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

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0204202N / DDG-1000
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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	1,701.130	105.122	222.519	112.576	-	112.576	-	-	-	-	-	-
2464: <i>DD(X) Sys Design, Dev &amp; Integration</i>	1,701.130	105.122	222.519	112.576	-	112.576	-	-	-	-	-	-

**Program MDAP/MAIS Code:**  
**Project MDAP/MAIS Code(s):** 197

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

This Program Element (PE) provides funds for development of the DDG 1000 Class of U.S. Navy surface combatants. The mission of the DDG 1000 class is to provide credible independent forward presence/deterrence and operate as an integral part of Naval, Joint or Combined Maritime Forces. DDG 1000 will establish and maintain surface and sub-surface superiority, provide local air defense, and incorporate signature reduction to operate in all threat environments. DDG 1000 will have seamless Joint Interoperability to integrate all source information for battlespace awareness and weapons direction.

Funding provided will also integrate Conventional Prompt Strike (CPS) into all three ZUMWALT Class Destroyers. The funding provides a flexible, surface combatant launched long-range strike capability through the ships' remaining service life. When combined with the low observable characteristics of the ZUMWALT platform, the funds provide a compelling strike capability from a platform designed to complicate an adversaries' targeting problem. Funding enables ship modifications for installation of a cold launch system common to the Ohio class SSGN and future Virginia Payload Module, with the capacity to carry up to 12 All-Up-Rounds (AUR) per ship.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Previous President's Budget	111.435	208.448	90.883	-	90.883
Current President's Budget	105.122	222.519	112.576	-	112.576
Total Adjustments	-6.313	14.071	21.693	-	21.693
• Congressional General Reductions	-	-0.929			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	15.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-2.345	0.000			
• SBIR/STTR Transfer	-3.968	0.000			
• Program Adjustments	0.000	0.000	23.400	-	23.400
• Rate/Misc Adjustments	0.000	0.000	-1.707	-	-1.707

**Change Summary Explanation**

FY20: Decrease due to SBIR/STTR reduction

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FY21: Increase for Conventional Prompt Strike FY22: Total Increase of \$22M Conventional Prompt Strike Increase +\$75M Maritime Strike Tomahawk Decrease (Descoped) -\$21M NTCDL Decrease (Re-phased) -\$2M Maritime Targeting Cell Afloat (MTC-A) Decrease (Re-phased) -\$29M Inflation and Rate Adjustments Decrease -\$1M		

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0204202N / DDG-1000	<b>Project (Number/Name)</b> 2464 / DD(X) Sys Design, Dev & Integration
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
2464: DD(X) Sys Design, Dev & Integration	1,701.130	105.122	222.519	112.576	-	112.576	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**Project MDAP/MAIS Code:** 197

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

This project encompasses DDG 1000 development efforts required to deliver the Flight I DDG 1000 Class Ships. Major efforts include software requirements analysis, architectural and design code and unit testing, integration, qualification testing, and Independent Verification and Validation (IV&V) for Software Releases; execution of Integrated Power Systems (IPS) and ship control system testing and integration; Live Fire Test and Evaluation (LFT&E), Developmental Testing (DT), and Integrated Testing (IT) in support of the Test and Evaluation Master Plan (TEMP) and development of Tactical Tomahawk Weapon Control System (TTWCS) software. Funding for previous years is included in PE 0604300N and under 0204202N Project Unit 4009.

Funding provided will integrate Conventional Prompt Strike (CPS) into all three ZUMWALT Class Destroyers. The funding provides a flexible, surface combatant launched long-range strike capability through the ships' remaining service life. When combined with the low observable characteristics of the ZUMWALT platform, the funds provide a compelling strike capability from a platform designed to complicate an adversaries targeting problem. Funding enables ship modifications for installation of a cold launch system common to the Ohio class SSGN and future Virginia Payload Module, with the capacity to carry up to 12 All-Up-Rounds (AUR) per ship.

