Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0204413N *I Amphibious Tactical Supt Units*							
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	37.312	1.779	1.991	2.238	-	2.238	2.016	1.876	1.911	1.949	Continuing	Continuing
2231: *LCAC / LCU 1700*	36.337	1.274	1.471	1.711	-	1.711	1.479	1.327	1.351	1.377	Continuing	Continuing
2477: *NECC Additive Manufacturing*	0.975	0.505	0.520	0.527	-	0.527	0.537	0.549	0.560	0.572	Continuing	Continuing

A. Mission Description and Budget Item Justification

Landing Craft, Air Cushion (LCAC): Research and development efforts to transfer technologies into functional uses on the current LCACs. Current technology initiatives include sustainability/reliability/readiness/performance analyses, LCAC communication improvements, compliance with Cybersecurity policy regulations, and LCAC Total Ownership Costs (TOC) reduction initiatives.

Landing Craft, Utility (LCU 1700): Replacement program for the current LCU 1610 class craft - a class of craft that has exceeded its 25-year planned service life by nearly double, average age of craft is approaching 50-years-old. LCU 1700 will provide similar payload, range, speed, and interoperability. Detail design contract awarded Q2 FY18.

NECC Additive Manufacturing: In accordance with the National Defense Strategy (NDS), A Design for Maintaining Maritime Superiority 2.0, and Navy Facility Command (NAVFAC) Strategic Design 2.0, this program provides the Navy with new capabilities to enable resilient and agile logistics thru additive manufacturing (AM). Investing in AM enhances the fleet's ability to conduct operational logistics in a contested environment and ensures logistics supportability across the austere distributed battlespace. AM technology results in increased operational availability, on demand production of critical systems, and supply chain cost savings.

This effort will identify critical parts suitable for AM production in the field; identify AM systems appropriate to produce and certify critical parts in the field; analyze and identify AM system implications across doctrine, organization, training, materiel, leadership and education, personnel, facilities and policy (DOTMLPF-P); conduct end-user training, field experimentation, and fleet exercise technology insertion to validate AM system capability and systems integration issues.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy					Date: March 2024
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 7: *Operational Systems Development*		R-1 Program Element (Number/Name) PE 0204413N *I Amphibious Tactical Supt Units*			
B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	1.789	1.991	2.264	-	2.264
Current President's Budget	1.779	1.991	2.238	-	2.238
Total Adjustments	-0.010	0.000	-0.026	-	-0.026
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.010	0.000			
• Program Adjustments	0.000	0.000	-0.036	-	-0.036
• Rate/Misc Adjustments	0.000	0.000	0.010	-	0.010

Change Summary Explanation

Due to LCU 1700 Construction delays, LCU 1700 Integrated Developmental/Operational Testing is expected to be begin 4th quarter 2023, and ram.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204413N / *Amphibious Tactical Supt Units*	Project (Number/Name) 2231 / *LCAC / LCU 1700*	

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
2231: *LCAC / LCU 1700*	36.337	1.274	1.471	1.711	-	1.711	1.479	1.327	1.351	1.377	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Landing Craft, Air Cushion (LCAC): Research and development efforts to transfer technologies into functional uses on the current LCACs. Ongoing technology initiatives include sustainability/reliability/readiness/performance analyses, LCAC communication improvements, Cybersecurity policy regulations compliance, and LCAC Total Ownership Costs (TOC) reduction initiatives.

