tests as part of research and development of emerging materials and technology to enhance existing cold weather clothing and equipment effectiveness to include FR protection and signature management while lightening the load of the individual Marine.</li> </ul>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p>- Conduct research and evaluation of the Cold Weather clothing and equipment items with lighter materials that provide increased insulation and protection from the elements.</p> <p><b>FY 2025 Base Plans:</b> N/A</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease from FY 2024 to FY 2025 reflects no new Cold Weather research and development capabilities pursued in 2025.</p>					
<p><b>Title:</b> Load Bearing and Pack Systems (LBPS)</p> <p align="right"><b>Articles:</b></p> <p><b>FY 2024 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue product improvements and upgrades for LBPS by leveraging technological advancements of industry; lighten load and increase mobility of effectiveness.</li> <li>- Continue to evaluate pack frame system capable of carrying heavy crew-serve weapon systems.</li> <li>- Continue implementation of power and data management into loadbearing equipment (Main Pack and Assault Pack).</li> <li>- Continue the evaluation of materials capable of providing SWIR capabilities in the USMC Pack and Pouch System.</li> </ul> <p><b>FY 2025 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Complete product improvements and upgrades for LBPS by leveraging technological advancements of industry; lighten load and increase mobility of effectiveness.</li> <li>- Complete evaluation of pack frame systems capable of carrying heavy crew-serve weapon systems.</li> <li>- Continue implementation of power and data management into load bearing equipment (Main Pack and Assault Pack).</li> <li>- Continue the evaluation of materials capable of providing SWIR capabilities in the USMC Pack and Pouch System.</li> </ul> <p><b>FY 2025 OCO Plans:</b></p>	0.406 -	0.407 -	0.316 -	0.000 -	0.316 -

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease from FY 2024 to FY 2025 is due to the completion of the lighten the load effort.					
<b>Title:</b> *Family of Field Medical Equipment (FFME)	1.520	2.126	1.676	0.000	1.676
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b> - Complete product verification test and evaluation for equipment of expeditionary medical oxygen, whole blood utilization, and traumatic brain injury treatment. - Continue research and development for Project Phoenix medical support framework in support of the MLR to validate engineering changes to AMAL product baselines. - Continue research to develop advanced wound healing bandages for prolonged field care in the MLR under DMO/LOCE, validating engineering changes to AMAL product baselines. - Continue research, development, testing, and evaluation of new packing configurations of currently fielded forward surgical and trauma resuscitation capabilities and patient transport capabilities to reduce the cubic foot space requirements in order to utilize limited lift capabilities. Conduct further analysis to validate the existing patient condition code requirements and patient streams against future casualty stream estimates in the corresponding future operational environment(s) to identify material that can be removed from capabilities without impacting effectiveness. - Continue to test COTS/NDI medical equipment items for the ERCS, FRSS, and STP to determine future viability in an operational environment. - Continue testing of medical equipment items to evaluate their energy efficiency, functionality, and ability to improve the quality of healthcare provided to the warfighter and reduce the logistics footprint of USMC medical equipment. - Continue testing and product development for possible application technology for insertion, such as: portable patient life support systems, expeditionary medical refrigeration, oxygen production, sterilization, whole blood					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p>utilization, patient warming, and standardization of currently independent equipment sets to be employed for forward resuscitative, surgical care, and casualty evacuation.</p> <p><b>FY 2025 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue research and development for Project Phoenix medical support framework in support of the MLR to validate engineering changes to AMAL product baselines.</li> <li>- Continue research to develop advanced wound healing bandages for prolonged field care in the MLR under DMO/LOCE, validating engineering changes to AMAL product baselines.</li> <li>- Continue research, development, testing, and evaluation of new packing configurations of currently fielded forward surgical and trauma resuscitation capabilities and patient transport capabilities to reduce the cubic foot space requirements in order to utilize limited lift capabilities. Conduct further analysis to validate the existing patient condition code requirements and patient streams against future casualty stream estimates in the corresponding future operational environment(s) to identify material that can be removed from capabilities without impacting effectiveness.</li> <li>- Continue to test COTS/NDI medical equipment items for the ERCS, FRSS, and STP to determine future viability in an operational environment.</li> <li>- Continue testing of medical equipment items to evaluate their energy efficiency, functionality, and ability to improve the quality of healthcare provided to the warfighter and reduce the logistics footprint of USMC medical equipment.</li> <li>- Continue testing and product development for possible application technology for insertion, such as: portable patient life support systems, expeditionary medical refrigeration, oxygen production, sterilization, whole blood utilization, patient warming, and standardization of currently independent equipment sets to be employed for forward resuscitative, surgical care, and casualty evacuation.</li> </ul> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b></p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy			<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue			
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>					
	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Decrease from FY 2024 to FY 2025 aligns with completion of Product Verification testing and evaluation on various equipment and with costs associated with the MLR and AMAL Studies in accordance with the 2030 Concept of Operations (CONOPS).					
<b>Title:</b> *Family of Shelters and Shelter Equipment (FSSE)					
	0.000	0.549	0.198	0.000	0.198
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b>					
- Continue the evaluation and development of FSSE energy efficient ECPs such as alternative production techniques and designs.					
- Continue the development of Indo-Pacific (INDOPACOM) Ultra Light Weight Camouflage Net System (ULCANS) variant and conduct user evaluation.					
<b>FY 2025 Base Plans:</b>					
- Continue the evaluation and development of FSSE energy efficient ECPs such as alternative production techniques and designs.					
- Continue development of Indo-Pacific (INDOPACOM) Ultra Light Weight Camouflage Net System (ULCANS Increment 1) variant and conduct user evaluation.					
<b>FY 2025 OCO Plans:</b>					
N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b>					
Decrease of \$0.351M from FY 2024 to FY 2025 aligns with the projected decrease in the INDOPACOM ULCANS INC 1 user evaluations which assess the new color's ability to conceal in tropical operating environments.					
<b>Title:</b> *Family of Combat Field Feeding (CFFS)					
	0.253	0.070	0.068	0.000	0.068
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b>					
- Continue to reduce the overall logistics burden by researching and testing technological improvements for CFFS components such as commercial food service and alternative field sanitation solutions.					
- Continue research and development of lighter weight and scalable field feeding and field sanitation equipment that use alternate energy sources or provide reduced fuel consumption.					
<b>FY 2025 Base Plans:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p>- Continue to reduce the overall logistics burden by researching and testing technological improvements for CFFS components such as commercial food service and alternative field sanitation solutions.</p> <p>- Continue research and development of lighter weight and scalable field feeding and field sanitation equipment that use alternate energy sources or provide reduced fuel consumption.</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease from FY 2024 to FY 2025 aligns with the projected labor cost increase for research and testing technology to improve CFFS components such as commercial food service and field sanitation solutions.</p>					
<p><b>Title:</b> Calibration and Maintenance Program (CAMP)</p> <p align="right"><b>Articles:</b></p> <p><b>FY 2024 Plans:</b> - Continue exploration of emerging technologies to enhance technical capabilities of individual calibration equipment (standards) used within expeditionary calibration facilities by deployed Marine Corps units. New calibration standards are required to replace obsolete items.</p> <p><b>FY 2025 Base Plans:</b> - Continue exploration of emerging technologies to enhance technical capabilities of individual calibration equipment (standards) used within expeditionary calibration facilities by deployed Marine Corps units. New calibration standards are required to replace obsolete items.</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> The increase from FY 2024 to FY 2025 is to continue exploration of emerging technologies to enhance technical capabilities of individual calibration equipment (standards) used within expeditionary calibration facilities by deployed Marine Corps units. New calibration standards are required to replace obsolete items.</p>	0.237 -	0.254 -	0.259 -	0.000 -	0.259 -
<p><b>Title:</b> Family of Expeditionary Fuel Waters Systems (FEWS)</p> <p align="right"><b>Articles:</b></p> <p><b>FY 2024 Plans:</b></p>	0.015 -	0.000 -	0.547 -	0.000 -	0.547 -

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
N/A					
<b>FY 2025 Base Plans:</b> -Initiate the development testing and evaluation of small unit water purification and hygiene capabilities.					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> The increase of \$0.547M supports the development, testing and evaluation of small unit water purification and hygiene capabilities in order to sustain Stand In Forces in the adversary's Weapons Engagement Zone.					
<b>Title:</b> Family of Expeditionary Fuel Systems (FEFS)	1.751	1.374	9.694	0.000	9.694
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b> -Initiate testing of sensor and meter reporting technologies for fuel systems. -Continue research of alternative fuel distribution and storage technologies in support of EABO; supporting the Self-support Portable Distributed Refueling System (SPDRS) and Expeditionary Fuel Dispensing System (EFDS) development; and modernization of other legacy fuel systems.					
<b>FY 2025 Base Plans:</b> -Continue testing of sensor and meter reporting technologies for fuel systems in order to fulfill procurement actions necessary for Engineer Change Proposals (ECPs) of the legacy tactical fuel systems. -Continue to develop and test alternative fuel distribution and storage technologies for Self-support Portable Distributed Refueling System (SPDRS) in support of EABO. -Continue research and development of the LPDS capability developing sub-components, support testing and certifications to improve the system's technology readiness level. -Complete Expeditionary Fuel Dispensing System (EFDS) development.					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> The increase of \$8.320M supports the continued research and development of the LPDS capability developing sub-components, support testing and certifications to improve the system's technology readiness level. This					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
effort was formally supported by the Office of Naval Research in FY24 using BA4 funding, reference PE 0603635M.					
<b>Accomplishments/Planned Programs Subtotals</b>	5.435	5.850	13.628	0.000	13.628

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PMC/6522: Family of Field Medical Equipment (FFME)	21.780	5.457	23.651	-	23.651	47.530	48.468	49.437	50.476	Continuing	Continuing
• PMC/4181-1: Calibration & Maintenance Program (CAMP).	0.129	0.130	0.137	-	0.137	2.811	2.866	2.923	2.983	Continuing	Continuing
• PMC/6670-1: Family of Expeditionary Water Systems (FEWS)	3.670	5.637	5.702	-	5.702	8.117	3.069	3.038	3.021	Continuing	Continuing
• PMC/6277: Family of Expeditionary Fuel Systems (FEFS)	7.854	12.956	29.252	-	29.252	33.721	32.061	32.539	33.221	0.000	520.953
• PMC/6670-2: Family of Shelters and Shelter Equipment (FSSE)	19.188	17.695	15.657	-	15.657	14.370	14.657	23.385	23.875	Continuing	Continuing
• RDTEN/0603635M/3835: FEFS	0.000	14.124	6.185	-	6.185	0.000	0.000	0.000	0.000	0.000	20.309

**Remarks**

**D. Acquisition Strategy**

Cold Weather and Mountaineering, Load Bearing and Pack Systems, Individual Warfighting Equipment, Marine Corps Uniforms: Items utilize various acquisition strategies. These programs represent a level of effort that leverage heavily on current developments and technology in commercial industry. As a result, the R&D phase is relatively short which consists of test and evaluation efforts on a continuous basis to maintain the latest technological advances to lighten the load and increase force protection. Contracting is performed by either Marine Corps Systems Command, the Naval Research Laboratory, or the U.S. Army Natick Soldier Research, Development, and Engineering Center via Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts. ID/IQ contracts are used to decrease the government risk, allow maximum contract flexibility and capitalize on the savings realized by utilizing Economic Order (EO) quantities.

Family of Shelters: The Shelter acquisition strategy is to modify non-developmental items (NDI) to further meet the requirements of the Marine Corps, to support development of multi-service items through inter-service agreements and to adopt commercial-off-the-shelf (COTS) items where applicable.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue
<p>Family of Field Medical Equipment: These programs leverage heavily on current development and technology in the commercial medical industry. The field medical acquisition strategy is to modify NDI and adopt COTS items. Due to the nature of medical device development and the USMC reliance on commercial RDT&amp;E practices, it is frequently difficult to accurately predict successful transition due in part to strict Food and Drug Administration oversight and approval processes.</p> <p>Combat Field Feeding Systems: This program utilized various acquisition strategies and leverages heavily on current developments and technology in commercial industry and other Service field feeding systems. As a result, the government's RDT&amp;E phase is relatively short. Contracting is performed by either Marine Corps Systems Command Contracting Directorate or the US Army Combat Capabilities Development Command (DoD Executive Agent for Field Feeding) via ID/IQ contracts.</p> <p>Calibration and Maintenance Program (CAMP): The CAMP acquisition strategy is to evaluate NDI items and modify, if required, to meet calibration requirements for the Marine Corps in concert with the Navy's calibration RDT&amp;E efforts.</p> <p>Family of Expeditionary Water Systems (FEWS): Validate future water purification and hygiene capabilities through test and evaluation under operationally relevant conditions, and to further evaluate COTS and NDI items and collaborate with industry for enhancements and modifications to meet technical and expeditionary requirements for a new era of hygiene equipment items to better support operational and Expeditionary Advanced Base Operations (EABO).</p> <p>Family of Expeditionary Fuel Systems (FEFS): The FEFS acquisition strategy is to continue to develop and test alternative fuel distribution and storage technologies for the Self-support Portable Distributed Refueling System (SPDRS) and Expeditionary Fuel Dispensing System (EFDS) development, supporting portfolio capability modernization, along with continued testing of sensor and meter reporting technologies through lab In-Service Engineer Agent support.</p>		

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2025 Navy</b>											<b>Date: March 2024</b>				
<b>Appropriation/Budget Activity</b> 1319 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys					<b>Project (Number/Name)</b> 2503 / Initial Issue				