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

	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
<b>Title:</b> Product / Software Development	60.757	159.719	66.176	0.000	66.176
<b>Articles:</b>	-	-	-	-	-
<b>Description:</b> Product Development/Software Development					
<b>FY 2021 Plans:</b>					
Continue development of the Surface Strike by certifying the SM-6 demonstration scenario, conduct of the SM-6 Mission Readiness Review (MRR) culminating in an SM-6 BLK IA proof of concept demonstration ("fire and forget" guided test vehicle) without in-flight missile support, i.e. uplinks, downlinks, and organic radar, onboard DDG 1000 in Q4 FY21. System Engineering for COLBRA results in a Q3 FY21 SRR and a Q4 FY21 Preliminary Design Review (PDR). First ship install and procurement of Maritime Targeting Cell - Afloat (MTC-A) with preparations for major test events aboard a DDG 1000 class ship, and a software delivery. Product development for class technical issues to include Electro-Optical / InfraRed (EO/IR) Sensors, Cybersecurity, Engineer Control System (ECS) and shaft encoder.					

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

	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<p>Conventional Prompt Strike (CPS) will begin developing and executing a phased approach to CPS integration on the DDG 1000 Class to allow ship impact design work to commence, and allowed a window for the launcher Interface Controls Documents to mature. The first phase will be the removal of the Advanced Gun System to account for CPS space and weight requirements. The second phase will be the installation of the CPS magazine, including launch tube shock isolation and hatch and deck interface design. The third and final phase will be the CPS Weapon Control System design and integration. All phases include scope for the Ship Change Document and Ship Installation Drawing development. In addition, the program office is standing up programmatic resources to address integration of the CPS system of systems with multiple field activities and coordination with the SSP program office as well as industry partners in the development of the CPS Weapon System.</p> <p><b>FY 2022 Base Plans:</b> Continue product development for class technical issues to include Electro-Optical / InfraRed (EO/IR) Sensors, cybersecurity, propulsion motor drive controller upgrades and shaft encoder. The continuation of production on Maritime Targeting Cell - Afloat (MTC-A). Within Conventional Prompt Strike (CPS), ISEA Support for tech manual and drawing reviews and shipboard installation validations, DMSMS support, conduct a Manpower Analysis study, critical engineering design efforts, complete critical Hardware and Software changes necessary for integrating CPS in the existed Total Ship Computing Environment (TSCE), and develop a model simulator to train Crew members on console operations and weapon system employment. Continue systems engineering efforts for the assured performance, accuracy, integration, and compatibility of the CPS systems and related auxiliary systems by establishing system-level requirements, defining interfaces between sub systems and facilities, and initiating policy/design tenets to ensure overall system performance and interoperability.</p> <p><b>FY 2022 OCO Plans:</b> N/A</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Plan in FY22 was decreased due to realignment of funds previously requested for Maritime Strike Tomahawk (MST), and re-phasing of funding for Navy Tactical Common Data Link (NTCDL)and Maritime Targeting Cell - Afloat (MTC-A).</p>					
<p><b>Title:</b> Test and Evaluation</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> Test and Evaluation Master Plan (TEMP) Execution</p> <p><b>FY 2021 Plans:</b></p>	44.365 -	62.800 -	34.800 -	0.000 -	34.800 -

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<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0204202N / DDG-1000	<b>Project (Number/Name)</b> 2464 / DD(X) Sys Design, Dev & Integration

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
<p>Execution of DDG 1000 Class TEMP events (Anti-Air Warfare (AAW), Anti-Surface Warfare (ASuW), Integrated Undersea Warfare (IUSW) (Anti-Submarine Warfare (ASW) and Torpedo Defense), Strike Warfare (STW), Magnetic Signature, Interoperability, Cyber Security, Missions of State, Information Operations), execution of Lead Ship Total Ships Survivability Testing (TSST) events, capability improvement, and testing in accordance with the CNO directed mission change to Offensive Surface Strike.</p> <p><b>FY 2022 Base Plans:</b> Continued execution of DDG 1000 Class TEMP events and testing on the conventional prompt strike (CPS)</p> <p><b>FY 2022 OCO Plans:</b> N/A</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> The decrease between FY21 and FY22 results in the ramp down of TEMP events.</p>					
<p><b>Title:</b> Management Services</p> <p align="right"><b>Articles:</b></p>	0.000	0.000	11.600	0.000	11.600
<p><b>FY 2021 Plans:</b> N/A</p> <p><b>FY 2022 Base Plans:</b> Conduct a Manpower Analysis study to determine manning requirements for new weapon system. Conduct a Front End Analysis (FEA) to determine training requirements for the crew to operate weapon system and develop a model simulator to train Crew members.</p> <p><b>FY 2022 OCO Plans:</b> N/A</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Increase is due to the Install of Conventional Prompt Strike on DDG1000 Class Ships</p>	-	-	-	-	-
<b>Accomplishments/Planned Programs Subtotals</b>	105.122	222.519	112.576	0.000	112.576

