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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2022 Navy **Date:** May 2021

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604454N / LX (R)
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	99.162	12.012	10.158	3.344	-	3.344	-	-	-	-	-	-
2474: <i>LPD Flight II Design &amp; Total Integration</i>	99.162	12.012	10.158	3.344	-	3.344	-	-	-	-	-	-

**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. In addition, this program element also includes efforts to plan, document, and plan for LPD Flight II Follow-on Test & Evaluation. LPD 28, LPD 29, LPD 30 will be used to conduct these test events as they incorporate LPD Flight II changes prior to the lead Flight II Ship. LPD FLT II were planned to replace remaining LSD ships as the ships are eventually removed from service and decommissioned. The LSD's will reach end of service life (ESL) in FY28.

The FY 2018 Defense Appropriations Act authorized the procurement of LPD 30. 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. LPD 30 will be the first ship of LPD 17 Flight II.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Previous President's Budget	12.500	10.203	5.268	-	5.268
Current President's Budget	12.012	10.158	3.344	-	3.344
Total Adjustments	-0.488	-0.045	-1.924	-	-1.924
• Congressional General Reductions	-	-0.045			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.488	0.000			
• Program Adjustments	0.000	0.000	-1.862	-	-1.862
• Rate/Misc Adjustments	0.000	0.000	-0.062	-	-0.062

**Change Summary Explanation**

The FY 2022 funding request was reduced by \$1.924 million to account for the availability of prior year execution balances.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2022 Navy **Date:** May 2021

<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604454N / LX (R)	<b>Project (Number/Name)</b> 2474 / LPD Flight II Design & Total Integration
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
2474: LPD Flight II Design & Total Integration	99.162	12.012	10.158	3.344	-	3.344	-	-	-	-	-	-
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 Live Fire Test & Evaluation (LFT&E) and Operational Evaluation (OPEVAL) tests required for the lead ship LPD 30. LPD 28, LPD 29, LPD 30 will be used to conduct these test events as they incorporate LPD Flight II changes prior to the lead Flight II Ship. LPD FLT II were planned to replace remaining LSD ships as the ships are eventually removed from service and decommissioned. The LSD's will reach end of service life (ESL) in FY28.

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

	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
<b>Title:</b> LPD Flight II DESIGN/TOTAL SHIP INTEGRATION	12.012	10.158	3.344	0.000	3.344
<b>Articles:</b>	-	-	-	-	-
<b>FY 2021 Plans:</b> Initiate Hull Mechanical & Electrical (HM&E) and amphibious mission system integration studies, cost reduction studies, small business innovative research and technology transition, and environmental qualification testing. Initiate Unmanned Systems demonstration testing, amphibious ship integration requirements studies, and amphibious ship launch and recovery concept design evaluation.					
Continue to lead T&E Working-level Integrated Product Team (WIPT) meetings with stakeholders, move TEMP Rev. D into approval cycle Start Modeling and Simulation development to produce a Survivability Assessment Report (SAR) based on the Detail Design of LPD 30 for the Flight II ship. The SAR will update the LPD 17 Class assessment of the vulnerability, susceptibility, and recoverability to address changes in the Flight II design. Work with stakeholders to plan for the Dynamic Interface Test (DIT) expected to occur in FY22 on LPD 28. Conduct Cyber Table Top (CTT) Developmental Test & Evaluation (DT&E) events as part of DT-D1 test execution.					
<b>FY 2022 Base Plans:</b> Continue to work with Naval Warfare Centers and the shipbuilder on Integrated Topside integration activities to mitigate (E3) risks and Enterprise Air Surveillance Radar (EASR) integration analysis. Continue High					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Navy		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604454N / LX (R)	<b>Project (Number/Name)</b> 2474 / LPD Flight II Design & Total Integration

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

	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<p>Temperature Superconducting (HTS) Degaussing efforts with the development and integration of Integrated Product Teams (IPTs) and development of Government use Integrated Logistics Support (ILS) products based on OEM vendor support documentation. High Temperature Superconducting (HTS) Full Ship Demonstration and Initial installation activities continue on the ship as the fully integrated system is initially installed and evaluated. Begin environmental testing of HTS components. The Cybersecurity requirements for HTS Degaussing, new/unique Contractor Furnished Equipment (CFE), and Government Furnished Equipment (GFE) systems will be developed to support the Risk Management Framework (RMF) Steps 1-5. Define the appropriate controls, documenting the system configuration certifications, and system tests required to operate these IT systems in accordance with current cybersecurity guidance, regulation and policy. Develop interface changes needed to ECS DAU system as a result of Common Rail Main Propulsion Diesel Engine (MPDE) fielding. Flight II Network updates will be developed and tested in the lab. Efforts will be conducted to ensure new construction fielding of Interior Communications Data Network (ICDN) and Navigation Critical Distribution System (NCDS) will be operable with other connected systems being fielded in new construction. Continue with HM&amp;E and Amphibious Mission system integration studies, cost reduction studies, small business innovative research and technology transition, and environmental qualification testing. Continue with Unmanned Systems demonstration testing, amphibious ship integration requirements studies, and amphibious ship launch and recovery concept design evaluation. Initiate studies for design improvements, equipment testing, and qualification of systems of lessons learned/items identified during LFT&amp;E and OPEVAL assessments. Continue to lead T&amp;E Working-level Integrated Product Team (WIPT) meetings with stakeholders to continue execution of TEMP Rev. D inclusive of conduct of all T&amp;E working groups and coordination with Operational Test Activities.</p> <p><b>FY 2022 OCO Plans:</b> N/A</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Decrease of \$6.814 million from FY 2021 to FY 2022 is due to change in requirements, including \$1.924 million reduction to account for the availability of prior year execution balances.</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	12.012	10.158	3.344	0.000	3.344

