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 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 Program Element (Number/Name) PE 0603564N *I Ship Prel Design & Feasibility Studies*							
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	127.116	73.341	121.402	52.586	-	52.586	114.110	58.872	52.216	53.242	Continuing	Continuing
0409: *DDG-51 Flt III Concept Development*	11.191	5.915	20.682	14.059	-	14.059	33.290	3.843	1.232	1.258	Continuing	Continuing
0411: *DDG(X) Concept Development*	20.736	48.636	74.050	28.344	-	28.344	68.716	43.126	40.422	41.208	Continuing	Continuing
3389: *OPLOG IPT Development*	95.189	18.790	11.921	4.195	-	4.195	4.304	4.319	3.446	3.515	Continuing	Continuing
4044: *Medium Landing Ship*	0.000	0.000	14.749	5.988	-	5.988	7.800	7.584	7.116	7.261	Continuing	Continuing
Program MDAP/MAIS Code: **Project MDAP/MAIS Code(s):** 180												

Note

Project 3389 Prior years includes $11.319M FY 2018 funding financed under this PE project 9999/C404 (Congressional add).
Project 4044 Prior to FY24, RDT&E requirements were detailed in PE 0603563N/Ship Concept Advanced Design.

A. Mission Description and Budget Item Justification

0409 - This project provides Test and Evaluation (T&E) requirements for DDG-51 Flight III ships and efforts for the Navigation, Aviation and Hull, Mechanical & Electrical (HM&E) Cyber Enclaves Design for implementation on future new construction ships.

T&E will concentrate on verifying integration and interoperability of employed technologies and systems in the DDG-51 FLT III design to achieve the mission capabilities and performance requirements as defined in the DDG-51 Flight III Capability Development Document (CDD) to reach Initial Operational Capability (IOC). T&E functions will include the evaluation of Critical Technical Parameters (CTP), Measures of Effectiveness (MOE), Measures of Suitability (MOS), and Key Performance Parameters (KPP). Funding is also planned for the execution of Developmental Testing (DT), Operational Testing (OT), Live Fire Test and Evaluation (LFT&E), and efforts to support Full Ship Shock Trials (FSST).

The Navigation, Aviation and Hull, Mechanical & Electrical (HM&E) Cyber Enclaves Design effort will provide a new design to physically separate Hull, Mechanical, and Electrical (HM&E) communications from Navigation communications to meet multiple DoD Directives/Instructions on Cybersecurity and Navy Joint-SYSCOM Cybersecurity Standards on Enclave management. This design will be utilized to support implementation on future new construction DDG 51 class ships.

0411 - The Navy's DDG(X) program is the Navy's Future Guided Missile Destroyer ship acquisition program to follow the DDG 51 class that is essential to field capabilities required for the future fight as validated by the Future Surface Combatant Force (FSCF) ICD, FSCF AoA, and Future Naval Force Study (FNFS). DDG(X) will integrate non-developmental systems into a new hull design that incorporates platform flexibility and the space, weight, power and cooling (SWAP-C) to meet future combatant force capability/system requirements that are not achievable without the new hull design. The DDG(X) platform will have the flexibility to rapidly and affordably

upgrade to future warfighting systems when they become available as well as have improved range and fuel efficiency for increased operational flexibility and decreased demand on the logistics force. DDG(X) will provide an Integrated Power System(IPS) with flexibility to enable fielding of high demand electric weapons, sensor systems and computing resources. To decouple ship development risk from technology risk, accommodation of additional future capabilities will be pre-planned; these future capabilities may include: missile launchers capable of larger weapons to exceed adversary capabilities, high power lasers, or other systems that can be efficiently incorporated when developed and demonstrated.

3389 - Naval Operational Logistics (OPLOG) Integration IPT Development - Develops enabling technologies for future and in-service afloat operational logistics and integrated supply force and combatant logistics requirements; and conducts cooperative initiatives with acquisition programs, program sponsors, engineering managers, the Navy science and technology community and Fleet customers. OPLOG develops integrated, cross-platform (i.e. applicable to more than one ship class/type) operational logistics and energy conservation technologies and capabilities as well as draft acquisition and operations policy ensuring future Naval systems leverage emerging logistic capabilities and technologies to provide operationally effective and energy efficient logistics delivery.

4044 - Medium Landing Ship (LSM) is a medium-sized landing ship that enables distributed maneuver and logistics such as Distributed Maritime Operations (DMO), Littoral Operations in a Contested Environment (LOCE), and Expeditionary Advanced Base Operations (EABO) in support of the newly established Marine Littoral Regiment (MLR). It is designed to fill the gap in capability between the Navy's large, multipurpose amphibious warfare class ships and smaller landing vessels. This ship will deploy tailored logistics, select power projection and support strike capabilities via the embarked MLR.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	75.305	121.402	65.756	-	65.756
Current President's Budget	73.341	121.402	52.586	-	52.586
Total Adjustments	-1.964	0.000	-13.170	-	-13.170
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.964	0.000			
• Program Adjustments	0.000	0.000	-13.282	-	-13.282
• Rate/Misc Adjustments	0.000	0.000	0.112	-	0.112

Change Summary Explanation

PE 0603564N was reduced from FY 2024 and FY 2025 for proper phasing of execution and miscellaneous rate adjustments.

Project 0409: Funding decrease of $6.623 million from FY 2024 to FY 2025 continues DDG 51 FLT III LFT&E / FSST and Cyber Enclave design in accordance with planned efforts.

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 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0603564N *I Ship Prel Design & Feasibility Studies*

Project 0411: The reduction of $45.706 million from FY 2024 to FY 2025 will continue current planned efforts starting preliminary design, developing IPS specifications to support IPS equipment procurements under the PE 0603573N/PU 2471, and engagement with the industrial supplier base to define ship equipment supporting the critical ship configuration lock milestone defining the overall hull structure.

Project 3389: Decrease of funding by $7.726 million from FY 2024 to FY 2025 due to the completion of the full scale Seabased Petroleum Distribution System (SPDS) prototype fabrication and decrease in improved Modular Fuel Delivery Station (iMFDS) material procurement.

Project 4044: Decrease of $8.761 million is due to System Specification and GFE system development tailoring down in FY 2025 as the program begins Detail Design and Construction.

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 0603564N / *Ship Prel Design & Feasibility Studies*				Project (Number/Name) 0409 / *DDG-51 Flt III Concept Development*			
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**
0409: *DDG-51 Flt III Concept Development*	11.191	5.915	20.682	14.059	-	14.059	33.290	3.843	1.232	1.258	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 180

A. Mission Description and Budget Item Justification

This project provides Test and Evaluation (T&E) requirements for DDG-51 Flight III ships and efforts for the Navigation, Aviation and Hull, Mechanical & Electrical (HM&E) Cyber Enclaves Design for implementation on future new construction ships.

T&E will concentrate on verifying integration and interoperability of employed technologies and systems in the DDG-51 FLT III design to achieve the mission capabilities and performance requirements as defined in the DDG-51 Flight III Capability Development Document (CDD), with Initial Operational Capability (IOC) in FY24. T&E functions will include the evaluation of Critical Technical Parameters (CTP), Measures of Effectiveness (MOE), Measures of Suitability (MOS), and Key Performance Parameters (KPP). Funding is also planned for the execution of Developmental Testing (DT), Operational Testing (OT), Live Fire Test and Evaluation (LFT&E), and efforts to support Full Ship Shock Trials (FSST).

