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

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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	342.070	56.890	81.942	109.459	-	109.459	-	-	-	-	-	-
3086: <i>Frigate</i>	342.070	56.890	81.942	109.459	-	109.459	-	-	-	-	-	-

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

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 continue AWS design development, coding, and test; Combat System and C4I Element Integration; and test and evaluation activities including Live Fire Test and Evaluation (LFT&E) and cyber table top (#2). FY 2022 funds will 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.

B. Program Change Summary (\$ in Millions)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	59.007	82.309	69.400	-	69.400
Current President's Budget	56.890	81.942	109.459	-	109.459
Total Adjustments	-2.117	-0.367	40.059	-	40.059
• Congressional General Reductions	-	-0.367			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.117	0.000			
• Program Adjustments	0.000	0.000	41.960	-	41.960
• Rate/Misc Adjustments	0.000	0.000	-1.901	-	-1.901

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<p><u>Change Summary Explanation</u> FY 2020 -\$2.117M due to SBIR transfer. FY 2021 -\$0.367M due to Inflation Rate Reduction. FY 2022 +\$37.075M Full Funding, -\$1.940M due to pricing to the CCP/ICE subsequent decreases due to NWCF Rate / DoD Inflation Rate adjustments, + \$6.300M program initiation of a FFG LBES to meet FY21 NDAA language and -\$1.901M miscellaneous adjustments.</p>		

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

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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
3086: <i>Frigate</i>	342.070	56.890	81.942	109.459	-	109.459	-	-	-	-	-	-
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Title: Ship Systems / C4I / Warfare Systems Engineering	50.179	71.525	80.243	0.000	80.243
Articles:	-	-	-	-	-
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 2021 Plans: C4I / Warfare Systems Engineering					

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
<p>Continue system engineering and platform integration efforts for C4I, Combat, and Aviation systems. Continue AWS development efforts to ensure platform combat capability. 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 to meet Frigate requirements. Continue integration of other CS, HM&E and C4I elements into total ship design to inform modeling and simulation requirements of the Combat System Test Bed (CSTB) and other models, 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 detailed design of the Frigate platform and installation of CS, C4I, and Aviation equipment. Continue to optimize combat system capabilities for the design of hull. FY 21 will also include the conduct of several LFT&E modeling and survivability model validation efforts. Modeling and simulation efforts initiated in support of sustainment and readiness requirements.</p> <p>FY 2022 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 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.</p> <p>FY 2022 OCO Plans: N/A</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Funds increase of \$8.718M from FY 2021 to FY 2022 will support increased AEGIS combat system integration efforts with GFE systems, most notably the AN/SPY-6(V)3 radar and Rolling Airframe Missile (RAM).</p>					
Title: Test & Evaluation	6.711	10.417	29.216	0.000	29.216

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

	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Articles:	-	-	-	-	-
<p>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 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.</p> <p>FY 2021 Plans: Complete planning and conduct CTT-2. 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 resources coordination for the 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 first FFG(X) 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(X) DT and OT data to reduce future at-sea testing requirements. Continue combat system planning and test requirements review. FFG LBES test program development initiated.</p> <p>FY 2022 Base 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 Cyber Table Top #2 (CTT II) post-test analysis, test planning, and resources coordination for the multi-site land based Early Integration Testing (EIT). Begin developing schedules and identifying resource requirements timing to support testing and certifications that will be required for the first FFG(X) 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(X) 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</p>					

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

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. FFG LBES test program maturation to include development of test indices, test procedures, and test equipment specifications.

FY 2022 OCO Plans:
N/A

FY 2021 to FY 2022 Increase/Decrease Statement:
Funds increase of \$18.799M from FY21 to FY22. DOT&E efforts increase of \$4.705M to plan and execute Early Operational Assessments (EOA) and to support Combat System Test Bed (CSTB) Development, including integration efforts, modeling, and operational tests. LFT&E increase of \$5.443M required to support development and simulation of design-informed survivability models. Cybersecurity testing increase of \$2.351M to support Cyber Table Top #2 (CTT II) post-test analysis of results in support of Early Integration Testing (EIT) efforts and updates to test procedures and certification requirements as a result of the Frigate Architecture Framework (FAF). \$6.3M increase to account for LBES test program development.

