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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 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0308601N / <i>Modeling & Simulation Support</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	58.561	8.494	9.772	9.437	-	9.437	10.763	10.722	10.562	10.737	Continuing	Continuing
2222: <i>Modeling & Simulation</i>	58.561	8.494	9.772	9.437	-	9.437	10.763	10.722	10.562	10.737	Continuing	Continuing

A. Mission Description and Budget Item Justification

This Program Element addresses projects under the Navy Modeling and Simulation (M&S) Office. It supports technical and management initiatives directed by Congress, Department of Defense (DoD), Secretary of the Navy (SECNAV), and Chief of Naval Operations (CNO) with the aim of bringing organization, focus, and efficiency to the development and use of M&S throughout the Navy and DoD. It provides a central organization for the formulation and implementation of policy and guidance in M&S, and represents Navy interests in Joint and other agency initiatives. It funds efforts to define and coordinate the corporate Navy M&S policy, M&S execution, and guidance to evolve an interoperable and reusable core M&S capability consistent with the M&S technical framework prescribed by DoD across the FYDP.

DON M&S priorities include Systems Engineering and Integration, Model Based Systems Engineering (MBSE), and Interoperability and Requirements Development to determine the required networks, infrastructure, and data needed to support enterprise DON M&S capabilities which also leverage M&S standards, information systems, virtual environments, and T&E Augmentation in support of warfighting decision-making.

Efforts are organized around three product areas:

- (1) **Core Services:** This activity provides essential planning, coordination, and execution of Naval M&S efforts with other Services, the Office of Secretary of Defense (OSD), the Joint Staff, and other agencies that includes policies and procedures necessary for M&S standards, visibility, and potential reuse across DoD.
- (2) **Community Services:** This activity provides M&S subject matter expert support embedded in the Navy M&S Communities to recommend implementations for M&S policies, standards, VV&A, and reuse within their Community and to ensure that the wider DON and DoD are aware (visibility) of the M&S products and services, initiatives, processes, and standards.
- (3) **Community Experiments and Prototypes:** This activity conducts experiments and prototypes aimed at determining the feasibility and applicability of proposed standards or technical approaches to Navy M&S and investigates Service-unique requirements for standards or guidance to achieve M&S efficiencies.

UNCLASSIFIED

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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	8.683	9.772	0.000	-	0.000
Current President's Budget	8.494	9.772	9.437	-	9.437
Total Adjustments	-0.189	0.000	9.437	-	9.437
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.189	0.000			
• SBIR/STTR Transfer	-	-			
• 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	-	-	9.437	-	9.437

Change Summary Explanation

FINANCIAL: The FY 2023 funding request was adjusted by \$0.869M to account for the availability of prior year execution balances

TECHNICAL: No significant change.

SCHEDULE: Activities and milestones clarified to better show synchronization of Projects 2222 activities and deliverables in support of Project Overmatch and digital warfighting transformation objectives.

Major Milestones - Project 2222:

The overall schedule for project 2222 is linked to the Project Overmatch schedule which is held at a higher classification.

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 / 7					R-1 Program Element (Number/Name) PE 0308601N / <i>Modeling & Simulation Support</i>				Project (Number/Name) 2222 / <i>Modeling & Simulation</i>			
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
2222: <i>Modeling & Simulation</i>	58.561	8.494	9.772	9.437	-	9.437	10.763	10.722	10.562	10.737	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Program Element addresses projects under the Navy Modeling and Simulation (M&S) Office. It supports technical and management initiatives directed by Congress, Department of Defense (DoD), Secretary of the Navy (SECNAV), and Chief of Naval Operations (CNO) with the aim of bringing organization, focus, and efficiency to the development and use of M&S throughout the Navy and DoD. It provides a central organization for the formulation and implementation of policy and guidance in M&S, and represents Navy interests in Joint and other agency initiatives. It funds efforts to define and coordinate the corporate Navy M&S policy, M&S execution, and guidance to evolve an interoperable and reusable core M&S capability consistent with the M&S technical framework prescribed by DoD across the FYDP.

DON M&S priorities include Systems Engineering and Integration, Model Based Systems Engineering (MBSE), and Interoperability and Requirements Development to determine the required networks, infrastructure, and data needed to support enterprise DON M&S capabilities which also leverage M&S standards, information systems, virtual environments, and T&E Augmentation in support of warfighting decision-making.

