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

<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 0603599N / <i>FRIGATE Development</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	496.359	98.022	108.626	112.972	-	112.972	112.914	108.174	108.393	106.884	Continuing	Continuing
3086: <i>Frigate</i>	496.359	98.022	108.626	112.972	-	112.972	112.914	108.174	108.393	106.884	Continuing	Continuing

**Program MDAP/MAIS Code:**  
**Project MDAP/MAIS Code(s):** P606

**A. Mission Description and Budget Item Justification**

The Constellation class frigate (FFG 62) is a more lethal and survivable multi-mission small surface combatant. With FFG 62, the Navy will maximize the small surface combatant capabilities in the Anti-Surface Warfare (SUW), Anti-Submarine Warfare (ASW), Electronic Warfare/Information Operations (EW/IO), Air Warfare (AW) mission areas, and survivability while keeping the ship an affordable component of the "high-low" mix of surface ships. The FFG(X) Capability Development Document (CDD) was approved by the Joint Requirement Oversight Council (JROC) in Feb 2019 and completed Milestone B, an informed Independent Cost Estimate, and award of the Detail Design & Construction (DD&C) contract in April 2020.

FY 2024 funds will develop Variable Depth Sonar (VDS) capability via the Combined Active Passive Towed Array Sonar (CAPTAS) and continue Combat System development and Aegis Weapon System (AWS) integration, test and evaluation efforts including Live Fire Test & Evaluation (LFT&E) and Developmental Testing (DT) support as well as Cyber security implementation and Land Based Engineering Site construction.

FY 2023 funds continue to mature Combat System and C4I elements into an integrated baseline to support ship construction; assess platform risk via Early Integration Testing events; continue development, coding, test, and assessment of the FFG AWS; test and evaluation activities relevant to ship survivability; and mature the FFG Land Based Engineering Site (LBES) test program.

FY 2022 funds continue focus on AWS design development, coding, and test; Combat System and C4I Element Integration; and test and evaluation activities including Shock Qualification Testing, cyber table top (#3), and development of a LBES Test Program.

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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
Previous President's Budget	100.203	118.626	102.556	-	102.556
Current President's Budget	98.022	108.626	112.972	-	112.972
Total Adjustments	-2.181	-10.000	10.416	-	10.416
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-10.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.181	0.000			
• Program Adjustments	0.000	0.000	8.669	-	8.669
• Rate/Misc Adjustments	0.000	0.000	1.747	-	1.747

**Change Summary Explanation**

FY24 budget increase of \$4.3M is the net result of \$11.1M increase for greater efforts to integrate Variable Depth Sonar (VDS) capability on Frigates and to conduct additional events in support of Live Fire Test and Evaluation, and \$1.6M increase for Land Based Test Site and various rate adjustments.

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

<b>Appropriation/Budget Activity</b> 1319 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0603599N / <i>FRIGATE Development</i>				<b>Project (Number/Name)</b> 3086 / <i>Frigate</i>			
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
3086: <i>Frigate</i>	496.359	98.022	108.626	112.972	-	112.972	112.914	108.174	108.393	106.884	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**Project MDAP/MAIS Code:** P606

**A. Mission Description and Budget Item Justification**

Frigate (FFG 62 Class) efforts are composed of the design and development for a more lethal and survivable multi-mission warship focused on Anti-Surface Warfare (SUW) and Anti-Submarine Warfare capabilities (ASW), local air defense and enhanced survivability features. FFG 62 Class design modifications for added capability over the Littoral Combat Ship (LCS) include an Over-the-Horizon (OTH) surface-to-surface missile system, upgraded air defense weapons and sensors, advanced electronic warfare system and improved decoys, local air defense, and enhanced survivability features. This effort will encompass design, development, and technical issue resolution to support design maturity for DD&C FY 2020 contract award. Certification and testing efforts are also required to support the FFG 62 Class delivery, operations, and introduction to the fleet.