Landing Craft, Utility (LCU 1700): Replacement program for the current LCU 1610 class craft - a class of craft that has exceeded its 25-year planned service life by nearly double, average age of craft is approaching 50-years-old. LCU 1700 will provide similar payload, range, speed, and interoperability. Detail design contract awarded Q2 FY18.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: LCAC and LCU 1700 RDT&E,N	1.274	1.471	1.711	0.000	1.711
Articles:	-	-	-	-	-
FY 2024 Plans: LCAC: - Continue to improve reliability and maintainability of the LCAC Hull, Mechanical & Electrical (HM&E) systems. - Maintain compliance with cybersecurity directives and mandates. LCU: - Continue risk reduction efforts, which support Life Cycle/Total Ownership Cost (TOC) reductions for the class. - Continue Developmental Testing & Operational Testing (DT/OT).					
FY 2025 Base Plans: LCAC: - Continue to improve reliability and maintainability of the LCAC Hull, Mechanical & Electrical (HM&E) systems. - Maintain compliance with cybersecurity directives and mandates. LCU: - Continue risk reduction efforts, which support Life Cycle/Total Ownership Cost (TOC) reductions for the class.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204413N / *Amphibious Tactical Supt Units*	**Project (Number/Name)** 2231 / *LCAC / LCU 1700*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Continue Developmental Testing & Operational Testing (DT/OT). ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY25 increase of LCU 1700 RDT&E funding is due to LCU 1700 Integrated Developmental/Operational Testing events taking longer than originally scheduled due to delays at the shipbuilder.					
Accomplishments/Planned Programs Subtotals	1.274	1.471	1.711	0.000	1.711

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
• OPN 0970: *LCAC*	17.452	10.794	11.013	-	11.013	24.248	23.189	20.730	21.165	0.000	287.790
• SCN 5139: *LCAC SLEP*	36.301	15.286	45.087	-	45.087	56.109	38.128	19.565	0.000	0.000	1,703.054
• SCN 5100: *LCU 1700*	0.000	62.532	0.000	-	0.000	48.194	48.241	49.735	50.871	296.100	886.584

Remarks

D. Acquisition Strategy

Multiple contracts and Field Activities are involved to complete the various projects.

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 0204413N / *Amphibious Tactical Supt U nits*	Project (Number/Name) 2231 / *LCAC / LCU 1700*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
LCAC - Systems Engineering	WR	NSWC : Various	8.301	0.195	Jan 2023	0.200	Jan 2024	0.200	Jan 2025	-		0.200	Continuing	Continuing	Continuing
LCU - Ship Design	WR	NSWC : Various	19.056	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	27.357	0.195		0.200		0.200		-		0.200	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
LCU - Research Studies	Various	Various : Various	0.781	0.125	Dec 2022	0.130	Dec 2023	0.134	Dec 2024	-		0.134	0.000	1.170	-
		Subtotal	0.781	0.125		0.130		0.134		-		0.134	0.000	1.170	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	Various : Various	0.287	0.000		0.000		0.000		-		0.000	0.000	0.287	-
Prior Year Operational Test & Evaluation Not Funded FYDP (PYOT&E)	WR	NSWC PCD : Panama City, FL	2.047	0.000		0.000		0.000		-		0.000	0.000	2.047	-
Prior Year Live Fire Test & Evaluation Not Funded FYDP (PYLFT&E)	WR	NSWC PCD : Panama City, FL	0.850	0.000		0.000		0.000		-		0.000	0.000	0.850	-
Developmental Test & Evaluation (DT&E)	WR	Various : Various	1.558	0.404	Nov 2022	0.625	Dec 2023	0.475	Dec 2024	-		0.475	Continuing	Continuing	Continuing
Operational Test & Evaluation (OT&E)	WR	Various : Various	1.031	0.514	Nov 2022	0.257	Jun 2024	0.639	Dec 2024	-		0.639	Continuing	Continuing	Continuing
		Subtotal	5.773	0.918		0.882		1.114		-		1.114	Continuing	Continuing	N/A

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 0204413N / *Amphibious Tactical Supt Units*	Project (Number/Name) 2231 / *LCAC / LCU 1700*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	WR	Various : Various	0.887	0.013	Jan 2023	0.100	Mar 2024	0.100	Mar 2025	-		0.100	0.000	1.100	-
Program Management	WR	Various : Various	1.464	0.023	Nov 2022	0.159	Mar 2024	0.163	Mar 2025	-		0.163	0.000	1.809	-
Travel	WR	NAVSEA : Not Specified	0.064	0.000		0.000		0.000		-		0.000	0.000	0.064	-
Defense Acquisition Workforce	MIPR	OSD : Not Specified	0.011	0.000		0.000		0.000		-		0.000	0.000	0.011	-
		Subtotal	2.426	0.036		0.259		0.263		-		0.263	0.000	2.984	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	36.337	1.274		1.471		1.711		-		1.711	Continuing	Continuing	N/A

Remarks

FY25 increase of LCU 1700 RDT&E funding is due to LCU 1700 Integrated Developmental/Operational Testing events taking longer than originally scheduled due to delays at the shipbuilder.

