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

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/Supt Sys</i>
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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	183.612	117.290	128.782	103.860	-	103.860	79.616	67.505	60.365	61.640	Continuing	Continuing
1558: <i>Advanced Reconnaissance Vehicle</i>	63.588	67.054	63.585	63.736	-	63.736	53.921	50.597	45.133	46.080	Continuing	Continuing
2614: <i>SMAW Follow-On</i>	24.101	0.481	0.517	0.542	-	0.542	0.553	0.563	0.575	0.587	Continuing	Continuing
3835: <i>Family of Expeditionary Fuel Systems (FEFS)</i>	0.000	0.000	14.124	6.185	-	6.185	0.000	0.000	0.000	0.000	0.000	20.309
6639: <i>Multiple-Launch Rocket System Family of Munitions</i>	0.000	17.443	19.752	7.137	-	7.137	14.566	2.428	0.456	0.466	Continuing	Continuing
7400: <i>Combat Capability Development Transition</i>	95.923	32.312	30.804	26.260	-	26.260	10.576	13.917	14.201	14.507	Continuing	Continuing

A. Mission Description and Budget Item Justification

This PE supports the demonstration and validation of Marine Corps Ground/Supporting Arms Systems for utilization in Marine Air-Ground Expeditionary Force amphibious operations. This program is funded under Demonstration and Validation because it develops and integrates hardware for experimental tests related to specific ground weapon systems.

B. Program Change Summary (\$ in Millions)

	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025 Base</u>	<u>FY 2025 OCO</u>	<u>FY 2025 Total</u>
Previous President's Budget	111.431	128.782	95.520	-	95.520
Current President's Budget	117.290	128.782	103.860	-	103.860
Total Adjustments	5.859	0.000	8.340	-	8.340
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	9.939	0.000			
• SBIR/STTR Transfer	-4.080	0.000			
• Program Adjustments	0.000	0.000	20.792	-	20.792
• Rate/Misc Adjustments	0.000	0.000	-12.452	-	-12.452

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<u>Change Summary Explanation</u> FY 2025 increase primarily reflects continuation of the Advanced Reconnaissance Vehicle (ARV) Risk Reduction Effort and ramp up of support required to continue planned efforts through MS B in FY 2026.		

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy										Date: March 2024		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/S upt Sys				Project (Number/Name) 1558 / Advanced Reconnaissance Vehicle			
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
1558: <i>Advanced Reconnaissance Vehicle</i>	63.588	67.054	63.585	63.736	-	63.736	53.921	50.597	45.133	46.080	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Advanced Reconnaissance Vehicle (ARV) is imperative to realizing Marine Corps requirements for Fleet Marine Force 2030 as the platform that enables the Mobile Reconnaissance Battalion. As part of the portfolio of reconnaissance, surveillance, and target acquisition systems, ARV will be a purpose-built combat vehicle system, highly mobile on land and water, that can sense, communicate, and fight as the manned hub of a robotic and autonomous systems-enhanced team. Equipped with modern command, control, communications and surveillance systems the ARV will transform the ability of Fleet Marine Forces to sense and communicate within the littoral operating environment by providing a persistent and mobile Systems of Systems to augment and sustain effective sensor webs and kill chains. The ARV is critical towards the modernization of Marine Corps reconnaissance capability.

Increment 1 of the ARV program will consist of the C4UAS and two additional mission role variants (MRVs), with follow-on Increments in support of a Family of Vehicles (FoV).

In FY 2025, the program office will execute contract options and modifications under the existing agreements/contracts. In an effort to drive down technical and programmatic risk, the government and both vendors will continue a test-fix-test effort focused on sub-system integration, interoperability and performance. The program office will continue activities to reduce risk and begin prototype vehicle build of an additional mission role variant (MRV), one for each of the two vendors. The USMC will continue utilizing a Government Systems Integration Lab (GSIL) to integrate the C4 (Command, Control, Computers and Communication) equipment, assess cyber security implementation and validate subsystem technology readiness. In preparation for Engineering and Manufacturing Development (EMD), the program office will procure long lead Government Furnished Property (Network on the Move, C4 critical items, etc) that have been impacted by the current supply chain challenges to support EMD prototype build. Documentation will be completed to support a Request for Proposal (RFP) release in FY 2025 and an ACAT I Milestone B decision in FY 2026.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Advanced Reconnaissance Vehicle	67.054	63.585	63.736	0.000	63.736
Articles:	2	-	2	-	2
FY 2024 Plans:					
-Initiate purchase of Government Furnished Property (GFP) to support additional MRV development / build					
-Initiate Additional MRV Prototype Design / Build					

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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/Supt Sys</i>	Project (Number/Name) 1558 / <i>Advanced Reconnaissance Vehicle</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<p>-Continue EMD RFP Documentation (Systems Engineering Plan (SEP), Test & Evaluation Master Plan (TEMP), Acquisition Strategy, Acquisition Plan, Life Cycle Sustainment Plan (LCSP), etc)</p> <p>-Release draft EMD RFP</p> <p>-Complete MRV Concept Design</p> <p>-Initiate subsystem risk reduction and Prototype Vehicles test-fix-test effort with industry partners</p> <p>-Continue GSIL/SoS analysis & testing (Interoperability, Network/Comms, and Cyber Security Analysis)</p> <p>-Continue Front End Analysis / Training Systems Requirement Analysis</p> <p>-Update MS B Documentation (SEP, TEMP, Acquisition Strategy, Acquisition Plan, LCSP, etc)</p> <p>FY 2025 Base Plans:</p> <p>-Initiate purchase of Government Furnished Property (GFP) to support EMD</p> <p>-Continue EMD RFP Documentation (Systems Engineering Plan (SEP), Test & Evaluation Master Plan (TEMP), Acquisition Strategy, Acquisition Plan, Life Cycle Sustainment Plan (LCSP), etc)</p> <p>-Release EMD RFP</p> <p>-Conduct Source Selection and Evaluation</p> <p>-Continue subsystem risk reduction and Prototype Vehicles test-fix-test effort with industry partners</p> <p>-Build additional prototype vehicles (2)</p> <p>-Issue vendor contract modifications for Enhanced Modelling and Simulation for the C4UAS, LOG, and 30mm variants</p> <p>-Continue platform mobility and software testing/evaluation, including Government testing consisting of Modelling and Simulation validation</p> <p>-Continue GSIL/SoS analysis & testing (Interoperability, Network/Comms, and Cyber Security Analysis)</p> <p>-Complete Front End Analysis / Training Systems Requirement Analysis</p> <p>-Update and complete MS B Documentation (SEP, TEMP, Acquisition Strategy, Acquisition Plan, LCSP, etc)</p> <p>FY 2025 OCO Plans:</p> <p>N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement:</p> <p>An increase from FY 2024 to FY 2025 of \$0.151M is due to continuation of the Risk Reduction Effort but with continued ramp up of program support and allows the program to continue planned efforts through MS B in FY26.</p>					
Accomplishments/Planned Programs Subtotals	67.054	63.585	63.736	0.000	63.736

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/Supt Sys</i>	Project (Number/Name) 1558 / <i>Advanced Reconnaissance Vehicle</i>

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

N/A

Remarks

D. Acquisition Strategy

Leveraging Middle Tier Acquisition (MTA) Authority for Rapid Prototyping, ARV will complete a prototyping phase in FY 2021-FY 2026. The total cost of the MTA prototyping effort is estimated at \$193.232M.