<b>Product Development (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Marine Corps Uniforms	MIPR	USA NSRDEC : Natick, MA	7.222	0.535	Mar 2023	0.470	Mar 2024	0.435	Jan 2025	-		0.435	Continuing	Continuing	Continuing
Cold Weather & Mountaineering	MIPR	USA NSRDEC : Natick, MA	2.981	0.184	Dec 2022	0.130	Dec 2023	0.000		-		0.000	0.000	3.295	Continuing
Load Bearing and Pack Systems	C/FFP	MCSC : Quantico, VA	2.141	0.406	Feb 2023	0.407	Feb 2024	0.316	Feb 2025	-		0.316	Continuing	Continuing	Continuing
Family of Field Medical	MIPR	MCSC : Quantico, VA	0.000	0.000		0.815	Jan 2024	0.000		-		0.000	0.000	0.815	-
Family of Shelters and Shelter Equipment	MIPR	DEVCOM : Natick, MA	1.264	0.000		0.549	Mar 2024	0.000		-		0.000	0.000	1.813	-
Calibration and Maintenance Program	WR	NSWC : Corona, CA	1.033	0.237	Jan 2023	0.254	Jan 2024	0.259	Jan 2025	-		0.259	Continuing	Continuing	Continuing
Family of Expeditionary Fuel Systems	Various	Various : Various	0.778	0.000		0.000		0.000		-		0.000	0.000	0.778	-
Family of Expeditionary Fuel Systems	MIPR	ONR : Arlington, VA	0.510	0.000		0.000		0.000		-		0.000	0.000	0.510	-
Prior Year Cumulative Funding	Various	Various : Various	26.454	0.000		0.000		0.000		-		0.000	0.000	26.454	-
Family of Expeditionary Water Systems	Various	Various : Various	0.000	0.015	Mar 2024	0.000		0.547	Dec 2024	-		0.547	0.000	0.562	-
<b>Subtotal</b>			42.383	1.377		2.625		1.557		-		1.557	Continuing	Continuing	N/A

**Remarks**  
Decrease from FY 2024 to FY 2025 supports completion of Product Verification testing and evaluation for FFME and FSSE.

<b>Support (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Prior Year Cumulative Funding	Various	Various : Various	1.096	0.000		0.000		0.000		-		0.000	0.000	1.096	-
<b>Subtotal</b>			1.096	0.000		0.000		0.000		-		0.000	0.000	1.096	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy												Date: March 2024			
Appropriation/Budget Activity 1319 / 7				R-1 Program Element (Number/Name) PE 0206623M / MC Ground Cmbt Spt Arms Sys				Project (Number/Name) 2503 / Initial Issue							
Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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
Developmental Test & Evaluation (DT&E)	MIPR	USA NSRDEC : Natick, MA	2.448	0.534	Dec 2022	0.470	Dec 2023	0.435	Dec 2024	-		0.435	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	MIPR	U.S. Army Aeromedical Research Lab : Ft. Rucker, AL	0.619	0.259	Mar 2023	0.200	Apr 2024	0.000		-		0.000	0.000	1.078	-
Operational Test & Evaluation (OT&E)	WR	NHRC : Silver Spring MD	0.448	0.614	Mar 2023	0.200	Mar 2024	0.593	Mar 2025	-		0.593	0.000	1.855	Continuing
Operational Test & Evaluation (OT&E)	MIPR	NSWC : Dahlgren, VA	11.456	0.270	Mar 2023	0.300	Dec 2023	0.340	Dec 2024	-		0.340	0.000	12.366	Continuing
Operational Test & Evaluation (OT&E)	MIPR	NSWC Dahlgren : Dahlgren, VA	0.050	0.255	Feb 2023	0.250	Apr 2024	0.280	Mar 2025	-		0.280	0.000	0.835	Continuing
Developmental Test & Evaluation (DT&E)	MIPR	US Army CCDC/ DEVCOM : Natick, MA	1.133	0.154	Dec 2022	0.070	Dec 2023	0.068	Dec 2024	-		0.068	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	MIPR	DEVCOM : Natick, MA	0.278	0.000		0.000		0.198	Mar 2025	-		0.198	0.000	0.476	Continuing
Developmental Test & Evaluation (DT&E)	C/FFP	MCSC : Quantico, VA	0.374	0.000		0.000		0.000		-		0.000	0.000	0.374	-
Developmental Test & Evaluation (DT&E)	MIPR	NAVFAC : Port Huene	0.354	0.000		0.000		0.000		-		0.000	0.000	0.354	-
Developmental Test & Evaluation (DT&E)	Various	Various : Various	1.052	1.751	Jul 2023	1.374	Dec 2023	9.694	Dec 2024	-		9.694	0.000	13.871	-
Developmental Test & Evaluation (DT&E)	MIPR	GVSC/CCDC : Warren, MI	0.147	0.000		0.000		0.000		-		0.000	0.000	0.147	-
Developmental Test & Evaluation (DT&E)	MIPR	USAARL : Ft. Rucker, AL	0.383	0.091	Nov 2022	0.175	Dec 2023	0.324	Feb 2025	-		0.324	0.000	0.973	Continuing
Developmental Test & Evaluation (DT&E)	MIPR	DLA Troop Support : Philadelphia, PA	0.214	0.099	Apr 2023	0.000		0.000		-		0.000	0.000	0.313	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	Various : Various	9.187	0.000		0.000		0.000		-		0.000	0.000	9.187	-
<b>Subtotal</b>			28.143	4.027		3.039		11.932		-		11.932	Continuing	Continuing	N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue
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<b>Test and Evaluation (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			

**Remarks**  
The increase supports the continued research and development of the (FEFS) LPDS capability developing sub-components, support testing and certifications to improve the system's technology readiness level. This effort was formally supported by the Office of Naval Research in FY 2024 using BA4 funding, reference PE 0603635M.

<b>Management Services (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Family of Field Medical	Various	MARCORSYSCOM : Quantico, VA	0.261	0.031	Sep 2023	0.081	Aug 2024	0.050	Aug 2025	-		0.050	0.000	0.423	-
Family of Field Medical	Various	MCSC : Quantico, VA	0.072	0.000	Oct 2022	0.105	Oct 2023	0.089	Oct 2024	-		0.089	0.000	0.266	-
Prior Year Cumulative Funding	Various	Various : Various	0.388	0.000		0.000		0.000		-		0.000	0.000	0.388	-
<b>Subtotal</b>			0.721	0.031		0.186		0.139		-		0.139	0.000	1.077	N/A

**Remarks**  
No significant change.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>		72.343	5.435	5.850	13.628	13.628	Continuing	Continuing	N/A

**Remarks**  
Overall increase from FY 2024 to FY 2025 is primarily attributed to the continued research and development of the LPDS capability developing sub-components, support testing and certifications to improve the system's technology readiness level (formerly supported by the Office of Naval Research in FY 2024 using BA4) and the testing of sensor and meter reporting technologies for EFDS development and SPDRS support of EABO.

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue
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Initial Issue p.1	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
<b>Marine Corps Uniforms (MCU)</b>																												
Flame Resistant Testing																												
Lab Testing																												
Shade Lab Testing																												
Natick Lab Testing																												
Footwear Testing																												
Uniform Testing																												
Navy Natick Testing Effort Support																												
<b>Cold Weather and Mountaineering (CWM)</b>																												
Natick Testing Effort Support																												
Material Properties Lab Testing																												
Extreme Cold Weather Boot																												
Cold Weather User Evaluation																												
Insulation Layer 3 and 4 upgrade																												
<b>Load Bearing and Pack Systems (LBPS)</b>																												
USMC Sub Belt Improvement																												
Assault Pack Improvement																												
SWIR Material EVAL																												
<b>Calibration And Maintenance Program (CAMP)</b>																												
Test and Evaluate emerging Calibration Equipment																												

2025DON - 0206623M - 2503

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue
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Initial Issue p.2	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
<b>Family of Field Medical Equipment</b>																												
AMAL Technology Research/Product Development																												
AMAL Technology/Equipment Testing and Evaluation																												
Field Medical Management Services																												
<b>Family of Shelters and Shelter Equipment</b>																												
Family of Shelters and Shelter Equipment Test & Evaluation																												
INDOPACOM ULCANS Variant Development																												
INDOPACOM ULCANS Variant Test & Evaluation																												
<b>Family of Expeditionary Fuel Systems</b>																												
Low Profile Distribution System																												
Medium Cale Iv/USV Demos																												
Low Profile Distribution System: USMC Experimentation																												
Low Profile Distribution System: Joint Experimentation																												
<b>Family of Combat Field Feeding</b>																												
Family of Combat Field Feeding Systems Testing and Evaluation																												

2025DON - 0206623M - 2503

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Initial Issue p.1</b>				
Marine Corps Uniforms (MCU): Flame Resistant Testing:	1	2023	4	2029
Marine Corps Uniforms (MCU): Lab Testing:	1	2023	4	2029
Marine Corps Uniforms (MCU): Shade Lab Testing:	1	2023	4	2029
Marine Corps Uniforms (MCU): Natick Lab Testing:	2	2023	4	2029
Marine Corps Uniforms (MCU): Footwear Testing:	2	2023	4	2029
Marine Corps Uniforms (MCU): Uniform Testing:	2	2023	4	2029
Marine Corps Uniforms (MCU): Navy Natick Testing Effort Support:	2	2023	4	2029
Cold Weather and Mountaineering (CWM): Natick Testing Effort Support:	2	2023	2	2024
Cold Weather and Mountaineering (CWM): Material Properties Lab Testing:	2	2023	2	2024
Cold Weather and Mountaineering (CWM): Extreme Cold Weather Boot:	2	2023	3	2024
Cold Weather and Mountaineering (CWM): Cold Weather User Evaluation:	2	2023	3	2024
Cold Weather and Mountaineering (CWM): Insulation Layer 3 and 4 upgrade:	2	2023	3	2024
Load Bearing and Pack Systems (LBPS): USMC Sub Belt Improvement: USMC Sub Belt Improvement	2	2023	2	2024
Load Bearing and Pack Systems (LBPS): Assault Pack Improvement: Assault Pack Improvement	2	2023	2	2024
Load Bearing and Pack Systems (LBPS): SWIR Material EVAL: SWIR Material EVAL	3	2023	4	2025
Calibration And Maintenance Program (CAMP): Test and Evaluate emerging Calibration Equipment: Test and Evaluate emerging Calibration Equipment	1	2023	4	2029
<b>Initial Issue p.2</b>				
Family of Field Medical Equipment: AMAL Technology Research/Product Development:	2	2024	2	2025

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**Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2503 / Initial Issue
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<b>Events by Sub Project</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
Family of Field Medical Equipment: AMAL Technology/Equipment Testing and Evaluation:	1	2023	4	2029
Family of Field Medical Equipment: Field Medical Management Services:	1	2023	4	2029
Family of Shelters and Shelter Equipment: Family of Shelters and Shelter Equipment Test & Evaluation: Schedule Detail	1	2026	4	2029
Family of Shelters and Shelter Equipment: INDOPACOM ULCANS Variant Development: Schedule Detail	3	2024	4	2025
Family of Shelters and Shelter Equipment: INDOPACOM ULCANS Variant Test & Evaluation: Schedule Detail	4	2025	3	2026
Family of Expeditionary Fuel Systems: Medium Cale Iv/USV Demos: Medium Cale Iv/USV Demos	1	2023	4	2024
Family of Expeditionary Fuel Systems: Low Profile Distribution System: USMC Experimentation: Low Profile Distribution System: USMC Experimentation	1	2023	1	2027
Family of Expeditionary Fuel Systems: Low Profile Distribution System: Joint Experimentation: Low Profile Distribution System: Joint Experimentation	1	2026	1	2029

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**Exhibit R-2A, RDT&E Project Justification:** PB 2025 Navy **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2513 / Body Armor
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
2513: <i>Body Armor</i>	57.415	5.194	5.269	4.814	-	4.814	4.899	4.980	5.080	5.186	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

Ballistic Protection Systems (BPS) provides the most technologically advanced protection at the lightest weight available in the world today. It provides the critical ballistic protective systems that save lives, reduce the severity of combat injuries, and increase combat effectiveness by keeping more Marines in the fight. Major BPS programs include: Plate Carrier Generation III (PC Gen III); Lightweight Plates (LWP); Enhanced Combat Helmet (ECH); Improved Ballistic Eyewear (IBE); Integrated Helmet System (IHS) and Hearing Enhancement. The major focus areas of all BPS programs are adapting ballistic protective systems to the constantly changing threat environment and leveraging emerging technologies to lighten the load and increase the mobility of each Marine.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<b>Title:</b> Ballistic Protection Systems	5.194	5.269	4.814	0.000	4.814
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b>					
<ul style="list-style-type: none"> <li>- Complete research and development of the Next Generation Plate Carrier enhanced camouflage protection and mitigation of Short-Wave Infrared (SWIR) and thermal signature.</li> <li>- Continue to analyze Flame Resistant (FR) and non-FR materials with enhanced signature mitigation as it pertains to the evolution of body armor and plate carriers.</li> <li>- Continue research with industry partners towards understanding and developing the future technology associated with next generation PPE (i.e. helmets, body armor, and hearing protection) to reduce bulk, weight, stiffness, and improve ballistic protection while increasing the mobility of the individual Marine.</li> <li>- Continue to research and develop solutions that improves fit, modularity, and integration of body armor systems.</li> <li>- Continue the development of data and power management components within helmets through prototype development and testing.</li> </ul>					
<b>FY 2025 Base Plans:</b>					
<ul style="list-style-type: none"> <li>- Complete analysis of the Flame Resistant (FR) and non-FR materials with enhanced signature mitigation as it pertains to the evolution of body armor and plate carriers.</li> <li>- Continue research with industry partners towards understanding and developing the future technology associated with next generation PPE (i.e., helmets, body armor, and hearing protection) to reduce bulk, weight, stiffness, and improve ballistic protection while increasing the mobility of the individual Marine.</li> </ul>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2513 / Body Armor

