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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 8: Software and Digital Technology Pilot Programs</i>	R-1 Program Element (Number/Name) PE 0608231N / <i>MARITIME TACT CMD & CONTROL - SOFT PLT PRGM</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	0.000	10.969	14.843	11.198	-	11.198	11.485	11.522	11.702	11.873	Continuing	Continuing
3323: <i>Maritime Tactical Command & Control (MTC2)</i>	0.000	10.969	14.843	11.198	-	11.198	11.485	11.522	11.702	11.873	Continuing	Continuing

Note

Project Unit 3323: FY21 control does not include \$820K that is currently reflected under Program Element (PE) 0604231N Project 3323 due to MTC2 transitioning into the Software and Digital Technology Pilot Program under the new Budget Activity 08, and being designated as a new start in FY21. The program has FY21 funding executed out of both their old PE (0604231N) and their new PE (0608231N). The program had to execute funding out of the old PE during the Continuing Resolution (CR) and working with the Defense Finance and Accounting Service (DFAS) to transfer all expenditures from the old PE 0604231N to the new PE 0608231N.

A. Mission Description and Budget Item Justification

Section 872 of the National Defense Authorization Act (NDAA) for FY 2018 (P.L. 115-91) directed the Secretary of Defense to task the Defense Innovation Board (DIB) to undertake a study on "streamlining [the Department's] software development and acquisition regulations." The Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)) submitted the final report to Congress in May 2019. The DIB's report made recommendations aimed at transforming the way the Department acquires, develops, and deploys software and manages digital talent. The DIB encouraged the creation of a "new appropriation category for software capability delivery that allows (relevant types of) software to be funded as a single budget item, with no separation between Research, Development, Test & Evaluation (RDT&E), production and sustainment." The recommendation stemmed from the DIB's observation that current law, regulations, and policies (including those governing program funding and appropriations) treat software acquisition and development as a series of discrete, sequential steps; and that this approach is at odds with modern software, which is continuously updated to provide new functionality. This program has been designated as a Software and Digital Technology Pilot Program by the Secretary of Defense or the explanatory statement regarding this Act. The funding in this line is requested to be used for expenses necessary for agile procurement, production, modification and operation and maintenance of the pilot program requirements.

(Proj 3323) Maritime Tactical Command and Control (MTC2): is a next generation Command and Control (C2) software program that will deliver Battle Management Aids (BMA) and Maritime Planning Tools (MPT) to dynamically plan, direct, monitor, and assess maritime operations in support of Joint, Multi-Service, and Coalition Force planning. MTC2 will leverage a System of Services (SoServ) to deliver capabilities improving decision speed and dynamic synchronization of forces. BMAs / MPTs are small, capability-focused deliveries that can be rapidly developed, tested, and fielded. MTC2 will engage with the Office of the Chief of Naval Operations (OPNAV)-led and Fleet supported Requirements Governance Board (RGB) to define and prioritize the BMAs and MPTs that MTC2 will deliver and align to the Program Executive Office (PEO) Command, Control, Communications, and Intelligence (C4I) enterprise architecture Consolidated Afloat Network Enterprise Service (CANES), Agile Core Services (ACS)) for fielding to all echelons of command (Afloat and Ashore) within the Navy. The program's objective is to provide a suite of maritime applications (BMAs / MPTs) that enable planning, execution, monitoring, and assessment in support of operational and tactical level of war requirements. MTC2 will field BMAs / MPTs designed to provide automated and structured support for tactical and operational planning, decision-making, and execution. MTC2 will incorporate distributed data transfer capability for enhanced operational data exchange between command and control systems, combat systems, logistics, and intelligence systems for timely threat identification, location, and status alongside blue force data. MTC2 is the Navy's only solution to fulfill a portion of the Joint Global Force Management - Data

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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 8: Software and Digital Technology Pilot Programs</i>	R-1 Program Element (Number/Name) PE 0608231N / <i>MARITIME TACT CMD & CONTROL - SOFT PLT PRGM</i>
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Initiative (GFM-DI) Allocation requirements. GFM-DI is the Department-wide enterprise solution that enables visibility/accessibility/sharing of data applicable to the entire Department of Defense (DoD) force structure. MTC2 supports alignment and provides interoperability of Navy C2 with the DoD joint C2 way-forward. The program will fully align with joint C2 data and service exposure and consumption goals, architectures, and Net-Centric Enterprise Service efforts. The sustainment activities include support for evolutionary acquisition, program management, training and training events, help desk, procuring software licenses, and sustaining MTC2 Prototype instances until migration to MTC2 Program of Record.