The Navigation, Aviation and Hull, Mechanical & Electrical (HM&E) Cyber Enclaves Design effort will provide a new design to physically separate Hull, Mechanical, and Electrical (HM&E) communications from Navigation communications to meet multiple DoD Directives/Instructions on Cybersecurity and Navy Joint-SYSCOM Cybersecurity Standards on Enclave management. This design will be utilized to support implementation on future new construction DDG 51 class ships.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: DDG-51 Flight III Test and Evaluation	5.915	11.835	9.878	0.000	9.878
Articles:	-	-	-	-	-
FY 2024 Plans: Continue Modeling and Simulation (M&S) efforts and model updates. Complete M&S runs for the record and analysis, initiate test plan development for future Failure and Recovery Mode (FARM) testing, and generate an Initial Survivability Assessment Report (ISAR). Begin formal planning for Full Ship Shock Trials (FSST) to include: environmental protection planning efforts, instrumentation installation planning, and test planning. Begin execution of Developmental Testing (DT), Operational Testing (OT), and Live Fire Test and Evaluation (LFT&E).					
FY 2025 Base Plans: Continue M&S efforts and model updates. Continue M&S runs for the record and analysis, test plan development for future Failure and Recovery Mode (FARM) testing, and continue development of an Initial					

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 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 0409 / *DDG-51 Flt III Concept Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Survivability Assessment Report (ISAR). Continue & expand formal planning for Full Ship Shock Trials (FSST) to include: environmental protection planning efforts, instrumentation installation planning, test planning, Hull Mechanical & Electrical (HM&E) systems and Combat Systems elements. Continue execution of Developmental Testing (DT), Operational Testing (OT), and Live Fire Test and Evaluation (LFT&E). ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease of $1.957M from FY2024 to FY2025 reflects completion of specialized effort and the completion of the Adversarial Cybersecurity DT (ACD) Event in support of the Flight III Cyber Security Test program.					
Title: Navigation, Aviation, and Hull Mechanical & Electrical (HM&E) Cyber Enclaves Design ***Articles:*** ***FY 2024 Plans:*** Initiate design effort for the implementation of a Dual Enclave design to physically separate Hull, Mechanical, and Electrical (HM&E) communications from Navigation communications. Develop system requirements, software requirements, and define testing requirements and plans to support Preliminary Design Review (PDR) in Q4 2024. ***FY 2025 Base Plans:*** Execute system development based on completion of PDR in FY24. Develop test plans and procedures for software demonstration tests and initiate system level performance validation testing. Complete Critical Design Review (CDR). ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease of $4.666M from FY 2024 to FY 2025 is in alignment with planned efforts for mission critical Gigabit Ethernet Data Multiplex System (GEDMS) network design and development efforts.	0.000 -	8.847 -	4.181 -	0.000 -	4.181 -
Accomplishments/Planned Programs Subtotals	5.915	20.682	14.059	0.000	14.059

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 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 0409 / *DDG-51 Flt III Concept Development*

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
• SCN 2122/5300: *DDG-51 Class*	7,870.766	4,709.131	6,684.428	-	6,684.428	5,234.448	5,362.172	6,434.911	5,507.180	5,526.886	149,831.983

Remarks

D. Acquisition Strategy

The DDG-51 class ships use a competitive acquisition strategy using Multi-Year Procurement (MYP) contracts awarded to two shipbuilders. DDG 51 follows a similar MYP strategy to support ship procurements for FY 2023 - FY 2027 and will continue this approach for FY 2028 and follow years.

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 0603564N / *Ship Prel Design & Feasibility Studies*	Project (Number/Name) 0409 / *DDG-51 Flt III Concept Development*	

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
Systems Engineering	SS/CPFF	Boeing : Huntington Beach, CA	0.000	0.000		7.102	Dec 2023	2.504	Dec 2024	-		2.504	Continuing	Continuing	Continuing
Systems Engineering	WR	NIWC Pacific : San Diego, CA	0.000	0.000		0.500	Oct 2023	0.520	Oct 2024	-		0.520	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC PD : Philadelphia, PA	0.000	0.000		1.000	Oct 2023	0.564	Oct 2024	-		0.564	Continuing	Continuing	Continuing
Systems Engineering	Various	Various : Various	0.000	0.000		0.245	Nov 2023	0.593	Nov 2024	-		0.593	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		8.847		4.181		-		4.181	Continuing	Continuing	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
Live Fire Test & Evaluation (LFT&E)	WR	NRL : Washington, DC	0.532	0.344	May 2023	0.020	Oct 2023	0.562	Nov 2024	-		0.562	Continuing	Continuing	Continuing
Live Fire Test & Evaluation (LFT&E)	WR	NSWC CD : Bethesda, MD	2.883	0.719	Dec 2022	6.845	Oct 2023	3.171	Oct 2024	-		3.171	Continuing	Continuing	Continuing
Live Fire Test & Evaluation (LFT&E)	Various	T&E Solutions : Various	2.090	0.883	Mar 2023	0.725	Dec 2023	1.251	Oct 2024	-		1.251	Continuing	Continuing	Continuing
Live Fire Test & Evaluation (LFT&E)	Various	Various : Various	2.925	0.510	Nov 2022	2.245	Nov 2023	0.829	Nov 2024	-		0.829	Continuing	Continuing	Continuing
Live Fire Test & Evaluation (LFT&E)	WR	NSWC PD : Philadelphia, PA	0.000	0.000		0.000		1.758	Nov 2024	-		1.758	Continuing	Continuing	Continuing
Developmental Test & Evaluation (DT&E)	Various	Various : Various	2.761	3.459	Mar 2023	2.000	Dec 2023	2.307	Nov 2024	-		2.307	Continuing	Continuing	Continuing
		Subtotal	11.191	5.915		11.835		9.878		-		9.878	Continuing	Continuing	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	11.191	5.915		20.682		14.059		-		14.059	Continuing	Continuing	N/A

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 0603564N / *Ship Prel Design & Feasibility Studies*	Project (Number/Name) 0409 / *DDG-51 Flt III Concept Development*	

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

FY2024 and FY2025 award dates assume appropriations received for start of the fiscal year.

