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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 0605516M / <i>LONG RANGE FIRES</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	139.446	35.072	36.763	30.092	-	30.092	14.784	18.865	0.000	0.000	0.000	275.022
6638: <i>Long Range Fires</i>	139.446	35.072	36.763	30.092	-	30.092	14.784	18.865	0.000	0.000	0.000	275.022

A. Mission Description and Budget Item Justification

Consistent with the National Defense Strategy direction to increase capacity of long-range, precision weapons, the Long Range Fire (LRF) capability will provide Combatant Commanders with the ability to employ an agile, mobile, land-based system, capable of launching Tomahawk cruise missiles to complement surface and sub-surface launched missiles.

The LRF weapon system consists of a ROGUE-Fires carrier (same design as the Navy and Marine Corps Expeditionary Ship Interdiction System (NMESIS) carrier), integrated with a single cell MK-41 vertical launch system launcher (a similar configuration to those employed by the US Navy) for the employment of an encanistered Tomahawk missile, and Tactical Tomahawk Weapons Control System.

B. Program Change Summary (\$ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	36.693	36.763	3.921	-	3.921
Current President's Budget	35.072	36.763	30.092	-	30.092
Total Adjustments	-1.621	0.000	26.171	-	26.171
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.373	0.000			
• SBIR/STTR Transfer	-1.248	0.000			
• Rate/Misc Adjustments	0.000	0.000	26.171	-	26.171

Change Summary Explanation

The increase from Previous President's Budget reflects the additional development and testing required.

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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 0605516M / LONG RANGE FIRES				Project (Number/Name) 6638 / Long Range Fires			
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
6638: Long Range Fires	139.446	35.072	36.763	30.092	-	30.092	14.784	18.865	0.000	0.000	0.000	275.022
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

LRF will be capable of precisely engaging fixed, land-based targets as a complement to the tomahawk capabilities provided by the Navy. When the Maritime Strike version of Tomahawk (MST) is fielded in the late 20s, it will also provide a ground-based reinforcement to Naval fires and will complement the NMESIS by providing long range, lethal fires against maritime targets using a different attack profile.

In FY 2024, LRF continued development and completed the Operational Assessment. In FY 2025, LRF initiates MST development, completes system development, and continues 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: 6638 Long Range Fires	35.072	36.763	30.092	0.000	30.092
Articles:	-	-	-	-	-
FY 2024 Plans:					
<ul style="list-style-type: none"> - Completed operational testing including an Operational Assessment (OA) and a Joint Flight Test (JFT) - Continued launcher and carrier development to incorporate test fixes - Continued development and testing of the reload/resupply system - Continued Extended User Evaluation (EUE) - Conducted E3 and signature testing - Conducted Shipboard Suitability Testing (SST) - Conducted mobility and transportability testing for launcher, reload/resupply, and C2 systems 					
FY 2025 Base Plans:					
<ul style="list-style-type: none"> - Complete EUE - Complete launcher and carrier development to incorporate test fixes - Complete reload/resupply and C2 development - Conduct developmental testing of C2 Mobility and E3 and system mobility testing of carrier ECPs - Conduct operational testing including a Guided Flight Test (GFT) - Initiate TTWCS MST development for a ground launched capability 					
FY 2025 OCO Plans:					

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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					
FY 2024 to FY 2025 Increase/Decrease Statement: The decrease from FY 2024 to FY 2025 reflects a reduction in testing.					
Accomplishments/Planned Programs Subtotals	35.072	36.763	30.092	0.000	30.092

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: <i>Artillery Weapons System</i>	145.452	165.268	139.477	-	139.477	366.819	307.141	163.715	167.140	267.644	2,756.242
• PMC/2101: <i>Tomahawk</i>	42.958	105.192	115.232	-	115.232	142.442	6.369	2.586	2.635	0.000	417.414

Remarks

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

D. Acquisition Strategy

The Long Range Fires (LRF) program will support land and future maritime strike requirements and addresses capability gaps defined in the Joint Requirements Oversight Council approved Ground Based Anti-Ship Missile initial capability document. The system combines a ROGUE-Fires carrier integrated with a single cell MK41 Vertical Launching System (VLS) launcher and the necessary fire control systems. LRF was designated a Program of Record in September 2021, with a Milestone B in 3rd quarter FY 2022 and Milestone C in FY 2025. The Marine Corps is following a system of systems approach with major elements of LRF leveraged from existing Navy and Marine Corps programs. These include the Tomahawk missile, TTWCS, and VLS Launcher electronics. The Marine Corps program is focused on maturing the single cell launcher configuration, carrier, command and control system and resupply system to provide the Marine Corps an effective, sustainable expeditionary capability.