Efforts are organized around three product areas:

(1) Core Services: This activity provides essential planning, coordination, and execution of Naval M&S efforts with other Services, the Office of Secretary of Defense (OSD), the Joint Staff, and other agencies that includes policies and procedures necessary for M&S standards, visibility, and potential reuse across DoD.

(2) Community Services: This activity provides M&S subject matter expert support embedded in the Navy M&S Communities to recommend implementations for M&S policies, standards, VV&A, and reuse within their Community and to ensure that the wider DON and DoD are aware (visibility) of the M&S products and services, initiatives, processes, and standards.

(3) Community Experiments and Prototypes: This activity conducts experiments and prototypes aimed at determining the feasibility and applicability of proposed standards or technical approaches to Navy M&S and investigates Service-unique requirements for standards or guidance to achieve M&S efficiencies.

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: CORE SERVICES	1.035	1.126	1.147	0.000	1.147
Articles:	-	-	-	-	-
Description: This activity provides essential planning, execution, and coordination of core Navy M&S efforts with other Services, the Office of Secretary of Defense (OSD), the Joint Staff, and other agencies to execute					

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Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0308601N / <i>Modeling & Simulation Support</i>	Project (Number/Name) 2222 / <i>Modeling & Simulation</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>core M&S activities and develop policies and procedures necessary for M&S visibility and potential reuse across DoD. This activity supports development of common services, tools, and databases to ensure the integration and connectivity of Navy M&S products employed in Naval assessments, training, acquisition, and operational communities. It manages and maintains the Navy M&S Information Service (NMSIS), the central Naval M&S information resource to support informed M&S investment decision making across DON. It implements and manages the Modeling and Simulation (M&S) Quality Assurance (VV&A) process and integration with Navy DevSecOps and the Fleet demonstration environment and includes guidelines for implementing for modeling, simulation, and data. It reviews both new and legacy M&S VV&A plans and reports and develops and maintains the Naval M&S VV&A repository. It establishes and implements a VV&A training curriculum for developers and Accreditation Agents.</p> <p>FY 2022 Plans:</p> <ul style="list-style-type: none"> - Continue to promote consistent application of M&S "Best Practices" and associated technologies to improve support across the DON Enterprise. - Develop and sustain core M&S tools, architecture, performance metrics, and models supporting cross-domain kill-chain-level analysis at a systems of systems level. - Leverage cloud technologies, Automated Test/Re-Test (ATRT), data pipelining efforts, AI/ML, and Modular Open Software Architecture (MOSA) capabilities to scale Navy M&S capabilities in support of Project Overmatch and digital warfighting engineering transformation for the Naval Operational Architecture (NOA) and Naval Tactical Grid (NTG). <p>FY 2023 Base Plans:</p> <ul style="list-style-type: none"> - Continue to promote consistent application of M&S "Best Practices" and associated technologies to improve support across the DON Enterprise. - Develop and sustain core M&S tools, architecture, performance metrics, and models supporting cross-domain kill-chain level analysis at a systems of systems level. 					

UNCLASSIFIED

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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
<p>- Leverage cloud technologies, Automated Test/Re-Test (ATRT), data pipelining efforts, AI/ML, and Modular Open Software Architecture (MOSA) capabilities to scale Navy M&S capabilities in support of Project Overmatch and related enterprise sandbox/LVC technologies.</p> <p>- Support the sustainment of core modeling capabilities and develop modeling growth capabilities into cloud environments at all security levels leveraging the Naval Integrated Modeling Environment (IME).</p> <p>FY 2023 OCO Plans: N/A</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: There is no significant change from FY 2022 to FY 2023.</p>					
<p>Title: COMMUNITY SERVICES</p> <p align="right">Articles:</p> <p>Description: This activity provides M&S subject matter expert support embedded in the Navy M&S Communities to recommend implementations for M&S policies and standards within their Communities to ensure that the wider DON is aware of the M&S products and services, initiatives, processes, and standards (visibility). It promotes M&S reuse through cooperative Community M&S activities which identify and prioritize M&S capability requirements between and across Communities. It also provides an M&S degree program through the Naval Postgraduate School (NPS), Modeling Virtual Environments and Simulation (MOVES) curriculum which qualifies officers to fill 6202-P coded billets. Financial support for thesis and dissertation efforts done by the students is covered by this funding. Topics are broad M&S topics of concern which are prioritized based on how they meet the requirements across, between and within the M&S Communities. This coordination includes the leveraging M&S standards, information systems, virtual environments, and T&E Augmentation in support of warfighting decision-making.</p> <p>FY 2022 Plans: - Continue to support subject matter expert support to and "best practices" development and expansion of M&S tools via open standards and interfaces, common data and task management and Communications-As-A-Service (Caas) capabilities in support of priority mission thread(s), Battle Management/Mission Planning (BM/MP) aids, Networking capabilities, and Command and Control capabilities.</p>	2.059	2.330	2.296	0.000	2.296
	-	-	-	-	-