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 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 0409 / *DDG-51 Flt III Concept Development*

RDTE Schedule FY25 R-Exhibit

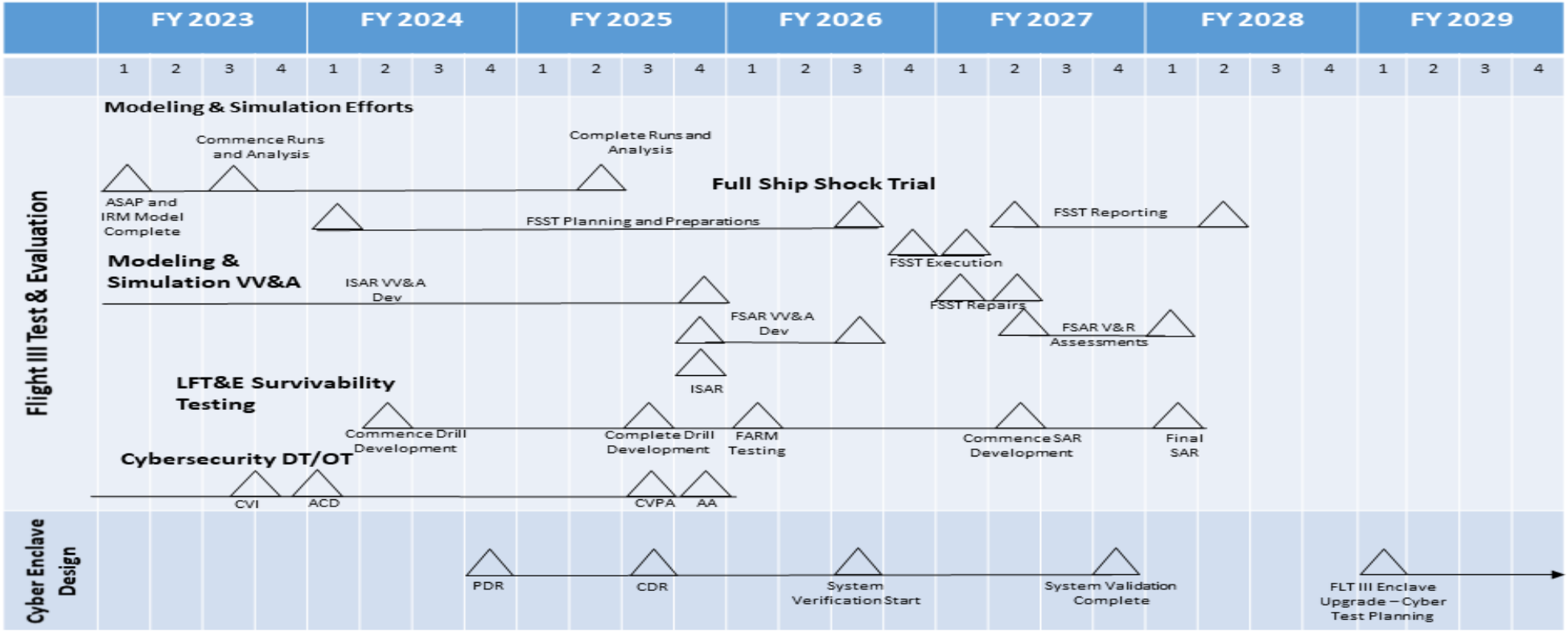

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 0409 / *DDG-51 Flt III Concept Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0409				
DDG 51 Flight III Test and Evaluation: Initial Survivability Assessment Report (ISAR) Verification, Validation & Accreditation (VV&A) Development	1	2023	4	2025
DDG 51 Flight III Test and Evaluation: Conduct Modeling and Simulation (M&S) Runs, and Analysis	3	2023	2	2025
DDG 51 Flight III Test and Evaluation: Cooperative Vulnerability Identification (CVI)	3	2023	1	2024
DDG 51 Flight III Test and Evaluation: Adversarial Cybersecurity DT Event (ACD)	4	2023	1	2024
DDG 51 Flight III Test and Evaluation: Survivability Test Development	2	2024	3	2025
DDG 51 Flight III Test and Evaluation: Full Ship Shock Trial (FSST) Planning	1	2024	3	2026
DDG 51 Flight III Test and Evaluation: Initial SurvivabilityAssessment Report (ISAR)	4	2025	4	2025
DDG 51 Flight III Test and Evaluation: Cooperative Vulnerability Penetration Assessment (CVPA)	3	2025	3	2025
DDG 51 Flight III Test and Evaluation: Adversarial Assessment (AA)	4	2025	4	2025
DDG 51 Flight III Test and Evaluation: Final Survivability Assessment Report (FSAR) Verification, Validation & Accreditation (VV&A) Development	4	2025	3	2026
DDG 51 Flight III Test and Evaluation: Conduct Failure and Recoverability Mode (FARM) Testing	1	2026	1	2026
DDG 51 Flight III Test and Evaluation: Full Ship Shock Trial (FSST) Execution	4	2026	1	2027
DDG 51 Flight III Test and Evaluation: Full Ship Shock Trial (FSST) Repairs	1	2027	2	2027
DDG 51 Flight III Test and Evaluation: Final Survivability Assessment Report (FSAR) V & R Assessments	2	2027	1	2028
DDG 51 Flight III Test and Evaluation: Final Survivability Assessment Report (SAR) Development	2	2027	1	2028
DDG 51 Flight III Test and Evaluation: Full Ship Shock Trial (FSST) Reporting	2	2027	2	2028

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 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 0409 / *DDG-51 Flt III Concept Development*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Navigation, Aviation and Hull, Mechanical & Electrical (HM&E) Cyber Enclaves Design: Preliminary Design Review (PDR)	4	2024	4	2024
Navigation, Aviation and Hull, Mechanical & Electrical (HM&E) Cyber Enclaves Design: Critical Design Review (CDR)	3	2025	3	2025
Navigation, Aviation and Hull, Mechanical & Electrical (HM&E) Cyber Enclaves Design: System Verification and Validation	3	2026	4	2027
Navigation, Aviation and Hull, Mechanical & Electrical (HM&E) Cyber Enclaves Design: Cyber Test Planning	1	2029	4	2029

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 0603564N / *Ship Prel Design & Feasibility Studies*	Project (Number/Name) 0411 / *DDG(X) Concept Development*	

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
0411: *DDG(X) Concept Development*	20.736	48.636	74.050	28.344	-	28.344	68.716	43.126	40.422	41.208	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

To compete and win in an era of great power competition, the United States needs a balanced Naval force, capable of striking targets from all domains. The force design must emphasize distributed awareness, lethality and survivability in high-intensity conflict. The force must be adaptable, demonstrate presence, and be capable of projecting power by delivering precision effects at long ranges. The Future Naval Force Study (FNFS) and the Future Surface Combatant Force Analysis of Alternatives (FSCF AoA) identified the requirement for future large surface combatants (LSCs) to be capable of hosting directed energy (DE) weapons, larger missiles for increased range and speed, increased magazine depth, growth in organic sensors, and an efficient integrated power system to manage the dynamic loads. DDG 51 Flight (FLT) III is highly capable, but after over 40 years in production and 30 years of upgrades the hull form does not provide sufficient space and center of gravity margin to host these future capabilities. To reset these design allowances for the future of naval warfare, requirements tradeoff and design studies were performed from FY 2018 to FY 2020 that considered modification of existing surface combatant and amphibious ships in addition to new concepts. These studies concluded that DDG(X) is required to deliver the necessary margins and flexibility to succeed the DDG 51 Class as the next enduring LSC combining the DDG 51 FLT III combat system elements with new hull form, an efficient Integrated Power System (IPS) and greater endurance reducing the Fleet logistics burden. By including the DDG 51 FLT III combat system in a new DDG(X) hull, mechanical and electrical (HM&E) baseline, Navy is taking an "evolutionary" (vice "revolutionary") approach to the class. This is a critical lesson learned proven by the successful evolution of the original DD 963 Spruance design of the early 1970s that focused on lead ship HM&E capabilities and upgraded warfare capability over the next 50 years, including evolving DD 963 into the CG 52 class and incorporating the Aegis Combat System. In the early 1980's, the DDG 51 class applied a similar approach by incorporating the proven Aegis Combat System into a new hull form and subsequently executed upgrades over a period greater than 40 years before reaching hull limitations on incorporation of new, larger systems. When DDG(X) enters production, over 30 DDG 51 FLT III Ships will have been in production and early DDG(X) production transition will overlap DDG 51 FLT III production ensuring stability in the Large Surface Combatant industrial base. Furthermore, the fist DDG 51 FLT III ship entered production in FY 2017 and will not be able to accommodate any significant capability upgrades dues to SWAP-c constraints.

