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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 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604454N / LX (R)
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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	121.179	3.332	18.830	21.319	-	21.319	15.434	35.208	16.004	16.163	Continuing	Continuing
2474: <i>LPD Flight II Design & Total Integration</i>	121.179	3.332	18.830	21.319	-	21.319	15.434	35.208	16.004	16.163	Continuing	Continuing

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 542

A. Mission Description and Budget Item Justification

LPD 17 Flight II will replace LSD-41 Class ships and LSD-49 Class ships for embark, transport, control, insert, sustainment, and extract of Marine Air-Ground Task Force elements and supporting forces by helicopters, landing craft, and amphibious vehicles. Cost reduction and affordability efforts are required to continue pursuing affordability initiatives. This program element includes the planning & documentation for Developmental Test and Evaluation (DT&E), Live Fire Test & Evaluation (LFT&E), Operational Evaluation (OPEVAL), and Follow-on Operational Test and Evaluation (FOT&E) tests required for LPD 17 Flight II. These test events will be conducted on the lead Flight II Ship (LPD 30) or where configuration supports capabilities on earlier ships (LPD 28 or LPD 29).

Per signed Acquisition Decision Memorandum, LPD 17 Flight II will meet the Capabilities Development Document for LX(R) and shall subsume all previous LX(R) efforts. Name change endorsed in JROCM 093-21, from "Amphibious Ship Replacement LX(R)" to "LPD 17 San Antonio Class Amphibious Transport Dock FLT II." LPD 30 is the first ship of LPD 17 Flight II.

B. Program Change Summary (\$ in Millions)	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024 Base</u>	<u>FY 2024 OCO</u>	<u>FY 2024 Total</u>
Previous President's Budget	3.344	26.630	18.289	-	18.289
Current President's Budget	3.332	18.830	21.319	-	21.319
Total Adjustments	-0.012	-7.800	3.030	-	3.030
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-7.800			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.012	0.000			
• Program Adjustments	0.000	0.000	2.917	-	2.917
• Rate/Misc Adjustments	0.000	0.000	0.113	-	0.113

Change Summary Explanation

Funding Change: The FY 2024 funding request was increased from FY23 to FY24 for the Air Warfare T&E requirement and for rate adjustments.

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Program Schedule Changes (LI 3010): LPD 30 & 31 have experienced COVID-related schedule impacts resulting in ship milestone date changes. LPD 32 delivery date shifted to reflect negotiated timeline.

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Navy										Date: March 2023		
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0604454N / LX (R)				Project (Number/Name) 2474 / LPD Flight II Design & Total 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
2474: LPD Flight II Design & Total Integration	121.179	3.332	18.830	21.319	-	21.319	15.434	35.208	16.004	16.163	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 542

A. Mission Description and Budget Item Justification

LPD 17 Flight II will replace LSD-41 Class ships and LSD-49 Class ships for embark, transport, control, insert, sustainment, and extract of Marine Air-Ground Task Force elements and supporting forces by helicopters, landing craft, and amphibious vehicles. Cost reduction and affordability efforts are required to continue pursuing affordability initiatives. This program element includes the planning & documentation for Developmental Test and Evaluation (DT&E), Live Fire Test & Evaluation (LFT&E), Operational Evaluation (OPEVAL), and Follow-on Operational Test and Evaluation (FOT&E) tests required for LPD 17 Flight II. These test events will be conducted on the lead Flight II Ship (LPD 30) or where configuration supports capabilities on earlier ships (LPD 28 or LPD 29).