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• OMN / 3B1K: <i>Specialized Skill Training</i>	2.978	12.004	3.175	-	3.175	-	-	-	-	-	-

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<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0204202N / DDG-1000	<b>Project (Number/Name)</b> 2464 / DD(X) Sys Design, Dev & Integration
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u> <u>Base</u>	<u>FY 2022</u> <u>OCO</u>	<u>FY 2022</u> <u>Total</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• OPN / 0947: <i>DDG 1000 Class Support Equipment</i>	8.530	37.859	126.107	-	126.107	-	-	-	-	-	-
• OMN/15BUO: <i>Life Cycle Engineering (IWS)</i>	46.531	95.150	96.419	-	96.419	-	-	-	-	-	-
• OMN/15BR1: <i>DDG 1000 Life Cycle Engineering and Sustainment</i>	11.562	47.454	38.868	-	38.868	-	-	-	-	-	-
• SCN/2119: <i>DDG 1000</i>	155.944	78.205	56.597	-	56.597	-	-	-	-	-	-

**Remarks**

**D. Acquisition Strategy**

In October 2010 a revised acquisition strategy had been determined that supports the DDG-1000/DDG-51 restart shipyard allocation workload Memorandum of Agreements (MOAs). Execution of the MOAs shifted primary construction of all three DDG-1000 class ships to Bath Iron Works (BIW). Award of the DDG 1001/1002 to BIW occurred in September 2011.

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0204202N / DDG-1000	<b>Project (Number/Name)</b> 2464 / DD(X) Sys Design, Dev & Integration
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<b>Product Development (\$ in Millions)</b>				<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Ship Integration Development Software	SS/CPAF	Raytheon : Tewksbury MA	990.778	0.000		11.300	Dec 2020	2.300	Dec 2021	-		2.300	-	-	-
Ship Integration Development (Prod Dev), TTWCS /ASIST	SS/CPFF	Various : Various	108.324	0.000		0.000		0.000		-		0.000	-	-	-
Surface Strike	Various	Various : Various	8.300	31.812	Dec 2019	52.233	Dec 2020	2.500	Oct 2021	-		2.500	-	-	-
Maritime Targeting Cell - Afloat	Various	Various : Various	8.000	28.945	Jan 2020	59.499	Jan 2021	18.366	Jan 2022	-		18.366	-	-	-
Alternative Weapon System Analysis	Various	Various : Various	1.312	0.000		0.000		0.000		-		0.000	-	-	-
Cybersecurity	SS/CPAF	Raytheon : Tewksbury MA	0.000	0.000		6.500	Dec 2020	3.200	Dec 2021	-		3.200	-	-	-
Product Development for Technical Issues	Various	Various : Various	0.000	0.000		16.116	Dec 2020	5.510	Dec 2021	-		5.510	-	-	-
Conventional Prompt Strike Design and Integration	C/CPAF	BIW : BATH, ME	0.000	0.000		8.200	Feb 2021	18.000	Nov 2021	-		18.000	-	-	-
Conventional Prompt Strike SSP Support	MIPR	SSP : WNY, DC	0.000	0.000		1.000	Apr 2021	16.300	Nov 2021	-		16.300	-	-	-
Conventional Prompt Strike Design and Integration	Various	Various : Various	0.000	0.000		4.871	Mar 2021	0.000		-		0.000	-	-	-
<b>Subtotal</b>			1,116.714	60.757		159.719		66.176		-		66.176	-	-	N/A