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 0204413N / *Amphibious Tactical Supt Units*	**Project (Number/Name)** 2231 / *LCAC / LCU 1700*

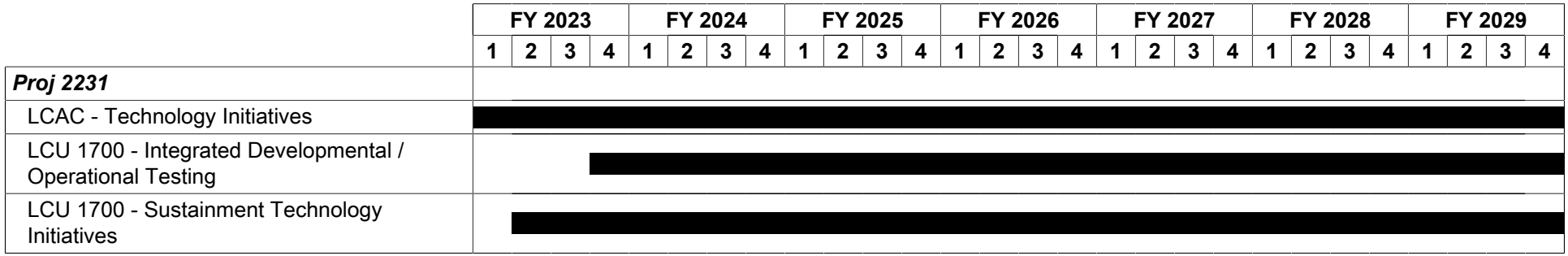

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204413N / *Amphibious Tactical Supt Units*	**Project (Number/Name)** 2231 / *LCAC / LCU 1700*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2231				
LCAC - Technology Initiatives	1	2023	4	2029
LCU 1700 - Integrated Developmental / Operational Testing	4	2023	4	2029
LCU 1700 - Sustainment Technology Initiatives	2	2023	4	2029

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0204413N / *Amphibious Tactical Supt Units*	Project (Number/Name) 2477 / *NECC Additive Manufacturing*	

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
2477: *NECC Additive Manufacturing*	0.975	0.505	0.520	0.527	-	0.527	0.537	0.549	0.560	0.572	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

NECC Additive Manufacturing: In accordance with the National Defense Strategy (NDS), A Design for Maintaining Maritime Superiority 2.0, and Navy Facility Command (NAVFAC) Strategic Design 2.0, this program provides the Navy with new capabilities to enable resilient and agile logistics thru additive manufacturing (AM). Investing in AM enhances the fleet's ability to conduct operational logistics in a contested environment and ensures logistics supportability across the austere distributed battlespace. AM technology results in increased operational availability, on demand production of critical systems, and supply chain cost savings.