ARV intends to proceed to a Milestone B decision point in FY 2026. The USMC is positioned to execute EMD through full and open FAR based competition leading to Milestone C in FY 2031. The program is expected to complete IOC in FY 2032 and FOC of the initial variants in FY 2036.

Increase of \$0.151M from FY 2024 to FY 2025 is due to inflation.

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/Supt Sys	Project (Number/Name) 1558 / Advanced Reconnaissance Vehicle
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Product Development (\$ 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			
System Development & Demo.	C/FFP	ONR; NIWC-A : Arlington, VA; Charleston, SC	9.840	16.803	Nov 2022	0.000		0.000		-		0.000	0.000	26.643	-
Prototype Manufacturing	C/FFP	BAE; General Dynamics Land Systems; Textron : Sterling Heights MI Sterling Heights MI Slidell LA	25.000	2.800	Dec 2022	16.104	Dec 2023	14.210	Dec 2024	-		14.210	Continuing	Continuing	Continuing
Government Furnished Property	C/FFP	DLA : Philadelphia, PA	6.481	1.913	Nov 2022	3.506	Dec 2023	0.000		-		0.000	0.000	11.900	-
Subsystem Risk Reduction Effort	C/FFP	General Dynamics Land Systems; Textron : Sterling Heights MI; Slidell LA	0.000	0.000		13.607	Nov 2023	5.241	Nov 2024	-		5.241	0.000	18.848	-
Government Furnished Property EMD	C/FFP	DLA : Philadelphia, PA	0.000	0.000		0.000		9.032	Dec 2024	-		9.032	0.000	9.032	-
Subtotal			41.321	21.516		33.217		28.483		-		28.483	Continuing	Continuing	N/A

Remarks
 Prototype manufacturing includes the development of one additional MRV for each of the two vendors in an effort to reduce technical and programmatic risk at the start of EMD as well as drive commonality for the Family of Vehicles.
 Subsystem Risk Reduction Effort supports continued contract actions to utilize prototype vehicles. Includes Systems Engineering, prototypes, Field Service Representatives, System Support Package, lease/transportation and maintenance of vehicles, and refurbishment of vehicles to return in delivered condition. The decrease from FY24 is due to ramping down of the effort prior to EMD.
 Government Furnished Property EMD supports long lead Government Furnished Property (Network on the Move, C4 critical items, etc.) that are currently impacted by supply chain challenges. These components are required to support EMD prototype design and builds in the late FY 2026 or early FY 2027 timeframe.

Support (\$ 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			
Program Mgmt - LAV	MIPR	TACOM : Warren, MI	15.973	13.456	Dec 2022	18.192	Dec 2023	19.234	Dec 2024	-		19.234	Continuing	Continuing	Continuing

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Appropriation/Budget Activity 1319 / 4						R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/S upt Sys					Project (Number/Name) 1558 / Advanced Reconnaissance Vehicle				

Support (\$ 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
Studies & MS Document Prep.	MIPR	GVSC : Warren, MI	0.788	2.756	Jan 2023	2.374	Jan 2024	3.577	Jan 2025	-		3.577	0.000	9.495	-
National Advanced Mobility Consortium Fees	MIPR	GVSC : Warren, MI	0.997	0.133	Dec 2022	1.539	Dec 2023	0.868	Dec 2024	-		0.868	0.000	3.537	-
Source Selection and Evaluation Board	MIPR	Various : Warren, MI	0.000	0.000	Jun 2023	0.000		3.747	Jun 2025	-		3.747	0.000	3.747	-
Subtotal			17.758	16.345		22.105		27.426		-		27.426	Continuing	Continuing	N/A

Remarks
 Program Support total increase provides additional funding for support of EMD Contract Development & RFP Release, EMD Source Selection and Evaluation Board, salaries, travel, supplies, and MS B documentation/ramp up to an ACAT 1 Program of Record. The ARV Program will require resources to support preparation of the EMD Contract Scope of Work, Evaluation Criteria/Instructions to Offerors (Sections L&M) and RFP Release.
 National Advanced Mobility Consortium Fees supports the administrative fees associated with the Prototype Manufacturing and Subsystem Risk Reduction Effort under Product Development.

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	Various : Various	3.071	26.693	Nov 2022	8.263	Nov 2023	7.827	Nov 2024	-		7.827	0.000	45.854	-
Subtotal			3.071	26.693		8.263		7.827		-		7.827	0.000	45.854	N/A

Remarks
 Decrease in Test and Evaluation is due to the completion of the initial risk reduction testing. Ongoing test and evaluation in FY 2025 supports continued test-fix-test cycles on prototypes during the Subsystem Risk Reduction Effort to reduce risk and inform contractor development. This is critical to posture the government and industry for EMD. The test risk reduction addresses required cyber enhancements and opportunities to learn and improve the system resilience prior to EMD.

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

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Management Services (\$ 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			
AoA Support Contract	C/FFP	HII-MDIS; Technomics : Huntsville, AL; Arlington, VA	1.438	2.500	Nov 2022	0.000		0.000		-		0.000	0.000	3.938	-
Subtotal			1.438	2.500		0.000		0.000		-		0.000	0.000	3.938	N/A

Remarks
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
Project Cost Totals	63.588	67.054	63.585	63.736	-	63.736	Continuing	Continuing	N/A

Remarks
Advanced Reconnaissance Vehicle (ARV) overall budget minimally increases from FY 2024 to FY 2025 for continuation of the Risk Reduction Effort and continued ramp up of requirements to support the next phase of the program: GSIL/SoS Analysis, Prototype Vehicles Test-Fix-Text, Support to prepare for Milestone B for an ACAT 1 Program (Milestone Documentation, Contract Development, and RFP release) and activities required to support EMD RFP release and Source Selection.