The FFG 62 Class design and development phases include platform design, development and risk reduction; combat system element integration; total ship system engineering and integration; combat systems and warfare systems certification; and planning and conduct of system testing. These efforts include procurement of combat and warfare system equipment and/or simulators to support production representative testing in support of design, development, and certification efforts and ordnance in support of testing.

This funding will also include efforts and activities required for formal Developmental and Operational testing of the FFG 62 program. Test and Evaluation (T&E) will concentrate on verifying integration and interoperability of employed technologies and systems in the FFG 62 design to achieve the mission capabilities and performance requirements as defined in the FFG 62 Class Capability Development Document (CDD). Funding will also be for the execution of LFT&E DT, C4I integration & test, cyber test and certification, warfare system integration & test and certification, aviation (manned and unmanned) integration & test and certification. 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).

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

	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
<b>Title:</b> Test & Evaluation	24.959	30.970	33.764	0.000	33.764
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> Conduct FFG(X) test planning in support of Developmental Testing (DT) and Operational Testing (OT). Plan for and begin testing in support of Live Fire Test and Evaluation (LFT&E) modeling and small-scale empirical testing to support initiation of efforts to model FFG(X) survivability. Plan for and begin aligning resources to conduct future Early Integration Tests and Cybersecurity Tests as risk reductions for ship construction industrial stage testing. Refine testing schedules and testing resource requirements timelines to support later integration and certification testing. Complete high-level plans such as Test and Evaluation Master Plan (TEMP) and LFT&E Management Plan, and begin review and refinement of more detailed test plans					

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<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603599N / <i>FRIGATE Development</i>	<b>Project (Number/Name)</b> 3086 / <i>Frigate</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
<p>and procedures. Plan for and execute DT, C4I integration &amp; test, cyber test and certification, warfare system integration &amp; test and certification, aviation (manned and unmanned) integration &amp; test and certification.</p> <p><b><i>FY 2023 Plans:</i></b>                      FY 2023 Plans:                      Execute additional live-fire tests in support of generating empirical LFT&amp;E survivability data to continue the verification, validation, and accreditation of multiple LFT&amp;E survivability models. Conduct and concluded networked, multi-site land based Early Integration Testing events to include post-analysis and correction. Mature Test Procedures submitted for Government Furnished Equipment (GFE) to confirm suitability for shipyard stage testing. Align historical test results for use as FFG DT and OT data to reduce future at-sea testing requirements. Review and incorporate integrated Warfare System baseline test requirements to inform Combat System Test Bed (CSTB) development, verification, validation, and initial test runs. Utilize Early Operational Assessment (EOA) results for iterative assessment of the following: draft CONOPS, preliminary ship design documentation, planned mission critical systems hardware and software versions and how they are to be integrated into the ship design, and manning and training plans. Develop FFG LBES test indices and sequences to support future component, system, and plant light-offs. Provide integral engineering support of FFG LBES in parallel of ship construction findings and vendor guidance.</p> <p>OCO:                      FY 2023 OCO Plans:                      N/A</p> <p><b><i>FY 2024 Base Plans:</i></b>                      FY 2024 Plans:                      Execute additional live-fire tests in support of generating empirical LFT&amp;E survivability data to continue the verification, validation, and accreditation of multiple LFT&amp;E survivability models. Conduct and complete networked, multi-site land based Early Integration Testing events to include post-analysis and correction. Mature Test Procedures submitted for Government Furnished Equipment (GFE) to confirm suitability for shipyard stage testing. Align historical test results for use as FFG DT and OT data to reduce future at-sea testing requirements. Review and incorporate integrated Warfare System baseline test requirements to inform Combat System Test Bed (CSTB) development, verification, validation, and initial test runs. Utilize Early Operational Assessment (EOA) results for iterative assessment of the following: draft CONOPS, preliminary ship design documentation, planned mission critical systems hardware and software versions and how they are to be integrated into the ship design, and manning and training plans. Develop FFG LBES test indices and sequences to support future</p>					

