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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Navy **Date:** March 2023

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604311N / <i>LPD-17 Class Systems Integration</i>
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	37.187	0.869	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	38.056
2283: <i>LPD-17 Class System Integration</i>	37.187	0.869	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	38.056

A. Mission Description and Budget Item Justification

The LPD 17 Class ships are functional replacements for 41 ships of four classes of amphibious ships. These amphibious vehicle's tactics, techniques, and tools for naval expeditionary warfare continue to evolve. The LPD 17 design includes system configurations that reduce operating and support costs and facilitate operational performance improvements. System engineering and integration efforts that began in FY97 will develop further reductions in life cycle costs and will integrate performance upgrades in a rapid, affordable manner. Possible research and development investigations include improvements in Hull, Mechanical and Electrical (HM&E) systems, advanced sensors, advanced computers, advanced command and control software, advanced information system technologies, and ship based logistics support. Cost reduction and improved performance will be accomplished through sustained modeling and simulation efforts, resolutions of equipment obsolescence issues, prototype development, continued personnel reduction efforts, system performance tradeoff evaluations, and naval expeditionary warfare system engineering. Feedback from the Fleet for integrating system configurations will be accomplished through Naval Surface Warfare Centers (Philadelphia, Dahlgren, Port Hueneme, Panama City). These efforts will result in well defined specifications and drawings in system in system integration design packages that provide technical baseline for follow on ship procurements.

B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	0.904	0.000	0.000	-	0.000
Current President's Budget	0.869	0.000	0.000	-	0.000
Total Adjustments	-0.035	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.035	0.000			
• Rate/Misc Adjustments	0.000	0.000	0.000	-	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy										Date: March 2023		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604311N / LPD-17 Class Systems Integration				Project (Number/Name) 2283 / LPD-17 Class System Integration			
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
2283: LPD-17 Class System Integration	37.187	0.869	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	38.056
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The LPD 17 Class ships are functional replacements for 41 ships of four classes of amphibious ships. These ships embark, transport, and land elements of Marine landing forces in an assault by helicopters, landing craft, and amphibious vehicles. Tactics, techniques, and tools for naval expeditionary warfare continue to evolve. The LPD 17 design includes system configurations that reduce operating and support costs and facilitate operational performance improvements. System engineering and integration efforts that began in FY97 will develop further reductions in life cycle costs and will integrate performance upgrades in a rapid, affordable manner. Possible research and development investigations include improvements in Hull, Mechanical and Electrical systems, advanced sensors, advanced computers, advanced command and control software, advanced information system technologies, and ship based logistics support. Cost reduction and improved performance will be accomplished through sustained modeling and simulation efforts, resolutions of equipment obsolescence issues, prototype development, continued personnel reduction efforts, system performance tradeoff evaluations, and naval expeditionary warfare system engineering. Feedback from the Fleet for integrating system configurations will be accomplished through Naval Surface Warfare Centers (Philadelphia, Dahlgren, Port Hueneme, Panama City). These efforts will result in well defined specifications and drawings in system in system integration design packages that provide technical baseline for follow on ship procurements.

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

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: Systems Engineering/Integration	0.869	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
Description: Continued Naval Expeditionary Warfare Systems Engineering efforts and integration efforts for unique LPD 17 Class systems, including efforts to resolve obsolescence issues impacting the LPD-17 class.					
FY 2023 Plans: N/A					
FY 2024 Base Plans: N/A					
FY 2024 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	0.869	0.000	0.000	0.000	0.000

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

Line Item	FY 2022	FY 2023	FY 2024	FY 2024	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Cost To	
			Base	OCO	Total					Complete	Total Cost
• SCN/3036: <i>LPD-17</i>	53.682	17.739	16.520	-	16.520	0.000	0.000	0.000	0.000	0.000	21,413.011

Remarks

D. Acquisition Strategy

Continue developmental sole source efforts, improve quality and cost savings engineering studies.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy **Date:** March 2023

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604311N / LPD-17 Class Systems Integration	Project (Number/Name) 2283 / LPD-17 Class System Integration
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Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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			
Systems Engineering and Integration	WR	NSWC Crane : Crane, IN	13.236	0.000		0.000		0.000		-		0.000	0.000	13.236	-
Systems Engineering and Integration	C/CPFF	Raytheon Comp : San Diego, CA	2.432	0.000		0.000		0.000		-		0.000	0.000	2.432	-
LSD(X) Systems Integration (Next Gen.)	C/CPFF	CSC, Alion Science : Washington, DC	0.549	0.000		0.000		0.000		-		0.000	0.000	0.549	-
LSD(X) Systems Integration (Next Gen.)	WR	NSWC Carderock, NSWC Dahlgren : NSWC Beth, MD; NSWC Dahlgren, VA	0.100	0.000		0.000		0.000		-		0.000	0.000	0.100	-
DAWF	Various	Various : Various	0.005	0.000		0.000		0.000		-		0.000	0.000	0.005	-
Systems Engineering and Integration	C/CPFF	Huntington Ingalls Industries : Pascagoula, MS	3.391	0.581	Jun 2022	0.000		0.000		-		0.000	0.000	3.972	-
Systems Engineering and Integration	WR	NSWC, Philadelphia : Philadelphia, PA	1.015	0.000		0.000		0.000		-		0.000	0.000	1.015	-
Systems Engineering and Integration	C/CPFF	ULTRA Communications : Vista, CA	0.435	0.000		0.000		0.000		-		0.000	0.000	0.435	-
Small Business Innovative Research	TBD	TBD : TBD	0.038	0.000		0.000		0.000		-		0.000	0.000	0.038	-
Systems Engineering and Integration	Various	ICI : TBD	0.235	0.000		0.000		0.000		-		0.000	0.000	0.235	-
Systems Engineering and Integration	WR	NSWC Carderock : Bethesda, MD	0.099	0.138	Jun 2022	0.000		0.000		-		0.000	0.000	0.237	-
Systems Engineering and Integration	WR	NSWC Panama City : Panama City, FL	0.160	0.150	Dec 2021	0.000		0.000		-		0.000	0.000	0.310	-
Subtotal			21.695	0.869		0.000		0.000		-		0.000	0.000	22.564	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy **Date:** March 2023

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604311N / LPD-17 Class Systems Integration	Project (Number/Name) 2283 / LPD-17 Class System Integration
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Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Prior Year Operational Test & Evaluation Not Funded FYDP (PYOT&E)	WR	OPTEVFOR : Norfolk, VA	15.492	0.000		0.000		0.000		-		0.000	0.000	15.492	-
Subtotal			15.492	0.000		0.000		0.000		-		0.000	0.000	15.492	N/A
Project Cost Totals			37.187	0.869		0.000		0.000		-		0.000	0.000	38.056	N/A

Remarks
Hull, Mechanical, and Electrical obsolescence and reliability improvements, including environmental qualification testing.

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy **Date:** March 2023

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604311N / <i>LPD-17 Class Systems Integration</i>	Project (Number/Name) 2283 / <i>LPD-17 Class System Integration</i>
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Proj 2283	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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
	Unmanned Demonstration																											
	Future Obsol. Issue Resolution																											

2024DON - 0604311N - 2283

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604311N / <i>LPD-17 Class Systems Integration</i>	Project (Number/Name) 2283 / <i>LPD-17 Class System Integration</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2283				
Unmanned Demonstration	1	2022	4	2022
Future Obsolescence Issue Resolution	1	2022	1	2022