There are 6 major subsystems:

- 1) Launcher - The Marine Corps conducted a competitive source selection for development and build of the prototypes in FY 2021, PRMs in FY 2022, and testing.
- 2) Carrier - The ROGUE-Fires carrier was developed under a competitively awarded contract under the NMESIS program for the development and build of prototypes, PRMs, and testing. ECPs are being developed under the NMESIS program and integrated on the ROGUE-Fires carrier for testing.
- 3) TTWCS - The Navy is incorporating Army and Marine Corps ground requirements into the next TTWCS software baseline to create a common baseline for all services. As a result, all TTWCS contracting is being conducted and managed by the Navy as part of the TTWCS Program. TTWCS hardware is also purchased via the Navy.

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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 0605516M / <i>LONG RANGE FIRES</i>	6638 / <i>Long Range Fires</i>

4) Tomahawk Missile - All missile procurements are managed through the Navy under their contracts.

5) Reload/Resupply System - System design and test will be conducted in conjunction with the launcher development.

6) C2 System - System design and test will be conducted in conjunction with the launcher development.

Initial sustainment will rely on Contractor Logistics Support (CLS) for maintenance. Training on TTWCS will use the Navy courses and facilities.

The Marine Corps is leveraging other Service systems by using the existing Tomahawk missile along with MK41 launcher sub-systems, and the TTWCS. This solution is focused on reducing developmental risk through the reuse of qualified systems and early retirement of risks. The TTWCS modifications are being developed as a collaborative effort with the Army and Navy to generate a single TTWCS baseline for all services.

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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 0605516M / LONG RANGE FIRES	Project (Number/Name) 6638 / Long Range Fires
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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			
Launcher Development	C/CPFF	DMEA : Lockheed Martin	22.195	6.880	Jan 2023	6.043	Jan 2024	5.549	Jan 2025	-		5.549	0.000	40.667	-
Prototype Launcher	C/CPFF	DMEA : Lockheed Martin	3.800	0.000		0.000		0.000		-		0.000	0.000	3.800	-
PRM Launcher	SS/CPFF	DMEA : Lockheed Martin	11.605	0.000		0.000		0.000		-		0.000	0.000	11.605	-
Carrier Development	C/CPFF	Oshkosh : Oshkosh, WI	19.438	0.467	Jan 2023	0.476	Jan 2024	0.486	Jan 2025	-		0.486	0.000	20.867	-
Prototype Carrier	C/CPFF	Oshkosh : Oshkosh, WI	2.634	0.000		0.000		0.000		-		0.000	0.000	2.634	-
PRM Carrier	SS/CPFF	Oshkosh : Oshkosh, WI	6.449	0.000		0.000		0.000		-		0.000	0.000	6.449	-
Leader Kit	SS/CPFF	Oshkosh, WI : Oshkosh, WI	2.227	0.000		0.000		0.000		-		0.000	0.000	2.227	-
Re-Supply System Development	C/CPFF	DMEA : Lockheed Martin	2.982	1.548	Jan 2023	2.123	Jan 2024	1.163	Jan 2025	-		1.163	0.000	7.816	-
TTWCS Development	C/CPFF	NAVAIR : Various	38.715	9.537	Dec 2022	7.834	Dec 2023	11.468	Dec 2024	-		11.468	0.000	67.554	-
TTWCS Hardware	C/CPFF	NAVAIR : Various	1.500	0.000		0.843	Feb 2024	0.000		-		0.000	0.000	2.343	-
Subtotal			111.545	18.432		17.319		18.666		-		18.666	0.000	165.962	N/A

Remarks
The increase from FY 2024 to FY 2025 reflects the initiation of TTWCS software development for ground launched MST capability.

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 and Cyber Security/ IA	C/BA	various : various	1.988	1.332	Dec 2022	1.861	Dec 2023	1.898	Dec 2024	-		1.898	0.000	7.079	-
Subtotal			1.988	1.332		1.861		1.898		-		1.898	0.000	7.079	N/A

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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0605516M / <i>LONG RANGE FIRES</i>	Project (Number/Name) 6638 / <i>Long Range Fires</i>
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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	Various : Various	14.017	11.580	Dec 2022	9.134	Dec 2023	6.783	Dec 2024	-		6.783	0.000	41.514	-
Operational Test & Evaluation (OT&E)	Various	Various : Various	11.768	3.628	Dec 2022	8.349	Dec 2023	2.645	Dec 2024	-		2.645	0.000	26.390	-
Subtotal			25.785	15.208		17.483		9.428		-		9.428	0.000	67.904	N/A

Remarks
The decrease from FY 2024 to FY 2025 reflects a reduction in testing. FY 2025 developmental testing includes mobility and E3 testing of the updated C2 shelter and mobility testing of the carrier. FY 2025 operational testing includes a Guided Flight Test.