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>						
component, system, and plant light-offs. Provide integral engineering support of FFG LBES in parallel of ship construction findings and vendor guidance.						
OCO: FY 2024 OCO Plans: N/A						
<b>FY 2024 OCO Plans:</b> N/A						
<b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> \$2.8M increase is due to increased requirements for Test and Evaluation in support of DT&E and Live Fire Test and Evaluation.						
<b>Title:</b> Ship Systems / C4I / Warfare Systems Engineering						
<b>Articles:</b>						
		73.063	77.656	79.208	0.000	79.208
		-	-	-	-	-
<b>Description:</b> The Frigate (FFG 62 Class) is a multi-mission ship that focuses on Anti-Surface Warfare (SUW), Anti-Submarine Warfare (ASW) capabilities and local air defense. Specific capabilities include Over-the-Horizon (OTH), upgraded Air Defense weapons and sensors, advanced electronic warfare system and improved decoys, towed array, torpedo defense, and enhanced survivability features.						
<b>FY 2023 Plans:</b> FY 2023 Base Plans: C4I / Warfare Systems Engineering Continue system engineering and platform integration efforts for C4I, Combat, and Aviation systems. Continue AWS development efforts to ensure platform combat capability, including the integration of AN/SPY-6(V)3 radar and Rolling Airframe Missile (RAM) system into the Combat System. Continue development and integration efforts of SQQ-89 with Frigate ASW sensor suite, in addition to Combined Active Passive Towed Array Sonar (CAPTAS) development and integration efforts. Continue integration of AN/SPY-6(V)3 radar to meet Frigate requirements. The program will mature the integrated Warfare System baseline in support of integration and test activities through the CSTB, to determine platform performance against a wide variety of threats in each mission area. Implement additional cyber security/information assurance (IA) measures on the warfare system and C4I suite to pace the current and future threats. Continue product development and planning for warfare system, C4I, and HM&E. Continue to optimize combat system capabilities for the design of hull. Continue modeling and simulation via Frigate Readiness Assessment Model for sustainment and readiness CDD requirements.						

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<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603599N / <i>FRIGATE Development</i>	<b>Project (Number/Name)</b> 3086 / <i>Frigate</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024 Base</b>	<b>FY 2024 OCO</b>	<b>FY 2024 Total</b>
<p>OCO: FY 2023 OCO Plans: N/A</p> <p><b>FY 2024 Base Plans:</b> FY 2024 Base Plans: C4I / Warfare Systems Engineering Integrate the Variable Depth Sonar (VDS) capability onboard Frigates ships through the development and integration of the CAPTAS. Continue system engineering and platform integration efforts for C4I, Combat, and Aviation systems. Continue AWS development efforts to ensure platform combat capability, including the integration of AN/SPY-6(V)3 radar and Rolling Airframe Missile (RAM) system into the Combat System. Continue development and integration efforts of SQQ-89 with Frigate ASW sensor suite, in addition to DART development and integration efforts. Continue integration of AN/SPY-6(V)3 radar to meet Frigate requirements. The program will mature the integrated Warfare System baseline in support of integration and test activities through the CSTB, to determine platform performance against a wide variety of threats in each mission area. Implement additional cyber security/information assurance (IA) measures on the warfare system and C4I suite to pace the current and future threats. Continue product development and planning for warfare system, C4I, and HM&amp;E. Continue to optimize combat system capabilities for the design of hull. Continue modeling and simulation via Frigate Readiness Assessment Model for sustainment and readiness CDD requirements.</p> <p>OCO: FY 2024 OCO Plans: N/A</p> <p><b>FY 2024 OCO Plans:</b> N/A</p> <p><b>FY 2023 to FY 2024 Increase/Decrease Statement:</b> \$1.6M increase is due to increased effort/tasking required for Combat System Development.</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	98.022	108.626	112.972	0.000	112.972

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

<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u> <u>Base</u>	<u>FY 2024</u> <u>OCO</u>	<u>FY 2024</u> <u>Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• SCN/2128: <i>FFG-Frigate</i>	1,090.900	1,135.224	2,173.698	-	2,173.698	1,037.042	1,932.900	1,041.357	2,057.744	8,612.597	21,421.762

**Remarks**

**D. Acquisition Strategy**

The FFG 62 Class revised acquisition strategy was signed in 2nd QTR FY 2023.