<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
SDTS (ITB1-120) / PRA TB	SS/CPFF	Raytheon : Portsmouth, RI	138.599	8.093	Dec 2019	7.965	Dec 2020	0.300	Dec 2021	-		0.300	-	-	-
T&E Engineering	C/CPFF	CSC : Washington, DC	3.600	0.200	Dec 2019	0.200	Dec 2020	0.000		-		0.000	-	-	-
SDTS/PRA/Integrated Test	Various	Various : Various	51.258	4.018	Nov 2019	8.377	Nov 2020	0.000		-		0.000	-	-	-

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0204202N / DDG-1000	<b>Project (Number/Name)</b> 2464 / DD(X) Sys Design, Dev & Integration
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<b>Test and Evaluation (\$ in Millions)</b>				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			
Advanced Program	C/CPIF	NSMA : Arlington, VA	18.979	1.043	Feb 2020	2.986	Mar 2021	0.000		-		0.000	-	-	-
Maritime Targeting Cell - Afloat	TBD	TBD : TBD	0.000	0.000		0.000		0.000		-		0.000	-	-	-
Eng/M&S/Cert Agents	WR	NSWC : Dahlgren, VA	8.571	0.412	Nov 2019	1.456	Nov 2020	0.000		-		0.000	-	-	-
Integrated Test	WR	NSWC : Bethesda, MD	19.397	2.169	Nov 2019	0.000		1.000	Nov 2021	-		1.000	-	-	-
HM&E Systems	WR	NSWC : Philadelphia, PA	0.850	0.000		0.000		0.000		-		0.000	-	-	-
SDTS/PRA/Test Bed/ESSM Engagement	Various	Various : Various	11.264	0.000		0.000		0.000		-		0.000	-	-	-
Threat Assesment/IR	C/CPIF	NRL : Washington, DC	2.720	0.525	Dec 2019	0.550	Dec 2020	0.000		-		0.000	-	-	-
SDTS	WR	SCSC : Wallops, Is, VA	5.903	0.000		0.000		0.000		-		0.000	-	-	-
LFT&E	C/CPIF	ROI : Mullica Hills, NJ	7.950	0.000		0.000		0.000		-		0.000	-	-	-
ITB3/ITB4/OPEVAL	Various	Various : Various	29.075	10.536	Nov 2019	6.919	Nov 2020	0.500	Nov 2021	-		0.500	-	-	-
Integration and Testing	Various	Various : Various	12.552	0.000		0.000		2.100	Nov 2021	-		2.100	-	-	-
T&E Engineering	WR	COTF : Norfolk, VA.	14.557	0.704	Dec 2019	2.700	Dec 2020	1.000	Dec 2021	-		1.000	-	-	-
Int Test/Undersea Warfare	WR	Various : Various	0.747	0.000		0.000		0.000		-		0.000	-	-	-
TTWCS	C/CPIF	NAVAIR : Not Specified	3.905	1.805	Apr 2020	2.597	Mar 2021	0.000		-		0.000	-	-	-
Sonobouys	TBD	NAVAIR : Not Specified	0.300	0.000		0.000		0.000		-		0.000	-	-	-
LRLAP Test Article Procurement ITB3/ITB4 (EMD)	C/CPIF	BAE : Minneapolis, MN	54.064	0.000		0.000		0.000		-		0.000	-	-	-
LFT&E Engineering	C/CPIF	ROI : Mullica Hills, NJ	35.852	0.400	Dec 2019	0.400	Dec 2020	0.000		-		0.000	-	-	-
ESSM/SM2 Procurement	C/CPIF	Raytheon : Tucson, AZ	39.538	0.000		0.000		0.000		-		0.000	-	-	-