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

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Title: LPD Flight II DESIGN/TOTAL SHIP INTEGRATION	3.332	18.830	21.319	0.000	21.319
Articles:	-	-	-	-	-
FY 2023 Plans: Focus on establishing safe operating envelopes for aircraft operators and begin planning efforts for testing in FY24: - Begin active conduct of DT-D1 Test Events on LPD 28, to include execution of Dynamic Interface Testing (DIT) to establish safe aircraft operating envelopes resulting from aft deckhouse reductions and AEM/S mast deletion. DIT event execution involves obtaining the services of the following Rotary/Tilt Rotor Aircraft: AH-1Z, UH-1Y, H-53E, H-53K, H-60, and MV-22 including the aircrew, maintenance and fuel costs. - Follow-on Test & Evaluation (FOT&E) Surface Warfare (SUW) Planning resulting from updated boat/craft threat and resolve the updated Flight II SUW capability requirement. - Cybersecurity Test Planning and conducting the manpower and equipment intensive Cyber Cooperative Vulnerability Identification (CVI) and Adversarial Cyber DT&E (ACD) for the remaining LPD Network Enclaves: Combat. C4I, and NAV. - LFT&E Modeling and Simulation (M&S), to include runs of the Advanced Survivability Assessment Program (ASAP) for total ship survivability assessment, the Navy Enhanced Sierra Mechanics (NESM) for Underwater					

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

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
<p>Explosive/Shock simulation, and the Integrated Recoverability Model (IRM) for total ship recoverability assessment.</p> <ul style="list-style-type: none"> - Interoperability Test Planning (NR-KPP). - Overall test support, documentation/plans, including Test & Evaluation Master Plan (TEMP), coordination, and event conduct support. <p>Efforts will also focus on implementation of new GFE/CFE on new construction LPDs:</p> <ul style="list-style-type: none"> - Assessment of HERO/HERP for EASR, SPY-6(V)2 and other associated radar-to-ship integration activities for the new radar. - Cybersecurity risk assessments, validation, and approvals under Risk Management Framework (RMF) process for new systems. - Qualification of systems/equipment impacted by obsolescence such as shock, vibration, and EMI for new systems. - Alternative LFT&E assessments and evaluation tools for affordable assessment vs. full scale test. <p>Continue Software Support Activity/ Development & Integration for management and evaluation of new/unique LPD HM&E systems, networks, and control systems.</p> <p>FY 2024 Base Plans:</p> <p>Focus on planning efforts for testing in FY25-27:</p> <ul style="list-style-type: none"> - Begin FOT&E efforts for the EASR/Self Defense, including the Plans, Exercises, Targets, and Missiles. - FOT&E (SUW) Planning resulting from updated boat/craft threat and resolve the updated Flight II SUW capability requirement. - Cybersecurity Test Planning and conducting the manpower and equipment intensive Cyber Cooperative Vulnerability Identification (CVI) and Adversarial Cyber DT&E (ACD) for each LPD Network Enclave. - Interoperability Test Planning (NR-KPP). - Overall test support, documentation/plans (TEMP), coordination, and event conduct support. <p>Efforts will also focus on implementation of new GFE/CFE on new construction LPDs:</p> <ul style="list-style-type: none"> - Assessment of HERO/HERP for EASR, SPY-6(V)2 and other associated radar-to-ship integration activities for the new radar. 					

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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604454N / LX (R)	Project (Number/Name) 2474 / LPD Flight II Design & Total Integration

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

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
- Cybersecurity risk assessments, validation, and approvals under RMF process for new systems. - Qualification of systems/equipment impacted by obsolescence such as shock, vibration, and EMI for new systems. - Alternative LFT&E assessments and evaluation tools for affordable assessment vs. full scale test.					
Continue Software Support Activity/ Development & Integration for management and evaluation of new/unique LPD HM&E systems, networks, and control systems.					
FY 2024 OCO Plans: N/A					
FY 2023 to FY 2024 Increase/Decrease Statement: Increase from FY 2023 to FY 2024 is due to the Air Warfare T&E requirement commencing in 2024.					
Accomplishments/Planned Programs Subtotals	3.332	18.830	21.319	0.000	21.319

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

<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024 Base</u>	<u>FY 2024 OCO</u>	<u>FY 2024 Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• SCN/3010: LPD Flight II	310.636	1,923.000	0.000	-	0.000	22.200	20.000	1.800	0.000	0.000	5,990.637

Remarks

D. Acquisition Strategy

Sole Source to Huntington Ingalls Industries.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Navy											Date: March 2023				
Appropriation/Budget Activity 1319 / 4						R-1 Program Element (Number/Name) PE 0604454N / LX (R)					Project (Number/Name) 2474 / LPD Flight II Design & Total Integration				

Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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
Design/Systems Integration	WR	NAVSEALOGCEN : Mechanicsburg, PA	0.647	0.000		0.000		0.000		-		0.000	0.000	0.647	-
Design/Systems Integration	WR	PEO C4I/IWS : Washington, DC	7.474	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Design/Systems Integration Support	C/CPFF	General Dynamics : San Diego, CA	13.066	0.000		0.000		0.000		-		0.000	0.000	13.066	-
Design/Systems Integration	WR	NAWC Lakehurst : Lakehurst, NJ	2.056	0.049	Dec 2021	0.000		0.000		-		0.000	0.000	2.105	-
Design/Systems Integration Support	C/CPFF	HII : Pascagoula, MS	21.000	1.000	Jan 2022	0.211	Dec 2022	0.175	Dec 2023	-		0.175	0.000	22.386	-
Design/Systems Integration Support	C/CPIF	Various : Washington, DC	32.928	0.000		0.701	Dec 2022	0.492	Dec 2023	-		0.492	0.000	34.121	-
Design/Systems Integration	WR	NSWC : Bethesda, MD/Philadelphia, PA	33.384	1.075	Jan 2022	7.783	Dec 2022	8.165	Dec 2023	-		8.165	Continuing	Continuing	Continuing
Design/Systems Integration	WR	NSWC : Various	6.462	0.215	Dec 2021	4.705	Dec 2022	4.088	Dec 2023	-		4.088	0.000	15.470	-
Subtotal			117.017	2.339		13.400		12.920		-		12.920	Continuing	Continuing	N/A

Remarks

Budget exhibit was updated to accurately reflect \$13.4M in Product Development.
FY24 decrease is associated with an overall reduction in support efforts.

Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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)	C/CPIF	Various : Washington, DC	1.274	0.628	Dec 2021	0.485	Nov 2022	0.466	Dec 2023	-		0.466	0.000	2.853	-
Developmental Test & Evaluation (DT&E)	C/BA	COTF : Norfolk, VA	0.485	0.075	Jan 2022	0.854	Nov 2022	0.197	Dec 2023	-		0.197	0.000	1.611	-
Developmental Test & Evaluation (DT&E)	MIPR	JITC/MCOTEA : Various	0.015	0.010	Dec 2021	0.095	Nov 2022	0.103	Dec 2023	-		0.103	0.000	0.223	-

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

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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			
Developmental Test & Evaluation (DT&E)	WR	NSWC : Bethesda, MD/Philadelphia, PA	1.400	0.280	Jan 2022	0.315	Nov 2022	0.332	Dec 2023	-		0.332	0.000	2.327	-
Developmental Test & Evaluation (DT&E)	WR	NAVAIR : Various	0.788	0.000		1.798	Nov 2022	0.392	Dec 2023	-		0.392	0.000	2.978	-
Operational Test & Evaluation (OT&E)	WR	NSWC : Various	0.000	0.000		0.000		5.541	Dec 2023	-		5.541	0.000	5.541	-
Operational Test & Evaluation (OT&E)	TBD	TBD : TBD	0.000	0.000		0.953	Nov 2022	0.929	Dec 2023	-		0.929	0.000	1.882	-
Live Fire Test & Evaluation (LFT&E)	WR	NSWC : Various	0.200	0.000		0.930	Nov 2022	0.439	Dec 2023	-		0.439	0.000	1.569	-
Subtotal			4.162	0.993		5.430		8.399		-		8.399	0.000	18.984	N/A

Remarks
Test & Evaluation increase reflects funding for Air Warfare Ship Self Defense testing.

	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	121.179	3.332	18.830	21.319	-	21.319	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy		Date: March 2023
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0604454N / LX (R)	Project (Number/Name) 2474 / LPD Flight II Design & Total Integration

Fiscal Year	FY22				FY23				FY24				FY25				FY26				FY27				FY28			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Milestones																												
Product Development																												
DT&E																												
OT&E																												
LFT&E																												

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

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2474				
Developmental Test and Evaluation Phase	1	2022	3	2026
Operational Test and Evaluation Begins	1	2022	4	2028
Live Fire Test and Evaluation Phase	1	2022	4	2028