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

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<b>Product Development (\$ in Millions)</b>				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			
Conceptual Design Contracts	C/FFP	Various : Various	108.747	0.000		0.000		0.000		-		0.000	0.000	108.747	-
System SPEC Development	WR	Government Activities : Various	8.455	0.000		0.000		0.000		-		0.000	0.000	8.455	-
System SPEC Development	C/CPAF	Various Contractors : Various	26.686	0.000		0.000		0.000		-		0.000	0.000	26.686	-
Over the Horizon (OTH) Missile Integration	WR	NAWC, China Lake : China Lake, CA	2.763	0.985	Feb 2022	1.816	Feb 2023	1.570	Feb 2024	-		1.570	Continuing	Continuing	Continuing
Over the Horizon (OTH) Missile Integration	WR	Various : Various	4.538	0.000		1.875	Feb 2023	1.621	Feb 2024	-		1.621	Continuing	Continuing	Continuing
FFG Architecture Framework/ Cyber	C/CPAF	Engility : San Diego, CA	4.192	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
C4I Development	WR	NIWC : Charleston, SC	10.217	3.015	Nov 2021	1.548	Nov 2022	1.339	Nov 2023	-		1.339	Continuing	Continuing	Continuing
C4I Development	WR	NIWC : San Diego, CA	10.673	4.223	Nov 2021	1.527	Nov 2022	1.321	Nov 2023	-		1.321	Continuing	Continuing	Continuing
AEGIS Weapons System Development (AWS)	C/CPIF	Lockheed Martin : Various	73.945	17.765	Jan 2022	9.891	Jan 2023	10.101	Jan 2024	-		10.101	Continuing	Continuing	Continuing
AEGIS Weapons System Development (AWS)	Various	Various Contractors : Various	9.803	6.931	Nov 2021	16.720	Nov 2022	13.990	Nov 2023	-		13.990	Continuing	Continuing	Continuing
AEGIS Weapons System Development (AWS)	WR	Government Activities : Various	14.137	5.640	Nov 2021	9.291	Nov 2022	8.033	Nov 2023	-		8.033	Continuing	Continuing	Continuing
Warfare Systems Development	WR	NUWC, Newport : Newport, RI	5.725	0.591	Nov 2021	0.595	Nov 2022	0.515	Nov 2023	-		0.515	Continuing	Continuing	Continuing
Warfare Systems Development	WR	NSWC, DD : Dahlgren, VA	12.291	3.662	Nov 2021	3.666	Nov 2022	3.170	Nov 2023	-		3.170	Continuing	Continuing	Continuing
Warfare Systems Development	WR	NSWC, CD : Carderock, MD	4.718	3.397	Nov 2021	3.646	Nov 2022	3.153	Nov 2023	-		3.153	Continuing	Continuing	Continuing
Warfare Systems Development	C/CPIF	Lockheed Martin : Various	20.675	7.792	Dec 2021	8.026	Dec 2022	6.939	Dec 2023	-		6.939	Continuing	Continuing	Continuing
Warfare Systems Development	Various	Various : Various	23.876	5.157	Nov 2021	5.814	Nov 2022	16.112	Nov 2023	-		16.112	Continuing	Continuing	Continuing

