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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603599N / <i>FRIGATE Development</i>
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	398.960	79.963	100.203	118.626	-	118.626	102.556	104.584	105.411	106.879	Continuing	Continuing
3086: <i>Frigate</i>	398.960	79.963	100.203	118.626	-	118.626	102.556	104.584	105.411	106.879	Continuing	Continuing

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

Note

The FY 2023 funding request was reduced by \$6.000 million to account for the availability of prior year execution balances.

A. Mission Description and Budget Item Justification

The Guided Missile Frigate (CONSTELLATION Class, 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 affordable and as a part of a "high-low" mix of surface ships. The FFG(X) Capability Development Document (CDD) was approved by 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 2020 marked the shift to SCN after the award of the DD&C for efforts in systems engineering, cost estimating, and ship design management. Remaining FY 2020 funds focused on the continuation of DD&C source selection, AEGIS Weapons System (AWS) design development, coding, and test; acquisition documentation approval for Milestone B (MS B); Combat System and Command, Control, Communications, Computers and Intelligence (C4I) Element Integration; and test and evaluation efforts. FY 2021 funds continued AWS design development, coding, and test; Combat System and C4I Element Integration; Live Fire Test and Evaluation (LFT&E) events; and initiated modeling and simulation (M&S) efforts for platform sustainment and readiness requirements. 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 Land Based Engineering Site Test Program. FY 2023 funds will 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 Aegis Weapon System; test and evaluation activities relevant to ship survivability; and mature the FFG LBES test program.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy	Date: April 2022
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B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	81.942	109.459	0.000	-	0.000
Current President's Budget	79.963	100.203	118.626	-	118.626
Total Adjustments	-1.979	-9.256	118.626	-	118.626
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-9.256			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.979	0.000			
• Program Adjustments	0.000	0.000	0.000	-	0.000
• Rate/Misc Adjustments	0.000	0.000	0.000	-	0.000
• Adjustments to Budget Year	-	-	118.626	-	118.626

Change Summary Explanation

FY 2023 Sustains funding to the program's CCP/ICE.

FY 2023 costs include increase due to above 2% inflationary impacts.

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603599N / FRIGATE Development				Project (Number/Name) 3086 / Frigate			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3086: <i>Frigate</i>	398.960	79.963	100.203	118.626	-	118.626	102.556	104.584	105.411	106.879	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: P606

A. Mission Description and Budget Item Justification

Frigate (FFG 62) 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(X) design modifications for added capability over 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 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(X) 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 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Test & Evaluation	10.416	24.959	32.460	0.000	32.460
Articles:	-	-	-	-	-
Description: 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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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603599N / <i>FRIGATE Development</i>	Project (Number/Name) 3086 / <i>Frigate</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

and procedures. Plan for and execute DT, C4I integration & test, cyber test and certification, warfare system integration & test and certification, aviation (manned and unmanned) integration & test and certification.

FY 2022 Plans:

Execute additional live-fire tests in support of generating empirical LFT&E survivability data to continue the verification, validation, and accreditation of multiple LFT&E survivability models. Continue test planning and initiate multi-site land based Early Integration Testing. Begin developing schedules and identifying resource requirements timing to support testing and certifications that will be required for the FFG 62 ship. Review Test Procedures submitted for Government Furnished Equipment (GFE) to confirm suitability for shipyard stage testing. Continue to identify data from previously conducted testing and assess relevance 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. Execute an Early Operational Assessment (EOA) which will facilitate a SME review 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. The EOA will evaluate risks towards successful completion of IOT&E and identify potential operational effectiveness and suitability issues. Complete planning and conduct CTT-2. FFG LBES test program maturation to include development of LBES integration requirements, interface specifications, and test equipment specifications.

