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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 6: RDT&E Management Support</i>					R-1 Program Element (Number/Name) PE 0605873M / <i>Marine Corps Program Wide Supt</i>							
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	0.000	33.809	37.749	47.042	-	47.042	-	-	-	-	-	-
0030: <i>Studies & Analysis/MC</i>	0.000	4.034	2.348	2.732	-	2.732	-	-	-	-	-	-
0033: <i>OT&E Support</i>	0.000	14.194	14.906	15.338	-	15.338	-	-	-	-	-	-
2330: <i>Chem Bio Consequence Mgmt</i>	0.000	1.530	1.620	1.645	-	1.645	-	-	-	-	-	-
3009: <i>Marine Corps Wargaming Capability</i>	0.000	11.027	15.000	23.518	-	23.518	-	-	-	-	-	-
3783: <i>Information Environment Strategy, Policy and Governance</i>	0.000	3.024	3.875	3.809	-	3.809	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

This program element (PE) provides the analytical foundation for the Marine Corps Studies System (MCSS), including mandated Mission Area Analyses and Cost and Operational Effectiveness Analyses. It also includes capabilities that facilitate force development, war plan assessment, and concept and combat development. The MCSS is the front end of the Marine Corps' acquisition system. This PE also supports the material acquisition process as follows: managing the Marine Corps Operational Test and Evaluations (OT&E); providing Chem Bio Consequence Management of capabilities for Weapons of Mass Destruction (WMD) incident response forces; development of the Wargaming capability; and conducting analyses to inform the development and integration of Marine Corps Information Environment Operations (IE Ops).

B. Program Change Summary (\$ in Millions)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	34.734	42.749	33.145	-	33.145
Current President's Budget	33.809	37.749	47.042	-	47.042
Total Adjustments	-0.925	-5.000	13.897	-	13.897
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-5.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.925	0.000			
• Program Adjustments	0.000	0.000	7.156	-	7.156
• Rate/Misc Adjustments	0.000	0.000	6.741	-	6.741

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<u>Change Summary Explanation</u> The net increase of \$9.293M from FY 2021 to FY 2022 is primarily due to Wargaming capability Phase II prototyping and the final evaluation of the Phase II prototype. The extended Period of Performance will synchronize with the MILCON construction completion. The FY 2022 funding request was adjusted by \$0.121M to account for the availability of prior year execution balances.		

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

Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605873M / Marine Corps Program Wide Supt	Project (Number/Name) 0030 / Studies & Analysis/MC
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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
0030: <i>Studies & Analysis/MC</i>	0.000	4.034	2.348	2.732	-	2.732	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Marine Corps Requirements Oversight Council (MROC) established Operations Analysis Directorate (OAD) as the sole operations research, analytic support, and studies management program for the Marine Corps Study System (MCSS). MCSS analysis is achieving greater efficiency, productivity, and innovation through operations research methodologies such as: operational analysis, statistical analysis, multi-objective decision methods, optimization, cost analysis, and a wide range of computer-based models and combat simulations insuring the optimization of resources now and in the future. Analyses spans the spectrum of conflict in a Joint, Interagency, Intergovernmental, and Multinational (JIIM) context to inform critical senior level decision makers of current and future national security issues and provides unique and distinct analytic capabilities that enable the collaboration and sharing of analyses that reduces the duplication of topics that are of broad interest. MCSS is an integral part of the Marine Corps and Joint Chiefs decision-making processes to organize, man, train, equip, sustain, and transform resources from the current to the future force.

This program element has been revised into two specialized analytical divisions: (1) External Analysis Division (EAD) - responsible for providing joint external analysis is the Marine Corps' sole representative in the joint modeling arenas. Provides deployed on site professional operations analysis support to Special Purpose MAGTFs in CENTCOM and AFRICOM. (2) Combat Development Analysis Division responsible for executing a select portfolio of studies for senior leadership, Capabilities Based Assessment (CBA) and Marine Corps Enterprise Integration Plan (MCEIP).