UNCLASSIFIED

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Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0308601N / Modeling & Simulation Support	Project (Number/Name) 2222 / Modeling & Simulation			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
<p>- Continue subject matter expert support to and development and expansion of M&S tools to support Fleet priority capabilities including integration of BMA and Artificial Intelligence (AI)/Machine Learning (ML) open standards upon a Navy digital warfighting platform.</p> <p>FY 2023 Base Plans:</p> <p>- Continue to support subject matter expert support to and "best practices" development and expansion of M&S tools via open standards and interfaces, enterprise reference architectures, common data and track management and related enterprise sandbox technologies.</p> <p>- Continue subject matter expert support to and development and expansion of M&S tools to support Fleet priority capabilities by considering integration of Artificial Intelligence (AI)/Machine Learning (ML) open standards into appropriate enterprise sandbox platforms.</p> <p>- Continue and expand integration with M&S via the Integrated Modeling Environment (IME), with associated open standards and policy guidance.</p> <p>FY 2023 OCO Plans: N/A</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: There is no significant change from FY 2022 to FY 2023.</p>					
Title: COMMUNITY EXPERIMENTS and PROTOTYPES					
Description: This activity conducts experiments and prototypes aimed at determining the feasibility and applicability of proposed standards, open architectures, or technical approaches to Navy M&S, and investigates Service-unique requirements for standards or guidance. Individual efforts focus on developing or evaluating approaches to optimize training, assessments and acquisition functional, mission objectives through more efficient development and use of M&S. This activity develops methodologies and standards that will result in model and data reusability and interoperability through the formulation of a technical framework. These standards support the full range of Naval Operational Architecture (NOA) and engineering design requirements across the Navy. This activity supports development of tools necessary to enable the seamless access and use of operationally relevant M&S products to support Navy training, warfare assessments and acquisition requirements. This funding improves and modernizes Core Enterprise Modeling and Simulation capabilities in					
	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
	5.400	6.316	5.994	0.000	5.994
	Articles:	-	-	-	-

UNCLASSIFIED

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

areas such as M&S standards, information systems, virtual environments, and T&E Augmentation in support of warfighting decision-making.

FY 2022 Plans:

- Expand and develop M&S tools, policy and processes, and Live/Virtual/Constructive laboratory infrastructure to allow the secure exchange of data enabling the effective development, modernization, and utilization of M&S Tools and Analytics.
- Continue and expand upon M&S development tool sets with open standards and interfaces to support priority mission thread(s), Battle Management/Mission Planning (BM/MP) Aids, Tactical Decision Aids (TDAs), Networking capabilities, and Command and Control capabilities.
- Continue and expand integration with M&S via the Integrated Modeling Environment (IME), with associated open standards and policy guidance.
- Conduct M&S Fleet experiments and prototype events and generation of validated performance metrics, models, design, and system-of-system requirements in support of Communications as a Service (CaaS) with the Naval Tactical Grid (NTG) and other enterprise mission areas.
- Advance and efficiently integrate leading edge M&S capabilities in response to complex emerging threats and future warfighting environments.

FY 2023 Base Plans:

- Expand and develop M&S tools, policy and processes, and Live/Virtual/Constructive laboratory infrastructure to allow the secure exchange of data enabling the effective development, modernization, and utilization of M&S Tools and Analytics and associated enterprise sandbox technologies.
- Continue and expand upon M&S development tool sets with open standards and interfaces to support priority mission capabilities and related enterprise sandbox technologies.
- Support M&S experiments and prototype events and generation of validated performance metrics, models, design, system-of-system requirements and enterprise mission areas, employing applicable enterprise sandbox technologies.