FY 2023 Base Plans:

FY 2023 Plans:
Execute additional live-fire tests in support of generating empirical LFT&E survivability data to continue the verification, validation, and accreditation of multiple LFT&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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total

UNCLASSIFIED

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Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603599N / <i>FRIGATE Development</i>	Project (Number/Name) 3086 / <i>Frigate</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
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component, system, and plant light-offs. Provide integral engineering support of FFG LBES in parallel of ship construction findings and vendor guidance.

FY 2023 OCO Plans:

FY 2023 OCO Plans:

N/A

FY 2022 to FY 2023 Increase/Decrease Statement:

Funds increase of \$7.501M from FY 2022 to FY 2023 due to:

1. \$3.245M - ramp up in LBES test program planning and integration of vendor technical services.
2. \$4.256M - Economic adjustments in FY22.

Title: Ship Systems / C4I / Warfare Systems Engineering

69.547	75.244	86.166	0.000	86.166
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Articles:

-	-	-	-	-
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Description: The Frigate (FFG 62) 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.

FY 2022 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 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&E. Continue to engage with the selected shipbuilder to support design of the Frigate platform and installation of CS, C4I, and Aviation equipment. Continue to optimize combat system capabilities for the design of hull. LFT&E test planning and execution will continue. Continue modeling and simulation efforts in support of sustainment and readiness.

FY 2023 Base Plans:

FY 2023 Base Plans:

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603599N / <i>FRIGATE Development</i>	Project (Number/Name) 3086 / <i>Frigate</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
<p>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 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&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>FY 2023 OCO Plans: FY 2023 OCO Plans: N/A</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Funding increase of \$10.922M from FY 2022 to FY 2023 is due to: 1. \$5.922M - FFG CCP/ICE at Milestone B and program plan for combat systems development, integration, and assessment. 2. \$5.000M - Economic adjustments in FY22.</p>					
Accomplishments/Planned Programs Subtotals	79.963	100.203	118.626	0.000	118.626

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• SCN/2128: <i>FFG-Frigate</i>	1,053.123	1,090.900	1,160.173	-	1,160.173	1,976.450	1,047.025	1,896.377	1,040.529	10,870.008	21,421.762