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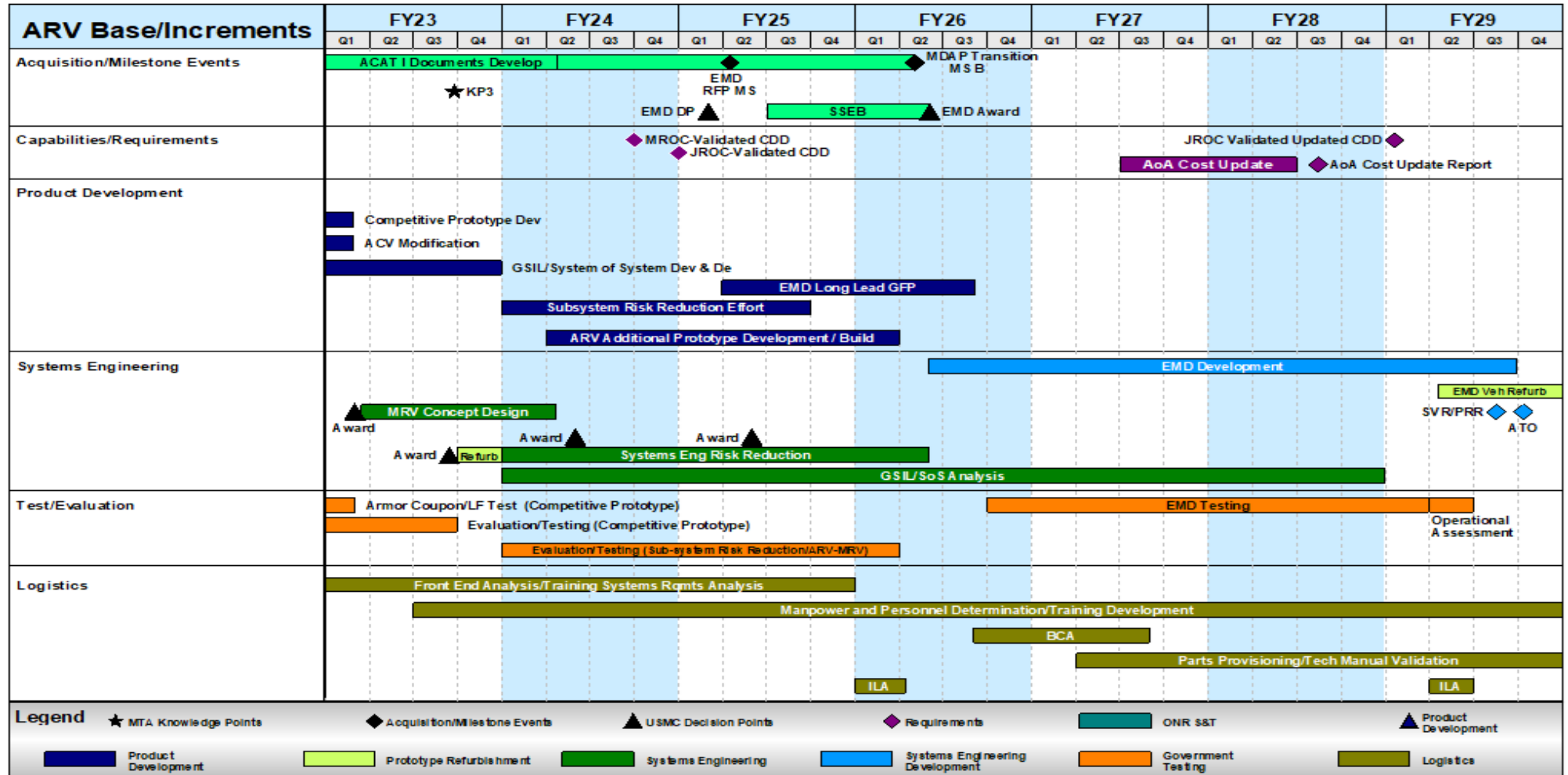
Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy

Date: March 2024

Appropriation/Budget Activity
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R-1 Program Element (Number/Name)
PE 0603635M / Marine Corps Grnd Cmbt/S
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Project (Number/Name)
1558 / Advanced Reconnaissance Vehicle



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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/Supt Sys</i>	Project (Number/Name) 1558 / <i>Advanced Reconnaissance Vehicle</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Project C1558 ARV				
Competitive Prototype Dev	1	2023	1	2023
GSIL/SoS Dev & Demo	1	2023	4	2023
Armor Coupon/Live Fire Testing	1	2023	1	2023
Competitive Prototype Eval/Test	1	2023	3	2023
MRV Concept Design	1	2023	2	2024
RFP Release for EMD	2	2025	2	2025
EMD Long Lead GFP	1	2025	3	2026
GSIL/SoS Analysis	1	2024	4	2028
Systems Engineering Risk Reduction	1	2024	2	2026
Subsystem Risk Reduction Effort	1	2024	3	2025
Subsystem Risk Reduction Testing	1	2024	1	2026
MS B and EMD Contract Award	2	2026	2	2026
ARV MRV Prototype Development / Build	2	2024	1	2026
Source Selection Evaluation Board (EMD)	3	2025	2	2026

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/Supt Sys	Project (Number/Name) 2614 / SMAW Follow-On
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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
2614: SMAW Follow-On	24.101	0.481	0.517	0.542	-	0.542	0.553	0.563	0.575	0.587	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Shoulder-launched Multipurpose Assault Weapon (SMAW) Follow-On solution is the Multi-purpose Anti-Armor Weapon System (MAAWS) M3A1, which is a portable, shoulder-fired, line-of-sight, reloadable, 84mm recoilless rifle. The MAAWS provides anti-armor, anti-personnel, anti-material, and assault capabilities to Marine Rifle Squads, Combat Engineers, and Reconnaissance Teams to effectively execute both offensive and defensive operations. The suite of 84mm ammunition supports a wide range of mission sets, including obscuration, illumination, anti-personnel, armored penetration, bunker penetration, and soft target destruction. The FOAAWS portfolio also includes multiple systems required to support initial training at formal schools, operational training at operational units, and unit-level sustainment support equipment. Efforts to enhance the combat effectiveness of the MAAWS system and the suite of 84mm ammunition through product improvements and technical insertion are ongoing.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: MAAWS High Explosive (HE) Programmable Round Articles: FY 2024 Plans: N/A FY 2025 Base Plans: N/A FY 2025 OCO Plans: N/A	0.060	0.000	0.000	0.000	0.000
Title: Ammunition (Rockets) MAAWS Weapon System Articles: FY 2024 Plans: N/A FY 2025 Base Plans: N/A FY 2025 OCO Plans:	0.421	0.000	0.000	0.000	0.000

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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
N/A					
<p>Title: MAAWS Sustainment Engineering</p> <p align="right">Articles:</p> <p>Description: Conduct ongoing activities required to mitigate obsolescence and extend service life of fielded MAAWS systems, to include barrel safe service life certification, implementation of system diagnostic software, and evaluation and mitigation of quality and safety issues.</p> <p>FY 2024 Plans: Initiated testing of system technology refreshes to mitigate obsolescence and extend service life of fielded MAAWS systems.</p> <p>FY 2025 Base Plans: Continue testing of system technology refreshes to mitigate obsolescence and extend service life of fielded MAAWS systems.</p> <p>FY 2025 OCO Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Increase of \$0.170M from FY 2024 to FY 2025 due to continued efforts for systems sustainment engineering.</p>	0.000	0.230	0.400	0.000	0.400
	-	-	-	-	-
<p>Title: MAAWS System Modernization</p> <p align="right">Articles:</p> <p>Description: Execute modernization efforts to improve the combat capability of the MAAWS weapon system through qualification of new or improved ammunition (rocket) types, implementation of enhanced ballistic software, incorporation of new/improved solutions for rifle/ammo transport, and other enhancements to improve performance and safety.</p> <p>FY 2024 Plans: Initiated testing of system technology refreshes to improve the combat capability of the MAAWS weapon system.</p> <p>FY 2025 Base Plans:</p>	0.000	0.287	0.142	0.000	0.142
	-	-	-	-	-