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<b>Product Development (\$ in Millions)</b>				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			
Warfare Systems Development	WR	Government Activities : Various	11.826	4.141	Nov 2021	4.204	Nov 2022	3.635	Nov 2023	-		3.635	Continuing	Continuing	Continuing
Aviation Integration Development	WR	NAWC, AD : Patuxent River, MD	6.438	0.726	Dec 2021	0.312	Dec 2022	0.270	Dec 2023	-		0.270	Continuing	Continuing	Continuing
Aviation Integration Development	WR	NSWC, DD : Dahlgren, VA	2.129	0.300	Nov 2021	0.300	Nov 2022	0.260	Nov 2023	-		0.260	Continuing	Continuing	Continuing
Product Development Support	WR	Various : Various	4.703	1.914	Nov 2021	1.913	Nov 2022	1.654	Nov 2023	-		1.654	Continuing	Continuing	Continuing
<b>Subtotal</b>			366.537	66.239		71.144		73.683		-		73.683	Continuing	Continuing	N/A

<b>Support (\$ in Millions)</b>				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			
Government Engineering Support	WR	NSWC, CD : Carderock, MD	17.588	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Government Engineering Support	WR	NSWC, PD : Philadelphia, PA	7.768	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Government Engineering Support	WR	NSWC, DD : Dahlgren, VA	10.908	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Government Engineering Support	WR	NSWC, PHD : Port Hueneme, CA	2.051	0.437	Nov 2021	0.558	Nov 2022	0.481	Nov 2023	-		0.481	Continuing	Continuing	Continuing
Government Engineering Support	WR	Government Activities : Various	5.221	0.578	Nov 2021	0.596	Nov 2022	0.516	Nov 2023	-		0.516	Continuing	Continuing	Continuing
Contractor Engineering Support	C/CPAF	Booz Allen Hamilton : McLean, VA	4.270	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Contractor Engineering Support	C/CPAF	Gryphon : Arlington, VA	1.950	0.000		0.000		0.000		-		0.000	0.000	1.950	-
Contractor Engineering Support	C/CPIF	Alion : Arlington, VA	11.029	2.465	Aug 2022	2.187	Aug 2023	1.544	Aug 2024	-		1.544	Continuing	Continuing	Continuing
Contractor Engineering Support	Various	Various : Various	6.612	1.130	Jan 2022	1.147	Jan 2023	0.992	Jan 2024	-		0.992	Continuing	Continuing	Continuing

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1319 / 4				PE 0603599N / FRIGATE Development				3086 / Frigate								
<b>Support (\$ in Millions)</b>				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	
<b>Subtotal</b>			67.397	4.610		4.488		3.533		-		3.533	Continuing	Continuing	N/A	
<b>Test and Evaluation (\$ in Millions)</b>				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	
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	NSWC, CD : Carderock, MD	11.539	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing	
Prior Year Developmental Test & Evaluation Not Funded FYDP (PYDT&E)	WR	Government Activities : Various	3.316	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing	
Developmental Test & Evaluation (DT&E)	WR	Government Activities : Various	6.554	5.223	Dec 2021	7.274	Dec 2022	7.302	Dec 2023	-		7.302	Continuing	Continuing	Continuing	
Developmental Test & Evaluation (DT&E)	WR	NSWC, PD : Philadelphia, PA	2.383	6.300	Dec 2021	6.852	Nov 2022	11.900	Nov 2023	-		11.900	Continuing	Continuing	Continuing	
Developmental Test & Evaluation (DT&E)	WR	NSWC, CD : Carderock, MD	6.222	10.094	Dec 2021	12.810	Dec 2022	11.074	Dec 2023	-		11.074	Continuing	Continuing	Continuing	
Developmental Test & Evaluation (DT&E)	Various	Various : Various	1.578	3.342	Dec 2021	4.034	Dec 2022	3.488	Dec 2023	-		3.488	0.000	12.442	-	
<b>Subtotal</b>			31.592	24.959		30.970		33.764		-		33.764	Continuing	Continuing	N/A	
<b>Management Services (\$ in Millions)</b>				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	
Program Management Support	C/CPIF	Alion : Arlington, VA	6.332	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing	
Program Management Support	WR	Various : Various	24.501	2.214	Dec 2021	2.024	Dec 2022	1.992	Dec 2023	-		1.992	Continuing	Continuing	Continuing	
<b>Subtotal</b>			30.833	2.214		2.024		1.992		-		1.992	Continuing	Continuing	N/A	