Remarks

D. Acquisition Strategy
The FFG 62 acquisition strategy was signed in 1st QTR FY 2019 to support a full and open competitive contract award in FY 2020. The DD&C RFP was released on 20 June 2019 and the DD&C contract was awarded 30 April 2020.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603599N / FRIGATE Development	Project (Number/Name) 3086 / Frigate
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Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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	112.247	0.000		0.000		0.000		-		0.000	0.000	112.247	-
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	6.225	0.000		0.000		0.000		-		0.000	0.000	6.225	-
Over the Horizon (OTH) Missile Integration	WR	NAWC, China Lake : China Lake, CA	1.909	0.854	Feb 2021	0.985	Feb 2022	1.816	Feb 2023	-		1.816	Continuing	Continuing	Continuing
Over the Horizon (OTH) Missile Integration	WR	Various : Various	3.366	1.172	Feb 2021	0.000		1.875	Feb 2023	-		1.875	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	7.811	2.406	Nov 2020	3.015	Nov 2021	1.548	Nov 2022	-		1.548	Continuing	Continuing	Continuing
C4I Development	WR	NIWC : San Diego, CA	6.499	4.174	Nov 2020	4.223	Nov 2021	1.527	Nov 2022	-		1.527	Continuing	Continuing	Continuing
AEGIS Weapons System Development (AWS)	C/CPIF	Lockheed Martin : Various	51.847	22.098	Jan 2021	18.660	Jan 2022	12.847	Jan 2023	-		12.847	Continuing	Continuing	Continuing
AEGIS Weapons System Development (AWS)	Various	Various Contractors : Various	4.723	5.080	Nov 2020	7.280	Nov 2021	21.716	Nov 2022	-		21.716	Continuing	Continuing	Continuing
AEGIS Weapons System Development (AWS)	WR	Government Activities : Various	10.166	3.971	Nov 2020	5.924	Nov 2021	9.291	Nov 2022	-		9.291	Continuing	Continuing	Continuing
Warfare Systems Development	WR	NUWC, Newport : Newport, RI	5.204	0.521	Nov 2020	0.591	Nov 2021	0.595	Nov 2022	-		0.595	Continuing	Continuing	Continuing
Warfare Systems Development	WR	NSWC, DD : Dahlgren, VA	8.746	3.545	Nov 2020	3.662	Nov 2021	3.666	Nov 2022	-		3.666	Continuing	Continuing	Continuing
Warfare Systems Development	WR	NSWC, CD : Carderock, MD	2.125	2.593	Nov 2020	3.397	Nov 2021	3.646	Nov 2022	-		3.646	Continuing	Continuing	Continuing
Warfare Systems Development	C/CPIF	Lockheed Martin : Various	14.810	5.865	Dec 2020	8.185	Dec 2021	8.026	Dec 2022	-		8.026	Continuing	Continuing	Continuing
Warfare Systems Development	Various	Various : Various	19.741	4.135	Nov 2020	5.417	Nov 2021	5.814	Nov 2022	-		5.814	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603599N / FRIGATE Development	Project (Number/Name) 3086 / Frigate
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Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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
Warfare Systems Development	WR	Government Activities : Various	8.161	3.665	Nov 2020	4.141	Nov 2021	4.204	Nov 2022	-		4.204	Continuing	Continuing	Continuing
Aviation Integration Development	WR	NAWC, AD : Patuxent River, MD	5.463	0.975	Dec 2020	0.726	Dec 2021	0.312	Dec 2022	-		0.312	Continuing	Continuing	Continuing
Aviation Integration Development	WR	NSWC, DD : Dahlgren, VA	1.829	0.300	Nov 2020	0.300	Nov 2021	0.300	Nov 2022	-		0.300	Continuing	Continuing	Continuing
Product Development Support	WR	Various : Various	2.828	1.875	Nov 2020	1.914	Nov 2021	1.913	Nov 2022	-		1.913	Continuing	Continuing	Continuing
Subtotal			286.347	63.229		68.420		79.096		-		79.096	Continuing	Continuing	N/A

Remarks
Beginning in FY 2020, most efforts are realigned to SCN Line Item 2128 after ship contract award. Additional funds were needed for Warfare system integration efforts for systems including ASW, EASR and CEC since FY 2020 President's Budget Request. Funds were realigned from Support efforts.

Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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
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	1.650	0.401	Nov 2020	0.437	Nov 2021	0.558	Nov 2022	-		0.558	Continuing	Continuing	Continuing
Government Engineering Support	WR	Government Activities : Various	4.671	0.550	Nov 2020	0.578	Nov 2021	0.596	Nov 2022	-		0.596	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	1.475	0.000		0.000		0.000		-		0.000	0.000	1.475	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603599N / <i>FRIGATE Development</i>	Project (Number/Name) 3086 / <i>Frigate</i>
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Support (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
Contractor Engineering Support	C/CPIF	Alion : Arlington, VA	8.612	2.417	Feb 2021	2.465	Aug 2022	2.466	Aug 2023	-		2.466	Continuing	Continuing	Continuing
Contractor Engineering Support	Various	Various : Various	5.612	1.000	Jan 2021	1.130	Jan 2022	1.147	Jan 2023	-		1.147	Continuing	Continuing	Continuing
Subtotal			62.554	4.368		4.610		4.767		-		4.767	Continuing	Continuing	N/A

Remarks
Beginning in FY 2020, a portion of the Support costs related to HM&E/ detail design engineering support are realigned to SCN Line Item 2128.