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<ul style="list-style-type: none"> <li>- Continue to research and develop solutions that improves fit, modularity, and integration of body armor systems.</li> <li>- Continue the development of data and power management components within helmets through prototype development and testing.</li> <li>- Initiate research and development of replacement Armor Inspection Systems (AIS) to replace obsolete AIS machines. AIS provides the ability to automatically inspect ceramic ballistic plates for mission-compromising cracks to ensure defective plates are not issued to warfighters.</li> </ul> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Ballistic Protection System decrease of \$0.455M from FY 2024 to FY2025 is due to the completion of the Next Generation Plate Carrier enhanced camouflage protection and mitigation of Short-Wave Infrared (SWIR) and thermal signature.</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	5.194	5.269	4.814	0.000	4.814

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

N/A

**Remarks**

**D. Acquisition Strategy**

Marine Corps Ballistic Protection Systems (BPS) research, development, testing & evaluation activities include seeking new developments in ballistic technology that feature reductions in weight, improvements in ballistic performance, enhanced operational effectiveness through improved product designs, and the application of new material technologies to reduce total ownership costs by improving the expected service life of fielded systems. In order to accomplish these goals, the Marine Corps uses a broad array of government and contractor performers to achieve the desired end state. This includes partnerships with government entities and research and development contracts and partnership intermediaries where applicable. The Marine Corps also leverages advancements in industry capabilities to rapidly field non-developmental and commercially available off-the-shelf armor solutions. Performance is confirmed by characterizing ballistic performance and data collected during user evaluations.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2513 / Body Armor
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<b>Product Development (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Hard Armor Printed Plates	C/FFP	MCSC : Quantico, VA	4.638	0.000		0.000		1.000	Apr 2025	-		1.000	0.000	5.638	-
Next Gen Plate Carriers	C/FFP	NCTRF : Natick, MA	0.000	0.726	Apr 2023	2.334	Apr 2024	1.000	Apr 2025	-		1.000	0.000	4.060	-
Prior Year Cumulative Funding	Various	Various : Various	21.714	0.000		0.000		0.000		-		0.000	0.000	21.714	-
<b>Subtotal</b>			26.352	0.726		2.334		2.000		-		2.000	0.000	31.412	N/A

**Remarks**  
Hard Armor Printed Plates provides funds to research and development of replacement Armor Inspection Systems (AIS) and purchase prototypes for test articles.

<b>Support (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Engineering Support (Army)	MIPR	CCDC SC : Natick, MA	4.111	0.945	Dec 2022	1.212	Dec 2023	1.300	Dec 2024	-		1.300	Continuing	Continuing	Continuing
BPS - Engineering Support (Navy)	WR	NCTRF : Natick, MA	1.258	0.475	Mar 2023	0.175	Jan 2024	0.350	Jan 2025	-		0.350	Continuing	Continuing	Continuing
Program Support	C/FFP	MCSC : Quantico, VA	3.323	0.883	Mar 2023	0.848	Feb 2024	0.850	Mar 2025	-		0.850	Continuing	Continuing	Continuing
Prior Year Cumulative Funding	Various	Various : Various	0.054	0.000		0.000		0.000		-		0.000	0.000	0.054	-
<b>Subtotal</b>			8.746	2.303		2.235		2.500		-		2.500	Continuing	Continuing	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Developmental Test & Evaluation (DT&E)	Various	Various : Various	5.342	2.165	Dec 2022	0.700	Dec 2023	0.314	Apr 2025	-		0.314	0.000	8.521	-



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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2513 / Body Armor
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Proj 2513	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
<b>Body Armor Improvements</b>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">LAT: PC GEN III</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">LAT: Lightweight Plate</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Next Gen PC GEN IV Testing</div> <div style="border: 1px solid black; padding: 5px;">LUE: Next Gen PC GEN IV</div>																											
<b>Integrated Helmet System (IHS)</b>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Helmet Development and Testing</div> <div style="border: 1px solid black; padding: 5px;">LUE 3</div>																											

2025DON - 0206623M - 2513

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2513 / Body Armor

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 2513</b>				
Body Armor Improvements: Lot Acceptance Testing (LAT): PC GEN III	1	2024	3	2028
Body Armor Improvements: Lot Acceptance Testing (LAT): Lightweight Plate	1	2023	3	2024
Body Armor Improvements: Next Gen PC GEN IV Development and Testing	1	2023	4	2025
Body Armor Improvements: LUE: Next Gen PC GEN IV	3	2024	3	2025
Integrated Helmet System (IHS): Helmet Development and Testing	2	2023	4	2023
Integrated Helmet System (IHS): LUE 3	3	2023	4	2023

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys				<b>Project (Number/Name)</b> 2530 / Unmanned Expeditionary Systems			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2530: <i>Unmanned Expeditionary Systems</i>	0.000	0.000	16.039	17.230	-	17.230	18.173	10.282	8.673	8.855	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

Prior to FY 2024, Unmanned Logistics System-Air (ULS-A) was previously funded in Project 4002 Family of Raid Reconnaissance. The establishment of this new project and realignment of funding more closely align the programatics of ULS-A to Unmanned Expeditionary Systems (UES) mission sets. This budget currently funds efforts for two capabilities, ULS-A Small (Tactical Resupply Unmanned Aircraft System (TRUAS)) and ULS-A Medium (Medium Aerial Resupply Vehicle-Expeditionary Logistics (MARV-EL)).

UES is a Commandant of the Marine Corps (CMC) Force Design (FD) initiative. FD recognizes the complex, high threat, and diverse environments in the INDOPACOM area of operations encountered by Marine Air Ground Task Force (MAGTF) and Marine Littoral Regiments (MLRs). As system technology advances in future years, UES will also include emerging technologies to include autonomous distribution capabilities for elements across the MAGTF and MLR, enabling more diversified distribution and the sustainment of Marine Corps forces across future operating environments.

The TRUAS provides an autonomous unmanned organic battlefield logistics capability primarily in distribution of critical supplies in Expeditionary Advanced Base Operations (EABO) safely within the Surface to Air Missile (SAM) Weapon Engagement Zone (WEZ), where the risk to manned aircraft would deny manned aviation resupply operations. TRUAS will have the capability to carry 120-pound payloads at a distance of 12 kilometers at a cruise speed of 50 knots.

TRUAS reached Initial Operational Capability (IOC) in October of FY2024. In FY 2025 the Program will continue development of GPS Denied and Sense and Avoid capabilities. Additionally, TRUAS will begin development of Landing Zone Detection capability in 2Q FY 2025, and Integrated testing of the GPS Denied, Sense and Avoid, and Landing Zone Detection capabilities will occur throughout FY 2025.

MARV-EL is an autonomous UAS capability that can carry a logistic payload between 300 and 600lbs to a combat radius from 25 to 100 nautical miles (NM). The system will support a logistics distribution mission at the tactical edge for resupplying forward deployed ground forces. The MAGTF and MLR require the flexibility to draw sustainment from anywhere supplies exist. Supplies moved organically through aerial capabilities offer the speed and persistence needed to maintain critical operational tempo. MARV-EL, complementing the capabilities of the TRUAS, provides a heavier aerial distribution capability in environments in which the risk to manned aircraft may be too great. MARVEL fulfills the Force Design objective of maintaining a relative warfighting advantage over peer threats through the acquisition of Unmanned Logistics System-Aerial/Tactical Resupply Unmanned Aircraft Systems.

Two prototyping contracts awarded in 2Q FY 2023 with prototype deliveries and performance evaluation planned for 4Q FY 2024. At this time, the program plans to down select to one vendor, establish an acquisition pathway, and continue prototype maturation, IT and conduct field user evaluations. A production decision is planned for FY 2028.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2530 / Unmanned Expeditionary Systems

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p><b>Title:</b> Unmanned Expeditionary Systems (UES)</p> <p align="right"><b>Articles:</b></p> <p><b>FY 2024 Plans:</b> Continue research and development of Medium ULS-A enabling technologies and continue Medium ULS-A prototyping in support of a Performance Evaluation that is scheduled for 4Q FY 2024.</p> <p>Initiate research and development of GPS-denied and Sense and Avoid capabilities for TRUAS.</p> <p><b>FY 2025 Base Plans:</b> Developmental test and evaluation for continued technology maturation of MARV-EL.</p> <p>Continue research and development of GPS-denied and Sense and Avoid capabilities for TRUAS. Initiate research and development of Landing Zone Evaluation capability for TRUAS.</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> FY24 to FY25 increase funds additional prototype development efforts and necessary testing of the MARV-EL platform to meet JCIDS requirements for Integrated Test during the engineering, manufacturing, and development phase. Ensures MARV-EL prototypes meet capability development milestones prior to production decision.</p>	0.000	16.039	17.230	0.000	17.230
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	16.039	17.230	0.000	17.230

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PMC/4758: Unmanned Expeditionary System (UES)	0.000	13.564	16.305	-	16.305	8.736	8.873	9.063	9.268	Continuing	Continuing
<b>Remarks</b>	Prior to FY2024, PMC was funded out of BLI 6518.										

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / <i>MC Ground Cmbt Spt Arms Sys</i>	<b>Project (Number/Name)</b> 2530 / <i>Unmanned Expeditionary Systems</i>

**D. Acquisition Strategy**

The program office continues to implement acquisition approaches to quickly field new technology and capabilities to meet requirements set forth by USMC in order to meet FD2030 objectives.

TRUAS established as an Abbreviated Acquisition Program (AAP) in accordance with Secretary of the Navy Instruction 5000.2G with a Production Decision Review in 3Q FY 2023, IOC in 1Q FY 2024, and FOC in 4Q FY 2028. TRUAS will utilize R&D across the FYDP to fulfill objective requirements through Continued Product Improvements.

MARV-EL awarded two Other Transaction Authority prototyping contracts in 2Q FY 2023 with prototype deliveries and performance evaluation planned for 4Q FY 2024. At this time, the program plans to down select to one vendor, establish an acquisition pathway, and continue prototype maturation, IT, and conduct field user evaluations. A production decision is planned for FY 2028.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2530 / Unmanned Expeditionary Systems
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<b>Product Development (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
TRUAS, Small ULS-AIR	Various	NAVAIR : Pax River, MD	0.000	0.000		1.000	Jan 2024	2.670	Jan 2025	-		2.670	Continuing	Continuing	Continuing
MARV-EL, Medium ULS-AIR	Various	Various : Various	0.000	0.000		13.000	Jan 2024	10.000	Jan 2025	-		10.000	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.000	0.000		14.000		12.670		-		12.670	Continuing	Continuing	N/A

**Remarks**  
FY 2024 to FY 2025 decrease reflects MARV-EL down-select decision in 2024. FY 2025 efforts support continued product development of the MARV-EL test articles and TRUAS system capabilities.

<b>Support (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
ULS-A Support	Various	NAVAIR : Pax River, MD	0.000	0.000		1.039	Feb 2024	1.094	Feb 2025	-		1.094	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.000	0.000		1.039		1.094		-		1.094	Continuing	Continuing	N/A