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			
Travel	WR	MCSC : MCSC	0.128	0.100	Nov 2022	0.100	Nov 2023	0.100	Nov 2024	-		0.100	0.000	0.428	-
Subtotal			0.128	0.100		0.100		0.100		-		0.100	0.000	0.428	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		139.446	35.072	36.763	30.092	-	30.092	0.000	241.373	N/A

Remarks

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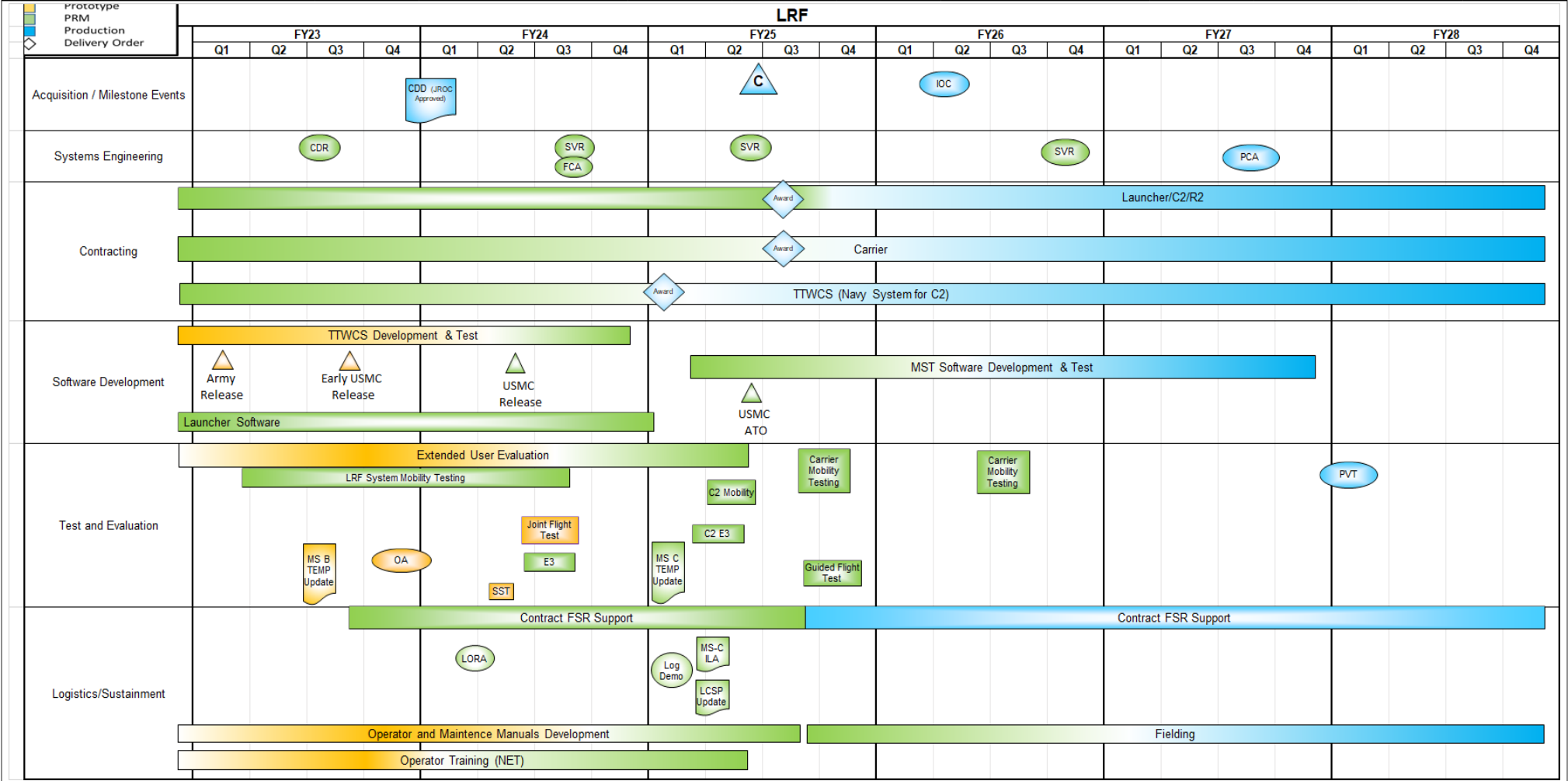
Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy

Date: March 2024

Appropriation/Budget Activity
1319 / 4

R-1 Program Element (Number/Name)
PE 0605516M / LONG RANGE FIRES

Project (Number/Name)
6638 / Long Range Fires



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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 0605516M / <i>LONG RANGE FIRES</i>	Project (Number/Name) 6638 / <i>Long Range Fires</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Proj 6638</i>				
Operational Assesment (OA)	4	2023	1	2024
Extended User Evaluation (EUE)	1	2023	2	2025
Milestone C	2	2025	2	2025
Guided Flight Test	3	2025	4	2025
MST Software Development & Test	1	2025	4	2027