	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Accomplishments/Planned Programs Subtotals	56.890	81.942	109.459	0.000	109.459

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

<u>Line Item</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022 Base</u>	<u>FY 2022 OCO</u>	<u>FY 2022 Total</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• SCN/2128: <i>FFG-Frigate</i>	1,281.177	1,053.123	1,157.000	-	1,157.000	-	-	-	-	-	-

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.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy **Date:** May 2021

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603599N / <i>FRIGATE Development</i>	Project (Number/Name) 3086 / <i>Frigate</i>
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Product Development (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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	-	-	-
System SPEC Development	WR	Government Activities : Various	8.455	0.000		0.000		0.000		-		0.000	-	-	-
System SPEC Development	C/CPAF	Various Contractors : Various	6.225	0.000		0.000		0.000		-		0.000	-	-	-
Over the Horizon (OTH) Missile Integration	WR	NAWC, China Lake : China Lake, CA	1.855	0.054	Feb 2020	0.854	Feb 2021	0.985	Feb 2022	-		0.985	-	-	-
Over the Horizon (OTH) Missile Integration	WR	Various : Various	3.305	0.061	Feb 2020	1.172	Feb 2021	0.000		-		0.000	-	-	-
FFG Architecture Framework/ Cyber	C/CPAF	Engility : San Diego, CA	3.792	0.400	Jan 2020	0.000		0.000		-		0.000	-	-	-
C4I Development	WR	NIWC : Charleston, SC	6.711	1.100	Nov 2019	2.406	Nov 2020	3.015	Nov 2021	-		3.015	-	-	-
C4I Development	WR	NIWC : San Diego, CA	4.983	1.516	Nov 2019	4.174	Nov 2020	4.223	Nov 2021	-		4.223	-	-	-
AEGIS Weapons System Development (AWS)	C/CPIF	Lockheed Martin : Various	38.898	12.949	Jan 2020	22.098	Jan 2021	23.660	Jan 2022	-		23.660	-	-	-
AEGIS Weapons System Development (AWS)	Various	Various Contractors : Various	3.323	1.400	Nov 2019	5.080	Nov 2020	7.280	Nov 2021	-		7.280	-	-	-
AEGIS Weapons System Development (AWS)	WR	Government Activities : Various	6.636	3.530	Nov 2019	3.971	Nov 2020	5.924	Nov 2021	-		5.924	-	-	-
Warfare Systems Development	WR	NUWC, Newport : Newport, RI	4.650	0.554	Nov 2019	0.521	Nov 2020	0.591	Nov 2021	-		0.591	-	-	-
Warfare Systems Development	WR	NSWC, DD : Dahlgren, VA	7.846	0.900	Nov 2019	3.545	Nov 2020	3.662	Nov 2021	-		3.662	-	-	-
Warfare Systems Development	WR	NSWC, CD : Carderock, MD	1.571	0.554	Nov 2019	2.593	Nov 2020	3.397	Nov 2021	-		3.397	-	-	-
Warfare Systems Development	C/CPIF	Lockheed Martin : Various	11.616	3.194	Dec 2019	5.865	Dec 2020	8.185	Dec 2021	-		8.185	-	-	-
Warfare Systems Development	Various	Various : Various	16.541	3.200	Nov 2019	4.135	Nov 2020	5.417	Nov 2021	-		5.417	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy **Date:** May 2021