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

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0308601N / Modeling & Simulation Support	Project (Number/Name) 2222 / Modeling & Simulation

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
- Advance and efficiently integrate leading edge M&S capabilities in response to complex emerging threats and future warfighting environments. FY 2023 OCO Plans: N/A FY 2022 to FY 2023 Increase/Decrease Statement: The decrease of \$322k is due to updated task phasing and required deliverables to support aligned enterprise M&S scaling for complex emerging threats and future warfighting requirements.					
Accomplishments/Planned Programs Subtotals	8.494	9.772	9.437	0.000	9.437

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>
• RDTEN/0307577N: <i>Intelligence Mission Data (IMD)</i>	0.000	0.907	0.851	-	0.851	0.771	0.780	0.793	0.806	Continuing	Continuing
• RDTEN/0604027N: <i>Digital Warfare</i>	34.943	46.769	165.753	-	165.753	179.024	134.595	134.426	136.835	Continuing	Continuing
• RDTEN/0603382N/0324: <i>Adv Combat System Technology</i>	1.299	1.566	2.480	-	2.480	2.205	2.038	2.075	2.025	Continuing	Continuing
• RDTEN/0603597N: <i>Automated Test & Analysis</i>	4.680	7.805	9.773	-	9.773	10.495	10.670	10.904	11.130	49.140	247.675
• OMN/4B3N: <i>Acquisition, Logistics, and Oversight</i>	5.316	6.498	6.670	-	6.670	6.930	4.453	4.542	4.633	0.000	39.042

Remarks

This effort synergizes with and leverages/supports other funded efforts including Intelligence Mission Data (IMD) (RDTEN/PE 0307577N), Digital Warfare (RDTEN/PE 0604027N), Advanced Combat Systems Tech (RDTEN/PE 0603382N/Proj 0324), Automated Test & Re-Test (RDTEN/PE 0603597N) and Modeling & Simulation Support (OMN/4B3N) to support Project Overmatch and warfighting digital transformation efforts, and enterprise sandbox technologies.

D. Acquisition Strategy

This is a non-ACAT program. The focus of the Navy Modeling and Simulation (M&S) efforts is to facilitate and enable the efficient use of M&S by minimizing duplication of M&S efforts and maximize the reuse of M&S and data. The Navy's Enterprise M&S is being extended and scaled for applicability across the Department of the Navy to enable open, affordable and rapid integrated M&S capability development.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0308601N / <i>Modeling & Simulation Support</i>	Project (Number/Name) 2222 / <i>Modeling & Simulation</i>

This effort synergizes with and leverages/supports other funded efforts including Intelligence Mission Data (IMD) (RDTEN/PE 0307577N), Digital Warfare (RDTEN/PE 0604027N), Advanced Combat Systems Tech (RDTEN/PE 0603382N/Proj 0324), Automated Test & Re-Test (RDTEN/PE 0603597N) and Modeling & Simulation Support (OMN/4B3N) to support Project Overmatch and warfighting digital transformation efforts, and enterprise sandbox technologies.