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

	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Title: Studies & Analysis/MC	4.034	2.348	2.732	0.000	2.732
Articles:	-	-	-	-	-
Description: The Marine Corps Studies System (MCSS), the sole responsibility of the Operations Analysis Directorate (OAD), Combat Development and Integration (CD&I), supports the Commandant's Planning Guidance (CPG) and Deputy Commandant, CD&I's Force Design Plan. Executive Order 13589, Department of Defense (DoD) Directive 8260.05 Support for Strategic Analysis, and DoD Instruction 8260.2 Implementation of Data Collection, Development, and Management for Strategic Analyses, directs analytic teams apply the following analytic principles: Transparency, Consistency, Integration, use of Standardized and Accepted Methods, thorough consideration of Quantitative and Qualitative Factors, and documentation of Assumptions and Constraints. Program provides research and analysis and findings to ensure a greater understanding of issues and alternatives concerning force design, tactics, wargaming, strategies, intelligence, weapon selection and retention, systems' programs, cyber intel, and resource allocation. Efforts selected by the Studies					

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605873M / <i>Marine Corps Program Wide Supt</i>	Project (Number/Name) 0030 / <i>Studies & Analysis/MC</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>Requirements Review Board (SRRB) and approved by the DC, Combat Development and Integration (CD&I) focus on current and future USMC mission requirements and the need for comprehensive analyses that meets the Commandant's Strategic Goals, supports and protects forces in theater, and utilizes funds efficiently.</p> <p>FY 2021 Plans:</p> <ul style="list-style-type: none"> - Continue: Analysis and studies in the areas of: Joint Capabilities Assessments; Naval Strategic Plan Assessments; equipment capabilities assessments to include aviation and tactical vehicles acquisitions, and studies analyzing threat assessments from changing hostile entities. These studies and analysis efforts require follow-on analysis or longer period of data analyses and metrics preparation to complete. - Continued: Synthetic Operations Research Model Phase II (STORM) joint armed forces effort that supports modeling and simulation analyses involving irregular warfare missions and force design plans executed in a future Defense Planning Guidance scenario. These missions include information operations, offensive tactical and operational CYBER operations, foreign internal defense, special direct action arising from intelligence gathered from Human Intelligence (HUMINT) and technical (SIGINT, CYBER) means. - Completed: Studies and analysis efforts initiated in FY 2020 in the areas of Fleet Logistics and Composition and Mission Capabilities Integration; Offensive Tactical and Operational CYBER Operations Weapons Systems and Space Based Capabilities; and Naval and Joint Services Strategic Planning studies. - Continued: Studies and analysis submitted via the Marine Corps Studies System Call for Studies that support the Commandant's 2020-2025 Vision and Strategy Areas of concentration including: Force Development and Combat Readiness; National Security Environments Threats and Strategic Planning; Intelligence Information and Networks; Capability Integration; Weapons Systems and Space Based Capabilities. Provide focused analyses regarding force realignments, training and equipment support that best meet the tactical needs of the Marine Corps while building a leaner better educated force. - Initiated: Studies and analysis requested adhoc by senior level leadership to support combat development and systems acquisition decisions. Core competencies include examination of Aviation, C4ISR, Maneuver, Logistics, and Seabasing capabilities in order to evaluate and identify operational deficiencies, and to explore potential solutions. 					