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603599N / <i>FRIGATE Development</i>	Project (Number/Name) 3086 / <i>Frigate</i>
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Product Development (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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	6.350	1.811	Nov 2019	3.665	Nov 2020	4.141	Nov 2021	-		4.141	-	-	-
Aviation Integration Development	WR	NAWC, AD : Patuxent River, MD	4.313	1.150	Dec 2019	0.975	Dec 2020	0.726	Dec 2021	-		0.726	-	-	-
Aviation Integration Development	WR	NSWC, DD : Dahlgren, VA	1.243	0.586	Nov 2019	0.300	Nov 2020	0.300	Nov 2021	-		0.300	-	-	-
Product Development Support	WR	Various : Various	1.052	1.776	Nov 2019	1.875	Nov 2020	1.914	Nov 2021	-		1.914	-	-	-
Subtotal			251.612	34.735		63.229		73.420		-		73.420	-	-	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 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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	14.626	2.962	Nov 2019	0.000		0.000		-		0.000	-	-	-
Government Engineering Support	WR	NSWC, PD : Philadelphia, PA	6.143	1.625	Nov 2019	0.000		0.000		-		0.000	-	-	-
Government Engineering Support	WR	NSWC, DD : Dahlgren, VA	9.974	0.934	Nov 2019	0.000		0.000		-		0.000	-	-	-
Government Engineering Support	WR	NSWC, PHD : Port Hueneme, CA	1.380	0.270	Nov 2019	0.401	Nov 2020	0.437	Nov 2021	-		0.437	-	-	-
Government Engineering Support	WR	Government Activities : Various	3.957	0.714	Nov 2019	0.550	Nov 2020	0.578	Nov 2021	-		0.578	-	-	-
Contractor Engineering Support	C/CPAF	Booz Allen Hamilton : McLean, VA	3.169	1.101	Nov 2019	0.000		0.000		-		0.000	-	-	-
Contractor Engineering Support	C/CPAF	Gryphon : Arlington, VA	1.475	0.000	Nov 2019	0.000		0.000		-		0.000	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy											Date: May 2021				
Appropriation/Budget Activity 1319 / 4						R-1 Program Element (Number/Name) PE 0603599N / FRIGATE Development					Project (Number/Name) 3086 / Frigate				

Support (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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	6.142	2.470	Feb 2020	2.417	Feb 2021	2.465	Feb 2022	-		2.465	-	-	-
Contractor Engineering Support	Various	Various : Various	5.212	0.400	Jan 2020	1.000	Jan 2021	1.130	Jan 2022	-		1.130	-	-	-
Subtotal			52.078	10.476		4.368		4.610		-		4.610	-	-	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 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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	7.530	2.846	Dec 2019	1.163	Dec 2020	0.000		-		0.000	-	-	-
Test and Evaluation Master Plan (TEMP) Development	WR	Government Activities : Various	2.954	0.210	Dec 2019	0.152	Dec 2020	0.000		-		0.000	-	-	-
Cybersecurity Testing	WR	Government Activities : Various	3.172	0.510	Dec 2019	2.872	Dec 2020	5.223	Dec 2021	-		5.223	-	-	-
Land Based Integration & Test	WR	Government Activities : Various	0.272	2.111	Nov 2019	0.000		6.300	Dec 2021	-		6.300	-	-	-
Life Fire Test and Evaluation	WR	NSWC, CD : Carderock, MD	0.537	1.034	Dec 2019	4.651	Dec 2020	10.094	Dec 2021	-		10.094	-	-	-
Developmental & Operational Test and Evaluation	WR	Government Activities : Various	0.000	0.000		1.578	Dec 2020	7.598	Dec 2021	-		7.598	-	-	-
Subtotal			14.465	6.711		10.416		29.215		-		29.215	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy **Date:** May 2021

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603599N / <i>FRIGATE Development</i>	Project (Number/Name) 3086 / <i>Frigate</i>
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Management Services (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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	-	-	-
Program Management Support	WR	Various : Various	17.583	4.968	Dec 2019	3.929	Dec 2020	2.214	Dec 2021	-		2.214	-	-	-
Subtotal			23.915	4.968		3.929		2.214		-		2.214	-	-	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.