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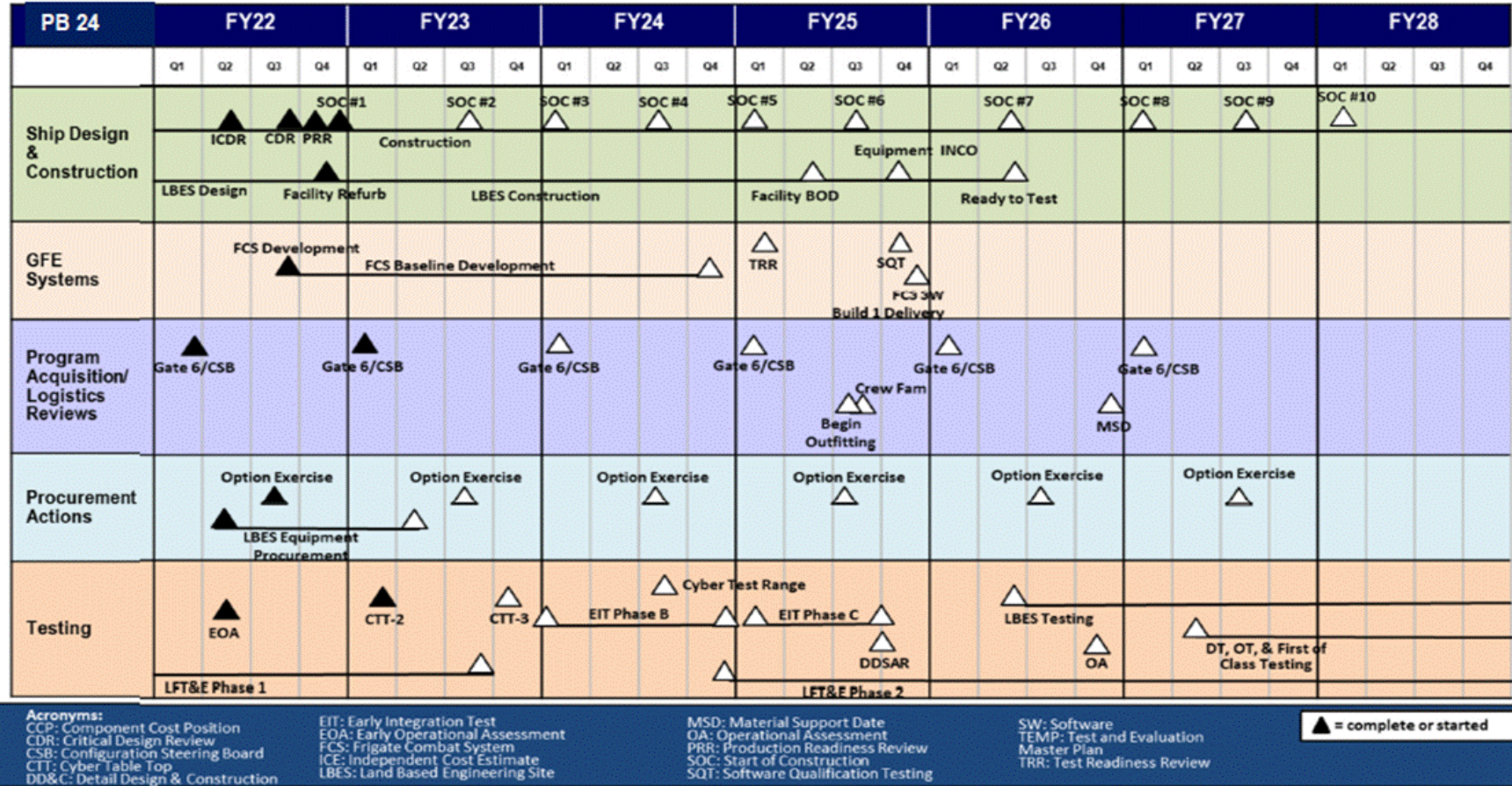
Exhibit R-4, RDT&E Schedule Profile: PB 2024 Navy