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<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
MOE Test Bed	WR	NUWC : Various	11.744	4.646	Nov 2019	7.411	Nov 2020	0.000		-		0.000	-	-	-
Component Shock Qualification	WR	Various : Various	26.693	1.307	Oct 2019	16.000	Oct 2020	0.000		-		0.000	-	-	-
SDTS and Integrated Test	Various	PEO IWS : Washington, DC	74.913	5.565	Nov 2019	1.226	Nov 2020	0.000		-		0.000	-	-	-
T&E Engineering	WR	NSWC : Panama City, FL	4.930	0.742	Nov 2019	1.813	Nov 2020	0.000		-		0.000	-	-	-
FSST	Various	Various : Various	0.000	0.000		0.000		0.000		-		0.000	-	-	-
ESSM	Various	Various : Various	0.000	0.800	Dec 2019	0.800	Dec 2020	0.200	Dec 2021	-		0.200	-	-	-
SM2	Various	Various : Various	0.000	1.400	Dec 2019	1.400	Dec 2020	0.200	Dec 2021	-		0.200	-	-	-
Conventional Prompt Strike Test and Evaluation	C/CPIF	SSP : WNY, DC	0.000	0.000		0.000		29.500	Nov 2021	-		29.500	-	-	-
Travel	Various	NAVSEA : Washington, DC	6.455	0.000		0.000		0.000		-		0.000	-	-	-
<b>Subtotal</b>			584.416	44.365		62.800		34.800		-		34.800	-	-	N/A

<b>Management Services (\$ in Millions)</b>				<b>FY 2020</b>		<b>FY 2021</b>		<b>FY 2022 Base</b>		<b>FY 2022 OCO</b>		<b>FY 2022 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Conventional Prompt Strike Training and Curriculum Development	Various	Various : Various	0.000	0.000		0.000		11.600	Nov 2021	-		11.600	-	-	-
<b>Subtotal</b>			0.000	0.000		0.000		11.600		-		11.600	-	-	N/A

<b>Project Cost Totals</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
	1,701.130	105.122	222.519	112.576	-	112.576	-	-	N/A

**Remarks**

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

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0204202N / DDG-1000	<b>Project (Number/Name)</b> 2464 / DD(X) Sys Design, Dev & Integration
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	FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Proj 2464</b>																												
Conduct ITB1-120 - SDTS																												
Combat Stage Test																												
Post Delivery Test & Trials Phase I																												
PSA																												
Post Delivery Test & Trials Phase II																												
IOC																												
OTB6																												
Heavy Weather Trials 1																												
Heavy Weather Trials 2																												
Calm Weather Trials 2																												
TSST																												
DTB4-120 AAW																												
DTB3-141A/B Sub Def, DTB4-141 A/B Torpedo Def, DTB4-130 SUW																												
Magnetics, ITB4-120 AAW DTE/OTB5, ITB4-141 A/C Sub Def/OTB5, ITB4-141B Torpedo Def, ITB4-130 SUW DTE/OTB5, ITB4-101 Strike, OTB5 AAW and ASW																												
SM6																												
COLBRA Integration and Qualification																												
MTC-A Technical Demonstration																												
Conventional Prompt Strike																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details: PB 2022 Navy</b>		<b>Date: May 2021</b>
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0204202N / DDG-1000	<b>Project (Number/Name)</b> 2464 / DD(X) Sys Design, Dev & Integration

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 2464</b>				
Conduct ITB1-120 - SDTS	1	2020	3	2021
Combat Stage Test	1	2020	1	2022
Post Delivery Test & Trials Phase I	3	2020	1	2021
PSA	2	2021	3	2021
Post Delivery Test & Trials Phase II	3	2021	3	2022
IOC	1	2022	1	2022
OTB6	1	2022	3	2022
Heavy Weather Trials 1	1	2020	1	2020
Heavy Weather Trials 2	1	2021	1	2021
Calm Weather Trials 2	3	2020	3	2020
TSST	1	2022	1	2022
DTB4-120 AAW	3	2020	1	2021
DTB3-141A/B Sub Def, DTB4-141 A/B Torpedo Def, DTB4-130 SUW	2	2021	1	2022
Magnetics, ITB4-120 AAW DTE/OTB5, ITB4-141 A/C Sub Def/OTB5, ITB4-141B Torpedo Def, ITB4-130 SUW DTE/OTB5, ITB4-101 Strike, OTB5 AAW and ASW	4	2021	3	2022
SM6	1	2020	1	2022
COLBRA Integration and Qualification	2	2021	4	2021
MTC-A Technical Demonstration	1	2020	4	2022
Conventional Prompt Strike	1	2021	4	2022