The CNO approved DDG(X) Top Level Requirements (TLR) in December 2020 that set the basis for a draft Capabilities Development Document (CDD) released in October 2021. Based on evolving threats and recent Battlegroup deployment feedback, the operational community is revalidating the requirements. A revision of the 2021 draft CDD will be focused on concept formulation; collaboration with DDG 51 shipyards in program planning; and targeted trade studies to achieve the CNO's cost, schedule and performance targets. Building on FY 2023 efforts established derived requirements from the Draft CDD; specification development; completed system development planning; established development and test planning for critical systems per sections 1034 and 131 of the FY 2020 NDAA. The planned DDG 51 FLT III follow-on procurements will maintain the industrial base while the DDG(X) design and risk reduction efforts are executed in parallel.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: DDG(X) Design and Analysis	48.636	74.050	28.344	0.000	28.344

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 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 0411 / *DDG(X) Concept Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Articles:	-	-	-	-	-
Description: Description: DDG(X) Design and Analysis efforts include all of the program and engineering efforts necessary to mature a functional ship design that meets validated requirements. DDG(X) design maturation will occur through the development of progressive technical data packages (TDP) that form design baselines. A collaborative, multi-disciplinary Navy and industry team will develop TDPs using an Integrated Product and Process Development (IPPD) type programmatic approach over four phases: Concept Formulation (FY 2025 complete), Preliminary Design starting in FY 2025, followed by Contract Design, and Detail Design & Construction. Preliminary Design activities will incorporate shipbuilder design inputs into Navy managed specifications and critical system development activities. DDG(X) has assessed two critical systems in accordance sections 1034 and 131 of the FY 2020 National Defense Authorization Act (NDAA): Hull and Integrated Power Systems (IPS). Requirements for DDG(X) necessitate a new hull form. The new hull form will be designed, modeled, tested, and verified prior to Detail Design as risk reduction to engineering changes or potential operational limitations upon delivery. DDG(X) Design and Analysis efforts provide the management and development of derived requirements and specifications to inform the IPS risk reduction procurement and testing executed under PE 0603573N / PU 2471. IPS test findings will be incorporated in final specifications and design products developed under this PE (0603564N / 0411) ensuring that the ship can accommodate the space, weight, power, cooling (SWAP-C) of the IPS and that the IPS can meet DDG(X) power and energy requirements. ***FY 2024 Plans:*** FY 2024 will focus on DDG(X) TLR revalidation with approval from the CNO and finalizing concept design phase with revalidated requirements. Completing this work is critical to starting Preliminary Design through hull form and arrangements design, system descriptions and trade studies to establish baseline ship specifications in FY 2025. Industry team members will engage with the industrial supplier base to define ship equipment. Aggregation of this information will support the critical design milestone finalizing ship dimensions at Ship Configuration Lock in FY 2027. The draft CDD will be matured in preparation to enter JROC staffing in FY 2027. Development of 3D structural models will commence to support an integrated 3D product model. Analyses of Warfare System integration requirements will continue to support completion of Interface Control Documents (ICDs) in FY 2026 and the integration of planned and future warfare systems. Utilizing the DDG(X) Integrated Product Process Development (IPPD) type programmatic approach, development of Preliminary Build Strategies and Maintenance Strategy will enable production informed design decisions.					

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 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 0411 / *DDG(X) Concept Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
The design team will mature parallel efforts of ship baseline design and critical systems, Hull Form and IPS, to satisfy sections 1034 and 131 of the FY 2020 NDAA and section 221 of the FY 2022 NDAA. Hull Form risk reduction efforts in FY 2024 continue FY 2023 analytical activities that ensures a fuel-efficient hull form will accommodate all major equipment (motors, drives, generators, etc.). This serves as the primary input to finalizing the ship dimensions at Ship Configuration Lock. This testing will continue prior to Milestone B to validate DDG(X) structural design, propeller design, and ship stability. IPS design will be matured to continue development of specifications derived from DDG(X) ship requirements to continue to support risk reduction activities and test site hardware procurements via 0603573N/PU 2471.					
FY 2025 Base Plans: FY 2025 will focus on completing System Requirements Review (SRR)-I to ensure system requirements are understood and the program has plans and processes in place to support Preliminary Design. Following SRR-I, DDG(X) will start the Preliminary Design phase through hull form and arrangements design, and completion of trade studies to establish baseline ship specifications. Industry team members will continue to engage with the industrial supplier base to continue procurement of design information for select systems. Team focus will be on the aggregation of this information in support of the critical design milestone Ship Configuration Lock and System Requirements Review (SRR)-II in FY 2027. SRR-II is a technical assessment of system development specification and ship design to ensure reasonable expectation of meet operational requirements and enables the draft CDD to enter JROC staffing. Utilizing the DDG(X) Integrated Product Process Development (IPPD) type programmatic approach, development of Preliminary Build Strategies and Maintenance Strategy will continue enabling production informed design decisions. The design team will mature parallel efforts of ship baseline design and critical systems, Hull Form and IPS, to satisfy sections 1034 and 131 of the FY 2020 NDAA and section 221 of the FY 2022 NDAA. Hull Form risk reduction efforts in FY 2025 continue FY 2024 analytical activities that ensures a fuel-efficient hull form will accommodate all major equipment (motors, drives, generators, etc.). Following the Ship Configuration Lock milestone, preparation for critical systems testing will begin.					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement:					

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 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 0411 / *DDG(X) Concept Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
The reduction of $45.706M from FY 2024 to FY 2025 continues efforts for requirements review and transition into preliminary design.					
Accomplishments/Planned Programs Subtotals	48.636	74.050	28.344	0.000	28.344

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
• RDTEN/0603573N/2471: *Intergrated Power System (IPS)*	171.565	133.911	93.942	-	93.942	96.313	104.244	130.809	103.616	Continuing	Continuing

Remarks

PE 0603573N/PU 2471 and PE 0603564N/PU 0411 are inter-related with the ship design portion developing and providing initial ship specifications and descriptions for the Integrated Power System (IPS) and major component procurements that drive ship size and arrangements.

D. Acquisition Strategy

A formal acquisition strategy for DDG(X) is still being developed and will align with Section 130 of the FY 2023 NDAA (CONTRACTS FOR DESIGN AND CONSTRUCTION OF THE DDG(X) DESTROYER PROGRAM). Preliminary, Contract and Detail Designs for DDG(X) will be accomplished through a collaborative, multidisciplinary Navy/Industry team composed of the LSC shipbuilders, suppliers, ship design agents and other subject matter experts. The Navy's intent is to ensure a smooth, overlapping transition between Arleigh Burke (DDG 51) Class and DDG(X). As maturity of the design increases, it is expected that the shipbuilders will take on an increasing level of responsibility for the design.