Date: March 2023

Appropriation/Budget Activity  
1319 / 4

R-1 Program Element (Number/Name)  
PE 0603599N / FRIGATE Development

Project (Number/Name)  
3086 / Frigate



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details: PB 2024 Navy</b>		<b>Date: March 2023</b>
<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603599N / <i>FRIGATE Development</i>	<b>Project (Number/Name)</b> 3086 / <i>Frigate</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 3086</b>				
Ship Design: SOC # 1	4	2022	4	2022
Ship Design: SOC # 2	3	2023	3	2023
Ship Design: SOC # 3	1	2024	1	2024
Ship Design: SOC # 4	3	2024	3	2024
Ship Design: SOC # 5	1	2025	1	2025
Ship Design: SOC # 6	3	2025	3	2025
Ship Design: SOC # 7	2	2026	2	2026
Ship Design: SOC # 8	1	2027	1	2027
Ship Design: SOC # 9	3	2027	3	2027
Ship Design: SOC # 10	1	2028	1	2028
Ship Design: Production Readiness Review	4	2022	4	2022
Ship Design: LBES Design and Construction	1	2022	3	2026
GFE Systems: FCS Baseline Development	3	2022	4	2024
GFE Systems: SW Qualification Testing	4	2025	4	2025
GFE Systems: CS Software Technical Readiness Review (TRR)	1	2025	1	2025
GFE Systems: FCS SW Delivery	4	2025	4	2025
Program Acquisition/Logistics Reviews: Gate 6 /CSB #1	1	2022	1	2022
Program Acquisition/Logistics Reviews: Material Support Date	3	2026	3	2026
Program Acquisition/Logistics Reviews: Gate 6 /CSB #2	1	2023	1	2023
Program Acquisition/Logistics Reviews: Gate 6 /CSB #3	1	2024	1	2024
Program Acquisition/Logistics Reviews: Gate 6 /CSB #4	1	2025	1	2025
Program Acquisition/Logistics Reviews: Gate 6 /CSB #5	1	2026	1	2026

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

<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603599N / <i>FRIGATE Development</i>	<b>Project (Number/Name)</b> 3086 / <i>Frigate</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Program Acquisition/Logistics Reviews: Gate 6 /CSB #6	1	2027	1	2027
Procurement: Option Exercise 1	3	2022	3	2022
Procurement: Option Exercise 2	3	2023	3	2023
Procurement: Option Exercise 3	3	2024	3	2024
Procurement: Option Exercise 4	3	2025	3	2025
Procurement: Option Exercise 5	3	2026	3	2026
Procurement: Option Exercise 6	3	2027	3	2027
Procurement: Option Exercise 7	3	2028	3	2028
Procurement: LBES Equipment Procurement	2	2022	2	2023
Testing: Schedule Detail	1	2022	1	2028
Testing: Live Fire Test & Evaluation (LFT&E) #1	1	2022	3	2023
Testing: Cyber Table Top (CTT)-2	1	2023	1	2023
Testing: Land Based SIM/STIM Testing/Early Integration Risk Reduction Test	3	2026	4	2028
Testing: EIT Phase B	1	2024	4	2024
Testing: Cyber Table Top (CTT-3)	4	2023	4	2023
Testing: EIT Phase C	1	2025	4	2025
Testing: Live Fire Test & Evaluation (LFT&E) #2	4	2024	4	2028
Testing: DDSAR	4	2025	4	2025
Testing: Operational Assessment	4	2026	4	2026
Testing: Early Operational Assessment (OT-B1)	2	2022	2	2022
Testing: TSST	4	2028	4	2028