UNCLASSIFIED

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

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0308601N / Modeling & Simulation Support	Project (Number/Name) 2222 / Modeling & Simulation
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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
Infrastructures, integration and testing	Various	Various : Various	12.544	0.000		0.000		0.000		-		0.000	0.000	12.544	-
Analysis, policies, plans interoperability	Various	Various : Various	17.625	0.000		0.000		0.000		-		0.000	0.000	17.625	-
User interfaces, modeling modules, tactical software	Various	Various : Various	2.439	0.000		0.000		0.000		-		0.000	0.000	2.439	-
DWP-T - SYSCOMS	Various	Various : Various	0.000	0.874	Nov 2020	1.001	Nov 2021	0.000		-		0.000	Continuing	Continuing	Continuing
DWP-T - Warfare Centers	WR	Various : Various	0.000	0.832	Dec 2020	0.875	Nov 2021	0.000		-		0.000	Continuing	Continuing	Continuing
DWP-T - Other, Govt	Various	Various : Various	0.000	0.312	Mar 2021	0.338	Mar 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Design (DWD) - SYSCOMS	Various	Various : Various	0.000	0.871	Nov 2020	1.008	Nov 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Design (DWD) - Warfare Centers	WR	Various : Various	0.000	0.830	Nov 2020	0.936	Nov 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Design (DWD) - Other, Govt	Various	Various : Various	0.000	0.312	Mar 2021	0.350	Mar 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Applications (DWA) - SYSCOMS	Various	Various : Various	0.000	0.871	Nov 2020	1.049	Nov 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Applications (DWA) - Warfare Centers	WR	Various : Various	0.000	0.830	Dec 2020	0.935	Nov 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Applications (DWA) - Other, Govt	Various	Various : Various	0.000	0.312	Mar 2021	0.350	Mar 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Core Services	Various	Various : Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Community Services	Various	Various : Various	0.000	0.000		0.000		0.453	Nov 2022	-		0.453	Continuing	Continuing	Continuing
Community Experiments and Prototypes	Various	Various : Various	0.000	0.000		0.000		3.597	Nov 2022	-		3.597	Continuing	Continuing	Continuing
Subtotal			32.608	6.044		6.842		4.050		-		4.050	Continuing	Continuing	N/A

Remarks
In FY23 and out, Modeling and Simulation support cost category alignments have been updated to better match R-2A activities and categories.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy												Date: April 2022			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
1319 / 7				PE 0308601N / Modeling & Simulation Support				2222 / Modeling & Simulation							
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
Infrastructures, integration and testing	Various	Various : Various	7.305	0.000		0.000		0.000		-		0.000	0.000	7.305	-
Analysis, policies, plans interoperability	Various	Various : Various	2.770	0.000		0.000		0.000		-		0.000	0.000	2.770	-
User interfaces, modeling modules, tactical software	Various	Various : Various	1.109	0.000		0.000		0.000		-		0.000	0.000	1.109	-
Digital Warfare Platform (DWP) - SYSCOMS	Various	Various : Various	0.000	0.240	Nov 2020	0.255	Nov 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Platform (DWP) - Warfare Centers	WR	Various : Various	0.000	0.214	Dec 2020	0.227	Dec 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Platform (DWP) - Other, Govt	Various	Various : Various	0.000	0.080	Mar 2021	0.085	Mar 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Design (DWD) - SYSCOMS	Various	Various : Various	0.000	0.240	Nov 2020	0.255	Nov 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Design (DWD) - Warfare Centers	WR	Various : Various	0.000	0.214	Dec 2020	0.226	Dec 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Design (DWD) - Other, Govt	Various	Various : Various	0.000	0.080	Mar 2021	0.085	Mar 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Applications (DWA) - SYSCOMS	Various	Various : Various	0.000	0.240	Nov 2020	0.256	Nov 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Applications (DWA) - Warfare Centers	WR	Various : Various	0.000	0.212	Dec 2020	0.226	Dec 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Applications (DWA) - Other, Govt	Various	Various : Various	0.000	0.080	Mar 2021	0.085	Mar 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Core Services	Various	Various : Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Community Services	Various	Various : Various	0.000	0.000		0.000		1.843	Nov 2022	-		1.843	Continuing	Continuing	Continuing
Community Experiments and Prototypes	Various	Various : Various	0.000	0.000		0.000		2.397	Nov 2022	-		2.397	Continuing	Continuing	Continuing
Subtotal			11.184	1.600		1.700		4.240		-		4.240	Continuing	Continuing	N/A

UNCLASSIFIED

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

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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			

Remarks
In FY23 and out, Modeling and Simulation support cost category alignments have been updated to better match R-2A activities and categories.