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 0603564N / *Ship Prel Design & Feasibility Studies*	Project (Number/Name) 0411 / *DDG(X) Concept Development*	

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
DDG(X) Design and Analysis	C/CPAF	Industry : Various	5.585	15.410	Nov 2022	17.640	Dec 2023	9.705	Dec 2024	-		9.705	Continuing	Continuing	Continuing
DDG(X) Design and Analysis	SS/CPAF	Shipbuilders (BIW/ HII) : Various	3.001	15.437	Nov 2022	36.420	Nov 2023	4.253	Nov 2024	-		4.253	Continuing	Continuing	Continuing
DDG(X) Design and Analysis	WR	Other Government Organizations : Various	0.287	2.304	Nov 2022	5.128	Dec 2023	1.033	Nov 2024	-		1.033	Continuing	Continuing	Continuing
DDG(X) Design and Analysis	WR	NSWC Carderock : Carderock, MD	4.102	9.314	Nov 2022	6.776	Nov 2023	5.812	Nov 2024	-		5.812	Continuing	Continuing	Continuing
DDG(X) Design and Analysis	WR	NSWC Philadelphia : Philadelphia, PA	1.748	3.020	Nov 2022	5.129	Dec 2023	4.677	Nov 2024	-		4.677	Continuing	Continuing	Continuing
DDG(X) Design and Analysis	WR	NSWC Dahlgren : Dahlgren, VA	1.080	2.646	Nov 2022	2.236	Dec 2023	2.268	Nov 2024	-		2.268	Continuing	Continuing	Continuing
Power & Prop Risk Mitigation	WR	Other Government Organizations : Various	2.118	0.000		0.000		0.000		-		0.000	0.000	2.118	-
Power & Prop Risk Mitigation	C/CPFF	Various : Various	1.882	0.000		0.000		0.000		-		0.000	0.000	1.882	-
		Subtotal	19.803	48.131		73.329		27.748		-		27.748	Continuing	Continuing	N/A

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
Program Management Support	WR	Various : Various	0.933	0.505	Nov 2022	0.721	Dec 2023	0.596	Dec 2024	-		0.596	Continuing	Continuing	Continuing
		Subtotal	0.933	0.505		0.721		0.596		-		0.596	Continuing	Continuing	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	20.736	48.636		74.050		28.344		-		28.344	Continuing	Continuing	N/A

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 0603564N / *Ship Prel Design & Feasibility Studies*	Project (Number/Name) 0411 / *DDG(X) Concept Development*	

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

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 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 0411 / *DDG(X) Concept Development*

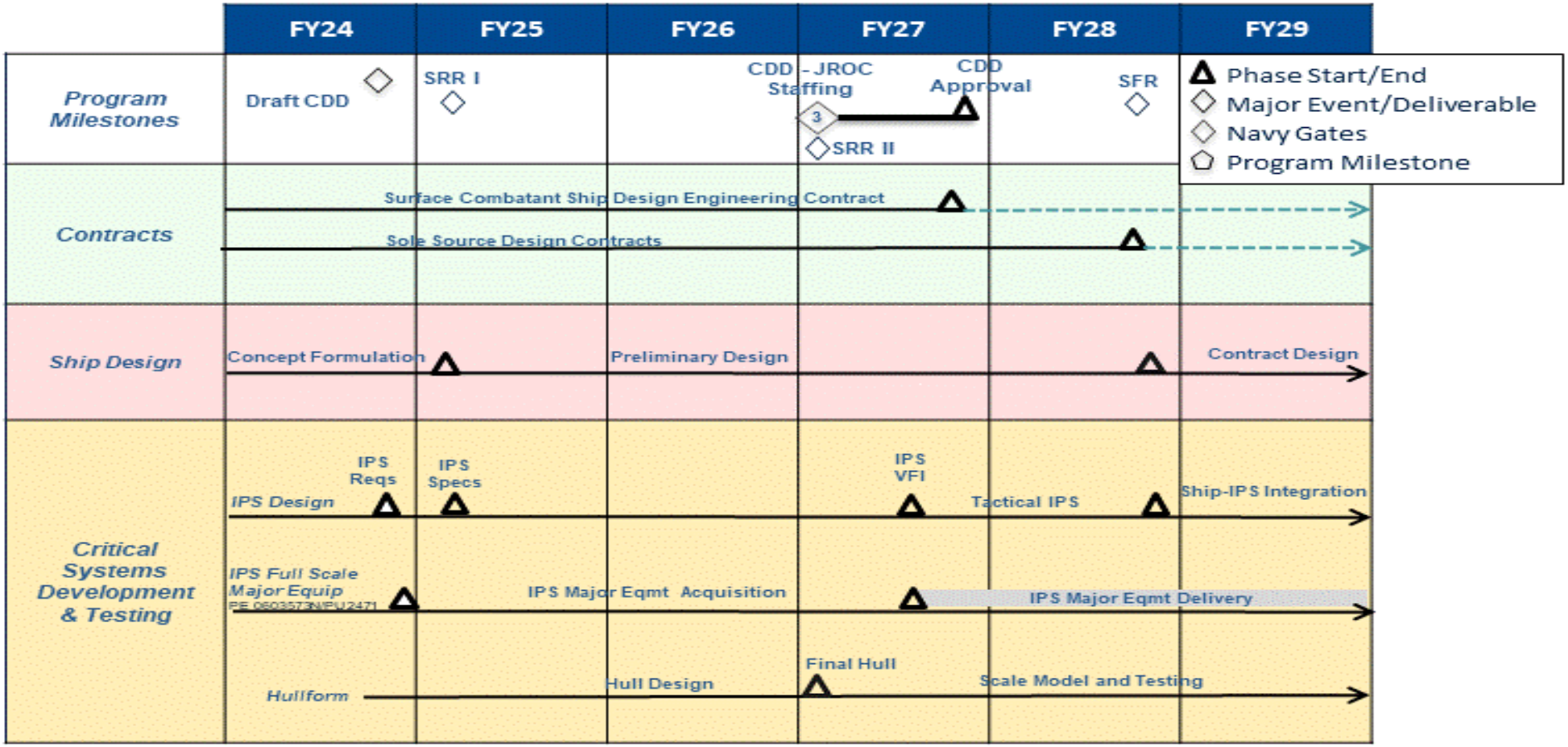

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 0411 / *DDG(X) Concept Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0411				
Conceptual Formulation	1	2023	1	2025
System Requirements Review I	1	2025	1	2025
Preliminary Design	2	2025	3	2028
System Requirements Review II	1	2027	1	2027

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 0603564N / *Ship Prel Design & Feasibility Studies*				Project (Number/Name) 3389 / *OPLOG IPT Development*			
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**
3389: *OPLOG IPT Development*	95.189	18.790	11.921	4.195	-	4.195	4.304	4.319	3.446	3.515	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

FY 2016 and prior year efforts were financed under NDSF BA4 PE 0408042N Project 3117 Naval Operational Logistics (OPLOG) Integration. FY 2017, FY 2019 and forward is financed under this Program Element (Project 3389). FY 2018 financed under Congressional add Project 9999/C404 included in prior years shown in this budget.