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Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605873M / <i>Marine Corps Program Wide Supt</i>	Project (Number/Name) 0030 / <i>Studies & Analysis/MC</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>- Initiated: Provide combat analyst assessment teams for national emergencies and contingencies. Conduct baseline analysis to support Mission Capability Packages (MCPs), Investment Strategy, Joint Capability Areas (JCAs), and the Naval Strategic Plan providing assessments for future force development. Provide analysis of tactical operations within the USMC and formulate ways to improve the effectiveness of the forces to win and minimize costs and lives lost.</p> <p>- Initiated: Studies directed by the Commandant Marine Corps (CMC) to invest in the advancement of Big-Data Analytics and the potential for Machine Learning as a means to ensure a cost effective roadmap for implementing progressive advancements for institutional, economic and evolutionary efficiencies.</p> <p>- Initiated: Acquisition of new modeling and simulation tools that support changing and evolving analytical and techniques and allow for efficient collection of metrics.</p> <p>FY 2022 Base Plans:</p> <p>- Continue: Studies and analysis submitted via the Marine Corps Studies System Call for Studies that support the Commandant's 2020-2025 Vision and Strategy Areas and provide analytic focus in support of Deputy Commandant Marine Corps (DCMC), Combat Development and Integration (CD&I) priorities. Provide enhanced support and increased capacity to address priorities such as:</p> <ul style="list-style-type: none"> - Force Design efforts for III Marine Expeditionary Forces (MEF) designed to provide stand in force capability to persist, meet and resist adversary weapons systems and facilitate an effective naval campaign. - The relative threats posed by our major adversaries (e.g., Russian resurgence, N. African instability, China's One Belt Road Initiative and PRC capabilities and activities) - Prosecuting global campaigns - Interoperable systems equipment maximizing joint and coalition warfare - Warfighting Concepts and Force Development to include Stand in Force, Expeditionary Advanced Base Operations (EABO) - Unmanned Systems, and Warfighting Investments and Divestments - Space Domain modeling and improvements - Modernization of Directed Energy, Counter Precision Guided Munitions and Ground Based Air Defense - Integrating information operations into the MAGTF construct both organizationally and to maximize effects on the battlefield 					

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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
<ul style="list-style-type: none"> - Leveraging autonomy and artificial intelligence to establish and maintain dominance over existing and emerging threats - Using big data/data science/predictive analysis to gain comparative advantage - Continue: Synthetic Operations Research Model (STORM) joint armed forces effort that supports modeling and simulation analyses involving irregular warfare missions and force design plans executed in a future Defense Planning Guidance scenario. - Complete: Firm, concise statistical data and facts that enable Senior Leadership to make informed decisions in the areas of: Mission Capability Packages, (MCPs); Investment Strategy Aviation; Maneuver; Logistics; Investment Strategy; Joint Capability Assessments (JCAs), and Future Force Development. - Complete: Synthetic Operations Research Model Phase III (STORM) joint services effort. - Initiate: Synthetic Operations Research Model Phase III (STORM) that supports analysis involving irregular warfare missions executed in a future Defense Planning Guidance scenario. These missions include information operations, offensive tactical and operational CYBER operations, foreign internal defense, special direct action arising from intelligence gathered from Human Intelligence (HUMINT) and technical (SIGINT, CYBER) means. - Initiate: Analysis and potential solutions for Senior Leadership to support executive and POM decision in the areas: <ul style="list-style-type: none"> - Space Based Capabilities - Marine Corps Enterprise (MCEN) Cyber Operations - Modernization of Munitions Requirements - Intelligence Satellite Communications - Aviation, i.e F-35 and CH-53K - Maneuver, Logistics and Seabasing Capabilities - Marine Air and Ground Task Force (MAGTF) Capabilities and Readiness Strategies <p>FY 2022 OCO Plans: N/A</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement:</p>					

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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
The recently completed Marine Corps Reliance on Space-Based Capabilities study developed a comprehensive examination of all USMC equipment reliant on space-based capabilities, and prototyped an approach for visualizing the risk to mission of operating in a space degraded or denied environment, known as Space Dagger. Increase in funds from FY 2021 to FY 2022 of \$0.384M provides for the initiation of the follow-on study to improve the modeling of USMC reliance on space-based capabilities by expanding Space Dagger.					
Accomplishments/Planned Programs Subtotals	4.034	2.348	2.732	0.000	2.732