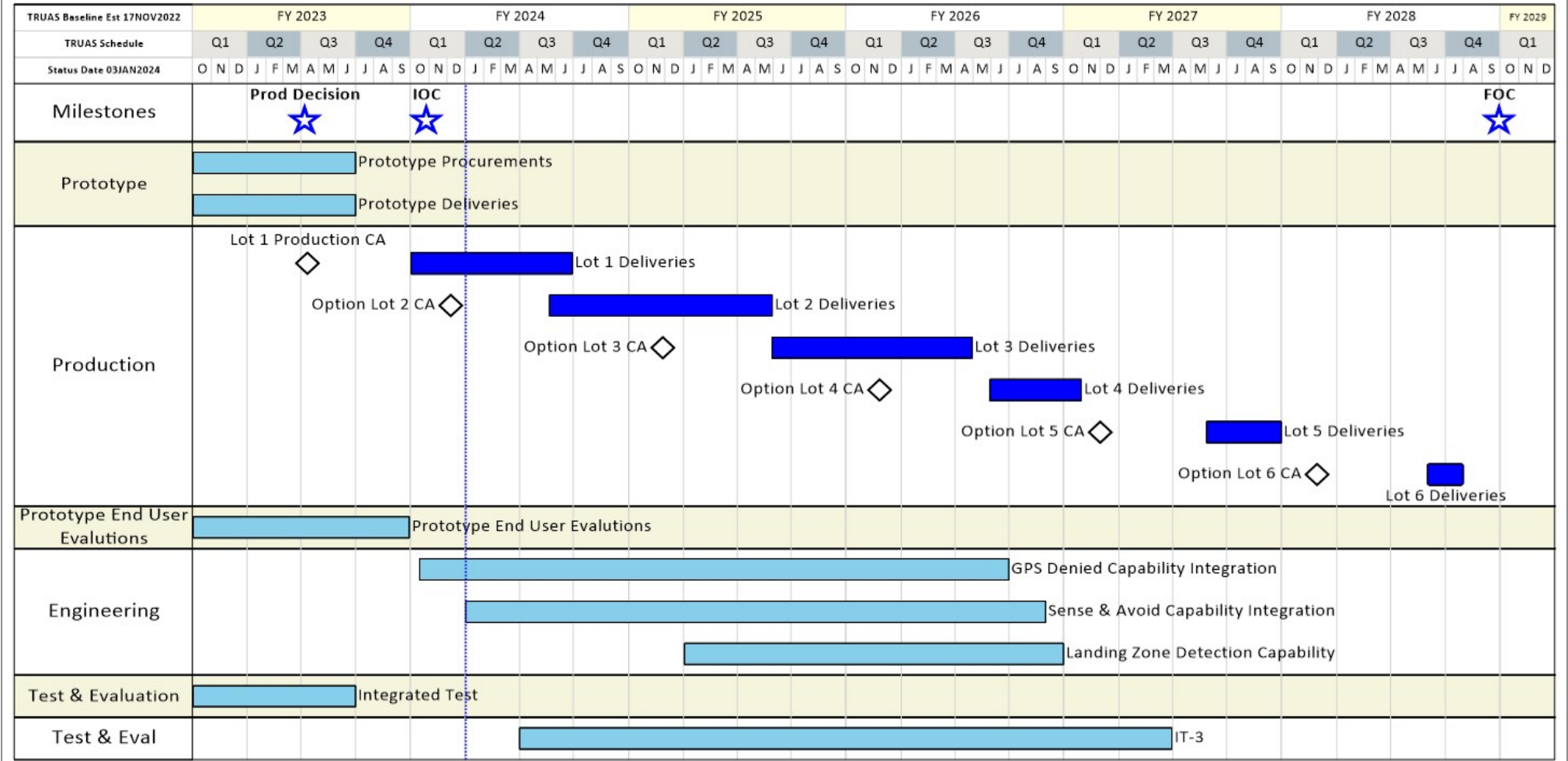
<b>Test and Evaluation (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation (DT&E)	MIPR	NAVAIR : Pax River, MD	0.000	0.000		0.500	Jan 2024	3.466	Jan 2025	-		3.466	Continuing	Continuing	Continuing
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	NAVAIR : Pax River, MD	0.000	0.000		0.500	Jan 2024	0.000		-		0.000	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.000	0.000		1.000		3.466		-		3.466	Continuing	Continuing	N/A

**Remarks**  
FY 2024 to FY 2025 increase enables testing of the TRUAS GPS Denied, Sense and Avoid and Landing Zone Detection capabilities in addition to MARV-EL developmental testing.



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Navy</b>		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2530 / Unmanned Expeditionary Systems





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<b>Exhibit R-4A, RDT&amp;E Schedule Details: PB 2025 Navy</b>		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2530 / Unmanned Expeditionary Systems

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 2530</b>				
Unmanned Logistic Systems - Air: TRUAS: TRUAS Production Decision	3	2023	3	2023
Unmanned Logistic Systems - Air: TRUAS: TRUAS IOC	1	2024	1	2024
Unmanned Logistic Systems - Air: TRUAS: TRUAS Prototype Procurements	1	2023	3	2023
Unmanned Logistic Systems - Air: TRUAS: TRUAS Prototype Deliveries	1	2023	3	2023
Unmanned Logistic Systems - Air: TRUAS: TRUAS Prototype End User Evaluations	1	2023	4	2023
Unmanned Logistic Systems - Air: TRUAS: TRUAS Lot 1 Production Contract Award	3	2023	3	2023
Unmanned Logistic Systems - Air: TRUAS: TRUAS Lot 1 Deliveries	1	2024	3	2024
Unmanned Logistic Systems - Air: TRUAS: TRUAS Lot 2 Award	1	2024	1	2024
Unmanned Logistic Systems - Air: TRUAS: TRUAS Lot 2 Deliveries	3	2024	3	2025
Unmanned Logistic Systems - Air: TRUAS: TRUAS Option Lot 3 Award	1	2025	1	2025
Unmanned Logistic Systems - Air: TRUAS: TRUAS Lot 3 Deliveries	3	2025	3	2026
Unmanned Logistic Systems - Air: TRUAS: TRUAS Lot 4 Award	1	2026	1	2026
Unmanned Logistic Systems - Air: TRUAS: TRUAS Lot 4 Deliveries	3	2026	1	2027
Unmanned Logistic Systems - Air: TRUAS: TRUAS Lot 5 Award	1	2027	1	2027
Unmanned Logistic Systems - Air: TRUAS: TRUAS Lot 5 Deliveries	3	2027	4	2027
Unmanned Logistic Systems - Air: TRUAS: TRUAS Lot 6 Award	1	2028	1	2028
Unmanned Logistic Systems - Air: TRUAS: TRUAS Lot 6 Deliveries	3	2028	4	2028
Unmanned Logistic Systems - Air: TRUAS: TRUAS Integrated Test	3	2024	2	2027
Unmanned Logistic Systems - Air: TRUAS: TRUAS GPS Denied Capability Integration	1	2024	3	2026
Unmanned Logistic Systems - Air: TRUAS: TRUAS Sense and Avoid Capability Integration	2	2024	4	2026

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2025 Navy **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2530 / Unmanned Expeditionary Systems
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<b>Events by Sub Project</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
Unmanned Logistic Systems - Air: TRUAS: TRUAS Landing Zone Detection Capability Integration	2	2025	4	2026
Unmanned Logistic Systems - Air: MARV-EL: MARV-EL Prototype Contract Award	2	2023	2	2023
Unmanned Logistic Systems - Air: MARV-EL: MARV-EL Production Decision	1	2028	1	2028
Unmanned Logistic Systems - Air: MARV-EL: MARV-EL: MARV-EL Prototype Development	2	2023	4	2024
Unmanned Logistic Systems - Air: MARV-EL: MARV-EL: MARV-EL Performance Evaluation / Fly Off	4	2024	4	2024
Unmanned Logistic Systems - Air: MARV-EL: MARV-EL: MARV-EL Follow-On Prototype Development	1	2025	4	2026
Unmanned Logistic Systems - Air: MARV-EL: MARV-EL Integrated Test & Evaluation	1	2025	4	2027
Unmanned Logistic Systems - Air: MARV-EL: MARV-EL Follow-On Test & Evaluation	1	2028	4	2029
Unmanned Logistic Systems - Air: MARV-EL: MARV-EL Lot 1 Award	2	2028	2	2028
Unmanned Logistic Systems - Air: MARV-EL: MARV-EL Lot 1 Deliveries	4	2028	4	2028
Unmanned Logistic Systems - Air: MARV-EL: MARV-EL Lot 2 Award	2	2029	2	2029
Unmanned Logistic Systems - Air: MARV-EL: MARV-EL Lot 2 Deliveries	4	2029	4	2029

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys				<b>Project (Number/Name)</b> 2928 / Exp Indirect Fire Gen Supt Wpn Sys			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
2928: Exp Indirect Fire Gen Supt Wpn Sys	49.991	0.487	0.521	0.478	-	0.478	0.565	0.565	0.556	0.567	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

Expeditionary Indirect Fires provides the Ground Combat Element (GCE) systems needed to engage multiple enemy threats from land and sea. High Mobility Artillery Rocket Systems (HIMARS) which is a C-130 transportable, wheeled, indirect fire, rocket/missile system capable of firing all rockets and missiles in the Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM). The system includes one launcher, two Re-Supply Systems, and the MFOM. HIMARS provides the Marine Air-Ground Task Force (MAGTF) with 24 hour ground-based, responsive General Support/General Support Reinforcing (GS/GSR) indirect fires which accurately engage targets at long range (60+km), with high volumes of lethal fire under all weather conditions throughout all phases of combat operations ashore, to include irregular warfare, distributed operations and sea control. Development provides for the modernization and obsolescence mitigation of the HIMARS in order to provide improved operational capabilities. The HIMARS batteries have previously used old Reduced Range Practice Rocket (RRPRs) motors to refurbish as new training rounds. Due to limited quantities available, the Army is developing a new RRPR. The Marine Corps, in conjunction with the Army, will initiate testing of the new RRPRs in FY 2025.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> HIMARS Expeditionary & Naval Integration Capabilities	0.487	0.521	0.478	0.000	0.478
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b>					
HIMARS:					
- Initiate engineering and integration testing for efforts to improve the mission through quicker loading/unloading during transportation on C-130					
- Complete Electromagnetic, Environmental, Effects (E3) testing of the radio and intercom modernization.					
- Complete Software development of MLRS Test Program Set to the current Launcher Software Suite.					
<b>FY 2025 Base Plans:</b>					
HIMARS:					
- Initiate engineering change proposals for system modernization efforts.					
- Support Marine Corps Test & Evaluation of the new reduced range practice rockets developed by the Army.					
<b>FY 2025 OCO Plans:</b>					
N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2928 / Exp Indirect Fire Gen Supt Wpn Sys

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
FY 2024 to FY 2025 decrease of \$0.043M reflects completion of development of MLRS Test Program Set and initiation of test and evaluation of the reduced range practice rockets.					
<b>Accomplishments/Planned Programs Subtotals</b>	0.487	0.521	0.478	0.000	0.478

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PMC/2212: High Mobility Artillery Rocket System (HIMARS)	145.452	165.268	139.477	-	139.477	366.819	307.141	163.715	167.140	267.644	2,756.242
• PMC/3025: Guided Multiple Launch Rocket System (GMLRS)	7.316	8.867	1.584	-	1.584	1.809	1.842	1.879	1.919	0.000	297.494

**Remarks**  
BLI 2212 Artillery Weapons System includes funding for HIMARS, GBASM, and LRF.

**D. Acquisition Strategy**  
Engineering support will come from multiple Army and Navy labs.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2928 / Exp Indirect Fire Gen Supt Wpn Sys
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<b>Product Development (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
HIMARS RSS Intercom/ Radio Integration	WR	SPAWAR : Charleston	0.576	0.000		0.000		0.000		-		0.000	0.000	0.576	-
HIMARS Launcher Radio Integration	WR	PIF : Huntsville, AL	0.821	0.222	Dec 2022	0.097	Dec 2023	0.000		-		0.000	0.000	1.140	-
HIMARS Engineering	WR	NSWC : Various	0.456	0.094	Dec 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
HIMARS Launcher Software	WR	S3i : Huntsville, AL	0.331	0.000		0.000		0.000		-		0.000	0.000	0.331	-
HIMARS Engineering	WR	NSWC : Corona, CA	0.000	0.000		0.238	Dec 2023	0.291	Dec 2024	-		0.291	0.000	0.529	-
Prior Years Cumulative Funding	Various	Various : Various	32.890	0.000		0.000		0.000		-		0.000	0.000	32.890	-
<b>Subtotal</b>			35.074	0.316		0.335		0.291		-		0.291	Continuing	Continuing	N/A

**Remarks**  
FY 2024 to FY 2025 decrease reflects net decrease of completion of development of MLRS Test Program Set and initiation of engineering safety analysis associated with the new RRPRs.

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	Various : Various	9.273	0.000		0.000		0.000		-		0.000	0.000	9.273	-
Developmental Test & Evaluation (DT&E)	WR	NSWC-DD : Dahlgren, VA	0.000	0.171	Jan 2023	0.186	Dec 2023	0.187	Dec 2024	-		0.187	0.000	0.544	-
<b>Subtotal</b>			9.273	0.171		0.186		0.187		-		0.187	0.000	9.817	N/A

**Remarks**  
FY 2024 to FY 2025 increase reflects inflation.



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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2928 / Exp Indirect Fire Gen Supt Wpn Sys
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Exp Indirect Fire Gen Supt Wpn Sys	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
HIMARS Developmental Efforts and Radio Integration																												
HIMARS Engineering and Safety Support																												
HIMARS Qualification Testing																												

2025DON - 0206623M - 2928

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 2928 / Exp Indirect Fire Gen Supt Wpn Sys

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Exp Indirect Fire Gen Supt Wpn Sys</b>				
HIMARS Developmental Efforts and Radio Integration: HIMARS Developmental Efforts and Radio Integration	1	2023	4	2024
HIMARS Engineering and Safety Support: HIMARS Engineering and Safety Support	1	2023	4	2029
HIMARS Qualification Testing: HIMARS Qualification Testing of ECPs	2	2023	3	2029

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys				<b>Project (Number/Name)</b> 3098 / Fire Support System			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3098: <i>Fire Support System</i>	176.452	1.566	3.335	4.415	-	4.415	3.953	3.701	3.395	3.601	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

Project 3098 Fire Support System funds the development of critical United States Marine Corps (USMC) key efforts: fire support coordination, targeting, and digital interoperability systems required for the employment of air and ground fires. Fire Support Systems develop and integrate a digital networked sensor to shooter kill chain supporting the Marine Air-Ground Task Force (MAGTF). Key efforts included are:

The Fire Support Mod Line (FSML) is a set of Marine Corps efforts to address critical operational and logistics deficiencies in existing, fielded fire support/weapons systems, and equipment. FSML provides technical refresh and development of target acquisition, artillery survey, meteorological systems, and fire direction control. Provides execution of product improvements/modifications and upgrades to system hardware and software for the Marine Artillery Survey Set (MASS), Modeled Meteorological Information Manager (MMIM), Global Positioning System Survey Replacement (GPS-S), Improved Position Azimuth Determining System (IPADS), and the IPADS replacement system, known as the Location Azimuth Determining System (LADS). Funding is also used for upgrades, engineering change proposals (ECPs), and modifications for fire control systems which fall within Fire Support Systems for the Marine Corps.