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			
Infrastructures, integration and testing	Various	Various : Various	9.740	0.000		0.000		0.000		-		0.000	0.000	9.740	-
Analysis, policies, plans interoperability	Various	Various : Various	3.592	0.000		0.000		0.000		-		0.000	0.000	3.592	-
User interfaces, modeling modules, tactical software	Various	Various : Various	1.437	0.000		0.000		0.000		-		0.000	0.000	1.437	-
Digital Warfare Platform (DWP) - SYSCOMS	Various	Various : Various	0.000	0.130	Nov 2020	0.178	Nov 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Platform (DWP) - Warfare Centers	WR	Various : Various	0.000	0.104	Dec 2020	0.167	Mar 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Platform (DWP) - Other, Govt	Various	Various : Various	0.000	0.050	Mar 2021	0.063	Dec 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Design (DWD) - SYSCOMS	Various	Various : Various	0.000	0.130	Nov 2020	0.177	Mar 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Design (DWD) - Warfare Centers	WR	Various : Various	0.000	0.104	Dec 2020	0.166	Nov 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Design (DWD) - Other, Govt	Various	Various : Various	0.000	0.050	Mar 2021	0.063	Dec 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Applications (DWA) - SYSCOMS	Various	Various : Various	0.000	0.130	Nov 2020	0.188	Dec 2021	0.000		-		0.000	Continuing	Continuing	Continuing
Digital Warfare Applications (DWA) - Warfare Centers	WR	Various : Various	0.000	0.102	Dec 2020	0.166	Nov 2021	0.000		-		0.000	Continuing	Continuing	Continuing

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

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0308601N / Modeling & Simulation Support	Project (Number/Name) 2222 / Modeling & Simulation
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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			
Digital Warfare Applications (DWA) - Other, Govt	Various	Various : Various	0.000	0.050	Mar 2021	0.062	Mar 2022	0.000		-		0.000	Continuing	Continuing	Continuing
Core Services	Various	Various : Various	0.000	0.000		0.000		1.147	Nov 2022	-		1.147	Continuing	Continuing	Continuing
Community Services	Various	Various : Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Community Experiments and Prototypes	Various	Various : Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Subtotal			14.769	0.850		1.230		1.147		-		1.147	Continuing	Continuing	N/A

Remarks
In FY23 and out, Modeling and Simulation support cost category alignments have been updated to better match R-2A activities and categories.

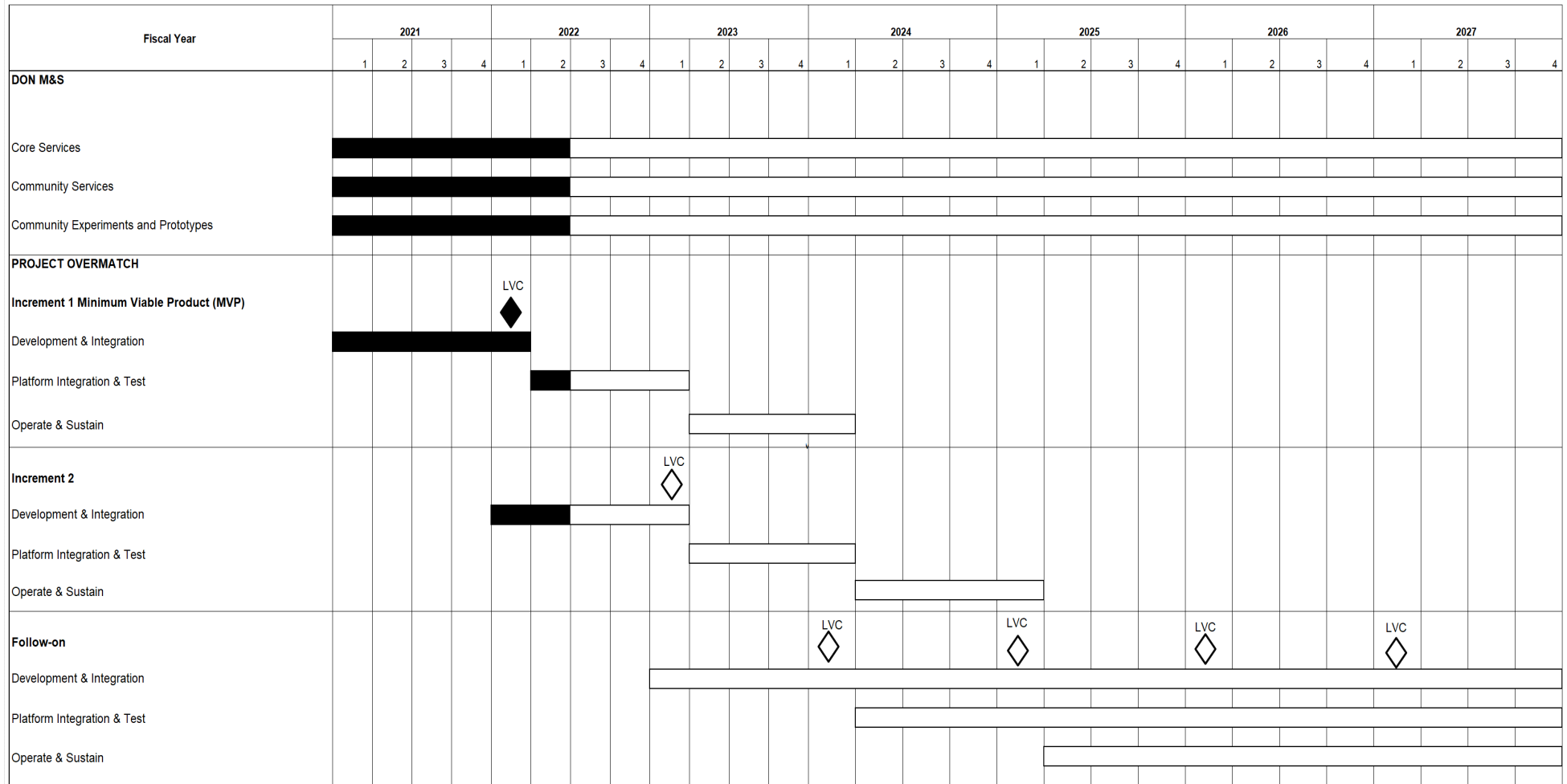
	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	58.561	8.494		9.772		9.437		-		9.437	Continuing	Continuing	N/A