A. Mission Description and Budget Item Justification

Project 3389 - Develops enabling technologies for future and in-service afloat operational logistics and integrated supply systems; defines integrated combat logistics force and combatant logistics requirements; and conducts cooperative initiatives with acquisition programs, program sponsors, engineering managers, the Navy science and technology community, and Fleet customers. Operational Logistics Integration R&D (OPLOG) develops new logistics platforms, integrated cross-platform (i.e., applicable to more than one ship class/type) operational logistics and operational energy technologies and capabilities, as well as draft acquisition and operations policy ensuring future Naval systems leverage emerging logistic capabilities and technologies to provide operationally effective and efficient logistics delivery for both peacetime and wartime contested environments.

Though the operational logistics family of systems touches all aspects of Naval presence and power projection, operational logistics capability and system interfaces typically have been left to individual acquisition programs to develop and resolve. Technology development is necessary to mitigate technological and operational risk before ship acquisition programs accept new technologies. This project provides a foundation for the transition and systems development of science & technology initiatives evolving from the Office of Naval Research (ONR) Power & Energy Future Naval Capabilities (FNC), Enterprise and Platform Enablers FNC, Seabasing FNC, and from other enabling Government, industry and academia concepts to the acquisition community. Thus, this project resources continued research and development of appropriate technologies with applicability to multiple acquisition programs and defines and matures performance and interface requirements for those technologies. This project continues to identify, develop, integrate, demonstrate, and transition logistics technologies to improve both the cost effectiveness of Fleet at sea logistics delivery in peacetime, as well as delivery capability effectiveness in wartime, through outreach, coordination and collaboration with industry, academia, Fleet, and Enterprise representatives.

This project will continue to develop new logistics platforms, improved shipboard replenishment, transfer, and handling systems and components, as well as asset visibility and standardized packaging technologies. This project includes development of approaches to reduce operation and maintenance costs of, and energy consumption by the logistics Fleet. This integrated suite of developed capabilities will enable multiple ship types to leverage technologies common across DoD (Joint) and commercial transportation networks to provide a more affordable, energy efficient, and contested environment mission capable force. These capabilities and system-of-systems approach will be applied to concept development of future auxiliary force architectures.

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 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 3389 / *OPLOG IPT Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Advanced Systems	18.725	11.856	4.130	0.000	4.130
Articles:	-	-	-	-	-
FY 2024 Plans: Research, development, and testing of advanced refueling systems and concepts to include: completion of the full scale Seabased Petroleum Distribution System (SPDS) prototype, to include design completion, material procurement, fabrication, functional testing, and launch; continue improved Modular Fuel Delivery Station (iMFDS) development, material procurement and prototype fabrication.					
FY 2025 Base Plans: Research, development, and testing of advanced refueling systems and concepts to include: full scale SPDS prototype operational test/demonstration; completion of iMFDS land based test, prepare for pierside testing and start development of the tech data package.					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: Decrease of funding by $7.726 due to the completion of the full scale SPDS prototype fabrication and decrease in iMFDS material procurement					
Title: Logistics Architectures	0.065	0.065	0.065	0.000	0.065
Articles:	-	-	-	-	-
Description: This is annual funding needed by the Center for Naval Analyses (CNA) to maintain the Combat Logistics Force database so OPLOG can utilize the data to support logistics R&D and concept development.					
FY 2024 Plans: Center for Naval Analyses (CNA) collects data and maintains the Combat Logistics Force (CLF) database to support ongoing and future analyses for OPLOG R&D.					
FY 2025 Base Plans: Center for Naval Analyses (CNA) collects data and maintains the Combat Logistics Force (CLF) database to support ongoing and future analyses for OPLOG R&D.					
FY 2025 OCO Plans:					

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 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 3389 / *OPLOG IPT Development*

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:*** No change.					
Accomplishments/Planned Programs Subtotals	18.790	11.921	4.195	0.000	4.195

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Not applicable for OPLOG R&D efforts

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 0603564N / *Ship Prel Design & Feasibility Studies*	Project (Number/Name) 3389 / *OPLOG IPT Development*	

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
Primary Hardware Development	Various	VARIOUS : Various	36.615	10.770	Jan 2023	3.108	Jan 2024	0.900	Jan 2025	-		0.900	Continuing	Continuing	Continuing
Ancillary Hardware Development	Various	VARIOUS : Various	10.756	2.660	Jan 2023	0.750	Jan 2024	0.210	Jan 2025	-		0.210	Continuing	Continuing	Continuing
Ship Integration	Various	VAROUS : Various	5.000	0.520	Jan 2023	0.550	Jan 2024	0.200	Jan 2025	-		0.200	Continuing	Continuing	Continuing
Ship Suitability	Various	VARIOUS : Various	3.600	0.250	Jan 2023	0.200	Jan 2024	0.100	Jan 2025	-		0.100	Continuing	Continuing	Continuing
System Engineering	Various	VARIOUS : Various	7.600	0.350	Jan 2023	0.450	Jan 2024	0.310	Jan 2025	-		0.310	Continuing	Continuing	Continuing
		Subtotal	63.571	14.550		5.058		1.720		-		1.720	Continuing	Continuing	N/A

Remarks

1. Primary Hardware Development, Ancillary Hardware Development and System Engineering is related to the Advanced Systems CONSOL, iMFDS, and SeaBased Petroleum Distribution System (SPDS) prototype development
2. Award dates reflect initial award of incremental execution.
3. PY includes FY 2017 project 3389 and FY 2018 Congressional Add project C404.

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
Development Support	Various	VARIOUS : Various	4.529	0.400	Jan 2023	0.425	Jan 2024	0.200	Jan 2025	-		0.200	Continuing	Continuing	Continuing
Software Development	Various	VARIOUS : Various	0.175	0.025	Jan 2023	0.025	Jan 2024	0.000		-		0.000	Continuing	Continuing	Continuing
Integrated Logistics Support	Various	VARIOUS : Various	1.493	0.080	Jan 2023	0.080	Jan 2024	0.050	Jan 2025	-		0.050	Continuing	Continuing	Continuing
Configuration Management	Various	VARIOUS : Various	3.232	0.075	Jan 2023	0.075	Jan 2024	0.020	Jan 2025	-		0.020	Continuing	Continuing	Continuing
Technical Data	Various	VAROUS : Various	2.900	0.125	Jan 2023	0.125	Jan 2024	0.050	Jan 2025	-		0.050	Continuing	Continuing	Continuing
Studies & Analysis	Various	VARIOUS : Various	1.810	0.500	Jan 2023	0.300	Jan 2024	0.060	Jan 2025	-		0.060	Continuing	Continuing	Continuing
		Subtotal	14.139	1.205		1.030		0.380		-		0.380	Continuing	Continuing	N/A

Remarks

1. Award dates reflect initial award of incremental execution.
2. PY includes FY 2017 project 3389 and FY 2018 Congressional Add project C404.

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 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 3389 / *OPLOG IPT Development*

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)	Various	VARIOUS : Various	8.275	2.200	Jan 2023	2.958	Jan 2024	0.958	Jan 2025	-		0.958	Continuing	Continuing	Continuing
Operational Test & Evaluation (OT&E)	Various	VARIOUS : Various	6.724	0.460	Jan 2023	2.500	Jan 2024	0.792	Jan 2025	-		0.792	Continuing	Continuing	Continuing
		Subtotal	14.999	2.660		5.458		1.750		-		1.750	Continuing	Continuing	N/A

Remarks

1. Award dates reflect initial award of incremental execution.
2. PY includes FY 2017 project 3389 and FY 2018 Congressional Add project C404.