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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
Continue testing of system technology refreshes to improve the combat capability of the MAAWS weapon system. FY 2025 OCO Plans: N/A FY 2024 to FY 2025 Increase/Decrease Statement: Decrease of \$0.145M from FY 2024 to FY 2025 due to completion of planned test efforts and certifications.					
Accomplishments/Planned Programs Subtotals	0.481	0.517	0.542	0.000	0.542

C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• PMC/3016: Multi-role Anti-Armor Anti-personnel Weapon System (MAAWS)	33.101	23.627	9.521	-	9.521	0.724	0.593	0.736	0.968	0.000	254.719

Remarks

D. Acquisition Strategy

Multi-purpose Anti-Armor Weapon System (MAAWS) is Multi-Role Anti-Armor Anti-Personnel Weapon System. The Marine Corps is leveraging two US Army sole source, Firm Fixed Price, Indefinite Delivery and Indefinite Quantity (SS/IDIQ) contracts to procure the M3A1 Rifle from Saab Dynamics and the Fire Control System (FCS) from Aimpoint. The Army's Basic Ordering Agreement for the Sub Caliber Adapter, the FCS, is through a US Special Operations Command sole source, Firm Fixed Price Contract, and the ammunition through US Army contracts with Department of Defense Ordnance Technology Consortium (DOTC). USMC is a participant in this Army-led program.

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Appropriation/Budget Activity				R-1 Program Element (Number/Name)					Project (Number/Name)						
1319 / 4				PE 0603635M / Marine Corps Grnd Cmbt/Supt Sys					2614 / SMAW Follow-On						
Support (\$ 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
Prior Year Cumulative Funding	Various	Various : Various	17.685	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Subtotal			17.685	0.000		0.000		0.000		-		0.000	Continuing	Continuing	N/A
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)	WR	NSWC Indiana : Crane, Indiana	0.222	0.060	Nov 2022	0.000		0.000		-		0.000	0.000	0.282	-
Live Fire Test & Evaluation (LFT&E)	SS/FFP	AFRL (Miltech) : Montana	0.000	0.421	Feb 2023	0.000		0.000		-		0.000	0.000	0.421	-
Developmental Test & Evaluation (DT&E)	MIPR	ATC : Aberdeen, MD	0.000	0.000		0.230	Feb 2024	0.400	Feb 2025	-		0.400	0.000	0.630	-
Developmental Test & Evaluation (DT&E)	MIPR	NSWC IH : Indian Head, MD	0.000	0.000		0.287	Mar 2024	0.142	Mar 2025	-		0.142	0.000	0.429	-
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	Various	Various : Various	0.779	0.000		0.000		0.000		-		0.000	0.000	0.779	-
Subtotal			1.001	0.481		0.517		0.542		-		0.542	0.000	2.541	N/A
Management Services (\$ 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
Prior Year Cumulative Funding	Various	Various : Various	5.415	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Subtotal			5.415	0.000		0.000		0.000		-		0.000	Continuing	Continuing	N/A

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/Supt Sys	Project (Number/Name) 2614 / SMAW Follow-On
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Proj 2614	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
MAAWS Fire Control System	Evaluation and Qualification Testing																											
	Ammunition (Rockets) MAAWS Weapon System																											
MAAWS System Modernization					Evaluation and Qualification Testing																							
MAAWS Sustainment Engineering					Evaluation and Qualification Testing																							

2025DON - 0603635M - 2614

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/Supt Sys</i>	Project (Number/Name) 2614 / <i>SMAW Follow-On</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2614				
MAAWS Fire Control System: Evaluation and Qualification Testing	1	2023	4	2023
MAAWS Fire Control System: Ammunition (Rockets) MAAWS Weapon System	2	2023	4	2023
MAAWS System Modernization: Evaluation and Qualification Testing	2	2024	4	2025
MAAWS Sustainment Engineering: Evaluation and Qualification Testing	2	2024	4	2025

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/S upt Sys	Project (Number/Name) 3835 / Family of Expeditionary Fuel Systems (FEFS)
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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
3835: Family of Expeditionary Fuel Systems (FEFS)	0.000	0.000	14.124	6.185	-	6.185	0.000	0.000	0.000	0.000	0.000	20.309
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Family of Expeditionary Fuel Systems (FEFS) is a line that contains highly versatile fuel systems in support of Fleet Marine Force (FMF) operations. The family contains individual Table of Allowance Material Control Numbers which support FMF and Marine Air-Ground Task Force (MAGTF) operations and future operating concepts 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.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Family of Expeditionary Fuel Systems (FEFS)	0.000	14.124	6.185	0.000	6.185
Articles:	-	-	-	-	-
FY 2024 Plans:					
-Continue research and development of the Low Profile Distribution System (LPDS) capability under development by the Office of Naval Research, developing sub-components, integrating autonomy, and supporting testing and certifications to improve the system's technology readiness level.					
FY 2025 Base Plans:					
-Continue research and development of the Low Profile Distribution System (LPDS) capability under development by the Office of Naval Research, developing sub-components, and supporting testing and certifications to improve the system's technology readiness level.					
-Complete full scale integrated autonomy testing for the Low Profile Distribution System (LPDS).					
-Complete full scale Unmanned Surface Vehicles (USV)/Inflatable Maritime Structure (IMS) integration development testing.					
FY 2025 OCO Plans:					
N/A					
FY 2024 to FY 2025 Increase/Decrease Statement:					

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/Supt Sys</i>	Project (Number/Name) 3835 / <i>Family of Expeditionary Fuel Systems (FEFS)</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
The decrease of \$7.939M is due to full scale autonomy and full scale USV/IMS integration development testing for the LPDS nearing its completion.					
Accomplishments/Planned Programs Subtotals	0.000	14.124	6.185	0.000	6.185

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/6277: <i>Family of Expeditionary Fuel Systems</i>	7.854	12.956	29.252	-	29.252	33.721	32.061	32.539	33.221	0.000	520.953
• RDTE/PE0206623M/2503: <i>Family of Expeditionary Fuel Systems</i>	1.976	1.374	9.694	-	9.694	10.895	7.025	7.160	7.311	Continuing	Continuing

Remarks

D. Acquisition Strategy

Family of Expeditionary Fuel Systems (FEFS): The FEFS acquisition strategy is to continue to collaborate with the Office of Naval Research, MCWL, and CD&I on the fulfillment of the established Technology Deployment Agreement to transition the Low-Profile Distribution System (LPDS) prototype development effort, with emergent collaboration with Office of the Chief of Naval Operations (OPNAV).