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

N/A

Remarks

D. Acquisition Strategy

N/A

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Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605873M / Marine Corps Program Wide Supt	Project (Number/Name) 0033 / OT&E Support
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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
0033: OT&E Support	0.000	14.194	14.906	15.338	-	15.338	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Marine Corps Operational Test and Evaluation Activity (MCOTEA) supports the material acquisition process by managing the Marine Corps Operational Test (OT) programs for Acquisition Categories (ACAT) I through ACAT IV (less OT of manned aircraft) and performs other functions that may be directed by the Commandant of the Marine Corps. The primary purpose of Operational Test and Evaluation (OT&E) is to provide information to the Milestone Decision Authority (MDA) regarding the Operational Effectiveness (OE) and Operational Suitability (OS) of the system addressed at a decision point. MCOTEA must ensure that the Marines in the Operating Forces receive the very best possible equipment and support. MCOTEA must also ensure each system proposed for acquisition is tested adequately, evaluated objectively, and reported independently.

Marine Corps Operational Test and Evaluation Activity (MCOTEA) is the only unit that provides the Marine Corps with required operational test and evaluation (OT&E) capability, ensuring the Marine Corps is compliant with laws and regulations, and ensuring that training and equipment are operationally effective, relevant, and suitable. Additionally, MCOTEA's early involvement, coordination, and oversight in developmental testing and evaluation of new combat and combat support systems ensures that our Marines are the best trained, and have the best equipment, with the lowest test costs for taxpayers. Finally, MCOTEA's support of rapid acquisitions ensures that Marines in the fight are supported with the newest and most advanced equipment and that the Marine Corps is compliant with regulations.

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

	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Title: MCOTEA	14.194	14.906	15.338	0.000	15.338
Articles:	-	-	-	-	-
FY 2021 Plans:					
Continue evaluating, quantifying, and reporting on programs for the operational effectiveness, suitability and survivability of planned acquisitions to meet warfighting capabilities and will be providing Milestone Decision Authority (MDAs) to programs that are inherently governmental and a comprehensive understanding of operational risk associated with ACAT programs.					
FY 2022 Base Plans:					
Continue evaluating, quantifying, and reporting on programs for the operational effectiveness, suitability and survivability of planned acquisitions to meet warfighting capabilities and will be providing Milestone Decision					

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Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605873M / Marine Corps Program Wide Supt	Project (Number/Name) 0033 / OT&E Support

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Authority (MDAs) to programs that are inherently governmental and a comprehensive understanding of operational risk associated with ACAT programs. FY 2022 OCO Plans: N/A FY 2021 to FY 2022 Increase/Decrease Statement: Increase of \$0.432M from FY 2021 to FY 2022 is a result of civilian pay/benefits/awards rate increases/assumptions.					
Accomplishments/Planned Programs Subtotals	14.194	14.906	15.338	0.000	15.338

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

N/A

Remarks

D. Acquisition Strategy

N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy										Date: May 2021		
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605873M / Marine Corps Program Wide Supt				Project (Number/Name) 2330 / Chem Bio Consequence Mgmt			
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
2330: Chem Bio Consequence Mgmt	0.000	1.530	1.620	1.645	-	1.645	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Family of Incident Response Systems (FIRS) consists of equipment, systems, and services designed to provide Weapons of Mass Destruction (WMD) incident response forces the capabilities needed to effectively respond to a terrorist attack using Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives (CBRNE). FIRS meets the mission requirements for the detection; mass casualty decontamination; force protection; responder inter-agency interoperability; Command, Control, Communications, Computers & Intelligence (C4I); urban search and rescue; medical and general support requirements needed by these forces to mitigate the effects of a CBRNE terrorist attack. FIRS relies primarily on Commercial Off-The-Shelf/Non-Developmental Items (COTS/NDI) equipment and systems that meet the particular mission requirements of Consequence Management (CM). Nuclear, Biological, and Chemical (NBC) systems are adopted if they meet the CM mission requirements. FIRS Research & Development effort allows the program to keep abreast of emerging technologies in the commercial sector and address operational capability gaps that cannot be met by commercial items.