The Family of Artillery Munitions (FAM) seeks to provide the warfighter with the most state of the art Global Positioning System (GPS) guided and ballistic 155mm projectiles. In conjunction with the Army, the Marine Corps is evaluating new munitions that are effective against individual area targets dispersed over a defined area, targets whose precise locations are not known, time-sensitive or moving targets, and massed formations of enemy forces. Funding is used to develop and mature these projectiles for the Marine Corps and includes conducting safety and engineering analysis as well as ship compatibility studies.

The Common Laser Range Finder (CLRF) is an association of targeting systems that provide handheld, lightweight, man portable devices supporting the employment of air and surface fires. They provide foot mobile users the ability to locate, identify, mark, and designate targets in both day and night conditions for engagement by fire support and weapons platforms. CLRF systems support the collection and dissemination of targeting information to maneuver, fire support, and intelligence personnel via external digital devices such as the Advanced Field Artillery Tactical Data System (AFATDS) and the Target Handoff System (THS) using associated Combat Net Radios. The CLRF includes two major systems; the CLRF Integrated Capability (IC) Laser Range Finder (LRF) supports the requirement to locate and transmit targeting information, while the Next Generation Handheld Targeting System (NGHTS) combines the capabilities of the LRF with the ability to designate for specific requirements associated with laser guided munitions.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> Fire Support Mods (FSM)	0.690	2.377	3.102	0.000	3.102
<b>Articles:</b>	-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3098 / Fire Support System

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<p><b>Description:</b> Funding is used for upgrades, engineering change proposals (ECPs), and modifications to system hardware and software for the Marine Artillery Survey Set (MASS), Modeled Meteorological Information Manager (MMIM), Global Positioning System Survey Replacement (GPS-S), the Improved Position Azimuth Determining System (IPADS), and the IPADS replacement system known as the Location Azimuth Determining System (LADS), as well as technical refresh for target acquisition, and artillery survey and meteorological systems.</p> <p><b>FY 2024 Plans:</b></p> <ul style="list-style-type: none"> <li>- Initiate M-Code integration and testing for the GPS-S.</li> <li>- Initiate testing radio receivers &amp; M-Code Adapters (M7) for the GPS-S.</li> <li>- Initiate and complete software development and integration on the GETAC B300G6 laptops for the GPS-S.</li> <li>- Complete the development and integration of LADS to the JLTV.</li> </ul> <p><b>FY 2025 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Initiate testing for Trimble Survey Controller with a 3" screen (TSC3) Replacements for Trimble Survey Controller with a 5" screen (TSC5) for the GPS-S.</li> <li>- Continue testing radio receivers &amp; M-Code Adapters (M7) for the GPS-S.</li> <li>- Complete M-Code integration and testing for the GPS-S.</li> <li>- Initiate S7 integration and testing for the MASS.</li> </ul> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Net increase is due to the initiation of testing for TSC3 replacements for TSC5 for GPS-S, the initiation of the S7 integration and testing for the MASS, and the completion of the M-Code integration and testing for the GPS-S.</p>					
<p><b>Title:</b> Family of Artillery Munitions (FAM)</p> <p align="right"><b>Articles:</b></p>	0.297	0.338	0.714	0.000	0.714
<p><b>Description:</b> Family of Artillery Munitions (FAM) is an effort that seeks to provide the warfighter with the most state of the art Global Positioning System guided and Ballistic 155mm projectiles. In conjunction with the Army, the Marine Corps is evaluating new munitions that are effective against individual area targets dispersed over a defined area, targets whose precise locations are not known, time-sensitive or moving targets, and massed</p>	-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3098 / Fire Support System

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
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formations of enemy forces. Funding is used to develop and mature these projectiles for the Marine Corps to include conducting safety and engineering analysis as well as ship compatibility studies.

**FY 2024 Plans:**  
- Perform safety confirmation of all tests to date for the XM1208 munition.

**FY 2025 Base Plans:**  
- Perform safety confirmation of all tests to date for the munitions (XM1113 and XM1128).  
- Perform HERO testing of the munitions (XM1113 and XM1128).  
- Perform drop analysis of the munitions (XM1113 and XM1128).

**FY 2025 OCO Plans:**  
N/A

**FY 2024 to FY 2025 Increase/Decrease Statement:**  
The increase from FY 2024 to FY 2025 is due to the testing and safety support that will be required with two additional munitions (XM1113 and XM1128).

<b>Title:</b> Common Laser Range Finder (CLRF)	0.579	0.620	0.599	0.000	0.599
<b>Articles:</b>	-	-	-	-	-
<p><b>Description:</b> The Common Laser Range Finder (CLRF) is a family of systems consisting of Common Laser Range Finder Integrated Capability (CLRF IC) and the Next Generation Handheld Targeting System (NGHTS). The CLRF IC's scheduled end of life is FY30. Market Research for the CLRF IC replacement began in FY 2024. NGHTS had a scheduled Full-Rate Production Decision in FY 2024. Ongoing research for M-Code development and implementation for NGHTS is ongoing and scheduled for inclusion into the NGHTS in FY 2026. Modernization research efforts are ongoing for NGHTS and the CLRF IC replacement.</p> <p><b>FY 2024 Plans:</b> - NGHTS: Initiate M-CODE research - Conduct NGHTS Operational Testing and an OT Report - CLRF IC: Initiate market research for CLRF IC replacement</p> <p><b>FY 2025 Base Plans:</b> - NGHTS: Continue to conduct M-CODE research</p>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3098 / Fire Support System

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
- CLRF IC: Continue market research for CLRF IC replacement.					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease from FY 2024 to FY 2025 is due to the completion of NGHTS Operational Test.					
<b>Accomplishments/Planned Programs Subtotals</b>	1.566	3.335	4.415	0.000	4.415

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PMC/4733: Fire Support Mods	36.492	58.483	56.710	-	56.710	97.642	64.799	56.994	63.277	0.000	909.757
• PMC/4733/: Common Laser Range Finder (CLRF)	36.492	58.483	56.710	-	56.710	97.642	64.799	56.994	63.277	0.000	909.757

**Remarks**

**D. Acquisition Strategy**

These programs range from off-the-shelf modifications to developmental items. Development will typically be conducted at government labs.

**Fire Support Mod Line (FSML):**

Leverage acquisition efforts in conjunction with the Army, Warfare Centers and labs for existing fielded systems. Continue efforts between the Army's Combat Capabilities Development Command - Armaments Center (CCDC-AC), and NSWC Dahlgren for the Future Survey System replacement. Procure hardware and software refreshes for the GPS-S, MASS, and MMIM to ensure compliance with cybersecurity policies and address obsolescence and interoperability with other C2 systems.

**Family of Artillery Munitions (FAM):**

Program includes artillery munitions which are being developed by the Army. The Army is the lead service for these programs but continues to interact with the FAM IPT to ensure USMC requirements and capability needs are met. This allows the USMC to become users of the munition and certify the round for naval transportation. The munitions include, but are not limited to, Dual Purpose Improved Conventional Munitions (DPICM) replacement, Precision Guidance Kit (PGK), and 155mm rounds. USMC engineering efforts are conducted primarily at Navy Warfare Centers.

**Common Laser Range Finder (CLRF):**

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3098 / Fire Support System

The Next Generation Handheld Targeting System (NGHTS) was developed by using competitively awarded Other Transaction Authority (OTA) Agreements for a phased approach that resulted in a competitive down select to a single vendor. Procurement contract was awarded to support Low Rate Initial Production, Production Verification Testing, and Full Rate Production of the NGHTS Approved Acquisition Objective quantity of systems and provided initial training and maintenance support.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3098 / Fire Support System
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<b>Product Development (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
FSML: GPS-S GETAC B300G6 Laptops SW Development and Integration	MIPR	CCDC : Picatinny, NJ	0.000	0.000		0.214	Dec 2023	0.000		-		0.000	0.000	0.214	-
FSML: MASS Android Sensor Software Development	MIPR	CCDC : Picatinny, NJ	0.392	0.250	Dec 2022	0.000		0.000		-		0.000	0.000	0.642	-
FSML: LADS/JLTV Integration	MIPR	CCDC : Picatinny, NJ	0.000	0.085	Feb 2023	0.250	Nov 2023	0.000		-		0.000	0.000	0.335	-
FSML: Helium Rack Development and Integration	MIPR	LOGCOM : Albany, GA	0.000	0.022	Apr 2023	0.000		0.000		-		0.000	0.000	0.022	-
FSML: GPS-S M-Code Integration	MIPR	CCDC : Picatinny, NJ	0.000	0.000		0.590	Nov 2023	0.506	Nov 2024	-		0.506	0.000	1.096	-
FSML: MASS S7 Integration	C/CPFF	MCSC : Quantico, VA	0.000	0.000		0.000		0.454	Jun 2025	-		0.454	0.000	0.454	-
FSML: GPS-S Radio Receivers & M-Code Adapters (M7)	MIPR	CCDC : Picatinny, NJ	0.000	0.000		0.130	Nov 2023	0.875	Nov 2024	-		0.875	0.000	1.005	-
FSML: TSC3 Replacements for TSC5	MIPR	CCDC : Picatinny, NJ	0.000	0.000		0.000		0.710	Jul 2025	-		0.710	Continuing	Continuing	Continuing
CLRF: NGHTS	C/FFP	NSWC : Dahlgren, VA	13.365	0.037	Nov 2022	0.060	Nov 2023	0.249	Nov 2024	-		0.249	0.000	13.711	-
Prior Years Cumulative Funding	Various	Various : Various	143.963	0.000		0.000		0.000		-		0.000	0.000	143.963	-
<b>Subtotal</b>			157.720	0.394		1.244		2.794		-		2.794	Continuing	Continuing	N/A

**Remarks**  
 CLRF: Net increase from FY 2024 to FY 2025 due to scope increase of M-CODE development support.  
 FSML: Net increase from FY 2024 to FY 2025 is a result of the initiation of development and integration for TSC3 replacements for TSC5 for GPS-S and the initiation of the development and integration of the MASS S7.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3098 / Fire Support System
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<b>Support (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
FAM: Testing Engineer Support	SS/FFP	NSWC : Dahlgren, VA	0.200	0.072	Aug 2023	0.090	Dec 2023	0.100	Nov 2024	-		0.100	0.000	0.462	-
FAM: Safety Engineer Support	SS/FFP	DTIC : Ft Belvoir, VA	0.391	0.115	Jul 2023	0.338	Dec 2023	0.329	Dec 2024	-		0.329	0.000	1.173	-
FSML: Engineering Support	WR	NSWC : Dahlgren, VA	0.603	0.287	Mar 2023	0.273	Nov 2023	0.247	Nov 2024	-		0.247	0.000	1.410	-
FSML: Engineering Support	C/FFP	MCSC : Quantico, VA	0.000	0.046	Jun 2023	0.244	Mar 2024	0.310	Mar 2025	-		0.310	0.000	0.600	-
CLRF: CLRF IC	WR	NSWC : Dahlgren, VA	0.495	0.049	Nov 2022	0.201	Nov 2023	0.250	Nov 2024	-		0.250	0.000	0.995	-
Prior Years Cumulative Funding	Various	Various : Various	6.749	0.000		0.000		0.000		-		0.000	0.000	6.749	-
<b>Subtotal</b>			8.438	0.569		1.146		1.236		-		1.236	0.000	11.389	N/A

**Remarks**  
 CLRF - Net increase from FY 2024 to FY 2025 is in support of continued market research for CLRF IC replacement.  
 FAM - Net increase from FY 2024 to FY 2025 is a result of increased costs of planned safety confirmation and testing of the XM1113 and XM1128 munitions.  
 FSML - Net increase from FY 2024 to FY 2025 is a result of the increased engineering support required for the initiation of the development of TSC3 Replacements for TSC5 for the GPS-S and the S7 Integration for MASS.