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/Supt Sys	Project (Number/Name) 3835 / Family of Expeditionary Fuel Systems (FEFS)
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Product Development (\$ 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			
Family of Expeditionary Fuel Systems	MIPR	ONR : Arlington, VA	0.000	0.000		13.137	Feb 2024	6.185	Feb 2025	-		6.185	0.000	19.322	-
Family of Expeditionary Fuel Systems	MIPR	Various : Various	0.000	0.000		0.987	Feb 2024	0.000		-		0.000	0.000	0.987	-
Subtotal			0.000	0.000		14.124		6.185		-		6.185	0.000	20.309	N/A

Remarks
The decrease is due to full scale autonomy and full scale USV/IMS integration development testing for the LPDS nearing its completion.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000	14.124	6.185	-	6.185	0.000	20.309	N/A

Remarks

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/Supt Sys	Project (Number/Name) 3835 / Family of Expeditionary Fuel Systems (FEFS)
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Project 3835 FEFS	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
					Full Scale Autonomy Integration/Testing																							
						Full Scale USV/IMS Integrated Test																						

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/Supt Sys</i>	Project (Number/Name) 3835 / <i>Family of Expeditionary Fuel Systems (FEFS)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Project 3835 FEFS				
Low Profile Distribution System: Full Scale Autonomy Integration/Testing	2	2024	1	2025
Low Profile Distribution System: Full Scale USV/IMS Integrated Test	3	2024	2	2025
Low Profile Distribution System: Autonomy Integration	3	2023	4	2025

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy										Date: March 2024		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/S upt Sys				Project (Number/Name) 6639 / Multiple-Launch Rocket System Family of Munitions			
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
6639: Multiple-Launch Rocket System Family of Munitions	0.000	17.443	19.752	7.137	-	7.137	14.566	2.428	0.456	0.466	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This line develops a Multiple Launch Rocket System (MLRS) Family of Munitions (MFoM) launcher to be integrated on the Remotely Operated Ground Unit for Expeditionary Fires (ROGUE-Fires) carrier. This development provides Medium-range Missile (MMSL) batteries the capability to utilize the ROGUE-Fires carrier for either Navy Marine Expeditionary Ship Interdiction System (NMESIS) launchers with Naval Strike Missiles (NSM) or MFoM launchers capable of firing the entire MFoM currently employed by HIMARS units. This capability will increase the vehicle commonality and the employment flexibility throughout the artillery regiments and Marine Littoral Regiments.

The MFoM launcher will consist of a MFoM launch unit, Fire Control System (FCS), and a Weapon Control System (WCS). The MFoM launcher will be installed on a ground-based, tele-operated carrier (ROGUE-Fires) and when paired with a ROGUE-Fires leader kit will control up to three launchers per section. The launcher will be capable of firing the Guided Multiple Launch Rocket System (GMLRS) missile and the new Precision Strike Missile (PrSM) when fielded.

This effort includes design, development, integration, and test of the MFoM launcher for integration with the ROGUE-Fires carrier. The MFoM launcher makes extensive use of existing systems, including the M142 HIMARS electronics. FY 2024 continued development, built two additional MFoM launcher prototypes, and conducted a technology demonstration. FY 2025 continues development and conducts developmental testing.

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Multiple-Launch Rocket System Family of Munitions (MFoM)	17.443	19.752	7.137	0.000	7.137
Articles:	1	2	-	-	-
FY 2024 Plans:					
- Continued development of the MFoM launch unit					
- Continued repackaging of the Common Fire Control System (CFCS)					
- Continued WCS development and initiated one-to-many fire control software development					
- Conducted technology demonstration					
- Build two MFoM launchers prototypes for integration and testing					
FY 2025 Base Plans:					
- Continue development of the MFoM launch unit					
- Continue WCS development					

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/S upt Sys	Project (Number/Name) 6639 / Multiple-Launch Rocket System Family of Munitions
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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
- Conduct an integrated flight test - Conduct software testing of one-to-many fire control					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 reflects a reduction in initial development and completion of prototype builds.					
Accomplishments/Planned Programs Subtotals	17.443	19.752	7.137	0.000	7.137

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/2212: Artillery Weapons Systems	145.452	165.268	139.477	-	139.477	366.819	307.141	163.715	167.140	267.644	2,756.242

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

D. Acquisition Strategy
The Army and Marine Corps use the current M142 HIMARS launcher to fire GMLRS rockets. The Army is the PICA for the M142 with engineering expertise centered at Huntsville, Alabama Redstone Arsenal. The Marine Corps will develop the new MFoM launcher with the Army AvMC office at Redstone acting as the MFoM launcher integrator. The ROGUE-Fires carrier and leader kits needed for system testing will be procured using an existing Marine Corps production contract.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy												Date: March 2024		
Appropriation/Budget Activity 1319 / 4						R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/S upt Sys				Project (Number/Name) 6639 / Multiple-Launch Rocket System Family of Munitions				

Product Development (\$ 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			
MFoM Launcher (Launch Unit and FCS) Development	WR	Aviation & Missile Ctr : Redstone Arsenal, AL	0.000	11.214	Feb 2023	7.659	Nov 2023	1.151	Dec 2024	-		1.151	Continuing	Continuing	Continuing
MFoM WCS and Software Development	WR	Aviation & Missile Ctr : Redstone Arsenal, AL	0.000	4.542	Mar 2023	5.876	Nov 2023	2.127	Dec 2024	-		2.127	Continuing	Continuing	Continuing
MFoM Launcher Prototype	WR	Aviation & Missile Ctr : Redstone Arsenal, AL	0.000	1.301	Jul 2023	2.605	Apr 2024	0.000	May 2025	-		0.000	0.000	3.906	-
Subtotal			0.000	17.057		16.140		3.278		-		3.278	Continuing	Continuing	N/A

Remarks
The decrease from FY 2024 to FY 2025 reflects decreased MFoM launcher and WCS developmental efforts and completion of launcher prototype builds.

Support (\$ 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			
Safety	WR	MCSC : Stafford, VA	0.000	0.260	Mar 2023	0.183	Dec 2023	0.188	Jan 2025	-		0.188	0.000	0.631	-
Cybersecurity/AI	WR	NSWC : Indian Head, MD	0.000	0.000		0.175	Mar 2024	0.180	Jan 2025	-		0.180	0.000	0.355	-
Human Systems Integration	MIPR	NSWC : Dahlgren, VA	0.000	0.000		0.150	Mar 2024	0.154	Jan 2025	-		0.154	0.000	0.304	-
Subtotal			0.000	0.260		0.508		0.522		-		0.522	0.000	1.290	N/A

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			
Developmental Test & Evaluation (DT&E)	Various	various : various	0.000	0.126	Feb 2023	3.104	Jan 2024	3.337	Jan 2025	-		3.337	0.000	6.567	-
Subtotal			0.000	0.126		3.104		3.337		-		3.337	0.000	6.567	N/A

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/Supt Sys	Project (Number/Name) 6639 / Multiple-Launch Rocket System Family of Munitions
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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
The increase from FY 2024 to FY 2025 reflects developmental testing and a guided flight test.