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
Contractor Engineering Support	Various	VARIOUS : Various	0.961	0.125	Jan 2023	0.125	Jan 2024	0.095	Jan 2025	-		0.095	Continuing	Continuing	Continuing
Government Engineering Support	Various	VARIOUS : Various	1.519	0.250	Jan 2023	0.250	Jan 2024	0.250	Jan 2025	-		0.250	Continuing	Continuing	Continuing
		Subtotal	2.480	0.375		0.375		0.345		-		0.345	Continuing	Continuing	N/A

Remarks

1. Award dates reflect initial award of incremental execution.
2. PY includes FY 2017 project 3389 and FY 2018 Congressional Add project C404.

	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	95.189	18.790		11.921		4.195		-		4.195	Continuing	Continuing	N/A

Remarks

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 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 3389 / *OPLOG IPT Development*

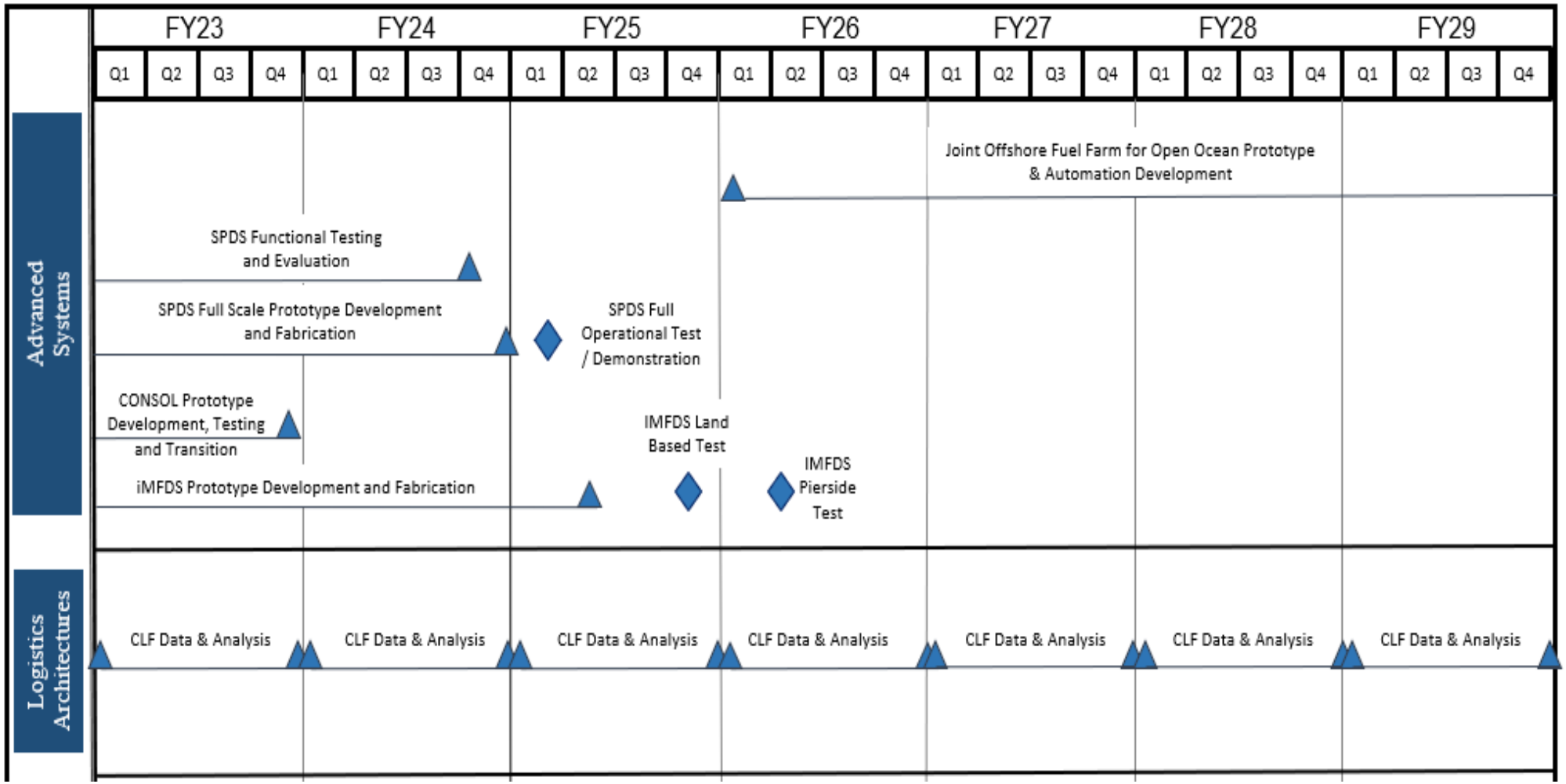

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 3389 / *OPLOG IPT Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3389				
Advanced Systems	1	2023	4	2029
Logistics Architectures	1	2023	4	2029

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 0603564N / *Ship Prel Design & Feasibility Studies*				Project (Number/Name) 4044 / *Medium Landing Ship*			
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**
4044: *Medium Landing Ship*	0.000	0.000	14.749	5.988	-	5.988	7.800	7.584	7.116	7.261	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

Prior to FY2024, RDT&E requirements were detailed in PE 0603563N/Ship Concept Advanced Design.

A. Mission Description and Budget Item Justification

Medium Landing Ship (LSM) is a medium-sized landing ship that enables distributed maneuver and logistics such as Distributed Maritime Operations (DMO), Littoral Operations in a Contested Environment (LOCE), and Expeditionary Advanced Base Operations (EABO) in support of the newly established Marine Littoral Regiment (MLR). It is designed to fill the gap in capability between the Navy's large, multipurpose amphibious warfare class ships and smaller landing vessels. This ship will deploy tailored logistics, select power projection and support strike capabilities via the embarked MLR.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Medium Landing Ship	0.000	14.749	5.988	0.000	5.988
Articles:	-	-	-	-	-
FY 2024 Plans: Following the release of the Detail Design and Construction Request for Proposal (DD&C RFP) in FY 2024, the program will execute source selection efforts to support award by 2QFY25. Tasks include Engineering, Logistics, Program Management, and Test and Evaluation support. FY2024 efforts will continue the development for Command, Control, Communications, Computers, and Intelligence (C4I) systems and shipboard network. Continue Government Furnished Equipment (GFE) systems engineering efforts to ensure full ship integration. Identification of cyber security/information assurance (IA) measures on the C4I suite to pace the current and future threats. Logistics tasks continue in training development, Integrated Logistics Assessment (ILA) results analysis and update, support for Planning and Design for Homeport 1, advance planning for Homeport 2, and updates to program Milestone documentation. Continue Test and Evaluation Master Plan (TEMP) updates and continue WIPTs required to achieve TEMP approval. Planning and execution of developmental test events.					