B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	10.868	14.855	0.000	-	0.000
Current President's Budget	10.969	14.843	11.198	-	11.198
Total Adjustments	0.101	-0.012	11.198	-	11.198
• Congressional General Reductions	-	-0.012			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.505	0.000			
• SBIR/STTR Transfer	-0.404	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	-	-	11.198	-	11.198

Change Summary Explanation

FUNDING:

FY23 decrease reflects ramp down of Distributed Maritime Operations (DMO) development efforts started in FY22.

SCHEDULE:

No schedule changes to reflect.

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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Appropriation/Budget Activity 1319 / 8					R-1 Program Element (Number/Name) PE 0608231N / MARITIME TACT CMD & CONTROL - SOFT PLT PRGM				Project (Number/Name) 3323 / Maritime Tactical Command & Control (MTC2)			
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
3323: <i>Maritime Tactical Command & Control (MTC2)</i>	0.000	10.969	14.843	11.198	-	11.198	11.485	11.522	11.702	11.873	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

Project Unit 3323: FY21 control does not include \$820K that is currently reflected under Program Element (PE) 0604231N Project 3323 due to MTC2 transitioning into the Software and Digital Technology Pilot Program under the new Budget Activity 08, and being designated as a new start in FY21. The program currently has funding executed out of both their old PE (0604231N) and their new PE (0608231N). The program had to execute funding out of the old PE during the Continuing Resolution (CR) and working with the Defense Finance and Accounting Service (DFAS) to transfer all expenditures from the old PE 0604231N to the new PE 0608231N.

A. Mission Description and Budget Item Justification

Maritime Tactical Command and Control (MTC2) is a next generation Command and Control (C2) software program that will deliver Battle Management Aids (BMA) and Maritime Planning Tools (MPT) to dynamically plan, direct, monitor, and assess maritime operations in support of Joint, Multi-Service, and Coalition Force planning. MTC2 will leverage a System of Services (SoServ) to deliver capabilities improving decision speed and dynamic synchronization of forces. BMAs / MPTs are small, capability-focused deliveries that can be rapidly developed, tested, and fielded. MTC2 will leverage Science and Technology (S&T) investments and will engage with the Navy Requirements Governance Board (RGB) to define and prioritize the BMAs and MPTs that MTC2 will deliver and align to the Program Executive Office (PEO) Command, Control, Communications, and Intelligence (C4I) enterprise architecture (Consolidated Afloat Network Enterprise Service (CANES), Agile Core Services (ACS)) for fielding to all echelons of command (Afloat and Ashore) within the Navy. The program's objective is to provide a suite of maritime applications (BMAs / MPTs) that enable planning, execution, monitoring, and assessment in support of operational and tactical level of war requirements. MTC2 will field BMAs / MPTs designed to provide automated and structured support for tactical and operational planning, decision-making, and execution. As a software-only program that leverages enterprise infrastructure, MTC2 will provide new and improved capabilities to include an Operational Planning Tool (OPT), an improved browser enabled map visualization that will enable the warfighter to associate tracks to relevant data, past and predicted movements, ingest Meteorology and Oceanography information, and operational overlays. MTC2's updated architecture will enable future composable C2 capabilities to respond with a more rapid pace in changes in threats and technology. MTC2 is the Navy's solution to Global Force Management - Data Initiative (GFM-DI) which is Department of Defense (DoD) -wide enterprise solution that enables visibility/accessibility/sharing of data applicable to the entire DoD force structure. MTC2 will incorporate distributed data transfer capability for enhanced operational data exchange between command and control systems, combat systems, logistics, and intelligence systems for timely threat identification, location, and status alongside blue force data. MTC2 supports alignment and provides interoperability of Navy C2 with the DoD Joint C2 way-forward. The program will fully align with Joint C2 data and service exposure and consumption goals, architectures, and Net-Centric Enterprise Service efforts. The sustainment activities include support for evolutionary acquisition, program management, training and training events, help desk, procuring software licenses, and sustainment of MTC2 Program of Record instances.