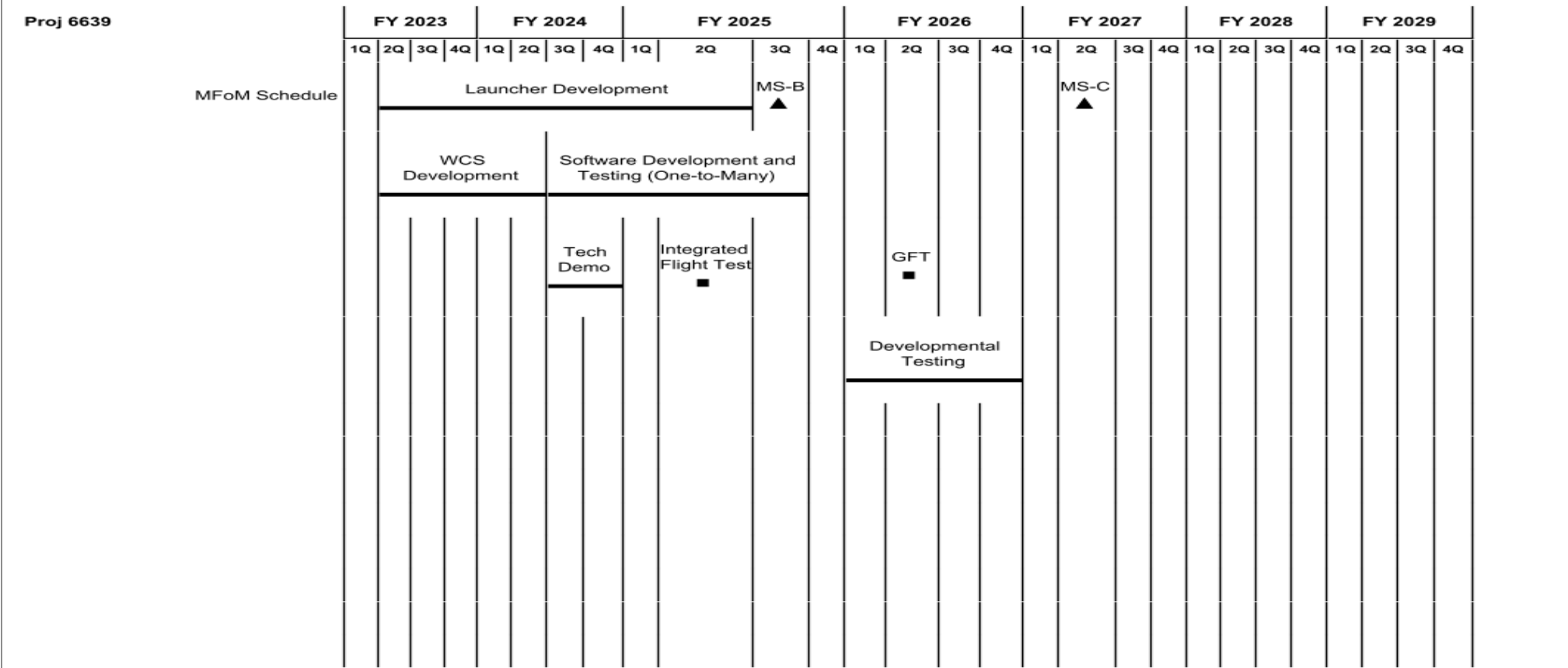
	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	17.443	19.752	7.137	-	7.137	Continuing	Continuing	N/A

Remarks

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/Supt Sys	Project (Number/Name) 6639 / Multiple-Launch Rocket System Family of Munitions
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2025PB - 0603635M - 6639

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/Supt Sys</i>	Project (Number/Name) 6639 / <i>Multiple-Launch Rocket System Family of Munitions</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 6639				
MFoM Schedule: Milestone B	3	2025	3	2025
MFoM Schedule: Milestone C	2	2027	2	2027
MFoM Schedule: MFoM Launcher Development	2	2023	2	2025
MFoM Schedule: MFoM WCS Development	2	2023	2	2024
MFoM Schedule: MFoM Software Development (One-to-Many)	3	2024	3	2025
MFoM Schedule: Tech Demo	3	2024	4	2024
MFoM Schedule: Integrated Flight Test	2	2025	2	2025
MFoM Schedule: Guided Flight Test	2	2026	2	2026
MFoM Schedule: Developmental Test (Mobility, Environmental, E3)	1	2026	4	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy										Date: March 2024		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/Supt Sys</i>				Project (Number/Name) 7400 / <i>Combat Capability Development Transition</i>			
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
7400: <i>Combat Capability Development Transition</i>	95.923	32.312	30.804	26.260	-	26.260	10.576	13.917	14.201	14.507	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Long Range Unmanned Surface Vessel (LRUSV) is a Marine Corps Force Design priority that has demonstrated, through extensive wargaming and simulations, significant operational impact in the Naval Expeditionary Force's surface warfare campaign against peer competitors in the maritime battlespace, particularly when operating within planned sensor and communication networks. LRUSV is a semi-autonomous platform capable of multi-domain sensor collections that enables the Marine Division / Marine Expeditionary Force to enhance Maritime Domain Awareness (MDA) for the Naval Expeditionary Force and Coalition maritime operations centers. LRUSV will employ a suite of organic sensors (RADAR, EO/IR, and Electromagnetic Support) to accomplish its primary mission of gaining and maintaining custody of surface contacts of interest in the littoral operating environment. LRUSV sensor capabilities will assist the Marine Division's Marine Reconnaissance Company in its mission to conduct seaward reconnaissance, surveillance, and target acquisition in a peer-threat contested, littoral operating environment across the spectrum of competition, crisis, and conflict to enhance Joint and coalition maritime domain awareness and facilitate the application of Joint fires.

In FY 2024, LRUSV began vessel enhancements to the autonomy behaviors, communication architecture, and improvements to the sensor and communication hardware based on Early Operational Assessment (EOA) findings and Capability Requirements Change directives. LRUSV will conduct risk reduction development and test activities supporting manned/unmanned teaming concepts and sea-based command and control (C2) of the LRUSV to inform requirements development. In FY 2025, LRUSV will continue autonomy software development and sensor integration activities, along with additional test and development activities in support of the manned/unmanned teaming concepts and sea-based C2 of the LRUSV.

Explosive Hazard Defeat Systems (EHDS) provides capabilities not found in the current Joint land force structure to defeat explosive hazards and protect Marines and equipment while conducting route and area clearance operations. The EHDS will enable Commanders to deliberately operate in explosive hazards environments by detecting and marking explosive hazards, enabling the Commanders to make timely and informed decisions to avoid the explosive hazards, or, if necessary, neutralize explosive hazards that impede their missions. In FY 2024, EHDS funds realigned from PE: 0206624M/Proj 2316 to PE: 0603635M/Proj 7400

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

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Long Range Unmanned Service Vessel (LRUSV)	21.214	25.254	16.410	0.000	16.410
Articles:	-	-	-	-	-
FY 2024 Plans: - Initiated vessel operator training and certification.					