This effort will identify critical parts suitable for AM production in the field; identify AM systems appropriate to produce and certify critical parts in the field; analyze and identify AM system implications across doctrine, organization, training, materiel, leadership and education, personnel, facilities and policy (DOTMLPF-P); conduct end-user training, field experimentation, and fleet exercise technology insertion to validate AM system capability and systems integration issues.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: NECC Additive Manufacturing	0.505	0.520	0.527	0.000	0.527
Articles:	-	-	-	-	-
FY 2024 Plans: -This effort will develop and assess technologies for Organizational-Level Maintenance (OM) usage including modified COTS and GOTS AdvM equipment, techniques, and procedures for Organizational-Level (O-Level) Maintenance usage to mitigate maintenance capability and training-aid production logistics gaps during operational events within the Expeditionary Navy. -Continue development of Universal Facility Criteria for AM Construction; modify Navy Expeditionary Combat Force (NECF) Advanced Manufacturing (AdvM) IT systems Authority to Operate (ATO) as required to adapt to any FY24 system configuration changes; implement NECF NIPR AdvM file repository and evaluate system military utility; modify NAVFAC AdvM Policy as required to adapt to ATO and data repository assessments; evaluate 3D printers and support systems as noted in Navy Expeditionary Combat Enterprise (NECE) AM Analysis of Alternatives (AoA) to determine military utility and suitability for technology refresh.					
FY 2025 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204413N / *Amphibious Tactical Supt Units*	**Project (Number/Name)** 2477 / *NECC Additive Manufacturing*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Continue to develop and assess technologies for Organizational-Level Maintenance (OM) usage including modified COTS and GOTS AdvM equipment, techniques, and procedures for Organizational-Level (O-Level) Maintenance usage to mitigate maintenance capability and training-aid production logistics gaps during operational events within the Expeditionary Navy. -Modify Navy Expeditionary Combat Force (NECF) Advanced Manufacturing (AdvM) IT systems Authority to Operate (ATO) as required to adapt to any FY24 system configuration changes; improve NECF NIPR AdvM file repository and reevaluate system military utility; modify NAVFAC AdvM Policy as required to adapt to ATO and data repository assessments; evaluate 3D printers and support systems as noted in Navy Expeditionary Combat Enterprise (NECE) AM Analysis of Alternatives (AoA) to determine military utility and suitability for technology refresh. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase of 0.007M will be applied to modifications of the NECF Additive Manufacturing Information Technology Authority-to-Operate (ATO).					
Accomplishments/Planned Programs Subtotals	0.505	0.520	0.527	0.000	0.527

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The projects identified in this budget have been carefully selected to respond to a series of extended user evaluations of commercial off the shelf (COTS) equipment by the warfighter with the goal of developing requirements for future additive manufacturing capabilities that will meet unique logistics alternatives. This effort will be executed by members of the expeditionary programs office in collaboration with various naval warfare centers and partners in the expeditionary additive manufacturing community of practice, and in conjunction with end users at the appropriate Type Commands. By working through the previously described sequence of analysis and experimental validation, we will identify the appropriate systems for in-field additive manufacturing while simultaneously informing end-user requirements development and program office acquisition plans.

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 0204413N / *Amphibious Tactical Supt U nits*	**Project (Number/Name)** 2477 / *NECC Additive Manufacturing*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	C/BA	EXWC : Port Hueneme, CA	0.736	0.329	Oct 2022	0.332	Oct 2023	0.350	Sep 2025	-		0.350	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	C/BA	Not Specified : Not Specified	0.239	0.176	Dec 2022	0.188	Dec 2023	0.177	Sep 2025	-		0.177	Continuing	Continuing	Continuing
		Subtotal	0.975	0.505		0.520		0.527		-		0.527	Continuing	Continuing	N/A

	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.975	0.505		0.520		0.527		-		0.527	Continuing	Continuing	N/A

Remarks

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 0204413N / *Amphibious Tactical Supt U nits*	**Project (Number/Name)** 2477 / *NECC Additive Manufacturing*

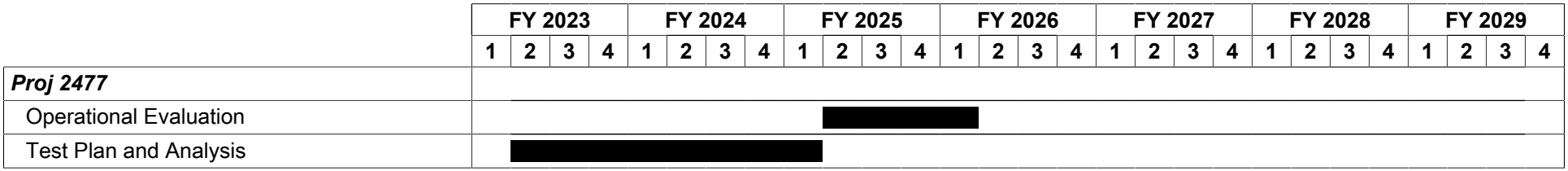

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 7	**R-1 Program Element (Number/Name)** PE 0204413N / *Amphibious Tactical Supt Units*	**Project (Number/Name)** 2477 / *NECC Additive Manufacturing*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2477				
Operational Evaluation	2	2025	1	2026
Test Plan and Analysis	2	2023	1	2025