Remarks

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

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0308601N / Modeling & Simulation Support	Project (Number/Name) 2222 / Modeling & Simulation
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Note: Specifics have been removed due to Classified nature of the Project

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0308601N / <i>Modeling & Simulation Support</i>	Project (Number/Name) 2222 / <i>Modeling & Simulation</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2222				
Core Services: Core Eco-System Planning, Execution, and Sustainment	1	2021	4	2027
Core Services: Community Subject Matter Expert Support	1	2021	4	2027
Core Services: Enterprise LVC Collaborative Fleet Events 1	1	2022	2	2022
Core Services: Enterprise LVC Collaborative Fleet Events 2	3	2022	4	2022
Core Services: Enterprise LVC Collaborative Fleet Events 3	1	2023	2	2023
Core Services: Enterprise LVC Collaborative Fleet Events 4	4	2023	1	2024
Core Services: Enterprise LVC Collaborative Fleet Events 5	2	2024	3	2024
Core Services: Enterprise LVC Collaborative Fleet Events 6	4	2024	1	2025
Core Services: Enterprise LVC Collaborative Fleet Events 7	1	2025	2	2025
Core Services: Enterprise LVC Collaborative Fleet Events 8	3	2025	4	2025
Core Services: Enterprise LVC Collaborative Fleet Events 9	1	2026	2	2026
Core Services: Enterprise LVC Collaborative Fleet Events 10	4	2026	1	2027
Core Services: Enterprise LVC Collaborative Fleet Events 11	1	2027	2	2027
Increment 1 Minimum Viable Product: Development & Integration	1	2021	4	2022
Increment 1 Minimum Viable Product: Development and Integration: Live, Virtual, and Constructive Test Event	1	2022	1	2022
Increment 1 Minimum Viable Product: Platform Integration & Test	1	2022	4	2022
Increment 1 Minimum Viable Product: Operate & Sustain	2	2022	1	2024
Increment 2: Development & Integration	1	2022	1	2023
Increment 2: Development and Integration: Live, Virtual, and Constructive Test Event	1	2023	1	2023
Increment 2: Platform Integration & Test	2	2023	1	2024

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

Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0308601N / <i>Modeling & Simulation Support</i>	Project (Number/Name) 2222 / <i>Modeling & Simulation</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Increment 2: Operate & Sustain	2	2024	1	2025
Follow-on: Development & Integration	1	2023	1	2027
Follow-on: Platform Integration & Test	2	2024	1	2027
Follow-on: Operate & Sustain	2	2025	1	2027