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/Supt Sys</i>	Project (Number/Name) 7400 / <i>Combat Capability Development Transition</i>

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"> - Initiated enhancements to autonomy behaviors and communications architecture, and integrated various sensor platforms. - Initiated on water testing of enhanced autonomy behaviors and communications between the LRUSV Contact Vessel and LRUSVs. - Initiated integration of Government-developed common autonomy software and architecture. - Conducted developmental testing of sensor and autonomy software enhancements. - Conducted initial manned-unmanned teaming integration efforts in support of the Mobile Reconnaissance Company. - Purchased smaller form factor vessels for sensor and communication missions. <p>FY 2025 Base Plans:</p> <ul style="list-style-type: none"> - Complete developmental testing of sensor and software enhancements. - Conduct demonstration and testing of smaller form factor vessels for sensor and communication mission. - Continue enhancements to autonomy behaviors and communications architecture, and integration of various sensor platforms. - Continue manned-unmanned teaming integration efforts in support of the Mobile Reconnaissance Company. <p>FY 2025 OCO Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Decrease from FY 2024 to FY 2025 is due to the completion of participation in IBP 24.1 and completed purchase of small form factor vessels.</p>					
<p>Title: Family of Expeditionary Fuel Systems (FEFS)</p> <p align="right">Articles:</p>	8.098	0.000	0.000	0.000	0.000
<p>FY 2024 Plans: N/A</p> <p>FY 2025 Base Plans: N/A</p> <p>FY 2025 OCO Plans: N/A</p>	-	-	-	-	-
<p>Title: Explosive Hazard Defeat Systems (EHDS)</p>	0.000	2.550	6.850	0.000	6.850

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/S upt Sys	Project (Number/Name) 7400 / Combat Capability Development Transition

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
<p align="right">Articles:</p> <p>FY 2024 Plans: - Initiates development of Future Naval Capability of Ground Penetrating Radar (GPR) integration in air/ground platforms.</p> <p>FY 2025 Base Plans: - Continue product development of Future Naval Capability on Ground Penetrating Radar (GPR) integration in air/ground platforms. - Initiate testing and evaluation for the Standoff Radar Imaging Detection System (SoRIDS) integration in air/ground platforms at Office of Naval Research (ONR).</p> <p>FY 2025 OCO Plans: N/A</p> <p>FY 2024 to FY 2025 Increase/Decrease Statement: Increase of \$4.300M begins testing and evaluation of SoRIDS integration in air/ground platforms.</p>	-	-	-	-	-
<p>Title: Expeditionary Energy Office (E2O)</p> <p align="right">Articles:</p> <p>Description: Expeditionary Energy Office (E2O): The Commandant established the USMC Expeditionary Energy Office (E2O), with the mission to analyze, develop, and direct the Marine Corps' energy strategy in order to optimize expeditionary capabilities across all warfighting functions. E2O's role is to advise the Marine Requirements Oversight Council (MROC) on all energy and resource related requirements, acquisitions, and programmatic decisions. This office, both personnel and funding, directly supports execution of the USMC Expeditionary Energy Strategy and Implementation Plan, and priorities identified in Force Design 2030. The Marine Corps program aligns with the Commandant's Planning Guidance, the National Defense Authorization Act, DoD directives and SECNAV goals. This funding will support the achievement of the Strategy, and the activities of the USMC Expeditionary Energy Concepts process, managed by the E2O.</p> <p>FY 2024 Plans: -Continue the building and fabrication of a prototype Next Generation Medium Tactical Truck. The smaller and lighter system will use a hybrid electric architecture to reduce fuel consumption, extend operational range, and provide an exportable power capability, use a modular and open systems architecture, incorporate scalable</p>	3.000	3.000	3.000	0.000	3.000
	-	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/S upt Sys	Project (Number/Name) 7400 / Combat Capability Development Transition

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
armor, facilitate advanced condition-based maintenance; all while improving maneuverability and affordability when compared to the current MTRV.					
<i>FY 2025 Base Plans:</i> -Continue the building and fabrication of a prototype Next Generation Medium Tactical Truck. The smaller and lighter system will use a hybrid electric architecture to reduce fuel consumption, extend operational range, and provide an exportable power capability, use a modular and open systems architecture, incorporate scalable armor, facilitate advanced condition-based maintenance; all while improving maneuverability and affordability when compared to the current MTRV.					
<i>FY 2025 OCO Plans:</i> N/A					
Accomplishments/Planned Programs Subtotals	32.312	30.804	26.260	0.000	26.260

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/6277: Family of Expeditionary Fuel Systems	7.854	12.956	29.252	-	29.252	33.721	32.061	32.539	33.221	0.000	520.953
• PMC/6520-1: Explosive Hazard Defeat Systems	25.311	21.628	10.811	-	10.811	3.810	0.079	0.011	0.011	Continuing	Continuing

Remarks

D. Acquisition Strategy
Initiated as a Middle Tier Acquisition (MTA) Rapid Prototyping Program, LRUSV used an incremental approach to deliver capabilities that leverages prototype development to integrate vessels, autonomy packages, Fire Control Application (FCA), and Organic Precision Fires (OPF) payloads. The Marine Corps issued a Capability Requirements Change (CRC) Letter in July 2023, shifting the primary focus from a fires mission payload to a sensor and communications mission payload. As a result, the Marine Corps terminated the MTA Rapid Prototyping Program and transitioned to pre-ACAT designation status in Sept 2023.

The LRUSV program will continue to use an incremental approach to develop capabilities that integrate vessels, autonomy packages, and sensor platforms in support of Marine Corps objectives. Currently a pre-ACAT program, the Marine Corps will integrate, test, and verify different sized vessel platforms, autonomy packages, and sensor platforms to determine capability requirement feasibility, assess technical maturity, and refine the concept of employment. With the assistance of Naval Surface Warfare Center Carderock, the LRUSV program will conduct risk reduction development and test activities supporting manned/unmanned teaming concepts and sea-

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

Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
1319 / 4	PE 0603635M / <i>Marine Corps Grnd Cmbt/Supt Sys</i>	7400 / <i>Combat Capability Development Transition</i>

based command and control (C2) of the LRUSV to inform requirements development, and eventual transition into the Major Capability Acquisition pathway at Milestone B.