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

	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Title: FIRS: Reconnaissance Mission Area	0.300	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2021 Plans: N/A					
FY 2022 Base Plans: N/A					
FY 2022 OCO Plans: N/A					
Title: FIRS: Force Protection Mission Area	1.230	0.000	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2021 Plans: N/A					
FY 2022 Base Plans:					

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Appropriation/Budget Activity 1319 / 6		R-1 Program Element (Number/Name) PE 0605873M / <i>Marine Corps Program Wide Supt</i>		Project (Number/Name) 2330 / <i>Chem Bio Consequence Mgmt</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
N/A					
FY 2022 OCO Plans:					
N/A					
Title: FIRS: Family of Incident Response Systems					
Articles:					
	0.000	1.620	1.645	0.000	1.645
	-	-	-	-	-
FY 2021 Plans:					
<ul style="list-style-type: none"> -Complete durability test of Chemical Biological Incident Response Force's (CBIRF's) Chemical, Biological, Radiological and Nuclear (CBRN) personal protection equipment items, including Class 2 and Class 3 suits. -Initiate communication integration on improved Mobile Chemical Agent Detector (iMCAD). -Initiate Dismounted Reconnaissance Sets, Kits, and Outfits (DR SKO) training emulator device. -Initiate development Dismounted Reconnaissance Sets, Kits, and Outfits (DR SKO) analytic, detection, and identification training devices. -Initiate Information Assurance (IA) / Cybersecurity accreditation for Dismounted Reconnaissance Sets, Kits, and Outfits (DR SKO) / Chemical Biological Incident Response Force (CBIRF) Equipment. -Initiate development of Gas Chromatograph Mass Spectrometry (GCMS) replacement of Guardian. -Complete development of the Chemical Biological Incident Response Force (CBIRF) standoff chemical agent detection. 					
FY 2022 Base Plans:					
<ul style="list-style-type: none"> -Continue communication integration on improved Mobile Chemical Agent Detector (iMCAD). -Continue Dismounted Reconnaissance Sets, Kits, and Outfits (DR SKO) training emulator device. -Continue development Dismounted Reconnaissance Sets, Kits, and Outfits (DR SKO) analytic, detection, and identification training devices. -Continue Information Assurance (IA) / Cybersecurity accreditation for Dismounted Reconnaissance Sets, Kits, and Outfits (DR SKO) / Chemical Biological Incident Response Force (CBIRF) Equipment. -Continue development of Gas Chromatograph Mass Spectrometry (GCMS) replacement of Guardian. 					
FY 2022 OCO Plans:					
N/A					
FY 2021 to FY 2022 Increase/Decrease Statement:					

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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
Increase of \$0.025M from FY 2021 to FY 2022 is due to the development of CBIRF/DR SKO Personal Protective Equipment ahead of technical refreshes in FY 2023 - FY 2024 to include Powered Air Purifying Respirators (PAPR), Hydraulic Extraction Kit, and Tech Rescue Kit.					
Accomplishments/Planned Programs Subtotals	1.530	1.620	1.645	0.000	1.645

C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• PMC/2220: Wpns & Cmbt Vehs under \$5 million	0.540	0.556	0.000	-	0.000	-	-	-	-	-	-

Remarks

D. Acquisition Strategy

N/A

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Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605873M / Marine Corps Program Wide Supt				Project (Number/Name) 3009 / Marine Corps Wargaming Capability			
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
3009: Marine Corps Wargaming Capability	0.000	11.027	15.000	23.518	-	23.518	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Note

Previously executed within Proj 0030 Studies & Analysis/MC

A. Mission Description and Budget Item Justification

The enhanced Wargaming Capability (WGC) facilitates Force Design by utilizing advanced modeling and simulation systems and analytic assessments of current Operation Plans, Concepts of Operations, future operational and functional concepts, and operational and technology-based approaches. These results will refine our Force Design through our campaign of learning and increase research capacity to maintain the USMC as a "force-in-readiness." The WGC program office is unique from other programs in that the program office is responsible for the system of systems within the facility as well as coordinating the unique manpower requirements. The USMC WGC consists of Wargaming tools and systems, a Wargaming Center (MILCON Project P-719), and the necessary personnel supporting the new capability.