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Operational Test & Evaluation (OT&E)	Various	Various : Various	0.000	0.110	Jul 2023	0.586	Apr 2024	0.000		-		0.000	0.000	0.696	-
Operational Test & Evaluation (OT&E)	MIPR	NSWC : Dahlgren, VA	0.420	0.493	Nov 2022	0.359	Nov 2023	0.385	Nov 2024	-		0.385	0.000	1.657	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	Various : Various	9.874	0.000		0.000		0.000		-		0.000	0.000	9.874	-
<b>Subtotal</b>			10.294	0.603		0.945		0.385		-		0.385	0.000	12.227	N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3098 / Fire Support System
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Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			

**Remarks**  
 CLRF - Net decrease from FY 2024 to FY 2025 is a result of completion of NGHTS OT.  
 FAM - Net increase of OT&E at NSWC Dahlgren from FY 2024 to FY 2025 is a result of the HERO testing and drop analysis required for the XM1113 and XM1128 munitions.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	176.452	1.566	3.335	4.415	-	4.415	Continuing	Continuing	N/A

**Remarks**



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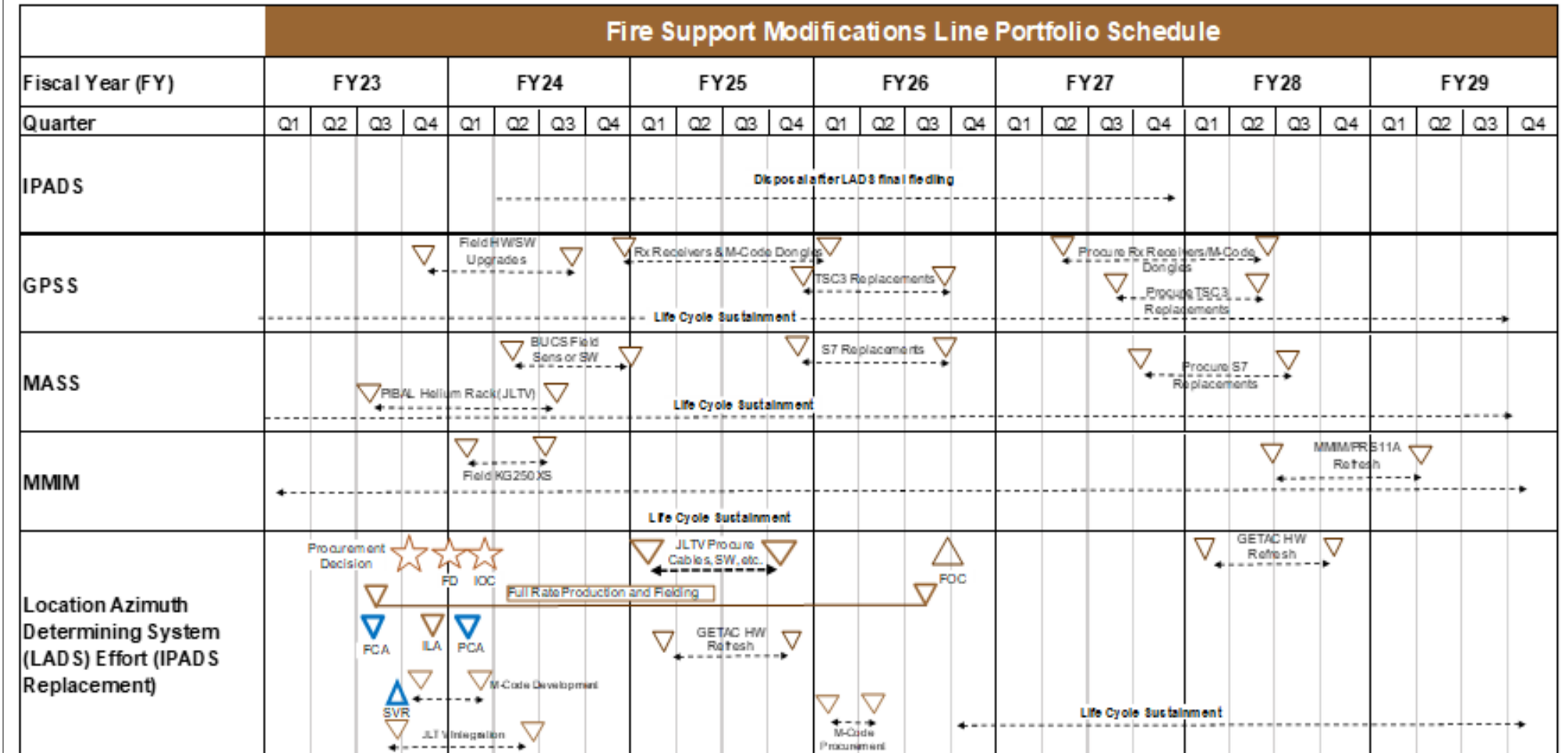
Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy

Date: March 2024

Appropriation/Budget Activity  
1319 / 7

R-1 Program Element (Number/Name)  
PE 0206623M / MC Ground Cmbt Spt Arms  
Sys

Project (Number/Name)  
3098 / Fire Support System



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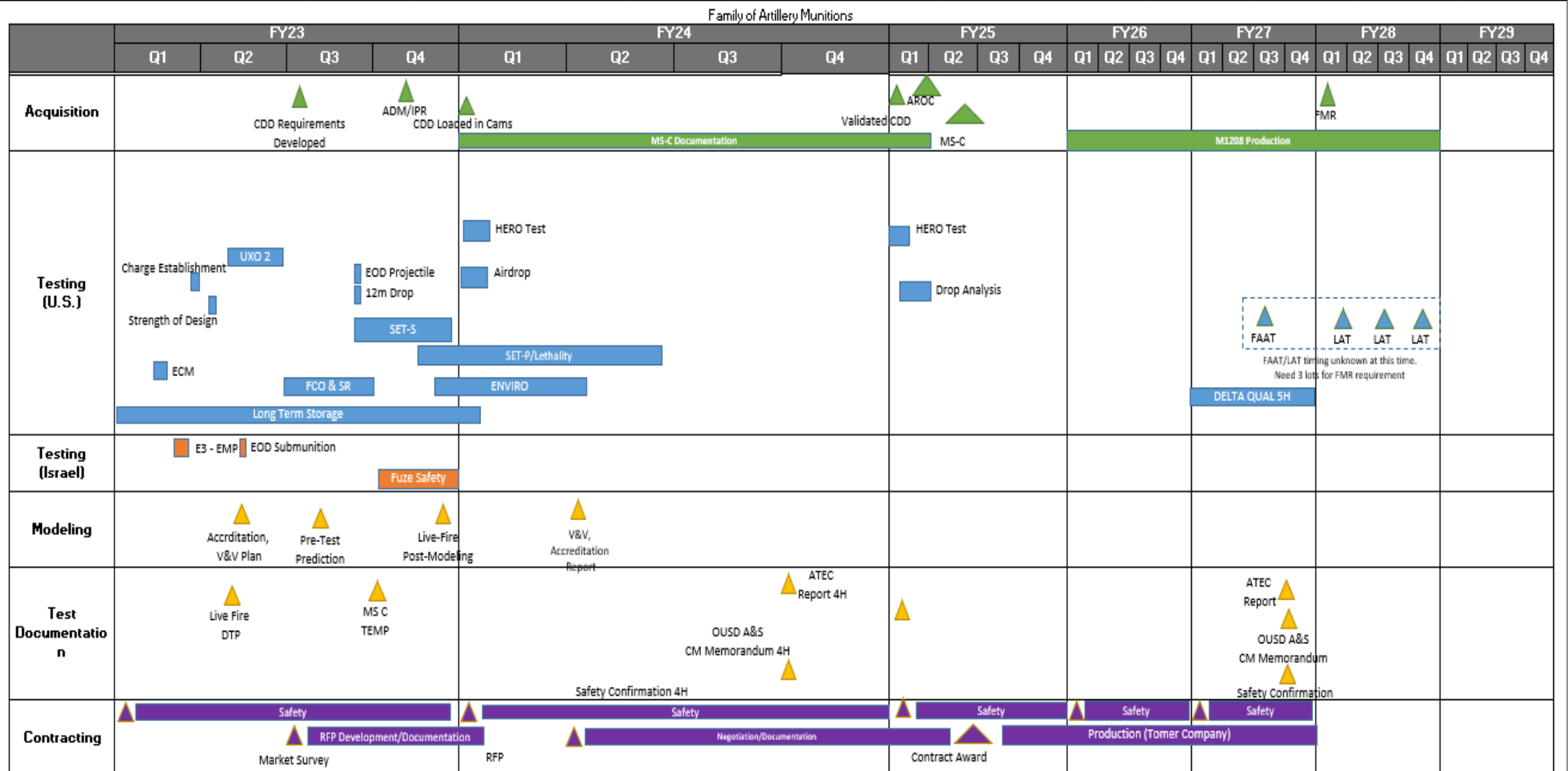
**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy**

**Date:** March 2024

**Appropriation/Budget Activity**  
1319 / 7

**R-1 Program Element (Number/Name)**  
PE 0206623M / MC Ground Cmbt Spt Arms Sys

**Project (Number/Name)**  
3098 / Fire Support System



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3098 / Fire Support System

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 3098</b>				
FAM: HERO Testing	1	2025	1	2025
FAM: Safety Support and Confirmation	1	2023	4	2029
FAM: Drop Analysis	1	2025	1	2025
FSML: Testing Rx Reivers and M-Code Dongles for GPS-S	4	2024	1	2026
FSML: Testing for TSC3 Replacements for TSC5 for GPS-S	4	2025	4	2025
FSML: S7 Integration and Testing for MASS	4	2025	4	2025
CLRF: NGHTS LRIP PVT	4	2023	1	2024
CLRF: NGHTS OT&E	2	2024	2	2024
CLRF: CLRF IC Replacement Market Research	1	2024	4	2024
CLRF: CLRF IC Test and Evaluation	3	2024	2	2025

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**Exhibit R-2A, RDT&E Project Justification:** PB 2025 Navy **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3774 / Marine Corps Ammo
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
3774: Marine Corps Ammo	14.085	9.077	5.100	3.713	-	3.713	4.960	3.257	2.818	2.878	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

Ammunition Life Cycle Management (ALCM) supports PM Ammunition's responsibility for total life cycle management for ground conventional munitions. Ammunition logistics R&D projects are designed to extend the shelf life of our current inventory, provide enhanced packaging to "lighten the load" of our munitions, and modify ammunition-related systems to increase reliability and performance while enhancing accountability and auditability.

Conventional Ground Ammunition (CGA) is a project that identifies and develops Insensitive Munitions (IM) technologies to address IM shortfalls in new Marine Corps development and/or improvements to legacy CGA to meet OSD-mandated IM compliance requirements. These IM technology investments directly support the development of the bi-annual Marine Corps Insensitive Munitions Strategic Plan (IMSPP), which addresses any identified IM technology needs of the Marine Corps.

The decrease from FY 2024 to FY 2025 is primarily attributed to the completion of J143 Rocket Motor development efforts.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<b>Title:</b> Ammunition Life Cycle Management	8.557	4.618	3.098	0.000	3.098
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> RDT&E funds are required to seek a prototype for the ammunition inventory management system consisting of commercially available software solution(s) with minimal customization to fully track, account, audit, and manage the supply and distribution of Class V munitions worldwide. Additionally, RDT&E funds are required to support ammunition packaging efforts to "lighten the load" for ammunition packaging. Lastly, this funding line supports modernization efforts for multiple applications within the Marine Ammunition Knowledge Enterprise (MAKE) to enhance functionality/capability and comply with Financial Improvement and Audit Readiness (FIAR) audit standards.					
<b>FY 2024 Plans:</b>					
- Support R&D of the Mk22 Mod 4 (J143) Rocket Motor to address safety concerns identified during a recent mishap and improve insensitive munitions performance (3rd year of a 3 year project).					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3774 / Marine Corps Ammo

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p>- Support modernization efforts for multiple applications within the MAKE to enhance functionality/capability and comply with FIAR audit standards.</p> <p><b>FY 2025 Base Plans:</b> - Support modernization efforts for multiple applications within the MAKE to enhance functionality/capability and comply with FIAR audit standards.</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> The decrease of \$1.520M from FY 2024 to FY 2025 reflects the completion of J143 Rocket Motor efforts in the engineering and manufacturing phase of development.</p>					
<p><b>Title:</b> Conventional Ground Ammunition</p> <p align="right"><b>Articles:</b></p>	0.520	0.482	0.615	0.000	0.615
<p><b>FY 2024 Plans:</b> - Completing the J143 Rocket Motor slow cook-off mitigation development design package to a final TDP to include non-flammable container and systems level testing. This is the last year of a three year project.</p> <p>- Continuing LAW FFE particle impact mitigation sleeve development design package to a final TDP to include ECP.</p> <p>- Annual testing for new tools and techniques for Explosive Ordnance Disposal (EOD) of Insensitive Munitions (IM) - Unexploded Ordnance (UXO) applications.</p> <p>- Develop the bi-annual Marine Corps Insensitive Munitions Strategic Plan (IMSP) to address the identified IM technology needs of the Marine Corps.</p> <p><b>FY 2025 Base Plans:</b> - Continuing annual testing for new tools and techniques for Explosive Ordnance Disposal (EOD) of Insensitive Munitions (IM) - Unexploded Ordnance (UXO) applications.</p>	-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3774 / Marine Corps Ammo

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
- Adapt fire-resistant materials for packaging of the J143 rocket motor and conduct preliminary testing to support Insensitive Munitions improvements for slow and fast cook-off scenarios in the rocket motor logistical configuration.					
- Conduct experimental and computational inspections and analyses of conventional ammunition and energetics (Energetic Defect Characterization), which support efforts to modernize ammunition production, quality and safety.					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> The increase of \$0.133M from FY 2024 to FY 2025 supports the development and testing of fire-resistant materials as for the J143 Rocket Motor, as well as conducting preliminary testing for slow/fast cook-off scenarios in the rocket motor configuration, using the technical data package results from the slow cook-off mitigation development design package.					
<b>Accomplishments/Planned Programs Subtotals</b>	9.077	5.100	3.713	0.000	3.713

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PANMC/1085: Mortars	62.441	61.274	127.726	-	127.726	124.528	124.270	118.524	121.005	Continuing	Continuing
• PANMC/1125: Direct Support Munitions	180.387	73.338	43.769	-	43.769	57.807	58.815	55.810	56.958	Continuing	Continuing
• PANMC/1350: Infantry Weapons Ammunition	302.080	178.240	266.277	-	266.277	268.087	284.217	289.884	289.481	0.000	2,204.861
• PANMC/1550: Combat Support Munitions	33.248	15.897	21.726	-	21.726	17.399	18.078	24.896	25.468	Continuing	Continuing
• PANMC/1630: Ammo Modernization	17.327	17.941	18.211	-	18.211	18.523	18.949	19.331	19.737	Continuing	Continuing
• PANMC/1650: Artillery Munitions	462.653	82.452	114.684	-	114.684	112.012	173.088	175.957	179.593	Continuing	Continuing
• PANMC/1660: Items less than \$5 million	5.476	5.340	5.165	-	5.165	5.718	5.789	5.788	5.909	Continuing	Continuing

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3774 / Marine Corps Ammo

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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**Remarks**