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
Model Development	WR	NSWC, CD : Carderock, MD	10.376	1.163	Dec 2020	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Test and Evaluation Master Plan (TEMP) Development	WR	Government Activities : Various	3.164	0.152	Dec 2020	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Cybersecurity Testing	WR	Government Activities : Various	3.682	2.872	Dec 2020	5.223	Dec 2021	7.274	Dec 2022	-		7.274	Continuing	Continuing	Continuing
Land Based Integration & Test	WR	Government Activities : Various	2.383	0.000		6.300	Dec 2021	8.342	Nov 2022	-		8.342	Continuing	Continuing	Continuing
Life Fire Test and Evaluation	WR	NSWC, CD : Carderock, MD	1.571	4.651	Dec 2020	10.094	Dec 2021	12.810	Dec 2022	-		12.810	Continuing	Continuing	Continuing
Developmental & Operational Test and Evaluation	WR	Government Activities : Various	0.000	1.578	Dec 2020	3.342	Dec 2021	4.034	Dec 2022	-		4.034	0.000	8.954	-
Subtotal			21.176	10.416		24.959		32.460		-		32.460	Continuing	Continuing	N/A

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603599N / <i>FRIGATE Development</i>	Project (Number/Name) 3086 / <i>Frigate</i>
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Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
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	22.551	1.950	Dec 2020	2.214	Dec 2021	2.303	Dec 2022	-		2.303	Continuing	Continuing	Continuing
Subtotal			28.883	1.950		2.214		2.303		-		2.303	Continuing	Continuing	N/A

Remarks
 Program Management Support includes Program Office support, Cost Estimation support, Acquisition Documentation Support, and Program Office travel. Beginning in FY 2020, a portion of the PM Support costs are realigned to SCN Line Item 2128.

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	398.960	79.963	100.203	118.626	-	118.626	Continuing	Continuing	N/A

Remarks

UNCLASSIFIED

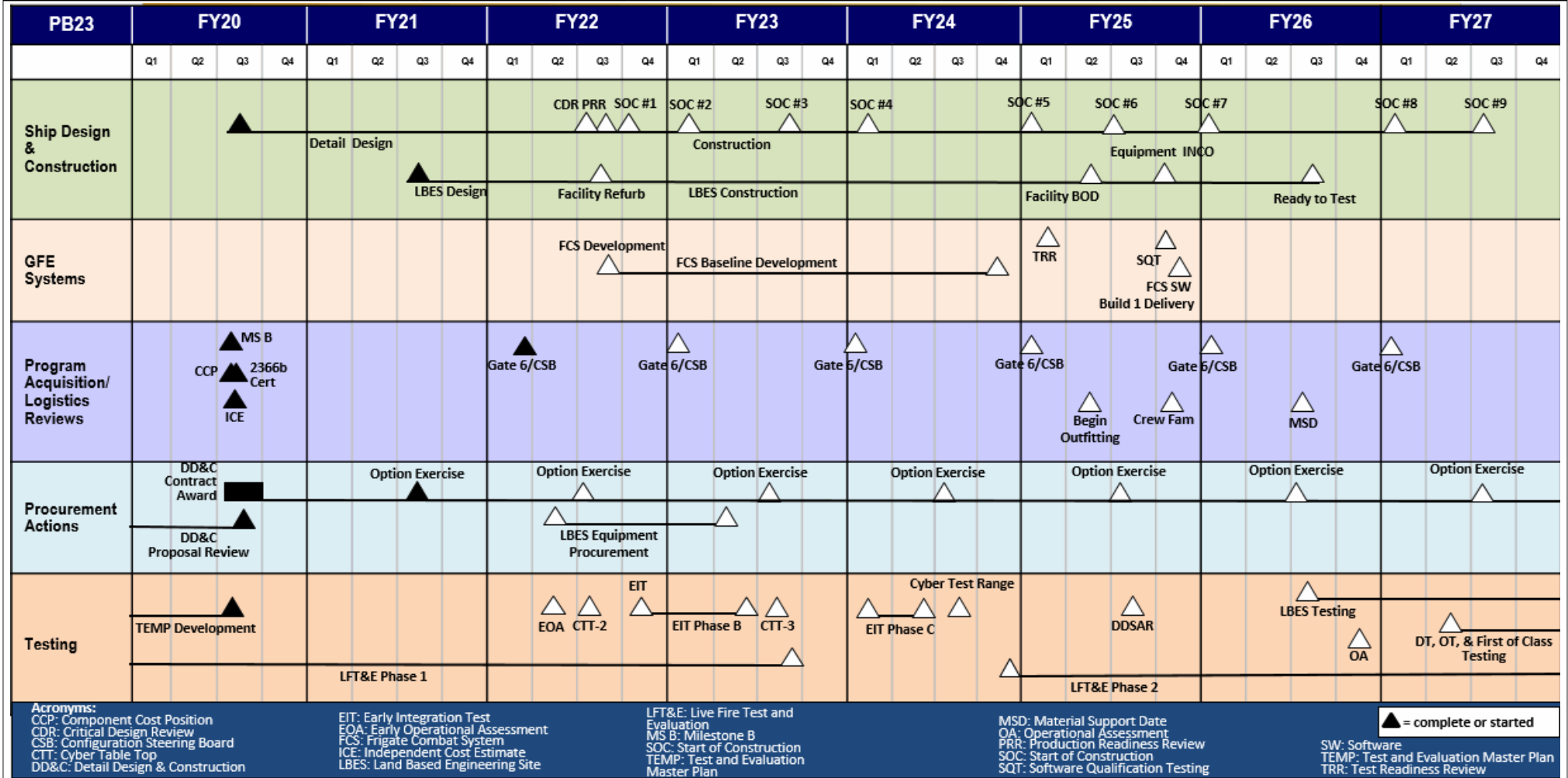
Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy

Date: April 2022

Appropriation/Budget Activity
1319 / 4

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

Project (Number/Name)
3086 / Frigate



UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy **Date:** April 2022

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

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3086				
Ship Design: Detail Design Phase	4	2021	4	2022
Ship Design: Delivery of Ship 1	4	2026	4	2026
GFE Systems: System Qualification Testing	2	2021	2	2021
GFE Systems: CS Integration and Testing	2	2021	4	2026
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 Review	1	2022	1	2022
Program Acquisition/Logistics Reviews: Independent Logistics Assessment (ILA) Development	4	2023	3	2024
Program Acquisition/Logistics Reviews: Milestone Decision Authority (MDA) IPR #1	2	2022	2	2022
Program Acquisition/Logistics Reviews: Milestone Decision Authority (MDA) IPR #2	2	2023	2	2023
Program Acquisition/Logistics Reviews: Milestone Decision Authority (MDA) IPR #3	2	2024	2	2024
Program Acquisition/Logistics Reviews: Milestone Decision Authority (MDA) IPR #4	2	2025	2	2025
Program Acquisition/Logistics Reviews: Milestone Decision Authority (MDA) IPR #5	2	2026	2	2026
Testing: Live Fire Test & Evaluation (LFT&E) #1	1	2021	4	2022
Testing: Cyber Table Top (CTT)-2	1	2022	3	2022
Testing: Land Based SIM/STIM Testing/Early Integration Risk Reduction Test	1	2021	4	2026
Testing: Shock Qualification Testing	2	2022	4	2023
Testing: Cyber Table Top (CTT-3)	4	2023	4	2023
Testing: Integration and Test Efforts	1	2021	4	2025
Testing: Live Fire Test & Evaluation (LFT&E) #2	2	2025	4	2025
Testing: Builders Trials - Ship 1	2	2026	3	2026

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy **Date:** April 2022

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603599N / <i>FRIGATE Development</i>	Project (Number/Name) 3086 / <i>Frigate</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Testing: Acceptance Trials - Ship 1	3	2026	3	2026
Testing: Early Operational Assessment (OT-B1)	1	2022	1	2022