WGC will provide an enhanced basis for analytically informed decision support to capability development prioritization and resourcing. The WGC program acquisition strategy takes advantage of 10 U.S.C 2302 Middle Tier of Acquisition (MTA) and was designated a MTA for Rapid Prototyping in May 2019. The overarching strategy consists of three phases: Phase I: Risk Reduction Prototyping (FY 2019 - FY 2020); Phase II: Integrated Prototyping (FY 2020 - FY 2022); Phase III: Follow-on Production (FY 2023 - FY 2025+).

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

	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Title: Wargaming Capability	11.027	15.000	23.518	0.000	23.518
Articles:	-	-	-	-	-
FY 2021 Plans:					
FY2021 began with three competing vendors completing initial design reviews to establish initial allocated baselines and four months of development towards integrated prototypes. However, the FY2021 plan changed to down-select to a single vendor earlier than originally planned (2QFY2021 vice 3QFY2022) based on performance and affordability. The change also includes a seven-month extension in the Phase II Period of Performance to better align with the MILCON construction schedule for the Wargaming Center (i.e., external dependency). Continue vendor-built prototype effort by focusing on solutions that combine four different capability sets: (1) wargame design and scenario generation; (2) scalable intelligent data services; (3) player interface and visualization; (4) advanced analytic					

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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
<p>tools. During FY2021 there will be agile development with planned incremental testing and quarterly capability demonstrations between PM WGC and the vendor to monitor and evaluate development progress.</p> <p>Continue to design and develop Information Technology (IT) and network infrastructure.</p> <p>FY 2022 Base Plans: FY2022 plans now include completing vendor Phase II prototype development. Completing development of cybersecurity measures and logistics elements (e.g. sustainability, maintainability, and training) and conducting prototype evaluations. Major milestones for Phase II within FY2022 are: (a) the creation of final allocated baseline based upon performance specification requirements for the system; (b) Test Readiness Review to evaluate the readiness of the prototype to proceed into Developmental Testing; (c) Developmental Testing of vendor's proposed solution. Developmental Testing and cyber evaluation of the vendor-built prototype in FY2022 will lead to a Phase III Follow-on Production contract in 1QFY2023.</p> <p>Wargaming Capability efforts include prototyping with an emphasis on identifying and integrating appropriate technologies and directing cyber security support for initiatives to boost information assurance, network configuration, security control validation, and type accreditation across the materiel solution.</p> <p>Continue to document the allocated baseline.</p> <p>FY 2022 OCO Plans: N/A</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Increase of \$8.518M from FY2021 to FY2022 will complete Phase II prototyping and the final evaluation of the Phase II prototype. The extended Period of Performance will synchronize with the MILCON construction completion.</p>					
Accomplishments/Planned Programs Subtotals	11.027	15.000	23.518	0.000	23.518

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

Line Item	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
• PMC/4630: <i>Common Computer Resources-Marine Corps Wargaming Capability</i>	48.094	33.349	83.606	-	83.606	-	-	-	-	-	-
• RDTE/0605873M/3009: <i>Marine Corps Wargaming Capability - MTA RDTE Funding</i>	11.027	15.000	23.518	-	23.518	-	-	-	-	-	-

Remarks

RDTE/3009 and PMC/4630 Marine Corps Wargaming Capability reflects funding associated with Middle Tier Acquisition (MTA) rapid prototyping and fielding.

Marine Corps Wargaming Capability - MTA PMC Funding
FY22: 24.676

Marine Corps Wargaming Capability - MTA RDTE Funding
Prev: 8.238
FY20: 11.027
FY21: 15.000
FY22: 23.518

D. Acquisition Strategy

The WGC program acquisition strategy takes advantage of 10 U.S.C 2302 Middle Tier of Acquisition (MTA) and was designated a MTA for Rapid Prototyping in May 2019. The overarching strategy consists of three phases: Phase I: Risk Reduction Prototyping (FY 2019 - FY 2020); Phase II: Integrated Prototyping (FY 2020 - FY 2022); Phase III: Follow-on Production (FY 2023 - FY 2025+).