FY 2023 funding will provide iterative development and delivery to targeted platforms necessary for the completion of the Navy special project. The delivery will include extended Maritime Planning Tools to support resilient Line of Sight (LoS) and Beyond Line of Sight (BLoS) communications networks, as well as Joint All-Domain Command and Control (JADC2) interfaces. MTC2 will continue executing under the Software Acquisition Pathway (SWP) and continue iterative development of MTC2

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v2.0 based on the SWP Capability Needs Statement (CNS). MTC2 will continue to field Ashore/Afloat of the PoR capability to the fleet and Maritime Operations Centers (MOCs). MTC2 will continue to receive feedback from fleet users for development, integration, and testing of additional capabilities/enhancements (Battle Management Aids (BMAs) / Maritime Planning Tools (MPT)).

The funding in this line also supports sustainment activities which include evolutionary acquisition and program management support, training and training events, help desk, procuring software licenses, and sustainment of the MTC2 Program of Record.

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

	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: Maritime Tactical Command and Control (MTC2) Development	7.990	11.462	7.699	0.000	7.699
Articles:	-	-	-	-	-
FY 2022 Plans:					
MTC2 will enter the execution phase of the Software Acquisition Pathway (SWP) and begin iterative development of MTC2 v2.0 based on the SWP Capability Needs Statement (CNS). MTC2 will continue to field Ashore/Afloat of the PoR capability to the fleet and MOCs. MTC2 will continue to receive feedback from fleet users for development, integration, and testing of additional capabilities/enhancements (Battle Management Aids (BMAs) / Maritime Planning Tools (MPT)). MTC2 will complete iterative development and deployment of deferred requirements of capabilities of MTC2 Deployment Scheduler (DepSked) v1.1 as upgrades to the fielded R2 software, and deliver the Minimum Viable Product (MVP) and Minimum Viable Capability Release (MVCR) of MTC2 v2.0 leveraging lessons learned and agile development best practices from the National Defense Authorization Act (NDAA) SEC 874 Software Development Pilot Program to gain efficiencies in development processes. In FY22, MTC2 will also continue participating in the single Software & Digital Technology Appropriation Pilot Program under a new Budget Activity as directed by Section 872 of the 2018 NDAA. MTC2 v2.0 additional development efforts provide critical battle management aid capabilities in MTC2 to enable the Navy to execute Distributed Maritime Operations (DMO). These additional capabilities in MTC2 are necessary to meet the timeline of targeted strike group deployments.					
FY 2023 Base Plans:					
MTC2 will continue executing under the Software Acquisition Pathway (SWP) and continue iterative development of MTC2 v2.0 based on the SWP Capability Needs Statement (CNS). MTC2 will continue to field Ashore/Afloat of the PoR capability to the fleet and Maritime Operations Centers (MOCs). MTC2 will continue to receive feedback from fleet users for development, integration, and testing of additional capabilities/enhancements (Battle Management Aids (BMAs) / Maritime Planning Tools (MPT)). FY 2023 funding will provide iterative development and delivery to targeted platforms necessary for the completion of the Navy special project, the delivery will include extended Maritime Planning Tools to support resilient Line of Sight (LoS) and Beyond Line of Sight (BLoS) communications networks, as well as Joint All-Domain Command and Control					

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Appropriation/Budget Activity 1319 / 8	R-1 Program Element (Number/Name) PE 0608231N / MARITIME TACT CMD & CONTROL - SOFT PLT PRGM	Project (Number/Name) 3323 / Maritime Tactical Command & Control (MTC2)
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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
(JADC2) interfaces. MTC2 v2.0 iterative delivery will also include additional BMA integration, with data and service interfaces. These additional capabilities in MTC2 are necessary to meet the timeline of targeted strike group deployments. FY 2023 OCO Plans: N/A FY 2022 to FY 2023 Increase/Decrease Statement: FY23 decrease reflects ramp down of DMO development efforts started in FY22.					
Title: Maritime Tactical Command and Control (MTC2) Sustainment Articles:	2.979	3.381	3.499	0.000	3.499
FY 2022 Plans: FY22 sustainment activities will include evolutionary acquisition and program management support, training and training events, help desk, installation, planning & design activities, procuring software licenses, and sustainment of MTC2 PoR releases. FY 2023 Base Plans: FY23 sustainment activities will include evolutionary acquisition and program management support, training and training events, help desk, installation, planning & design activities, procuring software licenses, and sustainment of MTC2 PoR releases. FY 2023 OCO Plans: N/A FY 2022 to FY 2023 Increase/Decrease Statement: Increase in FY23 provides increased help desk and technical support as the program continues to field to the fleet and Maritime Operation Centers (MOCs).	-	-	-	-	-
Accomplishments/Planned Programs Subtotals	10.969	14.843	11.198	0.000	11.198