**D. Acquisition Strategy**

Non Developmental Item/Commercial off the Shelf

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2025 Navy</b>											<b>Date: March 2024</b>				
<b>Appropriation/Budget Activity</b> 1319 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys					<b>Project (Number/Name)</b> 3774 / Marine Corps Ammo				

<b>Product Development (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Ammunition Life Cycle Management	MIPR	DEVCOM : Picatinny, NJ	2.935	1.250	Oct 2022	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Ammunition Life Cycle Management	MIPR	NSWC IHEODTD : Indian Head, MD	5.377	3.371	Oct 2022	4.618	Oct 2023	1.098	Nov 2024	-		1.098	0.000	14.464	-
Ammunition Life Cycle Management	MIPR	NSWC Corona : Norco, CA	3.582	3.718	Oct 2022	0.000		2.000	Nov 2024	-		2.000	0.000	9.300	-
Ammunition Life Cycle Management	MIPR	NSWC Dahlgren : Dahlgren, VA	0.000	0.019	Mar 2023	0.000		0.000		-		0.000	0.000	0.019	-
Ammunition Life Cycle Management	MIPR	NRL : Washington, DC	0.130	0.200	Aug 2023	0.000		0.000		-		0.000	0.000	0.330	-
Conventional Ground Ammunition	MIPR	DEVCOM : Picatinny NJ	1.097	0.519	Feb 2023	0.482	Nov 2023	0.615	Nov 2024	-		0.615	Continuing	Continuing	Continuing
Conventional Ground Ammunition	MIPR	NSWC IHEODTD : Indian Head, MD	0.949	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Conventional Ground Ammunition	MIPR	NSWC Dahlgren : Dahlgren, VA	0.015	0.000		0.000		0.000		-		0.000	0.000	0.015	-
<b>Subtotal</b>			14.085	9.077		5.100		3.713		-		3.713	Continuing	Continuing	N/A

**Remarks**  
The decrease from FY 2024 to FY 2025 is primarily attributed to the completion of J143 Rocket Motor development efforts

	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	14.085	9.077	5.100	3.713	-	3.713	Continuing	Continuing	N/A

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3774 / Marine Corps Ammo
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Project 3774	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
<b>J143 Rocket Motor</b>																												
Initial Proof of Concept (End with a PDR)																												
<b>MAKE Modernization</b>																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3774 / Marine Corps Ammo

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Project 3774</b>				
J143 Rocket Motor: Initial Proof of Concept (End with a PDR): Schedule Detail	1	2023	4	2024
MAKE Modernization:	1	2023	4	2029

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 I 7					<b>R-1 Program Element (Number/Name)</b> PE 0206623M I MC Ground Cmbt Spt Arms Sys				<b>Project (Number/Name)</b> 3775 I Family of Internally Transportable Vehicles (FITV)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3775: Family of Internally Transportable Vehicles (FITV)	6.137	1.877	0.383	0.340	-	0.340	0.252	0.257	0.262	0.268	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

The Family of Ultra-Light Tactical Vehicles (FULTV), which consists of the Utility Task Vehicle (UTV) and its replacement the Ultra-Light Tactical Vehicle (ULTV), provides operational capabilities for infantry logistics, integrating systems, long-range surveillance, and reconnaissance missions in support of distributed heliborne operations. The lightweight vehicles provide units with increased logistics support and electrical power while reducing the combat load burden on the individual Marine, as well as providing casualty evacuation for wounded Marines. The vehicles are transportable in the MV-22/CV-22 tilt rotary wing aircraft, CH-53E/ CH-53K rotary wings aircraft, and all fixed wing aircrafts. The FULTV vehicles mitigate the infantry units, reconnaissance battalions, and wing support squadrons mobility capability gaps, with the ability to operate in remote regions where currently fielded ground mobility platforms may be unsuitable due to size, weight, and transportability concerns. The FULTV supports the Fleet Marine Forces by providing infantry and reconnaissance battalions with a reliable, easily maintained, inexpensive vehicle that supports the range of military operations (ROMO) including distributed operations (DO), littoral operation in a contested environment (LOCE), expeditionary advanced based operations (EABO), and Humanitarian Assistance and Disaster Relief (HADR). The FULTV platforms hosts essential Force Design 2030 kill web enabling capabilities. The ULTV also includes a ULTV-High-Power variant which provides exportable electrical power generation in support of the requirements for kill web integrating systems.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> Family of Ultra-light Tactical Vehicles (ULTV) Test and Evaluation	1.877	0.383	0.340	0.000	0.340
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b> Conduct necessary testing to address post production engineering change proposals (ECPs). Complete the ULTV-High-Power mobility and durability testing.					
<b>FY 2025 Base Plans:</b> Conduct necessary testing to address post production engineering change proposals (ECPs) for ULTV and ULTV-High Power.					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3775 / Family of Internally Transportable Vehicles (FITV)

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Decrease from FY 2024 to FY 2025 is a result of ULTV-High-Power mobility and durability testing completion.					
<b>Accomplishments/Planned Programs Subtotals</b>	1.877	0.383	0.340	0.000	0.340

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

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PMC/6545: <i>Ultra-light Tactical Vehicles (ULTV)</i>	18.039	17.034	17.954	-	17.954	19.908	25.448	25.952	26.496	0.000	279.385

**Remarks**

**D. Acquisition Strategy**

The strategy for the ULTV program is a partnership with Program Manager Family of Special Operations Vehicles (PM FOSOV) for testing and procurement. The partnership will capitalize on similar performance and testing specifications and generate efficiencies by conducting a cross-services acquisition. PM FOSOV released a full and open competitive solicitation and awarded an IDIQ contract 29 May 2020. The Marine Corps and PM FOSOV conducted joint testing including safety, performance, transportability, and durability. The Marine Corps completed an Operational Assessment in August 2021. The program re-baselined in September FY 2022 to reflect fact of life impacts driven by global economic impacts and established a requirement for "High Power Variant" ULTV. The ULTV program received Full Rate Production and Fielding Decision in 3QFY23 and achieved Initial Operational Capability on 14 Aug 2023.

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2025 Navy</b>											<b>Date:</b> March 2024				
<b>Appropriation/Budget Activity</b> 1319 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys					<b>Project (Number/Name)</b> 3775 / Family of Internally Transportable Vehicles (FITV)				

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Developmental Test & Evaluation (DT&E)	C/CPFF	NATC : Carson City, NV	2.700	0.772	Sep 2023	0.383	Feb 2024	0.340	Feb 2025	-		0.340	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	TBD	MCOTEA : Corona, CA	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	-
Developmental Test & Evaluation (DT&E)	TBD	GSA : Wyoming, MN	0.000	0.260	Feb 2024	0.000		0.000		-		0.000	0.000	0.260	-
Developmental Test & Evaluation (DT&E)	C/CPFF	Polaris : Wyoming, MN	0.541	0.845	Sep 2023	0.000		0.000		-		0.000	0.000	1.386	-
Developmental Test & Evaluation (DT&E)	Various	Various : Various	2.646	0.000		0.000		0.000		-		0.000	0.000	2.646	-
<b>Subtotal</b>			6.137	1.877		0.383		0.340		-		0.340	Continuing	Continuing	N/A

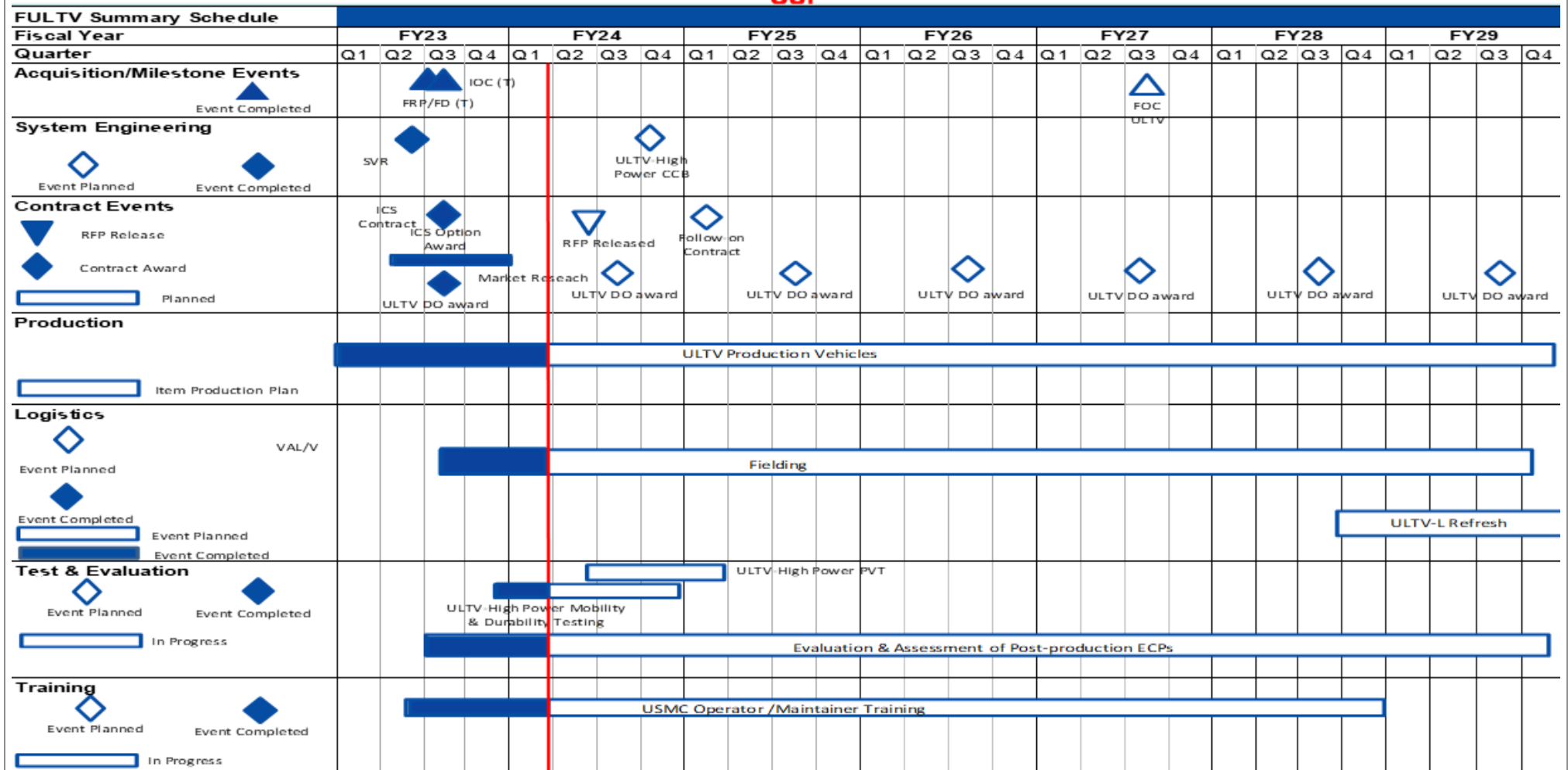
**Remarks**  
Decrease from FY 2024 to FY 2025 is a result of ULTV-High-Power mobility and durability testing completion.

	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	6.137	1.877	0.383	0.340	-	0.340	Continuing	Continuing	N/A

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Navy</b>	<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys
	<b>Project (Number/Name)</b> 3775 / Family of Internally Transportable Vehicles (FITV)



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 3775 / Family of Internally Transportable Vehicles (FITV)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 3775</b>				
Proj 3775: RFP Released (Follow On Contract)	2	2024	2	2024
Proj 3775: ULTV High Power Mobility & Durability Test	4	2023	4	2024
Proj 3775: Follow On Contract Award	1	2025	1	2025
Proj 3775: ULTV FOC	3	2027	3	2027

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys				<b>Project (Number/Name)</b> 4002 / Family of Raid Reconnaissance			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
4002: <i>Family of Raid Reconnaissance</i>	26.072	16.790	1.868	1.570	-	1.570	1.503	1.536	1.569	1.605	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

Project supports multiple airborne/parachuting and specialized reconnaissance related programs focusing on immediate capability enhancements for numerous insertion and personnel equipment shortfalls currently within Marine Reconnaissance and Marine Raider units. These enhancements will improve airborne and amphibious capability, equipment and items for direct action missions, and specialized raid equipment.

Beginning in FY 2024, Unmanned Logistics System-Air (ULS-A) has been realigned from Project Unit 4002 Family of Raid Reconnaissance to Project Unit 2530 Unmanned Expeditionary Systems (UES).