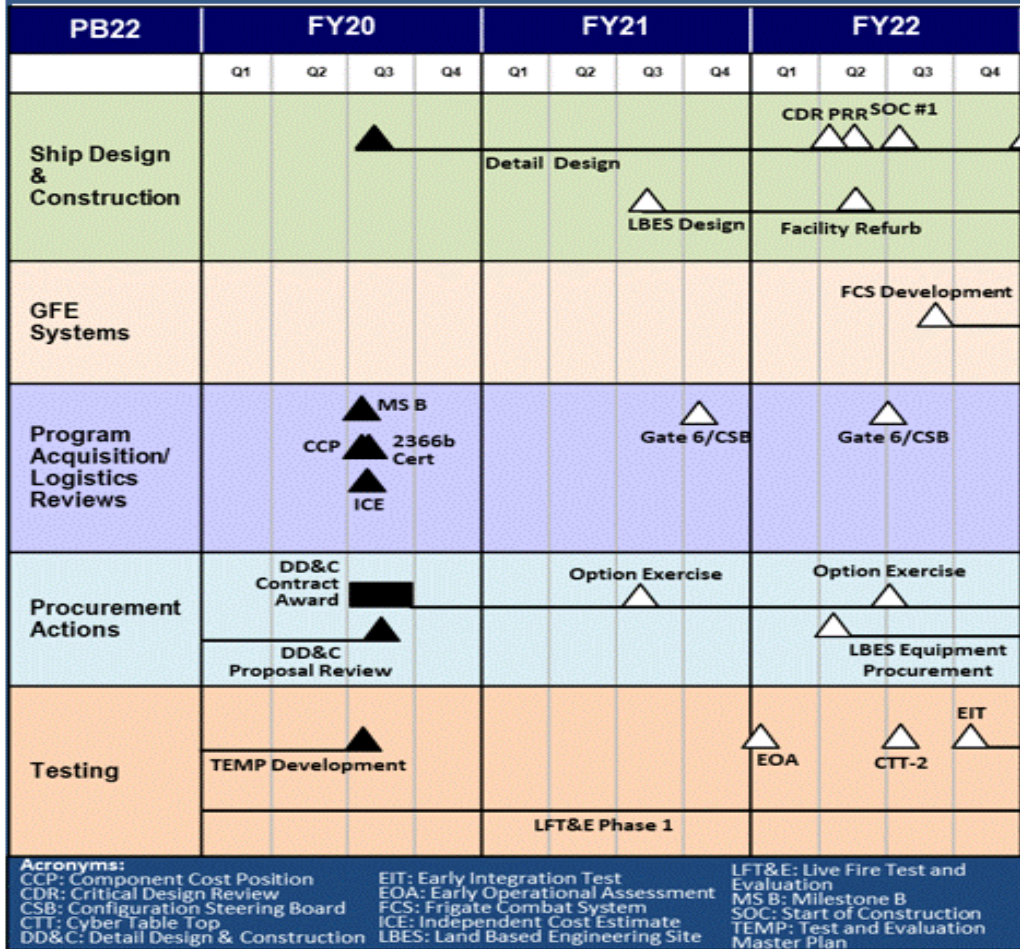
	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	342.070	56.890	81.942	109.459	-	109.459	-	-	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2022 Navy Date: May 2021

Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603599N / FRIGATE Development	Project (Number/Name) 3086 / Frigate
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Exhibit R-4A, RDT&E Schedule Details: PB 2022 Navy **Date:** May 2021

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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3086				
Ship Design: Detail Design Phase	3	2020	4	2022
GFE Systems: System Qualification Testing	2	2021	2	2021
GFE Systems: CS Integration and Testing	2	2021	4	2022
Program Acquisition/Logistics Reviews: Component Cost Position (CCP) Development	1	2020	3	2020
Program Acquisition/Logistics Reviews: Final CCP	3	2020	3	2020
Program Acquisition/Logistics Reviews: Independent Cost Estimate (ICE)	3	2020	3	2020
Program Acquisition/Logistics Reviews: Independent Cost Analysis Assessment (ILA) Development	1	2020	1	2020
Program Acquisition/Logistics Reviews: Milestone B	2	2020	2	2020
Program Acquisition/Logistics Reviews: Gate 6 Review	2	2021	2	2021
Program Acquisition/Logistics Reviews: Milestone Decision Authority (MDA) IPR #1	2	2022	2	2022
Procurement: Production (Ship) Proposal Review	1	2020	3	2020
Procurement: Production (Ship) Award	3	2020	3	2020
Testing: Test and Evaluation Master Plan (TEMP) Development	1	2020	3	2020
Testing: Live Fire Test & Evaluation (LFT&E) #1	1	2020	4	2022
Testing: Cyber Table Top (CTT)-2	1	2022	3	2022
Testing: Land Based SIM/STIM Testing/Early Integration Risk Reduction Test	1	2020	4	2022
Testing: Shock Qualification Testing	2	2022	4	2022
Testing: Integration and Test Efforts	1	2020	4	2022