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 Total Cost</u>
• 0604231N/3323: Maritime Tactical Command & Control	0.820	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	95.537

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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Remarks

D. Acquisition Strategy

MTC2 acquisition strategy realigned to DoDI 5000.87 Operation of the Software Acquisition Pathway in FY21. MTC2 executes an agile software development that is responsive to Fleet needs. Instead of operating under Joint Capabilities Integration and Development System (JCIDS) procedures, OPNAV N2N6 directs MTC2's capability requirements through a Capability Needs Statement (CNS). Capability areas identified in the CNS direct the Minimum Viable Capability Releases (MVCRs) delivered by the program. MTC2's primary contracting method for software development will utilize a Multiple Award Contract (MAC) which will feature Task Orders for MVCR development efforts. Naval Information Warfare Center - Pacific (NIWC-PAC), San Diego, CA is the designated Software Support Activity (SSA).

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

Appropriation/Budget Activity 1319 / 8	R-1 Program Element (Number/Name) PE 0608231N / MARITIME TACT CMD & CONTROL - SOFT PLT PRGM	Project (Number/Name) 3323 / Maritime Tactical Command & Control (MTC2)
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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
Systems Engineering	WR	NIWC PAC : San Diego, CA	0.000	1.025	Dec 2020	0.104	Dec 2021	0.000	Dec 2022	-		0.000	Continuing	Continuing	Continuing
Training Development	WR	NIWC PAC : San Diego, CA	0.000	0.059	Dec 2020	0.233	Dec 2021	0.229	Dec 2022	-		0.229	Continuing	Continuing	Continuing
Integration, Assembly & Test	WR	NIWC PAC : San Diego, CA	0.000	0.668	Dec 2020	3.184	Dec 2021	2.839	Dec 2022	-		2.839	Continuing	Continuing	Continuing
Systems Engineering	C/CPFF	Various : San Diego, CA	0.000	1.337	Dec 2020	4.438	Dec 2021	1.280	Dec 2022	-		1.280	Continuing	Continuing	Continuing
Software Development	WR	NIWC PAC : San Diego, CA	0.000	2.195	Dec 2020	1.044	Dec 2021	1.026	Dec 2022	-		1.026	Continuing	Continuing	Continuing
Software Development	C/CPFF	Various : San Diego, CA	0.000	1.423	Mar 2021	1.111	Dec 2021	1.583	Dec 2022	-		1.583	Continuing	Continuing	Continuing
Subtotal			0.000	6.707		10.114		6.957		-		6.957	Continuing	Continuing	N/A

Remarks
FY23 decrease reflects ramp down of Distributed Maritime Operations (DMO) development efforts started in FY22.

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
Integrated Logistics Support	WR	NIWC LANT : Norfolk, VA/San Diego, CA	0.000	0.049	Dec 2020	0.000		0.000	Dec 2022	-		0.000	Continuing	Continuing	Continuing
Integrated Logistics Support	C/CPFF	SeaPort : San Diego, CA	0.000	0.123	Dec 2020	0.156	Dec 2021	0.153	Dec 2022	-		0.153	Continuing	Continuing	Continuing
Software Maintenance	WR	NIWC PAC : San Diego, CA	0.000	2.620	Dec 2020	2.904	Dec 2021	2.750	Dec 2022	-		2.750	Continuing	Continuing	Continuing
Software Maintenance	C/CPFF	Various : San Diego, CA	0.000	0.000		0.184	Dec 2021	0.181	Dec 2022	-		0.181	Continuing	Continuing	Continuing
Subtotal			0.000	2.792		3.244		3.084		-		3.084	Continuing	Continuing	N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy	Date: April 2022
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	Project (Number/Name) 3323 / Maritime Tactical Command & Control (MTC2)