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 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 4044 / *Medium Landing Ship*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Program Management support continues for development of the statutory and regulatory required program documentation to support upcoming Navy Gate Program Reviews and the combine Milestone B/C. The focus of FY2024 will be the source selection activities, including technical and cost evaluation to support an award in FY2025. ***FY 2025 Base Plans:*** FY 2025 funding will support the lead up to contract award and engineering support post award by the NAVSEA Ship Design Manager Team. This will include rectification of any issues found post award by the contractor. In FY 2025, development and integration of GFE systems will occur with coordination of shipbuilder. For Test and Evaluation, funding will be used to begin testing preparations for Post Delivery Test and Trials, such as procuring LLTM, developing plans, and identifying resources for testing. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease of $8.761 million is due to System Specification and GFE system development tailoring down in FY 2025 as the program begins Detail Design and Construction.					
Accomplishments/Planned Programs Subtotals	0.000	14.749	5.988	0.000	5.988

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
• 0603563N: *Medium Landing Ship*	11.064	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• 3050: *Medium Landing Ship*	0.000	0.000	268.068	-	268.068	200.000	349.476	305.088	311.495	2,986.779	4,420.906

Remarks

D. Acquisition Strategy

The Navy awarded the Concept Study/Preliminary Design contracts on 14 June 2021. Concept Studies completed in October 2021 and Preliminary Design options were exercised January 2022. The Detail Design and Construction award is planned for FY 2025.

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 0603564N / *Ship Prel Design & Feasibility Studies*	Project (Number/Name) 4044 / *Medium Landing Ship*	

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
Concept Studies/ Preliminary Design/ Sensitivity Analysis	TBD	Various : Various	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		0.000		-		0.000	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
Engineering Support	TBD	Various : Various	0.000	0.000		8.597	Nov 2023	1.166	Nov 2024	-		1.166	Continuing	Continuing	Continuing
Logistics Support	TBD	Various : Various	0.000	0.000		0.305	Nov 2023	0.195	Nov 2024	-		0.195	Continuing	Continuing	Continuing
Program Mgmt Support	TBD	Various : Various	0.000	0.000		5.010	Nov 2023	1.488	Nov 2024	-		1.488	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		13.912		2.849		-		2.849	Continuing	Continuing	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
Developmental Test & Evaluation (DT&E)	TBD	Various : Various	0.000	0.000		0.417	Nov 2023	1.664	Nov 2024	-		1.664	Continuing	Continuing	Continuing
Live Fire Test & Evaluation (LFT&E)	TBD	Not Specified : Not Specified	0.000	0.000		0.240	Nov 2023	1.289	Nov 2024	-		1.289	0.000	1.529	-
Operational Test & Evaluation (OT&E)	TBD	Not Specified : Not Specified	0.000	0.000		0.180	Nov 2023	0.186	Nov 2024	-		0.186	0.000	0.366	-
		Subtotal	0.000	0.000		0.837		3.139		-		3.139	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	0.000	0.000		14.749		5.988		-		5.988	Continuing	Continuing	N/A

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 0603564N / *Ship Prel Design & Feasibility Studies*	Project (Number/Name) 4044 / *Medium Landing Ship*	

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

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 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 4044 / *Medium Landing Ship*

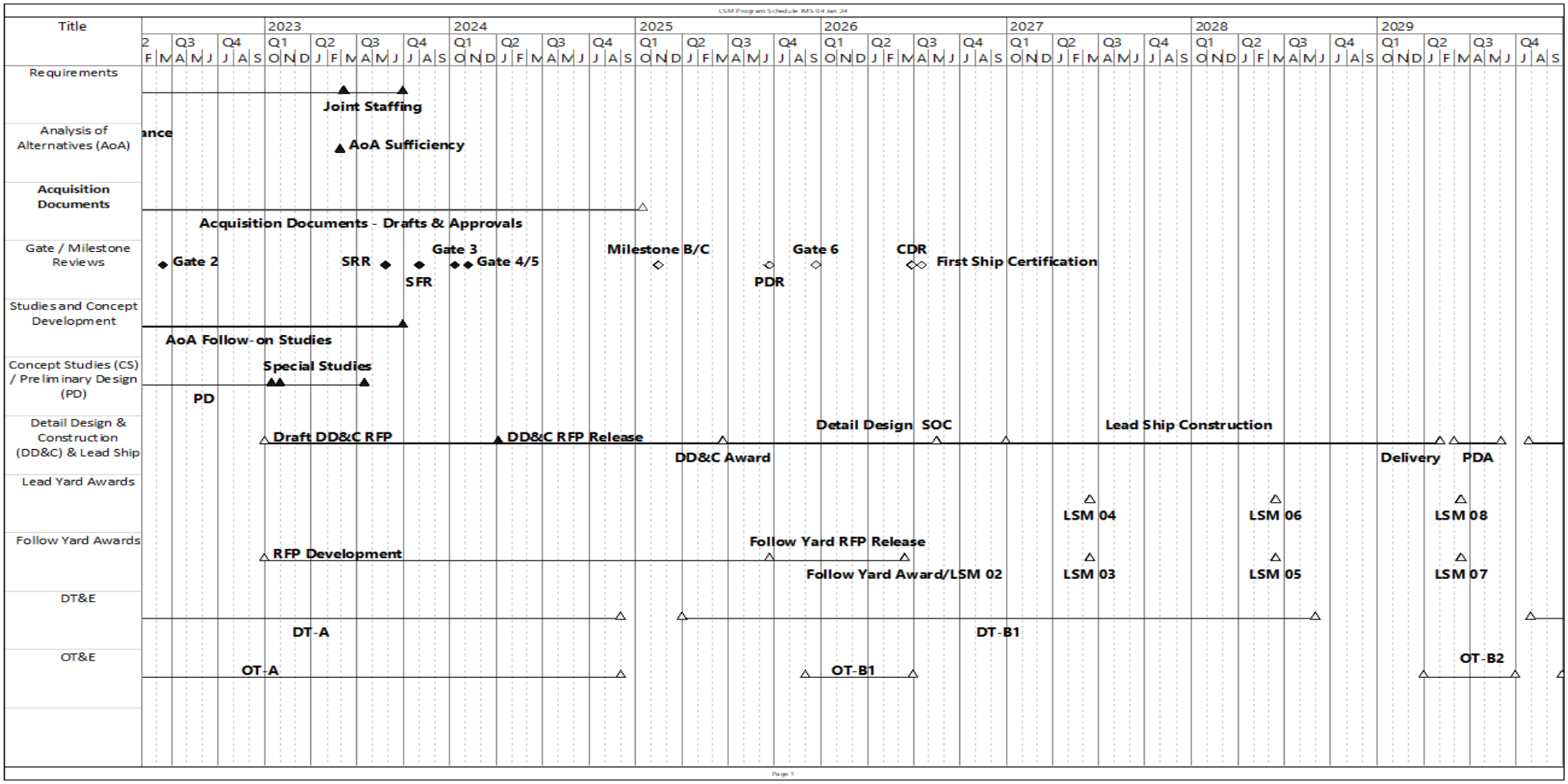

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603564N / *Ship Prel Design & Feasibility Studies*	**Project (Number/Name)** 4044 / *Medium Landing Ship*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 4044				
Gate 3	1	2024	1	2024
Gate 4/5	1	2024	1	2024
Combined Milestone B/C	1	2025	1	2025
Detail Design & Construction Award	2	2025	2	2025
Start of Construction for Lead Ship	3	2026	3	2026
LSM 02-10 Production	3	2026	4	2029