Explosive Hazard Defeat Systems (EHDS): The acquisition strategy is to collaborate with the Office of Naval Research (ONR) on the development and testing of the Future Naval Capability of Ground Penetrating Radar (GPR) integration in air/ground platforms.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy											Date: March 2024			
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/S upt Sys					Project (Number/Name) 7400 / Combat Capability Development Transition				

Product Development (\$ 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
NMESIS Prior Years	C/CPFF	Various : Various	36.245	0.000		0.000		0.000		-		0.000	0.000	36.245	-
LRUSV Prior Years	Various	Various : Various	29.390	0.000		0.000		0.000		-		0.000	0.000	29.390	-
LRUSV SW - Gov	Various	Various : Various	5.783	2.904	Oct 2022	0.326	Oct 2023	0.336	Nov 2024	-		0.336	Continuing	Continuing	Continuing
LRUSV HW/SW - Development/Integration - Vendor	Various	Various : Various	1.525	6.080	Dec 2022	14.834	Nov 2023	8.208	Nov 2024	-		8.208	Continuing	Continuing	Continuing
FEFS Low Profile Distribution System	MIPR	ONR : Arlington, VA	4.700	8.098	Feb 2023	0.000		0.000		-		0.000	0.000	12.798	-
EHDS Product Development	MIPR	ONR : Arlington, VA	0.000	0.000		2.550	Jan 2024	5.850	Feb 2025	-		5.850	0.000	8.400	-
E2O Next Generation Medium Tactical Truck	MIPR	ONR : Arlington, VA	0.000	3.000	Sep 2023	3.000	Jan 2024	3.000	Jan 2025	-		3.000	0.000	9.000	-
Subtotal			77.643	20.082		20.710		17.394		-		17.394	Continuing	Continuing	N/A

Remarks
 EHDS: Increase from FY 2024 to FY 2025 is primarily attributed to the development of the Ground Penetrating Radar (GPR) integration in air/ground platforms.
 LRUSV: Decrease from FY 2024 to FY 2025 is due to a decrease in vendor autonomy development and the procurement of small form factor vessels in FY 2024.

Support (\$ 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
NMESIS Prior Years	Various	Various : Various	2.247	0.000		0.000		0.000		-		0.000	0.000	2.247	-
LRUSV Engineering Support	Various	Various : Various	5.269	4.924	Oct 2022	2.771	Oct 2023	2.854	Nov 2024	-		2.854	Continuing	Continuing	Continuing
LRUSV Training Support	Various	Various : Various	1.821	1.352	Jan 2023	0.660	Nov 2023	0.680	Nov 2024	-		0.680	Continuing	Continuing	Continuing
Subtotal			9.337	6.276		3.431		3.534		-		3.534	Continuing	Continuing	N/A

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/S upt Sys	Project (Number/Name) 7400 / Combat Capability Development Transition
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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			
Developmental Test & Evaluation (DT&E)	Various	LRUSV Program : Various	6.146	4.139	Dec 2022	2.732	Dec 2023	2.254	Dec 2024	-		2.254	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	MIPR	ONR : Arlington VA	0.000	0.000		0.000		1.000	Feb 2025	-		1.000	0.000	1.000	-
Subtotal			6.146	4.139		2.732		3.254		-		3.254	Continuing	Continuing	N/A

Remarks
 EHDS: Increase from FY 2024 to FY 2025 begins testing and evaluation of SoRIDS integration in air/ground platforms.
 LRUSV: Net decrease from FY 2024 to FY 2025 reflects the completion of Integrated Battle Problem (IBP 24.1) in FY 2024 and continued developmental testing of sensor and autonomy software enhancements in FY 2025.

Management Services (\$ 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			
NMESIS Prior Years	Various	Various : Various	0.150	0.000		0.000		0.000		-		0.000	0.000	0.150	-
LRUSV Travel	Various	Various : Various	0.471	0.222	Jan 2023	1.818	Jan 2024	0.526	Jan 2025	-		0.526	Continuing	Continuing	Continuing
LRUSV Program/Cost Management	Various	Various : Various	2.176	1.593	Oct 2022	2.113	Oct 2023	1.552	Oct 2024	-		1.552	Continuing	Continuing	Continuing
Subtotal			2.797	1.815		3.931		2.078		-		2.078	Continuing	Continuing	N/A

Remarks
 LRUSV: Decrease from FY 2024 to FY 2025 is due to Marine travel in support of IBP 24.1 that will not occur in FY 2025.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	95.923	32.312	30.804	26.260	-	26.260	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 / 4	R-1 Program Element (Number/Name) PE 0603635M / Marine Corps Grnd Cmbt/Supt Sys	Project (Number/Name) 7400 / Combat Capability Development Transition
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Proj 7400	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		
Long Range Unmanned Surface Vessel (LRUSV)	▼ CSIT		▼ EOA			▼ IBP 24.1	▼ OWT						▼ CDD					◆ MS B												
				Post EOA Vessel Enhancements																										
				Vessel Enhancement/Sensor Testing																										
					Purchase Small Form Factor Vessels																									
								Developmental Testing																						
										Facility Analysis																				
Family of Expeditionary Fuel Systems																														
Explosive Hazard Defeat Systems (EHDS)																														
								Product Development and Testing																						
Expeditionary Energy Office (E2O)								Product Development																						

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/Supt Sys</i>	Project (Number/Name) 7400 / <i>Combat Capability Development Transition</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 7400				
Long Range Unmanned Surface Vessel (LRUSV): Long Range Unmanned Surface Vessel: Complete System Integration Test	1	2023	1	2023
Long Range Unmanned Surface Vessel (LRUSV): Long Range Unmanned Surface Vessel: Early Operational Assessment	3	2023	3	2023
Long Range Unmanned Surface Vessel (LRUSV): Long Range Unmanned Surface Vessel: IBP 24.1	2	2024	2	2024
Long Range Unmanned Surface Vessel (LRUSV): Long Range Unmanned Surface Vessel: OWT	3	2024	3	2024
Long Range Unmanned Surface Vessel (LRUSV): Long Range Unmanned Surface Vessel: CDD	1	2026	1	2026
Long Range Unmanned Surface Vessel (LRUSV): Long Range Unmanned Surface Vessel: Milestone B	2	2027	2	2027
Long Range Unmanned Surface Vessel (LRUSV): Long Range Unmanned Surface Vessel: Post EOA Vessel Enhancements	1	2024	3	2024
Long Range Unmanned Surface Vessel (LRUSV): Long Range Unmanned Surface Vessel: Initial Enhancement Sensor Testing	3	2024	2	2025
Long Range Unmanned Surface Vessel (LRUSV): Long Range Unmanned Surface Vessel: Purchase Smaller Form Factor USV Sensor/Communication Prototypes	3	2024	3	2024
Long Range Unmanned Surface Vessel (LRUSV): Long Range Unmanned Surface Vessel: Small Form Factor DT	1	2025	4	2025
Long Range Unmanned Surface Vessel (LRUSV): Long Range Unmanned Surface Vessel: Facility Analysis	3	2025	3	2027
Explosive Hazard Defeat Systems (EHDS): Ground Penetrating Radar (GPR)	2	2024	4	2029

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

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603635M / <i>Marine Corps Grnd Cmbt/Supt Sys</i>	Project (Number/Name) 7400 / <i>Combat Capability Development Transition</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Explosive Hazard Defeat Systems (EHDS): Standoff Radar Imaging Detection System (SoRIDS)	2	2025	4	2029
Expeditionary Energy Office (E2O): MTT prototype development	4	2023	2	2025