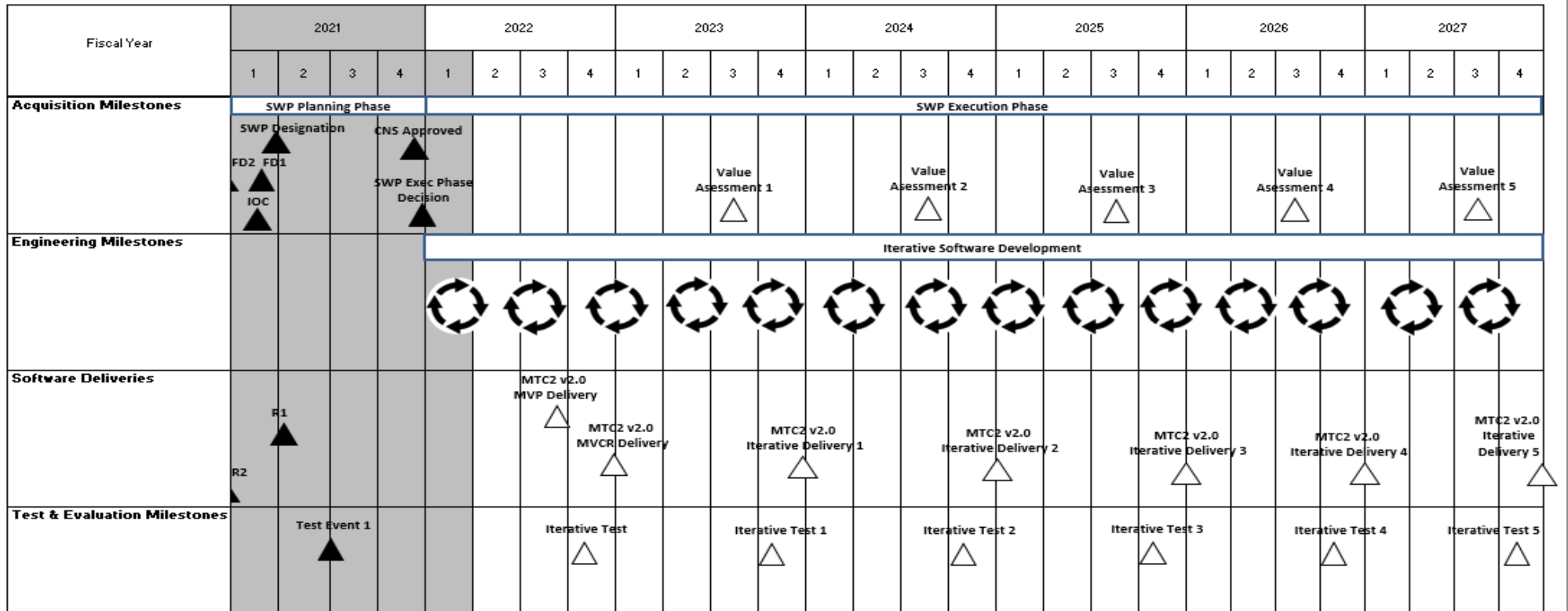


EXHIBIT R-4, Schedule Profile

Legend:
 FD - Field Decision
 IOC - Initial Operational Capability
 R - Release
 SWP - Software Acquisition Pathway
 CNS - Capability Needs Statement
 MVP - Minimum Viable Product
 MVCR - Minimum Viable Capability Release

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 8	R-1 Program Element (Number/Name) PE 0608231N / MARITIME TACT CMD & CONTROL - SOFT PLT PRGM	Project (Number/Name) 3323 / Maritime Tactical Command & Control (MTC2)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3323				
Software Acquisition Pathway (SWAP) Designation	1	2021	1	2021
Fielding Decision (FD) 1	1	2021	1	2021
Initial Operational Capability (IOC)	1	2021	1	2021
Release 1	2	2021	2	2021
Test Event 1	3	2021	3	2021
Capability Needs Statement (CNS) Approved	4	2021	4	2021
SWP Execution Phase Decision	4	2021	4	2021
SWP Execution Phase	1	2022	4	2027
SWP Iterative Software Development	1	2022	4	2027
MTC2 v2.0 MVP Delivery	3	2022	3	2022
Iterative Test	4	2022	4	2022
MTC2 v2.0 MVCR delivery	4	2022	4	2022
Value Assessment 1	3	2023	3	2023
Iterative Test 1	4	2023	4	2023
MTC2 v.2.0 Iterative Delivery 1	4	2023	4	2023
Value Assessment 2	3	2024	3	2024
Iterative Test 2	4	2024	4	2024
MTC2 v.2.0 Iterative Delivery 2	4	2024	4	2024
Value Assessment 3	3	2025	3	2025
Iterative Test 3	4	2025	4	2025
MTC2 v.2.0 Iterative Delivery 3	4	2025	4	2025

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

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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Value Assessment 4	3	2026	3	2026
Iterative Test 4	4	2026	4	2026
MTC2 v.2.0 Iterative Delivery 4	4	2026	4	2026
Value Assessment 5	3	2027	3	2027
Iterative Test 5	4	2027	4	2027
MTC2 v2.0 Iterative Delivery 5	4	2027	4	2027