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

<u>Line Item</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022 Base</u>	<u>FY 2022 OCO</u>	<u>FY 2022 Total</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• SCN/3010: LPD Flight II	524.100	1,127.801	60.636	-	60.636	-	-	-	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Navy		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604454N / LX (R)	<b>Project (Number/Name)</b> 2474 / LPD Flight II Design & Total Integration

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

<u>Line Item</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u> <u>Base</u>	<u>FY 2022</u> <u>OCO</u>	<u>FY 2022</u> <u>Total</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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**Remarks**

**D. Acquisition Strategy**

Sole Source to Huntington Ingalls Industries.









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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy												Date: May 2021			
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 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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	C/CPIF	CSC, Alion, ICI : Washington, DC	29.328	3.600	Jan 2020	0.000		0.000		-		0.000	-	-	-
Design/Systems Integration	WR	NSWC Carderock/ SSES Philadelphia : NSWC Beth, MD/ SSES Philadelphia, PA	22.409	6.560	Dec 2019	4.415	Oct 2020	0.075	Dec 2021	-		0.075	-	-	-
Design/Systems Integration	WR	NSWC Dahlgren : Dahlgren, VA	2.852	0.785	Jan 2020	0.090	Oct 2020	0.090	Dec 2021	-		0.090	-	-	-
Design/Systems Integration	WR	PEO C4I, PEO IWS : Washington, DC	6.846	0.555	Jan 2020	0.150	Dec 2020	0.000		-		0.000	-	-	-
Design/Systems Integration	WR	NAWC Lakehurst : Lakehurst, NJ	1.794	0.262	Jan 2020	0.000		0.049	Dec 2021	-		0.049	-	-	-
Design/Systems Integration	WR	NSWC, Panama City : Panama City, FL	1.125	0.000		0.340	Oct 2020	0.125	Dec 2021	-		0.125	-	-	-
Design/Systems Integration	WR	NSWC, Port Hueneme : Port Hueneme, CA	1.270	0.000		0.000		0.000		-		0.000	-	-	-
Design/Systems Integration	C/CPFF	HII, General Dynamics : Various	32.891	0.000		0.000		0.000		-		0.000	-	-	-
Design/Systems Integration	WR	NAVSEALOGCEN : Mechanicsburg, PA	0.647	0.000		0.000		0.000		-		0.000	-	-	-
Systems Engineering and Integration	C/CPFF	Huntington : Pascagoula, MS	0.000	0.000		1.175	Oct 2020	1.000	Jan 2022	-		1.000	-	-	-
Design/Systems Integration	WR	NSWCPD : Philadelphia, PA	0.000	0.000		0.000		1.000	Jan 2022	-		1.000	-	-	-
<b>Subtotal</b>			99.162	11.762		6.170		2.339		-		2.339	-	-	N/A



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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2022 Navy</b>		<b>Date:</b> May 2021
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Fiscal Year	2020				2021				2022			
	1	2	3	4	1	2	3	4	1	2	3	4
<b>Acquisition Milestones</b>	LPD 30 Start of Const.  								LPD 31 Start of Const. 			
	LPD 31 DD&C Award 											
<b>T&amp;E Milestones*</b>									DT-D1 			
					 LFT&E (M&S, DELTA TEST)							
<b>Technical Reviews</b>	PRR 											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2022 Navy		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604454N / LX (R)	<b>Project (Number/Name)</b> 2474 / LPD Flight II Design & Total Integration

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 2474</b>				
Production Readiness Review	2	2020	2	2020
LPD 30 Start of Construction	2	2020	2	2020
Live Fire Test and Evaluation Phase	2	2020	4	2022
LPD 31 Detail Design & Construction Award	3	2020	3	2020
LPD 31 Start of Construction	3	2022	3	2022
Operational Test & Evaluation Begins	1	2022	1	2022