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy										Date: May 2021		
Appropriation/Budget Activity 1319 / 6					R-1 Program Element (Number/Name) PE 0605873M / Marine Corps Program Wide Supt				Project (Number/Name) 3783 / Information Environment Strategy, Policy and Governance			
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
3783: Information Environment Strategy, Policy and Governance	0.000	3.024	3.875	3.809	-	3.809	-	-	-	-	-	-
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Information Environment (IE) is a global, interconnected, complex, continuously changing eco-system that is increasingly connected across our war fighting functions. Given the complexity and the speed of changes in the IE and to address the significant role information now plays in current and future conflicts, a unifying operational and technical strategy must be developed to outpace our adversaries.

Analysis will inform the development and integration of Marine Corps Information Environment Operations (IE Ops) that are guided by the 38th Commandant's Planning Guidance (CPG) and Marine Corps Force Design. Research and analysis efforts support: design and coordinated implementation of an Objective Network to fight on and through a contested environment; design and collaboration on a Naval Tactical Grid and a Joint Tactical Grid; a threat estimate to inform capability development; and analysis to inform the development and fielding of an integrated information capability. These efforts will be accomplished leveraging analytic support from government Labs and Industry to dynamically exploit our National Defense Strategy (NDS) priority operational problems related to the Information Environment through limited user evaluations and functional capability assessments with Marines. In addition, rapid development of capabilities to address problems in the IE Ops will be developed utilizing the Accelerator process which utilizes best commercial practice of design thinking.

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

	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Title: Information Environment Strategy	3.024	3.875	3.809	0.000	3.809
Articles:	-	-	-	-	-
FY 2021 Plans:					
- Continue to conduct innovation activities across the information domain to develop user centered capabilities for the future operating environment.					
- This program will continue to focus on the Information Warfare capabilities within the Deputy Commandant for Information portfolio. This includes the following capabilities; Information Operations, Electronic Warfare, Tactical Command and Control, and Cyber Operations.					
- Continue rapid development of capabilities to address problems supporting Operations in the Information Environment, utilizing the Accelerator and incubator processes. The Marine Corps Information Environment Enterprise (MCIEE) Information Modernization team will develop and transition software and hardware solutions to Programs of Record.					

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 6	R-1 Program Element (Number/Name) PE 0605873M / <i>Marine Corps Program Wide Supt</i>	Project (Number/Name) 3783 / <i>Information Environment Strategy, Policy and Governance</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>- This funding also supports MCIEE efforts that align to the CMC Force Design 2030.</p> <p><i>FY 2022 Base Plans:</i></p> <ul style="list-style-type: none"> - Continue to conduct innovation activities across the information domain to develop user centered capabilities for the future operating environment. - This program will continue to focus on the Information Warfare capabilities within the Deputy Commandant for Information portfolio. This includes the following capabilities; Information Operations, Electronic Warfare, Tactical Command and Control, and Cyber Operations. - Continue rapid development of capabilities to address problems supporting Operations in the Information Environment, utilizing the Accelerator and incubator processes. The Marine Corps Information Environment Enterprise (MCIEE) Information Modernization team will develop and transition software and hardware solutions to Programs of Record. - This funding also supports MCIEE efforts that align to the CMC Force Design 2030. <p><i>FY 2022 OCO Plans:</i> N/A</p> <p><i>FY 2021 to FY 2022 Increase/Decrease Statement:</i> No significant change from FY 2021 to FY 2022.</p>					
Accomplishments/Planned Programs Subtotals	3.024	3.875	3.809	0.000	3.809

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

N/A

Remarks

D. Acquisition Strategy

N/A