Decrease of from FY 2024 to FY 2025 is primarily attributed to reduced developmental efforts for Aerial Delivery and related support.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> Airborne Reconnaissance Equipment (ARE)	0.330	0.455	0.360	0.000	0.360
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b>					
- Completed testing and evaluation of the High Altitude High Opening Parachutist Navigation System (HAHONAV)					
- Completed development of a replacement for the MC-6 low level parachute system in concert with Navy Advanced Low-Level Parachute System in conjunction with the Army.					
- Continued testing and development for Augmented Parachute System-1 with the Navy's increased capability Powered Paraglider in support of Force Design 2030 initiative.					
- Continued testing and evaluation of the parachutist drop bag in an operational environment with current parachute systems utilizing East Coast Blade Hours (ECBH) facilities.					
- Continued research and development testing of parachuting capabilities for accessing the battlespace, including High Altitude Low Opening, Low Altitude Personnel Parachutes, and related ancillary items, utilizing ECBH facilities.					
- Initiated Parachute Drop Bag evaluations and training for suitable substitutes.					
<b>FY 2025 Base Plans:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 4002 / Family of Raid Reconnaissance

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<ul style="list-style-type: none"> <li>- Complete testing for Augmented Parachute System-1 in support of initial procurement in FY 2025.</li> <li>- Continue testing and evaluation of the parachutist drop bag in an operational environment with current parachute systems to include testing and evaluation of the Augmented Parachute System (APS), Advanced Low Level Parachute System (ALLPS), and other components utilizing East Coast Blade Hours (ECBH) facilities.</li> <li>- Continue research and development testing of parachuting capabilities for accessing the battlespace, including High Altitude Low Opening, Low Altitude Personnel Parachutes, and related ancillary items, utilizing ECBH facilities.</li> <li>- Continue Parachute Drop Bag evaluations and training for suitable substitutes.</li> <li>- Initiate Advanced Low Level Parachute System (ALLPS) development, support clandestine insertion and increased survivability of the parachutist and aircraft.</li> </ul> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> The decrease from FY 2024 to FY 2025 reflects the completion of APS-1 testing.</p>					
<p><b>Title:</b> Amphibious Reconnaissance Capability</p> <p align="right"><b>Articles:</b></p>	0.118	0.272	0.326	0.000	0.326
<p><b>FY 2024 Plans:</b></p> <ul style="list-style-type: none"> <li>- Completed Enhanced-Diver Propulsion Device (E-DPD) battery testing to include certification for shipboard carry and operational utilization while simultaneously receiving an ATO.</li> <li>- Continued testing and evaluation of the E-CRRC Outboard Engine (OE) (replacement for the Non Gasoline Burning Outboard Engine (NBOE)) in support of procurement in FY 2025.</li> </ul> <p><b>FY 2025 Base Plans:</b></p> <ul style="list-style-type: none"> <li>- Complete testing for the E-CRRC OE in support of initial procurement to replace the NBOE in FY 2025.</li> </ul> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> The increase from FY 2024 to FY 2025 reflects OE test efforts.</p>	-	-	-	-	-
<p><b>Title:</b> Aerial Delivery and Autonomous Distribution Entry</p>	0.380	1.141	0.884	0.000	0.884

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 4002 / Family of Raid Reconnaissance

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p align="right"><i>Articles:</i></p> <p><b>FY 2024 Plans:</b> - Continued cyclical research and development efforts of JPADS Version 4 research and development to enhance accuracy of navigation in GPS denied environments to facilitate interoperability with personnel parachuting. Ensure modularity and integration within aerial delivery systems and critical capabilities such as tracking and programming. - Initiated market research and development of Unmanned Gliders for Long Range Resupply initiative.</p> <p><b>FY 2025 Base Plans:</b> - Continue cyclical research and development efforts of JPADS Version 4 research and development to enhance accuracy of navigation in GPS denied environments to facilitate interoperability with personnel parachuting. Ensure modularity and integration within aerial delivery systems and critical capabilities such as tracking and programming. - Continue market research and development of Unmanned Gliders for Long Range Resupply initiative. - Initiate Squad Operations Aerial Resupply (SOAR) Glider development in support of Force Design 2030 identified capability gaps.</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> The decrease from FY 2024 to FY 2025 reflects reduced development efforts for Long Range Resupply and related support.</p>	-	-	-	-	-
<p><b>Title:</b> Unmanned Logistics Systems - Air</p> <p align="right"><i>Articles:</i></p> <p><b>FY 2024 Plans:</b> Beginning in FY 2024, Unmanned Logistics System-Air (ULS-A) has been realigned from Project Unit 4002 Family of Raid Reconnaissance to Project Unit 2530 Unmanned Expeditionary Systems (UES).</p> <p><b>FY 2025 Base Plans:</b> N/A</p> <p><b>FY 2025 OCO Plans:</b></p>	15.962	0.000	0.000	0.000	0.000
	-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 4002 / Family of Raid Reconnaissance

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
N/A					
<b>Accomplishments/Planned Programs Subtotals</b>	16.790	1.868	1.570	0.000	1.570

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PMC/6518: Amphibious Support Equipment	34.920	15.691	11.366	-	11.366	9.127	8.039	7.441	7.661	0.000	311.698
• PMC/4758: Unmanned Logistics Systems - Air	0.000	13.564	16.305	-	16.305	8.736	8.873	9.063	9.268	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

The Family of Raid Reconnaissance partners with government R&D entities throughout the DoD to facilitate collaborative developmental efforts, mitigate redundancy, and ensure component cost savings. Collaborative DoD research and development supports enterprise fielding, minimizes future engineering changes, and upgrades for Service wide reconnaissance equipment. Further, collective DoD efforts ensure scalable and flexible transportation (delivery, transfer, and retrograde) of all classes of supply (I-IX) across the range of military operations. The ULS-A program continues to implement acquisition approaches to quickly field new technology and capabilities to meet requirements set forth by USMC in order to meet Force Design 2030 objectives.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 4002 / Family of Raid Reconnaissance
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<b>Product Development (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
ARC, OE	MIPR	CCD : Norfolk, VA	0.000	0.118	Jan 2023	0.200	Jan 2024	0.000		-		0.000	0.000	0.318	-
ADAD, JPADS Block Upgrades	MIPR	CCDC : Natick, MA	0.299	0.300	Jan 2023	0.240	Jan 2024	0.160	Jan 2025	-		0.160	0.000	0.999	-
ADAD, HALO	Various	MCSC : Quantico, VA	0.450	0.000		0.200	Jan 2024	0.000		-		0.000	0.000	0.650	-
ADAD, Long Range Resupply	MIPR	CCDC : Natick	0.000	0.000		0.241	Feb 2024	0.200	Dec 2024	-		0.200	0.000	0.441	-
ADAD, Squad Operation Aerial Resupply	C/BA	CCDC : Natick	0.000	0.000		0.000		0.243	Jan 2025	-		0.243	0.000	0.243	-
TRUAS, Small ULS-AIR	Various	NAVAIR : Pax River, MD	10.013	2.131	Jan 2023	0.000		0.000		-		0.000	0.000	12.144	-
Medium ULS-AIR	Various	Various : Various	3.775	10.597	Jun 2023	0.000		0.000		-		0.000	0.000	14.372	-
Prior Year Cumulative	Various	Various : Various	1.682	0.000		0.000		0.000		-		0.000	0.000	1.682	-
<b>Subtotal</b>			16.219	13.146		0.881		0.603		-		0.603	0.000	30.849	N/A

<b>Support (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
ARE, Sys Eng Support	C/FFP	MCSC : Quantico, VA	0.830	0.031	Jan 2023	0.050	Jan 2024	0.051	Jan 2025	-		0.051	Continuing	Continuing	Continuing
ARC, E-DPD	Various	MCSC : Quantico, VA	0.259	0.000		0.072	Dec 2023	0.000		-		0.000	0.000	0.331	-
ULS-A Support	Various	NAVAIR : Pax River, MD	3.023	2.684	Apr 2023	0.000		0.000		-		0.000	0.000	5.707	-
ADAD Eng Services	C/FFP	Skylla : Stafford, Va	0.000	0.000		0.300	Mar 2024	0.151	Mar 2025	-		0.151	0.000	0.451	-
Prior Year Cumulative	Various	Various : Various	1.232	0.000		0.000		0.000		-		0.000	0.000	1.232	-
<b>Subtotal</b>			5.344	2.715		0.422		0.202		-		0.202	Continuing	Continuing	N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 4002 / Family of Raid Reconnaissance
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<b>Test and Evaluation (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
Operational Test & Evaluation (OT&E)	C/BA	CCD : Norfolk, VA	0.000	0.000		0.000		0.299	Nov 2024	-		0.299	0.000	0.299	-
Developmental Test & Evaluation (DT&E)	Various	MCSC : Quantico, VA	0.796	0.299	Jan 2023	0.369	Jan 2024	0.304	Mar 2025	-		0.304	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	MIPR	NAS : Pax River	0.170	0.000		0.036	Dec 2023	0.000		-		0.000	0.000	0.206	-
Developmental Test & Evaluation (DT&E)	MIPR	Yuma Prov G : Yuma, AZ	0.000	0.080	Jan 2023	0.000		0.000		-		0.000	0.000	0.080	-
Developmental Test & Evaluation (DT&E)	Various	NAVAIR : Pax River, MD	0.931	0.550	Mar 2023	0.000		0.000		-		0.000	0.000	1.481	-
Prior Year Operational Test & Evaluation Not Funded FYDP (PYOT&E)	Various	Various : Various	2.612	0.000		0.000		0.000		-		0.000	0.000	2.612	-
<b>Subtotal</b>			4.509	0.929		0.405		0.603		-		0.603	Continuing	Continuing	N/A

<b>Management Services (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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			
ADAD Management Services	C/CPFF	Skylla : Stafford, Va	0.000	0.000		0.160	Feb 2024	0.162	Feb 2025	-		0.162	0.000	0.322	-
<b>Subtotal</b>			0.000	0.000		0.160		0.162		-		0.162	0.000	0.322	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract	
<b>Project Cost Totals</b>		26.072	16.790	1.868	1.570	-	1.570	Continuing	Continuing	N/A

**Remarks**  
Overall decrease of from FY 2024 to FY 2025 is primarily attributed to reduced developmental efforts for Aerial Delivery and related support.



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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 4002 / Family of Raid Reconnaissance
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ARC	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029							
	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				
Amphibious Reconnaissance					E-DPD Testing																											
	OE Development/Testing												Amphib Requirements Dev																			

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**Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 4002 / Family of Raid Reconnaissance
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ADAD	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029						
	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			
Aerial Delivery and Autonomous Distribution Entry	JPADS Block Upgrade Development																														
	Para Capabilities RDTE																														
	ADAD LL Release																														

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 4002 / Family of Raid Reconnaissance

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>ARE</b>				
AIR Reconnaissance: Parachute Operating System Capabilities Development	1	2023	4	2025
AIR Reconnaissance: Augmented Parachute System-1 Testing	2	2023	2	2025
AIR Reconnaissance: ALLPS Development	2	2024	4	2026
<b>ARC</b>				
Amphibious Reconnaissance: Enhanced-Diver Propulsion Device (E-DPD) battery testing	1	2024	2	2024
Amphibious Reconnaissance: OE Development/Testing	1	2023	3	2025
Amphibious Reconnaissance: Amphib Requirements Dev (SHARC, E-DPD, 4 Stroke Engine Dev)	1	2026	4	2029
<b>ADAD</b>				
Aerial Delivery and Autonomous Distribution Entry: ADAD: JPADS Block Upgrades	1	2023	1	2025
Aerial Delivery and Autonomous Distribution Entry: Parachute Capabilities R&D	1	2023	4	2026
Aerial Delivery and Autonomous Distribution Entry: ADAD Low Level Release	2	2023	2	2025

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**Exhibit R-2A, RDT&E Project Justification:** PB 2025 Navy **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 9999 / Congressional Adds
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
9999: <i>Congressional Adds</i>	0.000	5.309	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.309
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

Congressional Add funding for the Integrated Helmet System (IHS) provides research and development focused on ballistic and blunt impact protection, allows the Marine Corps to expand the scope of test and evaluation, and provides statistically significant data in support of the business case analysis and refinement of program requirements. The major focus area of this additional funding is to purchase additional helmets from each vendor to expand the sample size of the test and evaluation to assess durability, sustainability, and maintainability of the helmets through field exercises and training events at the infantry battalions. This increase in scope enables evaluation of integration with existing communications systems on vehicle platforms, hearing enhancement device integration, performance in various environments, and integration with associated equipment and tactics.

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

	FY 2023	FY 2024
<b>Congressional Add:</b> Integrated helmet system	5.309	0.000
<b>FY 2023 Accomplishments:</b> - Complete production of IHS test and evaluation articles. - Complete testing and user evaluations of the IHS. - Complete durability, sustainability, and maintainability assessment. - Complete evaluation of integration with existing communications systems on vehicle platforms. - Complete evaluation of hearing enhancement device integration. - Complete evaluation of performance in various environments. - Complete evaluation of integration with associated equipment and tactics.		
<b>FY 2024 Plans:</b> N/A		
<b>Congressional Adds Subtotals</b>	5.309	0.000

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

N/A

**Remarks**

**D. Acquisition Strategy**

Under Marine Corps Ballistic Protection Systems (BPS), the IHS effort is a research, development, testing & evaluation activity designed to seek new developments in ballistic technology that feature reductions in weight, improvements in ballistic performance, enhanced operational effectiveness through improved product designs and the application of new material technologies to reduce total ownership costs by improving the expected service life of fielded systems. In order to accomplish these

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 9999 / Congressional Adds

goals, the Marine Corps uses an Other Transactional Authority agreement with contractor performers to achieve the desired end state. This includes partnerships with government entities and research and development contracts and partnership intermediaries where applicable. The Marine Corps also leverages advancements in industry capabilities to rapidly field non-developmental and commercially available off the shelf armor solutions. Performance is confirmed by characterizing ballistic performance and data collected during user evaluations.



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Navy</b>		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 9999 / Congressional Adds

FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
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

<b>Proj 9999</b>	
Integrated Helmet System (IHS): Helmet Development and Testing	██████████
Integrated Helmet System (IHS): LUE 3	██████████

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0206623M / MC Ground Cmbt Spt Arms Sys	<b>Project (Number/Name)</b> 9999 / Congressional Adds

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 9999</b>				
Integrated Helmet System (IHS): Helmet Development and Testing	2	2023	4	2023
Integrated Helmet System (IHS): LUE 3	3	2023	4	2023